

connect
OPENVMS
Boot Camp 2011

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Sheraton Hotel – Needham, MA

Emulating a shared storage cluster

Session A100

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Disclaimer

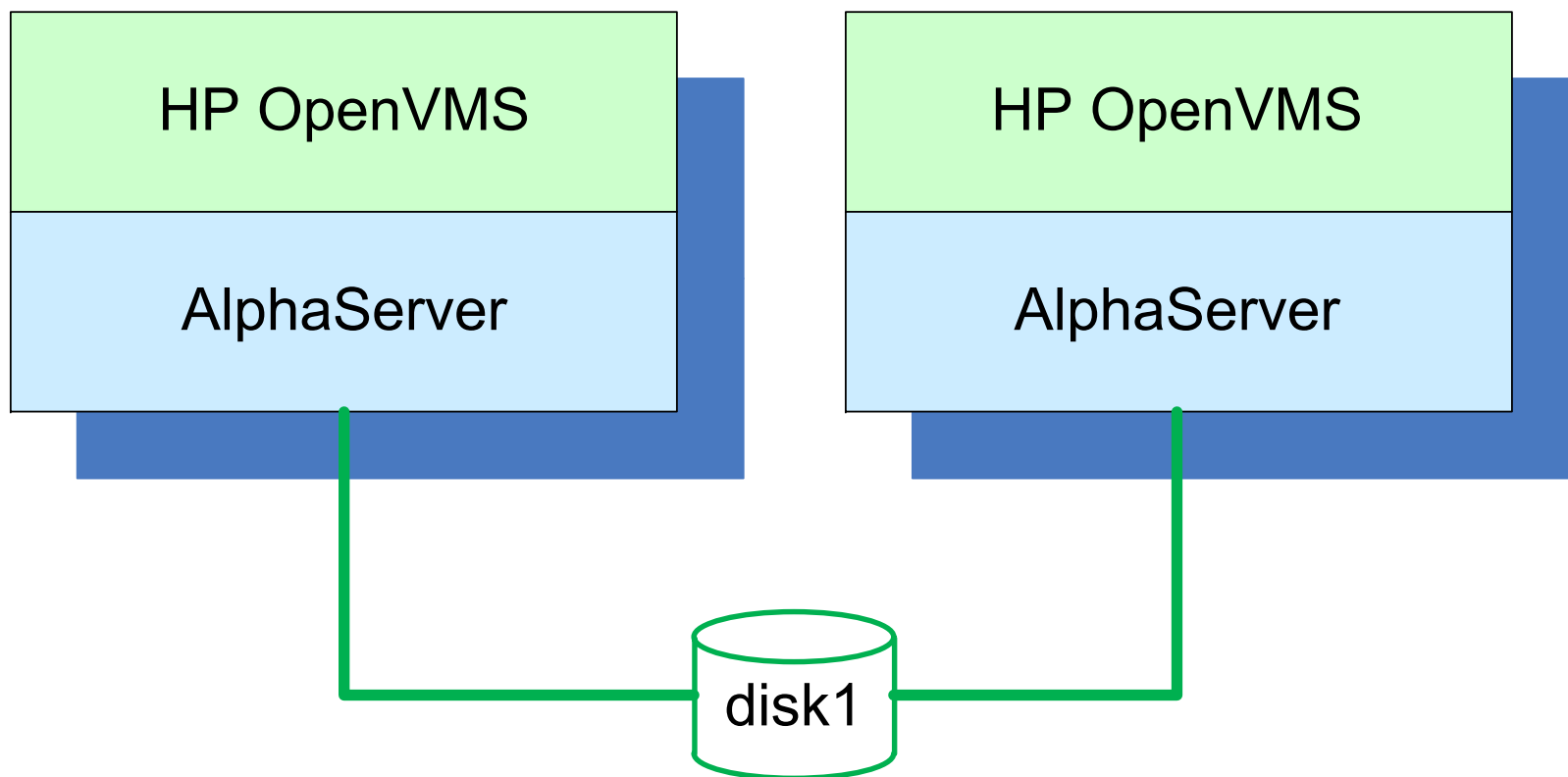
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Session Overview

- Introduction
- Real hardware
- Emulating it (MSA500)
- Scaling up (Fibrechannel SAN)
- Flexibility (iSCSI SAN)

Introduction

Shared Storage for Clusters

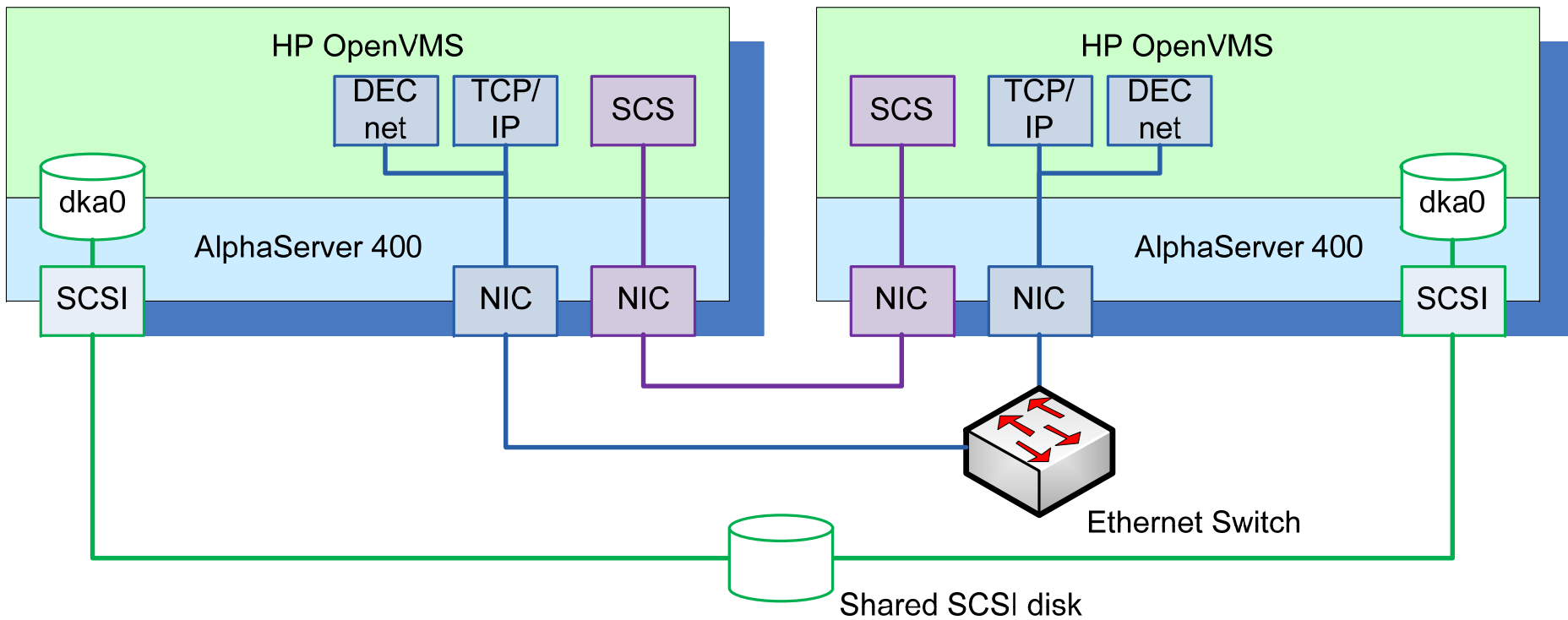


Shared Storage options for Clusters

- Shared DSSI bus (RF, EF, HSD, DECarray)
- Shared SCSI bus (RZ, HSZ)
- CI (HSC, HSJ)
- Fibre Channel (HSG, HSV)

Real hardware

Shared SCSI Bus

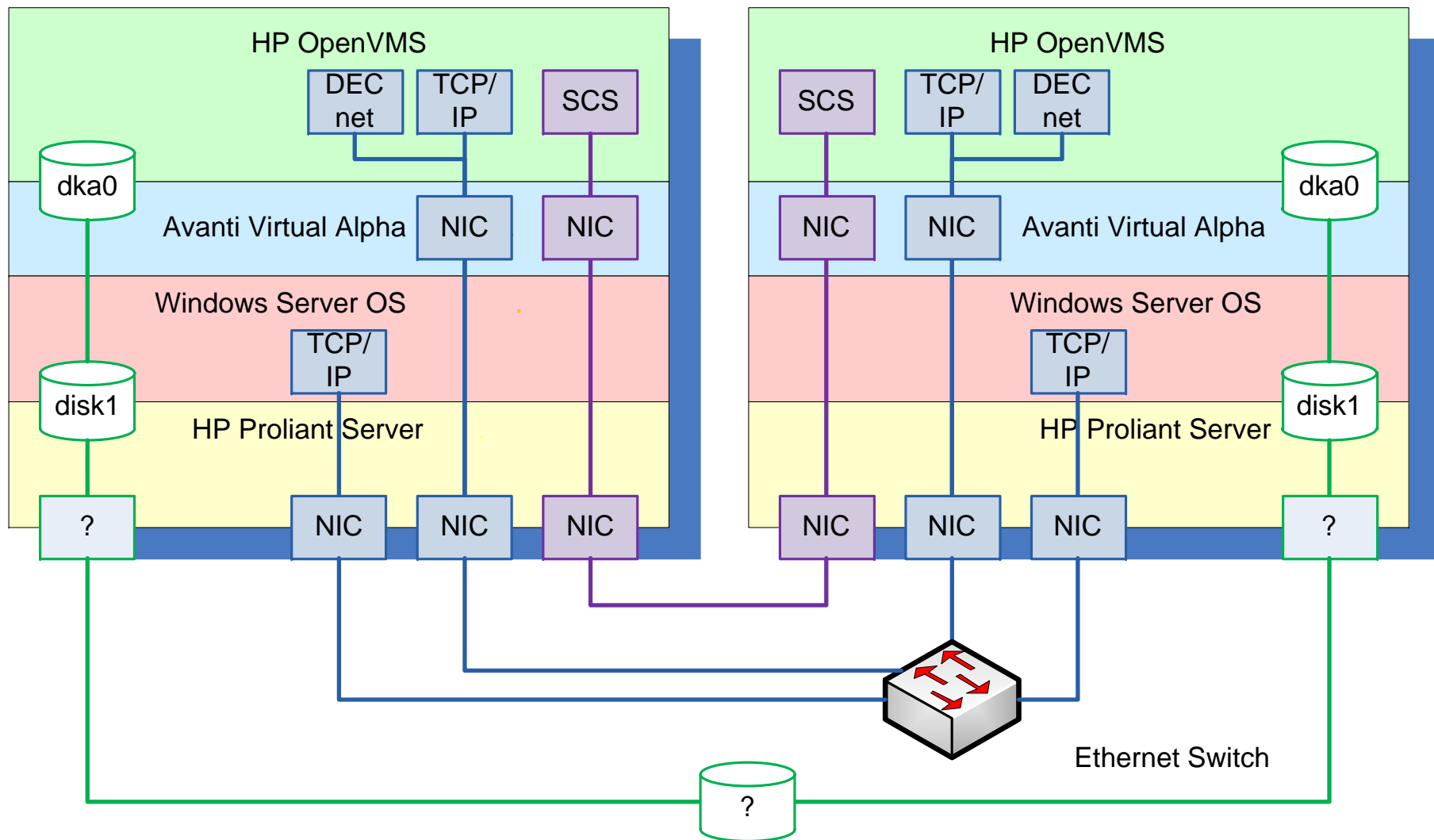


“Real” Shared SCSI Bus Shortcomings

- Hard to support more than 2-3 nodes
- Limited physical distance (HVD: 25m)
- SPOF's (bus, cabinet, disk)
 - Can be remedied with HBVS
- Limited capacity

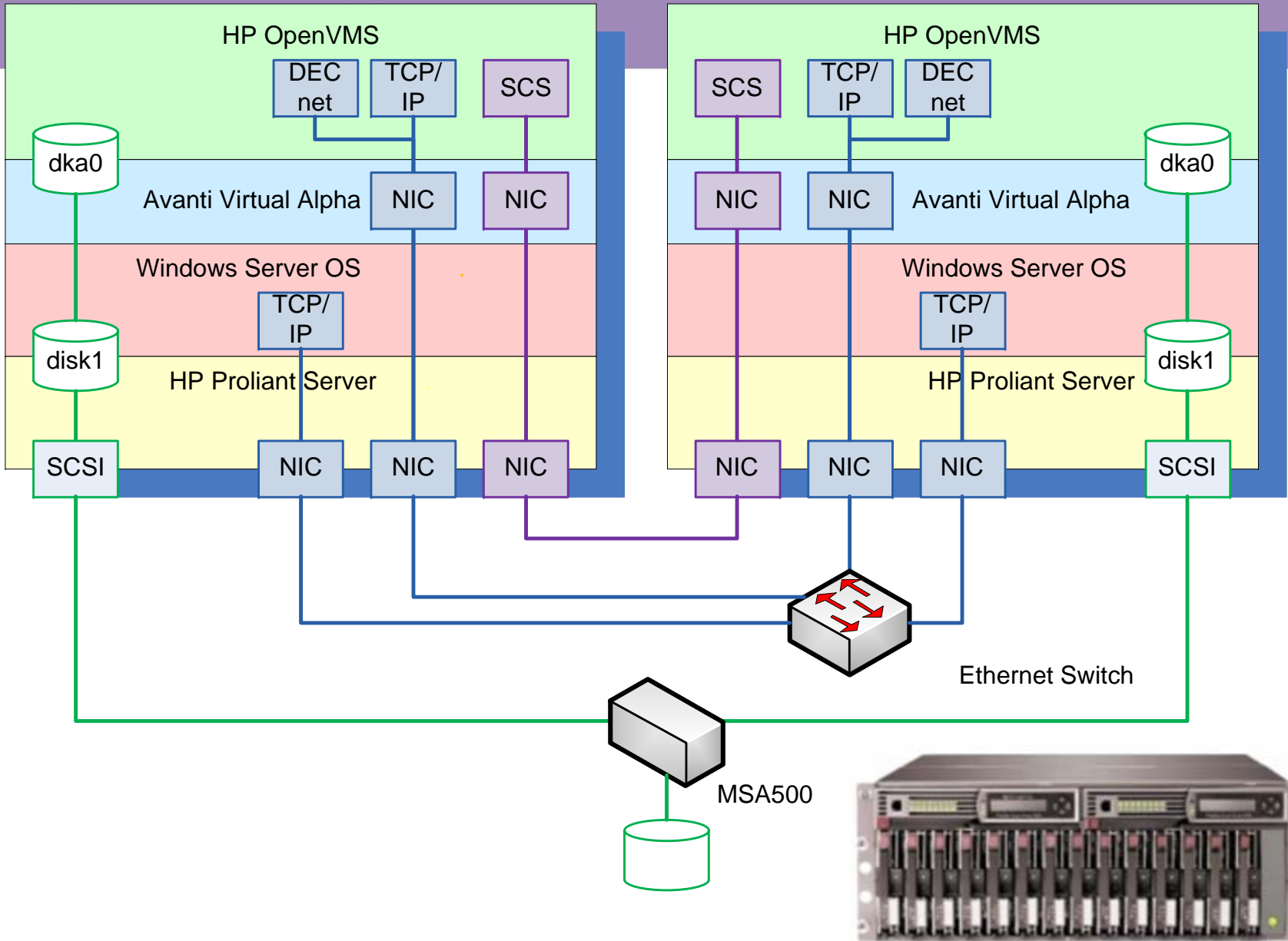
Emulated hardware

Emulated solution



connect OPENVMS

Using an MSA500 (or HSZ)

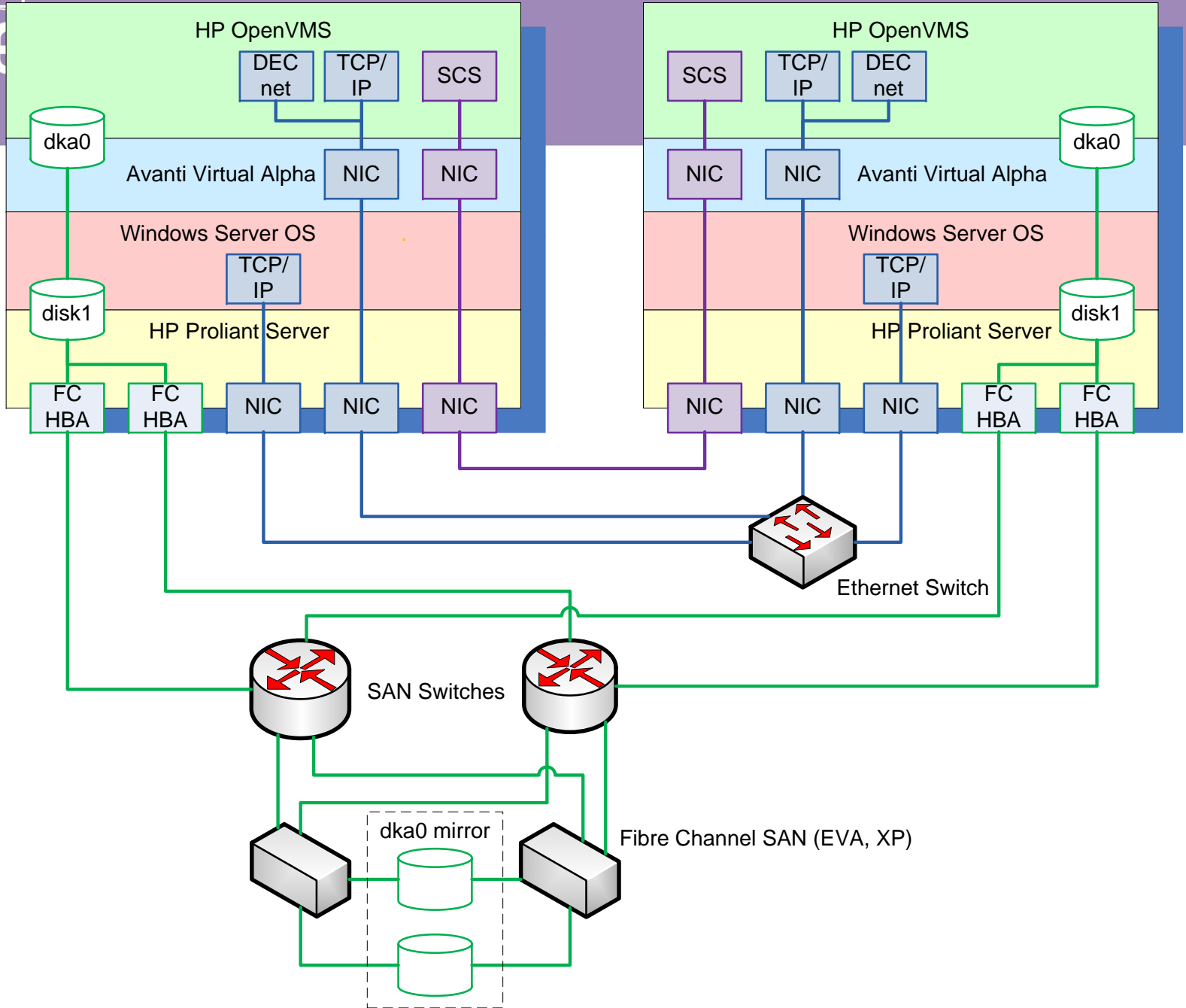


SCSI (MSA500) Solution

- MSA500 serves disks to two Windows servers
- Very similar properties to original configuration

Using fibrechannel

Using fibrechannel



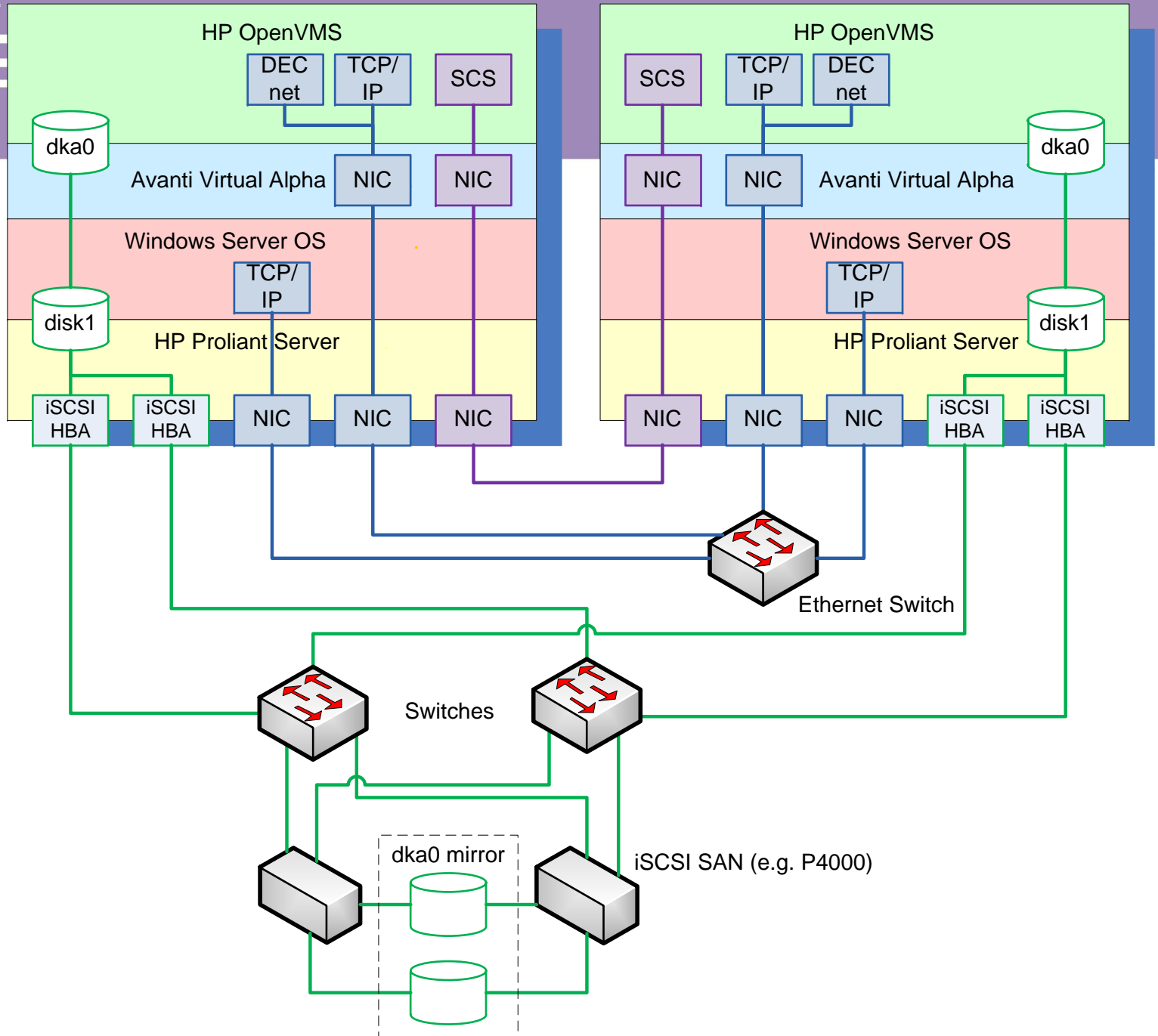
Fibrechannel Solution

- Good Reliability
- High Performance
- Common infrastructure in many existing environments
- Expensive

Using iSCSI

iSCSI Solutions

- Choice !
- Single fabric / dual fabric ?
- Dedicated iSCSI network / shared with regular TCP/IP network ?
- Special iSCSI HBA's / Regular NICs ?
- Special iSCSI switches / Ethernet switches ?
- Hardware / Software iSCSI targets ?
- Expensive / Cheap ?



Using iSCSI

Cheap iSCSI

