INTHE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS TYLER DIVISION

GROUPCHATTER, LLC,	§
Plaintiff,	§ §
	§ CIV. A. NO. 6:18-cv-00048
V.	§
	§
SPOK HOLINGS, INC. and	§
SPOK, INC.	§ JURY TRIAL REQUESTED
	§
Defendants.	§

ORIGINAL COMPLAINT AND JURY DEMAND

Plaintiff GroupChatter, LLC files this Original Complaint against Defendants, Spok Holdings, Inc. and Spok, Inc. ("Defendants" or "Spok") for infringement of U.S. Patent Nos. 7,969,959, 9,699,637; 9,615,239; and 9,294,888.

THE PARTIES

- 1. Plaintiff GroupChatter, LLC ("GroupChatter") is a Texas limited liability company with its headquarters and principal place of business at 1400 Preston Road, Suite 475, Plano, Texas 75093.
- 2. Defendant Spok Holdings, Inc. is a Delaware corporation with its principal place of business at 6850 Versar Center, Suite 420, Springfield, VA 22151. Spok Holdings, Inc. can be served through its registered agent, Corporate Service Company, at 211 E. 7th Street Suite 620, Austin, TX 78701.

3. Spok, Inc. is a wholly owned subsidiary of Spok Holdings, Inc. Spok, Inc. is a Delaware corporation with a principal place of business at 6850 Versar Center, Suite 420, Springfield, VA 22151. Spok, Inc. can be served through its registered agent, Corporation Service Company, at 211 E. 7th Street Suite 620, Austin, Texas 78701.

JURISDICTION AND VENUE

- 4. GroupChatter brings this action for patent infringement under the patent laws of the United States, namely 35 U.S.C. §§ 271, 21, and 284-285, among others. This Court has subject-matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1338(a), and 1367.
- 5. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b). Defendants have an established place of business in this judicial district, does business in this judicial district, have provided downloads of the Spok products to users in this district, committed acts of infringement in this judicial district, and have purposely transacted business in this judicial district involving the accused products.
- 6. Spok maintains an office at 3000 Technology Drive, Suite 400 Plano, Texas 75074. Defendants are registered to do business in the State of Texas and have appointed Corporation Service Company at 211 E. 7th Street Suite 620, Austin, Texas 78701 as their agent for service of process.









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GROUPCHATTER PATENTS

- 7. Spok has infringed and continues to infringe U.S. Patent Nos. 7,969,959 (the "'959 Patent"); 9,615,239 (the "'239 Patent"); 9,699,637 (the "'637 Patent"); and 9,294,888 (the "'888 Patent") (collectively "the Asserted Patents").
- 8. The '959, '637, '239 and '888 Patents relate to methods, apparatuses, and systems for providing acknowledged, deterministic mass messaging over a two-way wireless network.

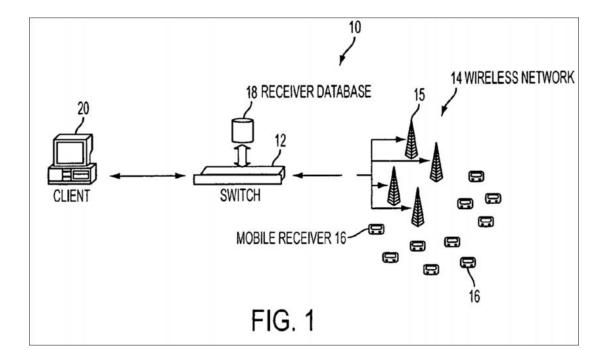
GroupChatter '959, '637, '239 and '888 Patents

9. The GroupChatter Asserted '959, '207, '637, '239 and '888 Patents describe two-way communication systems and methods featuring acknowledged group

messaging enabled within the claimed network architecture and addressing scheme.

- 10. "Deterministic" group messaging refers to one of the advantages delivered by the inventions. Using the claimed system offers the potential benefit of providing timely updates for and from endpoints within a group. In operation, these endpoints (e.g., smartphones, pagers, utility meters, transponders, etc.) send responses to group messages and thereby provide data from which to determine the status of each endpoint.
- 11. Broadly speaking, GroupChatter accuses Spok of infringing the Asserted Patents by providing, deploying, monetizing, promoting, operating, testing, and using the Spok ecosystem (e.g., infrastructure and software) that allows users to conduct and participate, within a social network, in deterministic, acknowledged group messaging as recited in the Asserted Claims.
- 12. The inventors, James Dabbs and Brian Claise, noted in the patent specification that certain communication networks, even those with endpoint devices capable of acknowledging group messages, failed to provide the valuable advantage of deterministic communication because they provided no way to maintain status of group members. This left administrators lacking important data about the status recipients, response status from users, and other valuable state information concerning messages and message responses.

- 13. To solve this problem and other shortcomings of prior two-way wireless messaging networks, the inventors conceived a novel combination for maintaining group management information and organization for use on a wireless network. They describe in the Asserted Patents how to build and deploy the network architecture to use it and achieve these benefits.
- 14. In the Asserted Claims of the '959, '637, '239 and '888 Patents, endpoints are identified by information about the user or specific endpoint device, which may include names or network addresses(es), and by groups that particular recipient device belongs to.
- 15. In addition to the two-way wireless architecture of the radio network, a client/server-based architecture is provided for communication between a network client and the two-way wireless network.
- 16. FIG. 1 of the '239 Patent (reproduced below) depicts an exemplary architecture and high-level aspects of an embodied network related to one or more claims:



- 17. As shown, exemplary structural elements for an embodied system include: (1) a network client 20; (2) a network switch or server 12 coupled to a receiver database 18; (3) a wireless network 14; and (4) a plurality of mobile receivers 16 (e.g., smartphones, meters, etc.).
- 18. Through client/server interactions, a user is provided up-to-date group information that may include address information, status information pertaining to a message or response, overall group detail and status, or even specific information about endpoints within a group.
- 19. In operation, Spok stores recipient identifiers, one or more group identifiers for each recipient endpoint, and group membership data that identifies which recipients belong to specific groups. An endpoint may belong to multiple groups

and thus may be associated with multiple group identifiers.

- 20. In Spok, a group message is initiated via a network client and wirelessly transmitted to endpoint devices located anywhere within the range of the wireless network infrastructure.
- 21. Spok endpoints (recipient devices) are configured to receive a group messages and respond with status information, alphanumeric text entries, or other information based upon the message and endpoint device status.
- 22. Efficient group management and maintenance is an advantage of the claimed system and is demonstrated in operation of the claimed invention by reference to and communication with selected endpoints and groups of endpoints that each have a subset of the group information data stored locally.
- 23. As background, the inventors conceived the subject matter of the patents-insuit in part to address issues in communication networks of the day. For example, some radios and associated wireless networks used by emergency responders were unable to handle the heavy network traffic that circumstances unfortunately required. '239 Patent, col. 1; lines 40-49. The "Background of the Invention" states:

"during the events of Sep. 11, 2001, radio channels became oversaturated, and interoperability problems among jurisdictions and agencies persisted throughout the entire response process. Otherwise compatible portable radios were preprogrammed in a manner that precluded interoperability. Cellular telephone systems and even the public switched telephone network (PSTN) became congested and unusable."

24. Older pager systems proved more reliable than cell phone networks during the September 11 tragedy. But while pager-based systems had the potential to be relatively robust in emergency circumstances, such systems of the time were unable to efficiently process group messages (i.e., messages to groups of recipients) and track the individual responses to know which members of the group had responded. The Background of the Invention section of the specification states:

"none of these systems provide a network interface sufficient to support acknowledged group messaging. Requiring that the message originator individually alert each recipient adds considerable setup delay when alerting large groups."

- 25. Accordingly, the inventors conceived the invention(s) to address these problems. The result was a novel system that efficiently used limited bandwidth and network resources to effectively communicate with selected endpoints groups whose membership may be dynamically created and adjusted. Even in these conditions, the inventors sought to provide effective group management and improved network efficiency, operability, and reliability (based on the challenges of the time).
- 26. The Asserted '959, '637, '239, and '888 Patents require, among other things, a specific network architecture that may include at least: wireless network (e.g., a cellular network) infrastructure (e.g., base stations, backhaul, transmitters, receivers,

antennae, Spok servers, and central switch), and multiple network clients (e.g., smartphones running Spok and equipped with two-way wireless communication modules for communicating on the wireless network).

- 27. The subject matter of the system and method claims asserted against Defendants are tied to the structural deployment described in the Asserted Patents and address shortcomings in group management and communication that the inventors experienced before their invention.
- 28. In operation, the Asserted Claims detail how a message originator, who may lack knowledge of specific details regarding a particular endpoint group, is provided group information to the network client. Such information may include membership information for each group, the number of recipient endpoints sharing a group identifier, or an identifier shared by certain recipient endpoints within a group.
- 29. The claims recite a specific method for providing this information. The Asserted Claims of the '959, '637, '239 and '888 Patents describe and recite the source of group and recipient endpoint information, how and when it is transmitted to a network client, and how it may be displayed and updated at the network client.
- 30. In an example scenario where an incident commander is seeking assistance over a pager network, a notification feature can provide the commander (i.e., the message originator) details about the number, identities, and statuses of group

members. Using the invention for this feature, the commander is able to determine based upon the group messaging system information, a status of group members. Without this feature, an incident commander may have insufficient context to know whether enough personnel were being summoned, or whether key individuals had been mobilized.¹

31. Spok touts these benefits in its product deployments:

THE RESULTS

"By implementing process changes and communication improvements, we can relay pertinent medical information in advance of a patient's arrival that allows our teams to be better prepared," said Wright. The ability to quickly communicate with customized groups has benefited the organization in a number of ways. Parkland staff are able to notify teams of first responders in the event of a major accident such as a plane crash, send out severe weather or disaster alerts, inform hospital staff of a critical situation, and swiftly alert the police department in the case of a nonmedical emergency. Contacting dynamic groups has also been invaluable for staffing, employee notifications (especially when there's a need to reach certain specialties), bed management, and clinic scheduling.

"It's easy in an emergency. It used to be that we had to do a lot of manual inputting of people and groups that needed to be notified. Now it's all ready to go when we need it," said Wright.

32. By using the claimed addressing scheme described in the Asserted Patents, Defendants and other infringers are able to communicate to ad hoc or dynamically

¹ See '239 Patent: col. 2, lines 47-51.

organized groups of users.

- Additional meaningful claim elements in the Asserted Claims include: (1) 33. providing recipient identifier and group identifier information for each group to which a recipient is a member; and (2) storing acknowledgement data for each group member that lists them and indicates their response (e.g., "...storing acknowledgement data in the memory device for each of the group members, the acknowledgement data comprising a listing of each of the group members and an indication of response for each of the group members"). In previous systems, referring again to the incident commander's scenario for example, after a volunteer group was alerted by pager, the incident commander would not know who was going to respond until personnel began to arrive on scene. In contrast, with the claimed "deterministic" group messaging systems, incident commanders (or group administrators) are updated in response to the group messages dispatched. Responses are linked to endpoint recipients within the group context, an advantage and novel advancement achieved by the inventive group management scheme. In this way, the inventive systems and methods provide a valuable concrete result: deterministic status information provided to a network client device for groups of endpoint recipients across a two-way wireless communication network.
- 34. Accordingly, the Asserted Claims of the '959, '637, '239 and '888 Patents are

directed to a specific two-way wireless architecture appended with a group management and maintenance system based upon group and recipient identifiers for identifying with and selectively communicating with endpoint recipients across the network.

- 35. Acknowledged group messaging may be performed in ways and across architectures that differ from the claimed subject matter. While the advantages of the inventions likely will not be achieved, two-way messaging with selective groups of endpoints and management of such groups may be performed using other methods such as frequency division across the geographical region or focused transmission, encryption, or having multiple radios in the network infrastructure for communicating with predetermined groups based upon location.
- 36. The Asserted Claims provide structure and limit the invention to particular and novel ways of deterministically messaging selective groups of recipients on a two-way wireless communication network. These structural limitations describing architecture, integrated computer-based operations necessary to practice the patent claims (e.g., database tables, communication at network client with server/switch), wireless network protocol capable of communicating with groups, and endpoints that can receive and interpret those signals provide meaningful structural limitations that one of skill in the art would recognize as distinctions between network types.

- 37. The operations, function, and results of the subject matter of the Accused System cannot be carried out and achieved by a human or generic computer or by using a generic two-way wireless radio network.
- 38. Generic computer networks or wireless two-way radio networks do not perform "group communication and response tracking" or "group management and maintenance" as those general concepts are claimed in the Asserted Patents.
- 39. Some of the major advantages of the claimed systems and advances over the prior art are discussed in the specification (centralized management and administration of groups and recipients' relationships with groups, effectively communicating with multiple endpoints in groups, and tracking status across a network by group). One skilled in the art at the time of the inventions would further recognize additional advantages including management of groups across a dispersed area or networks, tracking status information of recipient groups including whether individual group members have receiver or read a group message, and monitoring this information at a dispatch center.
- 40. By the novel combination of its two-way wireless network architecture, group management and maintenance scheme, and deterministic messaging functionality, the Asserted Patents present a specific, inventive solution to the problem the inventors recognized with messaging networks at the time of their invention.

SPOK

41. Defendants provide the Spok ecosystem, which enables users to communicate seamlessly across pagers, mobile phones, tablets, and computers.



- 42. Spok is the "largest paging company in the U.S. with over 1 million subscribers."
- 43. Spok promotes itself as a leader in healthcare communications.
- 44. Spok sells an integrated platform, Spok Care Connect.
- 45. Spok advertises that its Care Connect product is used in more than 1,900 hospitals and by all of the U.S. News and World Report Best Hospitals.
- 46. According to Spok, "unified communications and integrated systems are required more than ever to improve care team collaboration, a fundamental element of healthcare transformation."
- 47. Many of Spok's customers still use pagers and many others are using a smartphone, tablet, or Wi-Fi phone.
- 48. Spok solutions offer flexibility for the customers to carry a smartphone, a pager, or both, depending on their role and personal preference.

- 49. Spok Mobile is a secure messaging application for smartphones and tablets.
- 50. Spok Mobile allows the user to securely communicate with any type of device, access the latest on-call schedules, send images and videos, receive system alerts and alarms, and logs all communications in an audit trial.



Spok Mobile

You probably know this one already: Spok Mobile®, our secure messaging application for smartphones and tablets, is a HIPAA-compliant communication powerhouse. It allows you to securely communicate with any type of device in your organization's directory (other secure devices are indicated with a lock symbol), access the latest on-call schedules, send images and videos, receive system alerts and alarms, and logs all communications in an audit trail. It can even push notifications to your Apple Watch

while you're in the pool! If you don't need or want a pager, Spok Mobile can fully support your clinical communications.

- 51. Spok Mobile + Pager is a dual-deployment model.
- 52. Spok Mobile + Pager allows the user to use a Spok pager number (e.g. primary identifying addresses) with a smartphone.
- 53. Spok Mobile + Pager allows users to send messages to the Spok pager number and have them go directly to the user's smartphone-all without changing the way messages are sent.

Spok Mobile + Pager

What if your hospital supports paging and requires you to receive pages, but you don't want to carry more than one device? Spok Mobile + Pager, a dual-deployment model, allows you to use your Spok pager number with a smartphone. Other care team members can send messages to your Spok pager number and have them go directly to your smartphone—all without changing the way messages are sent or updating paging numbers.



- 54. Spok Mobile as a Pager does not require the customer to deploy Spok Mobile enterprise.
- 55. Spok Mobile as a Pager acts like the users pager and the user receives all their pages on the smartphone.



Spok Mobile as a Pager

The two options above rely on your organization deploying Spok Mobile enterprise. Spok Mobile as a Pager doesn't require Spok Mobile enterprise, as the servers and infrastructure are housed with Spok. Spok Mobile acts exclusively like your pager, meaning you receive all your pages on your smartphone, but you don't have access to the other features Spok Mobile provides, such as the directory and on-call schedules.

- 56. Spok Connected and Encrypted Paging is used with the Spok Care Connect platform.
- 57. Spok sells pagers and devices (including, but not limited to, the T52, ST902 and T900 pagers and devices) for use on the Spok Care Connect and Mobile platform.

Connected and Encrypted Paging

When most people think about paging, they think about the basics: Simple, alphanumeric pages with shorthand messages. Spok supports that, but we also support connected and encrypted paging. With the Spok Care Connect platform, hospitals can deliver information from clinical and facility systems right to your pager, including alerts, alarms, and even critical test results. With encrypted paging, the T5 and T52 pagers exclusive to Spok, securely send protected health information (PHI) from these systems, as well as pages from your colleagues.





T52: KEY BENEFITS

- Reliability: powered by a single AA battery
- Security: optional message encryption helps meet HIPAA compliance guidelines
- Ease of backing up contacts via PC connection
- Ability to communicate longer messages with up to six lines of text
- Ability to review message delivery receipts online to close the communication loop

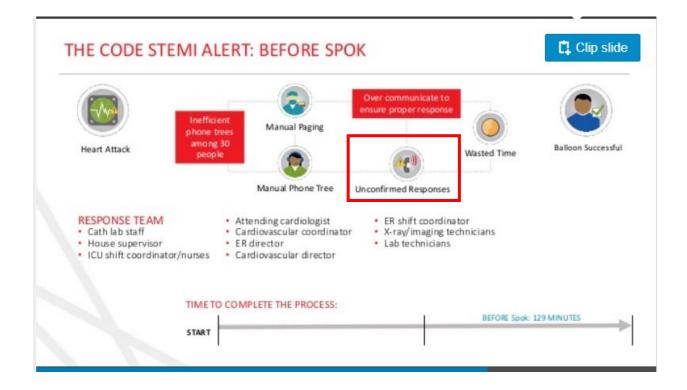


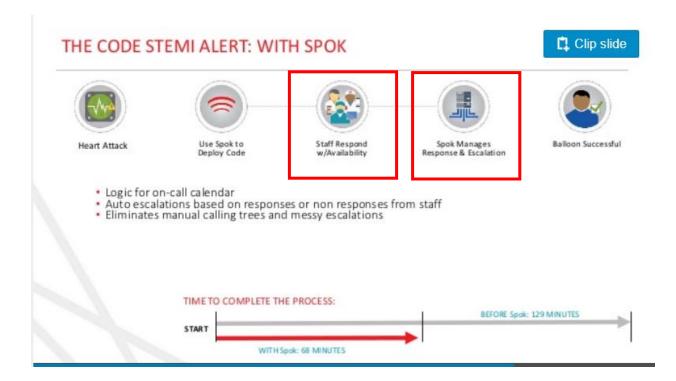
- 58. Spok advertises that its T52 pager product provides the ability to review message delivery receipts online to close the communication loop.
- 59. Spok advertises that its T52 pager product provides "confirmed message

delivery."

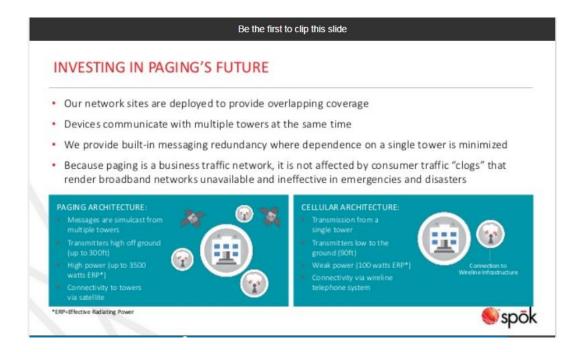
Frequency	 Frequency band: 900MHz ReFLEX 		
Messaging	 Confirmed message delivery Message time and date stamp Erase one message or erase all Preprogrammed reply capability Send, receive, and reply to messages Memory retention when changing battery Contacts backup software for PC 		

- 60. The Spok T52 pager product and Spok in general uses ReFLEX.
- 61. Spok has touted the benefits of acknowledged group messages.





62. Spok's products and system make use of both the paging architecture and the cellular architecture.



63. Spok promotes its products for use in disaster response.

THE RESULTS

"By implementing process changes and communication improvements, we can relay pertinent medical information in advance of a patient's arrival that allows our teams to be better prepared," said Wright. The ability to quickly communicate with customized groups has benefited the organization in a number of ways. Parkland staff are able to notify teams of first responders in the event of a major accident such as a plane crash, send out severe weather or disaster alerts, inform hospital staff of a critical situation, and swiftly alert the police department in the case of a nonmedical emergency.

Contacting dynamic groups has also been invaluable for staffing, employee notifications (especially when there's a need to reach certain specialties), bed management, and clinic scheduling.

"It's easy in an emergency. It used to be that we had to do a lot of manual inputting of people and groups that needed to be notified. Now it's all ready to go when we need it," said Wright.

64. Spok users rely on the Spok products to ensure that messages are received.

CASE STUDY

Monica Parish, Director of Patient Services at Woman's, reflects on the key challenges the hospital faced: "We were unable to communicate with staff and physicians due to the widespread and sporadic phone outages. As the water continued to rise, our staff members were unable to get to work and call volume increased."

Over a quarter of employees experienced personal property damage, 14 percent requested and received a disaster leave of absence, and 55 percent of the hospital's operators were impacted. In addition, 11 major wireless carrier cell towers were down, and other carriers experienced intermittent issues. "We had no way of knowing whether [SMS] text messages to a person's cell phone were received," explains Parish.

Woman's selected Spok Mobile for its HIPAA compliance and ability to improve efficiency. "Spok Mobile was the only option that offered all the features we needed—and more," says Parish.

THE RESULTS

During the disastrous flooding, Spok Mobile became the de facto communication method for operators to deliver messages quickly, allowing them to easily handle the influx of calls.

Normally averaging 21,000 calls per month, Woman's experienced a 27 percent increase in call center volume in August 2016. That had operators handling approximately 5,600 additional calls.

Using Spok Mobile, operators could determine which physicians were available, reach them via secure message, and confirm whether the message was received.

Call Volume Increased 27%

26,666

2016
2015

Prior to Spok Mobile, operators at Woman's had no way to confirm whether doctors received messages. "Patients would call us because they hadn't

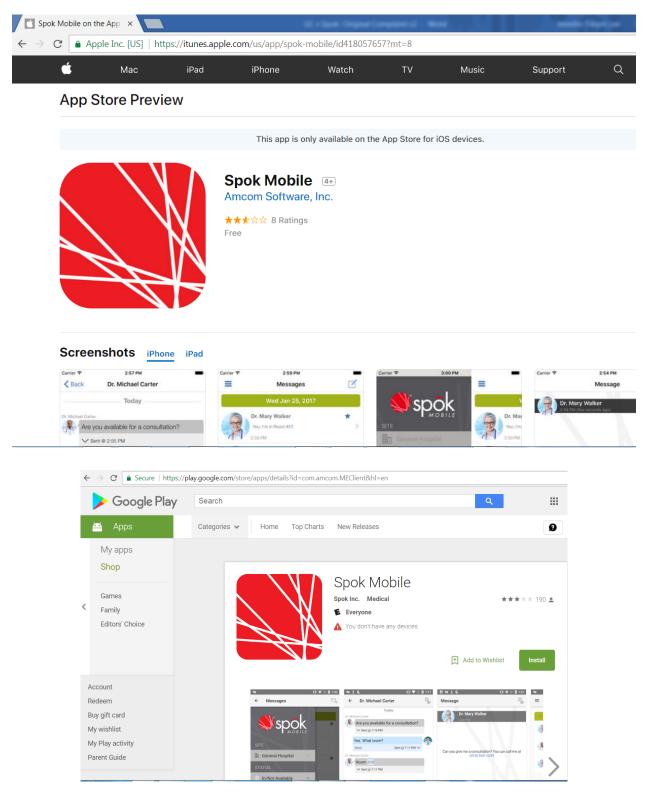
heard from their doctor, so we'd try contacting the doctor, and sometimes even call the patient back to ask if the doctor had called them yet," explains Parish.

With Spok Mobile, Parish estimates it takes no more than 15 to 30 seconds to send a message and receive the acceptance from the doctor. "That's if the doctor immediately responds, which the majority do since it only takes one tap to accept," Parish notes.

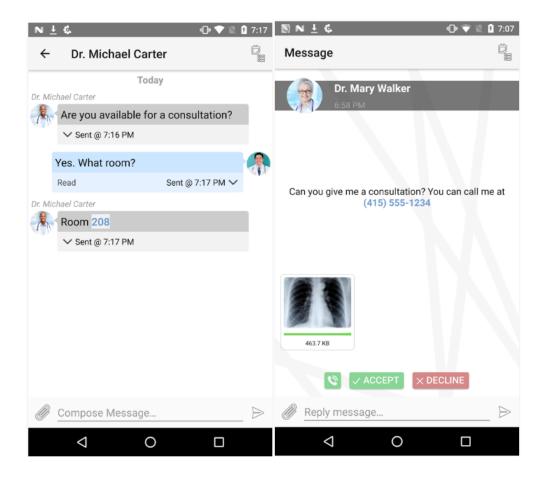
Woman's learned to expect the unexpected. "During the flood, we really put our hospital communication infrastructure to the test,

including our Spok solutions," reflects Parish. "I'm glad Spok Mobile is in place. It means physicians can receive secure messages and we know whether they're received—critical information for our operators during a disaster scenario."

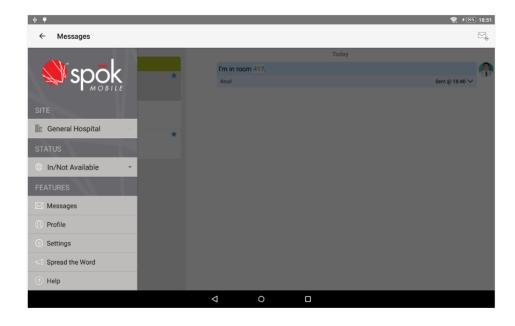
- 65. Spok users download and install the Spok software and may install a copy of the software on each of their devices.
- 66. The Spok ecosystem permits the users to communicate with other users.
- 67. Spok users can exchange messages and receive notifications.
- 68. To communicate using the Spok ecosystem, Spok users must use the Spok software (i.e., apps) provided by Defendants.
- 69. The Spok software is available for various hardware including Apple devices (e.g. iPhones, and iPads) and Android-based devices (e.g., cell phones, tablets, and computers).



70. Spok provides read receipts.



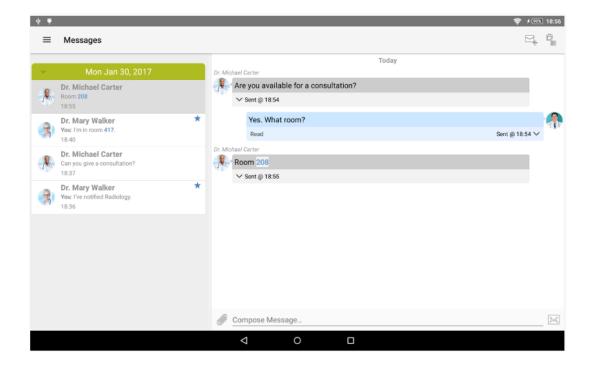
71. Spok users can set their status for viewing by other users (e.g. available).



Changing Your Status

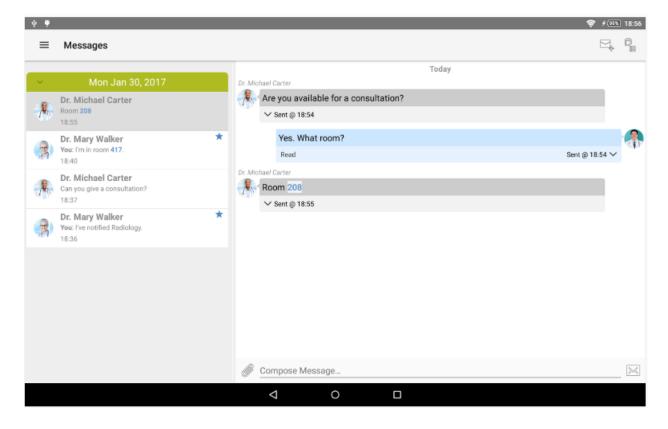
The Spok Mobile application allows you to choose a status that represents your availability to other Spok Mobile users. In the drawer application, you have the ability to choose from a list of available statuses that are managed in the host system to which you are registered.

For example, if a status of "Do Not Disturb" is created in your host system, you then have the ability to choose that status to notify others that you should not be disturbed. Then when others attempt to send you a message, they can see that you do not want to be disturbed at that time and can refrain from sending you a message.



- 72. According to Spok, Android smartphones are supported devices.
- 73. Using Defendants' software, these devices operate over cellular connections (e.g., 3G,4G, LTE), paging networks or Wi-Fi connections to provide "cross-platform" communication among Spok users.
- 74. <u>Viewing Posted Content</u> Using Spok, a user is able to post content (e.g. messages, etc.) to an ongoing thread between another Spok user or group of Spok users. Users in that thread may then view the posted content, respond to that content, and post their own content.

- 75. <u>Communicating and Sending Messages</u> –Spok users communicate with fellow users, employees and colleagues, and group members in a variety of formats.
- 76. Spok provides users the ability to connect with specific sets of users (e.g., doctors) to share updates, photos, videos, test results and messages.
- 77. Groups –Spok permits users to communicate with (e.g., broadcast a group message to) defined groups of users (e.g., fellow doctors).
- 78. Spok Group Conversations allow users to communicate with fellow group members by sending, for example, messages, photos, videos or test results.
- 79. Acknowledging and responding to content–Defendants enables users to view and respond to content provided by other users.
- 80. <u>Notifications</u> –Spok provides various notifications to users regarding messages, responses, and acknowledgments.
- 81. Spok users receive notifications from their browser or app (i.e., a network client) to alert them of any relevant messages and other content. Spok also provides read status for group and individual messages.
- 82. Spok realizes substantial value from the group messaging features of the Spok application and platform.
- 83. Using Spok to send a group message, a user can see who has seen her message and the time it was viewed:



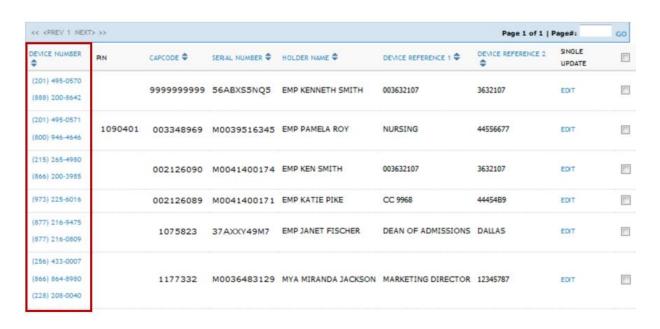
84. Spok infringes the GroupChatter Asserted Patents by making, using, monetizing, providing, promoting, deploying, and testing the Spok products and ecosystem including Spok infrastructure (e.g., server-based systems), and the various Spok apps that users install on phones, tablets, and computers. These infringing Spok components, products, platform and infrastructure and Spok systems are the "Accused Systems."

COUNT 1 INFRINGEMENT OF U.S. PATENT NO. 7,969,959

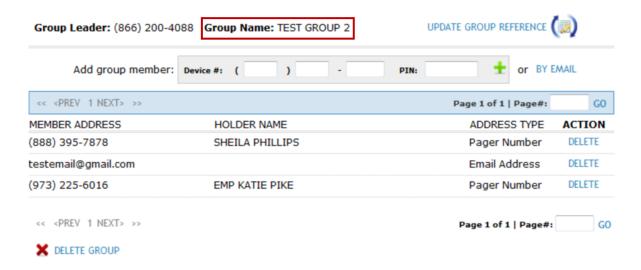
- 85. GroupChatter incorporates paragraphs 1 through 84 herein by reference.
- 86. GroupChatter is the owner, by assignment, of U.S. Patent No. 7,969,959 (the

- "'959 Patent"), titled "METHOD AND APPARATUS FOR EFFICIENT AND DETERMINISTIC GROUP ALERTING."
- 87. A true and correct copy of the '959 Patent is attached as Exhibit A.
- 88. As the owner of the '959 Patent, GroupChatter holds all substantial rights in and under the '959 Patent, including the right to grant sublicenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.
- 89. The United States Patent Office granted the '959 Patent on June 28, 2011.
- 90. The '959 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.
- 91. Spok is practicing one or more claims of the '959 Patent, including at least claims 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 21, 26, 27 and 30, by making, using, offering for sale, monetizing, selling, and/or importing the Accused Systems that provide a deterministic group messaging system to Spok users who exchange group messages over wireless networks (e.g., cellular, Wi-Fi, WiMAX, or wireless broadband).
- 92. Spok has directly infringed and continues to infringe the '959 Patent by deploying, testing, using, monetizing, and operating the Accused Systems to provide acknowledged group messaging to users and perform acknowledged group messaging.

- 93. The Accused Systems operate on computers, desktop computers, laptops, smartphones, tablets, and mobile devices and communicate using paging, cellular and/or Wi-Fi networks. Such hardware having the Spok apps installed are included in the definition of "Accused Systems."
- 94. Accused Systems provide Spok users the ability to start group conversations and exchange messages among members of a group via mobile devices operating on wireless networks.
- 95. Spok stores on its servers data relating to recipients, groups created by users, and group membership information.
- 96. IDs are part of a user's profile. Defendants use this information to help Spok users find other Spok users and to organize a user's information internally on the Spok servers.

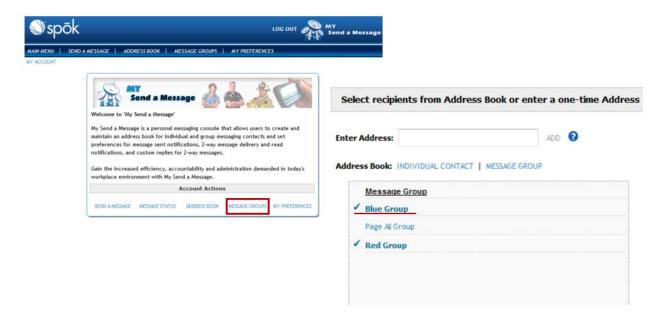


97. Spok stores group addresses that are shared among multiple devices.

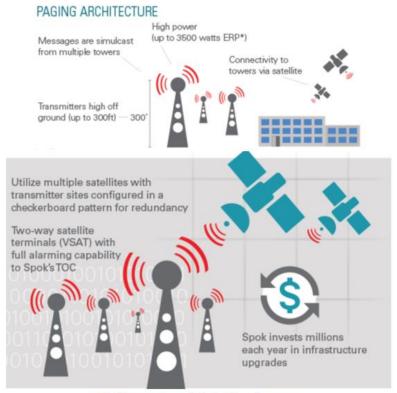


98. Spok users can send a message to a group of recipients via a web interface.

These messages are then wirelessly transmitted to the recipients' devices.



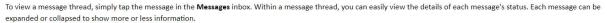
- 99. Spok servers transmit group information to the network client.
- 100. Devices receive group message broadcasts via a wireless network.

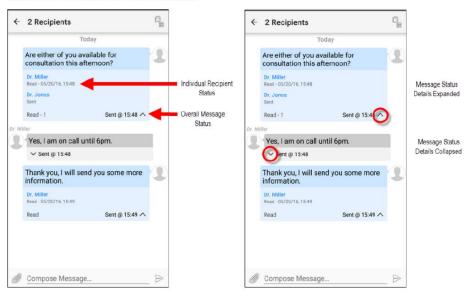


http://www.spok.com/infographic-paging-power

- 101. Spok provides to mobile devices running Spok app(s) group information such as group membership and recipient identifying data stored on the Spok server infrastructure.
- 102. Spok transmits Group messages wirelessly to mobile devices corresponding to each recipient in the selected group.
- 103. Mobile devices running a Spok app or accessing the Spok System via a web browser receive a group message and respond with acknowledgement of receipt, an alphanumeric text reply, and/or indication the group message has been received but not read by the user.

- 104. Spok stores acknowledgement data for each group member in memory.
- 105. The Spok "Seen" Status displays the "seen" status when other users have seen the user's messages and will display the "seen" status to other users when their messages have been seen.
- 106. Spok sends messages to the Accused System's network clients based on stored acknowledgement data.
- 107. The Accused Spok System broadcasts group messages to users via the users' wireless networks (e.g., paging, cellular or Wi-Fi networks).
- 108. The Accused Spok System receives acknowledgement responses from group members via the wireless network used by a user's device.
- 109. The Accused Spok Systems provide acknowledgement responses indicating to the network client who has seen the group message. For example, a message-initiating user will see when her message is delivered and when the recipient sees it.
- 110. The acknowledgement responses contain recipient identifiers and indications that the group message was successfully received.
- 111. Spok provides status information in the responses to convey status of multiple recipients in the group.





Individual Recipient Message Statuses Individual message statuses provide the sender a detailed view of the status for a message sent to an individual. Status What it Means Read - mm/dd/yyyy, hh:mm AM/PM The message recipient read or accepted the message. Declined - mm/dd/yyyy, hh:mm AM/PM The message recipient declined the message. Delivered - mm/dd/yyyy, hh:mm AM/PM The message is on the recipient's device; the recipient has not yet read or accepted the message. Failed - mm/dd/yyyy, hh:mm AM/PM The message did not successfully reach the system. Sending The message is in the process of being sent to the system but not by the recipient's device.

Summary Message Statuses			
Summary message statuses provide the sender a convenient view of the message status for a message sent to multiple recipients.			
Status What it Means			
Read - #	The number of message recipients who have read or accepted the sender's message.		
Declined - #	The number of message recipients who have declined the sender's message.		
Failed	The message did not successfully reach the system.		
Sent @ hh:mm	The time the sender sent the message. The Sent summary is displayed to the sender and recipients of the message.		

112. Users may respond to group messages in Spok with messages, or read

indicators sent from their mobile device.

113. The sender of a group message is provided with the notifications via email and the web interface.

Message DELIVERED/READ – select this option to receive an email notification when a 2 way message is delivered to the recipient's device and when it is read by the message recipient. This type of notification is ONLY available for messages sent to 2 way devices.

Messages for Device: (614) 721-0057 for Date Range: 09/15/2014-00:00AM - 10/02/2014-00:00AM Holder Name: MOISES FRITIS							
(614) 721-0057		22	TO Device	09/15/2014-03:57:44pm	09/15/2014-03:58:08pm	09/15/2014-04:15:53pm	
(614) 721-0057		1	TO Device	09/16/2014-02:03:04pm	09/16/2014-02:03:46pm	**/**/****:**:**	
(614) 721-0057		2	TO Device	09/18/2014-04:28:59pm	09/18/2014-04:29:23pm	09/19/2014-03:31:48pm	
(614) 721-0057		1	TO Device	09/19/2014-03:25:32pm	09/19/2014-03:32:15pm	**/**/****:**:**	
(614) 721-0057		2	TO Device	09/19/2014-05:50:06pm	09/19/2014-05:50:31pm	**/**/****:**:**	
(614) 721-0057		3	TO Device	09/22/2014-09:39:45am	09/22/2014-09:40:08am	**/**/****:**:**	
(614) 721-0057		4	TO Device	09/23/2014-02:20:44pm	09/23/2014-02:21:08pm	09/23/2014-02:21:59pm	
(614) 721-0057		5	TO Device	09/24/2014-12:36:22pm	09/24/2014-12:36:45pm	09/24/2014-02:28:24pm	
(614) 721-0057		6	TO Device	09/24/2014-02:25:27pm	09/24/2014-02:25:53pm	09/24/2014-02:28:20pm	
(614) 721-0057		7	TO Device	09/24/2014-02:27:32pm	09/24/2014-02:27:52pm	09/24/2014-02:28:15pm	

- 114. When membership changes in a Spok group, Defendants update membership data on the Spok infrastructure (e.g., Spok servers) and any user's device (e.g., phone or computer) that may be affected by the change.
- 115. The Accused Spok System provides acknowledged group messaging.
- 116. Spok servers store recipient identifiers for each group member, a group identifier corresponding to recipient groups, and information about membership of recipients in the recipient groups.
- 117. Spok stores group information on user devices having the Spok application installed.

- 118. When a group message is initiated, the Spok client application within the Accused Systems causes wireless transmission of the group message to mobile devices corresponding to group recipients. In turn, mobile devices receiving the group message transmit a response.
- 119. In operation, the Spok client application in the Accused Systems monitors group message information relayed by Spok infrastructure (e.g., servers) for group message responses. The client application stores acknowledgement data and message status information for each group member.
- 120. Previous group messages and acknowledgement information is stored for each message.

Message Tracking

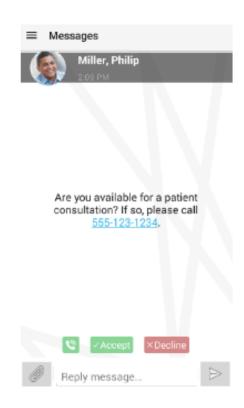
This menu option will allow the authorized user to view and track two-way and Spok Mobile message status history.

The My Account user will have the ability to run a report by device phone number that will only include the device number, the message timestamp of date/time-sent/delivered, direction of the message and the message sequence number.

121. Acknowledgement responses contain device identifiers, allowing a determination of which devices did not receive the message sent to the group.

		Messages for Device:	(614) 721-0057 for Date	e Range: 09/15/2014-00:00	AM - 10/02/2014-00:00AI	м
Holder Name: MOISES FRITIS						
DEVICE NUMBER	PIN	MESSAGE SEQUENCE	DIRECTION OF PAGE	DATE/TIME SENT	DATE/TIME DELIVERED	DATE/TIME READ
(614) 721-0057		22	TO Device	09/15/2014-03:57:44pm	09/15/2014-03:58:08pm	09/15/2014-04:15:53pm
(614) 721-0057		1	TO Device	09/16/2014-02:03:04pm	09/16/2014-02:03:46pm	**/**/****:**:**
(614) 721-0057		2	TO Device	09/18/2014-04:28:59pm	09/18/2014-04:29:23pm	09/19/2014-03:31:48pm
(614) 721-0057		1	TO Device	09/19/2014-03:25:32pm	09/19/2014-03:32:15pm	**/**/****:**:**
(614) 721-0057		2	TO Device	09/19/2014-05:50:06pm	09/19/2014-05:50:31pm	**/**/****:**:**
(614) 721-0057		3	TO Device	09/22/2014-09:39:45am	09/22/2014-09:40:08am	**/**/****:**:**
(614) 721-0057		4	TO Device	09/23/2014-02:20:44pm	09/23/2014-02:21:08pm	09/23/2014-02:21:59pm
(614) 721-0057		5	TO Device	09/24/2014-12:36:22pm	09/24/2014-12:36:45pm	09/24/2014-02:28:24pm
(614) 721-0057		6	TO Device	09/24/2014-02:25:27pm	09/24/2014-02:25:53pm	09/24/2014-02:28:20pm
(614) 721-0057		7	TO Device	09/24/2014-02:27:32pm	09/24/2014-02:27:52pm	09/24/2014-02:28:15pm

122. Spok messages provide users multiple choice options for responding to the message on a device.



123. Spok users can accept, decline, reply or call back in response to Alert Messages.

Replying to Alert Messages

When a Spok Mobile message is received, you have the option to choose from the following response options:

- Accept: Choosing the Accept option indicates that you received the message and you accept the message's content. For detailed information on how to accept messages, please
 refer to Accepting Messages.
- Decline: Choosing the Decline option indicates that you received the message, but you do not accept the message's content. For detailed information on how to decline messages, please refer to Declining Messages.
- Reply: Choosing the Reply option indicates that you received the message and allows you to respond or reply to the message's content. For detailed information on how to reply to messages, please refer to Sending a Reply.
- Call Back: When a phone number is included in the text of an incoming Spok Mobile message, you can click Call Back to initiate a phone call using your device's phone feature or using a VoIP connection that is configured in the Call System feature in the Settings screen. For detailed information on how to configure a call system for the Spok Mobile application to use to initiate phone call, please refer to Performing a Callback.
- 124. Spok provides notifications indicating how many of recipients need to acknowledge receipt of the message.

Message Delivery Notifications

The Message Delivery Notifications feature allows you to decide if you receive notifications when the following events occur:

- · A message fails to send to the message receiver(s)
- · A message is successfully delivered to the message receiver(s)
- · A message is acknowledged by the message receiver(s)
- · A message is ignored by the message receiver(s)
- 125. Spok instructs and encourages end users of the Spok Accused Systems to use the Spok group message features.
- 126. Spok is on notice of the Asserted Patents and the conduct by Spok and its end users and customers that infringes them.
- 127. Spok is on notice that the Spok applications are especially made or especially adapted for use in infringing the '959 Patent and how these applications infringe the asserted claims of the '959 Patent.
- 128. Spok has detailed knowledge about its specific conduct that GroupChatter contends infringes the '959 Patent.
- 129. As a result of Spok's infringing conduct described in this Count,

GroupChatter has been damaged. Defendants are liable to GroupChatter in an amount that adequately compensates it for Defendants' infringement, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

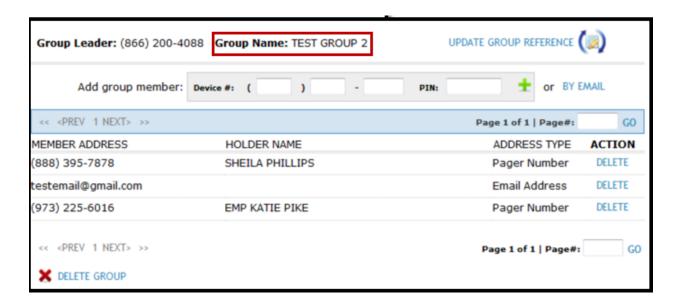
COUNT 2 INFRINGEMENT OF U.S. PATENT NO. 9,294,888

- 130. GroupChatter incorporates paragraphs 1 through 129 herein by reference.
- 131. GroupChatter is the owner, by assignment, of U.S. Patent No. 9,294,888 (the "'888 Patent"), titled "METHOD AND APPARATUS FOR EFFICIENT AND DETERMINISTIC GROUP ALERTING."
- 132. A true and correct copy of the '888 Patent is attached as Exhibit B.
- 133. As the owner of the '888 Patent, GroupChatter holds all substantial rights in and under the '888 Patent, including the right to grant sublicenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.
- 134. The United States Patent Office granted the '888 Patent on March 22, 2016.
- 135. The '888 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.
- 136. Defendants are practicing one or more claims of the '888 Patent, including at least claims 1, 2, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 16 and 17, by making, testing, importing, deploying, using, and/or monetizing the Spok Accused System and Plaintiff's Original Complaint and Jury Demand

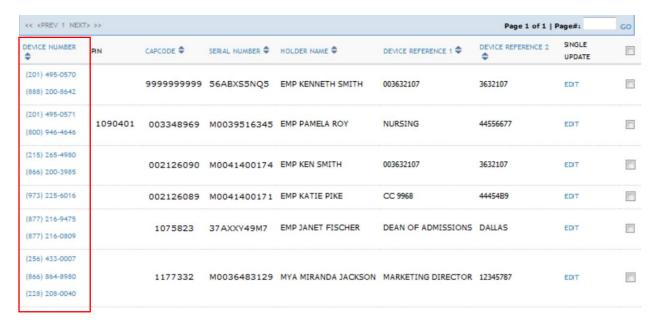
 Page 37

subsystems that provide a deterministic group messaging system through which Spok users exchange group messages over wireless networks (e.g., cellular, paging, Wi-Fi, WiMAX, and wireless broadband).

- 137. Spok has directly infringed and continues to infringe the '888 Patent by deploying, testing, deploying, importing, monetizing, using, or operating the Accused Systems to provide acknowledged group messaging to users and perform acknowledged group messaging.
- 138. Accused System components (e.g., Spok apps) operate on desktop computers, smartphones, laptops, tablets, and mobile devices that communicate using paging, cellular and/or Wi-Fi networks.
- 139. The Accused System provides users the ability to start group conversations and exchange messages among members of a group via mobile devices operating on wireless networks.
- 140. Spok stores on Spok infrastructure (e.g., servers) data relating to recipients, groups created by users, and group membership information.
- 141. Spok stores data comprising of recipient identifiers and group identifiers corresponding to groups of selected recipients.



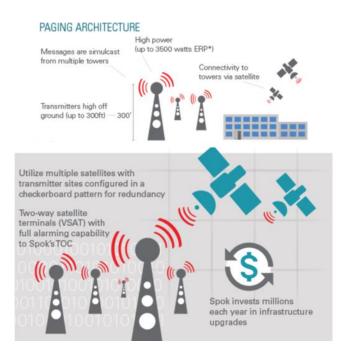
142. IDs are part of a user's profile. Defendants provide this information to help users find other available Spok users. Spok collects and organizes user information internally on the Spok servers.



143. Spok provides group information (e.g., group membership and recipient identifying data stored on the Spok servers) to mobile devices running the Spok

client application within the Accused Systems.

144. Devices receive group messages that are transmitted via a wireless network.



- 145. A user can create a group having a group identifier and include members having recipient identifiers.
- 146. Spok wirelessly transmits group messages to mobile devices corresponding to each recipient in the selected group.
- 147. Mobile devices running a Spok client application receive a group message and respond with acknowledgement of receipt, an alphanumeric text reply, and/or indication the group message has been received but not read by the user.
- 148. Spok stores acknowledgement data (e.g., confirmation of receipt, a read receipt, or indication a reply was sent) in memory.

- 149. Spok servers monitor for responses from the group members.
- 150. Spok sends messages to client applications within the Accused Systems based on stored acknowledgement data.
- 151. The Accused System broadcasts group messages to members via wireless networks (e.g., paging, cellular or Wi-Fi networks) on which network client devices are operating.
- 152. The Accused Systems receive acknowledgement responses from group members via the wireless network being used by the respective Spok user's device.
- 153. For example, a message-initiating user will see when her message is delivered and when the recipient user sees it.
- 154. Users send personal messages using the Accused Systems.
- 155. Spok provides acknowledgement responses indicating to the network client who has seen the group message and who among group members has not.
- 156. Users may respond to group messages in Spok with messages, or read indicators sent from their mobile device.
- 157. When membership changes in a Spok group, the Accused Systems update membership data on the Spok server systems along with affected users' mobile devices.
- 158. Spok provides acknowledged group messaging.

- 159. Spok servers store recipient identifiers for each group member, a group identifier corresponding to recipient groups, and information about membership of recipients in the recipient groups.
- 160. Spok stores group information on a user's mobile device(s).
- 161. When a group message is initiated, a user's client application within the Accused System causes wireless transmission of a group message to mobile devices corresponding to group recipients. Mobile devices receiving the group message transmit a response.
- 162. In operation, a Spok client application monitors group message information relayed by Spok servers for group message responses and stores acknowledgement data comprising an indication that the group message was received, a group message was read, or a reply was sent by the recipient.
- 163. Spok encourages its users and customers to use the messaging features of the Spok Accused Products.
- 164. Spok is on notice of GroupChatter's '888 Patent and the conduct by Spok and its end users that GroupChatter alleges infringes the asserted claims of the '888 Patent.
- 165. Spok is on notice that the Spok applications and products are especially made or especially adapted for use in infringing the '888 Patent and how these applications

and products infringe the asserted claims of the '888 Patent.

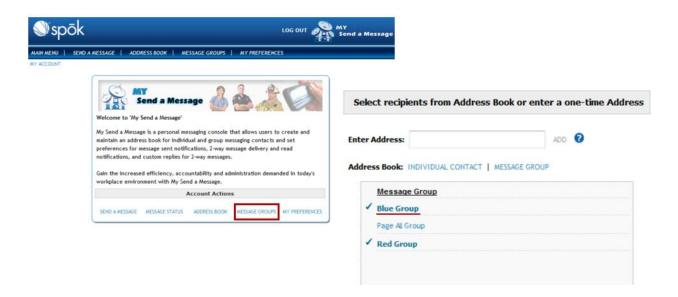
166. GroupChatter has been damaged as a result of Spok's infringing conduct. Spok is liable to GroupChatter in an amount that adequately compensates it for Defendants' infringement, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT 3 INFRINGEMENT OF U.S. PATENT NO. 9,615,239

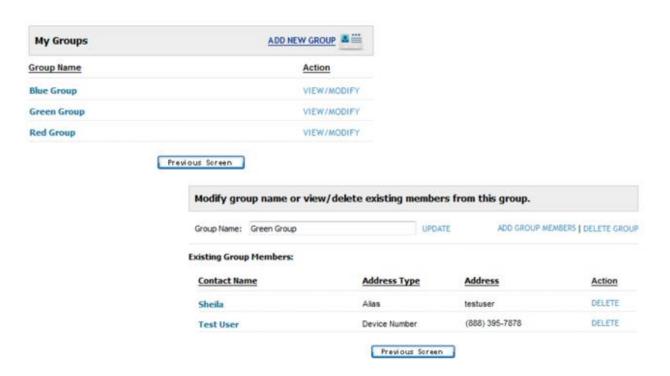
- 167. GroupChatter incorporates paragraphs 1 through 166 herein by reference.
- 168. GroupChatter is the owner, by assignment, of U.S. Patent No. 9,615,239 (the "239 Patent"), titled "METHOD AND APPARATUS FOR EFFICIENT AND DETERMINISTIC GROUP ALERTING."
- 169. A true and correct copy of the '239 Patent is attached as Exhibit C.
- 170. As the owner of the '239 Patent, GroupChatter holds all substantial rights in and under the '239 Patent, including the right to grant sublicenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.
- 171. The United States Patent Office granted the '239 Patent on April 4, 2017.
- 172. The '239 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.
- 173. Defendants are practicing one or more claims of the '239 Patent, including at least claims 1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 14 and 15 by making, testing, importing,

deploying, using, and/or monetizing the Spok Accused System and subsystems that provide a deterministic group messaging system through which Spok users exchange group messages over wireless networks.

- 174. Spok has directly infringed and continues to infringe the '239 Patent by deploying, testing, deploying, importing, monetizing, using, or operating the Accused Systems to provide acknowledged group messaging to users and perform acknowledged group messaging.
- 175. Accused System components (e.g., Spok Products and apps) operate on desktop computers, smartphones, laptops, tablets, and mobile devices that communicate using paging, cellular and/or Wi-Fi networks.
- 176. The Accused System provides users the ability to start group conversations and exchange messages among members of a group via mobile devices operating on wireless networks.
- 177. Spok allows users to communicate with a group of recipients over a wireless network.
- 178. Spok store primary identifying addresses for each pager or recipient.
- 179. Spok stores group addresses that are shared among multiple devices.



180. Spok stores data comprising recipient identifiers associated with group addresses.



181. A user can send a message to a group of recipients via a web interface and the messages are then wirelessly transmitted to the recipients' devices.

- 182. Spok servers transmit group information to the network client. The group information includes a count of group recipients and group identifiers.
- 183. Spok broadcasts the message wireless to members of the group address.
- 184. Devices receive group message broadcasts via a wireless network.
- 185. The message can specify actions to be taken by each recipient.
- 186. Group messages may include an action, such as a prompt to accept or decline an emergency, or a command to reprogram the recipient device.



http://cloud.spok.com/BR-AMER-Spok-Mobile-Healthcare.pdf

Reprogram Device This option will refresh the programming of the device on the Spok wireless network and will send a test page to the device. REPROGRAM The programming of your wireless device was successfully reset and a test page has been sent. CLOSE

187. Acknowledgement responses are received from devices in response to a group message via the wireless network. The responses contain recipient identifiers and indications that the group message was successfully received.

Message DELIVERED/READ – select this option to receive an email notification when a 2 way message is delivered to the recipient's device and when it is read by the message recipient. This type of notification is ONLY available for messages sent to 2 way devices.

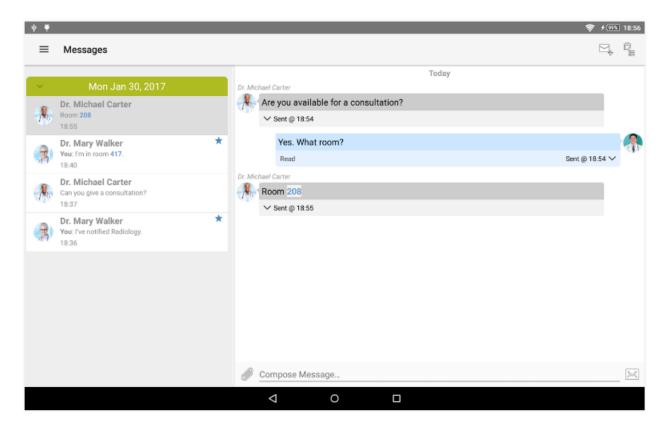
		Messages for Device: (614) 721-0057 for Date Range: 09/15/2014-00:00AM - 10/02/2014-00:00AM								
Holder Name: MOISES FRITIS										
DEVICE NUMBER	PIN	MESSAGE SEQUENCE	DIRECTION OF PAGE	DATE/TIME SENT	DATE/TIME DELIVERED	DATE/TIME READ				
(614) 721-0057		22	TO Device	09/15/2014-03:57:44pm	09/15/2014-03:58:08pm	09/15/2014-04:15:53pm				
(614) 721-0057		1	TO Device	09/16/2014-02:03:04pm	09/16/2014-02:03:46pm	**/**/*********				
(614) 721-0057		2	TO Device	09/18/2014-04:28:59pm	09/18/2014-04:29:23pm	09/19/2014-03:31:48pm				
(614) 721-0057		1	TO Device	09/19/2014-03:25:32pm	09/19/2014-03:32:15pm	**/**/****:**:**				
(614) 721-0057		2	TO Device	09/19/2014-05:50:06pm	09/19/2014-05:50:31pm	**/**/****-**;**;**				
(614) 721-0057		3	TO Device	09/22/2014-09:39:45am	09/22/2014-09:40:08am	**/**/****.**;**;**				
(614) 721-0057		4	TO Device	09/23/2014-02:20:44pm	09/23/2014-02:21:08pm	09/23/2014-02:21:59pm				
(614) 721-0057		5	TO Device	09/24/2014-12:36:22pm	09/24/2014-12:36:45pm	09/24/2014-02:28:24pm				
(614) 721-0057		6	TO Device	09/24/2014-02:25:27pm	09/24/2014-02:25:53pm	09/24/2014-02:28:20pm				
(614) 721-0057		7	TO Device	09/24/2014-02:27:32pm	09/24/2014-02:27:52pm	09/24/2014-02:28:15pm				

- 188. The sender of a group message is provided with the acknowledgement responses.
- 189. Acknowledgment responses contain device identifiers, allowing a determination of which devices did not receive the message sent to the group.

Message DELIVERED/READ – select this option to receive an email notification when a 2 way message is delivered to the recipient's device and when it is read by the message recipient. This type of notification is ONLY available for messages sent to 2 way devices.

		Messages for Device: (614) 721-0057 for Date Range: 09/15/2014-00:00AM - 10/02/2014-00:00AM								
Holder Name: MOISES FRITIS										
DEVICE NUMBER	PIN	MESSAGE SEQUENCE	DIRECTION OF PAGE	DATE/TIME SENT	DATE/TIME DELIVERED	DATE/TIME READ				
(614) 721-0057		22	TO Device	09/15/2014-03:57:44pm	09/15/2014-03:58:08pm	09/15/2014-04:15:53pm				
(614) 721-0057		1	TO Device	09/16/2014-02:03:04pm	09/16/2014-02:03:46pm	**/**/*********				
(614) 721-0057		2	TO Device	09/18/2014-04:28:59pm	09/18/2014-04:29:23pm	09/19/2014-03:31:48pm				
(614) 721-0057		1	TO Device	09/19/2014-03:25:32pm	09/19/2014-03:32:15pm	**/**/****:**:**				
(614) 721-0057		2	TO Device	09/19/2014-05:50:06pm	09/19/2014-05:50:31pm	**/**/****:**:**:				
(614) 721-0057		3	TO Device	09/22/2014-09:39:45am	09/22/2014-09:40:08am	**/**/****.**;**;**				
(614) 721-0057		4	TO Device	09/23/2014-02:20:44pm	09/23/2014-02:21:08pm	09/23/2014-02:21:59pm				
(614) 721-0057		5	TO Device	09/24/2014-12:36:22pm	09/24/2014-12:36:45pm	09/24/2014-02:28:24pm				
(614) 721-0057		6	TO Device	09/24/2014-02:25:27pm	09/24/2014-02:25:53pm	09/24/2014-02:28:20pm				
(614) 721-0057		7	TO Device	09/24/2014-02:27:32pm	09/24/2014-02:27:52pm	09/24/2014-02:28:15pm				

190. Spok provides message alert status for each of the recipients.



- 191. Spok provides acknowledged group messaging.
- 192. Spok servers store recipient identifiers for each group member, a group identifier corresponding to recipient groups, and information about membership of recipients in the recipient groups.
- 193. Spok stores group information on a user's mobile device(s).
- 194. When a group message is initiated, a user's client application within the Accused System causes wireless transmission of a group message to mobile devices corresponding to group recipients. Mobile devices receiving the group message

transmit a response.

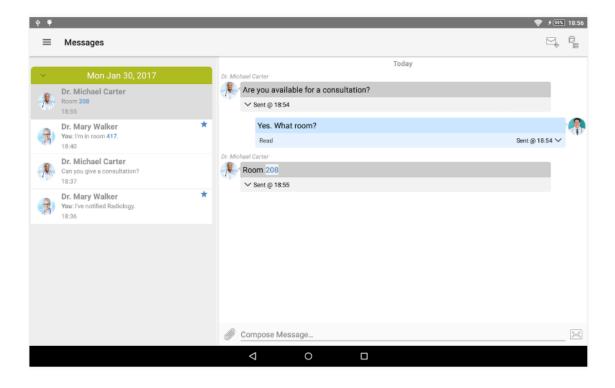
- 195. In operation, a Spok client application monitors group message information relayed by Spok servers for group message responses and stores acknowledgement data comprising an indication that the group message was received, a group message was read, or a reply was sent by the recipient.
- 196. Acknowledgement responses contact device identifiers, allowing a determination of which devices did not receive the message sent to the group.
- 197. Spok encourages its users and customers to use the messaging features of the Accused Products.
- 198. Spok is on notice of GroupChatter's '239 Patent and the conduct by Spok and its end users that GroupChatter alleges infringes the asserted claims of the '239 Patent.
- 199. Spok is on notice that the Spok products and applications are especially made or especially adapted for use in infringing the '239 Patent and how these products and applications infringe the asserted claims of the '239 Patent.
- 200. GroupChatter has been damaged as a result of Spok's infringing conduct. Spok is liable to GroupChatter in an amount that adequately compensates it for Defendants' infringement, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT 4 INFRINGEMENT OF U.S. PATENT NO. 9,699,637

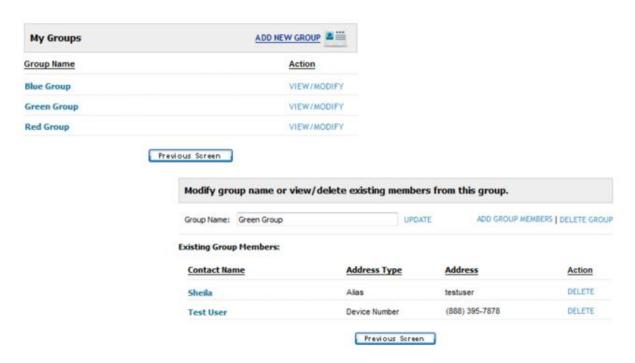
- 201. GroupChatter incorporates paragraphs 1 through 200 herein by reference.
- 202. GroupChatter is the owner, by assignment, of U.S. Patent No. 9,699,637 (the "'637 Patent"), titled "METHOD AND APPARATUS FOR EFFICIENT AND DETERMINISTIC GROUP ALERTING."
- 203. A true and correct copy of the '637 Patent is attached as Exhibit D.
- 204. As the owner of the '637 Patent, GroupChatter holds all substantial rights in and under the '637 Patent, including the right to grant sublicenses, exclude others, and to enforce, sue, and recover damages for past and future infringement.
- 205. The United States Patent Office granted the '637 Patent on July 4, 2017.
- 206. The '637 Patent is valid, enforceable and was duly issued in full compliance with Title 35 of the United States Code.
- 207. Defendants are practicing one or more claims of the '637 Patent, including at least claims 1, 2, 3, 4, 5, 7, 8, 9, 11, 12 and 13, by making, testing, importing, deploying, using, and/or monetizing the Spok Accused System and subsystems that provide a deterministic group messaging system through which Spok users exchange group messages over wireless networks.
- 208. Spok has directly infringed and continues to infringe the '637 Patent by deploying, testing, deploying, importing, monetizing, using, or operating the

Accused Systems to provide acknowledged group messaging to users and perform acknowledged group messaging.

- 209. Accused System components operate on desktop computers, smartphones, laptops, tablets, and mobile devices that communicate using paging, cellular and/or Wi-Fi networks.
- 210. The Accused System provides users the ability to start group conversations and exchange messages among members of a group via mobile devices operating on wireless networks.
- 211. Spok stores corresponding recipient identifiers for each pager.
- 212. Spok stores group identifiers that are shared among groups of recipients.
- 213. Spok provides acknowledgment responses.
- 214. A user can send a message to a group of recipients via a web interface. These messages are then wirelessly transmitted to the recipients' devices.
- 215. Spok provides message alert status indicators indicating that the message was received or that the message has been sent but not received.



216. Spok displays a group name corresponding to the selected group identifier.

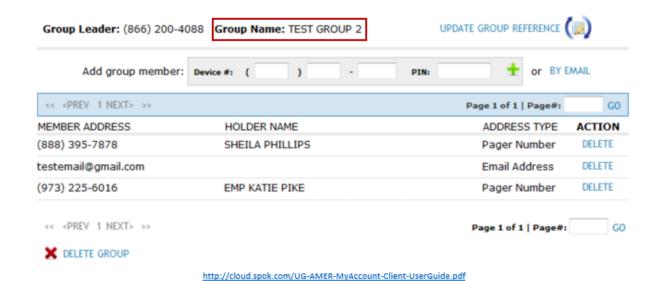


217. Spok stores on Spok infrastructure (e.g., servers) data relating to recipients,

groups created by users, and group membership information.

- 218. Spok collects and organizes user information internally on the Spok servers.
- 219. Spok provides group information (e.g., group membership and recipient identifying data stored on the Spok servers) to mobile devices running the Spok client application within the Accused Systems.
- 220. Spok wirelessly transmits group messages to mobile devices corresponding to each recipient in the selected group.
- 221. Spok servers transmit group information to the network client.
- 222. Mobile devices running a Spoke client application receive a group message and respond with acknowledgement of receipt, an alphanumeric text reply, and/or indication the group message has been received but not read by the user.
- 223. Spok stores acknowledgement data (e.g., confirmation of receipt, a read receipt, or indication a reply was sent) in memory.
- 224. Spok sends messages to client applications within the Accused Systems based on stored acknowledgement data.
- 225. The Accused System broadcasts group messages to members via wireless networks on which network client devices are operating.
- 226. The Accused Systems receive acknowledgement responses from group members via the wireless network being used by the respective Spok user's device.

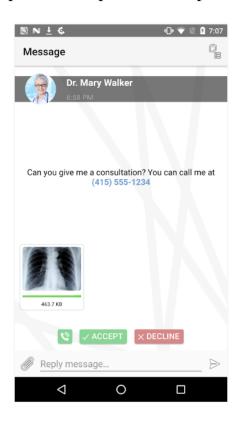
- 227. For example, a message-initiating user will see when her message is delivered and when the recipient user sees it.
- 228. Spok provides acknowledgement responses indicating to the network client who has seen the group message and who among group members has not.
- 229. Users may respond to group messages in Spok with messages, or read indicators sent from their mobile device.
- 230. Spok provides acknowledged group messaging.
- 231. Spok servers store recipient identifiers for each group member, a group identifier corresponding to recipient groups, and information about membership of recipients in the recipient groups.



232. When a group message is initiated, a user's client application within the

Accused System causes wireless transmission of a group message to mobile devices corresponding to group recipients. Mobile devices receiving the group message transmit a response.

- 233. Previous group messages and acknowledge information are stored for each message.
- 234. In operation, a Spok client application monitors group message information relayed by Spok servers for group message responses and stores acknowledgement data comprising an indication that the group message was received, a group message was read, or a reply was sent by the recipient.
- 235. Spok provides multiple choice options for responding to a message.



- 236. Spok encourages its users and customers to use the Group Chat features of its products and applications.
- 237. Spok is on notice of GroupChatter's '637 Patent and the conduct by Spok and its end users that GroupChatter alleges infringes the asserted claims of the '637 Patent.
- 238. Spok is on notice that the Spok products and applications are especially made or especially adapted for use in infringing the '637 Patent and how these products and applications infringe the asserted claims of the '637 Patent.
- 239. GroupChatter has been damaged as a result of Spok's infringing conduct. Spok is liable to GroupChatter in an amount that adequately compensates it for Defendants' infringement, which, by law, can be no less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

NOTICE

- 240. GroupChatter does not currently distribute, sell, offer for sale, or make products embodying the asserted GroupChatter Patents.
- 241. GroupChatter instructs its licensees to mark all licensed products sold, distributed, offered for sale, or made under license to the GroupChatter Patents and has undertaken reasonable efforts as required to comply with the notice requirements of 35 U.S.C. § 287.

NOTICE OF REQUIREMENT OF LITIGATION HOLD

- 242. Defendants are hereby notified it is legally obligated to locate, preserve, and maintain all records, notes, drawings, documents, data, communications, materials, electronic recordings, audio/video/photographic recordings, and digital files, including edited and unedited or "raw" source material, and other information and tangible things that Defendants know, or reasonably should know, may be relevant to actual or potential claims, counterclaims, defenses, and/or damages by any party or potential party in this lawsuit, whether created or residing in hard copy form or in the form of electronically stored information (hereafter collectively referred to as "Potential Evidence").
- 243. As used above, the phrase "electronically stored information" includes without limitation: computer files (and file fragments), e-mail (both sent and received, whether internally or externally), information concerning e-mail (including but not limited to logs of e-mail history and usage, header information, and deleted but recoverable e-mails), text files (including drafts, revisions, and active or deleted word processing documents), instant messages, audio recordings and files, video footage and files, audio files, photographic footage and files, spreadsheets, databases, calendars, telephone logs, contact manager information, internet usage files, and all other information created, received, or maintained on any and all

electronic and/or digital forms, sources and media, including, without limitation, any and all hard disks, removable media, peripheral computer or electronic storage devices, laptop computers, mobile phones, personal data assistant devices, Blackberry devices, iPhones, video cameras and still cameras, and any and all other locations where electronic data is stored. These sources may also include any personal electronic, digital, and storage devices of any and all of Defendants' agents, resellers, or employees if Defendants' electronically stored information resides there.

244. Defendants are hereby further notified and forewarned that any alteration, destruction, negligent loss, or unavailability, by act or omission, of any Potential Evidence may result in damages or a legal presumption by the Court and/or jury that the Potential Evidence is not favorable to Defendants' claims and/or defenses. To avoid such a result, Defendants' preservation duties include, but are not limited to, the requirement that Defendants immediately notify their agents and employees to halt and/or supervise the auto-delete functions of Defendants' electronic systems and refrain from deleting Potential Evidence, either manually or through a policy of periodic deletion.

JURY DEMAND

245. GroupChatter hereby demands a trial by jury on all claims, issues and damages so triable.

PRAYER FOR RELIEF

- 246. GroupChatter prays for the following relief:
 - a. That Defendants be summoned to appear and answer;
 - b. That the Court enter an order declaring that Defendants have infringed the '888 Patent, '637 Patent, '239 Patent, and the '959 Patent.
 - c. That the Court grant GroupChatter judgment against Defendants for all actual, consequential, special, punitive, increased, and/or statutory damages, including, if necessary, an accounting of all damages; pre and post-judgment interest as allowed by law; and reasonable attorney's fees, costs, and expenses incurred in this action;
 - d. That Defendants' infringement has been willful and award enhanced damages under 35 U.S.C. § 285; and
 - e. That GroupChatter be granted such other and further relief as the Court may deem just and proper under the circumstances.

Dated: February 1, 2018 Respectfully submitted,

By:

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