



Spok Service Level Expectations and Support Operations Handbook for Spok Care Connect Hosted Solutions

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Purpose

The purpose of this document is to clearly outline the service level expectations and support operations, including pre-defined roles and responsibilities across the Spok Care Connect suite of products offered by Spok, Inc. (“Spok”). The term “Product,” as used herein, means any of the software solutions purchased or licensed from Spok and/or any of its affiliates. Our objective is to properly manage expectations by clarifying system ownership, maintenance, and technical support services.

As outlined in this document, the support service level expectations and support operations handbook has been created to assist customers with issues, concerns or questions that may arise while using the Spok solution. This document covers services covered in Standard support programs. Please refer to [Spok Support Services Programs](#) for additional services offered.

The contents of this document are incorporated by reference into Spok’s Customer support program – Master Terms and Conditions (“MTC”). The MTC may be revised due to instructions from the GSA directly where applicable. In such event, the Customer will be notified of such changes as soon as reasonably possible. These Technical Support Policies are subject to change at Spok’s discretion; however, Spok policy changes will not result in a material reduction in the level of the services provided for supported programs during the support period for which fees for technical support have been paid.

In addition to Service Level Expectations and Support Operations Handbook, please refer to the following important documents that are referred to within this document:

- [Spok Service Catalog](#)
- [Spok Support Services Programs](#)
- [Spok Product Lifecycle Information](#)
- [Case Management Priority Matrix](#)

Spok Care Connect Hosted Solutions Definition

Spok Care Connect Hosted Solutions include but are not limited to the following Spok Care Connect offerings:

- Spok Console
- Spok Web
- On Call
- Spok Mobile Enterprise
- Messenger

These services are hosted and maintained by Spok.

Spok Mobile Hosted Platform Definition

The Spok Mobile Hosted Platform is a shared resource that all Spok Mobile Enterprise systems leverage to provide registration and push notification services. This Platform is owned and maintained by Spok.

Scope of Support Services

The scope of Spok support is to partner with customers to troubleshoot issues to return a Spok Solution to the state it was performing as expected, working as designed and as documented. This includes product defect mitigation and corrections.

Spok will provide support for Spok application software, hardware and any third-party components purchased directly from Spok, and for which the customer is paying for support services from Spok.

More detailed information is provided in the [Spok Service Catalog](#) found on www.spok.com/myspok, which describes specific services provided under Spok's support programs and services offered by Spok Professional Services.

Customers must have an active support program to receive any services from Spok.

Services Included

The following support services are provided. Enhanced support programs provide additional services, please refer to the [Spok Support Services Programs](#) document.

Note: All Support is based on customer having an active support program in place.

- Access to Spok support via the Spok Customer Portal at www.spok.com/myspok
 - Create and submit Priority 3 and Priority 4 cases
 - Review Spok Knowledge, product documentation, articles, training videos
 - Manage open cases and review closed cases
- Access to Spok support via phone to report Priority 1 and Priority 2 cases
- Troubleshooting to identify problem and correction activities to restore system to previous working state.
- Service related to vendor or system audits or system security adjustments
- Service related to Business Continuity / Disaster Recovery (BC/DR) planning or restoration of a Spok system failure without a working backup

Services Outside the Scope of Spok Support

The following services are outside the scope of Spok support programs. (Please refer to [Spok Service Catalog](#))

- Service considered by Spok as in-depth training on software use and functionality
- Service related to issues or changes needed as a result of system environment, Licensed Products or data structures that have been modified by the customer
- Service related to data integrity and/or data validation
- Service for enterprise products that were not properly installed, or the implementation was not fully executed and/or certified by Spok resulting in a product that has never worked as designed or performed as expected in a production environment
- Service of components within the customer environment due to (a) the failure of computer hardware or equipment programs not covered by the service level expectation or (b) any cause or causes beyond the reasonable control of Spok (e.g., floods, fires, loss of electricity or other utilities), negligence of the customer or any third party, operator error, improper use of hardware or software, or attempted maintenance by unauthorized persons as well as failure to adequately maintain backup/recovery procedures

Spok Support Model

Spok provides a business-to-business model of support. Spok customers are responsible for training one or more Spok IT system or organizational administrators on the management and use of Spok applications. Each organization must provide a level of support to End-Users at the necessary coverage hours to effectively support their Spok solutions. Customers are expected to provide technical investigation, diagnostic analysis, and issue resolution by trained personnel with requisite skills and knowledge relating to a Spok supported solution.

Spok provides an extensive knowledge base found on the Spok Customer Portal (www.spok.com/myspok) containing product documentation, compatibility matrices, Lifecycle dates and Knowledge articles created by Spok professionals to assist with the usage, administration and troubleshooting of Spok solutions. Spok knowledge is available to supported customers, 24 hours a day by 7 days a week. The first step to resolving an issue or obtaining an answer to a question is to search Spok Knowledge.

If the Spok-trained customer employee is unable to resolve the issue and is identified as a Primary Technical or Authorized Contact (please refer to [Case Management](#)) in the Spok Customer Portal (www.spok.com/myspok), they will be able to open a case with Spok Support to continue troubleshooting.

Spok provides all support remotely from our Technical Support Centers. Spok has proven that remote support is the most expedient way to resolve issues. If on-site technical assistance is requested to resolve an issue, a discussion will ensue between Spok and the customer to determine feasibility and other logistics. If the determination is made that on-site technical assistance will be provided, Spok will determine the resource based on availability. If the cause of the problem is not found to be within the Spok Product or covered under the support service level expectation, the customer may be charged for associated effort.

Case Management Roles

	Primary Technical Contact	Authorized Contact	Knowledge Only	Spok Mobile Admin/CERT
Responsible for administering Spok customer portal users (approving additions and removals)	✓			
Point of contact for Spok communications related to products including Product lifecycle notifications, important alerts related to products, etc.	✓			
Responsible for approving other Site Technical Contacts as needed	✓			
Access to www.spok.com/myspok	✓	✓		
Ability to open Spok support cases through portal or by phone	✓	✓		
Access to Spok Knowledge, Spok Academy, Ideas	✓	✓	✓	
Notified of Care Connect Hosted Solutions application releases and Spok Mobile Hosted notifications regarding planned and unplanned outages (Please refer to Spok Change Management System and Spok Outage Notification System)	✓	✓		✓

NOTE: Contacts can be associated with more than one account. Relating a single contact to multiple accounts allows the ability to easily track the relationships between people and accounts, without creating duplicate contact records.

Primary Technical Contact

Each Spok customer must define one or more Primary Technical Contacts for their organization. The Primary Technical Contact is an Authorized Contact with the added responsibilities of managing all Authorized Contacts for the organization and is the point of contact for important notifications related to Spok products.

Spok will only provide sensitive system information (e.g., such as system passwords) to Primary Technical Contacts or Authorized Contacts.

It is the Primary Technical Contacts responsibility to ensure all users who support Spok products and may need to open cases with Spok support are defined as Authorized Contacts. To review or update the list of authorized contacts, login to the Spok Customer Portal (www.spok.com/myspok) or send an email to accountupdates@spok.com.

Authorized Contacts

Spok Authorized Contacts are individuals who are trained on the Spok solution and provide support to Spok end users. These individuals are authorized by Primary Technical Contacts to report issues to Spok Support and will work with Spok Support until resolution.

The Authorized Contacts associated with a reported case (case contact) will receive case updates via email. If alternate contact information should be associated with a reported case (e.g., different phone number or e-mail address), this information should be provided to the support engineer at the time the case is opened. While the alternate contact information will be maintained in the record, status updates will only be sent to the case contact as assigned in the Spok Customer Portal (www.spok.com/myspok). If the contact information changes during the duration of the case, it is the customer's responsibility to inform the support engineer handling the case of such a change. It is the responsibility of the case contact to share necessary information or updates to others within their organization.

If an organization has multiple sites using Spok solutions, it will be necessary for them to establish an internal process to determine who will contact Spok when a problem arises (Please refer to [Spok Support Model](#)). This will help to expedite issue resolutions.

If the case contact is not receiving case updates through email, they should work with their Email administrator to ensure that their organization is not blocking email from Spok Support.

Knowledge Only

Individuals identified as a Knowledge Only User will only have access to Spok Knowledge, including all documentation, knowledge articles and training videos.

Spok Mobile Admin Contact

Each Spok Mobile customer must define one or more Spok Mobile Admin contacts. This role is the customer point of contact for all Spok Mobile communications. This contact will receive all notifications related to Spok Mobile, including unplanned outages, planned maintenance and other important notifications.

A Spok Mobile Admin cannot open a support case unless they are designated as a Primary Technical or Authorized Contact as well.

Case Management

Case Management Priority Codes

Spok uses a four-priority model as defined below:

- Priority 1: Critical Business Impact
- Priority 2: Severe Business Impact
- Priority 3: Normal/Minor Business Impact
- Priority 4: No/Minimal Business Impact

Case priority will be reassessed and revised based on the nature of the issue at each stage of the case. For example, if a valid workaround is found for a Priority 1 issue, the priority of the case may be reset to a lower Priority level.

Case Management Priority Matrix

Issue Priority	Spok Response	Solution Update	What Happens
Priority 1: Critical Business Impact A customer encounters a system problem that has caused the customer's work to stop or to be so severely impacted that all enterprise users are affected.	The customer will be connected to a support engineer with urgency during the business hours. After standard business hours, Spok will respond as quickly as possible (on average within 10 minutes).	The customer can elect to stay on the phone with the support engineer or the customer can elect to receive hourly updates until a resolution or acceptable workaround is identified.	Spok Technical Support will work urgently until an agreed upon resolution or workaround is achieved. If an agreed upon workaround is identified the issue will continue to be worked until a permanent resolution is identified.
Priority 2: Severe Business Impact A customer can continue to work but has a problem that has caused a significant portion of enterprise users to be severely impacted.	The customer will receive a response within 30 minutes of Spok receiving their request.	The customer will receive an update twice daily but may elect to receive an update every two hours until a resolution or acceptable workaround is identified.	Spok Technical Support will work diligently until a resolution or acceptable workaround is identified. If an agreed upon workaround is found the issue will be worked until a permanent resolution is identified.
Priority 3: Normal/Minor Business Impact The customer's work is continuing (not stopped); however, the problem is causing an impact on user's productivity and/or service levels.	The customer will receive a response within 1 business day of Spok receiving their request.	The customer will receive an update each week until a resolution is identified.	Spok Technical Support will work normal business hours until a resolution is identified. For unresponsive customers, the support engineer will make at least two contact attempts, with at least one attempt by phone. If no response within five business days after the second request, the case will be closed.
Priority 4: No/Minimal Business Impact The customer is in full working mode. The problem is not affecting or is minimally impeding the customer's work.	The customer will receive a response within 1 business day of Spok receiving their request.	The customer will receive an update each week until a resolution is identified.	Priority 4 issues are resolved as time allows. For unresponsive customers, the support engineer will make at least two contact attempts, with at least one attempt by phone. If no response within five business days after the second request, the case will be closed.

Overview

To report a Priority 1 (Critical) or Priority 2 (Severe Business Impact) issue with a Spok solution, call Spok Support directly to ensure the issue is addressed promptly (Please refer to [Submitting Support Case via Phone](#))

For Priority 3 (Minor/Normal) or Priority 4 (Minimal Business Impact) cases, submit cases using the Spok Customer Portal (www.spok.com/myspok).

Submitting a Support Case

Primary Technical and Authorized Contacts are able to report issues to Spok in two ways:

- For Priority 1 (Critical) and Priority 2 (Severe) Business Impact issues: Call Spok Support directly. See below for phone numbers
- For Priority 3 (Normal/Minor) or Priority 4 (No/Minimal) Business Impact issues - Open a case via the Spok Customer Portal (www.spok.com/myspok)

When submitting a Support Case, please be prepared to provide the following information:

- Specific product that is experiencing the issue
- A clear description of the issue and business impact
- When did the issue start?
 - When was the last time it worked?
 - Has this issue occurred before?
 - What steps have been taken to troubleshoot, and what were the results?
- Provide detail steps to reproduce the issue
- List any recent changes within the environment
 - New hardware, reboots, volume increases, new hires, new or modified workflows, security updates, network changes, virus scanning, PBX Upgrades, etc.
- Provide log files, attachments, or screenshots of the issue

Telephone Support Access (7x24x365)

To Submit a priority 1 or priority 2 issue with Spok, customers should call Spok's Technical Support Center at:

- Americas, Europe, Middle East, and Asia (EMEA):
1 (800) 420- 9705 (toll free)
- Asia Pacific (APAC):
1 800 016 719 (toll free within Australia)
+61 8 6240 0094 (if calling from outside Australia)
- If calling to open a new case, a support representative will open a case and gather the information related to the issue
- Calls will be processed based on the priority of the issue
- If calling on an existing case, provide the case number to the support representative to be routed to the Support Engineer assigned to the case
- If the case number is not known, the support representative can look it up
- If a customer has equipment at multiple sites connecting to the database, the caller must identify which site they are calling from to the Support Engineer. Failure to do so will not only delay problem resolution

but may impact the services running at another site.

- Authorized Contacts should provide the necessary information regarding the issue to Spok when calling in a case. (Please refer to [Submitting a Support Case](#))
- If a support engineer does not respond in the appropriate time, the customer should contact Spok's main office: 1-800-420-9705 or +01 800 420 9705 and request to speak to a manager.

Please submit Priority 3 and Priority 4 cases via the Spok Customer Portal (www.spok.com/myspok).

Tracking Support Cases

For cases that are not resolved during the initial contact with a support engineer, the Spok Customer Portal (www.spok.com/myspok) provides the easiest way for customers to see the status of support cases. If the Primary Technical Contact or Authorized Contact needs to provide information to the support engineer that is working on the case, they can:

- Add a comment to the case through the Spok Customer Portal (www.spok.com/myspok)
- Reply to the case update e-mail (Note: Do not change the subject of this email to ensure the case updates correctly)
- Call the support engineer on the phone

Customers can also view a full history of all their reported cases using the Spok Customer Portal (www.spok.com/myspok).

Resolving & Closing Support Cases

Once an issue has been resolved, the assigned Spok support engineer will inform the case contact that the case has been resolved. Spok uses the following guidelines when determining if a support case is ready to be closed:

1. The customer agrees that the issue has been resolved.
2. The issue is a work request that falls outside the scope of the customer's support program (Please refer to [Spok Service Catalog](#))
3. The issue is determined to be caused by an environmental factor; outside the Spok solution (e.g., the problem is not Spok related; a different system or solution which interfaces into Spok is experiencing an issue and/or it is determined to be an environmental issue).
4. A customer has become unresponsive to the support engineer's request for resolution confirmation or request for additional information. The support engineer will make several attempts to contact the customer. If we do not get a customer response after several attempts the case will be closed. Please note, that if there is any reason to re-open a support case, Spok can do so upon request.
 - a. The customer must be contacted at least 2 times in total with a frequency in line with the priority of the case.
 - b. The case owner will make at least one of the two contact attempts by phone in order to ensure that the customer has received the response and request.
 - c. If Spok does not get an answer within five business days after the second request for information, then the case will be closed.

For customers requiring a formal root-cause analysis document, one may be requested for Priority 1 issues. (Please refer to [Case Management Priority Matrix](#)) Root-cause analysis may take up to five business days to complete after the issue is resolved.

Engaging Support Management

Managers are available to handle customer concerns and heightened awareness related to a specific support case. Examples of circumstances that may be escalated to the manager include:

- New information becomes available, making a case priority more serious, and all attempts to contact the case owner have been unsuccessful.
- There is concern that Spok does not fully understand the nature or impact of the issue.
- Spok support has not met the service level expectations as defined in this document.

To engage a support manager, there are two options:

- Notify the support engineer working on the case of the desire to speak to a manager, *"I would like to speak to a manager about this case. I can be reached at (contact telephone number)."*
- Contact Spok via telephone to request to speak to a manager by calling the technical support phone number. This is the recommended approach for immediate response. Please refer to the [Telephone Support Access](#) section of this document.

Change Management and Maintenance Process

Spok Care Connect Hosted Solutions Changes

Changes to Spok Care Connect Hosted Solutions are implemented by Spok. The Change Management System (CMS) will be used to send an email notification to all identified Spok contacts for the account, including all Primary Technical Contacts, Authorized Contacts, and Spok Mobile Admin/CERT Contacts. (Please refer to [Case Management Roles](#))

As needed, Spok will provide a Change Control document to the customer with the details of the change. Once the customer has reviewed and approved the Change Control document, Spok will work with them to schedule the change window. To ensure resource availability, Spok will schedule all planned change windows at the beginning of each week, Monday, Tuesday, or Wednesday.

Spok Care Connect Hosted Solutions changes include, but are not limited to:

- Monthly Microsoft Windows Patching (Product and Test environments)
- Test Servers OS/DB Patching
- Production Servers OS/DB Patching
- Spok Application Changes
- Environmental Changes
- Network Connectivity Changes
- Annual SSL Certificates
- Spok Care Connect Hosted Solutions Application Maintenance and General Releases
- Customer system updates required due to Spok monitoring tools or technical personnel.

Spok Care Connect Hosted Solutions Testing

Spok requires that all customers perform testing after Spok has applied updates/changes to the production system.

Basic tests should be performed by the customer against Spok Care Connect Hosted Solutions following any update or change to the system, or the environment the system is operating in, to validate application functionality.

Spok Mobile Hosted Maintenance Windows

Please note that during Spok Mobile Hosted maintenance windows (scheduled/unscheduled), Spok Mobile enterprise registration and message delivery may be interrupted or delayed.

Customer Environment Changes

Spok product compatibility considers many different system and environmental factors, including but not limited to:

- Spok product versions
- PBX vendor and contact center versions
- Windows workstation OS versions
- Spok CTI version
- Third-party product versions (Java, TAPI, etc.)

If a customer plans to change any Spok components or integrated products (such as, PBX manufacturer, model, version, or patch package; workstation OS; etc.), open a case with Spok Support to discuss the plans at least four weeks before the planned change. Including Spok in the planning is the best way to avoid unexpected downtime and/or emergency Spok Professional Services engagement requests.

Depending on the scope, complexity, and requirements of the project, Spok Professional Services may be needed to support the project, to ensure a successful change, and to minimize any downtime.

It is the responsibility of the customer to review all integrations to Spok solutions for compatibility. Spok Compatibility matrices are found in Spok Knowledge.

Spok maintains certification with partners noted in the compatibility matrix to ensure system compatibility between major releases. While minor vendor updates (service packs, hot fixes, dot-releases) may not have an impact on the Spok solution, it cannot be guaranteed, and therefore should always be tested by the customer on a test system. Spok Support should be engaged to help correct issues discovered on the test system prior to migrating these updates to a production system.

All changes must include a back-out plan that will enable the system to be restored to the state in which it was working as designed and performing as expected prior to the change. Failure to have a back-out plan could result in significant downtime and the potential for an emergency professional services engagement request.

Changes Where Spok is not Informed, Engaged, or Professional Services Declined

It is the customers responsibility to inform, engage, and where applicable contract with Spok Professional Services for assistance regarding planned changes affecting Spok Solutions. Situations where Spok was not informed, engaged, or recommended professional services were declined, and where the change negatively impacts the Spok solution, the customer will be advised to back out the change to restore Spok functionality. If the customer is unable to back out the change, Spok will engage Professional Services during normal business

hours and dependent on availability, for an emergency engagement request to assist with any design or configuration changes required within the Spok solution to resolve the issue.

Customers will need to use their System Outage workaround plans or back-up alerting systems until Spok functionality is restored.

Spok Change Management System (CMS)

The Spok Change Management System (CMS) will be used to send an email notification to all identified Spok contacts for the account, including all Primary Technical Contacts, Authorized Contacts, and Spok Mobile Admin/CERT Contacts (please refer to [Case Management Roles](#)) to communicate activities that may result in service disruption of Spok Care Connect Hosted Solutions. Notification will be sent two weeks prior to a planned activity that is expected to result in service disruption.

Activities include, but are not limited to (please refer to [Change Management and Maintenance Process](#)):

- Spok Care Connect Hosted Solutions Changes
- Spok Mobile Hosted Maintenance Windows (scheduled/unscheduled)

Spok Outage Notification System (ONS)

The Spok Outage Notification System (ONS) is used to communicate unplanned global outages of Spok Mobile Hosted.

In the event of a Spok Mobile Hosted global outage, the ONS system will be used to send an email notification to all identified Spok contacts for the account, including all Primary Technical Contacts, Authorized Contacts, and Spok Mobile Admin/CERT Contacts. The Outage Notification System (ONS) notifications will be sent when the issue started, provide regular and ongoing updates of the progress of the issue, and a final notification when the issue is resolved. (Please refer to [Case Management Roles](#))

Outage Notifications include, but are not limited to:

- Customer systems outages impacting their services and could be services identified by Spok monitoring tools or reported by the customer.
- Spok Mobile outages

System Ownership

Spok solutions are highly dependent on many components owned and maintained by a customer's corporate IT department and Spok Care Connect Hosted Solutions.

Spok is responsible to maintain the applications and databases, including backup of the customer data for the Spok Care Connect Hosted Solutions environment.

To ensure minimal downtime in the event of a hardware failure or major disaster, the backup/recovery strategy will be tested on a regular basis during normal patching cadence.

The customer is responsible for the general maintenance and monitoring for all components and hardware associated with Spok products that are on-premises at the customer site. This would include internet

connectivity, a backup/restoration strategy, and a Business Continuity / Disaster Recovery (BC/DR) plan for all on-premises Spok components, workstations, and applications.

Database and Application Data

The customer is responsible for the data integrity of the Spok Care Connect software.

Spok is responsible for all aspects of maintenance, monitoring, and Business Continuity / Disaster Recovery (BC/DR) planning for Microsoft SQL.

Spok is responsible for the following related to their application data:

- Maintaining proper archival records and storage methods of the archived data from the Spok system
- Data archive retrieval
- Database SSL Certificate Management
 - SSL Certs provided by Spok and monitored/updated prior to expiration dates. Customers will be notified through Spok's Change Management System (CMS). (Please refer to [Spok Change Management System \(CMS\)](#))

Network and Voice

Spok is responsible for all aspects of maintenance, and monitoring, for Spok Care Connect Hosted Solutions.

This includes, but is not limited to:

- Internet connectivity
- Load Balancers
- Wide Area & Local Networks
- Firewalls
- LDAP
- Security Exclusions
- SSL Certification
- Physical hardware

The customer is responsible for all aspects of maintenance and monitoring their Network and Voice Infrastructure. This includes, but is not limited to:

- Voice infrastructure
- Internet connectivity
- Local Area Networks
- Wireless Networks and coverage
- Firewalls
- DNS
- LDAP
- Cellular Networks
- Security Exclusions
- PBX/Telephony Switch
- Physical hardware
- Security of dual authentication (Spok is not liable for the security of this information, especially if shared internally)

Spok solutions are heavily dependent on network and voice components and may require customer and hosted solutions network expertise to troubleshoot issues.

Compute: Servers and Workstations

Spok is responsible for all aspects of the routine maintenance, monitoring, SSL certificate management and Business Continuity / Disaster Recovery (BC/DR) planning for all Microsoft Windows Servers, software & guest OS snapshots.

Customer is responsible for all aspects relating to the workstations.

Microsoft Windows release frequent operating system updates for security and other issues. These updates occur as frequently as weekly and can be configured to be pushed through automatic update capabilities to the various machines. Spok receives these automatic updates on our internal machines used to develop, test and support customers to act as an early adopter with these software updates. Spok does not proactively test these operating system updates on Generally Available (GA) versions across their suite of solutions.

Operator PC workstations

Spok customers are responsible for the installation and ongoing maintenance of operator PC workstations post implementation.

The following is a list of responsibilities related to Operator workstations:

- Implementation of all Antivirus skip/exclusion lists provided by Spok
- Routine scheduled updates of the workstation image via the designated Spok “Master” PC
- If workstation management software, such as ZENworks, is used, the application must have the most current Spok configuration and registry key settings
- Spok will provide remote assistance and training on how to re-install PC applications one time after implementation to a Spok administrator
 - If Spok’s resources are required to reload one or more PC’s after the one-time installation is complete, Spok Professional services may be engaged to perform the work (Please refer to the [Spok Service Catalog](#))
- Spok will assist a trained Spok administrator to troubleshoot issues experienced when installing a like-for-like workstation

Spok Applications

Spok customers are responsible for being trained on the proper use and administrative functions of the Spok Care Connect Hosted Solutions applications.

Spok Messenger Solution

Spok customers are responsible for all device management for those customers who have purchased the Spok Messenger Solution.

The intended use of the Messenger is to provide an interface with clinical systems to forward information associated to the particular event to the designated display device(s).

For medical, near real time alarms, Messenger is intended to serve as a parallel, redundant, forwarding mechanism to inform healthcare professionals of particular medical related events, Messenger does not alter

the behavior' of the primary medical devices and associated alarm annunciations. The display device provides a visual, and/or audio and/or vibrating mechanism upon receipt of the alert.

Messenger is intended for use as a secondary alarm. It does not replace the primary alarm function on the monitor.

Computer Telephony Integration (CTI)

Any changes, patches or upgrades to the customer phone system may affect Spok Operator Console applications. Customers who have purchased CTI are required to contact Spok prior to upgrading their PBX system in order to ensure that their Spok Operator Console application is compatible with the new system (Please refer to [Customer Environment Changes](#))

Non-Spok Applications or Configurations

Custom third-party applications or configurations, such as Mobile Device Management (MDM) and network, are the responsibility of the customer. Spok does not support the setup or maintenance of non-Spok applications or configurations.

If Spok is unable to determine the root cause of a problem, and the issue potentially points to a third-party application, Spok may ask the customer to remove any non-Spok required applications or configurations in order to help isolate the issue. If the issue is caused by the customer-specific application or configuration, Spok will require that the application or configuration be removed or disabled to restore Spok functionality.

Spok is not liable for the security of dual authentication, especially if this information is shared internally.

Infrastructure: Component Ownership & Responsibilities

The following table provides a high-level representation of Spok system component ownership and responsibilities.

Category	Component or Description	Examples	Owner and responsible party
Network	Load Balancer, LAN, WAN, WLAN, routers, switches, firewalls, LDAP, DNS, security exclusions, SSL Certification, Internet Connectivity, monitoring	F5, NetScaler, Cisco routers and switches, Microsoft Active Directory, Anti-Virus, Security scanning, etc.	Customer Spok
	Cellular Network (SMS and SMTP)	Verizon, AT&T, Verizon eMag, SAP Aggregator, etc.	Customer
Voice	PBX/Telephony Switch and associated physical hardware	Cisco, Cisco TSP, Finesse, Avaya, Unify, Physical phone hardware, etc.	Customer
	SMS Delivery subscription aggregator	Verizon EMAG, SAP aggregator, etc.	Customer
	Mobile Devices and device management	IOS, Android, Spectralink, Zebra, Mobile Device Management, etc.	Customer
Compute	MS Windows OS:	Microsoft patching, security patching, security exclusions, disk and memory usage monitoring, normal system maintenance, clustering, etc.	Spok
	Application server, web server, database server (production and test)		
	MS Windows OS:	Microsoft patching, security patching, security exclusions, disk and memory usage monitoring, normal system maintenance	Customer
	Operator workstation		
	Physical hardware, Dell, Cisco,	Dell, Cisco, HP, etc.	Customer Spok
	MS Windows	Quarterly rebooting, etc.	Spok

	System Reboots		
Virtualization	Virtual Machine Software	VM Ware	Spok
Database	MS SQL	Directory, phone number, pagers, etc.	Customer
	Accuracy and ongoing maintenance of application data		
	MS SQL:	MS SQL Patching, database administration tasks, access management, daily backups including an offsite secure copy	Spok
	Maintenance (production and test)		
Applications	Proper use of Spok products as documented	Normal day to day usage	Customer
	Patch Installation, monitoring (Spok Console only)	Console, Messenger, Spok Mobile, etc.	Spok
	Spok Mobile Hosted Environment: Uptime, availability, and access management	Registration, Message Delivery, etc.	Spok

System Backups

Spok is responsible for the system back-ups and archiving of servers and applications.

The customer is responsible to back-up a copy of data that resides on the local drive of individual workstation. It is imperative that this copy be updated frequently (e.g., every shift for a facility with Patient Information) to ensure relatively recent data is available in case of IT Network and/or File Server failure.

Spok Console

For Spok Console platform customers, it is important that the skip list provided by Spok is implemented to prevent the backup of open files.

Spok Care Connect Hosted Solutions Business Continuity / Disaster Recovery (BC/DR)

The base offering of the Spok Care Connect Hosted Solutions does not include Business Continuity / Disaster Recovery (BC/DR) functionality. The Spok Care Connect Hosted Solutions are only incorporated into a Spok's Business Continuity / Disaster Recovery (BC/DR) plan for those customers who have purchased Disaster Recovery DR services. The Spok Care Connect Hosted Solutions are hosted in Spok's primary datacenter with disaster recovery capabilities in its Disaster Recovery datacenter.

Customer Business Continuity / Disaster Recovery (BC/DR)

For Spok equipment on customer premise, that solution should be incorporated into the customer's Business Continuity / Disaster Recovery (BC/DR) plans. Spok Professional Services can work with the customer on remote agent options and recovery plans. Customers should discuss with their Spok Project Manager during implementation or contact their sales representative to engage Spok Professional Services.

System and Application Monitoring

The Spok Console application includes application monitoring components as part of the solution through Health Status Monitor (HSM).

Spok Care Connect Hosted Solutions environment monitoring through SolarWinds and monitors disk usage, memory usage, and CPU usage. Spok will be automatically notified if any of the monitored systems begin to exceed limits.

Spok Product Lifecycle Management

All Spok applications are governed by the Spok Product Lifecycle Policy. This policy and associated product lifecycle dates are defined and documented in Spok Knowledge on the [Spok Product Lifecycle Information](#) page.

Third-Party Integrations

Spok partners with third-party vendors to certify and support the installation on and integration to third-party products that are currently on maintenance and fully supported by the vendor or manufacturer (PBX, Phone Hardware, Operating Systems, etc.). These integrations are documented in compatibility matrices found in Spok's on-line Customer Support Portal (www.spok.com/myspok) under Spok Knowledge.

Once a vendor or manufacturer has publicly decommissioned or put that the product into an End of Life (EOL), End of Manufacturer Support or End of Software Maintenance status, Spok is limited to provide the same or similar level of commercially reasonable support provided by the manufacturer or vendor.

Commitments or agreements made by customers with other business partners, service partners, or organizations not owned or represented by Spok is the responsibility of the customer and their business partner.

Spok recommends that customers upgrade their third-party systems to ensure ongoing support for integrations and to minimize risk that may be caused by ongoing maintenance or security updates. (Please refer to [Customer Environment Changes](#))

Spok will not provide such notifications of End of Life (EOL) for any third-party vendor nor does Spok warrant that we are certified on all current versions of any third-party applications.

Contact Center System Alerts

Spok sends important system information on a near real-time basis to the operators and administrators. Spok recommends that customers always monitor the System Alert messages.

Maximizing Your Investment

Customer Support Portal

Within Spok's on-line Customer Support Portal (www.spok.com/myspok), customers will find many helpful resources including:

- Ability to create and manage support cases
- Ability to review Spok contacts and request updates
- Submit product enhancement Ideas
- Access to Spok Knowledge
 - FAQ's
 - Documentation, User Guides, Quick Reference Guides, Knowledge Articles
 - Training materials, training videos and product information
 - Product Release Notes
 - Product Life Cycle information

Connect Conference

Spok hosts a national conference each year that is open to all customers. Information about the event is communicated via the monthly newsletter (Connections) and via e-mail. This information is distributed to all e-

mail addresses listed in Spok's Marketing database. If a customer would like to be added to a distribution list, please send an email to newsletter@spok.com. For specific questions about the Connect conference, please send an email to connect@spok.com.

LinkedIn – Spok Directions User Group

Joining the Spok User Group (Spok Directions) on LinkedIn

The LinkedIn Spok User Group is a platform to have conversations and provide opportunities for peer networking. We welcome all forms of positive discourse and discussion on topics customers face in their daily operations.

Customers may find the Spok group by searching in LinkedIn or clicking on a group logo seen on another member's profile. To search LinkedIn:

1. Type 'Spok Directions' in the search bar near the top of LinkedIn's home page and click the magnifying glass icon. This should give the results for several people.
2. Click the 'Groups' link on the left side of the page to narrow the results to include just groups.
3. Click the 'Join group' button next to the Spok Directions information

If the user is an active customer with Spok, they will be approved to join this LinkedIn group within a 24-hour period. The user will be notified (via the email provided) of their approval status. Once approved, they will be able to access the group, including discussions, new product information, and other useful tips.

Can anyone join the group on LinkedIn?

No. This is a closed group. Only active Spok customers and staff will be allowed to access the group.

Not already a member of LinkedIn?

Go to www.linkedin.com. Follow the easy-to-navigate directions (outlined above) and join. Be sure to fill out the user profile. It's free to use and only requires basic internet access.

Spok Directions User Group

Spok hosts regular user group meetings. These calls/meetings are driven by our customers. For more information, please email usergroup@spok.com.

Monthly Newsletter

Spok sends a monthly newsletter to all e-mail addresses listed in our Marketing database. This newsletter is called Connections.

If a user would like to receive our newsletter, please send an email to newsletter@spok.com.

Webinars

Spok conducts webinars about topics that are relevant to Spok solution(s). Topics are wide ranging and receive high marks from attendees. Information about upcoming webinars is communicated via the monthly newsletter and via e-mail. This information is distributed to all e-mail addresses listed in Spok's Marketing database. All webinars are free to support program paying customers. To be added to our webinar invitation list, please send an email to webinars@spok.com.

Training

Spok has a professional training team available for both on-site and remote training on any Spok solution. To request training, submit a [Professional Services Request](#) form. If you have any questions regarding the training services we offer, please send them to training@spok.com.

Idea Management

Customers can also submit product improvement ideas for consideration by Spok's product strategy team. Ensure you have access to the Spok Customer Portal (www.spok.com/myspok) to review and submit product ideas.

Revision History

The following revision chart describes the changes made for version 1.x of this document.

Revision	Date	State / Description
1.0	08/22/2022	Initial Draft
1.1	06/30/2023	<ol style="list-style-type: none">1. Rename from Hosted Services to Hosted Solutions2. Clarify Spok Care Connect Hosted Solutions Testing3. Clarify Spok Hosted Care Connect Solution Business Continuity / Disaster Recovery (BC/DR)