



## PHOENIX CHILDREN'S HOSPITAL HELPS PATIENTS HEAL WITH MODERN, PERSONALIZED, AND SECURE DIGITAL EXPERIENCES



### INDUSTRY HEALTHCARE

### LOCATION PHOENIX, ARIZONA

### KEY CHALLENGES

- Provide every child with modern, personalized options for entertainment and communication.
- Improve nursing efficiency by enabling secure mobile EMR access.
- Conserve operating budget and staff resources.

### SOLUTION

Phoenix Children's Hospital is providing better experiences for patients, families, and nurses with a zero-touch mobile device management and provisioning solution based on VMware AirWatch® and GroundControl, a VMware MDM partner. Personalized iPads help connect patients with the world beyond the hospital walls during what can be an emotional and challenging time, while nurses use a mobile care app on iPhones to improve their efficiency and accuracy.

Caring for sick children—especially those with serious medical issues—takes a special kind of sensitivity and engagement. Most children don't want to be in the hospital, they're often scared and bored, and they miss their friends and family. Anything a hospital can do to keep them entertained and positively engaged can have a real impact on their attitude and their recovery.

Phoenix Children's Hospital (PCH) understood that the old model of having a TV set and set-top box in each room could not provide today's youth with the digital experiences they expect. It wanted to give every child their own device, personalized for their language, age group, and family preferences. Instead of paying millions of dollars a year for an off-the-shelf patient engagement solution, PCH used VMware AirWatch extended with GroundControl to automatically provision, manage, and wipe iOS devices. The results? More smiling children's faces and a more mobile, productive nursing staff—at 90 percent less cost. Phoenix Children's Hospital has provided hope, healing, and top-quality healthcare for children since it was founded in 1983, and it has grown to become one of the largest children's hospitals in the United States. With 433 beds and a medical staff of over 1,000 pediatric specialists, the hospital provides inpatient, outpatient, trauma, and emergency care across more than 75 pediatric subspecialties.

### The Challenge

PCH wanted to use iOS devices to improve both patient engagement and nursing mobility. It also wanted a platform that could help support the "consumerization" of hospital IT, allowing patients and their families to view medical records and educational videos by using familiar devices. But first, it needed a way to unify endpoint management and automate provisioning to conserve staff resources. "Having a zero-touch solution was an absolute requirement with our daily patient turnover rate of approximately 25 percent," says David Higginson, EVP/chief administrative officer/chief information officer, Phoenix Children's Hospital. "We couldn't afford to dedicate multiple full-time employees just to checking in and checking out mobile devices."

### The Solution

To enable patients to use Apple iPads at their bedside, PCH used VMware AirWatch for mobile device management (MDM) along with provisioning technology from GroundControl, a VMware MDM partner. With deep API links between GroundControl and AirWatch, PCH benefits from a fully integrated

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DAVID HIGGINSON  
EVP/CHIEF ADMINISTRATIVE OFFICER/CIO  
PHOENIX CHILDREN'S HOSPITAL

#### BUSINESS BENEFITS

- Improving engagement and morale for patients and parents
- Increasing productivity and accuracy for nursing staff with a mobile care app
- Better security with unified endpoint management
- Costs reduced by 90 percent compared to off-the-shelf solutions

#### VMWARE FOOTPRINT

- VMware vSphere®
- VMware AirWatch®

#### APPLICATIONS VIRTUALIZED

- GE Centricity Practice Solution
- Kronos Workforce Manager
- Microsoft Exchange Server
- Microsoft SQL Server

#### PLATFORM

- Apple iPads and iPhones
- Dell servers, EMC storage, Juniper network

#### PARTNER

- GroundControl

solution. PCH uses those APIs to integrate with Allscripts, its hosted electronic medical record (EMR) system. An admission, discharge, and transfer (ADT) feed from Allscripts securely provides the information needed for AirWatch and GroundControl to automatically personalize an iPad for each patient. "We recommended that Phoenix Children's Hospital use AirWatch for MDM because VMware's APIs outshine the competition by far," says Aaron Freimark, CEO of GroundControl.

When a patient gets to their room, an iPad is waiting, personalized for the child's age, language, and family preferences about what type of content and apps the child is allowed to access. The 300 iPads are tethered and on a 10-foot cable, keeping them secure and charged yet still easily accessible by children and their parents. When a patient is transferred or discharged, their personal information is automatically wiped from the device, allowing patients the freedom to use their own accounts and passwords during their stay without worry.

"The awesome integration between AirWatch and GroundControl enabled us to be successful," says Higginson. "We looked at competitors, and we couldn't find any other technology combination that provided such an elegant solution for patient entertainment and engagement. It was also very affordable, saving us 90 percent compared with the off-the-shelf patient engagement solution many hospitals are using."

The hospital also used AirWatch and GroundControl to equip its nursing staff with mobile EMR without placing a device management burden on IT. Nurses now use the Allscripts Mobile Care app on 500 Apple iPhones, giving them the ability to enter and access patient and medication information at the bedside. If devices have problems, nurses can quickly reimagine them without assistance from IT by plugging them into a designated USB hub. The iPhones don't work outside the hospital network, as the lock screen makes clear, deterring theft. "With AirWatch and GroundControl, we're able to give nurses a complete sense of ownership of these devices in a secure environment without us having to do any work on the back end," says Higginson. "We haven't lost a single device."

#### Business Results & Benefits

Giving every child their own personalized iPad has transformed the patient experience at PCH. Children can access social media, games, videos, and music for personal entertainment, as if the tablet were their very own. It's also easier for parents and families to understand children's diagnoses, prognoses, and treatment options, because they can watch educational videos multiple times and securely access health records via the FollowMyHealth app. If parents don't want their child using the iPad when they're gone, it becomes a clock.

Higginson has no shortage of emotional anecdotes about how the devices have impacted the lives of patients and families. He tells the story of a formerly estranged father who became reacquainted with his son by playing video games with him during a hospital visit; of a family receiving a life-altering diagnosis for their child, yet still leaving the hospital feeling hopeful and confident because of the way the information was presented; and of children with cystic fibrosis who must be isolated due to risk of infection, but still feel connected to the outside world because they can use apps and access social media.

“Being in IT, we don’t always get to feel that we’ve made a difference in children’s lives the way that doctors and nurses do,” says Higginson. “But that’s exactly what AirWatch and GroundControl have enabled. We are helping patients feel more optimistic and more comfortable by giving them a personalized device to enhance their communication and entertainment options. It’s a morale booster, and when you’re talking about a sick child, the importance of a positive outlook cannot be overstated.”

Nurses are more productive as well, with the ability to look up clinical information at the bedside instead of leaving the patient’s room to find a PC. They can scan armbands and medication using a lightweight scanner attached to the iPhone, saving time and reducing potential for human error.

### Looking Ahead

PCH now has the groundwork in place to expand usage of the iOS devices. Soon it plans to allow patients to order their meals via an app, and it’s developing a portal to facilitate a more interactive experience with caregivers and other patients. “The solution we’ve put in place with AirWatch and GroundControl is easily repeatable at any other hospital, or any organization that wants to provide secure device access with no attention required from their staff,” says Higginson.

