

The 21st Century Data Center: Virtualization

Presented by

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Who is Deckers?

Deckers builds niche products into global lifestyle brands by designing and marketing innovative, functional and fashion-oriented footwear, developed for both high performance outdoor activities and everyday casual lifestyle use.

UGG®
a u s t r a l i a



Simple
a nice little shoe company™

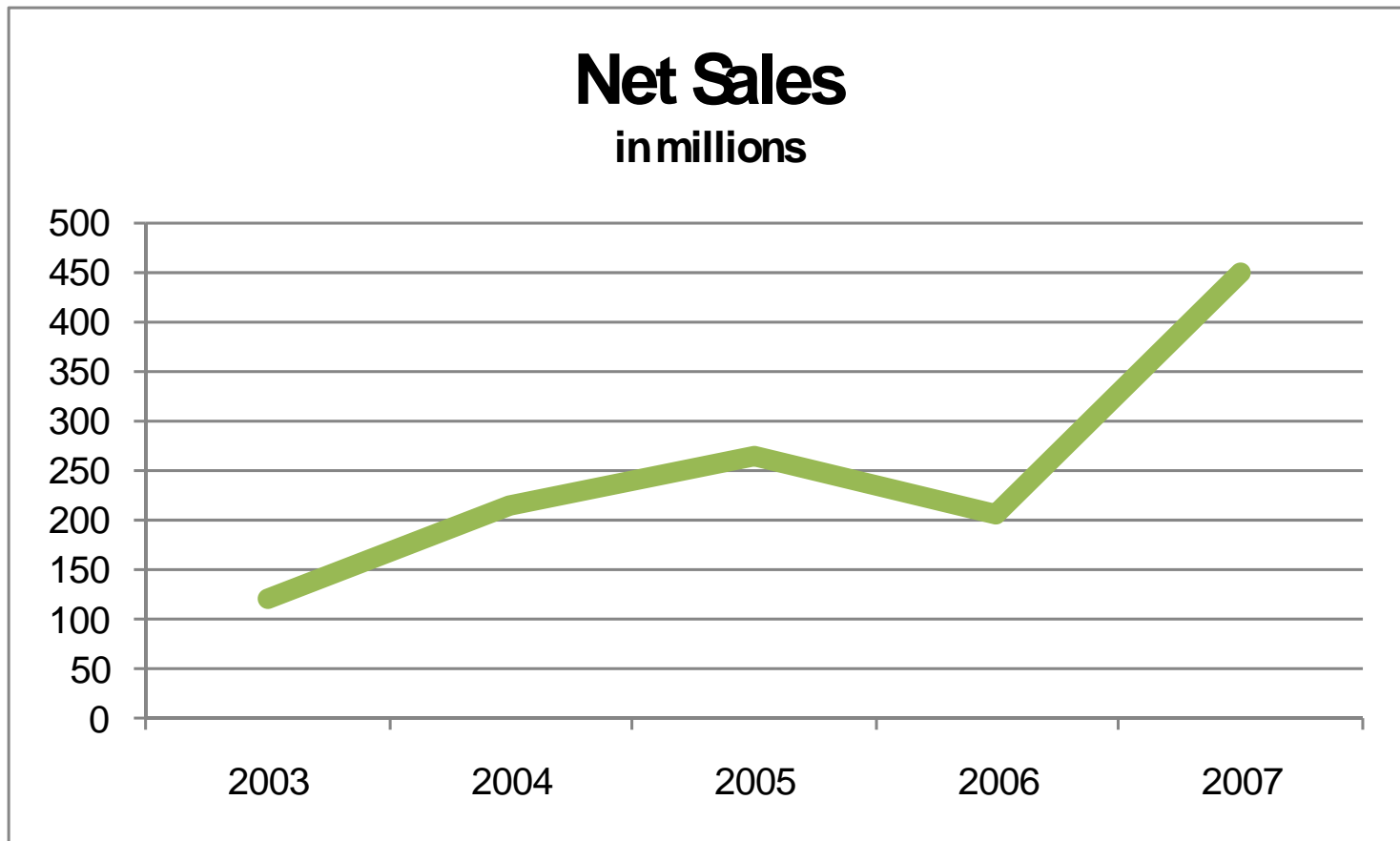


Teva



OTSUBO®

Our Explosive Growth



Why did we look at virtualization?

- Business continuity
- Business growth / acquisitions
- Limited space for data center expansion
- Costs associated with power and cooling
- Aging hardware was due for refresh

Benefits

- Reduced cooling and electrical consumption
- Rapid server deployment
- Snapshot technology
- Replication capability
- Consolidation of disk storage
- Load balancing VMs across hosts
- Automatic host recovery

Analysis

- VMware identified as market leader
- Microsoft's enterprise VM solution was still in early beta

3 Year TCO	Current (As Is)	Projected (With VI)	Difference
Hardware	\$432,918.00	\$139,000.00	\$293,918.00
Power / Cooling	\$100,395.00	\$19,568.00	\$80,827.00
Space	\$95,427.00	\$23,600.00	\$71,827.00
Provisioning	\$48,984.00	\$3,591.00	\$45,393.00
Administration	\$372,536.00	\$285,714.00	\$86,822.00
VMware Software	\$0.00	\$57,000.00	-\$57,000.00
	\$1,050,260.00	\$528,473.00	\$521,787.00

Implementation

- Evaluated solutions from VMware and Microsoft to test physical server migrations and performance
- All servers profiled for power, processing, storage, applications and load
- Servers classified into project phases

Results

- 75 U of hardware was decommissioned, eliminating over 19,000 watts of load.
- One full-time AC unit is now off and used as an emergency backup.
- VM replication means that DR systems are at a ready state and only need to be powered on.

Transformation

Before



Decommissioned



After



Lessons Learned

- Storage architecture and logical layout is the critical component in design
- Purchase the maximum amount of memory and fastest CPUs per host!
- Existing backup strategies need to be rethought

Considerations

- Analyze potential ROI
- Research technology and benefits
- Develop/get a strong technical resource
- Plan out the migration
- Secure your network and hosts
- Closely monitor performance
- Start with development environments

What's Next?

- Desktop virtualization pilot
 - Warehouse
 - Customer service
 - Measure performance
- Blade server deployment
 - Replace traditional rack mount servers
 - Higher density of servers per unit of space

Q&A and Discussion