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Preventing Hospital Nightmare Scenarios through Savvy, Robust Asset Management

Does the exciting promise of electronic medical records have a dangerous dark side?
Can a single computer virus bring down your hospital's technical infrastructure?
What if access to a patient's medical history is blocked just when it is needed most?

With the proliferation of PDAs, tablets, laptops and WOWs (wireless-on-wheels devices), it's no easy task to control and protect a complex digital environment. It's enough to fuel nightmares for hospital executives. Can we really depend on our IT systems? Can we fully safeguard our patients' medical records? How susceptible are we to a cyber attack?

There is a key to successfully transitioning into a fully electronic environment. "Strong asset management is undeniably the foundation to a hospital's success in a digital world," says Dean Figlioli, director of Field Services and Deployment for CareTech Solutions.

Figlioli leads IT asset management for a major client — a complex health organization that includes eight hospitals at various locations. He has seen — and led — a major evolution in asset management in his 15 years on the job.

"Fifteen years ago, asset management was two employees in a cubicle with a big book and asset tags to distribute," he recalls. "There was no understanding of where the computers were going or how they were going to be used."

When Figlioli began with this particular client they had 3,000 computers and related digital assets. Today that number has quadrupled, and the types of devices have multiplied. And with complete reliance on the availability and accuracy of electronic medical data, asset management has never been more critical.

Today, best-in-class asset management is a fully-integrated, highly-proactive, cradle-to-grave, strategy-based approach. In this white paper, we will provide an overview of the CareTech Solutions asset management process, along with some tips for assuring success in this increasingly important area.

A Fully-Integrated Process

So if you sense a need to upgrade your asset management approach, where to begin?

"Communication is the key," says Figlioli. "A good starting point is to bring down the walls between departments. What many organizations miss is that without understanding and integrating processes, you're going to miss part of the puzzle. When Purchasing sits on its own, apart from the Logistics team, you end up with different databases and different solutions. That's where the dangers lie."

Here's a ten-step overview of the CareTech Solutions integrated asset management process:

- 1. Testing:** All computer equipment under consideration is first sent to a test lab, a proactive approach to eliminate any issues before a device reaches the customer. "If you think in terms of an operating room, this is pre-op," says Figlioli. "We're prepping devices before taking them out to production." Devices are tested against firewalls and for compatibility with operating systems and applications. For an organization as large and complex as this one, it's no surprise that more than 1,300 applications are in use.
- 2. Purchasing:** In this organization, the team that purchases computers and digital assets is a part of the IT group. The team fields calls from customers in the hospitals, providing assistance on ordering the tools they need from a list of standardized equipment.

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Field Services and Deployment
CareTech Solutions

Through an on-line purchasing system, customers can order items, and provide the detailed information required for accurate asset management.

“We provide a wide range of items to choose from,” says Figlioli. “But only items that we’ve thoroughly tested can be selected. “Integrating purchasing with deployment eliminates miscommunication and delays,”

3. Surveying: Another key part of the asset management process is to ensure that the devices being ordered truly fit the needs of the users. “That’s essential,” says Figlioli. “Otherwise, the tools simply won’t be used.

“I believe in device fairs,” he added. “We don’t want to force people to use something they don’t want to use. We invite multiple vendors to showcase devices, then we ask users to pick the devices they need. This also applies to PDAs. Are they truly easy to use? Can nurses efficiently give an aspirin to a patient and update the chart with a scan? Or do they have to power up the device, click one icon, search for something, double-click on a folder then double-click on a file? If so, they won’t use the device, because they don’t have the time for that.”

4. Confirming and Configuring: Once an item is ordered and funding has been approved, it arrives in a warehouse, where scanning technology captures the serial numbers and confirms the equipment matches the purchase order. In addition, a CareTech-developed imaging system assures that each computer gets fully configured in about one hour. The imaging system has 10,000 lines of code, automating the process and generating major savings in time and labor.

5. Delivering: Fully tested computers are delivered to a field engineer, who schedules time with the customer to provide an orientation, migrate files, attach printers, show the user how to sign in, and, if needed, introduce the customer to new applications.

The asset management system provides field engineers with the ability to install applications on any PC in the clinical network while ensuring that licensing agreements are met. By using the imaging system as much as eight hours of prep work have been eliminated from the delivery of each computer.

6. Maintaining: Delivering fully-tested computers quickly is not the end of the process. Maintenance is just as critical. “This is where some organizations fall short,” notes Figlioli. A command center with large monitors keeps the asset management team in constant control of the client’s digital assets, providing not only a continuous report of current status, but strong visual cues concerning any issues that need immediate attention. In addition to the command center team, field engineers also have the ability to pull up a screen to view the dashboards.

Another tool tracks and monitors the PDAs that are used to administer medication. “I can guarantee you that hospitals lose more PDAs when they don’t thoroughly track and update them,” says Figlioli. “This tool also allows us to send updates, registry changes, updates to the operating system, whatever is needed.”

Adopting an air traffic control approach to system updates has proven to be an effective system maintenance technique. “In the past, we would push through a system update and consider the task completed, but learn after the fact, that as much as 20 percent of the updates did not go through,” says Figlioli. “We now monitor the updates much like an air traffic controller keeps an eye on arriving and departing planes. We monitor the time each upgrade takes, and if it exceeds expectations, we go find out why, until we validate that every update was successful.”

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7. Safeguarding: Woven together with system maintenance are efforts to safeguard computers from viruses. Sometimes, an issue can be a computer that has not been turned on or rebooted for awhile, since log-in scripts often include important anti-virus updates.

Part of the asset protection process is an auto-boot warning. “After four days without a reboot, we send an automated message to users that they might want to reboot their device,” says Figlioli. “We then give another warning on the fifth and sixth days, letting them know the number of hours until a forced reboot. On the seventh day, we give them 20 minutes to shut down their applications before the reboot. This ensures the assets are fully protected.”

Anti-virus servers send alarms through pagers. If necessary, team members will rush to a threatened device and unplug it immediately. “That kind of system increases the awareness around an attack,” says Figlioli. “Viruses require human involvement, such as bringing in an external device, going to the Internet or opening an email. Most viruses are waiting for a trigger, which may be the opening of a file. Quick action and an aggressive approach make a difference.”

8 Decommissioning: Efficiently removing outdated computers from the system is another important segment of the asset management process. “When I came here 15 years ago, a whole floor of a hospital would be used as a removal site,” says Figlioli. “We had hundreds of devices that nobody knew what to do with it.”

Today, computers and other digital assets to be replaced are scanned, and serial numbers and asset tags are decommissioned. Hard drives are placed on a conveyor belt and shredded. Parts are put into groups and sold with the profits returning to the client.

9. Reporting: The integrated process revolving around a single database allows us to produce timely, detailed reports of any kind to leadership on the organization’s digital assets.

“We have the ability to report on all the different digital assets — everything from computers, laptops, PDAs, mobile carts to camcorders to conference phones, cassette duplicators and microphones,” says Figlioli. “Our board members receive compliance reports. And our reporting includes assets that are not on our clinical network, including remote laptops used by off-site call centers, computer carts that provide games for child patients ... everything.”

10. Improving: Simplifying processes for users is part of the work of the asset management team. “We constantly look for greater efficiencies,” says Figlioli. “We call it the clinical satisfier.”

The team was recently challenged with developing an efficient way for physicians at bedside to view the secondary wave form of a heart patient. Through scripting, the team eliminated 15 clicks that were required by the original process to call up and minimize the strip.

“It’s one of the benefits of bringing down organizational walls and building bridges,” says Figlioli. “In our staff meetings, we believe in bringing challenges forward.” A field engineer, purchasing agent or project manager will present an issue or an idea. Solutions are discussed and developed on a regular basis.

Summary

Regardless of the size of your organization, a robust asset management system can go a long way toward safeguarding your enterprise, increasing efficiencies and satisfying users. In any healthcare environment, the stakes are too high to settle for anything less than a comprehensive, proven asset management strategy.

To learn more about how CareTech Solutions can contribute to the effective management of your organization’s digital assets, call (877) 700-8324 or visit www.caretech.com.