

Measuring success



University Health Care

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2005 Revenues:

\$547.2 million

Employees:

~10,000

ROI Study Highlights

- 346% ROI
- 146% IRR
- \$1.0 Million initial investment
- Payback within three months
- \$4.8 Million net savings over 3 years vs. former solution

Business Benefits

- **Capacity Management** – gives UUHSC increased ability to grow and meet the needs of their patients and customers
- **Remote Management** – HP OpenView enables UUHSC to quickly identify and manage server issues as they arise, 24x7
- **Change Management** – virtualization can be implemented with defined procedures
- **Reliability** – the HP BladeSystem servers provide high reliability and energy efficiency

Study Scope

UUHSC IT Infrastructure:

- HP Services Consulting
- HP BladeSystems
- HP OpenView tools with HP Lights-Out cards
- HP VMWare software
- HP Financial Services Solutions

University of Utah Health Sciences Center Teams with HP to Improve Patient Care and Accommodate Growth and Innovation at a Lower Cost—realizes a 346% ROI

Executive Summary

Recognized as one of "America's Best Hospitals" for the 13th year in a row, the University of Utah's Health Sciences Center (UUHSC) is renowned for its research and clinical expertise in the health sciences. Through its four major colleges—the School of Medicine; College of Pharmacy; College of Nursing; and College of Health—UUHSC conducts leading-edge research in genetics, cancer, pharmaceutical sciences, and numerous other areas of medicine. UUHSC is also the major training ground for Utah's physicians, pharmacists, nurses, therapists, and other health-care professionals.

UUHSC handles more than 900,000 outpatient visits and 23,000 inpatient admissions each year. While its programs are considered leading-edge, like most of its counterparts in the healthcare industry, IT has been struggling to keep up with demand. As UUHSC brought in more systems to support patient care, they were rapidly running out of data center space, power, and cooling capacity. Faced with a possible \$7 million data center expansion, UUHSC began an investigation to shift its investments from more servers and their accompanying environmental costs to a consolidated environment that would reduce costs *and* allow UUHSC to focus on enhancing patient care.

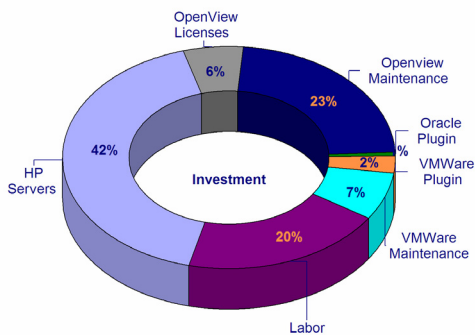
In outlining their goals, containing rising data center and server costs was at the top of UUHSC's list. UUHSC sought to gain insight into their network, add capabilities without adding servers to accommodate growth needs, and provide 99.999% uptime for mission-critical applications, on a 24x7 basis. UUHSC conducted a thorough analysis which considered the leading IT vendors as consolidation partners. HP was selected for its ability to provide: technology that reduces risk, remote management capabilities, reliability with a proven track record; and its BladeSystem servers for their more efficient power and cooling consumption.

HP Services brought in partner Avnet to conduct an analysis of UUHSC's server infrastructure, whose findings validated the potential of UUHSC's consolidation goals versus building a new data center. Partnering with HP, UUHSC virtualized to achieve a 15:1 server consolidation—50% higher than originally expected. The organization has achieved significant cost savings by increasing efficiency and utilization of resources and controlling data center growth. Power and cooling consumption has been reduced with 25% fewer physical servers, and remote management capability is enabling UUHSC to quickly identify and manage server issues as they arise. With a clearly defined procedure for virtualization, UUHSC can now continue to add the capacity they need to support patient care and growth.

As a result of the HP consolidation solution, UUHSC is realizing its patient care goals with a lower cost, virtualized server environment that increases efficiency, controls data center costs and allows room for growth and investments in innovation. The results show a 346% ROI in three years.

Financial Impact

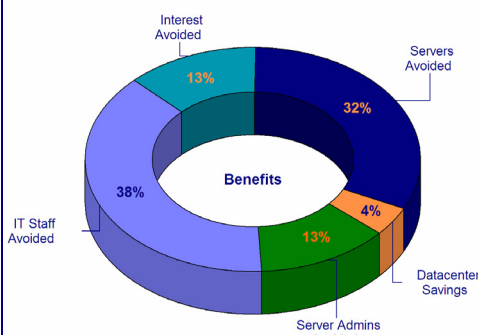
Investment



Quantifying the HP Investment

- The HP server leases and implementation labor make up 62% of the overall investment.
- OpenView and the necessary plug-ins for Oracle and VMWare make up the other 38% of the investment.

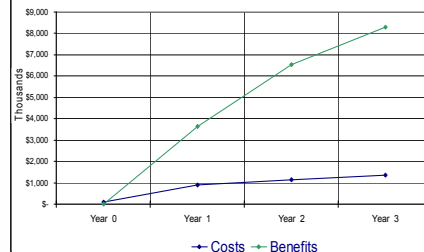
Benefits



Benefits Achieved

- 45% of the benefits are achieved from the reduction of physical servers and the administration that goes with it
- An additional 38% from having the tools provided by HP to simplify the support
- Financial benefits of 13% by avoiding a data center expansion

Break Even Analysis



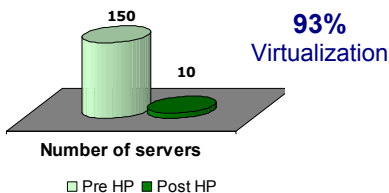
Breakeven Analysis

- The HP solution has delivered an ROI of 346% over 3 years and a significant internal rate of return (IRR) of 146%, validating the quality and value of the investment.
- As illustrated in the chart above, the benefits of the HP solution exceeded costs, with the investment reaching breakeven in just one month.

Operational Impact

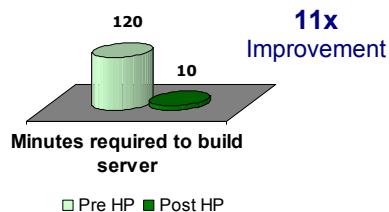
15:1 IT Consolidation

Virtualization allowed the data center to consolidate 150 physical servers onto 10 HP BladeSystem servers.



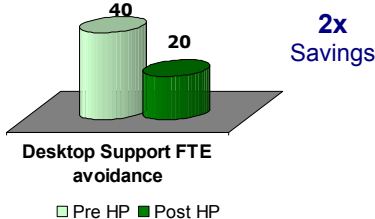
Greater Productivity

With the same headcount, the server team has increased productivity by 11x, i.e. from at least 2 hours to less than 10 minutes per server build.



Headcount Avoidance

Desktop support staff avoided an increase in headcount, holding at 20 employees and avoiding growing to 40 employees, a 100% staff cost savings.



Future Benefits

Harvesting additional value

Consolidating applications — where possible will allow UUHSC to improve utilization of computing resources and precious data center space, and help reduce administrative and maintenance tasks

Lower TCO — Using HP Integrity servers to replace some of the existing UNIX servers can deliver low total cost of ownership and a potential 30-1 consolidation ratio

Building an access portal — for customer Service Level Agreement review

Employing HP Instant Capacity — software, a utility pricing solution that provides the ability to increase processing capacity instantly.

About the Value Measurement Series

This study is one of a series of investigations into the business value companies have derived from their investment in HP Adaptive Enterprise solutions. It is intended to serve business executives and managers who are evaluating HP Solutions to improve the way they operate their business leveraging technology. This case study was commissioned by HP, and is based on original research and analysis conducted by Thoughtware Worldwide, LLC., an independent research and information services firm. Thoughtware Worldwide's research included on-site interviews with members of University of Utah Health Sciences Center (UUHSC) leadership team and reviews of company financial and planning documents. Information contained in this publication has been obtained from sources considered reliable, but is not warranted by Thoughtware Worldwide, LLC. or Hewlett Packard (HP). © 2007 All rights reserved. For more information about this study, please visit www.ThoughtwareWorldwide.com or contact your local HP office