Case Study Forum

ROI CASE STUDIES

HIGHLIGHTS

Goal: To increase performance, improve productivity, and reduce the cost and complexity of running the Oracle E-Business Suite and other internal applications.

Solution: HP's PolyServe Database Utility for Oracle RAC

Results: Oracle performance and reliability have increased significantly, customer service has improved, and CXtec can manage the growth of its Oracle infrastructure without having to add IT staff. As a result of the deployment, CXtec will gain a projected, cumulative five-year net benefit of $1,017,075, driven by avoiding the purchase and maintenance of expensive Sun hardware and associated Oracle database licensing. The project has an ROI of 473% and a pay-back period of two months.

CUSTOMER PROFILE

CXtec
www.cxtec.com
CXtec is a global provider of new and certified pre-owned computer networking and technology equipment.

Headquarters: North Syracuse, NY

Industry: Technology

Employees: More than 350

Revenue: More than $130 million

CXtec Improves Oracle Application Performance, Reliability, and Scalability; Gains More than $1 Million in Benefits with HP's PolyServe Database Utility for Oracle RAC

CXtec, a global provider of new and certified pre-owned computer networking and technology equipment, helps customers reduce the cost of their networking infrastructure. CXtec uses the Oracle E-Business Suite to run its business. Oracle was running on aging, UNIX-based Sun Enterprise 5000 and Sun Enterprise 4500 servers. The company was growing quickly, and the servers were having a difficult time keeping up with the increased demands being put on them. CXtec was looking for a solution that would improve performance and reliability, increase productivity, reduce hardware costs, and offer better Web services to customers.

CXtec replaced its UNIX-based Sun servers with industry-standard servers running Red Hat Enterprise Linux, and used Oracle Real Application Clusters (RAC) for the Oracle E-Business Suite. To build a robust cluster file system to deploy Oracle RAC, and improve manageability and performance, it chose HP's PolyServe Database Utility for Oracle RAC.

With HP's PolyServe Database Utility for Oracle RAC, CXtec has increased performance and scalability, reduced hardware and maintenance costs, improved staff and IT productivity, and improved overall manageability. CXtec now always ships out orders on time, and has improved customer service via its extranet and more responsive Oracle system. Oracle and Web performance and reliability have increased dramatically, customer service has improved, and CXtec can manage the growth of its Oracle infrastructure without having to add to IT staff. As a result of the deployment, CXtec will gain a projected, cumulative five-year net benefit of $1,017,075, driven by avoiding the purchase and maintenance of expensive Sun hardware and associated Oracle database licensing. The project has an ROI of 473% and a payback period of two months.

Benefits

OBJECTIVE	BENEFITS ACHIEVED
Reduce costs	CXtec has replaced expensive Sun servers with less-expensive industry-standard servers. The HP PolyServe Database Utility for Oracle RAC deployment will give CXtec a projected, cumulative five-year net benefit of $1,017,075.
Improve performance	Batch jobs that previously took several hours, now run in minutes. In addition, on CXtec's da Vinci CRM system, 93% of Web pages are delivered in less than one second.
Better manage a complex Oracle infrastructure	Because HP's PolyServe Database Utility for Oracle RAC allows the new infrastructure to be easily managed, CXtec has been able to handle the more complex infrastructure with its same IT staff.

The Challenge: Improve Performance and Reliability, Reduce Costs by Moving to Industry-Standard Environment

For three decades, CXtec has offered new and pre-owned networking, voice and cabling technologies worldwide. It is an ISO 9001 certified company committed to maximizing value for its customers through needs-based, customized solutions.

CXtec uses the Oracle E-Business Suite to run the functions within its business. The Oracle suite was running on aging, UNIX-based Sun Enterprise 5000 and Sun Enterprise 4500 servers. The company was growing quickly, and the servers were having a difficult time keeping up with the increased demands being put on them. CXtec was looking for a solution that would accomplish the following:

- **Improve performance and reliability.** The Sun CPUs were so heavily loaded for three or four hours a day that batch processing and transaction processing were slow, and could not always be completed. Because of this, CXtec was having difficulties shipping all of its orders as quickly as they wanted.
- **Improve productivity.** Because of sluggish application performance, CXtec employees had to spend precious time waiting for applications and data to load. In fact, when they were talking on the phone to customers slow response times meant that customers had to wait to get desired information.
- **Reduce hardware costs.** Sun enterprise servers are expensive; CXtec wanted to replace them with less-expensive, industry-standard servers. It also wanted to keep the number of servers it purchased to a minimum.
- **Improve IT productivity.** CXtec does not have a large IT staff. It wanted to ensure that its new infrastructure and growth could be handled without additional IT staff.
- **Offer improved Web services to customers.** CXtec was looking to improve its extranet to give its customers the ability to quickly check on their orders, update their orders, and find product information.

CXtec Chooses HP's PolyServe Database Utility for Oracle RAC

CXtec decided to replace its UNIX-based Sun servers with industry-standard servers running Red Hat Enterprise Linux, and to use Oracle Real Application Clusters (RAC) for the Oracle E-Business Suite. In order to build a robust cluster file system to deploy and run Oracle RAC, it chose HP's PolyServe Database Utility for Oracle RAC. CXtec knew of other companies using the HP solution, and had heard from these companies that the solution worked flawlessly, while reducing costs and improving database performance. In addition, CXtec was impressed with the product's distributed lock manager feature, which ensures that the cluster keep working even if any one of the nodes go down.

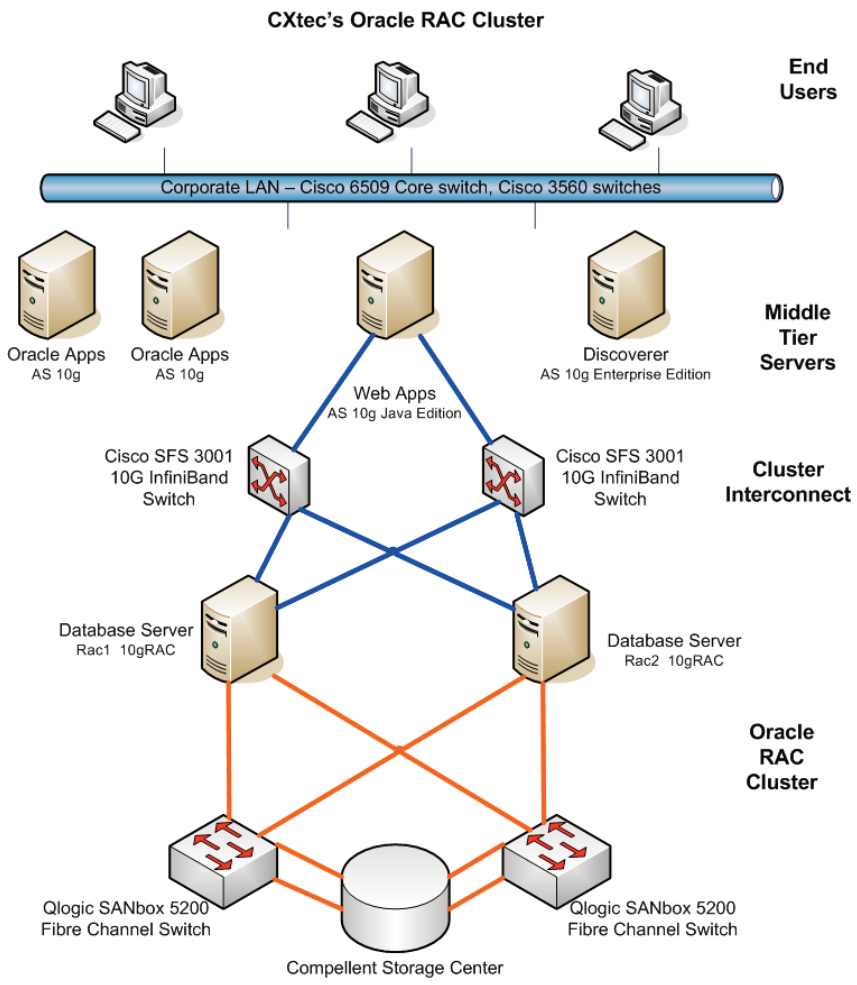
HP's PolyServe Database Utility for Oracle RAC helps customers install Oracle RAC faster, manage large clusters more easily, and realize more benefits from Oracle than if OCFS (Oracle Cluster File System) is used. It provides a single point of installation, configuration, and patch updates through a cluster-wide, shared Oracle HOME.

HP's PolyServe Database Utility for Oracle RAC also supports multi-path I/O so that clusters and SAN can be built with no single-point-of-failure. The product offers the manageability of a file system with the same or better performance than raw partitions.

> "We moved from a single-server environment to a clustered Oracle environment, and HP's PolyServe Database Utility for Oracle RAC lets us manage the more complex environment without adding to IT staff."
>
> Dean Bettinger
> Director of Information Technology
> CXtec

An Inside Look at the HP Solution

The following figure illustrates how CXtec has deployed HP's PolyServe Database Utility for Oracle RAC in the company's infrastructure.



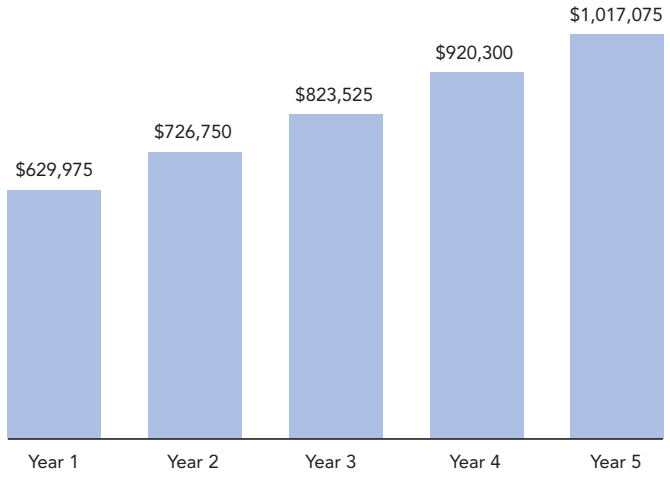
> "We've seen huge performance improvements with HP's PolyServe Database Utility for Oracle RAC. Batch jobs that used to take hours now take only a few minutes, and 93% of our da Vinci CRM Web pages are served up in less than one second."
>
> Dean Bettinger
> Director of Information Technology
> CXtec

CXtec Improves Reliability, Manageability, and Scalability, Gains More than $1 Million in Benefits

With HP's PolyServe Database Utility for Oracle RAC, CXtec has improved Oracle performance, reliability and scalability, reduced hardware and maintenance costs, increased productivity, and improved overall manageability. CXtec now ships orders according to their SLA, and has also improved customer service via its extranet and more responsive Oracle system.

The performance improvements have been impressive. Previously, it would take hours for some batch jobs to run, which sometimes made it difficult for CXtec to ship products by day's end, because packing slips and other materials could not be printed quickly enough. After the deployment, those batch jobs now only take a few minutes, and products are always shipped in a timely manner. In addition, sales representatives have improved the handling customer requests because the system is more responsive. Reports run quickly.

- CXtec's bottom line for the project: A projected, cumulative five-year net benefit of $1,017,075, driven avoiding the purchase and maintenance of expensive Sun hardware and associated Oracle database licensing. The project has an ROI of 473% and a payback period of two months.



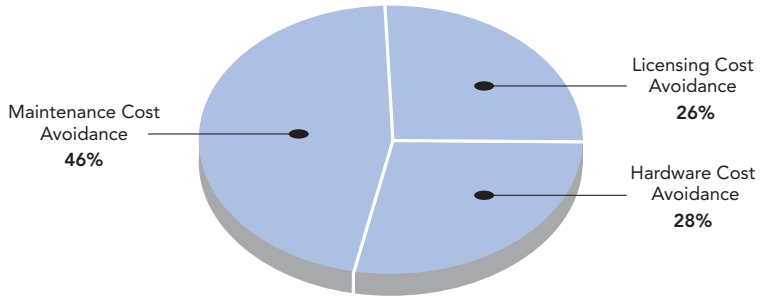
Cumulative 5 Year Net Benefit

CXtec has also seen major performance improvements in its data warehouse, which is updated nightly. Previously, the data warehouse was not always completely updated by the morning. Now it takes about two hours for the data to update overnight, and the information is always available during business hours.

In moving from a single-server to a clustered environment, CXtec increased the physical complexity of its infrastructure. But because HP's PolyServe Database Utility for Oracle RAC allows the new infrastructure to be easily managed, CXtec has been able to handle the more complex infrastructure with the same personnel.

Extranet functionality has improved significantly, ultimately leading to better customer relations, because customers can now easily check their order status and obtain information about products online. Previously, the extranet only showed order status as of the close of the prior business day rather than live data.

CXtec has integrated its own custom-built Customer Relationship Management application, called da Vinci, with the Oracle Applications E-Business Suite. The speed of da Vinci is critical for CXtec's sales representatives, who need to provide customers with information while they are on the phone. Since the deployment of HP's PolyServe Database Utility for Oracle RAC, 93% of da Vinci pages are delivered in less than one second.



Cumulative 5 Year Net Benefit = $1,017,075

CXtec will see a significant financial return as a result of the deployment of HP's PolyServe Database Utility for Oracle RAC. The company will gain a projected, cumulative five-year net benefit of $1,017,075, driven by avoiding the purchase and maintenance of expensive Sun hardware. It instead buys industry-standard servers, which are significantly less expensive to purchase and maintain than Sun servers. The project has an ROI of 473% and a payback period of two months.

The following chart provides a detailed, five-year analysis.

5 YEAR ANALYSIS

Project Summary							
ROI	473%						
Payback Period (in months)	2						
Cumulative Net Value	$1,017,075						
Project Costs	**Start Up**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**TOTAL**
Initial Investment	$44,000						$44,000
Annual Maintenance		$15,625	$15,625	$15,625	$15,625	$15,625	$78,125
License Migration to RAC	$92,800						$92,800
TOTAL PROJECT COSTS	$136,800	$15,625	$15,625	$15,625	$15,625	$15,625	$214,925
Benefits	**Start Up**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Licensing Cost Avoidance		$320,000					$320,000
Hardware Cost Avoidance		$350,000					$350,000
Maintenance Cost Avoidance		$112,400	$112,400	$112,400	$112,400	$112,400	$562,000
TOTAL BENEFITS	$0	$782,400	$112,400	$112,400	$112,400	$112,400	$1,232,000
Financial Analysis		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	
Net Value	($136,800)	$766,775	$96,775	$96,775	$96,775	$96,775	
Cumulative Net Value	($136,800)	$629,975	$726,750	$823,525	$920,300	$1,017,075	
Net Present Value	$854,300						
Payback Period (in months)	2						
ROI	473%						
Internal Rate of Return	475%						

Return on Investment (ROI) is the percentage return expected over a specified period of time. ROI is the total benefit divided by the total costs. This ROI metric is good for assessing the multiplier provided by the benefits relative to the total investment and costs.

Net Present Value (NPV) represents the cumulative present value of the expected return of a project over a specified period of time minus the initial costs of the project. This dollar figure provides visibility on the actual value of a project, taking into consideration the time value of money—the ongoing benefit of a project in today's dollars. NPV tells you the magnitude of the project and if the project generates a profit.

Payback Period (or breakeven) is the timeframe it takes for the project to yield a positive cumulative cash flow. Payback period is a key measurement of risk but does not take into account cash flows after the payback period.

ROI, NPV and **Payback** should be used in conjunction to understand the rate, size and timing of the return.

Net Value (or Net Benefit) is the benefit delivered to the organization for the investment made in the project. Net Value is calculated by taking the total benefit minus the project costs.

Internal Rate of Return (IRR) is the implied rate of return of an investment assuming complete reinvestment of cash flows. It is the percentage rate by which you have to discount the benefits until the point that they equal all the costs. IRR is calculated as the discount rate necessary to drive the NPV to zero.

About CXtec
For three decades, CXtec (www.cxtec.com) has offered new and pre-owned networking, voice and cabling technologies worldwide. Its certified pre-owned equal2new® hardware and CABLExpress® Cables are both backed by lifetime warranties. It is an ISO 9001 certified company committed to maximizing value for its customers through needs-based, customized solutions.

About Hewlett-Packard Company, StorageWorks Division
HP is a technology solutions provider to consumers, businesses and institutions globally. The company's offerings span IT infrastructure, global services, business and home computing, and imaging and printing. HP StorageWorks solutions help enterprises optimize current resources, manage multivendor environments and evolve to open architectures. For more information on how working with HP can benefit you, contact your local HP representative, or visit HP at www.hp.com.

About Case Study Forum
Case Study Forum is the leader in the writing and production of ROI-focused Case Studies. In addition to a customer success story, each ROI Case Study provides insight into the business impact—the revenue, productivity and cost savings the customer achieved as a result of the investment made in the solution or service. For more information, please contact Case Study Forum at 508-380-8886, or visit www.CaseStudyForum.com.

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