

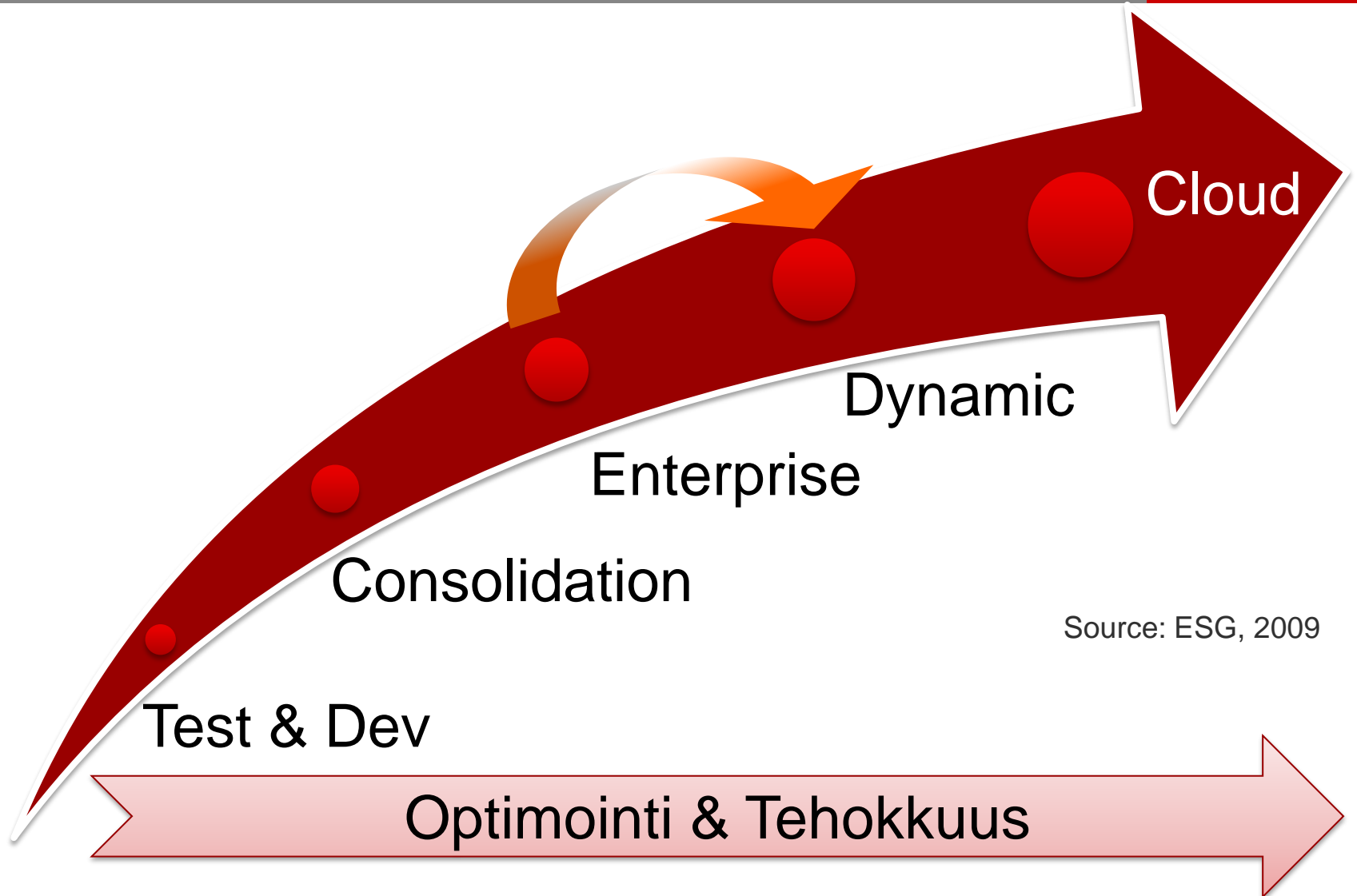
Hitachin tallennusratkaisut VMware -ympäristössä.

Economize. Virtualize. Protect.

Miten turvata konsolidoidun ja
virtualisoidun ympäristön käytettävyys.

ari.heinio@hds.com

Storage Architect



Source: ESG, 2009

Virtuaalipalvelimet
SATA -levyllä



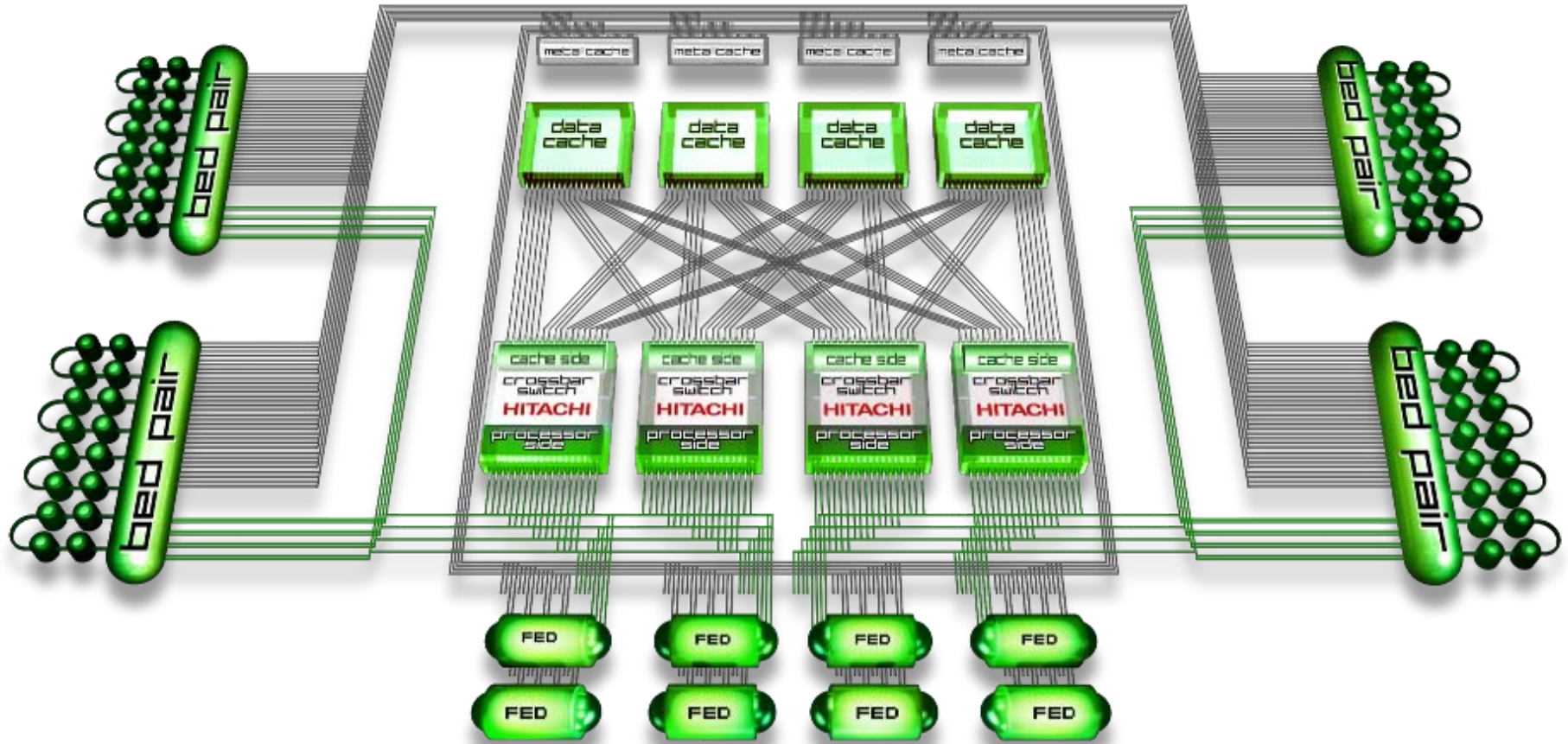
Kahdennus
kuormantasauksella





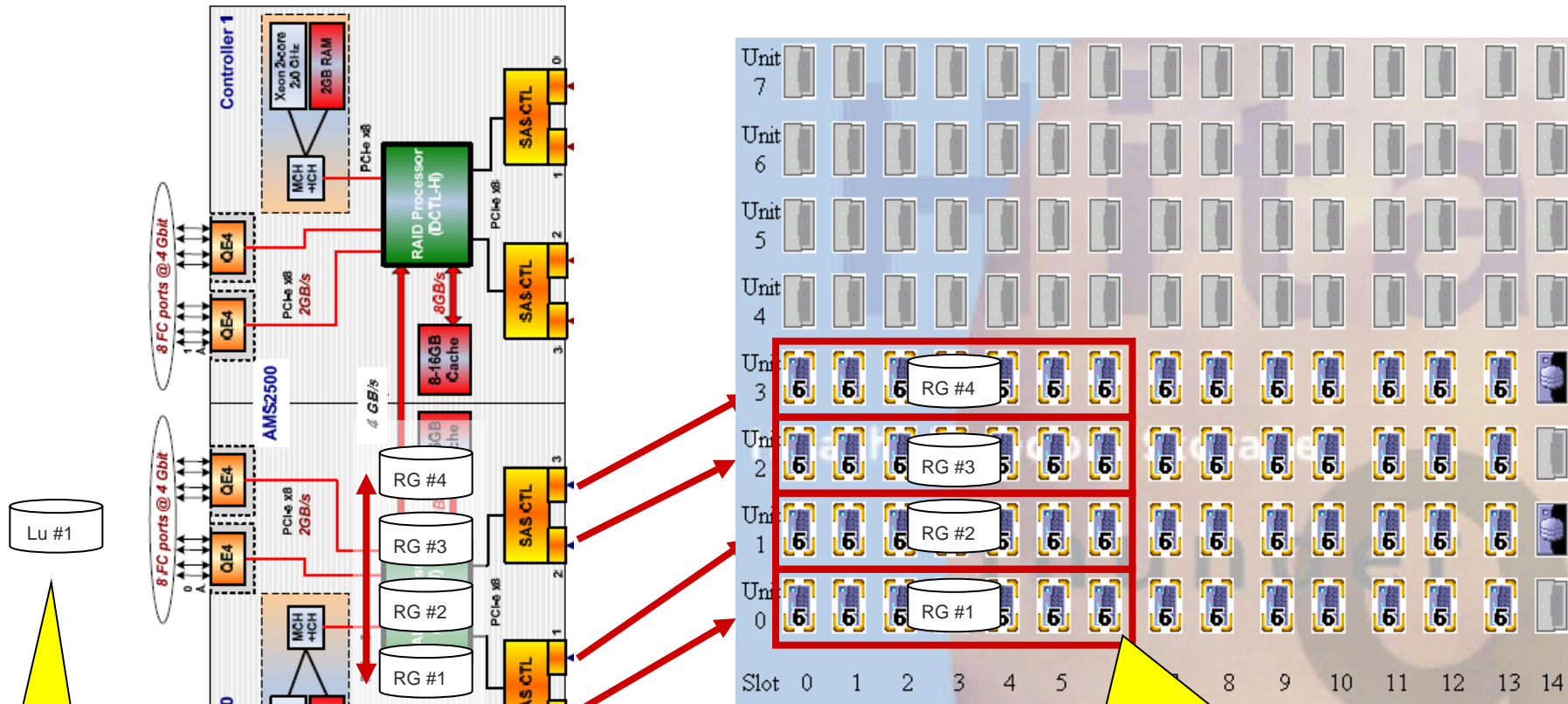
- Markkinoiden paras hinta/suorituskyky
- Oikeat ominaisuudet – optimoitu VMware:lle
- Koetut peilausjärjestelmät
- Äärimmäisen luotettava

Hitachi USP V skaalautuva arkkitehtuuri



Konfiguroinnin osaaminen on avain tehoon

Esimerkki: AMS2500 and HDP

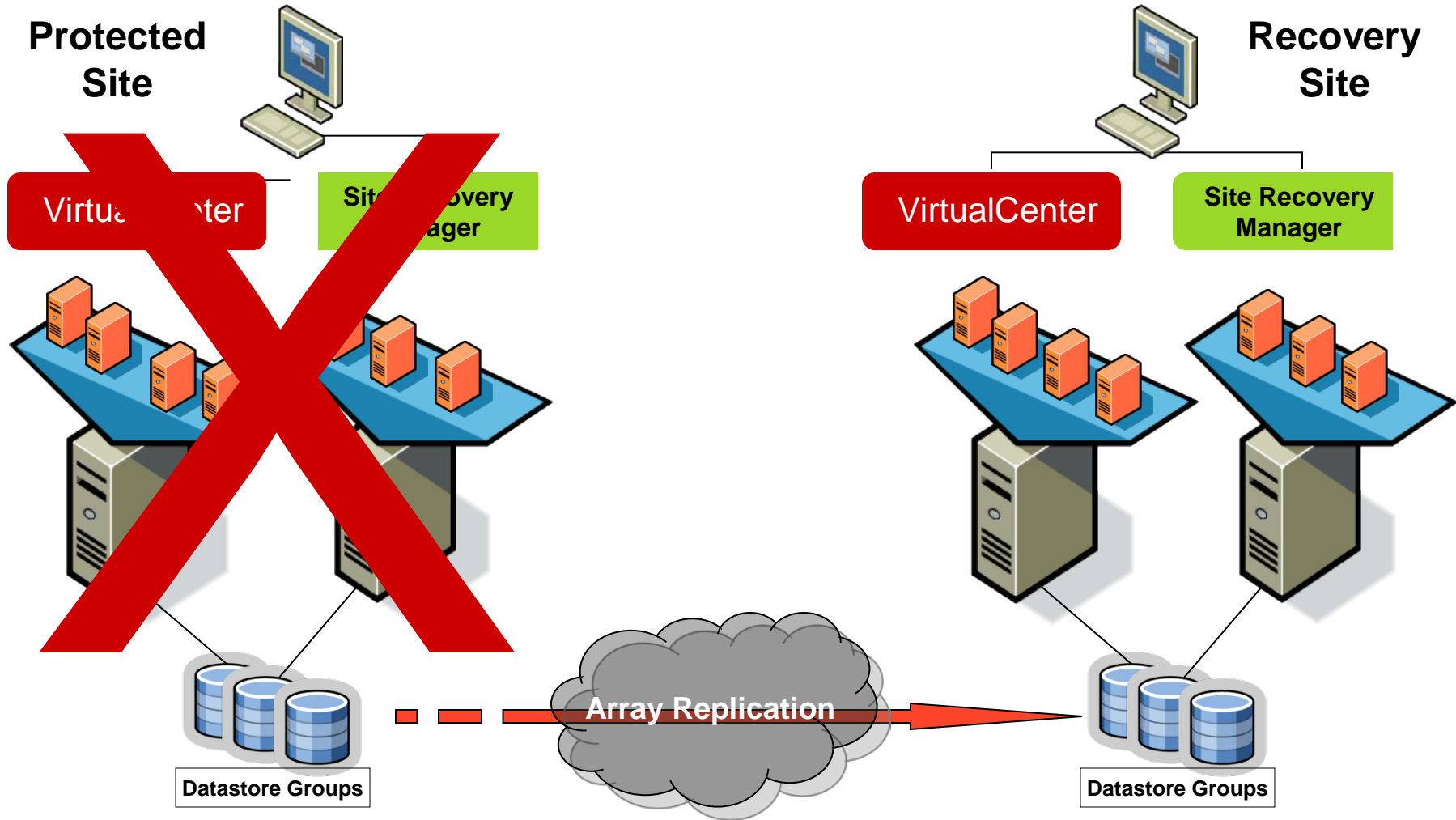


Best performance for a single Lun

HDP Pool

All SAS Ports are equally balanced

RG in one tray
6D+1P (7 disks) is the magic number
(or sensible variations)



Duplicate data volumes maintained by
Hitachi Replication Solutions

Hitachi Hardware

Hitachi Adaptable Modular Storage family
Hitachi Universal Storage Platform family

Hitachi Software

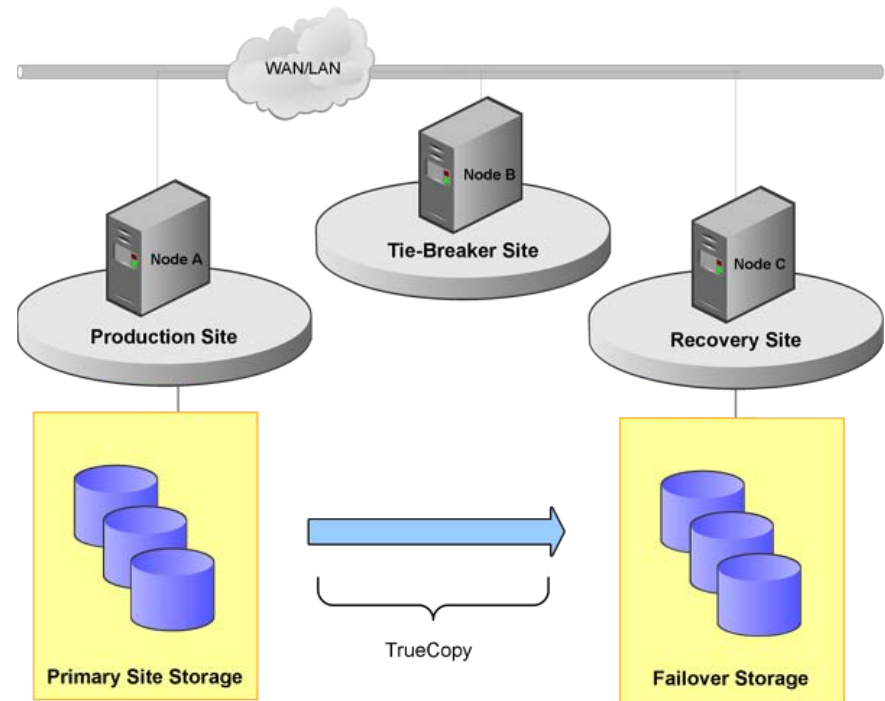
Hitachi TrueCopy
Hitachi Universal Replicator
Hitachi TrueCopy Extended
Distance

Brocade or Cisco Network Infrastructure

Hitachi Storage Replication Adapter 2

VMware vCenter/Site Recovery Manager

- Hitachi Storage Cluster for Microsoft Windows is a disaster recovery solution
- Using Hitachi TrueCopy™ Remote Replication software, Hitachi Storage Cluster “cluster-enables” distance-replicated disk resources
- Hitachi Storage Cluster maintains a real-time disk replica at the recovery site: clusters can fail to a remote location and pick up processing on an exact duplicate of production disks
- Hitachi Storage Cluster manages cluster replication resources to ensure that the replication traffic is moving in the proper direction and that recovery nodes have appropriate access to the cluster’s disk resources
 - Moves recovery nodes out of the production data center
 - Enables real-time recovery of critical applications across widely separated geographic locations

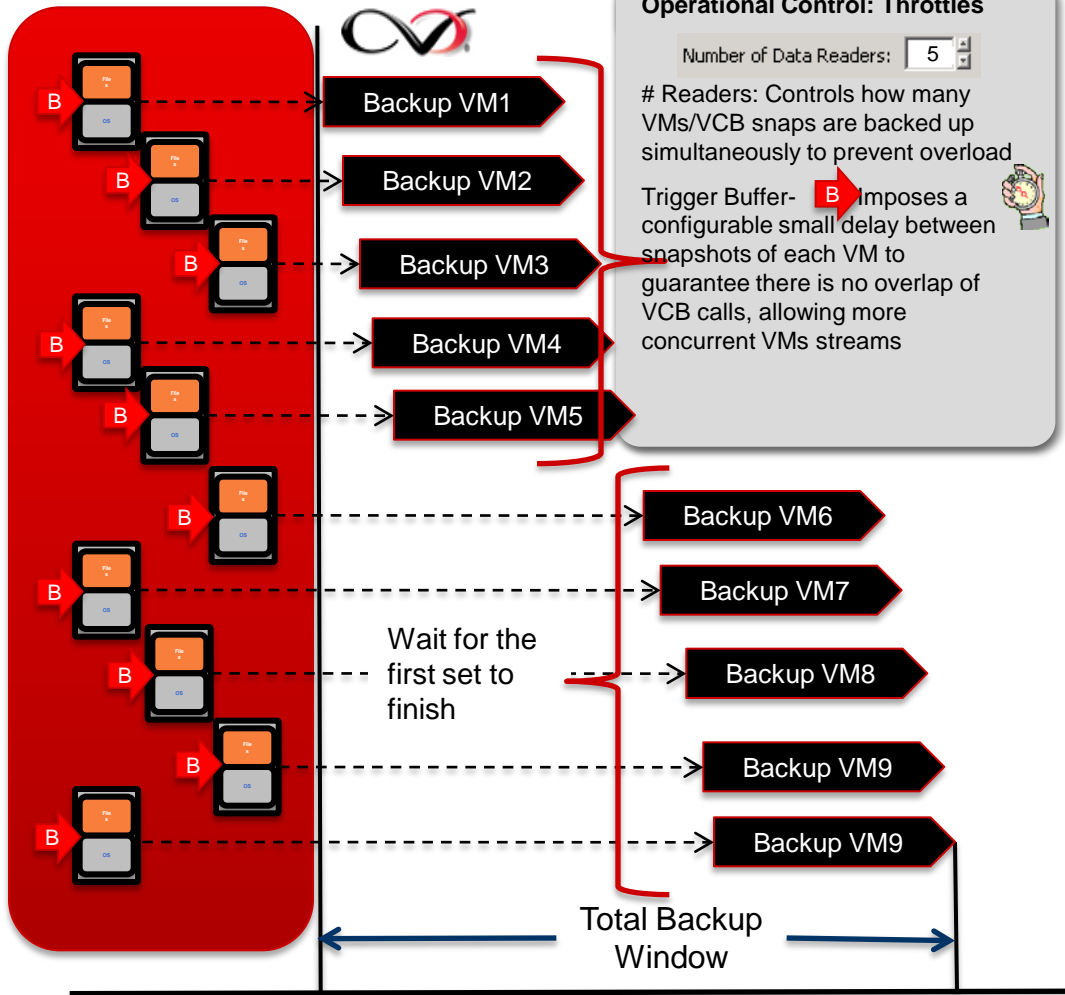


Varmistuskiertojen keskitetty hallinta

Varmistusikkunan hallinta, ylikuorman esto, hallintatyön minimointi

Single Sub-client

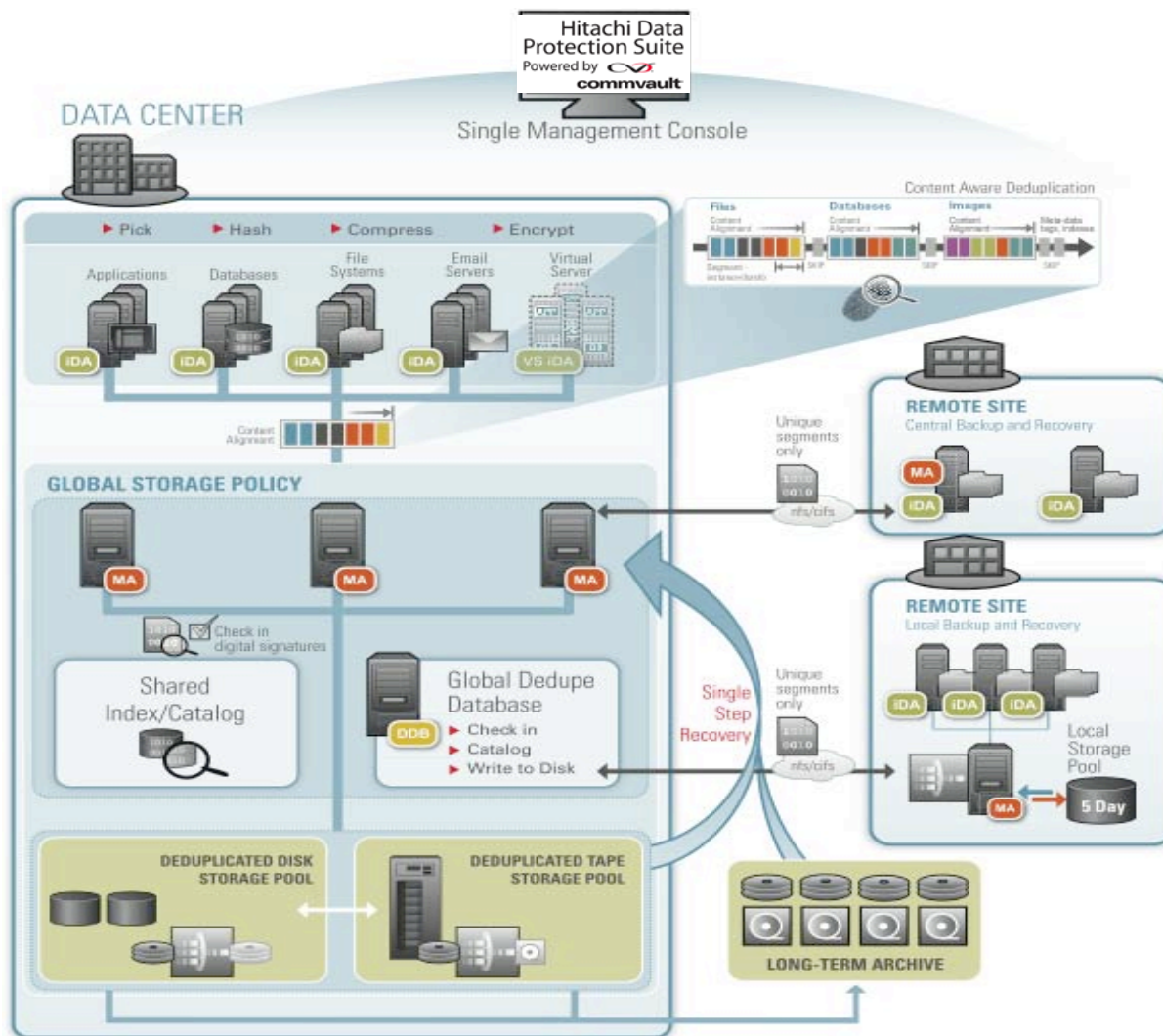
Auto-disc VM, Throttle = 5 streams



HDPS Delivers:

- ▶ Minimal Administration
- ▶ Lower Risk through Simplified Policy Control
- ▶ Operational Assurances
- ▶ Shorter Backup Windows

Iso kuva – Optimoi tallennus ja verkkoliikenne: Helppoa(ko)



Challenges:

- ▶ Data growth
- ▶ Sprawling virtual environments
- ▶ Increase storage and network utilization
- ▶ Raising costs

Solutions:

- ▶ Consolidate to Hitachi Adaptable Modular Storage system
- ▶ Archive to Adaptable Modular Storage system or the Hitachi Content Archive Platform
- ▶ Transfer and store only changed data
- ▶ Eliminate redundant backups/archives
- ▶ De-dupe data across disk and tape

Benefits:

- ▶ Manage and retain more data with less storage and resources
- ▶ Eliminate redundant data in physical and virtual environments
- ▶ Move stale data to less expensive modular storage
- ▶ Reduce storage cost and footprint

Sales and Marketing

- [Ensuring Data Availability, Performance and Ease of Management in Storage Deployments for VMware Virtual Infrastructure Environments](#)
- [Hitachi Data Systems Replication Solutions for VMware Site Recovery Manager](#)

Coming Soon: (will be posted on hds.com/go/vmware)

- Hitachi Disaster Recovery Solutions for VMware: Optimizing Disaster Recovery, Enabling Choice
- Hitachi Data Protection Solutions for VMware: Advanced Data Protection
- Hitachi Adaptable Modular Storage and VMware: Efficiency and Performance Maximized
- ESG Analyst White Paper: Optimizing Operational Efficiency and Resiliency in VMware Environments with Hitachi Data Systems Solutions

Technical

- [Hitachi and Brocade Disaster Recovery Solutions for VMware Environments](#)
- [VMware vCenter Site Recovery Manager Deployment Guide](#)
- [Hitachi Universal Storage Platform™ VM Best Practices for VMware Virtual Infrastructure](#)
- [Hitachi Adaptable Modular Storage 2000 Family Best Practices for VMware Virtual Infrastructure](#)
- [Hitachi HiCommand and VMware Deployment Guide](#)
- [Recommendations for VMware Multipathing with the Hitachi Adaptable Modular Storage 2000 Family](#)
- [Hitachi HiCommand Deployment with VMware](#)

Videos & Webcasts

- Webcast: [Deploying High Availability and Disaster Recovery in Virtualized Environments for Maximum Business Benefit](#)
- Economize. Virtualize. Protect. VMware video (coming soon)

Kiitos