Cloud-based services drive healthy revenue growth for Dutch application service provider

PinkRoccade Healthcare doubles staff productivity with HP Converged Infrastructure and HP Integrity BL860c i2 Server Blades

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— Jan van Dijk, manager ZorgComputercentrum Services, PinkRoccade Healthcare

HP customer case study: HP Integrity BL860c i2 Server Blades, HP Storage, HP Virtual Connect, HP-UX 11i v3, and HP Insight Control

Industry: healthcare

Objective

Enable fast, agile, and reliable deployment of healthcare applications through cloud computing, enabling a pay-per-use model

Approach

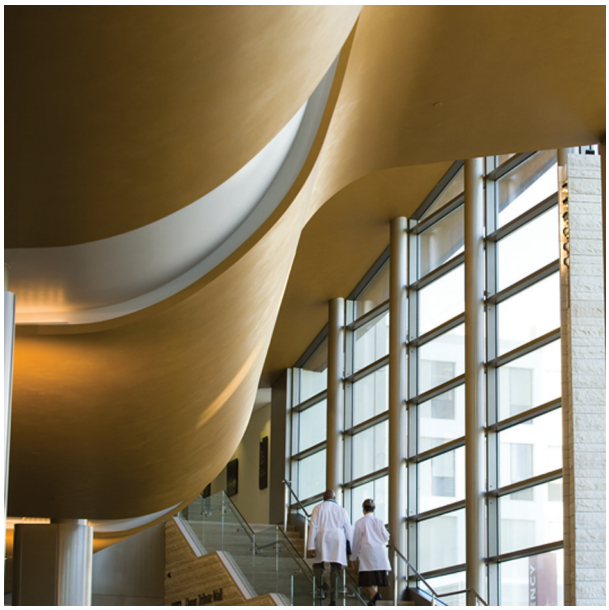
Team up with a strong technology leader to transition from an application hosting system to a new SaaS-based infrastructure

Business technology improvements

- Facilitates system management through virtualization, freeing up IT staff to work on strategic projects
- Enables quick resource allocation that accommodates spikes in usage
- Achieves data protection and meets 99.5% application availability SLAs through replicated data centers
- Makes it possible to adapt service offerings to suit specific customers

Business outcomes

- Decreases service deployment time from weeks to minutes for greatly improved productivity
- Lowers power costs by 40%
- Provides agility to quickly respond to new service requests and changing business
- Enables SaaS business model by providing dynamic provisioning



Imagine the dilemma of hospital CIOs today. They must navigate an ever-changing landscape of applications—from electronic medical records (EMR) to traditional financial and business packages—and stay ahead of the hardware technology curve as well. Their budgets are at best static, often shrinking, creating pressure to maximize the value of investments in infrastructure. And the consequences of their decisions impact more than the bottom line—they affect treatment outcomes and patient health.

It's no wonder that Dutch hospitals and other healthcare enterprises are turning to PinkRoccade Healthcare. This Dutch application service provider offers a full range of IT services to hospitals, health maintenance organizations (HMOs), and medical

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— Martijn Vriens, manager Businessteam hospitals, PinkRoccade Healthcare (PRH)

clinics. A key factor in PRH's success is its willingness to adapt service offerings to each customer's specific situation. One hospital may want to support the application software and just needs a hosting platform, while another requires a turnkey hardware and software solution. By leveraging its partnerships with application and platform vendors as well as its own technology experts, PRH can service both of those situations and more.

Consolidating four data centers into a single virtual facility—in months, not years

In 2009, a decision by its parent company, KPN, forced PRH to relocate its IT operations. "We were faced with a nearly impossible schedule—nine months to move from six data centers into a central facility," says Martijn Vriens, manager businessteam hospitals for PRH. "Others might view this as an enormous problem, but we saw it as a once-in-a-lifetime opportunity to design and build a complete and new infrastructure"

The timing fit well with PRH's long-term strategic plans: The company wanted to grow its business by transitioning customers from application hosting to software as a service (SaaS). "Moving to SaaS means that you have to respond quickly to new service requests and changing demand," explains Jan van Dijk, data center manager for PRH. "Our existing infrastructure wasn't up to the task—it was siloed and rigid, with equipment and support from a number of vendors."

Requirements point to converged infrastructure

In June 2009, PRH's IT team drew up a list of requirements for the new infrastructure. It would need to coordinate all of the resources used by an application—servers, storage, and networking—from a single management console. To handle spikes in demand, it had to enable quick provisioning of services, ideally within hours. And it must meet stringent service-level agreements (SLAs) for application availability and protect customer information. PRH circulated the document to its current vendors, including HP, and invited proposals.

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However, there was one more hurdle: the aggressive time frame. HP Services consulted with PRH and came up with a project plan that met the deadline. "We were confident that HP could deliver, so we awarded them the contract," says Vriens.

The installation and implementation phase of the project started in October. "It was definitely a team effort," says Vriens. "HP took the lead, but their consultants worked side by side with our staff. We not only met the deadline, but accomplished a great deal of knowledge transfer at the same time. It would have been impossible to do this without HP Services." The new infrastructure went live in March 2010, just five months after the start of installation.

Resources on demand through virtualization

The core technology of the PRH infrastructure is virtualization, which allows resources to be pooled and allocated as needed to deliver application services. VMware vSphere software running on HP ProLiant BL460c Servers provides server virtualization. HP Insight Control provides centralized management of PRH's virtualized environment for both server and storage resources. The HP Virtual Connect Flex-10 10Gb Ethernet Module for BladeSystem connects the server enclosures, allowing network administrators to tailor the network speed for each application.

PRH's storage infrastructure features a range of HP products. HP StorageWorks 6400 Enterprise Virtual Arrays provide storage for the iSoft EMR application

Customer solution at a glance

Name: PinkRoccade Healthcare

Headquarters: Apeldoorn, The Netherlands

Founded: 1983

Telephone: 55 599 1992 1900

Number of employees: 450

URL: www.pinkroccade-healthcare.nl

www.totalspecificsolutions.nl

and HP StorageWorks P4000 G2 SAN Solutions support all other applications, which run on HP ProLiant blades. For backup and recovery, PRH has installed HP StorageWorks 9000 Virtual Library Systems and HP StorageWorks MSL8048 Tape Libraries.

Applications often require a specific operating system, so PRH runs several versions of Microsoft® Windows® Server and a number of Linux distributions, including Red Hat Enterprise 5, BOSos (for iSoft), and Novell SUSE (for SAP®). HP-UX 11i v3 is the preferred operating system for PRH's custom applications, including patient portals. "When patient information is at stake, security and availability are paramount," says Vriens. "We rely on HP-UX 11i to ensure that we can meet these needs."

Cloud shortens deployment time, grows SaaS revenues

"Cloud" computing may seem like a buzzword to some, but at PRH it's the heart of the SaaS strategy. According to Vriens, responsiveness is the key: "With our old architecture, provisioning was a multistep process, requiring action by our networking, servers, and storage groups. The process worked well for application hosting, but was too slow and inflexible for the on-demand world of SaaS."

Today, provisioning time has decreased dramatically. "With HP Insight Control, we simply push a button to provision an application," says van Dijk. "The secret is HP Cloud Maps, which define all the needed resources for applications, including computing power, storage, and network bandwidth. Our time to provision a service has decreased from weeks to just minutes. My staff now spends less time on routine operating tasks, so we can devote more resources to strategic activities such as developing new services."

The rapid provisioning has helped PRH capture more revenues from SaaS. "We can now respond to spikes in demand by quickly allocating resources as needed," says Vriens. "Because of that, we can make a convincing case for moving to SaaS. And our customers are listening."

Green benefits and higher productivity through consolidation

Replacing the old mix of rackmount servers with the HP BladeSystem has paid off in green savings. "We cut our power costs by about 40%, and reduced the physical footprint dramatically," says Vriens. "We believe the energy savings will exceed that percentage as we build our SaaS business."

PRH's success relies as much on its people as technology. "The expertise and experience of our technical staff is a vital part of our competitive edge," says Vriens. "At the same time, we have to keep our expenses in check. To grow the business profitably, we need leverage—the ability to do more with our current staff. We expect to provide twice the level of services with the same number of people by leveraging the centralized management and automation features of the HP Converged Infrastructure."

In the past, the staff was fragmented into functional groups that managed servers, storage, and networking. Now they are unified into one consolidated organization, which simplifies resource allocation and encourages cross-functional collaboration. To maintain the technical competency of its IT professionals, PRH turns to HP Education and Training Services. "HP on-site training gave our people the skills to operate the new infrastructure effectively," says van Dijk. "The hands-on instruction complemented their experience working with HP during the installation, and allowed them to take over full system management much sooner than would have otherwise been possible."

Resilient architecture and HP support promote application availability

When customers are evaluating SaaS, they want assurances that their employees can access applications at all times. PRH addresses their concern with a business continuity system based on HP technology. The company has dual data centers about 40 kilometers apart and each data center has a full complement of HP servers and storage. Both data centers are active, sharing the application load through a load-balancing approach. If one

data center should fail, HP Serviceguard running on Integrity blades with HP-UX automatically switches its load to the other data center. "PRH has achieved our application availability SLAs," says Vriens. "That's vital to our ability to compete for SaaS business."

HP Proactive 24 Service contributes to PRH's high level of uptime. HP's remote support technologies monitor the infrastructure and detect potential problems before they can cause outages.

"At the end of the day, our success depends on the quality of the services that we deliver to our customers," says Vriens. "The HP Converged Infrastructure has given us confidence that we can aggressively pursue more SaaS business and deliver those services to meet our customers' expectations. Without the team effort of our IT staff and HP, we never could have accomplished this milestone."

"The success of the implementation project was based mutual trust and understanding," says Vriens. "Our ICT specialists worked as one team with the Dutch HP Converged Infrastructure consultancy team. In doing so, we mitigated our risks and achieved our goals without having to wait for formal decisions from the project board. Halfway through the implementation we were already in production with our Converged Infrastructure!"

About PinkRoccade Healthcare

PinkRoccade Healthcare provides application services and complete solutions for hospitals, HMOs, clinics, and other healthcare organizations in the Netherlands. Its services include application development, application hosting, and software as a service (SaaS) and is part of Total Specific Solutions (TSS).

Customer solution at a glance:

Primary applications
- iSoft EMR system
- SAP ERP system

HP Services
- HP Integration and Technical Services
- HP Installation and Implementation Services
- HP Proactive 24 Service
- HP Education and Training

Primary hardware
- HP ProLiant BL460c Server
- HP Integrity BL860c i2 Server Blades
- HP Virtual Connect Flex-10 10Gb Ethernet Module for BladeSystem
- HP StorageWorks 6400 Enterprise Virtual Arrays
- HP StorageWorks P4000 G2 SAN Solutions
- HP StorageWorks 9000 Virtual Library Systems
- HP StorageWorks MSL8048 Tape Libraries

Primary software
- HP-UX 11i v3
- HP Insight Control
- HP Serviceguard
- VMware vSphere
- Microsoft Windows Server (2003, 2008)
- Red Hat Enterprise 5 Linux
- CentOS Linux
- Novell SUSE Linux

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