



## Telecommunications Carrier

IT Service Delivery through Utility Computing

### Business Value

- Capital costs lowered by 43 percent
- Upgrades in minutes not weeks
- Operational costs lowered by 55 percent
- Time to provision reduced from 12 to two weeks
- Data center floor space cut in half

### Executive Overview

As one of the world's leading telecommunications companies, this Egenera customer launched a corporate initiative to transform IT into a service delivery model through utility computing. The carrier conducted a thorough technology and financial evaluation of three alternatives and found that industry-standard computing platforms along with PAN Manager® Software by Egenera® software offered the best cost savings, time to market, resource utilization, data center simplicity, application availability, and IT process improvement.

### Business Challenge

In 2003, this global telecommunications company launched a corporate initiative to transform IT into a service delivery model through utility computing. Specific goals of the initiative were to:

- Drive out complexity
- Reduce capital and operational costs
- Compress time to deployment
- Improve flexibility

To support this effort, IT management identified drawbacks to existing technologies and processes that had to be addressed. Costs for processing capacity were inconsistent and too high, while utilization of those expensive assets was too low. Complexity of the IT procurement model was a hindrance to business agility. And although long vendor lead-times slowed application time to market, it was costly and impractical to pre-provision resources.

To overcome these challenges and move towards its vision, the carrier conducted a thorough technology and financial evaluation of three alternatives including Egenera.

*"Egenera enables a step change in efficiency in our approach to provisioning compute resources."*

### Egenera Delivers Advantages

Compared to their legacy environment, the customer determined that industry-standard computing environment combined with PAN Manager would:

- Reduce capital costs by 43 percent
- Reduce operational costs by 55 percent
- Cut data center floor space in half
- Reduce time to provision from 12 weeks to two weeks
- Permit subsequent upgrades in minutes, not weeks

Along with Egenera's world-class references, other documented benefits included:

**Better Utilization:** The evaluation found that with Egenera, "normally redundant processing capacity can be utilized or shared on a temporary basis." This unique repurposing would enable the carrier to run office systems during the day and ETL applications at night on the same servers. Likewise, test and development could be performed on servers otherwise allocated to disaster recovery.

**Less Complexity:** By utilizing virtualization technology, PAN Manager can eliminate more than 80 percent of physical data center infrastructure. For the carrier, this would mean fewer system administrators, and lower personnel costs, through a simpler environment to troubleshoot and fewer failures to manage.

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**Better Availability:** PAN Manager's integrated N+1 failover model would enable the carrier to easily and cost-effectively provide high availability and disaster recovery to every server and application. It was also noted that PAN Manager's intelligent communications fabric and fully-redundant I/O virtualization solution contains no single points of failure.

**IT Process Improvement:** Egenera offered a simple procurement model and consistent pricing that would boost IT responsiveness to the business. Because PAN Manager consolidates connections to power and networks, data center infrastructure can be pre-provisioned easily at virtually no cost.

### Other Alternatives Fall Short

In light of the Egenera value proposition, acquiring more mid- to high-end legacy servers would mean:

- No contribution to transforming IT into a service delivery model through utility computing
- No contribution to simplifying IT infrastructure
- No resource sharing or repurposing
- Capital expenses 75 percent higher and operational expenses 122 percent higher than with Egenera
- Lead time of 12 weeks, six times longer than with Egenera
- Higher licensing costs for third-party software since more CPUs are required
- Disaster recovery would require a significant additional infrastructure spend

Turning to the white-box alternative, the carrier did find that initial capital costs would be lower than the alternatives. "However," their evaluation report stated, "this is a very complex and resource intensive solution to deploy and manage ongoing. The inherently complex nature of this approach would put it at odds with simplification initiatives and will not be able to deliver the availability, scalability, and flexibility required by business applications. Ongoing operational costs are expected to be higher due to the complexity of this approach. Complexity would result in a higher fault rate, greater service loss and higher operational costs due to human intervention."

### Application Example: Oracle® E-Business Suite

In early 2005, one of the carrier's in-country operations needed an infusion of processing power, and needed it quickly:

- Due to a recent acquisition, the employee base was about to grow by 25 percent, from 8,000 to 10,000 users
- A new human resources efficiency program, designed to increase utilization of self-serve systems, was due to kick off
- The legacy environment was already running at full capacity—in excess of 90 percent for a third of each month

Several applications were impacted, including Financials, Order Management, Supply Chain and Human Resources modules of Oracle E-Business Suite. If the infrastructure was not upgraded, IT would be unable to roll out new business services and would fail to meet its service-level agreements.

At the same time, internal audits had revealed that the cost of delivering infrastructure was higher for this locale than for the company's other country operations. Any new solution would have to deliver phenomenal savings.

### PAN Manager Benefits

With the PAN Manager approach proven at the corporate level, country IT executives knew that their new utility-computing environment would deliver required cost savings while improving the responsiveness of IT infrastructure. Although the initial plan called for a pilot phase, Oracle E-Business Suite went straight into production based on proof-of-concept results.

With the systems up and running, the country documented impressive metrics:

- Capital cost savings of 15 percent (for total platform replacement) versus upgrading the legacy systems
- Operational costs reduced by 60 percent
- Thirty-two fewer Oracle database licenses
- Power consumption lowered by 68 percent
- Floor space reduced by 95 percent
- Cabling down 90 percent
- Data center complexity lowered by 68 percent (total number of components)
- Up to 60x performance improvements



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