

**Industry**

Telecommunications

**Client Profile**

This customer is a leading provider of technology and services to telecom operators. The company supplies communications services and manages networks that serve more than 250 million subscribers. The company's portfolio comprises mobile and fixed network infrastructure, and broadband and multimedia solutions for operators, enterprises and developers.

Working in 175 countries, more than 70,000 employees generated revenue of USD 27 billion in 2008.

**Engineering and IT Virtualization Project****Success Highlights**

1. Immediate cost savings realized from no longer needing to buy 20-30 additional servers, plus reduced requirement for further server purchases
2. Disaster recovery set up for the development environment
3. Improved development environment with more scalable test cycles
4. 50 physical servers discontinued
5. Reduced footprint in data center

**Taos Service Areas Deployed**

Interim Technical Talent

- Virtualization

**Tools and Technology Used (network equipment not included):**

- VMware Infrastructure Enterprise
  - ESX 3.5 & vCenter Server
- VMware Server
- Solaris Containers

**Situation**

When the customer acquired another company, it enlisted Taos to help integrate the acquired company's Windows domain and work stations into the company's existing domain. After the integration project was completed, the customer was interested in maximizing dollars spent on hardware and increasing the scalability of its development environment. Based on Taos' success on the integration project, the customer looked to Taos again to help it identify an optimal solution.

**Solutions**

The engaged Taos consultant was a Sr. Windows Administrator with previous virtualization experience and the adept ability to understand the client's needs. In addition to the client's goals of achieving hardware cost savings, improved business continuity, and improving the development environment, the consultant recognized room for improvement in the customer's disaster recovery plan. He began exploring various solutions and proposed virtualization of the environment as the optimal one to address the client's needs.

## CLIENT CASE STUDY

The consultant's proposed solution was met with resistance from those unfamiliar with virtualization technology. To gain the critical buy-in for the success of the solution implementation, the consultant proved its value by virtualizing all BSD to the Free VMware server. This resulted in 30 virtualized machines in the VMWare Server environment and greatly improved the client's disaster recovery plan – after virtualizing just one development machine, its infrastructure could be quickly cloned in just 5-10 minutes. The Virtual Machine Image could also be easily packaged and copied to any location in the world. This allowed for increased efficiency in the engineering team as they were able to become more productive and cost efficient. To socialize the virtualization solution into the customer's environment, the consultant provided user education and worked side by side with the engineering team to demonstrate its value.

After receiving client buy-in, the consultant moved the client's environment from the physical to the virtual. He leveraged their existing NetApp infrastructure with new servers and implemented VMWare Infrastructure Enterprise, also known as ESX. He built a VMWare ESX cluster of 3 servers and virtualized 50 machines onto these 3 hosts. This allowed for increased efficiency of IT infrastructure and lowered operating costs.

Later, when the client's engineering team needed to conduct a scalability test, the consultant recognized virtualization as an ideal alternative. Instead of buying 20-40 physical machines to load test, virtualization allowed the customer to provision systems more quickly, cost effectively, and at a much larger scale, scaling to 150 machines immediately.

The consultant also saw the benefit of virtualizing the customer's Solaris environment. Without virtualization, the client would have had to buy expensive additional hardware to increase horse power. Utilizing Solaris containers to virtualize the Solaris environment resulted in hardware savings of approximately \$0.5 million.

As an added benefit, physically moving the acquired company's environment into the acquirer's new campus was much easier as there were fewer servers to move. The data center footprint was decreased as it consumed less power after virtualization.

### **Results**

Virtualization increased development productivity, reduced administration and helped enable engineering to easily reproduce environments. Tremendous cost savings were realized as 50 physical servers were discontinued and additional, future server purchases were no longer needed. Approximately \$0.5 million in hardware savings was attained by virtualizing the Solaris environment alone.

### **About TAOS**

Taos is a professional IT consulting services company. With more than 5,000 successful engagements at more than 1,000 clients, we have the experience and the technical expertise to help you achieve and sustain operational excellence. Our success is built upon the breadth and depth of our technical expertise, flexibility and objectivity – we are hardware and software vendor independent.