

JIM CAVANAGH  
VP/CIO, ST. JOSEPH'S HEALTHCARE SYSTEM



When INFINITT received a PACS Request for Proposal (RFP) specifying a 99.99% uptime requirement – defined as no more than 52 minutes of unscheduled downtime a year, with a maximum of 15 minutes downtime at any single occurrence – INFINITT said the best way to meet that requirement was to propose a virtualized server environment. The virtualized server configuration proposed by INFINITT ensures high availability because it provides built-in failover protection and the best environment for zero-downtime server maintenance.

“Without virtualization, it would have been difficult to meet St. Joseph’s uptime requirement,” says INFINITT CEO David Smarro. “You couldn’t re-boot a server in the time allowed by their definition of uptime.”

What virtualization does, says a specialist at INFINITT, is isolate the software from the hardware. “Before, if we had a hardware failure, it would bring down the entire server. Now, even if multiple servers fail, we can do maintenance and trouble-shooting on the hardware with no effect on operations. We can yank a piece of hardware and it’s transparent to the user.”

But Jim Cavanagh, VP/CIO of St. Joseph’s Healthcare System, Paterson, NJ, challenged the design on the grounds that he didn’t know of any live PACS environments that were built on virtualized platforms.

“At SJHS we have come to realize the benefits of virtualizing our servers and virtualization has become part of our strategic technology development plan,” says Cavanagh. “Yet, when INFINITT proposed their PACS on a VM platform, I didn’t feel there was enough of a track record and I started pushing them back to a traditional configuration. In the end we agreed that INFINITT would proceed with the virtualized solution, assuming the risk of meeting the uptime and performance guarantees defined in the terms of the contract.”

“Having been live for over 18 months now, I can decidedly state that this was the right direction and the system has operated as promised,” says Cavanagh. “INFINITT has met their uptime (and performance) commitments each month, even as we approach 300,000 annual studies on the platform.”

The virtualized IT environment has presented other significant advantages at St. Joseph’s. It also addressed their needs for flexibility and scalability. With the PACS application spread across three hospitals and two imaging centers, it really helps to be able to reallocate resources. Virtualization does this on the fly. The virtualized solution continuously monitors utilization, dynamically balancing the load and redistributing computing capacity based on pre-defined rules and priorities.

Scalability is also much easier. With data virtualization you can add storage capacity, move data from one place to another or add a whole new facility without any disruption of service. Deployment is quick and easy; added capacity can be in production within 30 minutes.

“I have yet to experience a case where virtualizing a system has not had a positive effect on performance, data center efficiency and (most importantly) business continuity,” added Cavanagh.