

## Getting it right: 10-point checklist for mobile devices and testing in nursing

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Use of mobile devices by nurses is increasingly prevalent in hospitals and health systems. According to a 2018 survey, 72 percent of respondents reported using a program that provides nurses with devices.

Smartphones enhance speed of care by providing nurses and other clinical staff with the convenience of always-available communication tools and clinical applications. Connected nurses more easily communicate and collaborate on patient-centered care with care team members. The benefits of nurse mobility are numerous.

However, mobile devices for nurses must be rigorously tested and validated. Evaluating mobile devices is a process that should not be rushed. The consequences of purchasing the wrong device and not testing usage in real-life scenarios for thousands of nurses can be disastrous—both financially and in terms of communication breakdowns.

I am constantly surprised by how many health systems have deployed nurse mobility devices only to have them end up unused in a drawer. Getting it right can launch an integrated delivery network to the forefront of digitized care team collaboration.

This article lays out best practices and a 10-point checklist to consider when planning and implementing a mobile device strategy for nursing teams.

- 1. Consider the usability of the device.** First and foremost, make sure the devices you put into your users' hands are well received. Form factor, battery life and performance all play into user acceptance of the devices. Shortcomings in any of these categories will have a negative impact on adoption.
- 2. Verify the compatibility between the device and your user applications.** While the most obvious application to consider is the mobile app for your EHR, it isn't the only application you should test. Be sure to create an application inventory on a role-by-role basis—a helpful guide to your app testing.
- 3. Consider the durability of the device.** Review the durability in three key areas. First, how rugged the device is from a drop perspective. Ideally you should consider devices that pass repeated four-foot drops. Second, how well the device can tolerate liquids. Users don't control when and where they inadvertently drop devices, and at some point one will end up in a sink or toilet. Finally, how well the device handles the common sanitization agents used by your facility. Good infection control practices include regular disinfection of the devices—make sure they won't disintegrate as a result.
- 4. Test the reliability of the device on your wireless network.** Not all devices seamlessly transition between wireless access points when the user walks through

a hospital. As hospitals have added more access points to improve coverage, devices interact with more access points, which increases the frequency of network issues on the device. This instability is one of the most common contributors to device failures.

**5. Validate the voice quality of the device.**

In most cases, the device is used primarily as a phone. Test the voice quality of the device when paired up with your wireless network and PBX. If it can't be a good phone, then the rest doesn't matter.

**6. Ensure your device will support a secure operating system.**

Pay attention to the operating system shipped with the device, as well as future plans during the course of the device's lifecycle in your organization. Specifically, make sure the device will always have the ability to run an operating system that continues to receive security patches from the vendor. Guard against an end-of-life operating system.

**7. Purchase during the first half of the device lifecycle.**

In short, make sure the devices you deploy have enough horsepower to last at least three years. Purchasing devices early in the lifecycle will help maximize usable life. If you purchase too late in the lifecycle, users will complain about performance long before you plan to retire the devices.

**8. Plan for organizational change required for device deployment.**

Change is hard and it's human nature to resist change. Make sure you consider your training program, how you will overcommunicate with end users, and who can become your "change champions" to help evangelize for the change.

**9. Consider the manageability of the devices.**

Use a mobile device management (MDM) solution to deploy and manage your devices. If you don't currently have an MDM, bundle that decision in with the device selection. Do not try to deploy devices enterprise wide without an MDM.

**10. Pilot the device in real-world situations.**

Your device evaluation needs to go beyond hands-on sessions in conference or training rooms. These environments can help narrow your devices down to a short list, but they do not represent the environment in which your users will use the devices. After all, most clinical users move all over the unit, if not the entire hospital. Plan to have users in various roles use the devices in their everyday workflows. This is the best way to identify the strengths and weaknesses of the device in your environment.

Getting your mobile device strategy right is crucial. Informed leaders will make sure nursing professionals are part of a thoughtful, rigorous and structured process. Before making a purchase, ensure the device you choose meets the needs of your nursing team. ■

About the Author:

Don Dally is Chief Technology Officer and the prime architect of PerfectServe's innovative enterprise technology vision and strategy. He leads all engineering, development and network operations for PerfectServe products to ensure they anticipate and meet the evolving needs of U.S. healthcare organizations.

Dally has more than 20 years' experience in the design, development, implementation, operations and support of sophisticated systems combining voice and data communications. Prior to joining PerfectServe in 2001, he was senior director of systems development for Voicecom, a leading telecommunications company, and for Premiere Technologies, where he helped drive the company's evolution from an international voice messaging service provider to a \$450 million telecommunications and Internet holding company. Dally has a bachelor's degree in computer science from The University of Memphis.