2017 ANNUAL REPORT

SMARTER CLINICAL COMMUNICATIONS. BETTER OUTCOMES.

UNIVERSITY OF UTAH CASE STUDY

20%

reduction in sepsis mortality rate for patients with MEWS 7-11

"That's the magical part of this—the alert that automatically goes from Epic as a message to the charge nurse or rapid response team."

– Dr. Devin Horton
Hospitalist and Assistant Professor in the Division of Internal Medicine
University of Utah Health

UNIVERSITY OF UTAH - University of Utah Health is the mountain west's only academic health system, combining excellence in patient care, the latest in medical research, and teaching to provide leading-edge medicine in a caring and personal setting. The system provides care for residents of Utah and five surrounding states in a referral area encompassing more than 10 percent of the continental U.S. University of Utah Health is frequently ranked among U.S. News & World Report's Best Hospitals and is consistently ranked No. 1 in quality in the nation among academic medical centers.

THE CHALLENGE - Sepsis, a life-threatening complication of an infection, occurs when chemicals released into the bloodstream to fight the infection trigger inflammatory responses throughout the body. It is one of the leading causes of death in the U.S., and costs hospitals nearly $24 billion annually. Sepsis is treatable, but the condition must be identified and treated quickly. As part of its ongoing care quality improvement program, University of Utah Health launched a sepsis initiative to evaluate their sepsis response workflow and determine how they could both better identify when patients are showing signs of sepsis, and more quickly rally the rapid response team for treatment, with the goal to reduce their sepsis mortality rates.

THE SOLUTION - A longtime customer of the Spok healthcare communication platform, Spok Care Connect®, University of Utah Health recognized that there may be a way to use Spok to automate sepsis alert notifications. The health system used a Best Practice Alert (BPA) within their EHR (Epic®) to trigger the Modified Early Warning Score (MEWS) alert, which was then automatically sent to the rapid response team via Spok, their healthcare communication platform.

THE OUTCOME - University of Utah Health implemented the new process in its acute care units in May 2016 and began seeing results: From May through December 2016, mortality rates for most MEWS scores began to improve. However, they realized that even people with lower MEWS scores would benefit from the rapid response team protocol. This step, along with more time using the new process, indicates promising results. In preliminary analysis, there was a mortality reduction of 20 percent for MEWS scores from pre- to post-implementation.

To Our Stockholders:

In 2017, Spok continued moving toward our long-term strategic goal to deliver industry-leading healthcare communication solutions, transitioning from a telecom-based wireless company to a software provider. When we outlined our 2017 guidance early last year, I spoke about the need to invest in our future and take our solution set to the next level to reflect our commitment to long-term success. We undertook these additional investments to support four key objectives:

1. Accelerate development
2. Build a stronger infrastructure
3. Align resources and focus where most needed
4. Increase our long-term growth potential

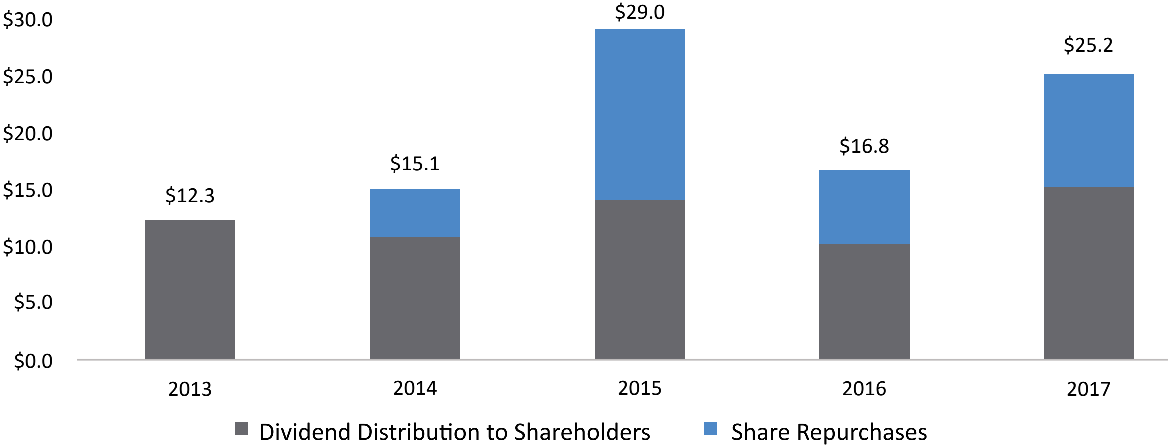
I am pleased to report that in 2017 Spok continued to make strong progress on these objectives. Additionally, we met, or exceeded, the majority of our key operating metrics for the full year, including revenue levels, operating expense management, cash flow and subscriber retention. We achieved these results while investing in our future, as well as enhancing and upgrading our operating platforms and sales infrastructure — all steps that help position Spok for sustainable growth.

A couple of years ago, we undertook a new plan, which marked a shift in our strategic direction for healthcare, our largest customer segment. This five-year plan signaled a very intentional move from offering our customers "point," or single-product, solutions for call center software, alarm management and secure messaging to offering them a single integrated platform called Spok Care Connect®. We believe this approach is the right use of our capital and will create sustainable and long-term value for our stockholders, as Spok takes advantage of the large market opportunity in the U.S. healthcare market.

Most of our revenues still come from our wireless paging base. While this base has slowed in its year-over-year erosion and outperformed our own forecasts on a regular basis, we still believe it will continue to shrink over time and that we need to invest in the growth potential of our healthcare software portfolio. In the near-term, our software investments have resulted in diminished margins. However, the investments also resulted in stabilizing our top line revenue in the last three quarters of 2017, where software revenue growth exceeded paging revenue decline for the first time since Spok acquired the software business in 2011.

Spok's consolidated 2017 revenues were on plan and totaled $171.2 million, down less than 5 percent from 2016, reflecting continued, planned erosion in our paging base. We continued to operate profitably, enhance our product offerings and maintain a strong balance sheet. At year end, our cash balance was $107.2 million with no debt. Our ability to generate healthy cash flow allowed us to make key strategic investments for long-term growth and execute against our capital allocation.

In 2017, Spok returned $25.2 million to stockholders in the form of dividends and share repurchases, including the special dividend that was declared in December 2016 and paid in January 2017. Spok also generated nearly $16 million in net cash from operating activities during 2017 that partially offset cash returned to stockholders and capital expenditures.



2017 dividends: Includes the $5.2 million special dividend that was declared in December 2016 and paid in January 2017

Business Review:

In 2017, we invested to grow our software solutions capability, while maintaining our valuable wireless revenue stream. Software revenues were consistent with 2016, totaling approximately $70 million for the year. Full-year software revenue reflects a continuing trend of greater than 99 percent renewal rates on software maintenance contracts. This provides us with a recurring and stable revenue stream. In fact, when you consider our wireless revenue base, more than 75 percent of our total revenue is recurring in nature.

Our backlog grew more than 10 percent from the prior year, totaling $42.3 million at year end. Our pipeline of marketing qualified sales leads also remained strong. Demand for our solutions remained strongest in North American markets, specifically among hospitals and other healthcare organizations where we sold solutions for smartphone communications, call center management, secure texting, clinical alerting, and emergency notification to both new and existing customers. Although we are greatly encouraged by the revenue momentum we saw in 2017, and the sequential growth we saw for the last three quarters of the year, we expect it will take more time for the Company to grow meaningfully on an annual basis.

Wireless subscriber and revenue trends continued to improve in 2017 as we again exceeded our expectations for gross additions, net unit churn, revenue, and average revenue per unit (ARPU). Our year-over-year rate of paging unit erosion was consistent with 2016 levels, as the net number of units lost during the year was unchanged from the prior period.

Our year-over-year rate of wireless revenue erosion was 7.7 percent for 2017, a 20-basis point improvement from the prior year and a sharp reduction from the 10.1 percent we had in 2015. We were especially pleased to see these positive trends continue in the healthcare segment, our best performing market segment, with the highest rate of gross placements and lowest rate of unit disconnects.

Other key operating metrics for 2017 included:

- Total software bookings were approximately $77.7 million, up 5 percent from $73.9 million in 2016. Maintenance bookings totaled $38.8 million and were in line with prior year bookings of $40.3 million.
- Annual paging unit losses totaled 62,000 units, or 5.6 percent, in 2017. This performance was unchanged from the prior year level of unit erosion.
- Total paging ARPU was $7.51 in 2017, compared to $7.67 in the prior year.
- Consolidated operating expenses (excluding depreciation, amortization and accretion) were $148.8 million, up from $144.4 million in 2016, as we were able to partially offset increased product development costs with disciplined expense management in other expense categories.
- EBITDA was $22.3 million, or 13.0 percent of revenue, compared to $35.1 million, or 19.6 percent of revenue, in the prior year, reflecting the higher level of investments in our infrastructure and product offering.
- Adjusted net income* for 2017 was $8.9 million, or $0.44 per diluted share, compared to net income of $14.0 million, or $0.68 per diluted share, in the prior year.
- Capital expenses totaled $9.2 million, compared to $6.3 million in 2016.
- Cash balance at December 31, 2017, was $107.2 million, compared to $125.8 million at December 31, 2016.
- The number of full-time equivalent employees at December 31, 2017, totaled 596, compared to 587 at year-end 2016.

Overall, we are pleased with Spok's operating performance and our solid financial platform. In 2017, we continued to transform Spok into a company positioned to achieve long-term growth.

*In the fourth quarter of 2017, net income included a non-cash income tax charge of $24.2 million. The income tax charge resulted from the reduction of the deferred tax asset, or DTA, subsequent to the company's fourth quarter analysis of the impact of the changes from The Tax Cuts and Jobs Act of 2017. Including this charge, the 2017 net loss totaled $15.3 million or $0.76 per share.

Strategic Focus:

Our strategy is simple — create beautiful software that delights our customers, retain our wireless subscribers and revenue for as long as possible, and demonstrate a path to long-term top line growth and profitability. Spok is proud to be a leader in healthcare communications. We support the critical function of delivering information to care teams when and where it matters most to improve patient outcomes. We believe that in the near term, the U.S. healthcare market offers the greatest opportunity for growth.

In 2017, we welcomed more than 100 new customers, who join a prestigious list of more than 1,900 hospitals and health systems in the U.S. who rely on Spok for their communications. For the fifth consecutive year, this customer list includes all of the U.S. News and World Report's Best Hospitals Honor Roll for both adult and children's hospitals. These hospitals rely on our solutions to help them provide the best care. Our healthcare customers are an important part of our future growth, as they continue to expand their enterprise communications, and add more of our services and solutions. Secure text messaging remains one of our best-performing solutions, with 2017 sales up from the prior year.

Customers like The University of Utah have confirmed the value of our Spok platform and our strategic vision. For the past two years, we have invested in the additional talent, resources, and tools to implement this vision. We recruited experts for Product Strategy and Development, created additional work teams, and devised the plan to map our existing products to the newly envisioned clinical communication and collaboration platform. We recruited people with experience in enterprise healthcare sales, while providing training and certification for our existing teams to increase their focus on the new approach. We have added Clinical expertise to build on our communications legacy. With the help of our loyal employees, we have made excellent progress.

In 2017 we continued to take steps to further strengthen our leadership team. During the year, we announced the addition of our senior vice president of Professional Services, Mark Costanza, whose mission is to accelerate the conversion of our strong backlog into our revenue stream as we continue to take advantage of the large market opportunity in the healthcare IT market. And our focus in creating a best-in-class leadership team continues in 2018.

In early 2018, we were happy to further upgrade our management talent by appointing a new chief technology officer, John LaLonde. LaLonde is an industry veteran who brings to Spok a strong passion for innovation along with his extensive clinical and technical expertise. He will lead his team to focus on scaling and driving innovation around performance, clinical communication solutions, patient care workflow, and creative new features that support the company's existing and new business models.

And, while we have enhanced our human resources, we have also invested in technology to support our operations and the development of our solutions. We have also invested in our sales support and back office operations. Our goals have been to increase not only our effectiveness but our efficiency.

Additionally, we took our Spok Care Connect message to the market. Our strategy of offering a single platform, single database, and single technology that creates an enterprise solution for our healthcare customers has now been validated and endorsed by both customers and industry analysts. We are confident we are on the right path for our future.

We are able to demonstrate tremendous value and return on investment (ROI) for our customers. As a result, Spok has many loyal, satisfied customers and strengths as an organization. This is evidenced by our extremely high maintenance renewal rates and positive customer feedback. However, our goal is to be the best we can be in a very competitive environment and the only way to do that is to invest in our future and take our solution set to the next level.

In 2017, we also demonstrated meaningful thought leadership and solidified our reputation in this industry. We completed our seventh annual survey on mobility in

healthcare, conducted numerous webinars on clinical communications from our CMO, Dr. Andrew Mellin and our CNO, Dr. Nat'e Guyton, and continued to build our reputation with healthcare C-suite executives by participating in multiple industry events. During the year, there were many other examples of the leadership position we took. These ranged from our work helping the Federal Communications Commission identify a robocall scammer, the company's role in supporting healthcare institutions in the regions affected by recent hurricanes, to handling communication volume spikes in the aftermath of the Las Vegas shootings. I am proud of our team and their efforts in 2017 and look forward to their achievements in 2018.

2018 Objectives:

As I mentioned in the beginning of this letter, about two years ago we embarked on a transformation that was a tidal shift in our strategic direction for healthcare, our largest customer segment. Our decision to make this shift and focus on the Spok Care Connect platform resulted from:

- Customer needs, as our healthcare customers were telling us they needed a more unified approach to communications across their enterprise.
- The large potential market opportunity, to expand our offering with the more than 1,900 hospitals we currently serve and introduce our solutions to the two-thirds of the North American healthcare market we are currently not working with.
- Business simplification, as we move away from offering our customers too many different products in multiple versions on several different platforms.
- Competitive positioning, as we concluded that no one else offers a single, integrated platform as comprehensive as ours for healthcare communications.

While we look to build on the momentum Spok generated in the second half of last year, in 2018 we will continue to make the necessary investments in our products and infrastructure. We believe these investments are critical in supporting our strategy to deliver our industry-leading clinical communication and collaboration platform, Spok Care Connect, and drive sustainable growth and long-term stockholder value.

As a backdrop, in 2016, R&D expenses totaled approximately $13.5 million, an increase of nearly one-third from prior year levels, and in 2017 R&D expenses totaled $18.7 million, an increase of nearly 40 percent from 2016. We have continued to increase the level of investment in our planning as reflected in our expense and capital expenditure guidance ranges, supporting our strategic plan. In 2018, we anticipate that R&D expenses could increase 30 to 40 percent from prior year levels, in order to support the full year impact of the hires we made in 2017, and as we add the necessary human resources in 2018 to execute our strategy.

This is not a short-term plan. We do not undertake this commitment lightly, and there is risk. However, we have confirmed that the market is there and that we are starting to see the benefits, opportunities, sales growth and other business efficiencies as we enhance our platform and bring it fully to market.

Finally, with respect to our capital allocation strategy, our overall goal has been to achieve sustainable business growth, while maximizing long-term stockholder value through our multi-faceted capital allocation strategy, that has included:

- Dividends and share repurchases
- Key strategic investments to improve our operating platform and infrastructure and drive long-term organic growth
- Potential acquisitions that could provide additional revenue streams, solution functionality and are accretive to long-term earnings

We believe the potential in the clinical communication and collaboration market is large and that our best path to creating long-term stockholder value is to succeed in enhancing and accelerating our Spok Care Connect Platform.

We have not ruled out possible acquisitions and will continue to evaluate opportunities. However, given the continued high premium expectations relative to integration risks, for now we believe the best use of our capital and management focus is to invest more aggressively in our own product, research and development resources. We will accelerate our progress toward creating an industry-leading healthcare focused clinical communication and collaboration platform that capitalizes on our current solutions portfolio and large customer base.

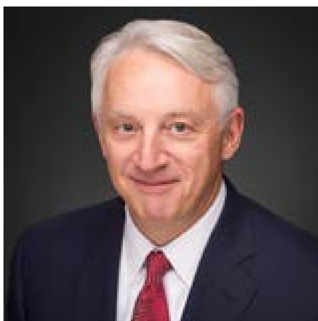
> **"Spok is easy to manage, economical, and flexible. In care delivery, you're dealing with critical information. Spok helps us make sure we can send a meaningful message in the most effective way possible."**

– Dr. Chris Snyder
Chief Medical Information Officer and Chief Quality Officer
Peninsula Regional Medical Center

For 2018 we are committed to continue paying our 12.5 cents per share quarterly dividend and repurchasing up to $10 million of our company stock, while we aggressively increase our investments in research and development to benefit the future and create long-term stockholder value. We will continue to evaluate our capital allocation strategy on a quarterly basis with our board and advisors and communicate our plans to stockholders with respect to dividends, share repurchases and other uses of capital.

In conclusion, we remain committed to our core values of putting the customer first, providing solutions that matter, innovation and accountability. We believe our past results and future plans reflect these values.

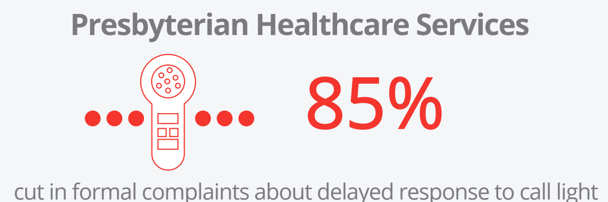
I want to take this opportunity to thank our talented team of employees and our loyal customers and strategic partners. Together, we made enormous progress in 2017. We also want to thank our stockholders for your continued support as we take this journey together.

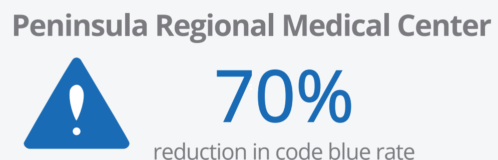


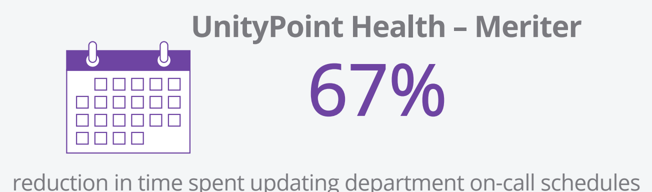
Vincent D. Kelly
President and Chief Executive Officer
April 2018

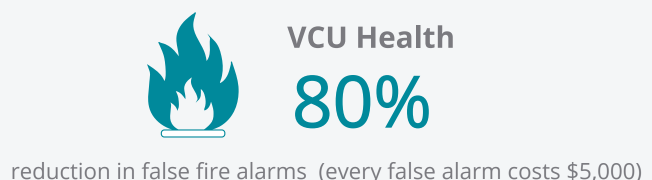
ROI OF HEALTHCARE COMMUNICATIONS

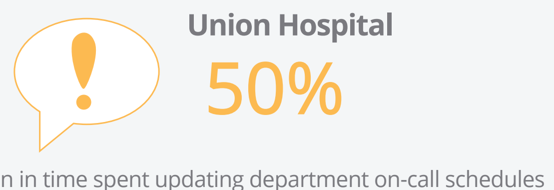
There is no doubt that a clinical communication and collaboration platform is a major investment. Any smart healthcare leader will want to know: What's the ROI for my hospital, our staff, and most importantly, our patients? Our customers rely on Spok every day at an essential operations level. They have also achieved tangible cost savings, enhanced patient safety, increased patient satisfaction, ensured regulatory compliance, and improved staff efficiency. Following is a snapshot of some of our customers' most significant improvements and wins.











UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2017
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to
Commission file number 001-32358

SPOK HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	**16-1694797**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
6850 Versar Center, Suite 420 Springfield, Virginia	**22151-4148**
(Address of principal executive offices)	**(Zip Code)**

(800) 611-8488
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	NASDAQ National Market®

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO_☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES ☐ NO_☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES_☒ NO_☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES_☒ NO ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K._☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES ☐ NO ☒

The aggregate market value of the common stock held by non-affiliates of the registrant was $348.1 million based on the closing price of $17.43 per share on the NASDAQ National Market® on June 30, 2017.

The number of shares of registrant's common stock outstanding on February 26, 2018 was 20,018,377.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement for the 2017 Annual Meeting of Stockholders of the registrant, which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A no later than May 1, 2018, are incorporated by reference into Part III of this Report.

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements and information relating to Spok Holdings, Inc. and its subsidiaries ("Spok" or the "Company") that set forth anticipated results based on management's current plans, known trends and assumptions. These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements that are predictive in nature, that depend upon or refer to future events or conditions, or that include words such as "anticipate," "believe," "estimate," "expect," "intend," "will," "target," "forecast" and similar expressions, as they relate to Spok are forward-looking statements.

Although these statements are based upon current plans, known trends and assumptions that management considers reasonable, they are subject to certain risks, uncertainties and assumptions, including but not limited to the following:

- Continuing decline in the number of paging units we have in service with customers, commensurate with a continuing decline in our wireless revenue
- The sales cycle of our software solutions and services can run from six to eighteen months, making it difficult to plan for and meet our sales objectives and bookings on a steady basis quarter-to-quarter and year-to-year
- Our ability to manage network rationalization to lower our costs without causing disruption of service to our customers
- Our ability to design and develop an integrated critical communications platform to address mobile communications, clinical alerting, nursing and workflow functions at state of the art hospitals that gains market acceptance and wide-spread use by customers
- Our ability to address changing market conditions with new or revised software solutions
- Our ability to retain key management personnel and to attract and retain talent within the organization
- Our ability to manage change related to regulation, including laws and regulations affecting hospitals and the healthcare industry generally
- Competition for our services and products from new technologies or those offered and/or developed from firms that are substantially larger and have much greater financial and human capital resources
- The reliability of our networks and servers and our ability to prevent cyber-attacks and other security issues and disruptions
- Unauthorized breaches or failures in cybersecurity measures adopted by us and/or included in our products and services
- Those matters discussed in this Annual Report under Item 1A "Risk Factors."

Should known or unknown risks or uncertainties materialize, known trends change, or underlying assumptions prove inaccurate, actual results or outcomes may differ materially from past results and those described herein as anticipated, believed, estimated, expected, intended, targeted or forecasted. Investors are cautioned not to place undue reliance on these forward-looking statements.

The Company undertakes no obligation to update forward-looking statements. Investors are advised to consult all further disclosures the Company makes in its subsequent reports on Form 10-Q and Form 8-K that it will file with the United States Securities and Exchange Commission ("SEC"). Also note that, in the risk factors section, the Company provides a cautionary discussion of risks, uncertainties and possibly inaccurate assumptions relevant to its business. These are factors that, individually or in the aggregate, could cause the Company's actual results to differ materially from past results as well as those results that may be anticipated, believed, estimated, expected, intended, targeted or forecasted. It is not possible to predict or identify all such risk factors. Consequently, investors should not consider the risk factor discussion to be a complete discussion of all of the potential risks or uncertainties that could affect Spok's business, statement of operations or financial condition, subsequent to the filing of this Annual Report.

PART I

The terms "we," "us," "our," "Company" and "Spok" refer to Spok Holdings, Inc. and its direct and indirect wholly-owned subsidiaries.

ITEM 1. *BUSINESS*

Overview

Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK), is proud to be the global leader in healthcare communications. We deliver clinical information to care teams when and where it matters most to improve patient outcomes. Top hospitals rely on the Spok Care Connect suite to enhance workflows for clinicians, support administrative compliance, and provide a better experience for patients. Our customers send over 100 million messages each month through their Spok solutions.

Our headquarters is located at 6850 Versar Center, Suite 420, Springfield, Virginia 22151, and our telephone number is 800-611-8488. We maintain an Internet website at http://www.spok.com. (This website address is for information only and is not intended to be an active link or to incorporate any website information into this 2017 Annual Report on Form 10-K ("2017 Form 10-K").)

We are a provider of paging services and selected software solutions in the United States and abroad, on a limited basis, in Europe, Canada, Australia, Asia and the Middle East. We offer our services and products to three major market segments: healthcare, government, and large enterprise, with a greater emphasis on the healthcare market segment.

Industry Overview

We deliver smart, reliable critical communication solutions to help protect the health, well-being, and safety of people around the globe, primarily in the United States. Our customers rely on Spok for workflow improvement, secure texting, paging services, contact center optimization, and public safety response.

We develop, sell, and support enterprise-wide systems primarily for healthcare and other organizations needing to automate, centralize, and standardize their approach to critical communications. Our solutions can be found in prominent hospitals; large government agencies; leading public safety institutions, colleges and universities; large hotels, resorts and casinos; and well-known manufacturers.

Due to the focused nature of our software solutions there is no single competitor that matches our portfolio (additional details can be found under “Competition”). Our primary market is healthcare providers, particularly hospitals. We have identified hospitals with 200 or more beds as the primary targets for our software solutions as well as our paging services. Within this market we have identified the following dynamics and have focused our efforts to address these dynamics:

- a heightened awareness of the ubiquitous, critical role of communications in healthcare;
- an increased focus within hospitals on quality of care and patient safety initiatives;
- the importance of confidentiality when sharing information;
- increased regulations that may result in process changes, increased documentation and reporting and increased costs;
- a continuing focus within hospitals to reduce labor and administrative costs while increasing productivity; and
- a broader proliferation of information technology in healthcare as hospitals strive to apply technology to solve their business problems.

Sales and Marketing

Sales. We market and distribute our critical communication solutions through a direct sales force and an indirect sales channel.

The direct sales force contracts or sells products, solutions, messaging services and other services directly to customers ranging from small and medium-sized businesses to companies in the Fortune 1000; healthcare and related businesses; and Federal, state, and local government agencies. We will continue to market primarily to commercial enterprises, with a focus on healthcare organizations, interested in our communication solutions. We maintain a sales presence in key markets throughout the United States, and in limited markets internationally including our European-Middle East-Africa ("EMEA") and Asia-Pacific ("APAC") sales teams, in an effort to gain new customers and to retain and increase sales to existing customers. We also maintain several corporate sales groups, such as our Key Account Management team, focused on retaining and selling additional products and services to our key healthcare accounts as well as a team selling primarily to national accounts. The direct sales force targets leadership responsible for the procurement of critical communications solutions such as chief information officers, chief technology officers, chief medical officers, chief nursing officers, information technology directors, telecommunications directors, and contact center managers. The timing for a direct sale varies, but may take from six to 18 months depending on the type and scope of software solution.

The indirect sales force complements our direct sales force. Through relationships with alliance partners we are able to sell our solutions to a wider customer base. For paging services that we do not provide directly, we contract with and invoice an intermediary for airtime services. For our software sales, our relationships with alliance partners assist us in broadening the distribution of our products and further diversifying into markets outside healthcare.

Marketing. We have a centralized marketing function, which is focused on supporting our solutions and sales efforts by strengthening our corporate brand, generating sales leads, and facilitating the sales process. Our principal marketing programs include:

- Content marketing (eBriefs, case studies, brochures, videos, infographics, and more) as an underlying foundation of all marketing campaigns or initiatives;
- Website development and maintenance, which provides product and Company information, customer support options, paging capabilities, as well as thought leadership and engagement;
- Participation at trade shows and industry events, such as Healthcare Information and Management Systems Society, College of Healthcare Information Management Executives, Association of Medical Directors of Information Systems, American Organization of Nurse Executives, Becker's Healthcare Conference, and many other Healthcare Information technology related shows and conferences;
- Webinars about customer success, current industry trends, and our solutions;
- Social media involvement to provide information regarding upcoming educational events or new product offerings;
- Industry analyst relationships;
- Newsletters and blog posts to provide information about industry trends and our solutions to customers, prospects, and alliances; and
- Annual customer conferences that solicit feedback on our solutions and services.

Licenses and Messaging Networks

In order to provide our wireless services, we hold licenses to operate on various frequencies in the 900 MHz narrowband. We are licensed by the United States Federal Communications Commission (the “FCC”) to operate Commercial Mobile Radio Services (“CMRS”). These licenses are required to provide one-way and two-way messaging services over our networks.

We operate local, regional and nationwide one-way networks, which enable subscribers to receive messages over a desired geographic area. One-way networks operating in 900 MHz frequency bands utilize the FLEX™ protocol developed by Motorola Mobility, Inc. (“Motorola”). The FLEX™ protocol has advantages of functioning at higher network speeds (which increases the volume of messages that can be transmitted over the network) and of having more robust error correction (which facilitates message delivery to a device with fewer transmission errors).

Our two-way networks utilize the ReFLEX 25™ protocol, also developed by Motorola. ReFLEX 25™ promotes spectrum efficiency and high network capacity by dividing coverage areas into zones and sub-zones. Messages are directed to the zone or sub-zone where the subscriber is located, allowing the same frequency to be reused to carry different traffic in other zones or sub-zones. As a result, the ReFLEX 25™ protocol allows the two-way network to transmit substantially more messages than a one-way network using the FLEX™ protocols. The two-way network also provides for assured message delivery. The network stores, for a limited amount of time, messages that could not be delivered to a device that is out of coverage for any reason, and when the unit returns to service, those messages are delivered. The two-way paging network operates under a set of licenses called narrowband Personal Communications Service, which uses 900 MHz frequencies. These licenses require certain minimum five and ten-year build-out commitments established by the FCC, which have been satisfied.

Although the capacities of our networks vary by geographic area, we have excess capacity at a consolidated level. We have implemented a plan to manage network capacity and to improve overall network efficiency by consolidating subscribers onto fewer, higher capacity networks with increased transmission speeds. This plan is referred to as network rationalization. Network rationalization will result in fewer networks and therefore fewer transmitter locations, which we believe will result in lower operating expenses due primarily to lower site rent expenses. As we continue to implement our network rationalization plan, we expect to have fewer transmitters that can be removed efficiently from our networks and still maintain the level of service required for our customers, and thus the benefits of network rationalization will decline. Our messaging networks and related infrastructure are located exclusively in the United States.

Generally, our software solutions do not require licenses or permits from Federal, state and/or local government agencies in order to be sold to customers. However, certain of our software products are subject to regulation by the United States Food and Drug Administration ("FDA") and are subject to certification by the Joint Interoperability Test Command to be sold to the branches of the armed services of the Unite States and the United States government. (see “Regulation” below).

Our Strategy

Our goal is to continue to execute on our vision of integrated communications and collaboration enterprise solutions. In doing so, we will strengthen our core product offerings and offer new solutions as we continue to focus on serving the mission critical needs of our customers, while operating an efficient and profitable business strategy.

Critical aspects of our strategy include:

Growth of our software revenue and bookings — We expect to continue to substantially increase our investment in sales and marketing, product implementation, product development and customer support to drive software, services and maintenance bookings and revenue growth. We will continue to focus our sales and marketing efforts in the healthcare market in order to identify opportunities for sales and close those opportunities in the form of bookings. We have established software revenue and software operations bookings as key performance objectives for our consolidated operations in 2018.

We have an ongoing initiative to further penetrate the hospital segment in the United States and while we believe there is a significant opportunity to sell critical communication solutions to hospitals located outside the United States our focus is on the domestic market. We intend to leverage the strength of our market presence and the breadth of our product offerings to further expand our customer base in healthcare.

Retention of our wireless subscribers and revenue stream — We will continue to focus on reducing the rate of subscriber disconnects and minimize the rate of wireless revenue erosion. We continue to have a valuable wireless presence in the healthcare market, particularly in larger hospitals. We offer a comprehensive suite of wireless messaging products and services focused on healthcare and “campus” type environments and critical mission notification. We will continue to focus on network reliability and customer service to help minimize the rate of subscriber disconnects. We have established wireless revenue as a key performance objective for our consolidated operations in 2018.

We recognize that the number of our wireless subscribers, our units in service and the related revenue will continue to decline. We intend to continue reducing our underlying cost structure impacting this wireless revenue stream. We will reduce payroll and related expenses as well as network related expenses as necessary in light of the declining wireless revenue. We will integrate and consolidate operations as necessary to ensure the lowest cost operational platform for our consolidated business. We have established operating and capital expenditures as a key performance objective for our consolidated operations in 2018.

Invest in our future solutions — The market for communication and collaboration solutions is expected to grow as healthcare continues to change. Focus on patient satisfaction, population health management, reimbursement changes and emphasis on quality improvement and care coordination are all driving an evolution in communication and collaboration between previously disparate departments and systems within and outside hospitals and across the healthcare ecosystem. Maintaining our position as a leader in healthcare communication and collaboration requires us to continue development of our integrated platform and invest in the key areas of customer need including: 1) mobility, 2) integrated platform, 3) nursing and physician solutions and 4) alerting. We will continue to increase our spending on product development and strategy in 2018 and beyond to develop these solutions and compete in the changing marketplace. Investment in our future solutions is discussed in further detail under "Research and Development". We have established specific product development related activities as a key performance objective for our consolidated operations in 2018.

Return capital to our stockholders — We understand that our primary objective is to create long-term stockholder value. We will continue to evaluate how best to deploy our capital resources to support sustainable business growth and maximize stockholder value. We expect to continue to pay a quarterly dividend of $0.125 per share of common stock or $0.50 annually in 2018. We will continue to evaluate both market and Company factors to determine whether a common stock repurchase program is an appropriate method to return capital to our stockholders.

Long-term revenue growth through business diversification — We believe that add-on acquisitions of companies or technologies could be an important part of our future growth. We believe add-on acquisitions of complementary companies or technologies in the healthcare market could enhance our position with current customers and expand our overall addressable markets. Rapidly and successfully integrating strategic acquisitions and improving operational efficiencies is a focus of our management team. Given the nature of our solutions, new technologies can be integrated to accelerate cross-selling opportunities. We evaluate these potential businesses or technologies to determine if they can be acquired at a reasonable valuation and will be profitably accretive and accelerate our revenue goals.

To ensure focus on our business strategy we establish specific performance objectives and develop short-term and long-term incentive plans (“STIP” and "LTIP," respectively) for our management that include a combination of these operating objectives and priorities.

Our Products and Services

Wireless Products and related Services. We offer subscriptions to one-way or two-way messaging services for a periodic (monthly, quarterly, semi-annual, or annual) service fee. The level of service fees is generally based upon the type of service provided, the geographic area covered, the number of devices provided to the customer and the period of commitment. A subscriber to one-way messaging services may select coverage on a local, regional, or nationwide basis to best meet their messaging needs. Two-way messaging is generally offered on a nationwide basis. In addition, subscribers either contract for a messaging device from us for an additional fixed monthly fee or they own a device, having purchased it either from us or from another vendor. We also sell devices to resellers who lease or resell them to their subscribers and then sell messaging services utilizing our networks. We offer ancillary services, such as voicemail and equipment loss or maintenance protection, which help increase the monthly recurring revenue we receive along with these traditional messaging services. In 2015 and 2016 we launched new and exclusive one-way (T5) and two-way (T52) alphanumeric pagers, respectively. Both pagers are configurable to support un-encrypted or encrypted operation. When configured for encryption, they utilize AES-128 bit encryption, screen locking and remote wipe capabilities. With encryption enabled these new secure paging devices enhance our service offerings to the healthcare community by adding Health Insurance Portability and Accountability Act ("HIPAA") security capabilities to the low cost, highly reliable and availability benefits of paging.

The demand for one-way and two-way messaging services declined during the years ended December 31, 2017, 2016 and 2015 and we believe demand will continue to decline for the foreseeable future. Wireless products and services revenue represented 59%, 61% and 63% of total consolidated revenue for the years ended December 31, 2017, 2016 and 2015, respectively. As demand for one-way and two-way messaging has declined, we have developed or added service offerings in order to increase our revenue potential and mitigate the decline in our wireless revenues. We will continue to evaluate opportunities to provide customers the highest value possible.

Software. Dependable critical communications are paramount for individuals in healthcare and a host of other industries. We offer a number of solutions, providing our customers with the ability to communicate anywhere, anytime across a number of situations. Our solutions are used for contact centers, clinical alerting and notification, mobile communications and messaging, and for public safety notifications. We offer critical communication solutions in four major product categories:

Contact Center

- **Spok® Healthcare Console:** Provides operators with the information needed to process calls using their computers, with just a few keystrokes. This solution integrates with the customers' existing phone systems and is used by the operator group to answer incoming calls to the contact center. Operators can quickly and accurately perform directory searches and code calls, as well as messaging and paging by individual, groups, and roles using the Spok Healthcare Console's computer telephony integration ("CTI") and directory capabilities.
- **Spok® Web-Based Directory:** Makes employee contact information more accessible and enables staff to send messages quickly right from the directory. Authenticated users can log on anywhere, anytime to perform a variety of important updates to contact information and on-call schedules, search the directory, and send important messages.
- **Spok® Web-Based On-Call Scheduling:** Keeps personnel, calendars and on-call scheduling information updated, even with thousands of staff, using a secure web portal to maintain and allow password-protected access to the latest on-call schedules and personnel information.
- **Spok® Speech:** Enables the organization to process routine phone requests, including transfers, directory assistance, messaging and paging without live operators and with more ease-of-use than touchtone menus.
- **Spok® Call Recording and Quality Management:** Records, monitors, and scores operators' conversations to allow for better management of calls, helping improve customer service.

Clinical Alerting

- **Spok® Messenger:** Provides an intelligent, FDA, 510(k)-cleared solution that connects virtually all crucial alert systems, including nurse call, fire, security, patient monitoring, and building management to mobile staff via their wireless communication devices. This solution provides the ability to reach mobile team members within seconds of an alert, improving overall workflow, staff productivity, and the comfort and safety of everyone in the facility.
- **Spok® e.Notify:** Enables organizations to quickly and reliably notify and confirm team member availability during emergency situations without relying on calling trees, thereby reducing confusion that may arise in an emergency situation. This solution automatically delivers messages, collects responses, escalates issues to others, and logs all activities for reporting and analysis purposes.
- **Spok® Critical Test Results Management:** Automates and streamlines the process of delivering critical test results to the right clinicians to help ensure patient safety. This solution can send messages from the cardiology, laboratory and radiology departments by means of encrypted smartphone communications, two-way paging, secure email, secure text, images, annotations, and voice to a variety of endpoints such as workstations, laptops, tablets, smartphones, pagers, and other wireless devices.

Mobile Communications

- **Spok Mobile®:** Simplifies communications and strengthens care by using smartphones and tablets for secure code alerts, patient updates, results, consult requests, and much more. Allows users to access the full directory of accurate contact information to send messages/photos/videos to smartphones and other devices, and to ensure critical communications are logged, all with security, traceability, and reliability.
- **Spok® Device Preference Engine:** Facilitates voice conversations among doctors and caregivers by enabling users to choose the desired communication method based on factors such as message priority.

Public Safety

- **Spok® pc/psap:** Speeds emergency dispatch by giving Public Safety Answering Point ("PSAP") call-takers an easy-to-use, standards-based, graphical interface that integrates the underlying phone system, mapping systems, and other resources for critical information availability. 9-1-1 call-takers are able to instantly involve police, fire, EMT, and hazardous material personnel with a single click of the mouse or touch of the screen.
- **Spok® Enterprise Alert:** Directs emergency personnel to a 9-1-1 caller's exact location (building, floor, room), helping to ensure speed, accuracy, and reliability of response. The E9-1-1 software provides real-time, onsite notification when 9-1-1 is dialed, and works to decrease emergency response time.

Services. We offer a variety of professional services to assist our customers in the successful implementation of, and to maximize the benefits obtained from the use of, our software solutions. We also offer support services to enhance and refine the customers experience throughout their relationship with Spok.

- **Professional Services:** We offer a full suite of professional services which are provided by a dedicated group of professional service employees. Our professional services include consultation, implementation, and training services. For software solution implementations, our professional services staff uses a branded, consistent methodology that provides a comprehensive phased work plan for both new software installations and/or upgrades. In support of our implementation methodology, we manage the various aspects of the process through a professional services automation tool. We may also use third-party professional services firms to implement our solutions for customers depending on the circumstances. Professional services revenue represented 10% of total consolidated revenue for each of the years ended December 31, 2017, 2016 and 2015.
- **Software License Updates and Product Support (Maintenance):** Software license updates and product support, which is generally referred to as maintenance when sold to customers, is an important offering to customers who utilize our software solutions. In order to support our products that provide mission critical solutions to our customer's organizations, we have a dedicated customer support organization. The customer support organization provides support 24 hours a day, 7 days a week, 365 days a year and the service can be accessed via telephone, email or the Internet via the Spok webpage. The Spok support service is augmented by third party services where needed. Software license updates and product support are generally priced together as a percentage of the software licenses for which these services will be provided. Largely all of our customers purchase maintenance when they purchase new software licenses after which renewals generally occur on an annual basis and are paid in advance. Software license updates provide customers with rights to unspecified product upgrades as well as maintenance and patch releases that are released during the term of the support period. Software license updates and product support revenue (i.e. maintenance revenue) represented 23%, 21% and 18% of total consolidated revenue for the years ended December 31, 2017, 2016 and 2015 respectively.

Sources of Equipment

We do not manufacture the messaging devices our customers need to take advantage of our services or the network equipment we use to provide messaging services. We have relationships with several vendors to purchase new messaging devices. Used messaging devices are available in the secondary market from various sources. We believe existing inventory, returns of devices from customers that canceled services, and purchases from other available sources of new and reconditioned devices will be sufficient to meet expected messaging device requirements for the foreseeable future. We negotiate contractual terms with our vendors that do not directly relate to the manufacturing of the network equipment or messaging devices. The network equipment and messaging devices are generic on which we may place our logo or label.

We sell third party equipment for use with our software solutions. The third party equipment that we sell is generally available and does not require any specialty manufacturing to accommodate our software solutions.

We currently have inventory and network equipment on hand that we believe will be sufficient to meet our wireless and software equipment requirements for the foreseeable future.

Intellectual Property

As of December 31, 2017, we held 66 trademarks and 19 patents which we believe are important to protect our intellectual property. We believe our intellectual property distinguishes our business from our competition and are integral to our continued success in the area of critical communication solutions. The expiration dates of these trademarks range from 2018 to 2032 and can be extended for 10 year periods upon renewals.

Customers

Our customers include businesses and employees who need to be accessible to their offices or customers, first responders who need to be accessible in emergencies, and third parties, such as other telecommunication carriers and resellers that pay our Company to use our networks. Customers include businesses, professionals, management personnel, medical personnel, field sales personnel and service forces, members of the construction industry and construction trades, real estate brokers and developers, sales and services organizations, specialty trade organizations, manufacturing organizations and government agencies.

We offer our communication services and products primarily in the United States and to three major market segments: healthcare, government and large enterprise, but with a greater emphasis on the healthcare market segment. For the years ended December 31, 2017, 2016 and 2015, revenues from healthcare customers accounted for approximately 74.6%, 70.3% and 68.2% of our total revenues, respectively. We expect the trend of an increasing percentage of our total revenue to come from the health care segment to continue, even as our total revenue declines due to our subscriber erosion from our wireless services. No single customer accounted for more than 10% of our total revenues in 2017, 2016 or 2015. For the years ended December 31, 2017, 2016 and 2015, foreign sales represented approximately 2.6%, 3.2% and 2.0% of our consolidated revenue, respectively.

We pursue close, long-term relationships with our customers because we believe strong customer relationships enable us to retain our current customer base and expand our services and revenue to that customer base.

Backlog

Our backlog of undelivered or in-progress orders was $42.3 million and $38.3 million at December 31, 2017 and 2016, respectively. Of the current backlog we expect to deliver and complete all but $6.9 million in 2018.

Competition

The competitors and degree of competition vary among our various product categories. Competition is particularly strong for our wireless messaging services. Within the wireless industry, companies compete on the basis of price, coverage area, services offered, transmission quality, network reliability, and customer service. We compete by maintaining competitive pricing for our products and services, by providing broad coverage options through high-quality, reliable messaging networks and by providing quality customer service. Direct competitors for wireless messaging services include American Messaging Service, LLC and a variety of other regional and local providers. We also compete with a broad array of wireless messaging services provided by mobile telephone companies, including AT&T Mobility LLC, Sprint Nextel Corporation, T-Mobile USA, Inc., and Verizon Wireless, Inc. This competition has intensified as prices for the services of mobile telephone companies have declined and as those companies have incorporated messaging capabilities into their mobile phone devices. Many of these companies possess far greater financial, technical and other resources than we do.

Most Personal Communications Service and other mobile phone devices currently sold in the United States are capable of sending and receiving one-way and two-way messages. Most subscribers that purchase these services no longer need to subscribe to a separate messaging service. As a result, many one-way and two-way messaging subscribers can readily switch to cellular, Personal Communications Service and other mobile telephone services. The decrease in prices and increase in capacity and functionality for cellular, Personal Communications Service, WiFi, and other mobile telephone services have led many subscribers to select combined voice and messaging services from mobile telephone companies as an alternative to our stand-alone messaging services.

We also have a number of competitors whose software products compete with one or more modules of our critical communications solutions. These competitors are a mix of privately held and public companies that offer a number of call center, alerting and mobile communication products. Our primary competitive advantages include having:

- An integrated product suite;
- A communication-driven workflow;
- Certifications, such as those through the Joint Interoperability Test Command (See "Joint Interoperability Test Command" below) and the FDA; and
- A complete directory of contacts throughout the customer enterprise.

Although there are no competitors that offer a similar comprehensive set of software modules that match our product offerings, there are several competitors who offer software similar to many of our solutions. Selected competitors for portions of our product portfolio include:

- Amtel Communications, Inc. (AMTELCO) - Contact center solutions;
- Nuance Communications, Inc. - Clinical alerting solutions;
- peerVue, Inc. - Clinical alerting solutions;
- TigerText, Inc. - Mobile communication solutions;
- Vocera Communications, Inc. (including Extension Healthcare)- Mobile communications solutions;
- Imprivata, Inc. - Mobile communications solutions;
- Voalte, Inc. - Mobile communications solutions;
- Ascom Holding AG - Mobile Communications solutions;
- Emergin, a Phillips Healthcare company - Alerting and notification;
- DBA HipLink Software, Inc. - Mobile communications solutions; and
- Veriphy Ltd - Critical test results management.

In addition, substantially larger companies in the electronic medical records ("EMR") space such as Epic Systems Corporation, Cerner Corporation, Athenahealth, Inc. and Allscripts Healthcare Solutions, Inc. may choose to offer software related solutions similar to our critical communications and work flow solutions, or may acquire one of our competitors.

Research and Development ("R&D")

We maintain a product development group, a substantial portion of which is focused on developing new software products, especially with respect to developing an integrated platform for communications solutions and additional enhancements. Within our Research and Development group is a separate task force focused on ongoing maintenance and enhancement of existing point-solution products. Our product development group uses a methodology that balances enhancement requests from a number of sources including customers, regulatory requirements, the professional services staff, customer support incidents, known defects, market and technology trends, and competitive requirements. These requests are reviewed and prioritized based on criteria that include the potential for increased revenue, customer/employee satisfaction, possible cost savings and development time and expense.

We continue to focus our product development activities on developing our unified communications solution, Spok Care Connect®. This unified communication solution focuses on four key areas of customer need: mobility offerings, an integrated platform, alerting, and nursing solutions. The development of Spok Care Connect requires a multi-year effort by a dedicated product development staff and will be deployed in multiple phases which include planned development and enhancements. We believe that development of the Spok Care Connect platform will drive long-term stockholder value and play an important role in determining the future success of our strategy.

Our expenses for research and development for the years ended December 31, 2017, 2016 and 2015 were $18.7 million, $13.5 million, and $10.3 million, respectively, and we expect our research and development expenses to continue to grow throughout 2018. We plan to continue to invest in our research and development efforts to build a fully integrated communications and workflow platform for hospitals focused on mobility, critical alerting, and nursing care with full enterprise accessibility.

Employees

At December 31, 2017 and 2016 we had 596 and 587 full time equivalent ("FTE") employees, respectively. Our employees are not represented by labor unions or covered by a collective bargaining agreement. We believe that our employee relations are good.

Regulation

Federal Regulation

The FCC issues licenses to use radio frequencies necessary to conduct our business and regulate many aspects of the operations that support our wireless revenue. Licenses granted to us by the FCC have varying terms, generally of up to ten years, at which time the FCC must approve renewal applications. In the past, FCC renewal applications generally have been granted upon showing compliance with FCC regulations and adequate service to the public. Other than those still pending, the FCC has thus far granted each license renewal that we have requested.

The Communications Act of 1934, as amended (the "Communications Act"), requires radio licensees, including us, to obtain prior approval from the FCC for the assignment or transfer of control of any construction permit or station license or authorization of any rights thereunder. The FCC has thus far granted each assignment or transfer request we have made in connection with a change of control.

The Communications Act also places limitations on foreign ownership of CMRS licenses, which constitute the majority of our licenses. These foreign ownership restrictions limit the percentage of stockholders' equity that may be owned or voted, directly or indirectly, by non-United States citizens or their representatives, foreign governments or their representatives, or foreign corporations. Our Amended and Restated Certificate of Incorporation permits the redemption of our equity from stockholders where necessary to ensure compliance with these requirements.

The FCC's rules and regulations require us to pay a variety of fees that otherwise increase our costs of doing business. For example, the FCC requires licensees, including Spok, to pay levies and fees, such as universal service fees, to cover the costs of certain regulatory programs and to promote various other societal goals. These requirements increase the cost of the services provided. By law, we are permitted to bill our customers for these regulatory costs and we typically do so.

Additionally, the Communications Assistance to Law Enforcement Act of 1994, ("CALEA") and certain rules implementing CALEA require some telecommunication companies, including Spok, to design and/or modify their equipment in order to allow law enforcement personnel to "wiretap" or otherwise intercept messages. Other regulatory requirements restrict how we may use customer information and prohibit certain commercial electronic messages, even to our own customers.

In addition, the FCC's rules require us to pay other carriers for the transport and termination of some telecommunication traffic. As a result of various FCC decisions over the last few years, we no longer pay fees for the termination of traffic originating on the networks of local exchange carriers providing wireline services interconnected with our services. In some instances, we received refunds for prior payments to certain local exchange carriers. We have entered into a number of interconnection agreements with local exchange carriers in order to resolve various issues regarding charges imposed by local exchange carriers for interconnection.

Failure to follow the FCC's rules and regulations can result in a variety of penalties, ranging from monetary fines to the loss of licenses. Additionally, the FCC has the authority to modify licenses, or impose additional requirements through changes to its rules.

The FDA has determined software systems that connect to medical devices are subject to regulation as medical devices as defined by the federal Food, Drug and Cosmetic Act ("the FDC Act"). Since our middleware software products connect to medical devices, we are required to comply with the FDC Act's requirements, including but not limited to: registration and listing, labeling, medical device reporting (reporting of medical device-related adverse events), removal and correction, and good manufacturing practice requirements. We have complied with the regulatory requirements of the FDC Act, and registered and received the necessary clearances for our products. As we modify and/or enhance our software products (including our middleware product), we may be required to request FDA clearance before we are permitted to market these products.

In addition, our software solutions may handle or have access to personal health information subject in the United States to the HIPAA, the Health Information Technology for Economic and Clinical Health Act ("HITECH"), and related regulations. These statutes and related regulations impose numerous requirements regarding the use and disclosure of personal health information with which we help our customers comply. Our failure to accurately anticipate or interpret these complex and technical laws could subject us to civil and/or criminal liability. We believe that we are in compliance with these laws and their related regulations.

Although these and other regulatory requirements have not, to date, had a material adverse effect on our operating results, such requirements could have a material impact on our operating results in the future. We monitor discussions at the FCC and FDA on pending changes in regulatory policy or regulations; however, we are unable to predict what changes, if any, may occur in 2018 to regulatory policy or regulations.

State Regulation

As a result of the enactment by the United States Congress of the Omnibus Budget Reconciliation Act of 1993 ("OBRA") in August 1993, states are now generally preempted from exercising rate or entry regulation over any of our operations. States are not preempted, however, from regulating "other terms and conditions" of our operations, including consumer protection and similar rules of general applicability. Zoning requirements are also generally permissible, however, provisions of the OBRA prohibit local zoning authorities from unreasonably restricting wireless services. States that regulate our services also may require us to obtain prior approval of (1) the acquisition of controlling interests in other paging companies and (2) a change of control.

At this time, we are not aware of any proposed state legislation or regulations that would have a material adverse impact on our business.

Joint Interoperability Test Command ("JITC") Certification

JITC is a military organization that tests technology for use by the branches of the armed services of the United States and the United States federal government. JITC certification is required of all systems with joint interfaces or joint information exchanges with other systems used by these organizations and is done to ensure all systems operate effectively together. All information technology and national security systems that exchange and use information to enable units or forces to operate effectively in joint, combined, coalition and interagency operations and simulations must be certified. Once a system has been certified under this program, the certification must be renewed every four years or after any changes that may affect interoperability. The interoperability certification process consists of four basic steps, which are:

- Identify (interoperability) requirements;
- Develop certification approach (planning);
- Perform interoperability test and evaluation; and
- Report certifications and statuses.

We submit and receive JITC certification for certain of our products through the Defense Information Systems Agency ("DISC"), which allows us to sell and implement our solutions at federal government agencies. We currently certify a console, web, speech, mass notification, public safety answering point, call recording and campus 911 product with JITC. We have a roadmap to renew the existing certifications with new releases of existing products and to bring additional products to JITC to increase the products that can be sold into Federal agencies.

Information about Segment and Geographic Revenue

Information regarding segment and geographic revenue can be found in Note 11, "Segments and Geographic Information". No country other than the United States accounted for more than 10% of our total revenue, and we intend to focus our marketing and sales efforts on customers in the United States due to lower margins on sales abroad and low volume relative to the cost of maintaining an international sales team. Financial information regarding revenues from external customers and measure of profit and/or loss for the years ended December 31, 2017, 2016 and 2015, and our total assets as of December 31, 2017 and 2016, are included in our Consolidated Financial Statements.

Available Information

We make available on our website at http://www.spok.com, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the United States Securities and Exchange Commission ("SEC"). The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at http://www.sec.gov. We also make available on our website, and in print, if any stockholder or other person so requests, our code of business conduct and ethics entitled "Code of Ethics" which is applicable to all employees and directors, our "Corporate Governance Guidelines" and the charters for all committees of our Board of Directors, including Audit, Compensation and Corporate Governance and Nominating. Any changes to our Code of Ethics or waiver, if any, of our Code of Ethics for executive officers or directors will be posted on that website.

ITEM 1A. *RISK FACTORS*

The following important factors, among others, could cause our actual operating results to differ materially from those indicated or suggested by forward-looking statements made in this 2017 Form 10-K or presented elsewhere by management from time to time.

The rate of wireless subscriber and revenue erosion could exceed our ability to reduce operating expenses in order to maintain overall positive operating cash flow.

Our wireless revenue is dependent on the number of subscribers that use our paging devices. Our customers may not renew their subscriptions after the expiration of their subscription agreements. In addition, our customers may opt for a lower-priced edition of our offerings or for fewer subscriptions. We have limited historical data with respect to rates of customer subscription renewals, so we cannot accurately predict customer renewal rates. Our customers' renewal rates may decline or fluctuate as a result of a number of factors, including their level of satisfaction with our offerings and their ability to continue their operations and spending levels. Increasing awareness and concern over HIPAA/HITECH compliance is causing healthcare organizations, our largest customer segment, to re-evaluate paging subscriptions for clinical use cases when users are not equipped with our encrypted pager offerings.

We face intense competition for subscribers from other paging service providers and alternate wireless communications providers such as mobile phone and mobile data service providers. There is a risk that our competitors' products may provide better performance or include additional features when compared to our offerings. Competitive pressures could also affect the prices we may charge or the demand for our offerings, resulting in reduced profit margins and loss of market share. Our efforts to compete effectively may not be sufficient, which may adversely affect our business, financial condition, operating results and cash flows.

In addition to competition, our customer base may be impacted by the introduction of new technologies. As mobile communications technology evolves, competitors that provide wireless broadband data services may lower their prices to customers that approach, meet or undercut our prices for paging services. We are unable to predict how customer perceptions of the value of our wireless services will be impacted by the development of new wireless technologies. Our continued success will depend on our ability to adapt to rapidly changing technologies and user preferences, to adapt our offerings to evolving industry standards, to predict user preferences and industry changes in order to continue to provide value to our customers and to improve the performance and reliability of our offerings. Our failure to adapt to such changes could harm our business, and our efforts to adapt to such changes could require substantial expenditures on our part to modify our offerings or infrastructure. Delays in developing, completing or delivering new or enhanced offerings and technologies could result in delayed or reduced revenue for those offerings and could also adversely affect customer acceptance of those offerings and technologies. Even if we are able to enhance our existing offerings or introduce new offerings that are well perceived by the market, if our marketing or sales efforts do not generate interest in or sales for these offerings, they may be unsuccessful.

We expect our subscriber numbers, units in service and revenue will continue to decline into the foreseeable future. As this revenue erosion continues, maintaining positive cash flow is dependent on substantial and timely reductions in selected operating expenses. Reductions in operating expenses require both the reduction of internal costs and negotiation of lower costs from outside vendors. As we require fewer services and products from our vendors, our negotiating leverage to lower our costs is diminished. There can be no assurance that we will be able to reduce our operating expenses commensurate with the level of revenue erosion. The inability to reduce operating expenses would have a material adverse impact on our business, financial condition and statement of income including our continued ability to remain profitable, produce positive operating cash flow, continue our research and development investment in our Spok Care Connect platform, pay cash dividends to stockholders, and repurchase shares of our common stock.

We may be unable to effectively develop, introduce and deploy our integrated communications platform, Spok Care Connect, which is the basis for our future growth.

Our future revenue growth depends on our ability to develop, introduce and effectively deploy our integrated communications suite. This multi-year effort will require the coordination of multiple development teams dedicated to this task. Simultaneously with this new development effort, we must continue to improve and support our existing suite of products to transition to the integrated critical communications suite. We foresee the following risks inherent in our research and product development efforts:

- Requirements Definition - Our plans for an integrated communications suite may not meet the market's needs or customer expectations and could result in low market demand and/or acceptance.
- Product Scope and Schedule - We may fail to manage the scope of our software development activities effectively, resulting in delays to meet key milestones, achieve network solutions on a fully integrated basis, or solve coding problems in a timely and efficient manner. In addition, the continuing software development efforts on our existing products could distract management time and focus on developing our integrated communications platform.
- Staffing and Organization - The development of the integrated communications suite requires the hiring of new staff. We may be unable to attract, in a timely manner, the qualified staff to meet our requirements. The organizational changes and new hires necessary to address our development requirements could create attrition risk for our current staff.

- Operational Readiness - While the development of the integrated communications suite could occur as we have planned, we may not be prepared or ready to sell, deliver and support the new platform technology.

Technical problems and higher costs may affect our product development initiatives.

Our future software revenue growth depends on our ability to develop, introduce and effectively deploy new solutions and features to our existing software solutions. These new features and functionalities are designed to address both existing and new customer requirements. We may experience technical problems and additional costs as these new features are tested and deployed. Failure to effectively develop new or improved software solutions could adversely impact software revenue growth and could have a material adverse effect on our operations, financial condition and statement of operations including our continued ability to remain profitable, produce positive operating cash flow, pay cash dividends to stockholders, and repurchase shares of our common stock.

We are dependent on the U.S. healthcare provider market segment for most of our revenue.

Over 80 percent of our revenue for wireless services and software products comes from sales to hospitals and other healthcare provider organizations in the United States. These customers, both non-profit and for-profit, are greatly affected by healthcare reform and the reimbursement policies of the federal and state governments and health insurance companies, and any decline in revenue received by our customers due to adverse economic conditions or legislative or regulatory changes could significantly affect the type and amount of services and products they order from us. We do not anticipate any flexibility in increasing prices for our wireless services notwithstanding general inflation due to an unrelenting focus by our customers on their cost structures, and our customers could be slow to invest in our software products and professional services due to budgetary pressures.

If we are unable to retain key management personnel, we might not be able to find suitable replacements in a timely basis, or at all, and our business could be disrupted.

Our success is largely dependent upon the continued service, availability and performance of key personnel, including our Chief Executive Officer, senior management team and other highly skilled personnel, particularly in product development, product strategy and sales. We believe that there is, and will continue to be, intense competition for qualified personnel in the telecommunication and software industries, and there is no assurance that we will be able to attract, motivate and retain the personnel necessary for the management and development of our business. Turnover, particularly among senior management, can also create distractions as we search for replacement personnel, which could result in significant recruiting, relocation, training and other costs, and can cause operational inefficiencies as replacement personnel become familiar with our business and operations. In addition, manpower in certain areas may be constrained, which could lead to disruptions over time. The elimination or reconfiguration of employee responsibilities could impact retention decisions by key executives and personnel. Also, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited, that they have divulged proprietary or other confidential information, or that their former employers own their inventions or other work product. Moreover, the loss of these key employees, particularly to a competitor, some of which may be in a position to offer greater compensation, and any resulting loss of customers could reduce our market share and diminish our brands.

In order to grow our software revenue and bookings and maintain our wireless revenue and subscribers we are dependent on our ability to effectively manage our employee base in sales and marketing to achieve our sales productivity goals.

Growth in our software revenue and bookings and maintenance of our wireless revenue and subscriber base is dependent on the productivity of our sales organization. From time to time it may be necessary to reorient our sales representatives to focus on specific market segments, product lines or new software solutions or to remove underperforming individuals which may require additional resources to maintain productivity. The impact of these changes could adversely impact our ability to achieve our sales productivity goals. We have also identified the following risks that could impact our sales productivity:

- Customer Dissatisfaction and Spok's Reputation - We may experience customer dissatisfaction with our solutions that could result in lost opportunities for sales. Potential low ratings of our solutions may negatively impact our perception by future prospects. In addition, fewer references for our solutions could impact our ability to prospect new sales.
- Training - Training of our marketing and sales personnel as to the clinical requirements of our healthcare customers and the complexity of our service offerings, takes time and requires a substantial, continuing investment in new hires as well as long term employees.
- Competitive Speed - Sales productivity can be impacted by the capabilities of our competitors. There is a risk that competitors can innovate or partner faster than we do to deliver a unified communications platform.
- Employee Retention - The impact of the elements noted above can challenge the ability of employees to make sales. This is tough on morale and can affect employee retention.

We may experience a long sales cycle for our software products.

Our software revenue growth results from a long sales cycle that from initial contact to final sales order may take six to 18 months depending on the type of software solution. Our software sales and marketing efforts involve educating our customers on the technical capabilities of our software solutions and the potential benefits from the deployment of our software, as well as educating ourselves as to the clinical needs of our customers. The inherent unpredictability of decision making resulting from customer budget constraints, multiple approvals and administrative issues may result in fluctuating bookings and revenue from month to month, quarter to quarter and year to year. Our bookings and corresponding revenue are dependent on actions that have occurred in the past. Each month we need to spend substantial time, effort, and expense on our marketing and sales efforts that may not result in future revenue.

Undetected defects or bugs in our products could adversely affect the market acceptance of new products, damage our reputation with current or prospective customers, and materially and adversely affect our operating costs.

Software products, such as those we offer, may contain defects and bugs when they are first introduced or as new versions are released, or their release may be delayed due to unforeseen difficulties during product development. If any of our products, including products of companies we have acquired, or third-party components used in our products, contain defects or bugs, or have reliability, quality or compatibility problems, we may not be able to successfully design workarounds. Any defects we do not detect and fix in pre-release testing could cause reduced sales and revenue, damage to our reputation, repair or remediation costs, delays in the release of new products or versions, or legal liability. There can be no assurance that provisions in our license agreements that limit our exposure to liability will be sufficient or withstand legal challenge.

Service to our customers could be adversely impacted by network rationalization.

We have an active program to consolidate the number of networks and related transmitter locations, which is referred to as network rationalization. Network rationalization is necessary to match our technical infrastructure to our smaller subscriber base and to reduce both site rent and telecommunication costs. The implementation of the network rationalization program could adversely impact service to our existing subscribers, and there can be no assurance that any efforts to minimize that impact would be successful. This adverse impact could increase the rate of gross subscriber cancellations and/or the level of wireless revenue erosion. Adverse changes in gross subscriber cancellations and/or revenue erosion could have a material adverse effect on our business, financial condition and results of operations.

We may be unable to find vendors able to supply us with paging equipment based on future demands.

We purchase paging equipment from third party vendors. This equipment is sold or leased to customers in order to provide wireless messaging services. The reduction in industry demand for paging equipment has caused various suppliers to cease manufacturing this equipment. There can be no assurance that we can continue to find vendors to supply paging equipment, or that the vendors will supply equipment at costs that allow us to remain a competitive alternative in the wireless messaging industry. A lack of paging equipment could impact our ability to provide certain wireless messaging services and could have a material adverse effect on our business, leading to further wireless revenue erosion.

We may be unable to maintain successful relationship with our channel partners.

We use channel partners such as resellers, consulting firms, original equipment manufacturers, and technology partners to license and support our products. We rely, to a significant degree, on each of our channel partners to select, screen and maintain relationships with its distribution network and to distribute our offerings in a manner that is consistent with applicable law and regulatory requirements and our quality standards. Contract defaults by any of these channel partners or the loss of our relationships with them may materially adversely affect our ability to develop, market, sell, or support our communication solution offerings. If our indirect distribution channel is disrupted, we may be required to devote more resources to distribute our offerings directly and support our customers, which may not be as effective and could lead to higher costs, reduced revenue and growth that is slower than expected.

Recruiting and retaining qualified channel partners and training them in the use of our enterprise technologies requires significant time and resources. If we fail to devote sufficient resources to support and expand our network of channel partners, our business may be adversely affected. In addition, because we rely on channel partners for the indirect distribution of our enterprise technologies, we may have little or no contact with the ultimate end-users of our technologies, thereby making it more difficult for us to establish brand awareness, ensure proper delivery and installation of our software, support ongoing customer requirements, estimate end-user demand, respond to evolving customer needs and obtain subscription renewals from end-users.

We may be unable to realize the benefits associated with our deferred income tax assets.

We have significant deferred income tax assets that are available to offset future taxable income and increase cash flows from operations. The use of these deferred income tax assets is dependent on the availability of taxable income in future periods. The availability of future taxable income is dependent on our ability to profitably manage our operations to support a growing base of software revenue offset by declining wireless subscribers and revenue. To the extent that anticipated reductions in operating expenses do not occur or sufficient revenue is not generated, we may not achieve sufficient taxable income to allow for use of our deferred income tax assets. The accounting for deferred income tax assets is based upon an estimate of future results, and any valuation allowance we may apply to our deferred tax assets may be increased or decreased as conditions change or if we are unable to implement certain tax planning strategies. If we are unable to use these deferred income tax assets, our financial condition and statement of operations may be materially affected. In addition, a significant portion of our deferred income tax assets relate to net operating losses. If our ability to utilize these losses is limited, due to Internal Revenue Code ("IRC") Section 382, our financial condition and statement of operations may be materially affected.

Our wireless products are regulated by the FCC and, to a lesser extent, state and local regulatory authorities. Changes in regulation could result in increased costs to us and our customers.

We are subject to regulation by the FCC and, to a lesser extent, by state and local authorities. Changes in regulatory policy could increase the fees we must pay to the government or to third parties, and could subject us to more stringent requirements that could cause us to incur additional capital and/or operating costs. To the extent additional regulatory costs are passed along to customers, those increased costs could adversely impact subscriber cancellations.

For example, the FCC issued an order in October 2007 that mandated paging carriers (including the Company) along with all other CMRS providers serving a defined minimum number of subscribers to maintain an emergency back-up power supply at all cell sites to enable operation for a minimum of eight hours in the event of a loss of commercial power (the "Back-up Power Order"). Ultimately, after a hearing by the DC Circuit Court and disapproval by the Office of Management and Budget (the "OMB") of the information collection requirements of the Back-Up Power Order, the FCC indicated that it would not seek to override the OMB's disapproval. Rather the FCC indicated that it would issue a Notice of Proposed Rulemaking with the goal of adopting revised back-up power rules. To date, there has been no Notice of Proposed Rulemaking by the FCC and we are unable to predict what impact, if any, a revised back-up power rule could have on our operations, cash flows, ability to continue payment of cash dividends to stockholders, and ability to repurchase shares of our common stock.

As a further example, the FCC continues to consider changes to the rules governing the collection of universal service fees. The FCC is evaluating a flat monthly charge per assigned telephone number as opposed to assessing universal service contributions based on telecommunication carriers' interstate revenue. There is no timetable for any rulemaking to implement this numbers-based methodology. If the FCC adopts a numbers-based methodology, our attempt to recover the increased contribution costs from our customers could significantly diminish demand for our services, and our failure to recover such increased contribution costs could have a material adverse impact on our business, financial condition and results of operations.

Certain of our software products are regulated by the FDA. The application of or changes in regulations could impact our ability to market new or revised software products to our customers.

Certain of our software products are regulated by the FDA as medical devices. The classification of our software products as medical devices means that we are required to comply with certain registration and listing, labeling, medical device reporting, removal and correction, and good manufacturing practice requirements. Updates to these products or the development of new products could require us to seek clearance from the FDA before we are permitted to market or sell these software products. In addition, changes to FDA regulations could impact existing software products or updates to existing products. The impact of delays in FDA clearance or changes to FDA regulations could impact our ability to market or sell our software products and could have a material adverse effect on our software sales, financial condition and results of operations, including our continued ability to remain profitable, produce positive operating cash flow, pay cash dividends to stockholders and repurchase shares of our common stock.

We have investigated potential acquisitions and may not be able to identify an opportunity at favorable terms or have the ability to close on financing necessary to consummate the transaction.

We cannot provide any assurances that we will be successful in finding such acquisitions or consummating future acquisitions on favorable terms. We anticipate that our acquisitions will be financed through a combination of methods, including but not limited to the use of available cash on hand, and, if necessary, borrowings from third party financial institutions. Disruptions in credit markets and an unwillingness to lend may limit our ability to finance acquisitions.

We have investigated potential acquisitions and may be unable to successfully integrate such acquisitions into our business and may not achieve all or any of the operating synergies or anticipated benefits of those acquisitions.

We continue to evaluate acquisitions of other businesses where we believe such acquisitions will yield increased cash flows, improved market penetration and/or identified operating efficiencies and synergies. We may face various challenges with our integration efforts, including the combination and simplification of product and service offerings, sales and marketing approaches and establishment of combined operations.

We may have limited or no history of owning and operating any business that we acquire. If we were to acquire these businesses, there can be no assurance that:

- such businesses will perform as expected;
- such businesses will not incur unforeseen obligations or liabilities;
- such businesses will generate sufficient cash flow to support the indebtedness, if incurred, to acquire them or the expenditures needed to develop them; and/or
- the rate of return from such businesses will justify the decision to invest the capital to acquire them.

There can be no assurance that we will manage these challenges and risks successfully. Moreover, if we are not successful in completing transactions that we have pursued or may pursue, our business may be adversely affected, and we may incur substantial expenses and divert significant management time and resources. In addition, in pursuing and completing such transactions, we could use substantial portions of our available cash as all or a portion of the purchase price for these transactions or as retention incentives to employees of the acquired business, or we may incur substantial debt. We could also issue additional securities as all or a portion of the purchase price for these transactions or as retention incentives to employees of the acquired business, which could cause our stockholders to suffer significant dilution. Any transaction may not generate additional revenue or profit for us, or may take longer to do so than expected, which may adversely affect our business, financial condition, operating results and cash flows.

We may experience litigation claiming intellectual property infringement by us, and we may not be able to protect our rights in intellectual property that we own and develop.

Intellectual property infringement litigation has become commonplace, particularly in the wireless and software industries in which we operate. This litigation can be protracted, expensive, and time consuming. There is no assurance that we will remain immune to this type of predatory litigation. Any such claims, whether meritorious or not, could be time consuming and costly in terms of both resources and management time.

Third parties may claim we infringe their intellectual property rights. We may receive claims that we have infringed the intellectual property rights of others, including claims regarding patents, copyrights, and trademarks. As noted below in Part I, Item 3, on February 1, 2018, GroupChatter, LLC filed a complaint against us in the U.S. District Court for the Eastern District of Texas, Civ. A. No. 6:18-cv-00048, alleging that we have infringed four U.S. patents. The number and types of these claims may grow as a result of constant technological change in the segments in which our wireless services and software products compete, the extensive patent coverage of existing technologies, and the rapid rate of issuance of new patents.

Third parties may claim we infringe their intellectual property rights. We may receive claims that we have infringed the intellectual property rights of others, including claims regarding patents, copyrights, and trademarks. The number of these claims may grow as a result of constant technological change in the segments in which our software products compete, the extensive patent coverage of existing technologies, and the rapid rate of issuance of new patents.

Our patents, trademarks, copyrights and trade secrets relating to our wireless services and networks, and our software solutions, are important assets. The efforts we undertake to protect our proprietary rights may not be sufficient or effective. Any significant impairment to our intellectual property rights could harm our business and our ability to compete effectively. Protecting our intellectual property rights can be costly and time consuming.

We seek to maintain certain of our intellectual property rights as trade secrets, including the source code for many of our software solutions and innovations. Our source code and system architecture may be reverse engineered by our competitors, or the secrecy of our solutions and designs could be compromised through a security breach or otherwise, or by our employees or former employees, intentionally or accidentally. Any compromise of our trade secrets could cause us to lose any competitive advantage our software solutions have and the investment we have made in developing our products and services.

Our portfolio of issued patents and copyrights may be insufficient to defend ourselves against intellectual property infringement claims, and the validity and scope of our patents could be challenged by third parties were we to seek to enforce them.

We may encounter issues with privacy and security of personal information.

A substantial portion of our revenue comes from healthcare customers. As part of our business, we (or third parties with whom we contract) may receive, store and process our data, as well as our customers' and partners' private data and personal information. As such, our business is subject to a variety of federal, state and international laws and regulations that apply to the collection, use, retention, protection, disclosure, transfer and processing of personal data.

Our software solutions may handle or have access to personal health information subject in the United States to HIPAA, HITECH and related regulations as well as legislation and regulations in foreign countries. These statutes and related regulations impose numerous requirements regarding the use and disclosure of personal health information with which we and our software solutions must comply. Our failure to accurately anticipate or interpret these complex and technical laws and regulations could subject us to civil and/or criminal liability. Such failure could adversely impact our ability to market and sell our software solutions to healthcare customers, and have a material adverse impact on our software sales.

In addition, customers may use our wireless services to transmit patient health information subject to HIPAA and other regulatory requirements. While we offer encrypted pagers to our customers, many customers use pager devices provided by us that do not encrypt text messages. While we disclaim liability for customer non-compliance with HIPAA and other privacy requirements, there remains some risk we could be held responsible for privacy violations by our customers.

There can be no assurance that the security and testing measures we take relating to our offerings and operations will prevent all security breaches and data loss that could harm our business or the businesses of our customers and partners. These risks may increase as we continue to grow our services and offerings and as we receive, store and process more of our customers' data. Actual or perceived vulnerabilities may lead to regulatory investigations, claims against us by customers, partners or other third parties, or costs, such as those related to providing customer notifications and fraud monitoring. There can be no assurance that any provisions in our customer agreements limiting our liability will be enforceable or effective under applicable law. In addition, the cost and operational consequences of implementing further data protection measures could be significant.

The data privacy- and protection-related laws and regulations to which we subject are evolving, with new or modified laws and regulations proposed and implemented frequently and existing laws and regulations subject to new or different interpretations. Any failure by us to comply with data privacy- and protection-related laws and regulations could result in enforcement actions, significant penalties or other legal actions against us or our customers or suppliers. An actual or alleged failure to comply, which could result in negative publicity, reduce demand for our offerings, increase the cost of compliance, require changes in business practices that result in reduced revenue, restrict our ability to provide our offerings in certain locations, result in our customers' inability to use our offerings and prohibit data transfers or result in other claims, liabilities or sanctions, including fines, could have an adverse effect on our business, financial condition, operating results and cash flows.

System disruptions and security threats to our computer networks, satellite control or telecommunications systems could have a material adverse effect on our business.

The performance and reliability of our computer network and telecommunications systems infrastructure, as well as the technology infrastructure of third parties, is critical to our operations. This technology infrastructure may be vulnerable to damage or interruption from natural disasters, power loss, telecommunication failures, terrorist attacks, software errors and other events. Any computer system or satellite network error or failure, regardless of cause, could result in a substantial outage that materially disrupts our operations. In addition, we face the threat to our computer systems of unauthorized access, computer hackers, computer viruses, malicious code, organized cyber-attacks and other security problems and system disruptions. Our satellite network connections for our wireless services depend upon VSAT terminals, many of which are based on decades-old technology or equipment that could fail resulting in a loss of service to our customers. With respect to our Enterprise Reporting and Management systems and data storage we rely on third party data centers and services with whom we are dependent for maintaining accessibility, reliability and uninterrupted connectivity.

Our satellite network connections for our wireless services depend upon VSAT terminals, many of which are based on decades-old technology or equipment that could fail resulting in a loss of service to our customers. With respect to our Enterprise Reporting and Management systems and data storage we rely on third party data centers and services with whom we are dependent for maintaining accessibility, reliability and uninterrupted connectivity.

A significant number of the systems making up this infrastructure are not redundant, and our disaster recovery planning may not be sufficient for every eventuality. We may not carry business interruption insurance sufficient to protect us from all losses that may result from interruptions in our services as a result of technology infrastructure failures or to cover all contingencies. We may be required to expend significant resources to protect against the threat of these system disruptions or to alleviate problems caused by these disruptions. Any interruption in the availability of our websites and on-line interactions with customers or partners may cause a reduction in customer or partner satisfaction levels, which in turn could cause additional claims, reduced revenue or loss of customers or partners. There can be no assurance that any precautions we may take will prove successful, and such problems could result in, among other consequences, a loss of data, loss of confidence in the stability and reliability of our offerings, damage to our reputation, and legal liability, all of which may adversely affect our business, financial condition, operating results and cash flows.

Unauthorized breaches or failures in cybersecurity measures adopted by us and/or included in our products and services could have a material adverse effect on our business.

Our security systems are designed to maintain the physical security of our facilities and protect our customers', suppliers' and employees' confidential information, as well as our own proprietary information. However, we are also dependent on a number of third-party providers of critical corporate infrastructure services relating to, among other things, human resources, electronic communication services and certain finance functions, and we are, of necessity, dependent on the security systems of these providers. Accidental or willful security breaches or other unauthorized access by third parties or our employees or contractors of our facilities, our information systems or the systems of our third party providers, or the existence of computer viruses or malware in our or their data or software could expose us to a risk of information loss and misappropriation of proprietary and confidential information, including information relating to our products or customers and the personal information of our employees. We utilize a costly, multilayered security framework including detailed security policies and procedures, security appliances and software, third party vulnerability testing and detailed Business Continuity Plans that could be disrupted at any time.

In addition, we have, from time to time, also been subject to unauthorized network intrusions and malware on our own IT networks. Any theft or misuse of confidential, personal or proprietary information as a result of such activities could result in, among other things, unfavorable publicity, damage to our reputation, loss of our trade secrets and other competitive information, difficulty in marketing our products, allegations by our customers that we have not performed our contractual obligations, litigation by affected parties and possible financial obligations for liabilities and damages related to the theft or misuse of such information, as well as fines and other sanctions resulting from any related breaches of data privacy regulations, any of which could have a material adverse effect on our reputation, business, profitability and financial condition. Since the techniques used to obtain unauthorized access or to sabotage systems change frequently and are often not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures.

General economic conditions that are largely out of our control may adversely affect our financial condition and statement of operations.

Our business is sensitive to changes in general economic conditions, both in the United States and foreign markets. Recessionary economic cycles, higher interest rates, inflation, higher levels of unemployment, higher tax rates and other changes in tax laws, or other economic factors that may affect business spending or buying habits could adversely affect the demand for our services. This adverse impact could increase the rate of gross subscriber cancellations and/or the level of revenue erosion.

A significant portion of our revenue is derived from healthcare customers and we are impacted by changes in the healthcare economic environment. The healthcare industry is highly regulated and is subject to changing political, legislative, regulatory, and other economic developments. These developments can have a dramatic effect on the decision-making and the spending by our customers for information technology and software. This economic uncertainty can add to the unpredictability of decision-making and lengthen our sales cycle.

Further, the consequences of the implementation of changes to healthcare reform legislation continue to impact both the economy in general and the healthcare market in particular. The uncertainty created by possibility of changes to the legislation is impacting customer decision making and information technology plans in our key healthcare market. We are unable to predict the full consequences of this uncertainty on our operations. Adverse changes in the economic environment could adversely impact our ability to market and sell our wireless and software solutions to healthcare customers.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

We had no unresolved SEC staff comments as of March 1, 2018.

ITEM 2. *PROPERTIES*

Our corporate headquarters is located in Springfield, Virginia, and consists of approximately 18,000 square feet of space under a lease that expires on March 31, 2021. At December 31, 2017, we leased facility space, including our executive headquarters, sales offices, technical facilities, warehouse and storage facilities in 67 locations in 30 states in the United States, one facility in Australia and one facility in the Middle East. The total leased space is approximately 172,000 square feet. At December 31, 2017, we owned three small parcels of land in three states in the United States.

At December 31, 2017, we leased transmitter sites on commercial broadcast towers, buildings and other fixed structures in approximately 3,369 locations throughout the United States. These leases are for our active transmitters and are for various terms and provide for periodic lease payments at various rates.

At December 31, 2017, we had 4,030 active transmitters on leased sites which provide service to our customers.

ITEM 3. *LEGAL PROCEEDINGS*

We are involved, from time to time, in lawsuits arising in the normal course of business. We believe these pending lawsuits will not have a material adverse impact on our financial condition or results of operations.

On February 1, 2018, we learned of a complaint filed naming us and our subsidiary, Spok, Inc., as defendants in *GroupChatter, LLC v. Spok Holdings, Inc., et. al.,* Civ. A. No. 6:18-cv-00048, U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. Patent Nos. 7,969,959; 9,699,637; 9,615,239; and 9,294,888. We are evaluating the allegations asserted in this complaint and intend to defend against the claims vigorously. At this time we are unable to predict the outcome of this litigation, though we do not believe it will have a material adverse effect on our financial condition.

ITEM 4. *MINE SAFETY DISCLOSURES*

Not applicable.

PART II

ITEM 5. *MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES*

Market Information

Our sole class of common equity is our $0.0001 par value common stock, which is listed on the NASDAQ National Market® and is traded under the symbol "SPOK."

The following table sets forth the high and low sales prices per share of our common stock, based on the last daily sale, for the periods indicated, which correspond to our quarterly fiscal periods for financial reporting purposes. Prices for our common stock are as reported on the NASDAQ National Market® from January 1, 2016 through December 31, 2017.

	2017		2016	
For the Three Months Ended	High	Low	High	Low
March 31,	$ 22.40	$ 17.50	$ 18.01	$ 15.85
June 30,	19.95	16.65	19.29	16.17
September 30,	18.00	14.50	20.56	16.34
December 31,	18.45	15.50	21.30	16.40

Holders of Common Stock

As of February 23, 2018, there were 3,180 holders of record of our common stock.

Dividends

The Company declared dividends totaling $10.3 million and $15.8 million during 2017 and 2016, respectively, and expects to pay dividends of $0.125 per common share each quarter, subject to declaration by the Board of Directors, in 2018. Cash dividends declared for the years ended December 31, 2017 and 2016, respectively, include dividends related to unvested restricted stock units ("RSUs") and shares of unvested restricted common stock ("restricted stock") granted under the Spok Holdings, Inc. Equity Incentive Plan ("Equity Plan") to executives and non-executive members of our Board of Directors. Cash distributions on RSUs and restricted stock are accrued and paid when the applicable vesting conditions are met. Accrued cash distributions on forfeited RSUs and restricted stock are also forfeited.

The following table details information on our dividends declared and cash distributions since the formation of the Company through the year ended December 31, 2017:

Year	Dividends Declared Per Share Amount	Total Payment[(1)] (Dollars in thousands)
2005	$ 1.500	$ 40,691
2006[(2)]	3.650	98,904
2007[(3)]	3.600	98,250
2008[(4)]	1.400	39,061
2009[(3)]	2.000	45,502
2010[(3)]	2.000	44,234
2011	1.000	22,121
2012[(5)]	0.750	16,512
2013	0.500	12,312
2014	0.500	10,826
2015[(6)]	0.625	13,333
2016[(7)]	0.750	10,287
2017	0.500	$ 15,234
Total	$ 18.775	$ 467,267

(1) The total payment reflects the cash distributions paid in relation to common stock, vested RSUs and vested shares of restricted stock.

(2) On August 8, 2006, we announced the adoption of a regular quarterly cash distribution of $0.65 per share of common stock.

(3) The cash distribution includes an additional special one-time cash distribution to stockholders of $1.00 per share of common stock.

(4) On May 2, 2008, our Board of Directors reset the quarterly cash distribution rate to $0.25 per share of common stock from $0.65 per share of common stock.

(5) On July 30, 2012, our Board of Directors reset the quarterly cash distribution rate to $0.125 per share of common stock from $0.25 per share of common stock.

(6) The cash distribution includes an additional special one-time cash distribution to stockholders of $0.125 per share of common stock.

(7) The per share amount includes a special one-time dividend of $0.25 per share of common stock declared in 2016 but payable to stockholders in 2017.

On February 28, 2018, our Board of Directors declared a regular quarterly cash dividend of $0.125 per share of common stock, with a record date of March 16, 2018, and a payment date of March 30, 2018. This cash dividend of approximately $2.6 million is expected to be paid from available cash on hand.

Performance Graph

We began trading on the NASDAQ National Market® on November 17, 2004. The chart below compares the relative changes in the cumulative total return of our common stock for the period December 31, 2012 to December 31, 2017, against the cumulative total return of the NASDAQ Composite Index®, the NASDAQ Telecommunications Index® and the S&P Health Care Technology Index for the same period.

The chart below assumes that on December 31, 2012, $100 was invested in our common stock and in each of the indices. The comparisons assume that all cash distributions were reinvested. The chart indicates the dollar value of each hypothetical $100 investment based on the closing price as of the last trading day of each fiscal year from December 31, 2012 to December 31, 2017.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Spok Holdings, Inc., the NASDAQ Composite Index,
the NASDAQ Telecommunications Index and the S&P Health Care Technology Index

$300
$250
$200
$150
$100
$50
$0
12/12 12/13 12/14 12/15 12/16 12/17

Spok Holdings, Inc.
NASDAQ Composite
NASDAQ Telecommunications
S&P Health Care Technology

*$100 invested on 12/31/12 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	December 31,					
	2012	2013	2014	2015	2016	2017
Spok Holdings, Inc.	$ 100.00	$ 126.80	$ 159.28	$ 174.22	$ 205.77	$ 159.80
NASDAQ Composite Index	100.00	141.63	162.09	173.33	187.19	242.29
NASDAQ Telecommunications Index	100.00	141.28	145.43	140.97	150.94	184.81
S&P Health Care Technology Index	100.00	143.59	166.56	155.00	122.02	173.60

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table presents information with respect to common stock repurchased by us (excluding the purchase of common stock for tax withholdings) during the year ended December 31, 2017.

For the Three Months Ended	Total Number of Shares Purchased	Average Price Paid Per Share[1]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs[2]
				(Dollars in thousands)
March 31, 2017	—	$ —	—	10,000
June 30, 2017	572,550	$ 17.47	572,550	—
September 30, 2017	—	$ —	—	—
December 31, 2017	—	$ —	—	—
Total	572,550	$ 17.47	572,550	

(1) Average price paid per share excludes commissions of approximately $23,000.
(2) On April 26, 2017 the Board of Directors authorized the repurchase of up to $10.0 million of the Company's common stock through December 31, 2017.

Repurchased shares of our common stock were accounted for as a reduction to common stock and additional paid-in-capital in the period in which the repurchase occurred. On February 28, 2018 the Company's Board of Directors reset the repurchase authority under the share repurchase program to $10.0 million which is set to expire on December 31, 2018.

Transfer Restrictions on Common Stock

In order to reduce the possibility that certain changes in ownership could impose limitations on the use of our deferred income tax assets, our Amended and Restated Certificate of Incorporation contains provisions that generally restrict transfers by or to any 5% stockholder of our common stock or any transfer that would cause a person or group of persons to become a 5% stockholder of our common stock. After a cumulative indirect shift in ownership of more than 45% since our emergence from bankruptcy proceedings in May 2002 through a transfer of our common stock, any transfer of our common stock by or to a 5% stockholder of our common stock or any transfer that would cause a person or group of persons to become a 5% stockholder of such common stock, will be prohibited unless the transferee or transferor provides notice of the transfer to us and our Board of Directors determines in good faith that the transfer would not result in a cumulative indirect shift in ownership of more than 47%.

Prior to a cumulative indirect ownership change of more than 45%, transfers of our common stock will not be prohibited, except to the extent that they result in a cumulative indirect shift in ownership of more than 47%, but any transfer by or to a 5% stockholder of our common stock or any transfer that would cause a person or group of persons to become a 5% stockholder of our common stock requires notice to us. Similar restrictions apply to the issuance or transfer of an option to purchase our common stock, if the exercise of the option would result in a transfer that would be prohibited pursuant to the restrictions described above. These restrictions will remain in effect until the earliest of (1) the repeal of IRC Section 382 (or any comparable successor provision) and (2) the date on which the limitation amount imposed by IRC Section 382 in the event of an ownership change would not be less than the tax attributes subject to these limitations. Transfers by or to us and any transfer pursuant to a merger approved by our Board of Directors or any tender offer to acquire all of our outstanding stock where a majority of the shares have been tendered will be exempt from these restrictions.

Based on publicly available information and after considering any direct knowledge we may have, our combined cumulative change in ownership was an insignificant amount as of December 31, 2017 and 2016.

ITEM 6. *SELECTED FINANCIAL DATA*

The following selected consolidated financial data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Statement of Operations" ("MD&A"), the consolidated financial statements and notes thereto, and other financial information appearing elsewhere in this 2017 Form 10-K.

	For the Year Ended December 31,				
	2017	2016	2015	2014	2013
	(Dollars in thousands except per share amounts)				
Statements of Operations Data:					
Revenues	$ 171,175	$ 179,561	$ 189,628	200,273	209,752
Operating expenses	160,469	157,408	164,528	172,122	164,258
Operating income	10,706	22,153	25,100	28,151	45,494
Net (loss) income	(15,306)	13,979	80,246	20,745	27,530
Basic and diluted net (loss) income per common share	(0.76)	0.68	3.74	0.96	1.27
Cash dividends declared per common share	0.50	0.75	0.625	0.50	0.50

	December 31,				
	2017	2016	2015	2014	2013
	(Dollars in thousands)				
Balance Sheets Data:					
Current assets	$ 146,860	$ 155,862	$ 141,613	$ 142,761	$ 116,779
Total assets	350,561	388,087	386,433	337,890	326,898
Long-term debt	—	—	—	—	—
Long-term liabilities, excluding deferred revenue	8,075	8,921	8,972	8,131	9,259
Stockholders' equity	290,529	322,087	329,564	279,059	269,950

ITEM 7. *MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND STATEMENT OF OPERATIONS*

The following discussion and analysis should be read in conjunction with our consolidated financial statements and related notes and the discussion under "Organization and Significant Accounting Policies" (refer to Note 1), which describes key estimates and assumptions we make in the preparation of our consolidated financial statements; the cautionary language that appears under the title "Forward Looking Statements" immediately following the Table of Contents;"Item 1. Business," which describes our operations; and "Item 1A. Risk Factors," which describes key risks associated with our operations and markets in which we operate. A reference to a "Note" in this section refers to the accompanying Notes to Consolidated Financial Statements.

Overview and Highlights

We are a comprehensive provider of critical communication solutions for enterprises. We offer a suite of unified critical communication solutions that include call center operations, clinical alerting and notifications, one-way and advanced two-way wireless messaging services, mobile communications and public safety response. Our customers rely on Spok for workflow improvement, secure texting, paging services, contact center optimization and public safety response. Our product offerings are capable of addressing a customer's mission critical communications needs. We develop, sell and support enterprise-wide systems for healthcare and other organizations needing to automate, centralize and standardize their approach to critical communications. Our solutions can be found in prominent hospitals; large government agencies; leading public safety institutions, colleges and universities; large hotels, resorts and casinos; and well-known manufacturers. Our primary market has been the healthcare industry, particularly hospitals. We have identified hospitals with 200 or more beds as the primary targets for our software and wireless solutions.

Revenue generated by wireless messaging services (including voice mail, personalized greeting, message storage and retrieval) and equipment loss and/or maintenance protection to both one-way and two-way messaging subscribers is presented as wireless revenue in our statements of operations. Revenue generated by the sale of our software solutions, which includes software license, professional services (installation, consulting and training), equipment procured by us from third parties (to be used in conjunction with our software) and post-contract support (on-going maintenance), is presented as software revenue in our statements of operations. Our software is licensed to end users under an industry standard software license agreement.

2017 Highlights

Net sales declined by 4.7% or $8.4 million during 2017 compared to 2016, driven primarily by a continued and expected decline in wireless revenue while software revenue remained relatively flat for the same period. This is a $1.7 million improvement in the decrease of consolidated revenues period over period as compared to the year ended December 31, 2016. We continue to see a trend in wireless revenue as the decline year over year has decreased for the past five consecutive years. Our operating expenses increased by 1.9% or $3.1 million during 2017 compared to 2016, driven primarily by our continued investment in the development of Spok Care Connect and the related research and development costs. While we expect research and development will continue to be an area of focus going into 2018, we do anticipate those costs will begin to level off. As future sales related to our research and development efforts begin to materialize we expect those costs will decrease as a percentage of total revenues and begin to return to normalized levels.We returned approximately $20.3 million of capital to stockholders in the form of cash dividends and share repurchases.

2016 Highlights

Net sales declined by 5.3% or $10.1 million during 2016 compared to 2015, driven primarily by a continued and expected decline in wireless revenue while software revenue decreased slightly for the same period. Our operating expenses declined by 4.3% or $7.1 million during 2016 compared to 2015, driven primarily by reduction in all functional categories partially offset by an increase in research and development expenses attributable to our continued investment in the development of Spok Care Connect. We returned approximately $22.0 million of capital to our stockholders in the form of cash dividends and share repurchases which includes the special dividend declared in December 2016 but was paid in January 2017.

Wireless Revenue

Wireless revenue consists of two primary components: Paging revenue and product and other revenue. Paging revenue consists primarily of recurring fees associated with the provision of messaging services and fees for paging devices and is net of a provision for service credits. Product and other revenue reflects system sales, the sale of devices and charges for paging devices that are not returned and are net of anticipated credits. Our core offering includes subscriptions to one-way or two-way messaging services for a periodic (monthly, quarterly, semiannual, or annual) service fee. This is generally based upon the type of service provided, the geographic area covered, the number of devices provided to the customer and the period of commitment. A subscriber to one-way messaging services may select coverage on a local, regional or nationwide basis to best meet their messaging needs. Two-way messaging is generally offered on a nationwide basis. In addition, subscribers either contract for a messaging device from us for an additional fixed monthly fee or they own a device, having purchased it either from us or from another vendor. We also sell devices to resellers who lease or resell devices to their subscribers and then sell messaging services utilizing our networks. We offer ancillary services, such as voicemail and equipment loss or maintenance protection, which help increase the monthly recurring revenue we receive along with these traditional messaging services. In 2015 and 2016 we launched new and exclusive one-way (T5) and two-way (T52) alphanumeric pagers, respectively. Both pagers are configurable to support un-encrypted or encrypted operation. When configured for encryption, they utilize AES-128 bit encryption, screen locking and remote wipe capabilities. With encryption enabled these new secure paging devices enhance our service offerings to the healthcare community by adding Health Insurance Portability and Accountability Act ("HIPAA") security capabilities to the low cost, highly reliable and availability benefits of paging. (See Item 1. "Business" for more details.)

Software Revenue

Software revenue consists of two primary components: operations revenue and maintenance revenue. Operations revenue consists of license revenue, professional services revenue, and equipment revenue. Maintenance revenue is for ongoing support of a software application or equipment (typically for one year). We recognize equipment revenue when it is shipped or delivered to the customer depending on the delivery method of Free on Board ("FOB") shipping or FOB destination, respectively. License, professional services and maintenance revenue is recognized ratably over the longer of the period of professional services delivery to the customer or the contractual term of the maintenance agreement. If the period of delivery to the customer is not known, license and professional services revenue will be recognized when software and professional services are fully delivered to the customer and the maintenance revenue will be recognized ratably over the remaining contractual term of the agreement.

Operations - Consolidated

Our operating expenses are presented in functional categories. Certain of our functional categories are especially important to overall expense control and management. These operating expenses are categorized as follows:

- *Cost of revenue*. These are expenses primarily for hardware, third-party software, outside service expenses and payroll and related expenses for our professional services, logistics, customer support and maintenance staff.
- *Research and Development.* These expenses relate primarily to the development of new software products and the ongoing maintenance and enhancement of existing products. This classification consists primarily of employee payroll and related expenses, outside services related to the design, development, testing and enhancement of our solutions and to a lesser extent hardware equipment.
- *Service, rental and maintenance*. These are expenses associated with the operation of our paging networks. Expenses consist largely of site rent expenses for transmitter locations, telecommunication expenses to deliver messages over our paging networks, and payroll and related expenses for our engineering and pager repair functions. We actively pursue opportunities to consolidate transmitters and other service, rental and maintenance expenses in order to maintain an efficient network while simultaneously ensuring adequate service for our customers. We believe continued reductions in these expenses will occur as our networks continue to be consolidated for the foreseeable future.
- *Selling and marketing*. The sales and marketing staff are involved in selling our communication solutions primarily in the United States. These expenses support our efforts to maintain gross placements of units in service, which mitigated the impact of disconnects on our wireless revenue base, and to identify business opportunities for additional or future software sales. We have a centralized marketing function, which is focused on supporting our products and vertical sales efforts by strengthening our brand, generating sales leads and facilitating the sales process. These marketing functions are accomplished through targeted email campaigns, webinars, regional and national user conferences, monthly newsletters and participation at industry trade shows. Expenses consist largely of payroll and related expenses, commissions and other costs such as travel and advertising costs.
- *General and administrative*. These are expenses associated with information technology and administrative functions which includes finance and accounting, human resources and executive management. This classification consists primarily of payroll and related expenses, outside service expenses, taxes, licenses and permit expenses, and facility rent expenses. The Company reclassified $0.1 million from severance to the general and administrative operating expense classification. Corresponding reclassifications of $1.4 million and $2.7 million were made to the Consolidated Statement of Operations for the years ended December 31, 2016 and 2015. The Company had previously reported severance as a separate item on the Consolidated Statement of Operations.

Results of Operations

The following table is a summary of our Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015.

(Dollars in thousands)	2017	Change		2016	Change		2015
Revenues:							
Wireless	$ 101,188	(8,402)	(7.7)%	$ 109,590	$ (9,424)	(7.9)%	$ 119,014
Software	69,987	16	— %	69,971	(643)	(0.9)%	70,614
Total revenue	171,175	(8,386)	(4.7)%	179,561	(10,067)	(5.3)%	189,628
Operating expenses:							
Cost of revenue	28,418	(2,231)	(7.3)%	30,649	(3,202)	(9.5)%	33,851
Research and development	18,702	5,235	38.9 %	13,467	3,187	31.0 %	10,280
Service, rental and maintenance	31,502	(1,232)	(3.8)%	32,734	(1,387)	(4.1)%	34,121
Selling and marketing	22,823	(1,945)	(7.9)%	24,768	(2,678)	(9.8)%	27,446
General and administrative	47,400	4,573	10.7 %	42,827	(2,033)	(4.5)%	44,860
Depreciation, amortization and accretion	11,624	(1,339)	(10.3)%	12,963	(1,007)	(7.2)%	13,970
Total operating expenses	160,469	3,061	1.9 %	157,408	(7,120)	(4.3)%	164,528
Operating income	10,706	(11,447)	(51.7)%	22,153	(2,947)	(11.7)%	25,100
Interest income	719	444	161.5 %	275	259	1,618.8 %	16
Other income	134	(409)	(75.3)%	543	(639)	(54.1)%	1,182
Income before income tax (expense) benefit	11,559	(11,412)	(49.7)%	22,971	(3,327)	(12.7)%	26,298
Income tax (expense) benefit	(26,865)	(17,873)	198.8 %	(8,992)	(62,940)	(116.7)%	53,948
Net (loss) income	$ (15,306)	$ (29,285)	(209.5)%	$ 13,979	$ (66,267)	(82.6)%	$ 80,246
Supplemental information							
FTEs	596	9	1.5 %	587	(13)	(2.2)%	600
Active transmitters	4,030	(129)	(3.1)%	4,159	(84)	(2.0)%	4,243

Revenue

The table below details total revenue for the periods stated:

(Dollars in thousands)	2017	Change		2016	Change		2015
Revenue - wireless							
Paging revenue	$ 97,296	$ (7,752)	(7.4)%	$ 105,048	$ (9,059)	(7.9)%	$ 114,107
Product and other revenue	3,892	(650)	(14.3)%	4,542	(365)	(7.4)%	4,907
Total wireless revenue	101,188	(8,402)	(7.7)%	109,590	(9,424)	(7.9)%	119,014
Revenue - software							
Subscription	2,303	191	9.0 %	2,112	431	25.6 %	1,681
License	7,238	518	7.7 %	6,720	(3,076)	(31.4)%	9,796
Services	17,630	(964)	(5.2)%	18,594	(243)	(1.3)%	18,837
Equipment	4,147	(1,325)	(24.2)%	5,472	(401)	(6.8)%	5,873
Operations revenue	31,318	(1,580)	(4.8)%	32,898	(3,289)	(9.1)%	36,187
Maintenance revenue	38,669	1,596	4.3 %	37,073	2,646	7.7 %	34,427
Total software revenue	69,987	16	— %	69,971	(643)	(0.9)%	70,614
Total revenue	$ 171,175	$ (8,386)	(4.7)%	$ 179,561	$ (10,067)	(5.3)%	$ 189,628

The decrease in wireless revenue during 2017 compared to both 2016 and 2015, respectively, reflects the decrease in demand for our wireless services. Wireless revenue is generally based upon the number of units in service and the monthly Average Revenue Per User ("ARPU"). On a consolidated basis ARPU is affected by several factors, including the mix of units in service and the pricing of the various components of our services. The number of units in service changes based on subscribers added, referred to as gross placements, less subscriber cancellations, or disconnects. ARPU for the years ended December 31, 2017, 2016 and 2015 was $7.51, $7.67 and $7.83, respectively, while total units in service were 1.0 million, 1.1 million and 1.2 million, respectively. While demand for wireless services continues to decline it has done so at a slower rate for each of the periods presented. While we are encouraged that this trend will continue in future periods, we believe that demand will continue to decline for the foreseeable future in line with recent and historical trends. As our wireless products and services are replaced with other competing technologies, such as the shift from narrow band wireless service offerings to broad band technology services, our wireless revenue will continue to decrease.

The following reflects the impact of subscribers and ARPU on the change in wireless revenue:

	Units in Service As of December 31,			Revenue For the Year Ended December 31,			Change Due To:	
	2017	2016	Change	2017	2016	Change	ARPU	Units
	(Units in thousands)			(Dollars in thousands)				
Total	1,049	1,111	(62)	$ 97,296	$ 105,048	$ (7,752)	$ (1,979)	$ (5,773)

	Units in Service as of December 31,			Revenue For the Year Ended December 31,			Change Due To:	
	2016	2015	Change	2016	2015	Change	ARPU	Units
	(Units in thousands)			(Dollars in thousands)				
Total	1,111	1,173	(62)	$ 105,048	$ 114,107	$ (9,059)	$ (1,886)	$ (7,173)

As demand for one-way and two-way messaging has declined, we have developed or added service offerings such as encrypted paging and Spok Mobile with a pager number in order to increase our revenue potential and mitigate the decline in our wireless revenue. We will continue to explore ways to innovate and provide customers the highest value possible.

The decrease in software operations revenue during 2017 when compared to 2016 primarily reflects a decrease in the number and size of projects completed during 2017 as compared to the same period in 2016. Starting in late 2015, we began a reorganization of the sales staff and related sales territories, which realigned territories and replaced lower performing sales employees with new staff. The decrease in operational bookings during 2015 and 2016 also factored into the decrease in operational revenue for the same period. The decrease in operations revenue during 2016 when compared to 2015 primarily reflects lower sales of software to new customers which was reflected in the decrease in license revenue.

The continued increase in maintenance revenue for each of the periods stated reflects our continuing success in renewals of our maintenance support for existing software solutions and in maintenance support for sales of new solutions. The renewal rates for maintenance revenue, including the annual uplifts, for the years ended December 31, 2017, 2016 and 2015 were in excess of 99%. We achieve very high maintenance renewal rates compared to many companies that have software offerings, and we may experience a downward trend in maintenance renewal as communications technology and services continue to advance, and customers have more choices and opportunities to shift to newer solutions for their communication and work flow needs.

Operating Expenses

Certain immaterial prior period amounts, within individual operating expense categories, have been reclassified to conform to the current period's presentation. These reclassifications had no effect on the reported results of operations nor did they have any effect on the total operating expense amounts they are a part of.

Cost of revenue. Cost of revenue consisted primarily of the following items:

Cost of revenue	2017	Change		2016	Change		2015
(Dollars in thousands)							
Payroll and related	$ 17,806	$ (310)	(1.7)%	$ 18,116	$ 990	5.8 %	$ 17,126
Cost of sales	8,118	(1,992)	(19.7)%	10,110	(3,373)	(25.0)%	13,483
Stock based compensation	179	123	219.6 %	56	(78)	(58.2)%	134
Other	2,315	(52)	(2.2)%	2,367	(741)	(23.8)%	3,108
Total cost of revenue	$ 28,418	$ (2,231)	(7.3)%	$ 30,649	$ (3,202)	(9.5)%	$ 33,851
FTEs	185	4	2.2 %	181	(10)	(5.2)%	191

Cost of revenue expense decreased for the year ended December 31, 2017 compared to December 31, 2016 primarily due to the reduction in cost of sales. Of the $2.0 million reduction in cost of sales, $1.2 million was attributable to a decrease in cost of sales directly related to the decrease in equipment revenue over the same periods and the remaining $0.8 million related to lower average FTE's and reduction in the usage of third party professional service resources.

Cost of revenue expense decreased for the year ended December 31, 2016 compared to December 31, 2015 primarily due to the reduction in cost of sales. Of the $3.4 million reduction in cost of sales, $2.6 million was attributable to a decrease in the sale of third party software, less usage of third party resources for software implementation related work, a reduction in billable travel costs and a one-time charge of $0.8 million related to adjustments made to our inventory balances in 2015.

Research and development. Research and development consisted primarily of the following items:

Research and development	2017	Change		2016	Change		2015
(Dollars in thousands)							
Payroll and related	$ 14,737	$ 3,761	34.3%	$ 10,976	$ 3,240	41.9 %	$ 7,736
Outside services	3,386	1,298	62.2%	2,088	55	2.7 %	2,033
Stock based compensation	92	40	76.9%	52	(33)	(38.8)%	85
Other	487	136	38.7%	351	(75)	(17.6)%	426
Total research and development	$ 18,702	$ 5,235	38.9%	$ 13,467	$ 3,187	31.0 %	$ 10,280
FTEs	111	23	26.1%	88	28	46.7 %	60

We intend to continue the focus on our research and development efforts associated with our software solutions due to its importance to our continued success. The Company is investing in the development of products in the areas of: 1) mobility, 2) a unified software platform, 3) nursing solutions, and 4) alerting. The Company plans to continue to increase its staffing, including staff augmentation as represented by outside services, to develop its integrated communications solution portfolio. This increase in staffing will substantially impact margins and our cash flow from operations as the benefits from this development effort will not immediately be realized for at least two years. Based on this emphasis we expect the number of FTEs to increase in this area, impacting future payroll and related expenses.

Service, rental and maintenance. Service, rental and maintenance consisted primarily of the following items:

Service, rental and maintenance (Dollars in thousands)	2017	Change		2016	Change		2015
Payroll and related	$ 10,267	$ (445)	(4.2)%	$ 10,712	$ (160)	(1.5)%	$ 10,872
Site rent	14,229	(343)	(2.4)%	14,572	(404)	(2.7)%	14,976
Telecommunications	4,123	(484)	(10.5)%	4,607	(699)	(13.2)%	5,306
Stock based compensation	79	66	507.7 %	13	(16)	(55.2)%	29
Other	2,804	(26)	(0.9)%	2,830	(108)	(3.7)%	2,938
Total service, rental and maintenance	$ 31,502	$ (1,232)	(3.8)%	$ 32,734	$ (1,387)	(4.1)%	$ 34,121
FTEs	92	(5)	(5.2)%	97	(1)	(1.0)%	98

Service, rental and maintenance expense has decreased during each of the periods presented primarily due to reductions in payroll, site rent and telecommunications expense. The number of active transmitters declined 3.1% from December 31, 2016 to December 31, 2017 and 2.0% from December 31, 2015 to December 31, 2016. The number of active transmitters directly relates to the amount of site rent and telecommunications expenses we generally incur on an annual basis. Site rent and telecommunications expense are expected to continue to decrease as part of our efforts to rationalize and consolidate our networks for the foreseeable future.

Selling and marketing. Selling and marketing consisted primarily of the following items:

Selling and marketing (Dollars in thousands)	2017	Change		2016	Change		2015
Payroll and related	$ 11,796	$ (2,370)	(16.7)%	$ 14,166	$ (883)	(5.9)%	$ 15,049
Commissions	5,191	(458)	(8.1)%	5,649	(1,590)	(22.0)%	7,239
Stock based compensation	377	310	462.7 %	67	(44)	(39.6)%	111
Other	5,459	573	11.7 %	4,886	(161)	(3.2)%	5,047
Total selling and marketing	$ 22,823	$ (1,945)	(7.9)%	$ 24,768	$ (2,678)	(9.8)%	$ 27,446
FTEs	93	(14)	(13.1)%	107	(23)	(17.7)%	130

Selling and marketing expense decreased for the year ended December 31, 2017 compared to December 31, 2016 primarily due to the reduction in payroll and commissions expense partially offset by increases in stock compensation, conferences and trade show expenses. The increase in stock compensation was largely due to additional grants made during the year ended December 31, 2017 and the reduction in stock compensation during the year ended December 31, 2016 due to the estimated outcome of the 2015 and 2016 grants being reduced to 50 percent of the original awards.

Selling and marketing expense decreased for the year ended December 31, 2017 compared to December 31, 2016 primarily due to the reduction in payroll and commissions expense for the above mentioned reasons.

The reduction in payroll, for all periods presented, reflects the reorganization of the sales staff, which included the replacement of underperforming sales employees and the realignment of sales territories. The reduction in commissions for all periods presented was primarily due to lower operations revenue.

General and administrative. General and administrative consisted primarily of the following items:

General and administrative (Dollars in thousands)	2017	Change		2016	Change		2015
Payroll and related	$ 17,078	$ (72)	(0.4)%	$ 17,150	$ (457)	(2.6)%	$ 17,607
Stock based compensation	2,961	2,295	344.6 %	666	(843)	(55.9)%	1,509
Facility rent	3,459	144	4.3 %	3,315	(191)	(5.4)%	3,506
Outside services	9,385	1,327	16.5 %	8,058	844	11.7 %	7,214
Taxes, licenses and permits	4,221	(33)	(0.8)%	4,254	(222)	(5.0)%	4,476
Other	10,296	912	9.7 %	9,384	(1,164)	(11.0)%	10,548
Total general and administrative	$ 47,400	$ 4,573	10.7 %	$ 42,827	$ (2,033)	(4.5)%	$ 44,860
FTEs	115	1	0.9 %	114	(7)	(5.8)%	121

General and administrative expense increased for the year ended December 31, 2017 compared to December 31, 2016 primarily due to an increase in stock compensation, outside services and other expenses. The increase in stock compensation was largely due to additional grants made during the year ended December 31, 2017 and a reduction in stock compensation during the year ended December 31, 2016 due to the estimated outcome of the 2015 and 2016 grants being reduced to fifty percent of the original awards. The increase in outside services was largely due to the use of consultants related to the implementation of a new accounting system as well as general staff augmentation throughout 2017. The increase in other was primarily related to increased placement fees for recruiting new hires, PC refresh costs and various other immaterial expenses.

General and administrative expense decreased for the year ended December 31, 2016 compared to December 31, 2015 primarily due to reductions in payroll, stock based compensation and other expenses partially offset by outside services expense. The decrease in stock compensation was largely due to the estimated outcome of the 2015 and 2016 grants being reduced to fifty percent of the original awards. The decrease in other was primarily due to a decrease in severance costs. The increase in outside services was primarily due to an increase in information technology and system related costs as well as corresponding consulting and implementation costs.

Depreciation, amortization and accretion. For the year ended December 31, 2017 compared to the same period in 2016 depreciation, amortization and accretion expenses decreased by $1.3 million due primarily to the full amortization of trademark costs during the first quarter of 2017 and other various intangible costs that were fully amortized during 2016.The decrease of $1.0 million in depreciation, amortization and accretion expenses for the year ended December 31, 2016 compared to the same period in 2015 was due primarily to $0.6 million related to the amortization of our acquired technology and non-compete arrangements which were included for the year ended December 31, 2015 but were completely amortized during the year ended December 31, 2016 and $0.5 million related to lower depreciation expense because of a lower balance of pagers for the year ended December 31, 2016 partially offset by $0.1 million in other changes.

Interest income, Other income, and Income tax expense (benefit)

Interest income. For the year ended December 31, 2017, compared to the same period in 2016, interest income increased by $0.4 million primarily due to higher interest rates earned on the company's cash balances. The increase of $0.3 million in interest expense for the year ended December 31, 2016 compared to the same period in 2015 was primarily due to an increase in funds held in interest bearing accounts.

Other income. For the year ended December 31, 2017 compared to the same period in 2016 other income, net decreased by $0.4 million due to a variety of immaterial transactions. The decrease of $0.6 million in other income, net for the year ended December 31, 2016 compared to the same period in 2015, due primarily to $0.8 million related to the sale of two land parcels in 2015 that did not occur in 2016 partially offset by $0.2 million related to a reduction in the total estimated royalty liability for the purchase of IMCO in 2012.

Income tax expense (benefit). The Tax Cuts and Jobs Act of 2017 ("2017 Tax Act") was signed into law on December 22, 2017. The 2017 Tax Act significantly revises the U.S. corporate income tax by, among other things, lowering the statutory corporate tax rate from 35% to 21%, eliminating certain deductions, imposing a mandatory one-time tax on accumulated earnings of foreign subsidiaries, introducing new tax regimes, and changing how foreign earnings are subject to U.S. tax. The 2017 Tax Act also enhanced and extended through 2026 the option to claim accelerated depreciation deductions on qualified property. We have not completed our determination of the accounting implications of the 2017 Tax Act on our tax accruals. However, we have reasonably estimated the effects of the 2017 Tax Act and recorded provisional amounts in our financial statements as of December 31, 2017. We recorded a provisional tax expense for the impact of the 2017 Tax Act of approximately $24.2 million. This amount is primarily comprised of the remeasurement of net deferred tax assets resulting from the permanent reduction in the U.S. statutory corporate tax rate to 21% from 35%. Changes that impact foreign earnings are not expected to have a material effect. As we complete our analysis of the 2017 Tax Act, collect and prepare necessary data, and interpret any additional guidance issued by the U.S. Treasury Department, the IRS, and other standard-setting bodies, we may make adjustments to the provisional amounts. Those adjustments may materially impact our provision for income taxes in the period in which the adjustments are made.

The effects of foreign taxes are immaterial for all periods presented. The following is the effective tax rate reconciliation for the years ended December 31, 2017, 2016 and 2015, respectively (See Note 7, "Income Taxes", for further discussion on our income taxes):

Effective tax rate reconciliation	**2017**		**2016**		**2015**	
(Dollars in thousands)						
Income before income tax expense (benefit)	$ 11,559		$ 22,971		$ 26,298	
Income taxes computed at the Federal statutory rate	$ 4,046	35.0 %	$ 8,040	35.0%	$ 9,204	35.0 %
State income taxes, net of Federal benefit	472	4.1 %	867	3.8%	1,021	3.9 %
Impact of 2017 Tax Act	24,235	209.7 %	—	—%	—	— %
Research and development and other tax credits	(1,775)	(15.4)%	—	—%	—	— %
Change in valuation allowance	—	— %	—	—%	(64,159)	(244.0)%
Other	(113)	(1.0)%	85	0.4%	(14)	(0.1)%
Income tax expense (benefit)	$ 26,865	232.4 %	$ 8,992	39.1%	$ (53,948)	(205.1)%

Income tax expense increased by $17.9 million for the year ended December 31, 2017 compared to the same period in 2016 due primarily to the write-off of DTA's as a result of the 2017 Tax Act partially offset by research and development and other tax credits. Our investment in research and development qualifies for the research and development income tax credit under Section 41 of the Internal Revenue Code. Unused research and development tax credits have a 20-year carryover and will provide future tax benefits once Spok's net operating losses are fully utilized. The Company first applied this credit during 2017 and as a result has certain credits related to past periods. Research and development tax credits totaled $1.4 million in 2017 of which $0.6 million related to prior periods.

The pro-forma effective tax rate excludes the effects of the change in the valuation allowance and the changes related to the 2017 Tax Act to provide a more comparable effective tax rate. The following are the pro-forma effective tax rates for the years ended December 31, 2017, 2016 and 2015, respectively:

Pro forma effective tax rate	**2017**	**2016**	**2015**
(Dollars in thousands)			
Effective tax rate	232.4%	39.1%	(205.1%)
Impact of 2017 Tax Act	(209.7%)	—%	—%
Change in valuation allowance	—%	—%	244.0%
Pro-forma effective tax rate	22.7%	39.1%	38.9%

Due to the changes in federal tax law resulting from the 2017 Tax Act, which is effective beginning on January 1, 2018, Spok anticipates a positive impact on 2018 cash flows resulting from the elimination of the Alternative Minimum Tax ("AMT") for corporations. Additionally, Spok anticipates an increase in future cash flows after the Company fully utilizes all remaining NOL's as a result of the decrease in corporate tax rates. Refer to Note 7, "Income Taxes", for additional discussion.

Liquidity and Capital Resources

Cash and Cash Equivalents

At December 31, 2017, we had cash and cash equivalents of $107.2 million. The available cash and cash equivalents are held in accounts managed by third-party financial institutions and consist of invested cash and cash in our operating accounts. The invested cash is invested in interest bearing funds managed by third-party financial institutions. These funds invest in direct obligations of the government of the United States. To date, we have experienced no loss or lack of access to our invested cash or cash equivalents; however, we can provide no assurance that access to our invested cash and cash equivalents will not be impacted by adverse market conditions.

We maintain a level of liquidity sufficient to allow us to meet our cash needs in both the short-term and long-term. At any point in time, we have approximately $7.0 to $12.0 million in our operating accounts that are with third-party financial institutions. While we monitor daily the cash balances in our operating accounts and adjust the cash balances as appropriate, these cash balances could be impacted if the underlying financial institutions fail or are subject to other adverse conditions in the financial markets. To date, we have experienced no loss or lack of access to cash in our operating accounts.

We intend to use our cash on hand to provide working capital, to support operations, to invest in our business and to return value to stockholders through cash dividends and possible repurchases of our common stock. We may also consider using cash to fund or complete opportunistic investments and acquisitions that we believe will provide a measure of growth or revenue stability while supporting our existing operations. Because we intend to increase substantially our investment in developing our integrated communications platform over the next two or three years commensurate with declining revenues from our wireless business, we anticipate that our cash on hand will decrease significantly during that period and possibly longer until revenues from our Spok Care Connect platform begin to be realized.

Overview

In the event that net cash provided by operating activities and cash on hand are not sufficient to meet future cash requirements, we may be required to reduce planned capital expenses, reduce or eliminate our cash dividends to stockholders, not resume our common stock repurchase program, and/or sell assets or seek additional financing. We can provide no assurance that reductions in planned capital expenses or proceeds from asset sales would be sufficient to cover shortfalls in available cash or that additional financing would be available on acceptable terms.

Based on current and anticipated levels of operations, we anticipate net cash provided by operating activities, together with the available cash on hand at December 31, 2017, should be adequate to meet anticipated cash requirements for the foreseeable future.

The following table sets forth information on our net cash flows from operating, investing, and financing activities for the periods stated:

	For the Year Ended December 31,			Change Between 2017 and 2016
	2017	2016	2015	
	(Dollars in thousands)			
Net cash provided by operating activities	$ 15,556	$ 37,461	$ 41,837	$ (21,905)
Net cash used in investing activities	(9,214)	(6,254)	(5,565)	(2,960)
Net cash used in financing activities	(25,001)	(16,723)	(32,809)	(8,278)

Net Cash Provided by Operating Activities. As discussed above, we are dependent on cash flows from operating activities to meet our cash requirements. Cash from operations varies depending on changes in various working capital items, including deferred revenues, accounts payable, accounts receivable, prepaid expenses and various accrued expenses. Net cash provided by operating activities decreased $21.9 million for the year ended December 31, 2017 compared to the same period in 2016 due primarily to a decrease in net income, net of adjustments related to deferred income tax benefit, of $10.8 million (decrease in cash flow), a decrease of $1.3 million in depreciation, amortization and accretion expenses (decrease in cash flow) and a decrease of $0.3 million in other non-cash items (decrease in cash flow), partially offset by an increase of $2.8 million in stock based compensation expenses (increase in cash flow). With respect to changes in assets and liabilities the net cash provided by operating activities reflects a $4.4 million greater decrease in accounts payable, accrued liabilities and other (decrease in cash flow) and a net $8.4 million greater increase to assets (decrease in cash flow)partially offset by a $0.5 million increase in deferred revenue (increase in cash flow).

Net Cash Used in Investing Activities. Net cash used in investing activities increased $3.0 million for the year ended December 31, 2017 compared to the same period in 2016 due primarily to an increase in the purchase of property and equipment related to our research and development efforts.

Net Cash Used in Financing Activities. Net cash used in financing activities increased $8.3 million for the year ended December 31, 2017 from the same period in 2016 due primarily to the payment of $5.0 million related to the special dividend that was declared in December 2016 and an increase of $3.3 million in common stock repurchases, net of proceeds from the issuance of common stock.

Cash Dividends to Stockholders. For the year ended December 31, 2017, we paid a total of $15.2 million in cash dividends compared to $10.3 million in cash dividends for the same period in 2016. Cash dividends paid to stockholders in 2017 increased by $4.9 million primarily due to the $5.0 million related to a special dividend of $0.25 per common stock which was declared in 2016 and paid in 2017.

Future Cash Dividends to Stockholders. On February 28, 2018, our Board of Directors declared a regular quarterly cash dividend of $0.125 per share of common stock, with a record date of March 16, 2018, and a payment date of March 30, 2018. This cash dividend of approximately $2.6 million is expected to be paid from available cash on hand.

Common Stock Repurchase Program. For the year ended December 31, 2017, we purchased 572,550 shares of our common stock under the repurchase program for $10 million. The repurchase authority allows us, at management's discretion, to selectively repurchase shares of our common stock from time to time in the open market depending upon market price and other factors. On February 28, 2018 the Company's Board of Directors reset the repurchase authority under the share repurchase program to $10.0 million which is set to expire on December 31, 2018. (See Note 6, "Stockholders' Equity", for further discussion on our common stock repurchase program.)

Other. For 2018, the Board of Directors currently expects to pay dividends of $0.125 per common share each quarter, subject to declaration by the Board of Directors, in 2018.

Commitments and Contingencies

Contractual Obligations. The following table provides the Company's significant commitments and contractual obligations as of December 31, 2017.

	Payments Due By Period				
(Dollars in thousands)	**Total**	**Less than 1 Year**	**1 to 3 years**	**3 to 5 years**	**More than 5 years**
Operating lease obligations	$ 17,411	$ 6,126	$ 6,797	$ 3,603	$ 885
Total contractual obligations	$ 17,411	$ 6,126	$ 6,797	$ 3,603	$ 885

As of December 31, 2017, our contractual payment obligations under our operating leases for office and transmitter locations are indicated in the table above. For purposes of the table above, purchase obligations are defined as agreements to purchase goods or services that are enforceable, legally binding, noncancelable, has a remaining term in excess of one year and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable pricing provisions; and the approximate timing of transactions. The amounts are based on our contractual commitments; however, it is possible that we may be able to negotiate lower payments if we choose to exit these contracts before their expiration date. Refer to Note 8, "Commitments and Contingencies", for further discussion on commitments and contingencies.

Off-Balance Sheet Arrangements. We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships.

Related Parties

Refer to Note 10, "Related Parties", for further discussion on our related party transactions.

Inflation

Inflation has not had a material effect on our operations to date. System equipment and operating costs have not significantly increased in price, and the price of wireless messaging devices has tended to decline in recent years. Our general operating expenses, such as salaries, site rent for transmitter locations, employee benefits and occupancy costs, are subject to normal inflationary pressures.

Critical Accounting Policies and Estimates

Refer to Note 1, "Organization and Significant Accounting Policies", for a summary of significant accounting policies and estimates.

Refer to Note 2, "Recent and Pending Accounting Standards", for a summary of recent and pending accounting standards.

Non-GAAP Financial Measures

We use non-GAAP financial measures as key elements in determining performance for purposes of incentive compensation for our annual STIP and the performance periods for our LTIPs. The non-GAAP financial measures include; (1) adjusted operating cash flow ("OCF"), defined as EBITDA less purchases of property and equipment plus severance (the Company defines EBITDA as operating income plus depreciation, amortization and accretion, each determined in accordance with GAAP; purchases of property and equipment and severance are also determined in accordance with GAAP); and (2) the total of adjusted operating expenses and capital expenses. Adjusted operating expenses are defined as operating expenses less depreciation, amortization and accretion less severance less stock based compensation. Capital expenses are defined as the purchase of property and equipment. We believe that adjusted OCF is useful to investors and management as a measure of the ability of our business to generate cash. Further, we believe that adjusted operating and capital expenses is useful to investors and management as a measure of the ability of our business to responsibly manage operational expenses that impact Company cash flows.

Adjusted OCF was as follows for the periods stated:

Non-GAAP Financial Measures	2017	2016	2015
(Dollars in thousands)			
Net (loss) income	$ (15,306)	$ 13,979	$ 80,246
Plus (Less): Income tax expense (benefit)	26,865	8,992	(53,948)
Less: Other income	(134)	(543)	(1,182)
Less: Interest income	(719)	(275)	(16)
Operating income	10,706	22,153	25,100
Plus: Depreciation, amortization and accretion	11,624	12,963	13,970
EBITDA (as defined by the Company)	22,330	35,116	39,070
Less: Purchases of property and equipment	(9,200)	(6,256)	(6,374)
Plus: Severance	104	1,446	2,701
OCF (as defined by the Company)	$ 13,234	$ 30,306	$ 35,397

Adjusted operating and capital expenses were as follows for the periods stated:

Non-GAAP Financial Measures	2017	2016	2015
(Dollars in thousands)			
Operating expenses	$ 160,469	$ 157,408	$ 164,528
Less: Depreciation, amortization and accretion	(11,624)	(12,963)	(13,970)
Less: Severance	(104)	(1,446)	(2,701)
Less: Stock based compensation	(3,688)	(854)	(1,868)
Adjusted operating expenses (as defined by the Company)	145,053	142,145	145,989
Plus: Purchases of property and equipment	9,200	6,256	6,374
Adjusted operating and capital expenses (as defined by the Company)	$ 154,253	$ 148,401	$ 152,363

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

Interest Rate Risk

At December 31, 2017, we had no outstanding borrowings or associated debt service requirements.

Foreign Currency Exchange Rate Risk

We conduct a limited amount of business outside the United States. The financial impact of transactions billed in foreign currencies is immaterial to our financial results and, consequently, we do not have any material exposure to the risk of foreign currency exchange rate fluctuations.

ITEM 8. ***FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

The consolidated financial statements are included in this Report beginning on Page F-1.

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ITEM 9. ***CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

There are no reportable events.

ITEM 9A. ***CONTROLS AND PROCEDURES***

Evaluation of Disclosure Controls and Procedures

Our management carried out an evaluation, as required by Rule 13a-15(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), with the participation of our principal executive officer and our principal financial officer, of the effectiveness of our disclosure controls and procedures, as of the end of our last fiscal year. Disclosure controls and procedures are defined under Rule 13a-15(e) under the Exchange Act as controls and other procedures of an issuer that are designed to ensure that the information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to the issuer's management, including its principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Based upon this evaluation, our principal executive officer and our principal financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2017.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in the Exchange Act Rule 13a-15(f) and 15d-15(f). Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the 2013 *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

Such internal controls include those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures are being made only in accordance with authorizations of management and members of the Board of Directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our evaluation under the 2013 *Internal Control — Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2017.

The effectiveness of our internal control over financial reporting as of December 31, 2017 has been audited by Grant Thornton LLP, an independent registered public accounting firm, as stated in their report which appears in this 2017 Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes made in the Company's internal control over financial reporting during the year ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting**.**

ITEM 9B. *OTHER INFORMATION*

None.

PART III

Certain information called for by Items 10 through 14 is incorporated by reference from Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders, which will be filed with the SEC no later than May 1, 2018.

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

The following information required by this item is incorporated by reference from Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders:

- information regarding directors is set forth under the caption "Election of Directors";
- information regarding executive officers is set forth under the caption "Executive Officers";
- information regarding our audit committee and designated "audit committee financial expert" is set forth under the caption "Committees of the Board of Directors"; and
- information regarding compliance with Section 16(a) of the Exchange Act is set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance."

We also make available on our website, and in print, if any stockholder or other person so requests, our code of business conduct and ethics entitled "Code of Ethics" which is applicable to all employees and directors, our "Corporate Governance Guidelines," and the charters for all committees of our Board of Directors, including Audit, Compensation and Corporate Governance and Nominating. Any changes to our Code of Ethics or waiver, if any, of our Code of Ethics for executive officers or directors will be posted on that website.

ITEM 11. *EXECUTIVE COMPENSATION*

The information required by this item is incorporated by reference from the section of Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders entitled "Compensation Discussion and Analysis."

ITEM 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

The information required by this item is incorporated by reference from the section of Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders entitled "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

ITEM 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

The information required by this item with respect to certain relationships and related transactions is incorporated by reference from the section of Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders entitled "Related Person Transactions and Code of Conduct." The information required by this item with respect to director independence is incorporated by reference from the section of Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders entitled "Board and Governance Matters."

ITEM 14. *PRINCIPAL ACCOUNTING FEES AND SERVICES*

The information required by this item is incorporated by reference from the section of Spok's definitive Proxy Statement for our 2018 Annual Meeting of Stockholders entitled "Independent Registered Public Accounting Firm Fees."

PART IV

ITEM 15. *EXHIBITS AND FINANCIAL STATEMENT SCHEDULES*

The following documents are filed as part of this Annual Report on Form 10-K:

(a) 1. *Financial Statements*

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2. *Financial Statement Schedules*

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(b) *Exhibits*

The exhibits listed in the accompanying index to exhibits, that follows the Signatures page, are filed as part of this Annual Report on Form 10-K.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on our behalf by the undersigned, thereunto duly authorized.

Spok Holdings, Inc.

By: /s/ Vincent D. Kelly
Vincent D. Kelly
President and Chief Executive Officer
March 1, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Vincent D. Kelly Vincent D. Kelly	Director, President and Chief Executive Officer (principal executive officer)	March 1, 2018
/s/ Michael W. Wallace Michael W. Wallace	Chief Financial Officer (principal financial officer and principal accounting officer)	March 1, 2018
/s/ Royce Yudkoff Royce Yudkoff	Chairman of the Board	March 1, 2018
/s/ N. Blair Butterfield N. Blair Butterfield	Director	March 1, 2018
/s/ Stacia A. Hylton Stacia A. Hylton	Director	March 1, 2018
/s/ Brian O'Reilly Brian O'Reilly	Director	March 1, 2018
/s/ Matthew Oristano Matthew Oristano	Director	March 1, 2018
/s/ Samme L. Thompson Samme L. Thompson	Director	March 1, 2018

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Spok Holdings, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Spok Holdings, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of operations, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and schedule (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), and our report dated March 1, 2018 expressed an unqualified opinion.

Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2006.

Arlington, Virginia
March 1, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Spok Holdings, Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of Spok Holdings, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2017, based on criteria established in the 2013 Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in the 2013 Internal Control-Integrated Framework issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements of the Company as of and for the year ended December 31, 2017, and our report dated March 1, 2018 expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ GRANT THORNTON LLP

Arlington, Virginia
March 1, 2018

SPOK HOLDINGS, INC.
CONSOLIDATED BALANCE SHEETS

(Dollars in thousands except share and per share amounts)	December 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 107,157	$ 125,816
Accounts receivable, net	32,279	23,666
Prepaid expenses and other	5,752	4,384
Inventory, net	1,672	1,996
Total current assets	146,860	155,862
Non-current assets:		
Property and equipment, net	13,399	12,818
Goodwill	133,031	133,031
Intangible assets, net	7,917	10,803
Deferred income tax assets, net	47,679	73,068
Other non-current assets	1,675	2,505
Total non-current assets	203,701	232,225
TOTAL ASSETS	$ 350,561	$ 388,087
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,305	$ 1,032
Accrued compensation and benefits	11,018	13,268
Accrued dividends payable	384	5,140
Accrued taxes	2,547	4,132
Deferred revenue	31,414	29,145
Other current liabilities	4,226	3,610
Total current liabilities	50,894	56,327
Non-current liabilities:		
Deferred revenue	1,063	752
Other non-current liabilities	8,075	8,921
Total non-current liabilities	9,138	9,673
TOTAL LIABILITIES	60,032	66,000
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY:		
Preferred stock—$0.0001 par value; 25,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock—$0.0001 par value; 75,000,000 shares authorized; 20,135,514 and 20,525,614 shares issued and outstanding as of December 31, 2017 and December 31, 2016, respectively	2	2
Additional paid-in capital	98,731	104,810
Retained earnings	191,796	217,275
TOTAL STOCKHOLDERS' EQUITY	290,529	322,087
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 350,561	$ 388,087

The accompanying notes are an integral part of these consolidated financial statements.

SPOK HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in thousands, except share and per share amounts)	For the Year Ended December 31, 2017	2016	2015
Revenue:			
Wireless	$ 101,188	$ 109,590	$ 119,014
Software	69,987	69,971	70,614
Total revenue	171,175	179,561	189,628
Operating expenses:			
Cost of revenue	28,418	30,649	33,851
Research and development	18,702	13,467	10,280
Service, rental and maintenance	31,502	32,734	34,121
Selling and marketing	22,823	24,768	27,446
General and administrative	47,400	42,827	44,860
Depreciation, amortization and accretion	11,624	12,963	13,970
Total operating expenses	160,469	157,408	164,528
Operating income	10,706	22,153	25,100
Interest income	719	275	16
Other income	134	543	1,182
Income before income tax (expense) benefit	11,559	22,971	26,298
Income tax (expense) benefit	(26,865)	(8,992)	53,948
Net (loss) income	$ (15,306)	$ 13,979	$ 80,246
Basic and diluted net (loss) income per common share	$ (0.76)	$ 0.68	$ 3.74
Basic and diluted weighted average common shares outstanding	20,210,260	20,586,066	21,471,041
Cash dividends declared per common share	$ 0.50	$ 0.75	$ 0.625

The accompanying notes are an integral part of these consolidated financial statements.

SPOK HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(Dollars in thousands except share amounts)	Outstanding Common Shares	Common Stock	Additional Paid-In Capital	Retained Earnings	Total Stockholders' Equity
Balance, January 1, 2015	21,978,762	$ 2	$ 126,678	$ 152,379	$ 279,059
Net income	—	—	—	80,246	80,246
Purchase of common stock for tax withholding, net	(217,211)	—	(3,824)	—	(3,824)
Amortization of stock based compensation	—	—	1,868	—	1,868
Cash dividends declared	—	—	—	(13,498)	(13,498)
Common stock repurchase program	(897,177)	—	(15,008)	—	(15,008)
Issuance of restricted common stock under the Equity Plan	21,887	—	—	—	—
Other	—	—	721		721
Balance, December 31, 2015	20,886,261	$ 2	$ 110,435	$ 219,127	$ 329,564
Net income	—	—	—	13,979	13,979
Issuance of common stock under the Employee Stock Purchase Plan	3,961	—	53	—	53
Purchased and retired common stock	(2)	—	—	—	—
Amortization of stock based compensation	—	—	854	—	854
Cash dividends declared	—	—	—	(15,766)	(15,766)
Common stock repurchase program	(388,255)	—	(6,489)	—	(6,489)
Issuance of restricted common stock under the Equity Plan	23,649	—	—	—	—
Other	—	—	(43)	(65)	(108)
Balance, December 31, 2016	20,525,614	$ 2	$ 104,810	$ 217,275	$ 322,087
Net loss	—	—	—	(15,306)	(15,306)
Issuance of common stock under the Employee Stock Purchase Plan	17,760	—	256	—	256
Issuance of common stock for vested restricted stock units under the Equity Plan	143,394	—		—	—
Amortization of stock based compensation	—	—	3,688	—	3,688
Cash dividends declared	—	—		(10,332)	(10,332)
Common stock repurchase program	(572,550)	—	(10,023)	—	(10,023)
Issuance of restricted common stock under the Equity Plan	21,296	—	—	—	—
Other	—	—	—	159	159
Balance, December 31, 2017	20,135,514	$ 2	$ 98,731	$ 191,796	$ 290,529

The accompanying notes are an integral part of these consolidated financial statements.

SPOK HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)	For the Year Ended December 31, 2017	2016	2015
Cash flows from operating activities:			
Net (loss) income	$ (15,306)	$ 13,979	$ 80,246
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation, amortization and accretion	11,624	12,963	13,970
Deferred income tax expense (benefit)	25,390	6,926	(55,018)
Stock based compensation	3,688	854	1,868
Provisions for doubtful accounts, service credits and other	1,035	761	1,290
Adjustments of non-cash transaction taxes	(807)	(270)	(686)
(Gain) Loss on disposals of property and equipment	(6)	2	(793)
Changes in assets and liabilities:			
Accounts receivable	(9,648)	(1,790)	1,041
Prepaid expenses, intangible assets and other assets	274	843	658
Accounts payable, accrued liabilities and other	(3,267)	1,083	(3,556)
Deferred revenue	2,579	2,110	2,817
Net cash provided by operating activities	15,556	37,461	41,837
Cash flows from investing activities:			
Purchases of property and equipment, net of proceeds from disposals of property and equipment	(9,214)	(6,254)	(5,565)
Net cash used in investing activities	(9,214)	(6,254)	(5,565)
Cash flows from financing activities:			
Cash distributions to stockholders	(15,234)	(10,287)	(13,976)
Purchase of common stock (including commissions)	(10,023)	(6,489)	(15,008)
Proceeds from issuance of common stock under the Employee Stock Purchase Plan	256	53	—
Employee stock based compensation tax withholding	—	—	(3,825)
Net cash used in financing activities	(25,001)	(16,723)	(32,809)
Net (decrease) increase in cash and cash equivalents	(18,659)	14,484	3,463
Cash and cash equivalents, beginning of period	125,816	111,332	107,869
Cash and cash equivalents, end of period	$ 107,157	$ 125,816	$ 111,332
Supplemental disclosure:			
Income taxes paid	$ 2,620	$ 695	$ 1,521

The accompanying notes are an integral part of these consolidated financial statements.

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK)("Spok" or the "Company"), is proud to be the global leader in healthcare communications. We deliver clinical information to care teams when and where it matters most to improve patient outcomes. Top hospitals rely on the Spok Care Connect platform to enhance workflows for clinicians, support administrative compliance, and provide a better experience for patients. Our customers send over 100 million messages each month through their Spok solutions.

We offer a focused suite of unified critical communication solutions that include call center operations, clinical alerting and notifications, one-way and advanced two-way wireless messaging services, mobile communications and public safety solutions.

We provide one-way and advanced two-way wireless messaging services including information services throughout the United States. These services are offered on a local, regional and nationwide basis employing digital networks. One-way messaging consists of numeric and alphanumeric messaging services. Numeric messaging services enable subscribers to receive messages that are composed entirely of numbers, such as a phone number, while alphanumeric messages may include numbers and letters, which enable subscribers to receive text messages. Two-way messaging services enable subscribers to send and receive messages to and from other wireless messaging devices, including pagers, personal digital assistants and personal computers. We also offer voice mail, personalized greeting, message storage and retrieval, and equipment loss and/or maintenance protection to both one-way and two-way messaging subscribers. These services are commonly referred to as wireless messaging and information services.

We also develop, sell and support enterprise-wide systems for hospitals and other organizations needing to automate, centralize and standardize mission critical communications. These solutions are used for contact centers, clinical alerting and notification, mobile communications and messaging and for public safety notifications. These areas of market focus compliment the market focus of our wireless services outlined above.

Basis of Presentation

The accompanying consolidated financial statements include our accounts and the accounts of our wholly owned direct and indirect subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and the rules and regulations of the United States Securities and Exchange Commission (the “SEC”). In management's opinion, the consolidated financial statements include all adjustments and accruals that are necessary for a fair presentation of the results of all periods reported herein and all such adjustments are of a normal, recurring nature (except for the reduction of deferred income tax assets described in further detail in Note 7 "Income Taxes").

Amounts shown on the consolidated statements of operations within the operating expense categories of cost of revenue; research and development; service, rental and maintenance; selling and marketing; and general and administrative are recorded exclusive of severance, depreciation, amortization and accretion. These items are shown separately on the consolidated statements of operations within operating expenses to the extent that they are considered material for the periods presented. Foreign currency translation adjustments were immaterial and are not presented separately in our consolidated statements of stockholders’ equity and balance sheets, and consequently no statements of comprehensive income are presented.

Certain prior period amounts in the consolidated financial statements have been reclassified to conform to the current period's presentation. These reclassifications had no effect on the reported results of operations or the statement of financial position. In the fourth quarter of 2017, the Company reclassified $1.0 million from accounts payable to other current liabilities. Corresponding reclassifications of $0.9 million were made to the Consolidated Balance Sheets for the year ended December 31, 2016. The Company also reclassified $0.1 million from severance to the general and administrative operating expense classification. Corresponding reclassifications of $1.4 million and $2.7 million were made to the Consolidated Statement of Operations for the years ended December 31, 2016 and 2015. The Company had previously reported severance as a separate item on the Consolidated Statement of Operations.

Use of Estimates

The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. On an on-going basis, we evaluate estimates and assumptions, including but not limited to those related to the impairment of long-lived assets, intangible assets subject to amortization and goodwill, accounts receivable allowances, revenue recognition, depreciation expense, asset retirement obligations, severance and income taxes. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Revenue Recognition

We recognize revenue when four basic criteria have been met:

- there is persuasive evidence that an arrangement exists;
- delivery has occurred or services rendered;
- the fee is fixed or determinable; and
- collectability is reasonably assured.

Amounts billed to customers, but not meeting the above revenue recognition criteria are deferred until all four criteria have been met.

Signed agreements are used as evidence of an arrangement. If a contract signed by the customer does not exist, we use a purchase order as evidence of an arrangement. If both a signed contract and a purchase order exist, we consider the signed contract to be the final persuasive evidence of an arrangement. At the time a contract is executed, we evaluate the contract to assess whether the fee is fixed or determinable. If the fee is assessed as not being fixed or determinable, revenue recognition is delayed until this assessment can be made. Additionally, we review customer creditworthiness and our historical ability to collect payments when due.

Our wireless revenue consists primarily of service, rental and maintenance fees charged to customers on a monthly, quarterly or annual basis. Revenue also includes the sale of messaging devices directly to customers and other companies that resell our services. With respect to revenue recognition for multiple deliverables, we evaluated these revenue arrangements and determined that two separate units of accounting exist, paging service revenue and product sales. We recognize paging service revenue over the period the service is performed; revenue from product sales is recognized at the time of shipment or installation. We have a variety of billing arrangements with our customers resulting in deferred revenue from advance billings and accounts receivables for billing in-arrears arrangements.

Our software revenue consists primarily of the sale of software (license fees), professional services (primarily installation and training), equipment (to be used in conjunction with the software) and maintenance support (post-contract support). The software is licensed to end users under an industry standard software license agreement. Our software products are considered to be “off-the-shelf software” as the software is marketed as a stock item that customers can use without customization.

Software revenue consists of two primary components: (1) operations revenue consisting of software license revenue, professional services revenue and equipment revenue, and (2) maintenance support revenue.

We generally sell software licenses, professional services, equipment and maintenance in multiple-element arrangements. At inception of the arrangement, we allocate the arrangement consideration to the software deliverables (software licenses, professional services and maintenance) as a group and to the non-software deliverables (equipment and maintenance on equipment, when applicable) using the relative selling price method. When performing this allocation, the estimated selling price for each deliverable is based on vendor specific objective evidence of fair value (“VSOE”), third party evidence of fair value (“TPE”), or if VSOE and TPE are not available, the best estimated selling price (“BESP”) for selling the element on a stand-alone basis. We have determined that TPE is not a practical alternative due to differences in our service offerings compared to other parties and the availability of relevant third-party pricing information. The amount of revenue allocated to delivered items is limited by contingent revenue, if any.

Our standard post-contract support is allocated using VSOE as an input in the relative selling price allocation. For software licenses, professional services, equipment and premium maintenance we have determined that neither VSOE nor TPE is available and as such, we have used BESP as an input in order to allocate our arrangement fees. We determine BESP by considering our overall pricing objectives and market conditions. Significant pricing practices take into consideration our discounting practices, the size and volume of our transactions, the customer demographic, the geographic area where our services are sold, our price lists, our go-to-market strategy, historical standalone sales and contract prices. The determination of BESP is made through consultation with and approval by management, taking into consideration the go-to-market strategy. As our go-to-market strategies evolve, we may modify our pricing practices in the future, which could result in changes in relative selling prices, including both VSOE and BESP.

In multiple-element arrangements, the arrangement consideration allocated to our non-software deliverables (equipment) is generally recognized upon shipment or delivery to the customer depending on delivery method of Free on Board ("FOB") shipping or FOB destination, respectively.

For our software deliverables, which include software licenses, professional services, and post-contract support, we further allocate arrangement consideration using the residual method. As noted above, we have not established VSOE for our software licenses, professional services and premium maintenance. However, we have established, and continue to maintain, VSOE for our standard post-contract support. We recognize contract revenue ratably over the longer of the estimated services delivery period or the maintenance term. If delivery of the software and services is completed before the end of the maintenance period, then the remaining revenue associated with these elements is recognized in full at this time. Any unrecognized revenue related to maintenance continues to be recognized ratably over the remaining term of the maintenance period. If the period of delivery to the customer is not known, license and professional services revenue will be recognized when software and professional services are fully delivered to the customer and the maintenance revenue will be recognized ratably over the remaining contractual term of the agreement. The defined services period for most of our projects is shorter than the maintenance term.

The Company recognizes deferred revenue when it receives payments in advance of the delivery of products or the performance of services. Our deferred balance represents the contractual obligation for maintenance, software license equipment, professional services and wireless services for which we have received payment in advance of meeting the revenue recognition criteria. We will recognize revenue when the goods or services meet our revenue recognition criteria.

Impairment of Long-Lived Assets, Intangible Assets Subject to Amortization and Goodwill

We are required to evaluate the carrying value of our long-lived assets, amortizable intangible assets and goodwill. Amortizable intangible assets include customer-related and acquired technology intangibles that resulted from previous acquisitions. Such intangibles are amortized over periods up to ten years. Quarterly, we assess whether circumstances exist which suggest that the carrying value of long-lived and amortizable intangible assets may not be recoverable. When applicable, we assess the recoverability of the carrying value of our long-lived assets and certain amortizable intangible assets based on estimated undiscounted cash flows to be generated from such assets. In assessing the recoverability of these assets, we forecast estimated enterprise-level cash flows based on various operating assumptions such as revenue forecasted by product line and in-process research and development cost. If the forecast of undiscounted cash flows does not exceed the carrying value of the long-lived and amortizable intangible assets, we record an impairment charge to the extent the carrying value exceeded the fair value of such assets.

Goodwill is not amortized but is evaluated for impairment at least annually, or when events or circumstances suggest a potential impairment has occurred. We generally perform this annual impairment test in the fourth quarter of the fiscal year. We evaluate goodwill for impairment between annual tests if indicators of impairment exist. The impairment test involves comparing the fair value of the reporting unit with its carrying value. An impairment charge is recognized for the amount that the carrying value exceeds the reporting unit's fair value. For purposes of the goodwill impairment evaluation, the Company as a whole is considered the reporting unit. The fair value of the reporting unit is estimated under a market based approach using the fair value of the Company's common stock. A confirmatory discounted cash flow analysis is also used to assess whether impairment exists. This calculation requires significant judgments, including estimation of future cash flows, which is dependent on internal forecasts, estimation of the long-term rate of growth for our business, estimation of the useful life over which cash flows will occur and determination of our weighted average cost of capital.

We did not record any impairment of long-lived assets, definite lived intangible assets or goodwill for the years ended December 31, 2017, 2016 and 2015.

Accounts Receivable Allowances

Our two most significant allowance accounts are: an allowance for doubtful accounts and an allowance for service credits. Provisions for these allowances are recorded on a monthly basis and are included as a component of general and administrative expenses, respectively. Accounts receivable was recorded net of $1.0 million allowance for the periods ended December 31, 2017 and 2016, respectively.

Estimates are used in determining the allowance for doubtful accounts and are based on historical collection experience and current and forecasted trends. In determining these estimates, we review historical write-offs, including comparisons of write-offs to provisions for doubtful accounts and as a percentage of revenues. We compare the ratio of the allowance to gross receivables to historical levels, and monitor amounts collected and related statistics. We write off receivables when they are deemed uncollectible. While write-offs of customer accounts have historically been within our expectations and the provisions established, we cannot guarantee that the future write-off experience will be consistent with historical experience, which could result in material differences when compared to the allowance for doubtful accounts and related provisions.

The allowance for service credits related provisions is based on historical credit percentages, current credit and aging trends, historical actual payment trends and actual credit experience. We analyze our past credit experience over several time frames. Using this analysis along with current operational data including existing experience of credits issued and the time frames in which credits are issued, we establish an appropriate allowance for service credits. This allowance also reduces accounts receivable for lost and non-returned pagers to the expected realizable amounts and for free wireless services. In addition, this allowance reduces software maintenance revenue. While credits issued have been within our expectations and the provisions established, we cannot guarantee that future credit experience will be consistent with historical experience, which could result in material differences when compared to the allowance for service credits and maintenance related provisions.

Inventory

Inventories are stated at the lower of cost or net realizable value. Cost is computed using a weighted average cost approach which blends the prices at which goods are purchased from vendors. We evaluate our ending inventories for shrinkage and estimated obsolescence. Any shrinkage identified is written off to cost of goods sold in the period in which the shrinkage is identified. Further, we assess the impact of changing technology on our inventories and we write off inventories that are considered obsolete in the period in which the analysis takes place. Inventory consists primarily of finished goods. We do not account for inventory as work-in-process or raw materials as any such inventory would be immaterial to the consolidated financial statements.

Property and Equipment

Property and equipment are reported at cost and are depreciated using the straight-line method based on estimated useful lives which range from one to five years.

Transmitter assets are grouped into tranches based on our transmitter decommissioning forecast and are depreciated using the group life method on a straight-line basis. Depreciation expense is determined by the expected useful life of each tranche of the underlying transmitter assets. The expected useful life is based on our forecasted usage of those assets and their retirement over time and aligns the useful lives of these transmitter assets with their planned removal from service. Disposals are charged against accumulated depreciation with no gain or loss recognized. This rational and systematic method matches the underlying usage of these assets to the underlying revenue that is generated from these assets. Depreciation expense for these assets is subject to change based upon revisions in the timing of transmitter deconstruction resulting from our long-range planning and network rationalization process.

Asset Retirement Obligations

We recognize liabilities and corresponding assets for future obligations associated with the retirement of assets. We have paging equipment assets, principally transmitters, which are located on leased locations. The underlying leases generally require the removal of equipment at the end of the lease term; therefore, a future obligation exists. Asset retirement costs are reflected in paging equipment assets with depreciation expense recognized over the estimated lives, which range between one and five years. The asset retirement costs and the corresponding liabilities that have been recorded to date generally relate to either current plans to consolidate networks or to the removal of assets at a future terminal date. When an asset retirement obligation arises, the liabilities and corresponding assets are recorded at their present value using a discounted cash flow approach and the liabilities are accreted using the interest method.

The recognition of an asset retirement obligation requires that management make numerous assumptions regarding such factors as the cost and timing of deconstruction; the credit-adjusted risk-free rate to be used; inflation rates; and future advances in technology. The fair value estimate of contractor fees to remove each asset is assumed to escalate by 4% each year through the terminal date. The total estimated liability is based on the estimated future value of those costs and the timing of deconstruction.

We believe these estimates are reasonable at the present time, but we can give no assurance that changes in technology, our financial condition, the economy or other factors would not result in higher or lower asset retirement obligations. Any variations from our estimates would generally result in a change in the assets and liabilities in equal amounts, and operating results would differ in the future by any difference in depreciation expense and accretion expense (see Note 3, "Consolidated Financial Statement Components", and Note 5, "Asset Retirement Obligations", for additional details).

Income Taxes

We file a consolidated U.S. Federal income tax return and income tax returns in state, local and foreign jurisdictions as required. The provision for current income taxes is calculated and accrued on income and expenses expected to be included in current year U.S. and foreign income tax returns. The provision for current income taxes may also include interest, penalties and an estimated amount reflecting uncertain tax positions.

Deferred income tax assets and liabilities are computed based on temporary differences between the financial statement values and the tax bases of assets and liabilities including net operating loss and tax credit carryforwards at the enacted tax rates expected to apply to taxable income when taxes are actually paid or recovered. Changes in deferred income tax assets and liabilities are included as a component of deferred income tax expense. Deferred income tax assets represent amounts available to reduce future income taxes payable. We provide a valuation allowance when we consider it “more likely than not” (greater than a 50% probability) that a deferred income tax asset will not be fully recovered. Adjustments to the valuation allowance are a component of the deferred income tax expense or benefit in the statements of operations.

Assets and liabilities are established for uncertain tax positions taken or positions expected to be taken in income tax returns when such positions fail to meet the “more likely than not” threshold based on the technical merits of the positions. We assess whether previously unrecognized tax benefits may be recognized when the tax position is (1) more likely than not of being sustained based on its technical merits, (2) effectively settled through examination, negotiation or litigation, or (3) settled through actual expiration of the relevant tax statutes (see Note 7, "Income Taxes", for additional details).

Research and Development

Development costs incurred in the research and development of new software products and enhancements to existing software products for external use are charged to operations and expensed as incurred. Until technological feasibility has been established, research and development costs are expensed as incurred. Material costs incurred after technological feasibility is established and before the product is ready for general release are capitalized and amortized on a straight-line basis over the estimated remaining economic life of the product or the ratio of current revenues to total projected product revenues, whichever is greater. To date, the time between technological feasibility and general release to the public has been extremely short and consequently expenses available for capitalization have been immaterial. Accordingly, all research and developments costs incurred to date have been expensed as incurred.

Commissions Expenses

We pay a sales commission for each contract executed with a customer. We capitalize the commissions paid at contract execution and recognize the related expense as the revenue from the underlying contract is recognized. Commission expense was $5.2 million, $5.6 million and $7.2 million for the years ended December 31, 2017, 2016 and 2015, respectively. Commission expense is classified within the selling and marketing operating expenses category.

Shipping and Handling Costs

We incur shipping and handling costs to send and receive messaging devices and other equipment to/from our customers. Amounts billed to customers related to shipping and handling are classified as revenue and the Company's shipping and handling costs are classified as cost of revenue. These costs are expensed as incurred.

Advertising Expenses

Advertising costs are charged to operations when incurred because they occur in the same period as the benefit is derived. Advertising costs are classified as selling and marketing expenses. We do not incur any direct response advertising costs. Advertising expenses were $2.3 million, $1.8 million and $1.7 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Stock Based Compensation

We account for share-based payments to employees, including restricted stock units ("RSUs"), restricted common stock ("restricted stock") and the option to purchase common stock under the Employee Stock Purchase Plan ("ESPP") based on their fair value and the estimated number of shares we expect will vest based on the performance metrics associated with the award, if applicable. Fair value is measured based on the closing fair market value of the Company's common stock on the date of grant. Compensation expense is recognized on a straight-line basis over the requisite service period. Forfeitures and withdrawals are accounted for on an as incurred basis.

Changes in our estimates of the expected attainment of performance targets are reflected in the amount of compensation expense that we recognize for the related instruments' during the interim reporting period when the change in estimate is determined and may cause the amount of compensation expense that we record for each period to vary. Further information regarding stock based compensation can be found in Note 6, "Stockholders' Equity".

Concentration of Credit Risk

Our financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash, cash equivalents, and accounts receivable. While our cash and cash equivalents are managed by reputable financial institutions, deposits at these institutions and funds may, at times, exceed federally insured limits. Management believes that these financial institutions and funds are financially sound and, accordingly, that minimal credit risk exists.

Accounts receivable are typically unsecured and are derived from revenue earned from customers across different geographic locations, primarily within the U.S. We perform ongoing credit evaluations of our customers, and generally do not require collateral. We maintain an allowance for estimated credit losses. During the years ended December 31, 2017, 2016, and 2015, our bad debt expenses were $1.0 million, $0.8 million, and $1.3 million, respectively. In the event that accounts receivable collection cycles deteriorate, our operating results and financial position could be adversely affected. No customer represented 10% or more of total revenue or accounts receivable during the years ended December 31, 2017, 2016, and 2015.

Cash Equivalents

Cash and cash equivalents consist primarily of cash on deposit with banks and investments in money market funds with maturities of 90 days or less from the date of purchase.

Sales and Use Taxes

Sales and use taxes imposed on the ultimate consumer are excluded from revenue where we are required by law or regulation to act as collection agent for the taxing jurisdiction.

Fair Value of Financial Instruments

Our financial instruments include our cash, letters of credit ("LOCs"), accounts receivable and accounts payable. The fair value of these instruments approximate their carrying values at December 31, 2017 and 2016 due to their short maturities.

Earnings Per Common Share

The calculation of earnings per common share is based on the weighted-average number of common shares outstanding during the applicable period. The calculation for diluted earnings per common share recognizes the effect of all potential dilutive common shares that were outstanding during the respective periods, unless the impact would be anti-dilutive. Further information regarding earnings per common share can be found in Note 6, "Stockholders' Equity".

NOTE 2 - RECENT AND PENDING ACCOUNTING STANDARDS

Recently Adopted

Revenue - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers*. Since this ASU was issued, the FASB has issued several updates including ASU No. 2015-14 in July 2015 which delayed the effective date, ASU No. 2016-08 in March 2016 which updated guidance related to principal versus agent considerations, ASU No. 2016-10 in April 2016 which updated guidance related to the identification of performance obligations, ASU No. 2016-12 in May 2016 which updated guidance related to scope improvements and practical expedients and ASU No. 2016-20 which provided technical corrections and improvements but did not update guidance issued in prior updates. The effective date is January 1, 2018, and while early adoption to the original effective date of January 1, 2017 is permitted, we have elected not to early adopt.

ASU No. 2014-09 creates a five-step model that requires companies to exercise judgment when considering all relevant facts and circumstances in the determination of when and how revenue is recognized. The two permitted transition methods under the new standard are the full retrospective method, in which case the standard would be applied to each prior reporting period presented, or the modified retrospective method, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. We have completed our review of the acceptable transition methods and have selected the modified retrospective approach. We currently believe the modified retrospective approach will have a material impact on both deferred revenue and retained earnings in our 2018 consolidated financial statements. While we continue to finalize our adjustment to beginning balances as of January 1, 2018, we currently estimate that the impact to retained earnings will be an increase between $4.0 and $7.0 million with an offsetting decrease to deferred revenue of approximately $4.0 to $6.0 million and an increase in pre-paid commission expense for the remaining balance. This adjustment is primarily a result of the acceleration of license revenue for which we previously recognized over the combined services period as well as certain contract costs (primarily commission expenses) which are expected to be recognized over a longer amortization period than before. This estimate is subject to change given the ongoing review of contracts outstanding at December 31, 2017 and the highly complex nature of ASC 606.

We currently believe the standard will materially impact our revenue recognition on a going-forward basis once adopted. While we continue to assess and finalize the impacts of this standard, which we anticipate disclosing beginning with our 2018 filings, we currently believe that the most significant impacts relate to our accounting for software license revenue and certain contract costs. We expect software license revenue to be recognized when it is made available to the customer rather than over a combined service or subscription period. Additionally, certain contract costs (primarily commissions expense), are expected to be amortized over a longer period of time as those costs are related to the future renewal of maintenance. We anticipate that contract costs attributable to maintenance will be amortized over a period between 36 and 60 months as compared to recognition over the implementation period as done today. Amortization of commissions expense related to other revenues (e.g. software license, equipment, services revenues etc.) are not expected to materially change. Due to the nuances of certain contracts the actual revenue recognition treatment required under the standard will be dependent on contract-specific terms and may vary in some instances from recognition at the time of shipment.

Goodwill - In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment*. The new standard simplifies how an entity tests for goodwill by eliminating Step 2 from the goodwill impairment test. Step 2 measured a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. By eliminating Step 2 an entity must now record an impairment to goodwill based on an analysis of the fair value of a reporting unit as compared to its carrying amount. An impairment charge is recognized for the amount that the carrying value exceeds the reporting unit's fair value.

ASU No. 2017-04 will be effective beginning on January 1, 2020, including interim periods within that fiscal year, and early adoption as of January 1, 2017 is permitted. All changes are to be accounted for on a prospective basis upon adoption. We do not anticipate a material impact on our consolidated financial statements from the adoption of ASU No. 2017-04. We have chosen to early adopt ASU No. 2017-04 to be effective as of January 1, 2017.

Pending Adoption

Leases - In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The new standard establishes a right of use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than twelve months. Leases will be classified as either financing or operating with the classification affecting the pattern of expense recognition in the operating statement.

ASU No. 2016-02 will be effective beginning on January 1, 2019, including interim periods within that fiscal year, and early adoption is permitted at any time. A modified retrospective transition approach is required for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. While we are still evaluating the impact of the potential new standard on our consolidated financial statements, we expect that upon adoption we will recognize ROU assets and lease liabilities and that the amounts could be material.

NOTE 3 - CONSOLIDATED FINANCIAL STATEMENT COMPONENTS

Depreciation, Amortization and Accretion

Depreciation, amortization and accretion consisted of the following for the periods stated:

(Dollars in thousands)	For the Year Ended December 31, 2017	2016	2015
Depreciation			
Leasehold improvements	$ 234	$ 189	$ 233
Asset retirement costs	(388)	(277)	(505)
Paging and computer equipment	8,024	7,974	8,489
Furniture, fixtures and vehicles	306	294	353
Total depreciation	8,176	8,180	8,570
Amortization	2,886	4,160	4,735
Accretion	562	623	665
Total depreciation, amortization and accretion expense	$ 11,624	$ 12,963	$ 13,970

Property and Equipment, net

Property and equipment, net consisted of the following for the periods stated:

(Dollars in thousands)	Useful Life (In Years)	For the Year Ended December 31, 2017	2016
Leasehold improvements	lease term	$ 4,107	$ 3,843
Asset retirement costs	1-5	3,228	3,263
Paging and computer equipment	1-5	103,520	113,175
Furniture, fixtures and vehicles	3-5	4,545	2,852
Total property and equipment		115,400	123,133
Accumulated depreciation		(102,001)	(110,315)
Total property and equipment, net		$ 13,399	$ 12,818

For purposes of assessing our asset retirement costs, we completed a review of the estimated useful life of our transmitter assets during the fourth quarter of 2017 (that are part of paging and computer equipment). This review was based on the results of our long-range planning and network rationalization process and indicated that the expected useful life of the last tranche of the transmitter assets was no longer appropriate. As a result of that review, the expected useful life of the final tranche of transmitter assets was extended from 2021 to 2022. This change resulted in a revision of the expected future depreciation expense for the transmitter assets and an immaterial impact to the consolidated financial statements beginning in the fourth quarter of 2017. We believe these estimates remain reasonable at the present time, but we can give no assurance that changes in technology, customer usage patterns, our financial condition, the economy or other factors would not result in changes to our transmitter decommissioning plans. Any further variations from our estimates could result in a change in the expected useful lives of the underlying transmitter assets and operating results could differ in the future by any difference in depreciation expense. The extension of the depreciable life was accounted for as a change in accounting estimate.

Other Current Liabilities

Other current liabilities consisted of the following for the periods stated:

(Dollars in thousands)	December 31, 2017	2016
Accrued network costs, asset retirement obligations and other	2,173	2,168
Accrued outside services	$ 2,053	$ 1,442
Total other current liabilities	$ 4,226	$ 3,610

Other Non-Current Liabilities

Other non-current liabilities consisted of the following for the periods stated:

(Dollars in thousands)	December 31, 2017	2016
Asset retirement obligations	$ 7,174	$ 7,472
Other	901	1,449
Total other non-current liabilities	$ 8,075	$ 8,921

NOTE 4 - INTANGIBLE ASSETS, NET

Intangible Assets

Amortizable intangible assets at December 31, 2017 and 2016 related primarily to customer relationships and trademarks that resulted from our acquisition of Amcom Software, Inc. in 2011. Such intangibles are being amortized over a period of ten years and six years respectively. We have not recorded an impairment of our intangible assets during the years ended December 31, 2017, 2016 and 2015.

The net consolidated balance of intangible assets consisted of the following at December 31, 2017 and 2016:

		As of December 31,					
		2017			2016		
(Dollars in thousands)	Useful Life (In Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	10	$ 25,002	$ (17,085)	$ 7,917	$ 25,002	$ (14,585)	$ 10,417
Trademarks	6	5,754	(5,754)	—	5,754	(5,368)	386
Total amortizable intangible assets	6 - 10	$ 30,756	$ (22,839)	$ 7,917	$ 30,756	$ (19,953)	$ 10,803

Estimated amortization of intangible assets for future periods was as follows:

For the year ending December 31,	(Dollars in thousands)
2018	$ 2,500
2019	2,500
2020	2,500
2021	417
Total	$ 7,917

NOTE 5 - ASSET RETIREMENT OBLIGATIONS

The components of the changes in the asset retirement obligation liabilities for the periods stated were as follows:

(Dollars in thousands)	Short-Term Portion	Long-Term Portion	Total
Balance at January 1, 2016	$ 296	$ 7,543	$ 7,839
Accretion	36	587	623
Amounts paid	(213)	—	(213)
Reductions	(134)	(558)	(692)
Reclassifications	100	(100)	—
Balance at December 31, 2016	85	7,472	7,557
Accretion	8	554	562
Amounts paid	(248)	—	(248)
Increases and reductions	5	(468)	(463)
Reclassifications	384	(384)	—
Balance at December 31, 2017	$ 234	$ 7,174	$ 7,408

Increases and reductions other than accretion, reclassification and amounts paid primarily relate to changes in estimate of the underlying liability, specifically as it relates to updates in estimated costs to remove a transmitter and the estimated timing of removal. The cost associated with the estimated removal costs and timing refinements due to ongoing network rationalization activities is expected to accrete to a total liability of $9.3 million. The total estimated liability is based on the transmitter locations remaining after we have consolidated the number of networks we operate and assume the underlying leases continue to be renewed to that future date.

Accretion expense related solely to asset retirement obligations and was recorded based on the interest method utilizing the following discount rates for the specified periods:

Period	Discount Rate
2017 – January 1 through September 30 – Additions[2]	11.50%
2017 – December 31 Additions[2] and Incremental Estimates	14.00%
2016 – January 1 through December 31 – Additions[2]	11.50%
2016 – December 31 - Incremental Estimates	12.09% [1]
2015 – January 1 through September 30 – Additions[2]	10.48%
2015 – December 31 Additions[2] and Incremental Estimates	11.50%

(1) Weighted average credit adjusted risk-free rate used to discount downward revision to estimated future cash flows.
(2) Transmitters moved to new sites resulting in additional liability.

Additional information regarding asset retirement costs, depreciation expense, accretion and liabilities can be found in Note 3, "Consolidated Financial Statement Components".

NOTE 6 - STOCKHOLDERS' EQUITY

General

Our authorized capital stock consists of 75 million shares of common stock, par value $0.0001 per share, and 25 million shares of preferred stock, par value $0.0001 per share.

At December 31, 2017 and 2016, we had no stock options outstanding.

At December 31, 2017 and 2016, there were 20,135,514 and 20,525,614 shares of common stock outstanding, respectively, and no shares of preferred stock outstanding.

Dividends

For the three years ending December 31, 2017, 2016 and 2015 our Board of Directors declared cash dividends of $0.50, $0.750 and $0.625 per share of our outstanding common stock, respectively. An immaterial amount of dividends declared were related to unvested RSUs and unvested shares of restricted stock which are accrued for and paid when the applicable vesting conditions are met. Accrued cash dividends on forfeited RSUs and restricted stock are also forfeited. Cash dividends paid as disclosed in the statements of cash flows for the years ended December 31, 2017, 2016 and 2015 included previously declared cash dividends on vested RSUs and on shares of vested restricted stock issued to non-executive members of our Board of Directors.

On February 28, 2018, our Board of Directors declared a regular quarterly cash dividend of $0.125 per share of common stock, with a record date of March 16, 2018, and a payment date of March 30, 2018. This cash dividend of approximately $2.6 million is expected to be paid from available cash on hand.

Common Stock Repurchase Program

On July 31, 2008, our Board of Directors approved a program to repurchase our common stock in the open market. This program has been extended at various times, most recently through December 31, 2018, with a repurchase authority of $10.0 million as of February 28, 2018.

We use available cash on hand and net cash provided by operating activities to fund the common stock repurchase program. This repurchase authority allows us, at management’s discretion, to selectively repurchase shares of our common stock from time to time in the open market depending upon market price and other factors.

Repurchased shares of our common stock were accounted for as a reduction to common stock and additional paid-in-capital in the period in which the repurchase occurred. All repurchased shares of common stock are returned to the status of authorized, but unissued, shares of the Company.

Common stock purchased in 2017, 2016 and 2015 (excluding the purchase of common stock for tax withholdings) was as follows:

For the Three Months Ended	Shares Purchased	Amount	Shares Purchased	Amount	Shares Purchased	Amount
(dollars in thousands)	2017		2016		2015	
March 31,	—	$ —	291,861	$ 4,893	27,467	$ 465
June 30,	572,550	10,000	65,791	1,078	177,330	3,002
September 30,	—	—	13,884	228	502,942	8,309
December 31,	—	—	16,719	274	189,438	3,196
Total	572,550	$ 10,000	388,255	$ 6,473	897,177	$ 14,972

Net (Loss) Income per Common Share

Basic net (loss) income per common share is computed on the basis of the weighted average common shares outstanding. Diluted net (loss) income per common share is computed on the basis of the weighted average common shares outstanding plus the effect of all potentially dilutive common shares including unvested and outstanding equity awards. The components of basic and diluted net (loss) income per common share were as follows for the periods stated:

	For the Year Ended December 31,		
(in thousands, except for share and per share amounts)	2017	2016	2015
Numerator:			
Net (loss) income	$ (15,306)	$ 13,979	$ 80,246
Denominator:			
Basic and diluted weighted average outstanding shares of common stock	20,210,260	20,586,066	21,471,041
Basic and diluted net (loss) income per common share	$ (0.76)	$ 0.68	$ 3.74

For the years ended December 31, 2017, 2016 and 2015, the following securities were not included in the calculation of diluted shares outstanding as the effect would have been anti-dilutive:

	For the Year Ended December 31,		
	2017	2016	2015
Restricted stock units	90,665	—	—

Share-based Compensation Plans

On March 23, 2012, our Board of Directors adopted the Spok Holdings, Inc. 2012 Equity Incentive Award Plan (the "2012 Equity Plan") that was subsequently approved by our stockholders on May 16, 2012. A total of 2,194,986 shares of common stock have been reserved for issuance under this plan.

Awards under the 2012 Equity Plan may be in the form of stock options, common stock, restricted stock, RSUs, performance awards, dividend equivalents, deferred stock, deferred stock units, or stock appreciation rights.

Restricted stock awards generally vest one year from the date of grant. Related dividends accumulate during the vesting period and are paid at the time of vesting.

Contingent RSU's generally vest over a three year performance period upon successful completion of the performance objectives. Non-contingent RSU's generally vest in thirds, annually, over a three year period. Dividend equivalents rights generally accompany each RSU award and those rights accumulate and vest along with the underlying RSU.

The following table summarizes the activities under the 2012 Equity Plan from January 1, 2015 through December 31, 2017:

	Activity
Total equity securities available at January 1, 2015	1,747,586
Less: RSU and restricted stock awarded to eligible employees, net of forfeitures	(264,355)
Total equity securities available at December 31, 2015	1,483,231
Less: RSU and restricted stock awarded to eligible employees, net of forfeitures	(236,292)
Total equity securities available at December 31, 2016	1,246,939
Less: RSU and restricted stock awarded to eligible employees, net of forfeitures	(106,281)
Total equity securities available at December 31, 2017	1,140,658

The following table details activities with respect to outstanding RSUs and restricted stock for the year ended December 31, 2017 and has been reclassified to conform to current period's presentation which includes restricted stock activity:

	Shares	Weighted-Average Grant Date Fair Value
Unvested at January 1, 2017[(1)]	451,493	$ 17.10
Granted	249,435	20.37
Vested	(143,394)	18.14
Forfeited[(2)]	(164,450)	17.71
Unvested at December 31, 2017[(1)]	393,084	$ 18.54

[(1)]Approximately 100,767 RSUs from the 2016 grant are not expected to vest based on the Company's current assessment of the related performance obligations.

[(2)]107,616 RSUs did not vest based on the Company's actual performance at December 31, 2017 as compared to the related performance obligations.

Of the 393,084 unvested RSUs and restricted stock outstanding at December 31, 2017, 308,960 RSUs include contingent performance requirements for vesting purposes. At December 31, 2017, there was $3.2 million of unrecognized net compensation cost related to RSUs and restricted stock, which is expected to be recognized over a weighted average period of 1.57 years.

Employee Stock Purchase Plan

In 2016 our Board of Directors adopted the Spok Holdings, Inc. Employee Stock Purchase Plan ("ESPP") that was subsequently approved by our stockholders on July 25, 2016. A total of 250,000 shares of common stock have been reserved for issuance under this plan.

The Company's ESPP allows employees to purchase shares of common stock at a discounted rate, subject to plan limitations. Under the ESPP, eligible participants can voluntarily elect to have contributions withheld from their pay for the duration of an offering period, subject to the ESPP limits. At the end of an offering period, contributions will be used to purchase the Company's common stock at a discount to the market price based on the first or last day of the offering period, whichever is lower. Participants are required to hold common stock for a minimum period of two years from the grant date. Participants will begin earning dividends on shares after the purchase date. Each offering period will generally last for no longer than six months. Once an offering period begins, participants cannot adjust their withholding amount. If a participant chooses to withdraw, any previously withheld funds will be returned to the participant, with no stock purchased, and that participant will be eligible to participate in the ESPP at the next offering period. If the participant terminates employment with the Company during the offering period, all contributions will be returned to the employee and no stock will be purchased at a discounted rate.

The Company uses the Black-Scholes model to calculate the fair value of each offering period on their offer date. The Black-Scholes model requires the use of estimates for the expected term, the expected volatility of the underlying common stock over the expected term, the risk-free interest rate and the expected dividend payment.

For the year ended December 31, 2017, employees purchased 17,760 shares of common stock for a total price of $0.3 million. For the year ended December 31, 2016, employees purchased 3,961 shares of common stock for a total price of $0.1 million.

The following table summarizes the activities under the ESPP from January 1, 2017 through December 31, 2017:

	Activity
Total ESPP equity securities available at January 1, 2016	—
Plus: Registration of 2016 ESPP	250,000
Less: common stock purchased by eligible employees	(3,961)
Total ESPP equity securities available at January 1, 2017	246,039
Less: common stock purchased by eligible employees	(17,760)
Total ESPP equity securities available at December 31, 2017	228,279

Amounts withheld from participants will be classified as a liability on the balance sheet until funds are used to purchase shares. This liability amount is immaterial to the consolidated financial statements.

Stock-based Compensation Expense

Compensation expense associated with common stock, RSUs and restricted stock was recognized based on the fair value of the instruments, over the instruments' vesting period. Stock based compensation expense increased by $2.8 million for the year ended December 31, 2017 from the same period in 2016 primarily due to a one-time reversal of $2.0 million in stock compensation expense related to the 2015 and 2016 awards during 2016 which was not subsequently incurred during 2017 and the amortization of more awards in 2017 as compared to 2016. As of December 31, 2017, we do not currently believe it is probable that 50% of the awards issued in 2016 will vest based on the related performance criteria and our assessment of the anticipated future performance applied to the performance criteria. The remaining 50% of awards expected to vest will continue to be expensed accordingly over the remaining applicable service periods.

Stock based compensation expense decreased by $1.0 million for the year ended December 31, 2016 from the same period in 2015 primarily due to a one-time reversal of $2.0 million in stock compensation expense related to the 2015 and 2016 awards which did not occur during 2015 partially offset by the amortization of more awards in 2016 as compared to 2015.

The following table reflects stock based compensation expense for the periods stated:

Operating Expense Category	For the Year Ended December 31,		
(Dollars in thousands)	2017	2016	2015
Performance-based RSUs	$ 1,762	$ 413	$ 1,498
Time-based RSUs and restricted stock	1,862	418	370
ESPP	64	23	—
Total stock based compensation	$ 3,688	$ 854	$ 1,868

NOTE 7 - INCOME TAXES

The Tax Cuts and Jobs Act of 2017 ("2017 Tax Act") was signed into law on December 22, 2017. The 2017 Tax Act significantly revises the U.S. corporate income tax by, among other things, lowering the statutory corporate tax rate from 35% to 21%, eliminating certain deductions, imposing a mandatory one-time tax on accumulated earnings of foreign subsidiaries, introducing new tax regimes, and changing how foreign earnings are subject to U.S. tax. The 2017 Tax Act also enhanced and extended through 2026 the option to claim accelerated depreciation deductions on qualified property. We have not completed our determination of the accounting implications of the 2017 Tax Act on our tax accruals. However, we have reasonably estimated the effects of the 2017 Tax Act and recorded provisional amounts in our financial statements as of December 31, 2017. We recorded a provisional tax expense for the impact of the 2017 Tax Act of approximately $24.2 million. This amount is primarily comprised of the remeasurement of deferred income tax assets ("DTA's") resulting from the permanent reduction in the U.S. statutory corporate tax rate to 21% from 35%. Changes that impact foreign earnings are not expected to have a material effect. As we complete our analysis of the 2017 Tax Act, collect and prepare necessary data, and interpret any additional guidance issued by the U.S. Treasury Department, the IRS, and other standard-setting bodies, we may make adjustments to the provisional amounts. Those adjustments may materially impact our provision for income taxes in the period in which the adjustments are made.

The significant components of our income tax expense (benefit) attributable to current operations for the periods stated were as follows:

(Dollars in thousands)	For the Year Ended December 31, 2017	2016	2015
Income before income tax expense (benefit)	$ 11,559	$ 22,971	$ 26,298
Current:			
Federal tax	$ 199	$ 669	$ 432
State tax	1,006	1,294	622
Foreign tax	270	103	16
Total current	1,475	2,066	1,070
Deferred:			
Federal tax	26,348	6,811	(55,716)
State tax	(787)	41	1,020
Foreign tax	(171)	74	(322)
Total deferred	25,390	6,926	(55,018)
Total income tax expense (benefit)	$ 26,865	$ 8,992	$ (53,948)

Foreign income before income tax (expense) benefit is immaterial to consolidated income before income tax (expense) benefit.

The following table summarizes the principal elements of the difference between the United States Federal statutory rate of 35% and our effective tax rate:

Effective tax rate reconciliation	2017		2016		2015	
(Dollars in thousands)						
Income before income tax expense (benefit)	$ 11,559		$ 22,971		$ 26,298	
Income taxes computed at the Federal statutory rate	$ 4,046	35.0 %	$ 8,040	35.0%	$ 9,204	35.0 %
State income taxes, net of Federal benefit	472	4.1 %	867	3.8%	1,021	3.9 %
Impact of 2017 Tax Act	24,235	209.7 %	—	—%	—	— %
Research and development and other tax credits	(1,775)	(15.4)%	—	—%	—	— %
Change in valuation allowance	—	— %	—	—%	(64,159)	(244.0)%
Other	(113)	(1.0)%	85	0.4%	(14)	(0.1)%
Income tax expense (benefit)	$ 26,865	232.4 %	$ 8,992	39.1%	$ (53,948)	(205.1)%

Income tax expense increased by $17.9 million for the year ended December 31, 2017 compared to the same period in 2016 due primarily to the write-off of DTA's as a result of the 2017 Tax Act partially offset by research and development and other tax credits. Our investment in research and development qualifies for the research and development income tax credit under Section 41 of the Internal Revenue Code. Unused research and development tax credits have a 20-year carryover and will provide future tax benefits once Spok's net operating losses are fully utilized. The Company first applied this credit during 2017 and as a result has certain credits related to past periods. Research and development tax credits totaled $1.4 million in 2017 of which $0.6 million relates to prior periods.

The anticipated effective income tax rate is expected to continue to differ from the Federal statutory rate primarily due to the effect of state income taxes, the use of the research and development tax credit, permanent differences between book and taxable income and certain discrete items. The earnings of non-US subsidiaries are deemed to be indefinitely reinvested in non-US operations.

Income tax expense increased by $62.9 million for the year ended December 31, 2016 compared to the same period in 2015 due primarily to a reduction of the DTA valuation allowance of $64.2 million during 2015 that did not occur in 2016. During the year ended December 31, 2016, the US Court of Appeals for the Second Circuit affirmed a Tax Court Decision, unrelated to Spok, regarding the allocation of cancellation of debt income to tax attributes for a company that filed a Federal consolidated income tax return. This impacted the ultimate realization of certain of our net operating loss ("NOL") carryovers. Therefore, during the year ended December 31, 2016, we wrote off our valuation allowance of $50.0 million against the related Federal and State NOL DTAs. This had no impact on the 2016 income tax provision or net income.

The components of deferred income tax assets at December 31, 2017 and 2016 were as follows:

(Dollars in thousands)	December 31, 2017	December 31, 2016
Net operating losses and tax credits	$ 26,296	$ 45,947
Property and equipment	8,289	12,995
AMT minimum tax receivable	2,489	2,199
Accruals and accrued loss contingencies	4,833	6,723
Intangible assets	6,033	5,886
Gross deferred income tax assets	47,940	73,750
Deferred income tax liabilities:		
Prepaid and other expenses	(261)	(682)
Gross deferred income tax liabilities	(261)	(682)
Net deferred income tax assets	$ 47,679	$ 73,068

Net Operating Losses

As of December 31, 2017, we had approximately $106.1 million of NOLs available to offset future taxable income. The Federal NOLs begin expiring in 2025 and will fully expire in 2029. We have an immaterial amount of foreign NOLs and tax credits available for future use.

Valuation Allowance

We assess the recoverability of our deferred income tax assets, which represent the tax benefits of future tax deductions, NOLs and tax credits, by considering the adequacy of future taxable income from all sources, including prudent and feasible tax planning strategies. This assessment is required to determine whether based on all available evidence, it is “more likely than not” (which means a probability of greater than 50%) that all or some portion of the DTAs will be realized in future periods. As of December 31, 2017 and 2016 we believe it is more likely than not that our DTAs will be realized in future periods and thus did not have a valuation allowance.

Income Tax Audits

Our Federal income tax returns have been examined by the Internal Revenue Service ("IRS") through December 31, 2008. The audits of the Federal returns for the years ended 2005 through 2008 resulted in no changes. The IRS also audited Amcom’s 2009 Federal tax return (pre-acquisition) with no changes. The 2015, 2016 and 2017 income tax returns of the Company have not been audited by the IRS and are within the statute of limitations (“SOL”).

We operate in all states and the District of Columbia and are subject to various state income and franchise tax audits. The states’ SOL varies from three to four years from the later of the due date of the return or the date filed. We usually file our Federal and all state and local income tax returns on or before September 15 of the following year; therefore, the SOL for those states with a three-year SOL is open for calendar years ending 2014 through 2017, and for the four year SOL states, the SOL is open for years ending from 2013 through 2017.

NOTE 8 - COMMITMENTS AND CONTINGENCIES

Contractual Obligations

We had no significant commitments and contractual obligations as of December 31, 2017.

Other Commitments

We have various LOCs outstanding with multiple state agencies which are considered to be immaterial to the consolidated financial statements. The LOCs typically have one to three-year contract requirements and contain automatic renewal terms.

Legal Contingencies

We are involved, from time to time, in lawsuits arising in the normal course of business. We believe these pending lawsuits will not have a material adverse impact on our financial position or statement of operations.

On February 1, 2018, we learned of a complaint filed naming us and our subsidiary, Spok, Inc., as defendants in *GroupChatter, LLC v. Spok Holdings, Inc., et. al.,* Civ. A. No. 6:18-cv-00048, U.S. District Court for the Eastern District of Texas, alleging infringement of U.S. Patent Nos. 7,969,959; 9,699,637; 9,615,239; and 9,294,888. We are evaluating the allegations asserted in this complaint and intend to defend against the claims vigorously. At this time we are unable to predict the outcome of this litigation, though we do not believe it will have a material adverse effect on our financial condition.

Operating Leases

We have operating leases for office and transmitter locations. Substantially all of these leases have lease terms ranging from one month to five years. We continue to review our office and transmitter locations, and intend to replace, reduce or consolidate leases, where possible.

Future minimum lease payments under non-cancelable operating leases at December 31, 2017 were as follows:

For the Year Ended December 31,	(Dollars in thousands)
2018	$ 6,126
2019	3,873
2020	2,924
2021	2,538
2022	1,065
Thereafter	885
Total	$ 17,411

These leases typically include renewal options and escalation clauses. Where material, we recognize rent expense on a straight-line basis over the lease period. The difference between rent paid and rent expense is recorded as accrued other and other long-term liabilities on the consolidated balance sheets.

Total rent expense under operating leases for the years ended December 31, 2017, 2016 and 2015, was approximately $17.7 million, $17.9 million and $18.5 million, respectively.

NOTE 9 - EMPLOYEE BENEFIT PLANS

Spok Holdings, Inc. Savings and Retirement Plan

The Company has a savings plan in the U.S. that qualifies qualifies under Section 401(k) of the IRC. Participating U.S. employees may elect to contribute a percentage of their salary, subject to certain limitations. Matching contributions under the savings plan were approximately $1.1 million for each of the years ended December 31, 2017, 2016 and 2015.

NOTE 10 - RELATED PARTIES

A member of our Board of Directors also serves as a director for an entity that leases transmission tower sites to the Company. For the years ended December 31, 2017, 2016 and 2015, we incurred $3.8 million, $3.9 million and $4.1 million, respectively, in site rent expenses from the entity on which the individual serves as a director. These amounts are included in service, rental and maintenance expenses.

NOTE 11 - SEGMENTS AND GEOGRAPHIC INFORMATION

Effective January 1, 2014, the Company was structured as a single operating (and reportable) segment, a critical communication business. The Chief Executive Officer (who is also the chief operating decision maker as defined by ASC 280) views the business as one operation and assesses performance and allocates resources on the basis of consolidated operations.

The U.S. was the only country that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2017, 2016 and 2015. Revenue by geographic region consisted of the following for the periods stated:

(Dollars in thousands)	December 31, 2017	December 31, 2016	December 31, 2015
Revenue			
United States	$ 166,790	$ 173,852	$ 185,741
International	4,385	5,709	3,887
Total revenue	$ 171,175	$ 179,561	$ 189,628

An immaterial amount of long-lived assets were held outside of the United States for the years ended December 31, 2017, 2016 and 2015.

NOTE 12 - SELECTED QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Quarterly financial information for the years ended December 31, 2017 and 2016 is summarized below:

For the Year Ended December 31, 2017	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(Dollars in thousands except per share amounts)			
Revenues[2]	$ 41,444	$ 42,325	$ 43,636	$ 43,770
Operating income[2]	1,382	2,410	3,325	3,589
Net income (loss)[2][3]	854	1,498	3,727	(21,384)
Basic and diluted net income (loss) per common share[1]	0.04	0.07	0.19	(1.07)

For the Year Ended December 31, 2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter[4]
	(Dollars in thousands except per share amounts)			
Revenues[2]	$ 45,388	$ 44,635	$ 45,355	$ 44,184
Operating income[2]	5,800	5,620	6,029	4,703
Net income[2]	3,444	3,451	4,058	3,026
Basic and diluted net income per common share[1]	0.17	0.17	0.20	0.15

(1) Basic and diluted net income (loss) per common share is computed independently for each period presented. As a result, the sum of the quarterly basic and diluted net income (loss) per common share for the years ended December 31, 2017 and 2016 may not equal the total computed for the year.

(2) Slight variations in totals are due to rounding.

(3) Fourth quarter 2017 net loss includes $24.2 million from the write-off of the deferred income tax asset related to the 2017 Tax Act (refer to Note 8, "Income Taxes").

SCHEDULE II

SPOK HOLDINGS, INC.
VALUATION AND QUALIFYING ACCOUNTS

Allowance for Doubtful Accounts, Service Credits and Other	Balance at the Beginning of the Period	Charged to Operations	Write-offs	Balance at the End of the Period
	(Dollars in thousands)			
Year ended December 31, 2017	$ 1,056	$ 1,035	$ (1,026)	$ 1,065
Year ended December 31, 2016	$ 1,286	$ 761	$ (991)	$ 1,056
Year ended December 31, 2015	$ 1,300	$ 1,290	$ (1,304)	$ 1,286

Deferred Income Tax Asset Valuation Allowance	Balance at the Beginning of the Period	Additions	Deductions	Balance at the End of the Period
	(Dollars in thousands)			
Year ended December 31, 2017	$ —	$ —	$ —	$ —
Year ended December 31, 2016	$ 50,031	$ —	$ (50,031)	$ —
Year ended December 31, 2015	$ 114,190	$ —	$ (64,159)	$ 50,031

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed/ Furnished Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation	8-K	001-32358	3.1	7/8/2014	
3.2	Second Amended and Restated Bylaws	8-K	001-32358	3.1	12/20/2016	
4.1*	Specimen of common stock certificate, par value $0.0001 per share	S-4/A	333-115769	4.1	10/6/2004	
10.1*	Form of Indemnification Agreement for directors and executive officers of USA Mobility, Inc.	8-K	001-32358	10.4	11/17/2004	
10.2*	USA Mobility, Inc. Equity Incentive Plan Restricted Stock Agreement (For Board of Directors) (amended)	10-Q	001-32358	10.18	11/1/2007	
10.3*	Form of Director's Indemnification Agreement	10-Q	001-32358	10.24	10/30/2008	
10.4*	USA Mobility, Inc. 2012 Equity Incentive Award Plan	DEF 14A	001-32358	A	3/28/2012	
10.5†	Third Amended and Restated Employment Agreement, between Spok Holdings, Inc. and Vince D. Kelly, dated as of December 28, 2016	8-K	001-32358	10.1	12/28/2016	
10.6*	Restricted Stock Unit Grant Notice for the USA Mobility, Inc. 2012 Equity Incentive Award Plan	10-K	001-32358	10.16	3/2/2017	
10.7	Restricted Stock Unit Grant Notice for the Spok Holdings, Inc. 2015 Long-Term Incentive Plan	10-K	001-32358	10.17	3/2/2017	
10.8*	Spok Holdings, Inc. Severance Pay Plan and Summary Plan Description (For certain C-Level, not including CEO) (amended and restated)	10-K	001-32358	10.18	3/2/2017	
10.9	Spok Holdings, Inc. 2015 Short-Term Incentive Plan	10-K	001-32358	10.35	2/25/2016	
10.10	Spok Holdings, Inc. 2015 Long-Term Incentive Plan					Filed
10.11	Spok Holdings, Inc. 2016 Short-Term Incentive Plan	10-K	001-32358	10.11	3/2/2017	
10.12	Exhibits to Spok Holdings, Inc., 2015 Long-Term Incentive Plan for the 2016 - 2018 performance period(1)	10-K	001-32358	10.38	2/25/2016	
10.13	Spok Holdings, Inc. 2017 Short-Term Incentive Plan					Filed
10.14	Exhibits to Spok Holdings, Inc., 2015 Long-Term Incentive Plan for the 2017 - 2019 performance period(1)	10-K	001-32358	10.15	3/2/2017	
10.15	Spok Holdings, Inc. 2018 Short-Term Incentive Plan(1)					Filed
10.16	Spok Holdings, Inc. 2018 Long-Term Incentive Plan(1)					Filed
10.17*	Amendment to the USA Mobility, Inc. 2012 Equity Incentive Award Plan	DEF 14A	001-32358	A	4/27/2017	
10.18†	NEO Severance and Change in Control Document	10-Q	001-32358	10.2	4/27/2017	
10.19†	Offer Letter to Michael Wallace	8-K	001-32358	10.1	3/27/2017	
21	Subsidiaries of the Company					Filed
23	Consent of Grant Thornton LLP					Filed
31.1	Certification of President and Chief Executive Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended					Filed
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended					Filed
32.1	Certification of President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350					Furnished
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350					Furnished
101.INS	XBRL Instance Document**					Furnished
101.SCH	XBRL Taxonomy Extension Schema**					Furnished
101.CAL	XBRL Taxonomy Extension Calculation**					Furnished
101.DEF	XBRL Taxonomy Extension Definition**					Furnished
101.LAB	XBRL Taxonomy Extension Labels**					Furnished
101.PRE	XBRL Taxonomy Extension Presentation**					Furnished

*	On July 8, 2014, the Company changed its name from USA Mobility, Inc. to Spok Holdings, Inc.
**	The financial information contained in these XBRL documents is unaudited.
†	Denotes a management contract or compensatory plan or arrangement.
(1)	Portions of this document have been omitted and filed separately with the Securities and Exchange Commission pursuant to requests for confidential treatment pursuant to Rule 24b-2.

Exhibit 10.10

SPOK HOLDINGS, INC.

2015 LONG-TERM INCENTIVE PLAN

Adopted by the Board of Directors

Upon Recommendation of the Compensation Committee

on December 9, 2014

To Be Effective as of January 1, 2015

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SPOK HOLDINGS, INC.

2015 LONG-TERM INCENTIVE PLAN

SECTION 1.

BACKGROUND, PURPOSE AND DURATION

1.1 Effective Date. The Board of Directors (the "Board") adopted the Plan upon the recommendation of the Compensation Committee of the Board of Spok Holdings, Inc., (the "Company") to be effective as of January 1, 2015.

1.2 Purposes of the Plan. The purposes of the Plan are to promote the success of the Company's business, advance the interests of the Company, attract and retain the best available personnel for positions of substantial responsibility at the Company, and provide additional incentives to selected key employees of the Company for outstanding performance. The Plan permits the award of Restricted Stock Units to key employees as the Committee may determine. Upon attainment of Performance Goals for the Performance Period, Restricted Stock Units granted to Participants will convert and be paid in Common Stock, and dividend equivalent rights (if any) with respect to vested Restricted Stock Units will be paid in cash. Actual Awards to "Covered Employees" under the Plan (within the meaning of section 162(m) of the Code) are intended to qualify as Performance Based Compensation pursuant to Article 5 of the Spok Holdings, Inc. 2012 Equity Incentive Award Plan, as it may be amended or restated from time to time ("Equity Incentive Award Plan").

SECTION 2.

DEFINITIONS

The following words and phrases shall have the following meanings unless a different meaning is plainly required by the context:

2.1 "Actual Award" means the vested portion of the Target Award (if any) payable to a Participant.

2.2 "Affiliate" means any corporation or other entity (including, but not limited to, partnerships and joint ventures) controlled by, controlling, or under common control with, the Company where "control" means the right to elect or appoint at least fifty percent (50%) of the directors, managing members, general partners, trustees or entities exercising similar powers with respect to the Company or the applicable entity whether by beneficial ownership of securities or other interests, by proxy or agreement, or both. Notwithstanding the preceding, an Affiliate that is not an affiliate within the meaning of the regulations under Code section 409A shall not constitute an Affiliate under this Plan.

2.3 "Award Agreement" means any written agreement, contract or other instrument or document evidencing a Target Award, including through an electronic medium.

2.4 Board" means the Board of Directors of the Company.

2.5 "Cause" unless otherwise defined in an employment agreement between the Participant and the Company or an Affiliate, means (a) dishonesty of a material nature that relates to the performance of services for the Company by Participants; (b) criminal conduct (other than minor infractions and traffic violations) that relates to the performance of services for the Company by Participant; (c) the Participant's willfully breaching or failing to perform his or her duties as an employee of the Company (other than any such failure resulting from the Participant having a disability (as defined herein)), within a reasonable

period of time after a written demand for substantial performance is delivered to the Participant by the Board, which demand specifically identifies the manner in which the Board believes that the Participant has not substantially performed his or her duties; or (d) the willful engaging by the Participant in conduct that is demonstrably and materially injurious to the Company, monetarily or otherwise. No act or failure to act on the Participant's part shall be deemed "willful" unless done, or omitted to be done, by the Participant not in good faith and without reasonable belief that such action or omission was in the reasonable best interests of the Company. Disability as used herein means a condition or circumstance such that the Participant has become totally and permanently disabled as defined or described in the Company's long term disability benefit plan applicable to executive officers as in effect at the time the Participant incurs a disability.

2.6 "Change of Control" shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its subsidiaries, an employee benefit plan maintained by the Company or any of its subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.6(a) or Section 2.6(c)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) Which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) After which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided,

however, that no person or group shall be treated for purposes of this Section 2.6(c)(i) as beneficially owning 50% or more of combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The Company's stockholders approve a liquidation or dissolution of the Company.

In addition, if a Change in Control constitutes a payment event or a toggle event with respect to any Award which provides for the deferral of compensation and is subject to Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5) to the extent required by Section 409A.

The Committee shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, and the date of the occurrence of such Change in Control and any incidental matters relating thereto.

2.7 "Code" means the Internal Revenue Code of 1986, as amended, and the regulations and other guidance issued by the Treasury Department and Internal Revenue Service thereunder.

2.8 "Committee" means the committee appointed by the Board to administer the Plan. Until otherwise determined by the Board, (a) the Company's Compensation Committee of the Board shall constitute the Committee, and (b) for administrative convenience, the independent, non-employee members of the Board also may act as the Committee from time to time. With respect to awards intended to qualify as "performance-based compensation" as described in Section 162(m)(4)(C) of the Code, each member of the Committee shall qualify as an "outside director" under Section 162(m) of the Code.

2.9 "Common Stock" means the common stock of the Company, par value $0.0001 per share.

2.10 "Company" means Spok Holdings, Inc., and Affiliates or any successor thereto.

2.11 "Effective Date" means January 1, 2015.

2.12 "Employee" means any key employee of the Company or Affiliate, whether such individual is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.

2.13 "Participant" means an Employee who has been selected by the Committee for participation in the Plan. Employees who have been selected to participate as of January 1, 2015 are listed on Exhibit A.

2.14 "Performance Goals" means the Minimum Performance Goals based on one or more performance criteria defined in the Equity Incentive Award Plan for the applicable Performance Period, as approved by the Committee, in writing, no later than the 90th day of the applicable Performance Period. The Performance Goals for each Performance Period shall be included on Exhibit B upon approval by the Committee. Subject to any applicable limitations for "performance-based compensation" as described in Section 162(m)(4)(C) of the Code, the Committee may revise the Performance Goals in the event of a Change of Control or other corporate reorganization, merger, or similar transaction, to take into account extraordinary events or as the Committee determines is in the best interests of the Company. Such extraordinary events shall include the implementation of changes in generally accepted accounting

principles resulting from new accounting standards issued by the Financial Accounting Standards Board, Securities and Exchange Commission and/or other regulatory bodies responsible for the establishment of accounting standards applicable to the Company. (As an example, a new revenue recognition standard is expected to be effective January 1, 2017 that could require adjustment to the performance goals as established by the Compensation Committee.)

2.15 "Performance Period" means the applicable three-year period commencing on each of January 1, 2015, January 1, 2016 and January 1, 2017, and ending on December 31, 2017, December 31, 2018 and December 31, 2019, respectively, unless otherwise determined by the Committee or specified in an Award Agreement or an employment agreement between the Participant and the Company.

2.16 "Person" shall have the meaning set forth in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company and (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company or Affiliate.

2.17 "Plan" means the Spok Holdings, Inc. 2015 Long-Term Incentive Plan, as set forth in this instrument and as hereafter amended from time to time.

2.18 "Restricted Stock Unit" means the right to receive a share of Company Common Stock upon the attainment of the Performance Goals.

2.19 "Separation from Service" means separation from service as defined in the Treasury Regulations under Code section 409A. "Separates from Service" shall have a consistent meaning.

2.20 "Target Award" means the target award, at one hundred percent (100%) achievement of the Performance Goals payable under the Plan, as determined by the Committee in its sole discretion.

SECTION 3.
SELECTION OF PARTICIPANTS AND DETERMINATION OF AWARDS

3.1 Selection of Participants. The Committee, in its sole discretion, shall select the Employees who shall be Participants in the Plan and the Committee may, in its sole discretion, select Employees to participate in the Plan at any time during any Performance Period.

3.2 Determination of Target Awards. The Committee, in its sole discretion, shall establish and grant a Target Award that may be earned by each Participant. A Participant's Target Award shall be established by the Committee in writing no later than the 90th day of the Performance Period, or, for employees newly hired or promoted to become eligible during a Performance Period, before 25% of the remaining Performance Period has elapsed as measured from the date of hire or promotion, as applicable. The Committee may establish Target Awards in a different manner for different groups of Participants. The Target Award shall be granted in the form of Restricted Stock Units. Unless otherwise determined by the Committee, the number of Restricted Stock Units granted shall be based on the fair market value of the Company's Common Stock as of the effective date of the grant; provided, for purposes of determining the number of Restricted Stock Units granted to an Employee who becomes a Participant after the beginning of an applicable Performance Period, the number of Restricted Stock Units may be determined, in the sole discretion of the Committee, based on (a) the fair market value of the Company's Common Stock as of the effective date of the initial grants to Participants for the applicable Performance Period, reduced by the value of any cash dividends or cash distributions (regular or otherwise) that are paid with respect to the Company's Common Stock from that date to the date of grant, (b) the fair market value of the Company's Common Stock on the date on which the Participant commenced participation in the Plan,

or (c) such other manner as the Committee may determine in its sole discretion. Restricted Stock Units shall be granted pursuant to the Equity Incentive Award Plan. Further, if at any time the Common Stock ceases to be registered as a class of equity securities under the Exchange Act, whether as a result of a Change of Control or otherwise, the Committee may in its sole discretion convert any Restricted Stock Units into a right to receive cash in lieu of shares of Common Stock based upon the fair market value of a share of Common Stock at the time of or immediately prior to the time the Common Stock was no longer registered under the Exchange Act.

3.3 Award Agreements. Target Awards granted pursuant to the Plan shall be evidenced by Award Agreements. Award Agreements may be amended by the Committee with the consent of the germane Participant from time to time and need not contain uniform provisions.

3.4 Dividend Equivalent Rights. A Participant shall be entitled to dividend equivalent rights with respect to Restricted Stock Units to the extent that any cash dividends or cash distributions (regular or otherwise) are paid with respect to the Company's Common Stock during the Performance Period. The dividend equivalent rights will be subject to the vesting restrictions and the other terms and conditions under this Plan that are applicable to the Restricted Stock Units until such time, if ever, as the Restricted Stock Units with respect to which the dividend equivalent rights are paid vest.

SECTION 4.

VESTING AND PAYMENT OF AWARDS

4.1 Attainment of Performance Goals. In order for Actual Awards to be earned and paid for an applicable Performance Period, the Company must attain the Performance Goals for the applicable Performance Period and the Committee must certify the attainment of such Performance Goals in writing.

4.2 Vesting.

(a) Subject to Section 4.2(b) below, Target Awards shall vest upon the Committee's reasonable determination that the Performance Goals have been achieved at the end of the Performance Period. If the Performance Goals are met and certified by the Committee in writing, Participants will be entitled to the vested portion of a Target Award unless the Participant has otherwise forfeited a portion or all of the Target Award as set forth in Section 4.4 .

(b) In the event of a Change of Control, vesting shall be accelerated as follows, provided that the Company is on track to meet the Performance Goals as reasonably determined by the Committee (as comprised immediately prior to the Change of Control).

(i) If a Change of Control occurs during the first year of the applicable Performance Period, fifty percent (50%) of the Participant's Target Award shall vest.

(ii) If a Change of Control occurs during the second year of the applicable Performance Period, seventy-five percent (75%) of the Participant's Target Award shall vest.

(iii) If a Change of Control occurs during the final year of the applicable Performance Period, the Participant's Target Award shall vest in full.

With respect to an employee who becomes a Participant after the beginning of an applicable Performance Period, the accelerated vesting described above will apply on a prorated basis based on the number of days worked during the Performance Period, unless otherwise

determined by the Committee. For clarity, if an employee becomes a Participant in the second year of the applicable Performance Period and a Change in Control occurs later during that second year of the applicable Performance Period, accelerated vesting of his Target Award (prorated as described in section 4.4, below) will be calculated as follows: seventy-five percent (75%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Employee was a Participant in the Plan during the applicable Performance Period, and the denominator of which is the total number of days in the applicable Performance Period.

(c) All Actual Awards including pro-rated awards will be paid at the time provided in Section 4.3.

4.3 Time and Form of Payment.

(a) Each Actual Award shall be paid in Common Stock pursuant to the Award Agreements, subject to any required withholding for income and employment taxes. Dividend equivalent rights shall be paid in cash in a single lump sum to the extent earned.

(b) Actual Awards will be paid on or after the third business day after the Company's annual audit for the last fiscal year of the applicable Performance Period has been completed and the Company's annual report on Form 10-K for such fiscal year has been filed with the Securities and Exchange Commission, but in no event later than the last day of the calendar year that begins immediately following the end of the applicable Performance Period.

(c) Notwithstanding 4.3(b), in the event of a Participant's death, the Participant's estate will be eligible to receive an amount not greater than one-hundred percent (100%) of the Participant's Target Award, prorated to reflect the number of days he or she worked during the applicable Performance Period, and such amount, which will be determined in the Committee's sole discretion, will be paid in the year following Participant's death. For clarity, prorated awards will be calculated as follows: one-hundred percent (100%) of a Participant's Target Award will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously providing services to the Company during the applicable Performance Period through the date immediately prior to the Participant's death, and the denominator of which is the total number of days in the applicable Performance Period.

(d) Notwithstanding anything to the contrary in this Plan, no payments contemplated by this Plan will be paid during the six-month period following a Participant's Separation from Service unless the Company determines, in its good faith judgment, that paying such amounts at the times indicated in paragraphs 4.3(b) and (c) would not cause the Participant to incur an additional tax under Code section 409A, in which case the Actual Award shall be paid on the first day of the seventh month following the Participant's Separation from Service.

(e) The Compensation Committee of the Board may require forfeiture or a clawback of any incentive compensation awarded or paid under this Plan in excess of the compensation actually earned based on a restatement of the Company's financial statements as filed with the Securities and Exchange Commission for the period covered by this Plan.

4.4 Proration or Forfeiture of Target Award.

(e) Newly hired or promoted employees who are selected to participate in the Plan after the beginning of an applicable Performance Period will participate in the Plan on a prorated

basis based on the number of days worked during the applicable Performance Period after being selected to participate in the Plan. The prorated award will be calculated as follows: one-hundred percent (100%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Employee was a Participant in the Plan during the applicable Performance Period, and the denominator of which is the total number of days in the applicable Performance Period.

(f) If the Participant involuntarily Separates from Service without Cause or due to disability, he or she will be eligible to receive a prorated Target Award if the Performance Goals for the applicable Performance Period are met provided that, in the event Participant involuntarily Separates from Service without Cause, he or she has executed a release, any waiting period in connection with such release has expired, he or she has not exercised any rights to revoke the release and he or she has followed any other applicable and customary termination procedures, as determined by the Company in its sole discretion. The unvested Target Award will be prorated to the date of Separation from Service, and the prorated award will be calculated as follows: one-hundred percent (100%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously providing services to the Company during the applicable Performance Period through the date immediately prior to the Participant's Separation from Service, and the denominator of which is the total number of days in the applicable Performance Period. Prorated awards will be paid to the Participant at the time provided in Sections 4.3.

(g) Notwithstanding Section 4.4(b), any Participant who involuntarily Separates from Service without Cause during his or her first year of participation in the Plan shall forfeit any right to receive an Actual Award.

(h) Any Participant whose employment is terminated for Cause or who voluntarily Separates from Service prior to the date Actual Awards are paid shall forfeit any right to receive an Actual Award, unless otherwise authorized by the Committee in its sole discretion.

SECTION 5.

ADMINISTRATION

5.1 Committee is the Administrator. The Plan shall be administered by the Committee. The Committee shall consist of not less than two (2) members of the Board, and no member of the Committee shall be a Participant. The members of the Committee shall be appointed from time to time by, and serve at the pleasure of, the Board.

5.2 Committee Authority. It shall be the duty of the Committee to administer the Plan in accordance with the Plan's provisions. The Committee shall have all powers and discretion necessary or appropriate to administer the Plan and to control its operation, including, but not limited to, the power to (a) determine which Employees shall be granted awards, (b) prescribe the terms and conditions of awards, (c) interpret the Plan and the awards, (d) adopt such procedures and subplans as are necessary or appropriate to permit participation in the Plan by Employees who are foreign nationals or employed outside of the United States, (e) adopt rules or principles for the administration, interpretation and application of the Plan as are consistent therewith, and (f) interpret, amend or revoke any such rules or principles. No member of the Committee shall be personally liable for any action, determination or interpretation made in good faith with respect to an award granted pursuant to this Plan.

5.3 Decisions Binding. All determinations and decisions made by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan shall be final, conclusive, and binding on all persons, and shall be given the maximum deference permitted by law.

5.4 Delegation by the Committee. The Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Company.

SECTION 6.

GENERAL PROVISIONS

6.1 Unsecured General Creditor. Actual Awards shall be paid solely from the general assets of the Company. Nothing in this Plan shall be construed to create a trust or to establish or evidence any Participant's claim of any right other than as an unsecured general creditor having the status of an employee of the Company or an Affiliate thereof with respect to any payment to which he or she may be entitled.

6.2 Tax Withholding. The Company shall be entitled to withhold from, or in respect of, any payment to be made an amount sufficient to satisfy all federal, state, local or foreign tax withholding requirements (including, but not limited to, the Participant's FICA and Social Security obligations). The Committee may permit a Participant to satisfy all or part of his or her tax withholding obligations by having the Company withhold an amount from any cash amounts otherwise due or to become due from the Company to the Participant or, with respect to Restricted Stock Units, having the Company withhold a number of shares of Common Stock that become vested having a fair market value equal to the tax withholding obligations. The fair market value of the shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

6.3 No Rights as Employee. Nothing in the Plan or any documents relating to the Plan shall (a) confer on a Participant any right to continue in the employ of the Company; (b) constitute any contract or agreement of employment; or (c) interfere in any way with the Company's right to terminate the Participant's employment at any time, with or without cause. For purposes of the Plan, transfer of employment of a Participant between the Company and any one of its Affiliates (or between Affiliates) shall not be deemed a Separation from Service.

6.4 Participation. No Employee shall have the right to be selected to receive an award under this Plan. Participation in the Plan in one Performance Period does not connote any right to participate in the Plan in any future Performance Period.

6.5 Successors. This Plan shall be binding upon and inure to the benefit of the Company and any successor to the Company and the Participant's heirs, executors, administrators and legal representatives.

6.6 Payment in the Event of Death. In the event of a Participant's death, any vested benefits remaining unpaid shall be paid to the Participant's estate.

6.7 Nontransferability of Awards. No award granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by the laws of descent and distribution. All rights with respect to an award granted to a Participant shall be available during his or her lifetime only to the Participant.

SECTION 7.

AMENDMENT, TERMINATION AND DURATION

7.1 Amendment, Suspension or Termination. The Board, in its sole discretion and without prior notice to Participants, may amend or terminate the Plan, or any part thereof, at any time and for any reason, to the extent such action will not cause adverse tax consequences to a Participant under Code section 409A. Except as provided in Section 2.18, the amendment, suspension or termination of the Plan shall not, without the consent of the Participant, alter or materially impair any rights or obligations under any Award Agreement. No award may be granted during any period of suspension or after termination of the Plan.

7.2 Duration of the Plan. The Plan shall commence on January 1, 2015 and, subject to Section 7.1 (regarding the Board's right to amend or terminate the Plan), shall remain in effect thereafter.

SECTION 8.

LEGAL CONSTRUCTION

8.1 Code Section 409A. The Plan is intended to be a nonqualified deferred compensation plan within the meaning of Code section 409A and shall be interpreted to meet the requirements of Code section 409A. To the extent that any provision of the Plan would cause a conflict with the requirements of Code section 409A, or would cause the administration of the Plan to fail to satisfy Code section 409A, such provision shall be deemed null and void to the extent permitted by applicable law. Nothing herein shall be construed as a guarantee of any particular tax treatment to a Participant.

8.2 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

8.3 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

8.4 Requirements of Law. The granting of awards under the Plan shall be subject to all applicable laws, rules and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

8.5 Governing Law. The Plan and all awards shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions.

8.6 Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of the Plan.

Exhibit A

List of Spok Holdings, Inc., Participants (as of January 1, 2015)

Name	Title
Executives	
KELLY, VINCE	CEO*
BALMFORTH, COLIN	PRESIDENT*
ENDSLEY, SHAWN	CFO
SAINE, THOMAS	CIO
GOEL, HEMANT	COO
CULP, BONNIE	EVP, Human Resources
ASH, GARY	EVP, SALES
Senior Vice Presidents	
BROGAN, DANIELLE	Controller
WOODS, SHARON	Corp Secretary/Treasurer
SCOTT, DONNA	SVP, Marketing
COLLINS, SEAN	SVP, Sales - Americas
Vice Presidents	
OLSON-STEPP, TERRI	VP, Professional Services
LING, MICHAEL	VP, Maintenance Business
VELDBOOM, KATHY	VP, Technical Support
EDDS, BRIAN	VP, Product Strategy
GUNDERSON, KYLE	VP, Development
Other Key Management	
WAX, JONATHAN	Regional Vice President, East
STEIN, JAMES	Regional Vice President, West
BOEHLY, BRET	Regional Vice President, Sales
CHARLAND, ROBERT	Regional Vice President, Sales
ROBINSON, DONNA	Regional Vice President, Sales
JORDAN, JOHN	Regional Vice President, Sales - APAC
DITTMER, GARY	Sr. Tax Director

*The Chief Executive Officer and the President participate in the Plan pursuant to their respective employment agreements.

<u>Exhibit B</u>

Performance Goals

<u>2015-2017 Performance Period</u>

2015 LTIP Performance Goals

	Revenue 50% [1]	Operating Cash Flow 50% [1]		
	Consolidated Revenue	Consolidated OCF	Severance [2]	Adjusted OCF
2015	$ 168,761	$ 29,893	$ 325	$ 30,218
2016	167,223	26,927	233	27,160
2017	165,597	25,839	177	26,016
Cumulative Total	$ 501,581	$ 82,659	$ 735	$ 83,394

Minimum 2017 Performance Goals [3]

Consolidated Revenue Greater Than	$ 156,397	Operating Cash Flow Greater Than	$ 24,571

Grants made under the 2015 LTIP in 2015 will vest on December 31, 2017 only if:
(1) If each of the performance criteria are met, payout is at 100% of the LTIP award.
(2) If either consolidated and minimum revenue or consolidated and minimum OCF are met, payout is at 50% of the LTIP award.

The performance goals are as follows:

Cumulative Consolidated Revenue Exceeds	$ 501,581
Cumulative OCF Exceeds	$ 83,394
2017 Consolidated Revenue Exceeds	$ 156,397
2017 Operating Cash Flow Exceeds	$ 24,571

[1] Excludes the impact of any fair value write down of deferred revenue as a result of purchase accounting and expenses incurred in connection with acquisition due diligence or related activities.
[2] Severance and restructuring expenses are excluded from the calculation of consolidated OCF.
[3] The 2017 minimum performance goals are 85% of the respective 2017 budget targets.

Exhibit 10.13

Spok Holdings, Inc.
2017 Short-Term Incentive Plan
(Effective January 1, 2017)

I. Effective Date. The 2017 Short-Term Incentive Plan (the "Plan") for Spok Holdings, Inc., was adopted by the Compensation Committee of the Board of Directors (the "Compensation Committee") of Spok Holdings, Inc., (the "Parent" or the "Company"), a Delaware corporation for the employees of Spok, Inc., a Delaware corporation and an indirect wholly-owned subsidiary of the Parent ("Spok") on November 21, 2016. (The Plan is effective as of January 1, 2017 and supersedes and replaces all former management short-term incentive plans, including the Spok Holdings, Inc., 2016 Short-Term Incentive Plan.

II. Purpose. The Plan is designed to attract, motivate, retain and reward key employees for their performance during the calendar year, from January 1 through December 31, 2017 (the "Performance Period"). The Plan rewards key employees by allowing them to receive cash bonuses based on how well the Company performs against the performance objectives selected by the Compensation Committee and set forth in Exhibit A (the "Performance Objectives"), as may be adjusted by the Compensation Committee in the event of a Change of Control or other corporate reorganization, merger, similar transaction, to take into account extraordinary events or as the Compensation Committee determines is in the best interests of the Company. In order for bonuses to be earned, the Company must meet the Performance Objectives as outlined in Exhibit A on December 31, 2017. Performance Objectives are based solely on the consolidated performance of the Company. For clarity, Performance Objectives and the attainment thereof does not include revenue or expenses related to acquisitions or due diligence expenses occurring after the Effective Date of this Plan except as directed by the Compensation Committee.

III. Eligibility. Participation in the Plan is limited to those key employees who are selected for participation in the Plan by the Compensation Committee, in its sole discretion (each such individual, a "Participant"). Individuals selected by the Compensation Committee to participate as of January 1, 2017 are listed on Exhibit B. Newly hired or promoted employees, or employees who otherwise become eligible to participate, who are selected to participate in the Plan after January 1, 2017 but before October 1, 2017 will participate in the Plan on a prorated basis based on the number of days worked during the performance period after becoming bonus eligible. Employees who are newly hired or promoted on or after October 1, 2017 will not be eligible to participate in the Plan.

IV. Target Bonus. The target bonus for each Participant is based on a percentage of the Participant's annual (or prorated, if applicable) salary as of January 1, 2017 (or date of hire or promotion to an eligible position, if later). The applicable percentage is determined by the Compensation Committee with respect to executives earning $250,000 or more and by the CEO for other management and need not be identical among Participants. The earned bonus may be greater than or less than the target bonus depending on the level at which the Performance Objectives are attained.

V. Payment of Earned Bonus.

a. Except as provided herein, each earned bonus under the Plan will be calculated based on the attainment of the Performance Objectives and will be paid in a lump sum (subject to any required withholding for income and employment taxes) after the 2017 annual audit of the Parent's consolidated financial statement has been completed and the Parent's 2017 Annual Report on Form 10-K has been filed with the Securities and Exchange Commission but in no event later than December 31, 2018.

b. If the Participant involuntarily Separates from Service without Cause or due to disability or dies prior to December 31, 2017, he or she will be eligible to receive a prorated bonus provided that the Company is on track to attain the Performance Objectives as reasonably determined by the Compensation Committee and provided further that, in the event Participant involuntarily Separates from Service without Cause, he or she has executed a release, any waiting period in connection with such release has expired, he or she has not exercised any rights to revoke the release and he or she has followed any other applicable and customary termination procedures, as determined by the Parent in its sole discretion. The bonus will be prorated to the date of Participant's Separation from Service or death, calculated as follows: one-hundred percent (100%) of a Participant's target bonus will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously providing services to the Company from January 1, 2017 through the date immediately prior to the Participant's Separation from Service or death, and the denominator of which is 365 days. Prorated bonuses will be paid to the Participant, or in the event of Participant's death, the Participant's estate, on the sixty-fifth (65th) day following the date of Participant's Separation from Service or death.

i. For purposes of the Plan, "Separation from Service" shall have the meaning provided in the Treasury Regulations under section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and "Separates from Service" shall have a consistent meaning. Unless otherwise defined in an employment agreement between the Participant and the Parent or the Company, for purposes of the Plan, "Cause" means (i) dishonesty of a material nature that relates to the performance of services for the Company by Participants; (ii) criminal conduct (other than minor infractions and traffic violations) that relates to the performance of services for the Company by Participant; (iii) the Participant's willfully breaching or failing to perform his or her duties as an employee of the Company (other than any such failure resulting from the Participant having a disability (as defined herein)), within a reasonable period of time after a written demand for substantial performance is delivered to the Participant by the Compensation Committee, which demand specifically identifies the manner in which the Compensation Committee believes that the Participant has not substantially performed his duties; or (iv) the willful engaging by the Participant in conduct that is demonstrably and materially injurious to the Parent, Company or an Affiliate, monetarily or otherwise. No act or failure to act on the Participant's part shall be deemed "willful" unless done, or omitted to be done; by the Participant not in good faith and without reasonable belief that such action or omission was in the reasonable best interests of the Parent, Company and Affiliates. For this purpose, "disability" means a condition or circumstance such that the Participant has become totally and permanently disabled as defined or described in the Parent's long term disability benefit plan applicable to executive officers as in effect at the time the Participant incurs a disability.

c. Notwithstanding anything to the contrary in this Plan, no payments contemplated by this Plan will be paid during the six-month period following a Participant's Separation from Service unless the Company determines, in its good faith judgment, that paying such amounts at the time indicated in paragraph b above would not cause the Participant to incur an additional tax under Code section 409A (a)(2)(B)(i), in which case the bonus payment shall be paid in a lump sum on the first day of the seventh month following the Participant's Separation from Service.

VI. Forfeiture. Any Participant whose employment is terminated for Cause or who voluntarily Separates from Service prior to the date bonuses are paid shall forfeit any right to receive a bonus award.

VII. Clawback. The Compensation Committee of the Board may require forfeiture or a clawback of any incentive compensation awarded or paid under this Plan in excess of the compensation actually earned based on a restatement of the Company's financial statements as filed with the Securities and Exchange Commission for the period covered by this Plan.

VIII. Administrator. The Compensation Committee shall administer the Plan in accordance with its terms, and shall have full discretionary power and authority to construe and interpret the Plan; to prescribe, amend and rescind rules and regulations, terms, and notices hereunder; and to make all other determinations necessary or advisable in its discretion for the administration of the Plan. Any actions of the Compensation Committee with respect to the Plan shall be conclusive and binding upon all persons interested in the Plan. The Compensation Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Parent or the Company.

IX. Amendment; Termination. The Compensation Committee, in its sole discretion, without prior notice to Participants, may amend or terminate the Plan, or any part thereof, including the Performance Objectives as described in Section II, at any time and for any reason, to the extent such action will not cause adverse tax consequences to a participant under Code section 409A. Any amendment or termination must be in writing and shall be communicated to all Participants. No award may be granted during any period of suspension or after termination of the Plan.

X. Miscellaneous.

a. No Rights as Employee. Nothing contained in this Plan or any documents relating to this Plan shall (a) confer on a Participant any right to continue in the employ of the Company; (b) constitute any contract or agreement of employment; or (c) interfere in any way with the Company's right to terminate the Participant's employment at any time, with or without Cause.

b. Tax Withholding. To the extent required by applicable federal, state, local or foreign law, the Company shall withhold all applicable taxes (including, but not limited to, the Participant's FICA and Social Security obligations) from any bonus payment.

c. Transferability. A Participant may not sell, assign, transfer or encumber any of his or her rights under the Plan.

d. Unsecured General Creditor. Participants (or their beneficiary) may seek to enforce any rights or claims for payment under the Plan solely as an unsecured general creditor of the Parent or Spok.

e. Successors. This Plan shall be binding upon and inure to the benefit of the Parent, Company and any successor to the Company and the Participant's heirs, executors, administrators and legal representatives.

f. Code Section 409A. The Plan is intended to be a nonqualified deferred compensation plan within the meaning of Code section 409A and shall be interpreted to meet the requirements of Code section 409A. To the extent that any provision of the Plan would cause a conflict with the requirements of Code section 409A, or would cause the administration of the Plan to fail to satisfy Code section 409A, such provision shall be deemed null and void to the extent permitted by applicable law. Nothing herein shall be construed as a guarantee of any particular tax treatment to a Participant.

g. Governing Law. All questions pertaining to the validity, construction and administration of the Plan shall be determined in accordance with the laws of the State of Delaware, without regard to conflicts of law provisions.

h. Integration. This document and each exhibit hereto represent the entire agreement and understanding between the Company and the Participants and supersede any and all prior agreements or understandings, whether oral or written, with the Company relating to the subject matter covered by this Plan.

i. Severability. In case any provision of this Plan shall be held illegal or invalid, such illegality or invalidity shall be construed and enforced as if said illegal or invalid provision had never been inserted herein and shall not affect the remaining provisions of this Plan, but shall be fully severable, and the Plan shall be construed and enforced as if any such illegal or invalid provision were not a part hereof.

[Execution page follows]

IN WITNESS WHEREOF, Spok Holdings, Inc., by its duly authorized officer acting in accordance with a resolution duly adopted by the Compensation Committee of the Board of Directors of Spok Holdings, Inc., has executed this Plan for the benefit of employees of Spok Holdings, Inc. and subsidiaries, effective as of January 1, 2017.

SPOK HOLDINGS, INC.

/s/ Vincent D. Kelly
Vincent D. Kelly, President & CEO

Exhibit A
<u>Performance Objectives</u>

- **Performance Requirements**
  - **Achievement of Project Catapult Milestones - 50% Weighting**
    - Prototype Platform complete by April 30, 2017 - 25%
    - Platform ready for Alpha/Beta delivery by December 31, 2017 - 25%
  - **Achievement of Financial Metrics - 50% Weighting**

(Based on 2017 Budget from 2016 LRP)

Operations Bookings - 25%
- Operating and Capital Expenses - 15%
- Wireless Revenue - 10%

- **Payout Parameters:**
  - **Achievement of Project Catapult Milestones**
    - All or nothing payout for Prototype Platform Completion
    - All or nothing payout for platform ready for Alpha/Beta delivery
  - **Achievement of Financial Metrics**
    - Scaled payout based on actual achievement

Spok 2017 Short Term Incentive Plan (STIP) Payout Scale
Based on LRP_16

Wireless Revenue (10%) ($ in millions)			
	Result	Performance	Payout
Over Perform	$106.539	110.0%	130.0%
	$101.697	105.0%	120.0%
	$99.275	102.5%	110.0%
	$97.823	101.0%	105.0%
Target	**$96.854**	**100.0%**	**100.0%**
Under Perform	$92.011	95.0%	95.0%
	$87.169	90.0%	90.0%
	$82.326	85.0%	85.0%
	$77.483	80.0%	80.0%
	<$77.483	<80.0%	0.0%

Operations Bookings (25%) ($ in millions)			
	Result	Performance	Payout
Over Perform	$38.500	110.0%	150.0%
	$36.750	105.0%	137.5%
	$35.875	102.5%	125.0%
	$35.350	101.0%	112.5%
Target	**$35.000**	**100.0%**	**100.0%**
Under Perform	$33.250	95.0%	95.0%
	$31.500	90.0%	90.0%
	$29.750	85.0%	85.0%
	$28.000	80.0%	80.0%
	<$28.000	<80.0%	0.0%

Operating and Capital Expenses (15%)[(1)] ($ in millions)			
	Result	Performance	Payout
Over Perform	$128.870	80.0%	125.0%
	$136.925	85.0%	120.0%
	$144.979	90.0%	115.0%
	$153.030	95.0%	107.5%
Target	**$161.088**	**100.0%**	**100.0%**
Under Perform	$169.142	105.0%	95.0%
	$177.197	110.0%	90.0%
	$185.251	115.0%	85.0%
	$193.306	120.0%	80.0%
	>$193.306	>120.0%	0.0%

[(1)] Operating and Capital Expenses exclude severance and stock based compensation expense. Amount is calculated as follows:

Operating Expenses		$	156,009
Capital Expenses			9,831
Less:	Severance		(216)
	Stock Based Compensation		(4,536)
Operating and Capital Expenses		$	161,088

Exhibit B

List of Spok Participants

(as of January 1, 2017)

Name, Corporate Employee	Title	Bonus Target as % of Base Salary
Executives		
Kelly, Vince	CEO*	100%
Goel, Hemant	President	100%
Endsley, Shawn	CFO	75%
Saine, Tom	CIO	75%
Woods, Sharon	Corp Secretary/Treasurer	75%
Culp, Bonnie	EVP, H.R. & CCO	75%
Soucy, Don	EVP, Sales	75%
Vice Presidents		
Gunderson, Kyle	VP, Development & CTO	50%
Ling, Mick	VP, Maintenance Revenue	45%
Olson-Stepp, Terri	VP, Professional Services	50%
Edds, Brian	VP, Product Strategy	45%
DeBoer, John	VP, Technical Engineering	35%
Czop, Mike	VP, Technical Operations	35%
Scott, Donna	SVP, Marketing	45%
Van Wijk, Mathilde	VP, Customer Support	35%
Giorgi, Vincent	VP, Alliances	30%
Mellin, Andrew	CMO	25%
Guyton, Nate’	CNO	20%

* The Chief Executive Officer participates in the Plan pursuant to his employment agreement.

Exhibit 10.15

Spok Holdings, Inc.
2018 Short-Term Incentive Plan
(Effective January 1, 2018)

I. Effective Date. The 2018 Short-Term Incentive Plan (the "Plan") for Spok Holdings, Inc., was adopted by the Compensation Committee of the Board of Directors (the "Compensation Committee") of Spok Holdings, Inc., (the "Parent" or the "Company"), a Delaware corporation for the employees of Spok, Inc., a Delaware corporation and an indirect wholly-owned subsidiary of the Parent ("Spok") on December 12, 2017. The Plan is effective as of January 1, 2018 and supersedes and replaces all former management short-term incentive plans, including the Spok Holdings, Inc., 2017 Short-Term Incentive Plan.

II. Purpose. The Plan is designed to attract, motivate, retain and reward key employees for their performance during the calendar year, from January 1 through December 31, 2018 (the "Performance Period"). The Plan rewards key employees by allowing them to receive cash bonuses based on how well the Company performs against the performance objectives selected by the Compensation Committee and set forth in Exhibit A (the "Performance Objectives"), as may be adjusted by the Compensation Committee in the event of a Change of Control or other corporate reorganization, merger, similar transaction, to take into account extraordinary events or as the Compensation Committee determines is in the best interests of the Company. In order for bonuses to be earned, the Company must meet the quantitative Performance Objectives, representing 60% of the Plan, as outlined in Exhibit A on December 31, 2018, and the Management by Objective criteria, representing 40% of the Plan, as outlined in Exhibit A by the completion of our 2018 annual audit in February 2019. Performance Objectives are based solely on the consolidated performance of the Company. For clarity, Performance Objectives and the attainment thereof does not include revenue or expenses related to acquisitions or due diligence expenses occurring after the Effective Date of this Plan except as directed by the Compensation Committee.

III. Eligibility. Participation in the Plan is limited to those key employees who are selected for participation in the Plan by the Compensation Committee, in its sole discretion (each such individual, a "Participant"). Individuals selected by the Compensation Committee to participate as of January 1, 2018 are listed on Exhibit B. Newly hired or promoted employees, or employees who otherwise become eligible to participate, who are selected to participate in the Plan after January 1, 2018 but before October 1, 2018 will participate in the Plan on a prorated basis based on the number of days worked during the performance period after becoming bonus eligible. Employees who are newly hired or promoted on or after October 1, 2018 will not be eligible to participate in the Plan.

IV. Target Bonus. The target bonus for each Participant is based on a percentage of the Participant's annual (or prorated, if applicable) salary as of January 1, 2018 (or date of hire or promotion to an eligible position, if later). The applicable percentage is determined by the Compensation Committee with respect to executives earning $250,000 or more and by the CEO for other management and need not be identical among Participants. The earned bonus may be greater than or less than the target bonus depending on the level at which the Performance Objectives are attained.

V. Payment of Earned Bonus.

a. Except as provided herein, each earned bonus under the Plan will be calculated based on the attainment of the Performance Objectives and will be paid in a lump sum (subject to any required withholding for income and employment taxes) after the 2018 annual audit of the Parent's consolidated financial statement has been completed and the Parent's 2018 Annual Report on Form 10-K has been filed with the Securities and Exchange Commission but in no event later than December 31, 2019.

b. If the Participant involuntarily Separates from Service without Cause or due to disability or dies prior to December 31, 2018, he or she will be eligible to receive a prorated bonus provided that the Company is on track to attain the Performance Objectives as reasonably determined by the Compensation Committee and provided further that, in the event Participant involuntarily Separates from Service without Cause, he or she has executed a release, any waiting period in connection with such release has expired, he or she has not exercised any rights to revoke the release and he or she has followed any other applicable and customary termination procedures, as determined by the Parent in its sole discretion. The bonus will be prorated to the date of Participant's Separation from Service or death, calculated as follows: one-hundred percent (100%) of a Participant's target bonus will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously providing services to the Company from January 1, 2018 through the date immediately prior to the Participant's Separation from Service or death, and the denominator of which is 365 days. Prorated bonuses will be paid to the Participant, or in the event of Participant's death, the Participant's estate, on the sixty-fifth (65th) day following the date of Participant's Separation from Service or death.

i. For purposes of the Plan, "Separation from Service" shall have the meaning provided in the Treasury Regulations under section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and "Separates from Service" shall have a consistent meaning. Unless otherwise defined in an employment agreement between the Participant and the Parent or the Company, for purposes of the Plan, "Cause" means (i) dishonesty of a material nature that relates to the performance of services for the Company by Participants; (ii) criminal conduct (other than minor infractions and traffic violations) that relates to the performance of services for the Company by Participant; (iii) the Participant's willfully breaching or failing to perform his or her duties as an employee of the Company (other than any such failure resulting from the Participant having a disability (as defined herein)), within a reasonable period of time after a written demand for substantial performance is delivered to the Participant by the Compensation Committee, which demand specifically identifies the manner in which the Compensation Committee believes that the Participant has not substantially performed his duties; or (iv) the willful engaging by the Participant in conduct that is demonstrably and materially injurious to the Parent, Company or an Affiliate, monetarily or otherwise. No act or failure to act on the Participant's part shall be deemed "willful" unless done, or omitted to be done; by the Participant not in good faith and without reasonable belief that such action or omission was in the reasonable best interests of the Parent, Company and Affiliates. For this purpose, "disability" means a condition or circumstance such that the Participant has become totally and permanently disabled as defined or described in the Parent's long term disability benefit plan applicable to executive officers as in effect at the time the Participant incurs a disability.

c. Notwithstanding anything to the contrary in this Plan, no payments contemplated by this Plan will be paid during the six-month period following a Participant's Separation from Service unless the Company determines, in its good faith judgment, that paying such amounts at the time indicated in paragraph b above would not cause the Participant to incur an additional tax under Code section 409A (a)(2)(B)(i), in which case the bonus payment shall be paid in a lump sum on the first day of the seventh month following the Participant's Separation from Service.

VI. Forfeiture. Any Participant whose employment is terminated for Cause or who voluntarily Separates from Service prior to the date bonuses are paid shall forfeit any right to receive a bonus award.

VII. Clawback. The Compensation Committee of the Board may require forfeiture or a clawback of any incentive compensation awarded or paid under this Plan in excess of the compensation actually earned based on a restatement of the Company's financial statements as filed with the Securities and Exchange Commission for the period covered by this Plan.

VIII. Administrator. The Compensation Committee shall administer the Plan in accordance with its terms, and shall have full discretionary power and authority to construe and interpret the Plan; to prescribe, amend and rescind rules and regulations, terms, and notices hereunder; and to make all other determinations necessary or advisable in its discretion for the administration of the Plan. Any actions of the Compensation Committee with respect to the Plan shall be conclusive and binding upon all persons interested in the Plan. The Compensation Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Parent or the Company.

IX. Amendment; Termination. The Compensation Committee, in its sole discretion, without prior notice to Participants, may amend or terminate the Plan, or any part thereof, including the Performance Objectives as described in Section II, at any time and for any reason, to the extent such action will not cause adverse tax consequences to a participant under Code section 409A. Any amendment or termination must be in writing and shall be communicated to all Participants. No award may be granted during any period of suspension or after termination of the Plan.

X. Miscellaneous.

a. No Rights as Employee. Nothing contained in this Plan or any documents relating to this Plan shall (a) confer on a Participant any right to continue in the employ of the Company; (b) constitute any contract or agreement of employment; or (c) interfere in any way with the Company's right to terminate the Participant's employment at any time, with or without Cause.

b. Tax Withholding. To the extent required by applicable federal, state, local or foreign law, the Company shall withhold all applicable taxes (including, but not limited to, the Participant's FICA and Social Security obligations) from any bonus payment.

c. Transferability. A Participant may not sell, assign, transfer or encumber any of his or her rights under the Plan.

d. Unsecured General Creditor. Participants (or their beneficiary) may seek to enforce any rights or claims for payment under the Plan solely as an unsecured general creditor of the Parent or Spok.

e. Successors. This Plan shall be binding upon and inure to the benefit of the Parent, Company and any successor to the Company and the Participant's heirs, executors, administrators and legal representatives.

f. Code Section 409A. The Plan is intended to be a nonqualified deferred compensation plan within the meaning of Code section 409A and shall be interpreted to meet the requirements of Code section 409A. To the extent that any provision of the Plan would cause a conflict with the requirements of Code section 409A, or would cause the administration of the Plan to fail to satisfy Code section 409A, such provision shall be deemed null and void to the extent permitted by applicable law. Nothing herein shall be construed as a guarantee of any particular tax treatment to a Participant.

g. Governing Law. All questions pertaining to the validity, construction and administration of the Plan shall be determined in accordance with the laws of the State of Delaware, without regard to conflicts of law provisions.

h. Integration. This document and each exhibit hereto represent the entire agreement and understanding between the Company and the Participants and supersede any and all prior agreements or understandings, whether oral or written, with the Company relating to the subject matter covered by this Plan.

i. Severability. In case any provision of this Plan shall be held illegal or invalid, such illegality or invalidity shall be construed and enforced as if said illegal or invalid provision had never been inserted herein and shall not affect the remaining provisions of this Plan, but shall be fully severable, and the Plan shall be construed and enforced as if any such illegal or invalid provision were not a part hereof.

[Execution page follows]

IN WITNESS WHEREOF, Spok Holdings, Inc., by its duly authorized officer acting in accordance with a resolution duly adopted by the Compensation Committee of the Board of Directors of Spok Holdings, Inc., has executed this Plan for the benefit of employees of Spok Holdings, Inc. and subsidiaries, effective as of January 1, 2018.

SPOK HOLDINGS, INC.

/s/ Vincent D. Kelly
Vincent D. Kelly, President & CEO

Exhibit A
Performance Objectives

- 60% of the STIP will be driven by quantitative measures:
    - Wireless Revenue (10%), Software Revenue (10%), Operations Bookings (25%), and Operating/Capital Expenses (15%).
- 40% of the STIP will be driven through Management by Objective ("MBO") related to CCP Development.
    - ****

**** Means that certain confidential information has been deleted from this document and filed separately with the Securities and Exchange Commission.

Spok 2018 Short Term Incentive Plan (STIP) Payout Scale
Based on LRP_17

Wireless Revenue (10%) ($ in millions)	Result	Performance	Payout
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$********	*****%**	*****%**
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

Software Revenue (10%) ($ in millions)	Result	Performance	Payout
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$********	*****%**	*****%**
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

Operating and Capital Expenses (15%)[1] ($ in millions)	Result	Performance	Payout
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$********	*****%**	*****%**
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	>$******	>***%	***%

Operations Bookings (25%) ($ in millions)	Result	Performance	Payout
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$********	*****%**	*****%**
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

(1) ****

**** Means that certain confidential information has been deleted from this document and filed separately with the Securities and Exchange Commission.

Exhibit B

List of Spok Participants

(as of January 1, 2018)

Name, Corporate Employee	Title	Bonus Target as % of Base Salary
Executives		
Kelly, Vince	CEO*	100%
Goel, Hemant	President	100%
Wallace, Michael	CFO	75%
Saine, Tom	CIO	75%
************	************	**%
Culp, Bonnie	EVP, H.R. & CCO	75%
************	************	**%
************	************	**%
Vice Presidents		
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%
************	************	**%

* The Chief Executive Officer participates in the Plan pursuant to his employment agreement.
****

**** Means that certain confidential information has been deleted from this document and filed separately with the Securities and Exchange Commission.

Exhibit 10.16

SPOK HOLDINGS, INC.

2018 LONG-TERM INCENTIVE PLAN

Adopted by the Board of Directors

Upon Recommendation of the Compensation Committee

on December 12, 2017

To Be Effective as of January 1, 2018

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SPOK HOLDINGS, INC.

2018 LONG-TERM INCENTIVE PLAN

SECTION 1.
BACKGROUND, PURPOSE AND DURATION

1.1 Effective Date. The Board of Directors (the "Board") adopted the Plan upon the recommendation of the Compensation Committee of the Board of Spok Holdings, Inc., (the "Company") to be effective as of January 1, 2018.

1.2 Purposes of the Plan. The purposes of the Plan are to promote the success of the Company's business, advance the interests of the Company, attract and retain the best available personnel for positions of substantial responsibility at the Company, and provide additional incentives to selected key employees of the Company for outstanding performance. The Plan permits the award of Restricted Stock Units to key employees as the Committee may determine. Upon attainment of Performance Goals for the Performance Period, Restricted Stock Units granted to Participants will convert and be paid in Common Stock, and dividend equivalent rights (if any) with respect to vested Restricted Stock Units will be paid in cash. To the extent available, Actual Awards to "Covered Employees" under the Plan (within the meaning of section 162(m) of the Code) are intended to qualify as Performance Based Compensation pursuant to Article 5 of the Spok Holdings, Inc. 2012 Equity Incentive Award Plan, as it may be amended or restated from time to time ("Equity Incentive Award Plan").

SECTION 2.
DEFINITIONS

The following words and phrases shall have the following meanings unless a different meaning is plainly required by the context:

2.1 "Actual Award" means the vested portion of the Target Award (if any) payable to a Participant.

2.2 "Affiliate" means any corporation or other entity (including, but not limited to, partnerships and joint ventures) controlled by, controlling, or under common control with, the Company where "control" means the right to elect or appoint at least fifty percent (50%) of the directors, managing members, general partners, trustees or entities exercising similar powers with respect to the Company or the applicable entity whether by beneficial ownership of securities or other interests, by proxy or agreement, or both. Notwithstanding the preceding, an Affiliate that is not an affiliate within the meaning of the regulations under Code section 409A shall not constitute an Affiliate under this Plan.

2.3 "Award Agreement" means any written agreement, contract or other instrument or document evidencing a Target Award, including through an electronic medium.

2.4 "Board" means the Board of Directors of the Company.

2.5 "Cause" unless otherwise defined in an employment agreement between the Participant and the Company or an Affiliate, means (a) dishonesty of a material nature that relates to the performance of services for the Company by Participants; (b) criminal conduct (other than minor infractions and traffic violations) that relates to the performance of services for the Company by Participant; (c) the Participant's willfully breaching or failing to perform his or her duties as an employee of the Company (other than any such failure resulting from the Participant having a disability (as defined herein)), within a reasonable period of time after a written demand for substantial performance is delivered to the Participant by the Board, which demand specifically identifies the manner in which the Board believes that the Participant has not substantially performed his or her duties; or (d) the willful engaging by the Participant in conduct that is demonstrably and materially injurious to the Company, monetarily or otherwise. No act or failure to act on the Participant's part shall be deemed "willful" unless done, or omitted to be done, by the Participant not in good faith and without reasonable belief that such action or omission was in the reasonable best interests of the Company. Disability as used herein means a condition or circumstance such that the Participant has become totally and permanently disabled as defined or described in the Company's long term disability benefit plan applicable to executive officers as in effect at the time the Participant incurs a disability.

2.6 "Change of Control" shall mean and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission) whereby any "person" or related "group" of "persons" (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its subsidiaries, an employee benefit plan maintained by the Company or any of its subsidiaries or a "person" that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company's securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in Section 2.6(a) or Section 2.6(c)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) Which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) After which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this Section 2.6(c)(i) as beneficially owning 50% or more of combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction; or

(d) The Company's stockholders approve a liquidation or dissolution of the Company.

In addition, if a Change in Control constitutes a payment event or a toggle event with respect to any Award which provides for the deferral of compensation and is subject to Section 409A of the Code, the transaction or event described in subsection (a), (b), (c) or (d) with respect to such Award must also constitute a "change in control event," as defined in Treasury Regulation §1.409A-3(i)(5) to the extent required by Section 409A.

The Committee shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control of the Company has occurred pursuant to the above definition, and the date of the occurrence of such Change in Control and any incidental matters relating thereto.

2.7 "Code" means the Internal Revenue Code of 1986, as amended, and the regulations and other guidance issued by the Treasury Department and Internal Revenue Service thereunder.

2.8 "Committee" means the committee appointed by the Board to administer the Plan. Until otherwise determined by the Board, (a) the Company's Compensation Committee of

the Board shall constitute the Committee, and (b) for administrative convenience, the independent, non-employee members of the Board also may act as the Committee from time to time. With respect to awards intended to qualify as "performance-based compensation" as described in Section 162(m)(4)(C) of the Code, each member of the Committee shall qualify as an "outside director" under Section 162(m) of the Code.

2.9 "Common Stock" means the common stock of the Company, par value $0.0001 per share.

2.10 "Company" means Spok Holdings, Inc., and Affiliates or any successor thereto.

2.11 "Effective Date" means January 1, 2018.

2.12 "Employee" means any key employee of the Company or Affiliate, whether such individual is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.

2.13 "Participant" means an Employee who has been selected by the Committee for participation in the Plan.

2.14 "Performance Goals" means the Minimum Performance Goals based on one or more performance criteria defined in the Equity Incentive Award Plan for the applicable Performance Period, as approved by the Committee, in writing, no later than the 90th day of the applicable Performance Period and communicated to each Participant. Subject to any limitations for "performance-based compensation" pursuant to Section 162(m)(4)(C) of the Code to the extent applicable, the Committee may revise the Performance Goals in the event of a Change of Control or other corporate reorganization, merger, or similar transaction, to take into account extraordinary events or as the Committee determines is in the best interests of the Company. Such extraordinary events shall include the implementation of changes in generally accepted accounting principles resulting from new accounting standards issued by the Financial Accounting Standards Board, Securities and Exchange Commission and/or other regulatory bodies responsible for the establishment of accounting standards applicable to the Company.

2.15 "Performance Period" means the applicable three-year period commencing on each of January 1, 2018, January 1, 2019 and January 1, 2020, and ending on December 31, 2020, December 31, 2021 and December 31, 2022, respectively, or such other performance period as may be determined by the Committee and specified in an Award Agreement or an employment agreement between the Participant and the Company.

2.16 "Person" shall have the meaning set forth in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company and (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company or Affiliate.

2.17 "Plan" means the Spok Holdings, Inc. 2018 Long-Term Incentive Plan, as set forth in this instrument and as hereafter amended from time to time.

2.18 "Restricted Stock Unit" means the right to receive a share of Company Common Stock upon the attainment of the Performance Goals.

2.19 "Separation from Service" means separation from service as defined in the Treasury Regulations under Code section 409A. "Separates from Service" shall have a consistent meaning.

2.20 "Target Award" means the target award, at one hundred percent (100%) achievement of the Performance Goals payable under the Plan, as determined by the Committee in its sole discretion.

SECTION 3.
SELECTION OF PARTICIPANTS AND DETERMINATION OF AWARDS

3.1 Selection of Participants. The Committee, in its sole discretion, shall select the Employees who shall be Participants in the Plan and the Committee may, in its sole discretion, select Employees to participate in the Plan at any time during any Performance Period.

3.2 Determination of Target Awards. The Committee, in its sole discretion, shall establish and grant a Target Award that may be earned by each Participant. A Participant's Target Award shall be established by the Committee in writing no later than the 90th day of the Performance Period, or, for employees newly hired or promoted during a Performance Period, before 25% of the remaining Performance Period has elapsed as measured from the date of hire or promotion, as applicable. The Committee may establish Target Awards in a different manner for different groups of Participants. The Target Award shall be granted in the form of Restricted Stock Units. Unless otherwise determined by the Committee, the number of Restricted Stock Units granted shall be based on the fair market value of the Company's Common Stock as of the effective date of the grant; provided, for purposes of determining the number of Restricted Stock Units granted to an Employee who becomes a Participant after the beginning of an applicable Performance Period, the number of Restricted Stock Units may be determined, in the sole discretion of the Committee, based on (a) the fair market value of the Company's Common Stock as of the effective date of the initial grants to Participants for the applicable Performance Period, reduced by the value of any cash dividends or cash distributions (regular or otherwise) that are paid with respect to the Company's Common Stock from that date to the date of grant, (b) the fair market value of the Company's Common Stock on the date on which the Participant commenced participation in the Plan, or (c) such other manner as the Committee may determine in its sole discretion. Restricted Stock Units shall be granted pursuant to the Equity Incentive Award Plan. Further, if at any time the Common Stock ceases to be registered as a class of equity securities under the Exchange Act, whether as a result of a Change of Control or otherwise, the Committee may in its sole discretion convert any Restricted Stock Units into a right to receive cash in lieu of shares of Common Stock based upon the fair

market value of a share of Common Stock at the time of or immediately prior to the time the Common Stock was no longer registered under the Exchange Act.

3.3 Award Agreements. Target Awards granted pursuant to the Plan shall be evidenced by Award Agreements. Award Agreements may be amended by the Committee with the consent of the germane Participant from time to time and need not contain uniform provisions.

3.4 Dividend Equivalent Rights. A Participant shall be entitled to dividend equivalent rights with respect to Restricted Stock Units to the extent that any cash dividends or cash distributions (regular or otherwise) are paid with respect to the Company's Common Stock during the Performance Period, unless otherwise expressly set forth in an Award Agreement. The dividend equivalent rights will be subject to the vesting restrictions and the other terms and conditions under this Plan that are applicable to the Restricted Stock Units until such time, if ever, as the Restricted Stock Units with respect to which the dividend equivalent rights are paid vest.

SECTION 4.
VESTING AND PAYMENT OF AWARDS

4.1 Attainment of Performance Goals. In order for Actual Awards to be earned and paid for an applicable Performance Period, the Company must attain the Performance Goals for the applicable Performance Period and the Committee must certify the attainment of such Performance Goals in writing.

4.2 Vesting.

(a) Subject to Section 4.2(b) below, Target Awards shall vest upon the Committee's reasonable determination that the Performance Goals have been achieved at the end of the Performance Period. If the Performance Goals are met and certified by the Committee in writing, Participants will be entitled to the vested portion of a Target Award unless the Participant has otherwise forfeited a portion or all of the Target Award as set forth in Section 4.4.

(b) In the event of a Change of Control, vesting shall be accelerated as follows, provided that the Company is on track to meet the Performance Goals as reasonably determined by the Committee (as comprised immediately prior to the Change of Control).

(i) If a Change of Control occurs during the first year of the applicable Performance Period, fifty percent (50%) of the Participant's Target Award shall vest.

(ii) If a Change of Control occurs during the second year of the applicable Performance Period, seventy-five percent (75%) of the Participant's Target Award shall vest.

(iii) If a Change of Control occurs during the final year of the applicable Performance Period, the Participant's Target Award shall vest in full.

With respect to an employee who becomes a Participant after the beginning of an applicable Performance Period, the accelerated vesting described above will apply on a prorated basis based on the number of days worked during the Performance Period, unless otherwise determined by the Committee. For clarity, if an employee becomes a Participant in the second year of the applicable Performance Period and a Change in Control occurs later during that second year of the applicable Performance Period, accelerated vesting of his Target Award (prorated as described in section 4.4, below) will be calculated as follows: seventy-five percent (75%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Employee was a Participant in the Plan during the applicable Performance Period, and the denominator of which is the total number of days in the applicable Performance Period.

(c) All Actual Awards including pro-rated awards will be paid at the time provided in Section 4.3.

4.3 Time and Form of Payment.

(a) Each Actual Award shall be paid in Common Stock pursuant to the Award Agreements, subject to any required withholding for income and employment taxes. Dividend equivalent rights shall be paid in cash in a single lump sum to the extent earned.

(b) Actual Awards will be paid on or after the third business day after the Company's annual audit for the last fiscal year of the applicable Performance Period has been completed and the Company's annual report on Form 10-K for such fiscal year has been filed with the Securities and Exchange Commission, but in no event later than the last day of the calendar year that begins immediately following the end of the applicable Performance Period.

(c) Notwithstanding 4.3(b), in the event of a Participant's death, the Participant's estate will be eligible to receive an amount not greater than one-hundred percent (100%) of the Participant's Target Award, prorated to reflect the number of days he or she worked during the applicable Performance Period, and such amount, which will be determined in the Committee's sole discretion, will be paid in the year following Participant's death. For clarity, prorated awards will be calculated as follows: one-hundred percent (100%) of a Participant's Target Award will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously

providing services to the Company during the applicable Performance Period through the date immediately prior to the Participant's death, and the denominator of which is the total number of days in the applicable Performance Period.

(d) Notwithstanding anything to the contrary in this Plan, no payments contemplated by this Plan will be paid during the six-month period following a Participant's Separation from Service unless the Company determines, in its good faith judgment, that paying such amounts at the times indicated in paragraphs 4.3(b) and (c) would not cause the Participant to incur an additional tax under Code section 409A, in which case the Actual Award shall be paid on the first day of the seventh month following the Participant's Separation from Service.

(e) The Compensation Committee of the Board may require forfeiture or a clawback of any incentive compensation awarded or paid under this Plan in excess of the compensation actually earned based on a restatement of the Company's financial statements as filed with the Securities and Exchange Commission for the period covered by this Plan.

4.4 Proration or Forfeiture of Target Award.

(a) Newly hired or promoted employees who are selected to participate in the Plan after the beginning of an applicable Performance Period will participate in the Plan on a prorated basis based on the number of days worked during the applicable Performance Period after being selected to participate in the Plan. The prorated award will be calculated as follows unless otherwise determined by the Committee: one-hundred percent (100%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Employee was a Participant in the Plan during the applicable Performance Period, and the denominator of which is the total number of days in the applicable Performance Period.

(b) If the Participant involuntarily Separates from Service without Cause or due to disability, he or she will be eligible to receive a prorated Target Award if the Performance Goals for the applicable Performance Period are met provided that, in the event Participant involuntarily Separates from Service without Cause, he or she has executed a release, any waiting period in connection with such release has expired, he or she has not exercised any rights to revoke the release and he or she has followed any other applicable and customary termination procedures, as determined by the Company in its sole discretion. The unvested Target Award will be prorated to the date of Separation from Service, and the prorated award will be calculated as follows: one-hundred percent (100%) of a Participant's unvested Target Award will be multiplied by a fraction, the numerator of which is the number of days the Participant was continuously providing services to the Company during the applicable Performance Period through the date immediately prior to the Participant's Separation from Service, and the

denominator of which is the total number of days in the applicable Performance Period. Prorated awards will be paid to the Participant at the time provided in Sections 4.3.

(c) Notwithstanding Section 4.4(b), any Participant who involuntarily Separates from Service without Cause during his or her first year of participation in the Plan shall forfeit any right to receive an Actual Award.

(d) Any Participant whose employment is terminated for Cause or who voluntarily Separates from Service prior to the date Actual Awards are paid shall forfeit any right to receive an Actual Award, unless otherwise authorized by the Committee in its sole discretion.

SECTION 5.
ADMINISTRATION

5.1 Committee is the Administrator. The Plan shall be administered by the Committee. The Committee shall consist of not less than two (2) members of the Board, and no member of the Committee shall be a Participant. The members of the Committee shall be appointed from time to time by, and serve at the pleasure of, the Board.

5.2 Committee Authority. It shall be the duty of the Committee to administer the Plan in accordance with the Plan's provisions. The Committee shall have all powers and discretion necessary or appropriate to administer the Plan and to control its operation, including, but not limited to, the power to (a) determine which Employees shall be granted awards, (b) prescribe the terms and conditions of awards, (c) interpret the Plan and the awards, (d) adopt such procedures and subplans as are necessary or appropriate to permit participation in the Plan by Employees who are foreign nationals or employed outside of the United States, (e) adopt rules or principles for the administration, interpretation and application of the Plan as are consistent therewith, and (f) interpret, amend or revoke any such rules or principles. No member of the Committee shall be personally liable for any action, determination or interpretation made in good faith with respect to an award granted pursuant to this Plan.

5.3 Decisions Binding. All determinations and decisions made by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan shall be final, conclusive, and binding on all persons, and shall be given the maximum deference permitted by law.

5.4 Delegation by the Committee. The Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Plan to one or more directors and/or officers of the Company.

SECTION 6.
GENERAL PROVISIONS

6.1 Unsecured General Creditor. Actual Awards shall be paid solely from the general assets of the Company. Nothing in this Plan shall be construed to create a trust or to establish or evidence any Participant's claim of any right other than as an unsecured general creditor having the status of an employee of the Company or an Affiliate thereof with respect to any payment to which he or she may be entitled.

6.2 Tax Withholding. The Company shall be entitled to withhold from, or in respect of, any payment to be made an amount sufficient to satisfy all federal, state, local or foreign tax withholding requirements (including, but not limited to, the Participant's FICA and Social Security obligations). The Committee may permit a Participant to satisfy all or part of his or her tax withholding obligations by having the Company withhold an amount from any cash amounts otherwise due or to become due from the Company to the Participant or, with respect to Restricted Stock Units, having the Company withhold a number of shares of Common Stock that become vested having a fair market value equal to the tax withholding obligations. The fair market value of the shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

6.3 No Rights as Employee. Nothing in the Plan or any documents relating to the Plan shall (a) confer on a Participant any right to continue in the employ of the Company; (b) constitute any contract or agreement of employment; or (c) interfere in any way with the Company's right to terminate the Participant's employment at any time, with or without cause. For purposes of the Plan, transfer of employment of a Participant between the Company and any one of its Affiliates (or between Affiliates) shall not be deemed a Separation from Service.

6.4 Participation. No Employee shall have the right to be selected to receive an award under this Plan. Participation in the Plan in one Performance Period does not connote any right to participate in the Plan in any future Performance Period.

6.5 Successors. This Plan shall be binding upon and inure to the benefit of the Company and any successor to the Company and the Participant's heirs, executors, administrators and legal representatives.

6.6 Payment in the Event of Death. In the event of a Participant's death, any vested benefits remaining unpaid shall be paid to the Participant's estate.

6.7 Nontransferability of Awards. No award granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by the laws of descent and distribution. All rights with respect to an award granted to a Participant shall be available during his or her lifetime only to the Participant.

SECTION 7.
AMENDMENT, TERMINATION AND DURATION

7.1 Amendment, Suspension or Termination. The Board, in its sole discretion and without prior notice to Participants, may amend or terminate the Plan, or any part thereof, at

any time and for any reason, to the extent such action will not cause adverse tax consequences to a Participant under Code section 409A. Except as provided in Section 2.18, the amendment, suspension or termination of the Plan shall not, without the consent of the Participant, alter or materially impair any rights or obligations under any Award Agreement. No award may be granted during any period of suspension or after termination of the Plan.

7.2 Duration of the Plan. The Plan shall commence on January 1, 2018 and, subject to Section 7.1 (regarding the Board's right to amend or terminate the Plan), shall remain in effect thereafter.

SECTION 8.
LEGAL CONSTRUCTION

8.1 Code Section 409A. The Plan is intended to be a nonqualified deferred compensation plan within the meaning of Code section 409A and shall be interpreted to meet the requirements of Code section 409A. To the extent that any provision of the Plan would cause a conflict with the requirements of Code section 409A, or would cause the administration of the Plan to fail to satisfy Code section 409A, such provision shall be deemed null and void to the extent permitted by applicable law. Nothing herein shall be construed as a guarantee of any particular tax treatment to a Participant.

8.2 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

8.3 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

8.4 Requirements of Law. The granting of awards under the Plan shall be subject to all applicable laws, rules and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

8.5 Governing Law. The Plan and all awards shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions.

8.6 Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of the Plan.

spōk

Exhibit A

List of Spok Holdings, Inc., Participants (as of January 1, 2018)

Employee Name	Job Title
Kelly, Vincent*	President & CEO
Goel, Hemant	President
Wallace, Michael W.	Chief Financial Officer
Saine, Thomas G.	Chief Information Officer
Culp-Fingerhut, Bonnie K.	EVP, HR & Admin
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*The Chief Executive Officer participates in the Plan pursuant to his employment agreement.
****

**** Means that certain confidential information has been deleted from this document and filed separately with the Securities and Exchange Commission.

Exhibit B

Performance Objectives

2018-2020 Performance Period

Spok 2018 Long Term Incentive Plan (LTIP) Payout Scale
Based on LRP_17

(Wireless Revenue - 20%; Software Revenue - 20%)
(Software Operations Bookings - 30%; Operating and Capital Expenses - 30%)

Wireless Revenue (20%) ($ in millions)			
	Result	**Performance**	**Payout**
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$******	*****%	*****%
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

Software Revenue (20%) ($ in millions)			
	Result	**Performance**	**Payout**
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$******	*****%	*****%
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

Operating and Capital Expenses (30%)(1) ($ in millions)			
	Result	**Performance**	**Payout**
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$******	*****%	*****%
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	>$******	>***%	***%

Operations Bookings (30%) ($ in millions)			
	Result	**Performance**	**Payout**
Over Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
Target	**$******	*****%	*****%
Under Perform	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	$******	***%	***%
	<$******	<***%	***%

(1) ****

**** Means that certain confidential information has been deleted from this document and filed separately with the Securities and Exchange Commission.

Exhibit 21

Spok Holdings, Inc. and Subsidiaries
Legal Entity Chart

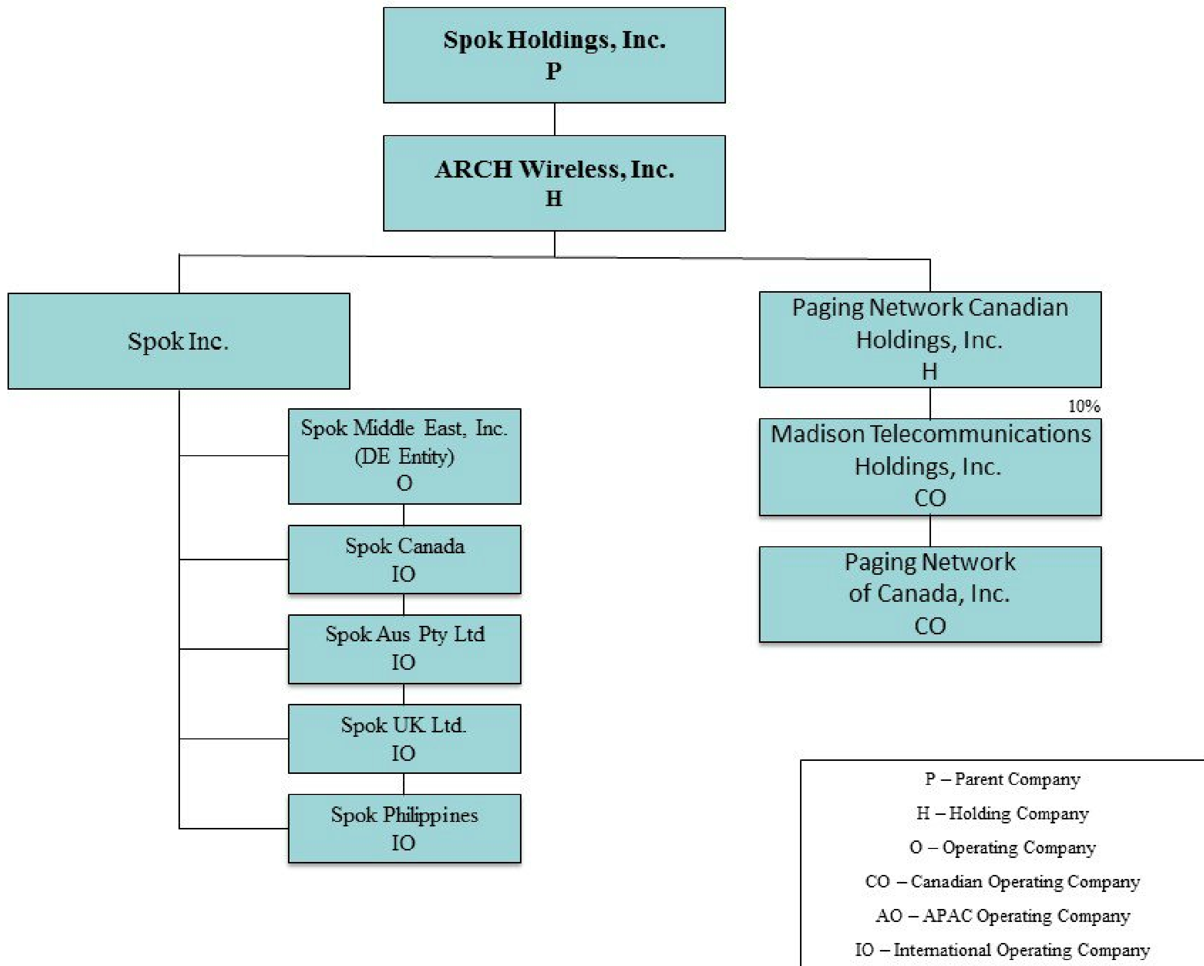

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 1, 2018, with respect to the consolidated financial statements, schedule, and internal control over financial reporting included in the Annual Report of Spok Holdings, Inc. on Form 10-K for the year ended December 31, 2017. We consent to the incorporation by reference of said reports in the Registration Statements of Spok Holdings, Inc. on Forms S-8 (File No. 333-182444 and File No. 333-212724).

/s/ GRANT THORNTON LLP

McLean, Virginia

March 1, 2018

Exhibit 31.1

CERTIFICATIONS

I, Vincent D. Kelly, certify that:

1. I have reviewed this Annual Report on Form 10-K of Spōk Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 1, 2018

/s/ Vincent D. Kelly

Vincent D. Kelly
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Michael W. Wallace, certify that:

1. I have reviewed this Annual Report on Form 10-K of Spōk Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 1, 2018

/s/ Michael W. Wallace

Michael W. Wallace
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Spōk Holdings, Inc. (the "Company") hereby certifies, to such officer's knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2017 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 1, 2018

/s/ Vincent D. Kelly

Vincent D. Kelly
President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Spōk Holdings, Inc. (the “Company”) hereby certifies, to such officer’s knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2017 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 1, 2018

/s/ Michael W. Wallace

Michael W. Wallace
Chief Financial Officer

BOARD OF DIRECTORS

Royce Yudkoff
Chairman of the Board, Spok Holdings, Inc. and Co-Founder of ABRY Partners, LLC

Vincent D. Kelly
President and Chief Executive Officer

N. Blair Butterfield
Chairman of Wind River Advisory Group, LLC

Stacia A. Hylton
Retired Director of The United States Marshals Service

Brian O'Reilly
Consultant

Matthew Oristano
Chairman and Chief Executive Officer of Reaction Biology Corporation

Samme L. Thompson
President of Telit Associates, Inc.

CORPORATE OFFICERS

Vincent D. Kelly
President and Chief Executive Officer

Hemant Goel
President, Spok, Inc.

Michael Wallace
Chief Financial Officer and Chief Accounting Officer

Bonnie K. Culp
Executive Vice President, Human Resources and Administration and Chief Compliance Officer, Spok, Inc.

Sharon Woods Keisling
Corporate Secretary and Treasurer

Thomas G. Saine
Chief Information Officer, Spok, Inc.

ANNUAL MEETING

A formal notice of the meeting is being mailed to each stockholder. The proxy statement, proxy card and 2017 Annual Report on Form 10-K are available at www.proxyvote.com.

2017 Annual Report on Form 10-K

This annual report contains the 2017 Form 10-K filed with the Securities and Exchange Commission. Spok Holdings, Inc. will provide without charge to each stockholder of record additional copies of the Company's 2017 Form 10-K. Please send your request to:

Investor Relations
Spok Holdings, Inc.
6850 Versar Center, Suite 420
Springfield, VA 22151

Investor and Media Information

Inquiries from investors, the financial community, and news organizations should be directed to Investor Relations and Corporate Communications at the address noted above, by calling (800) 611-8488, or by visiting our website at www.spok.com.

Securities Listing

The common stock of Spok Holdings, Inc., trading symbol "SPOK," trades on the NASDAQ National Market®.

Transfer Agent and Registrar

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P.O. Box 505000
Louisville, KY 40233
Direct: (781) 575-2725
Toll Free: (877) 498-8865
Hearing Impaired: TDD (800) 952-9245
www.computershare.com/investor

Independent Public Accountants

Grant Thornton LLP
1000 Wilson Boulevard, Suite 1400
Arlington, VA 22209

Corporate Counsel

Latham & Watkins LLP
555 Eleventh Street, NW, Suite 1000
Washington, DC 20004-1304

Spok, Inc.
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Springfield, VA 22151

Telephone (800) 611-8488
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Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK), headquartered in Springfield, Virginia, is proud to be the global leader in healthcare communications. We deliver clinical information to care teams when and where it matters most to improve patient outcomes. Top hospitals rely on the Spok Care Connect® platform to enhance workflows for clinicians, support administrative compliance, and provide a better experience for patients. Our customers send over 100 million messages each month through their Spok® solutions. When seconds count, count on Spok.