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October 12-15, 2009 | JW Marriott Desert Ridge Resort | Phoenix, Arizona

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Controlling Your SAN Costs

Best Practices for Optimizing SAN Performance & Utilization

Ryan Perkowski

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Barclaycard US

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Presentation Overview

- Explain some of the catch-22s you are either facing, or soon will face
- Speak to my approaches toward solving the problems
- Speak of my failures/successes in the various areas
- Hopefully give you a 'downfield' view on your storage environment
- Interactive

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Presentation Overview

What this isn't...

- Vendor promotion
- Overly technical
- Boring (hopefully)

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Presenter Overview

- 10 years storage operations experience
- Worked in both enterprise space and as a vendor
- Unix admin origins
- ☺bsessed with performance and optimization

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Company Overview

- Credit card company
- Piece of a larger, globally recognized company
- My IT supports
 - Customer web site
 - Account maintenance
 - Trend analytics
- New kid on the block for CC companies

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Environment Overview

- 4 datacenters
- EMC storage ~ 500TB
 - Several tiers of storage (DMX, Clariion)
- SRDF between datacenters
- Cisco & Brocade switches
 - 9000 series Cisco switches
 - Brocade DCXs
- Virtual Instruments – NetWisdom
- NetApp - SANScreen



Pandora's Box of Storage

- One storage vendor, or many?
 - KISS principle
 - Leverage vendors against each other
- Built in Monitoring vs Tool Overload
 - OEM monitoring lacks objectivity
 - Information overload a real possibility?
- One tier of storage, or several?
 - Hidden costs of offering too many options
 - One size fits all

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How to eat an elephant?

one bite at a time

Know your goals

- IE I am performance driven
 - IE I am uptime driven
 - IE I am cost driven
 - IE I am availability driven
-
- Senior management needs to clearly define your direction

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How big is that elephant?

Know your growth

- Major 'gray' issues are 'growing pain' related
 - Ounce of planning = Pound of avoided issues
 - Cost effective discussions MUST include strategy, not just tactical viewpoints
-
- Scale and performance CAN go hand in hand

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You sure that's an elephant?

Know your environment

- Over provisioning no longer acceptable
 - Getting more for less
 - Tools of the trade
-
- No such thing as too much information when speaking of performance metrics



Performance is my key

Ever growing systems

- Virtualized systems growing constantly, in both disk space, and IOPS needs
- Bottlenecks appear everywhere
 - Quickly diagnose issue
 - Need to verify ‘fix’ actually worked
- Bandwidth requirements change
- OEM performance tools are lacking

- Fast, efficient troubleshooting combined with environment assurances is my answer
 - Virtual Instruments NetWisdom

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Presentation Recap

- Several hurdles to overcome
- Outline your goals
- Gather your metrics
- Armed with data, execute your plans

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Questions?