



The value of a test environment

Getting the most
from your Spok[®]
solutions



Why a test environment is crucial

Most Spok customers identify their Spok® solutions as mission critical applications that are vital to their organization's critical communication processes. For this reason, we assist your IT team in implementing redundancy for your Spok environment, including database replication, load-balanced web servers, and hot standby applications.

One component that is often overlooked in this effort is an operational, regularly maintained sandbox.

A sandbox is a testing environment that simulates your actual production environment so you can test your application in conjunction with other applications. It's especially important in complex environments when multiple applications access your database.

Over the years our customers have come to better understand the value of having a test environment for crucial enterprise-facing applications, such as your web directory, third-party data feeds, and underlying databases.

The sandbox mimics the processes that the system will experience while in regular usage in a live environment. It's vital to the success of implementing and maintaining crucial systems, minimizing and mitigating risks when it comes to upgrades, patch management, and even use case testing affecting configurations and workflow. Spok follows vigorous quality assurance protocols to develop and test our software, but the real test occurs once your solution is in place, leveraging all of the peripherals and integrations with other third-party software and hardware solutions.

A sandbox is not a backup system

It is important to point out that a sandbox is not the same as redundancy/backup systems. Spok receives questions about redundancy far more often than about a test environment. Both a test environment and backup system play an important role in business planning and continuity, but their functions are very different. Backup systems are identical to their production counterparts, run in parallel, and are ready to become the main server if the primary one fails. The sandbox, however, remains separate and is used for operational testing, trial configurations, and workflow testing.

Benefits of a sandbox

A test environment should be strongly considered as part of your Spok solution. Its purpose is to provide your facility's Spok solution with an isolated environment in which to test any changes to a particular application or ancillary system that may impact your Spok system. These changes include not only software updates from Spok, but also software patches and upgrades from enabler components such as the operating system.

A test environment is important throughout a product's life cycle, from development to implementation and during its maintenance (support) phase.

If there are failures, they can be examined for the root cause, and solutions can be devised and further tested for effectiveness. Your sandbox allows interoperability trials with newly purchased products, and new workflows can be tested before being rolled out across the organization.

Customers with test environments:

- Experience less downtime
- Deal with minimal post-project issues
- Have smoother transitions to support
- Early access to new features

Once you're confident everything is working in the test environment, changes can be applied to the production system with a high level of certainty that everything has been done to mitigate the risk to the product and patient environment. It is a best practice to avoid jeopardizing a live environment.

Applications where a test environment is most relevant

Below you'll find a list of applications that would benefit most from a test environment being maintained separately from the production system. For enterprise customers, you should also consider the use of a third system for training. A training system is used to meet the needs of an ever-changing rotation of staff. It assists in maintaining skills for existing staff and provides an environment where new staff can get up to speed.

Web directory

The web directory application is one of the most important systems for which a test environment should be made available. Your web directory has a very large user community within your organization, and even minor issues can be magnified among users. For this reason, most web directory users want their system to be 100% accurate before reintroducing it following an upgrade.

Spok Mobile®

Considering the number of individual Spok Mobile users within your hospital, as well as the constantly changing nature of mobile apps, a test environment is necessary to verify updates to the latest version as well as any other changes to that environment. This includes any third-party integrations or alerts that are delivered to these mobile users.

Third-party data feeds and gateways

Most Spok systems include a feed from a third-party system—such as patient, staff, or guest information—which populates the underlying Spok database. This data feed becomes a critical component of the overall Spok solution in place for our customers, and having a test environment available is key. This is essential for third-party system upgrades such as admit, discharge, transfer systems (ADT) and HR/staff integrations.

Console workstations and Computer Telephony Integration (CTI)

For the most part, operator console workstations do not need their own test environments. The typical Spok approach to a system upgrade would be to upgrade a single workstation's console software or phone interface, perform testing, and update the rest of the environment once tested successfully.

Spok database

The central database is the cornerstone to the operation of your Spok system. This database contains all information about employees, patients, guests, on-call schedules, emergency procedures, pagers, and more. With a test database (server) in place, you have an offline area to test operating system/database application patches, apply and test database schema updates, test or modify third-party data feeds, and more.

Paging integration

The ability to send a page to an on-site transmitter or wide-area carrier via your Spok system is one of your most vital functions. For this reason, many of our customers have chosen to institute a sandbox as the conduit between their Spok system and wide-area carrier and/or onsite transmitter. The benefit of such a configuration is that one of the systems can be used as a test environment while the production environment continues without interruption.

Clinical and non-clinical alerting & critical test results management

Clinical and non-clinical alerting is the result of numerous integrations, which means numerous potential points of failure. With new integrations often being added or existing ones being updated, this becomes a dynamic environment. A sandbox ensures that these changes are made without impact to the clinicians who have come to rely on mobile notifications for critical test results, nurse calls, and patient alarm.

A test environment helps you achieve ongoing success

Whether you're changing an HL7 interface to a new vendor, adding a new product, or applying a patch to existing systems, unexpected downstream effects from planned changes can threaten the live production environment and cause downtime not only in the system being changed, but also in integrated periphery systems.

If you don't have a sandbox in place to make sure everything works smoothly before changing your production environment, please contact your sales representative or email us at inforequest@spok.com.



ABOUT SPOK, INC.

Spok, Inc., a wholly owned subsidiary of Spok Holdings, Inc. (NASDAQ: SPOK), headquartered in Alexandria, Virginia, is proud to be a global leader in healthcare communications. We deliver clinical information to care teams when and where it matters most to improve patient outcomes. Top hospitals rely on the Spok Care Connect® platform to enhance workflows for clinicians and support administrative compliance. Our customers send over 100 million messages each month through their Spok® solutions. Spok enables smarter, faster clinical communication. For more information, visit spok.com or follow @spoktweets on Twitter.

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