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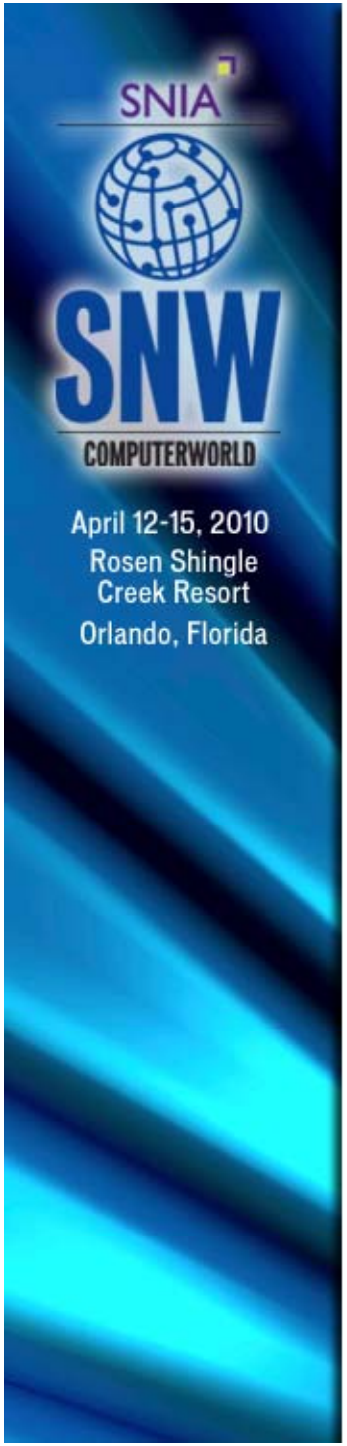

Provisioning Management Across Silos

Bridging storage, server and networking administrative domains

by

Doug Voigt

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Why Silos?

In the 1990's datacenter staff was expanded to manage emerging SANs and Disk Arrays.

This new breed of storage specialists formed separate administrative domains from both networking and servers.

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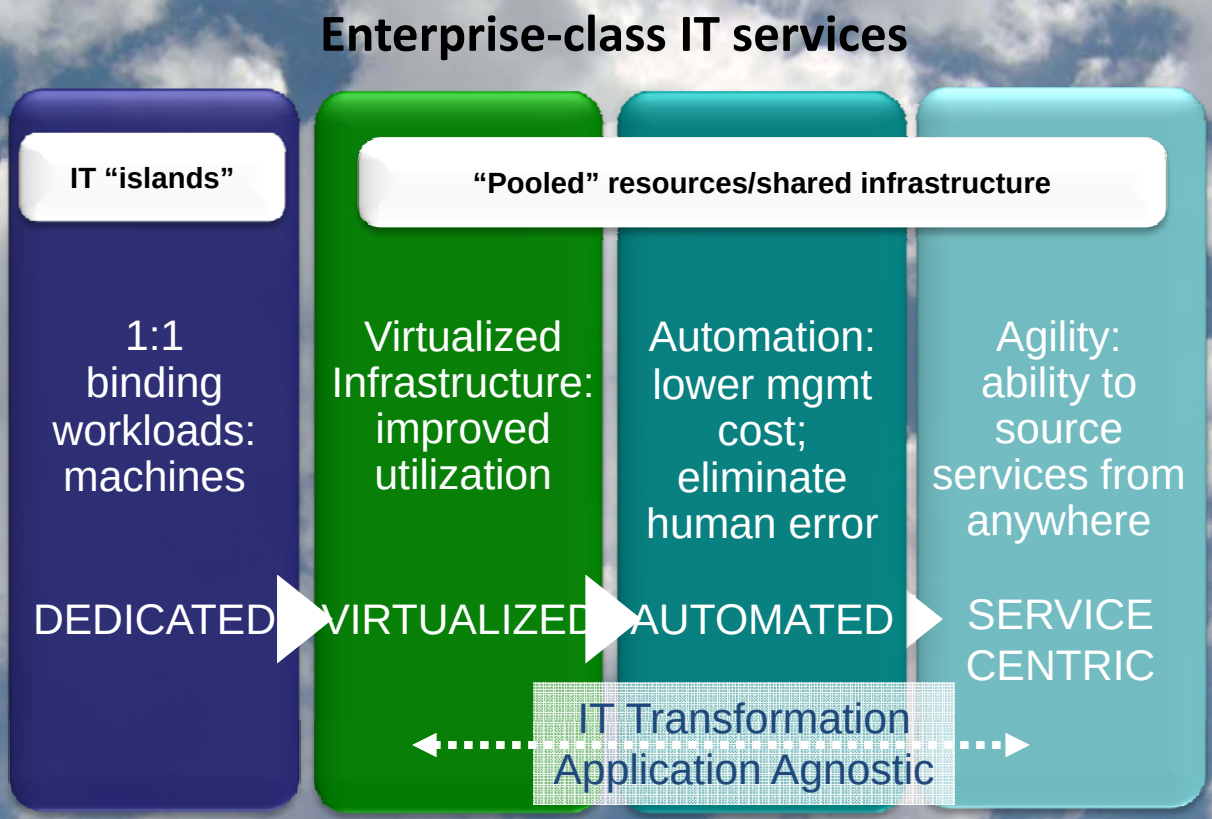
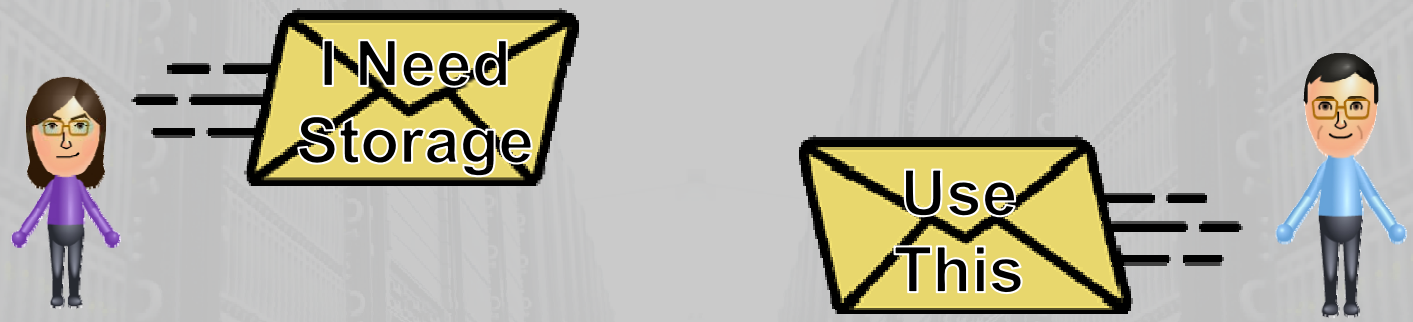
Datacenters Evolve



Services include servers, networking and storage

Common Practices

email



uniformity

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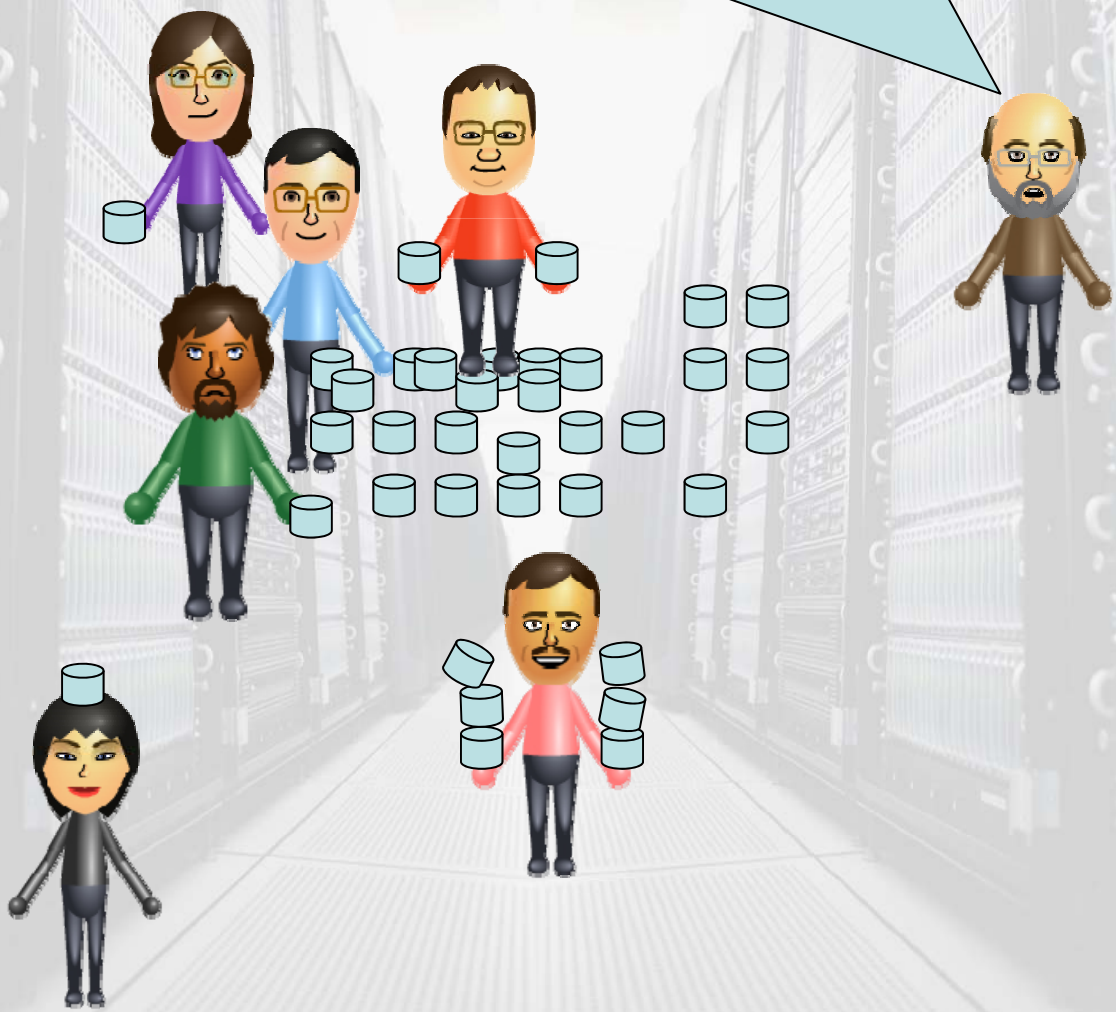
I Have Lost Control!



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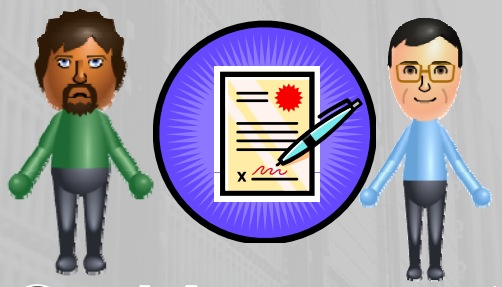
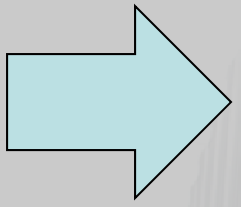
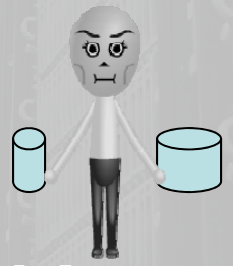
New Approaches

Contracts Between Teams



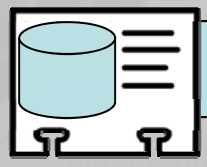
Goal Agreement



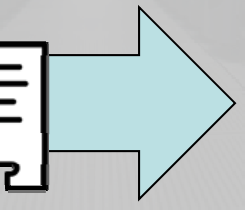


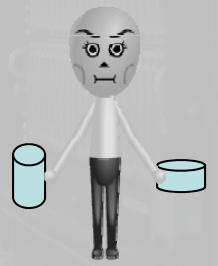
Controlled Automation

Generalists



Templates





Controlled Automation

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Goals and Templates

Goal

- Needs based description
- Matched to storage services
- Customizable terminology

Template

- Goal-service intermediary
- Capture additional needs
- Pool management flexibility

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Storage Architect Role

- Agree on goal customization with server team
- Enter storage customization information
- Enable allocation of storage directly to servers

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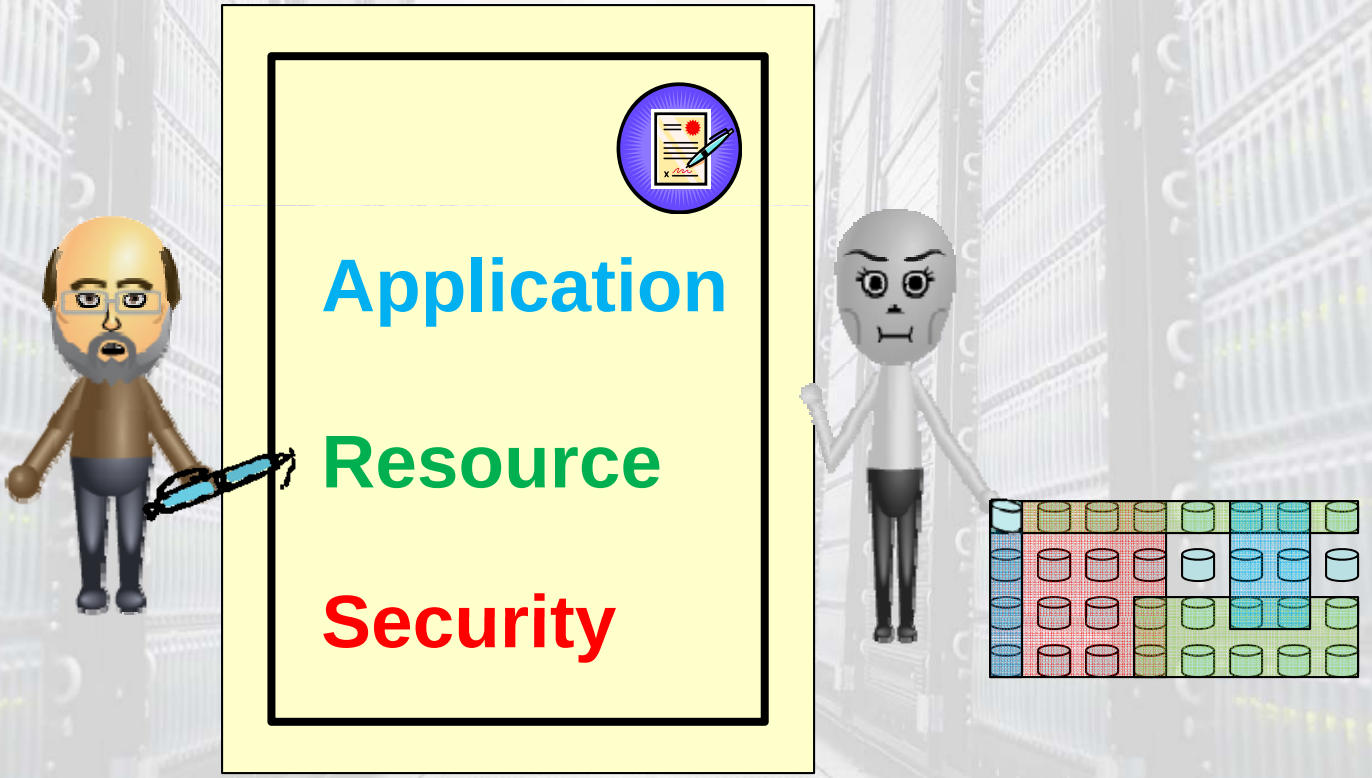
Constraints



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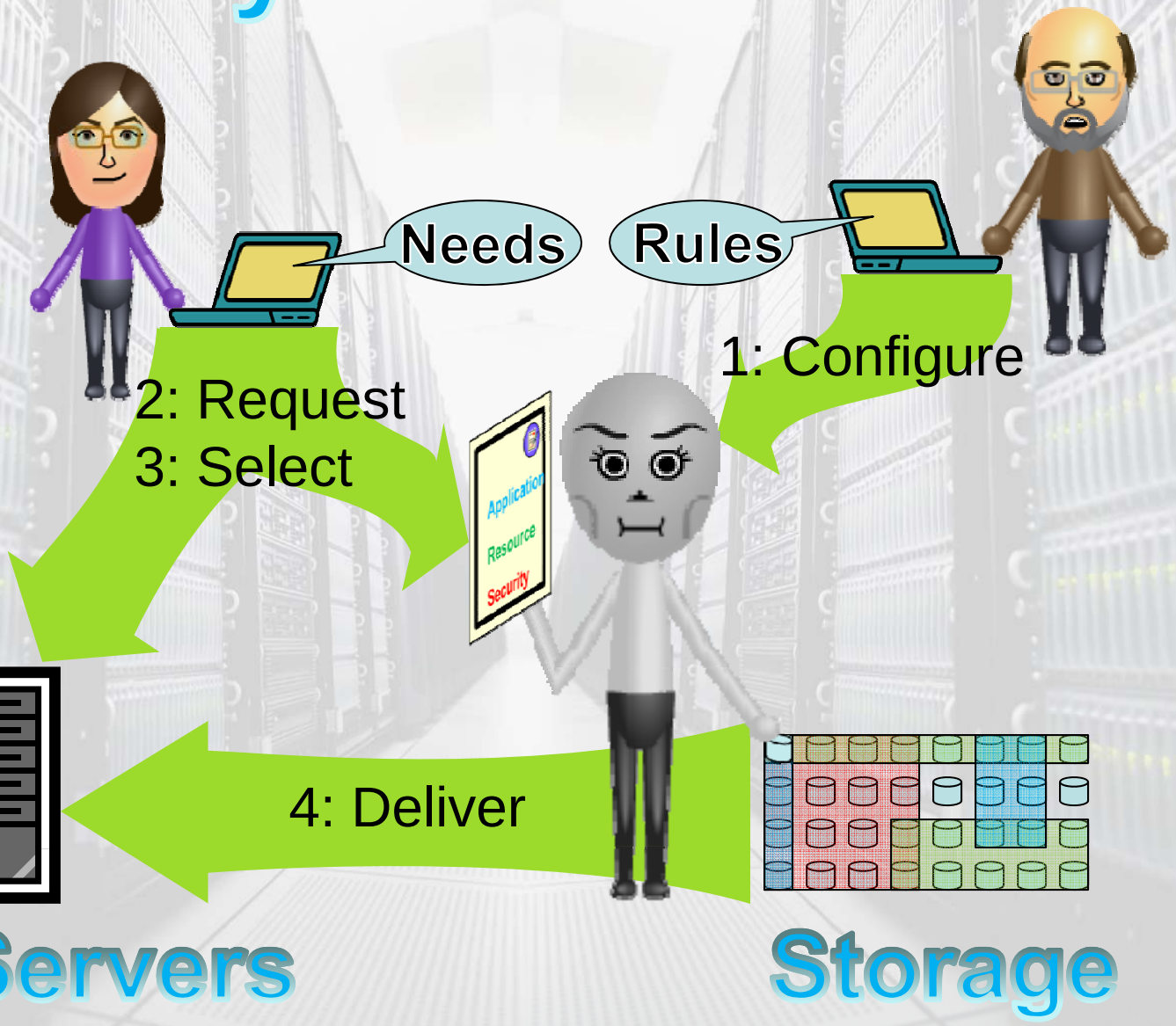
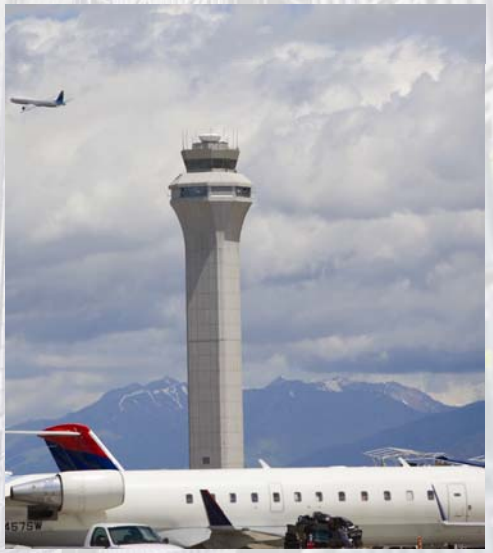
System Flow



Monitoring

Generalize

- Health
- Utilization



Drill Down

- Device specific
- Launched in context

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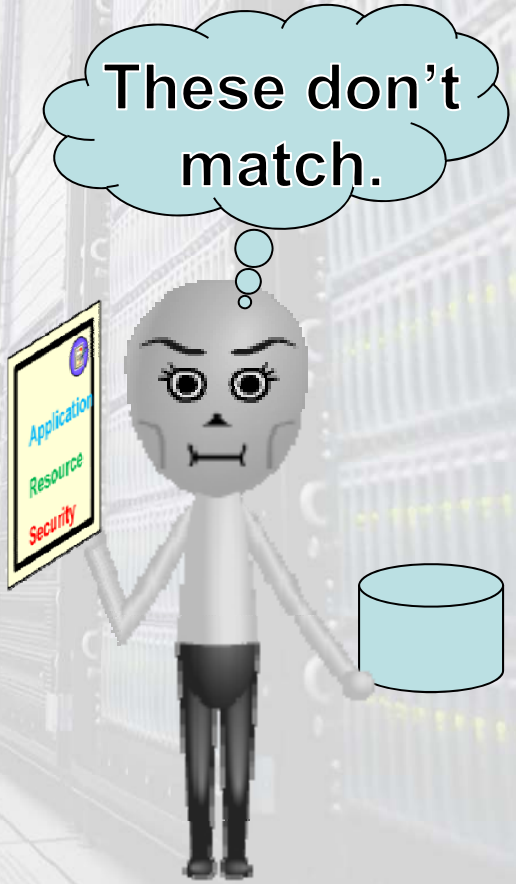
Changes in Goals

Incomplete Knowledge

- Sequenced Enablement
- Growth



Service Level Drift

- Local Adaptation
- Global Re-Plan

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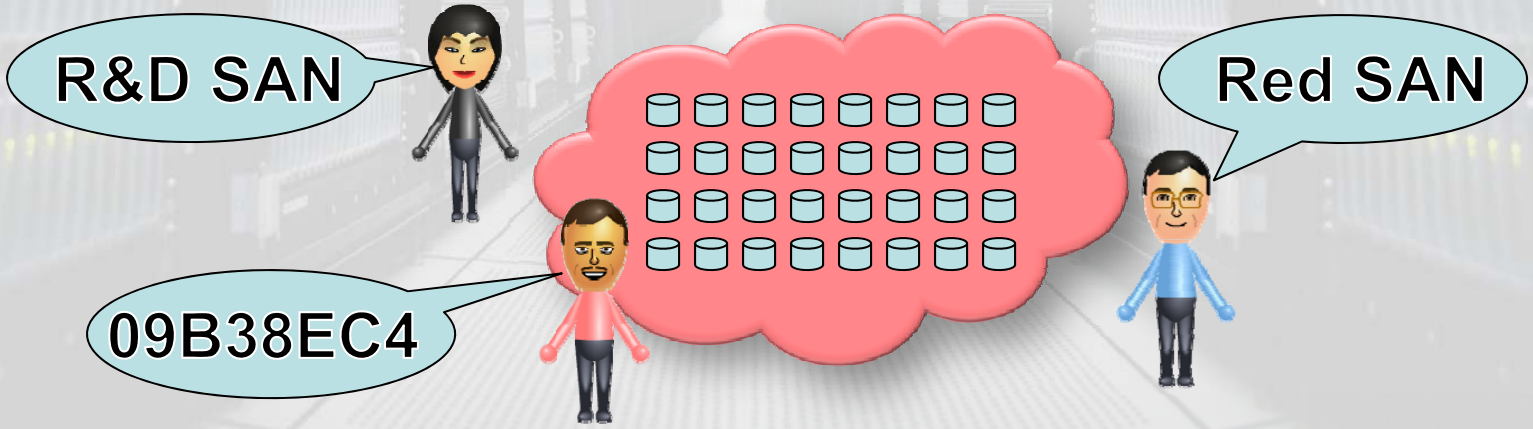
Naming

Name properties

- Descriptive
- Definitive
- Stable

Choose a name authority



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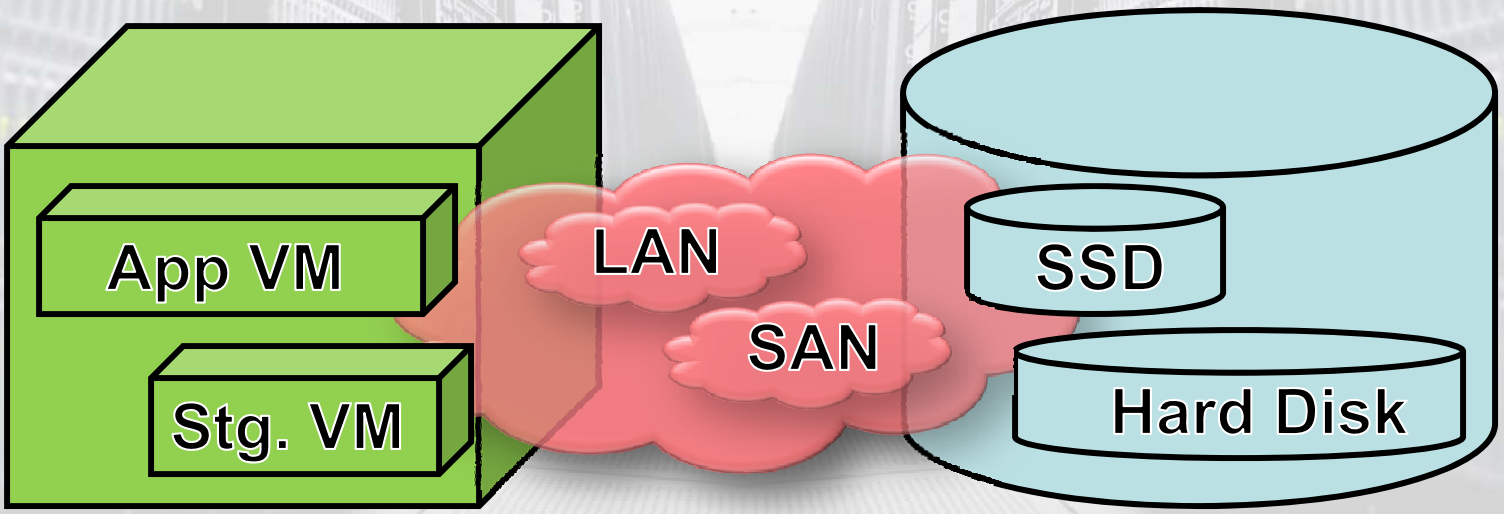
Advanced Sharing

Use coarse grain pools to create classes of service

Use fine grain virtualization to deploy services across pools



Servers Network Storage

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Checklist

Requirement	Action
Plan system wide	Create a Storage Architect role
Simplify choices	Use application type names
Extend security	Create a credential bridge
Maintain control	Automate using goals, templates
Manage in real time	Send goals downward
Detect change	Monitor health, utilization
Share resources	Create classes of service

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