IO and Fabric Virtualization

Unified Fabric Provisioning & Automation

Tour de Voltaire
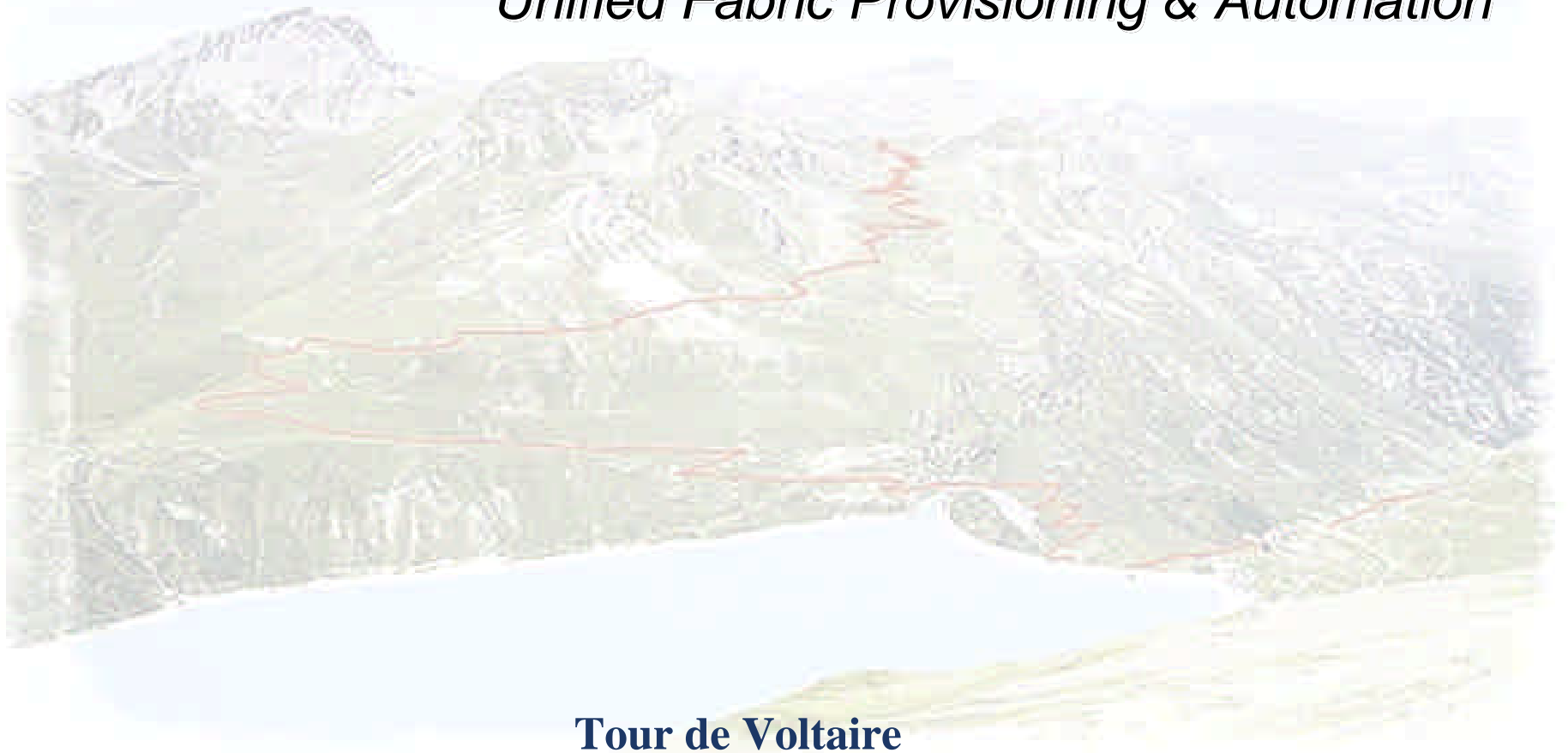
Unified & Automated Server Fabric:
The Missing Link in Next Gen Data Center

	Consolidate	Virtualize	Automate
	manage fewer elements	Carve to smaller / sizable elements	Migrate, Provision, Adapt
Compute	Multi-Core, Clustering	Intel VT, VMWare, Xen	VMotion, Opsware
Fabric	Today: Multiple adapters and switches, high power physical handling, Complexity, NO automation		
Storage	RAID, Clustering	Volume Management	Snapshots, Backups, ILM

Unified Fabrics Enable consolidation, virtualization and automation of the Data Center

Unified Server Fabric

Also known as "unified fabric" or "converged fabrics" or "fabric consolidation"

- ## Single, High Performance Fabric
  - Consolidate Server, storage, management
  - Infinitely scalable, programmable
  - One physical wire to each device, multiple logical connections

- ## Efficiently Integrated with Applications
  - Focus on maximizing end to end application performance
  - Seamless Integration with key applications
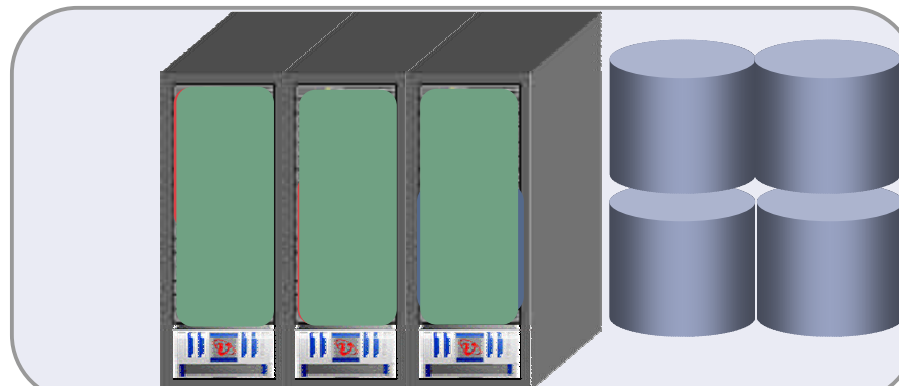
- ## Highly Automated Fabric Management
  - Complete fabric virtualization and automation
  - Mapping Service Oriented requirements to Infrastructure (SOI)

Partition / Virtualize to Meet Application Needs

Infrastructure Services
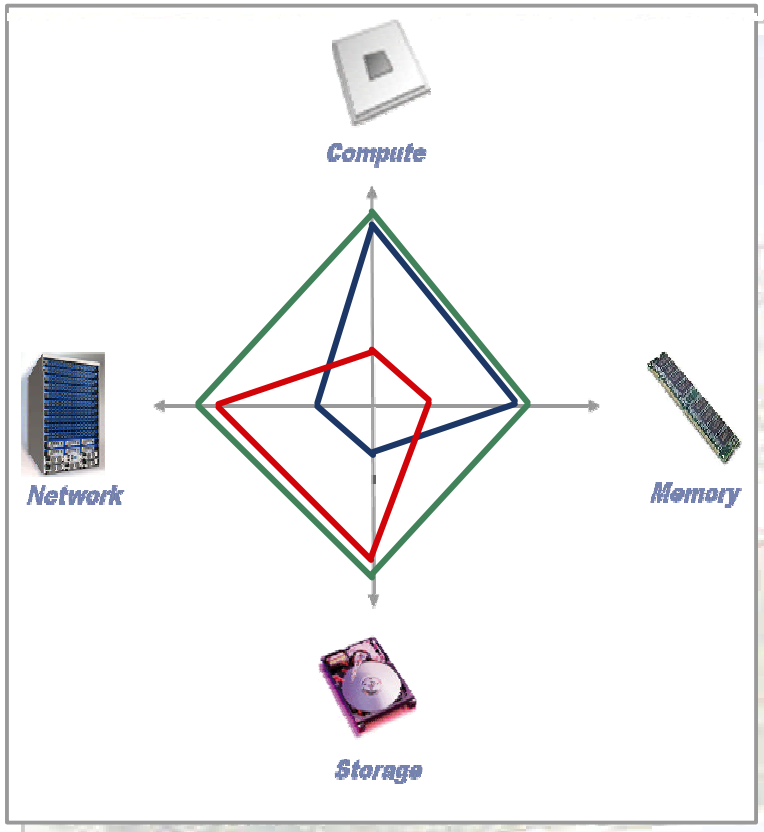
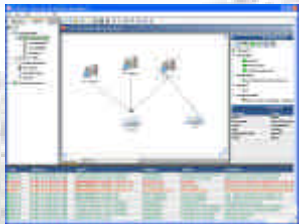*Physical Infrastructure*

Logical Infrastructure

Applications requirements dynamically map to infrastructure

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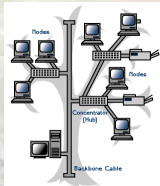# Automation - Simplify Deployment and Maintenance

1. Auto discover server, storage, and fabric resources

2. Document Application Requirements

3. Allocate, Partition, and Configure Application Resources

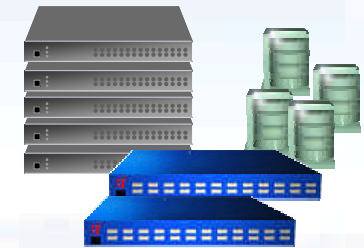**4. Connect According To Application Layout and Preferences**

5. Initiate, Verify services and Infrastructure
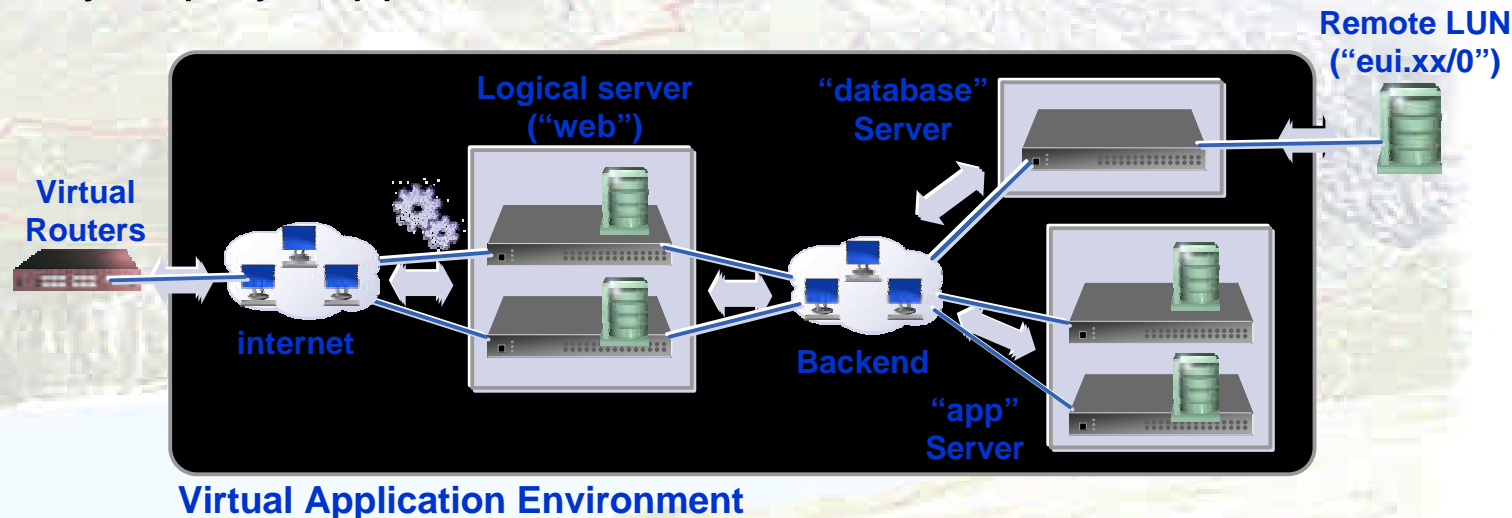
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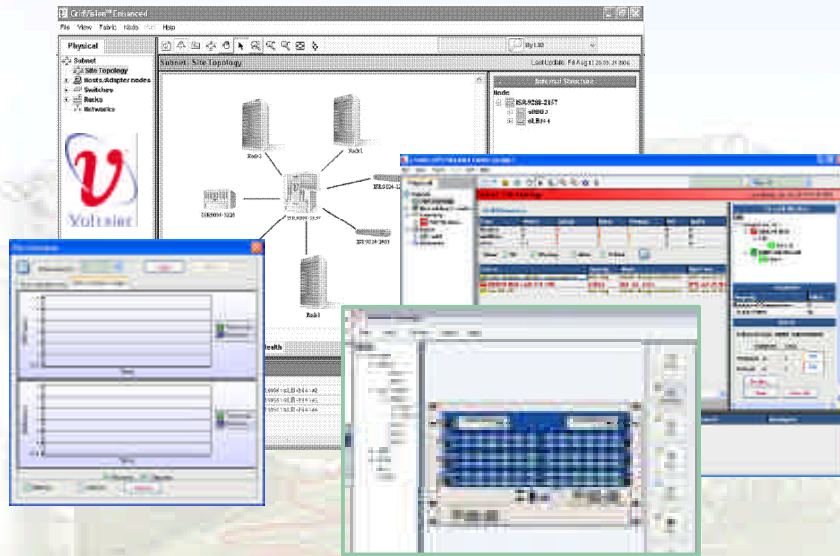
Unified Fabric Provisioning

1. GUI definition of application computing needs (type & number of servers)

2. Provisions Compute, Storage and Networking resources to create an application environment (Virtual Cluster)

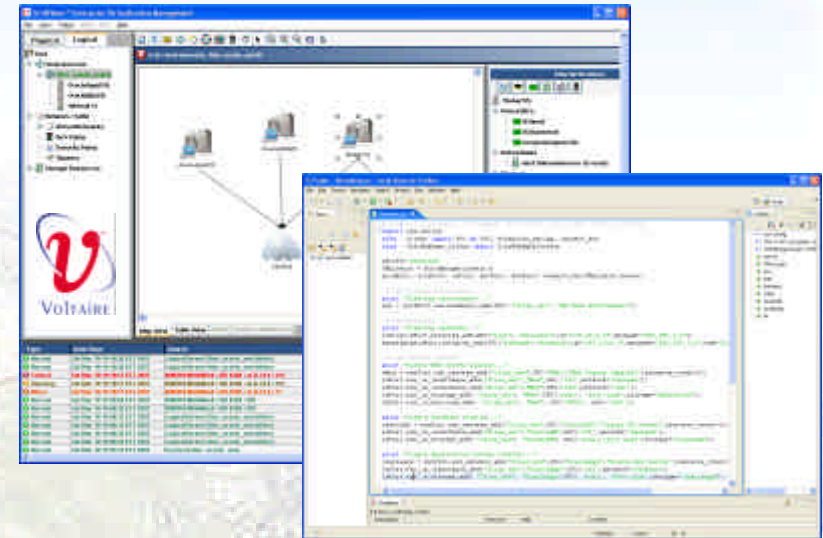3. Dynamically deploys application environments

Unassigned resources pool

Remote LUN ("eui.xx/0")

Logical server ("web")

"database" Server

Virtual Routers

internet

Backend

"app" Server

Virtual Application Environment

GridVision™ Unified Fabric Management

Element management, Monitoring, Health

Provisioning, Virtualization & Automation