

**Case Study:**  
**The Children’s Hospital of Philadelphia**

**Children’s Hospital of Philadelphia  
 Leverages Solidcore to Reduce TCO on  
 Thin Client Systems**

*“Children’s Hospital of Philadelphia uses Solidcore’s S3 Control for Embedded on their thin client systems to reduce the total cost of ownership by reducing the number of support calls and by reducing the need for emergency patching.”*

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 The Children’s Hospital of Philadelphia



**Industry:** Thin Clients

**Goal:** Reduced TCO for thin clients powered by leading edge Windows XP Embedded and XP Professional

**Deployment type:** : Deployment across all new and existing Microsoft Windows based thin client systems

**Benefits:**

- Reduction of up to 90% in service calls on thin client systems
- Savings of \$270 per system per year
- Control over patch deployment, increased time for testing of patches, and reduced downtime due to unintended interactions

**About The Children’s Hospital of Philadelphia**

Since its start in 1855 as the nation’s first hospital devoted exclusively to caring for children, The Children’s Hospital of Philadelphia (CHOP), now rated the best pediatric hospitals for the third consecutive time, has been the birthplace for many dramatic firsts in pediatric medicine. The Hospital has fostered medical discoveries and innovations that have improved pediatric healthcare and saved countless children’s lives.

**Business Challenge: Reduce total cost of ownership of thin clients**

CHOP’s management team believed in providing computer and internet access to the children in their facility as a means to improve their overall rate of progress during their stay at the hospital. However, they have a large and distributed hospital infrastructure across several sites and buildings with a limited IT staff that is responsible for not only keeping the existing systems up and running securely but also for implementing newer IT initiatives.

Due to high rate of incoming malware via the thin clients used by the patients , they had little control over the state of these systems: what was running on them or spreading from them. Some of the issues they faced that drove up total costs of operations included:

- **Emergency Patching:** They had been investing proactively in applying emergency patches on these systems on interconnected hospital networks. However, it was not always possible to do a prior, thorough testing of the patches leading to unintended breakage and spread of malware.
- **Anti-Virus not good enough:** An anti-virus as a solution was not sufficient for maintaining a comprehensive security posture and they continued to have control and security incidents.
- **Systems kept getting re-infected:** When they were hit by the Zotob virus and some rootkits, they spent precious IT resources in the recovery and/or re-imaging of infected systems. Cleaning up of systems was non trivial due to their number and distribution, and became repetitive as these clean systems kept getting re-infected.
- **Rebooting Thin Clients not an option:** In addition, if a thin client found to be infected had to be rebooted to restore it's base image from the server, then all thin clients would have to be rebooted at the same time or else, any one thin client could possibly re-infect the others. This resulted in large network traffic to not only push the image from the server to the thin clients but also to then download all the anti-virus updates onto each thin client.
- **High Help Desk Calls:** CHOP's IT and support team had a high volume of help desk calls especially from the thin clients used by the patients due to unauthorized software downloads and installs, unpredictable behavior due to security incidents.

## Solution Requirements

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For CHOP, the key to driving down the total cost of ownership of their thin client systems was the reduction of emergency patching and reduced incidents filed with the help desk support. CHOP was looking for a solution that gave them the ability to:

- **Control:** Gain better control over the state of the thin client systems by enforcing the IT Operations team's change control policy; keep their thin client systems in a known controlled state.
- **Secure:** Keep the thin clients up and running and secure against any existing and zero day threats; reduce breakage and time spent to recover them due to malware getting downloaded as patients actively used them.
- **Lower number of service calls:** CHOP needed to reduce the number of help desk calls and any investments made by their IT staff on the non critical systems.
- **Reduce emergency patching:** reduce the overhead from the frequent emergency patching required to stay secure
- **Low touch:** provide a solution that worked out of the box and required little or no maintenance, thereby freeing up the limited IT staff for more mission critical work.

## Solidcore Solution: S3 Control

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Based on these requirements, and after a search of available products, CHOP determined that Solidcore's S3 Control was the right solution to enable them to meet their support, security and control goals.

The benefits that Solidcore's S3 Control provides to CHOP include:

### Device Change Control

Enforce CHOP's change control policy within their environment:

- Lockdown of the thin clients such that only the authorized base software image runs on these systems when in production;
- Control what software gets installed and runs on these systems and by whom;
- Provide flexible and seamless integration with LANDesk deployment to deploy and update these remote systems centrally;
- Enforce their license audit policy such that no new unlicensed software could be installed/updated on these systems unless authorized and approved by central IT keeping the systems compliant.

### Device Runtime Control

- Keep thin clients secure against any security risks from zero day, polymorphic attacks
- Eliminate emergency patching, reduce the number and frequency of patching cycles, enable more testing before patching;
- Reduce security risk for difficult to patch systems ( remote thin clients with no local dealer support available)
- Reduce cost of operations via both planned-patching and unplanned recovery downtime and improve device availability
- Reduce help desk calls by reducing the number of touch points.

Solidcore S3 Control addresses all of the CHOP solution requirements, and with very low operational and ongoing administrative overhead.

## Results

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CHOP has rolled out S3 Control on their newer thin client deployments and are gradually putting S3 Control on all existing thin client systems powered by Microsoft Windows XP Embedded and XP Professional. They have "already realized a reduction of up to 90% in service calls on thin client systems due to Solidcore's ability to lock down configurations and/or control change. At an average cost of over \$25 per service call and an average of one service call per month, this equates to a total savings of \$270 per year per system"

Since Solidcore protects systems from unauthorized applications, patching can be done after testing those patches and the interactions with OS and other applications has been completed. This savings is expected to be in the hundreds of thousands dollars per year in a large environment like CHOP through the decrease of labor for patch deployment, downtime associated with unintended interactions and costs for testing.