

Local Storage, Network Storage, and Backups

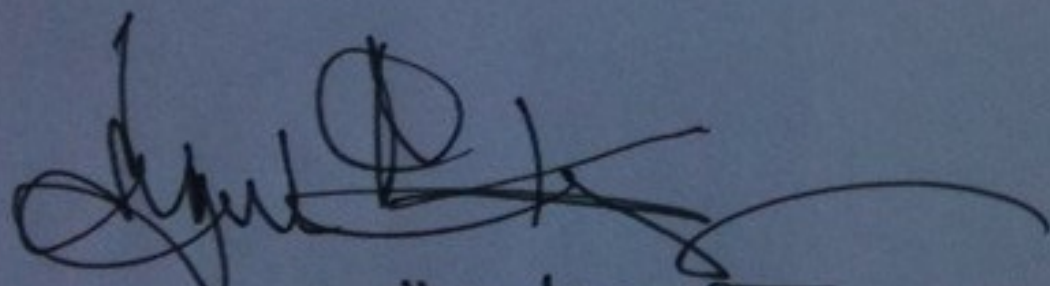
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To Sena —

"Failure is not
An Option!"


"White" Flight



Let's start with priorities...

	Urgent	Not Urgent
Important	I <ul style="list-style-type: none">• Crises• Pressing problems• Deadline-driven projects, meetings, preparations• Immediately productive activities	II <ul style="list-style-type: none">• Preparation• Prevention• Developing Mission• Planning• Relationship building• True re-creation• Empowerment
Not Important	<ul style="list-style-type: none">• Interruptions, some phone calls• Some mail, some reports• Some meetings• Many proximate, pressing matters• Many popular activities III	<ul style="list-style-type: none">• Trivia, busywork• Junk mail• Some phone calls• Time wasters• "Escape" activities IV

'Quadrants', from *First Things First* (Stephen Covey)

Outline

- Local Storage
- Network Storage
- What's Coming Next?
- Backups (You have them, right?)

Local Storage: Classic approach

- Internal boot and storage. i.e. Mac Pro Server.
 - Big
 - Expensive
 - Powerful
 - Limited Storage (limited to 4 internal drives and RAID card)

Local Storage: modern approach

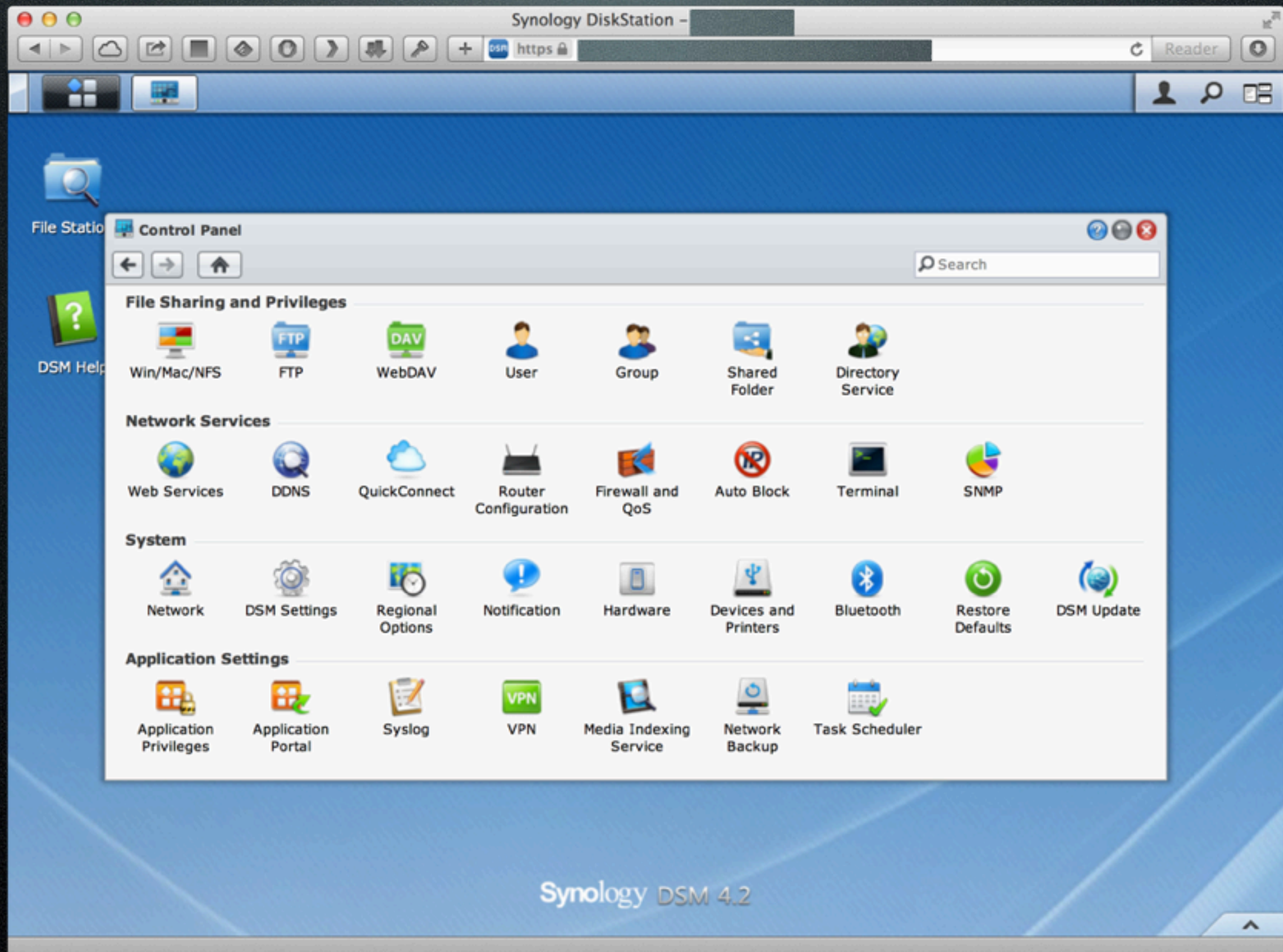
- Internal boot and external storage. i.e. Mac Mini + external RAID.
 - Fast Storage with Thunderbolt
 - Potentially Underpowered
 - External Connections
 - Difficult to replace hard drives
 - Limited Internal Storage (2 internal drives)
 - Potentially slow network connection

Network Storage

- Network Storage appliance NAS/SAN
 - NAS - Network Attached Storage
 - SAN - Storage Attached Network
- Some products are both.
- Network limitations - single network port, link aggregation.
- Might not be appropriate solution.

NAS

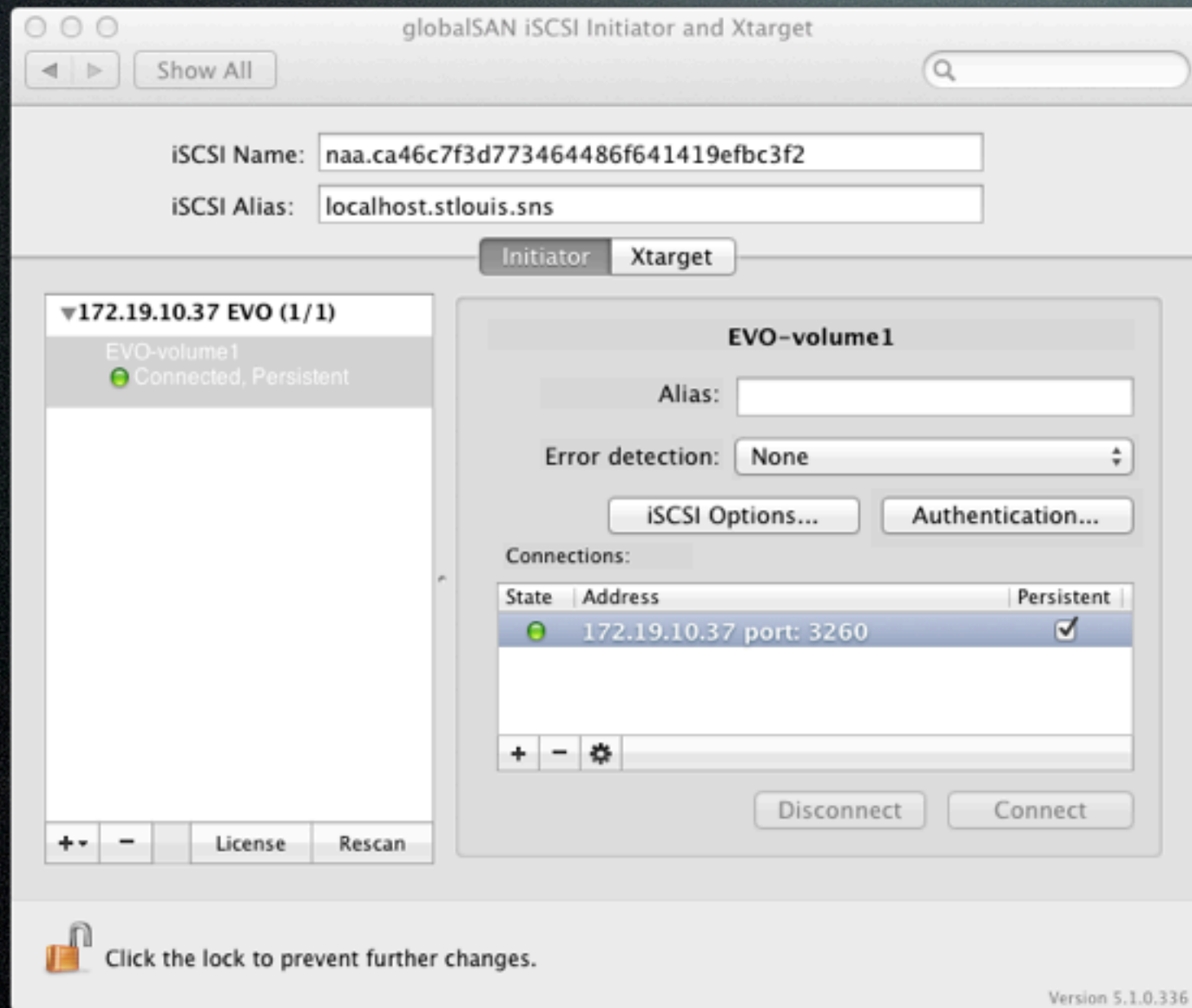
- File based network storage - it is a server.
- Can be bound to AD/OD
- Web based administration
- Not just storage anymore
- Tons of ways to connect (webdav, mobile apps)



SAN

- Block level based network storage - it is storage FOR a server.
- One large SAN can be shared to multiple servers for storage.
- Web based administration

iSCSI



- Allows you to connect a network volume as if it was local.

What's Coming Next?

- Faster storage:
 - Mac Mini Server HD - 100MBps
 - SATA SSD drive - 550MBps
 - Macbook Air SSD drive - 800MBps
 - Mac Pro SSD Drive - 1.2GBps
- Faster Networking:
 - 1Gbe - 125MBps Duplexed 250MBps
 - 10Gbe - 1.25GBps Duplexed 2.5GBps

Backups

- Constructing a safe and sane backup plan that allows your customers to recover from likely threats to their 'working' data:
 - accidental deletion
 - intentional deletion (mal intent)
 - hardware failure
 - software corruption
 - natural disaster, fire, flood

Backups (cont'd)

- Using unproven third party File Servers, or NAS devices as network Time Machine destinations
- Offering Carbonite, MozyPRO or other Cloud services
- Leveraging CrashPlan PROe/Druva Enterprise offerings.

Backups (cont'd)

- Clone utilities
 - Carbon Copy Cloner
 - SuperDuper
 - Disk Utility
- Using other backup utilities
- The importance of "off-site" storage in a disaster recovery scenario.



First Published: 19:36 IST(29/8/2011)
Last Updated: 19:38 IST(29/8/2011)

Branson loses autobiography in blaze

Airline tycoon Richard Branson has lost his autobiography and 15 years of handwritten notes after his British Virgin Islands house caught fire.

Actress Kate Winslet and 20 other guests were holidaying at the billionaire's home when lightening hit the wooden property and set it ablaze, reports contactmusic.com.

"My office was in the house and I lost everything in it. I'd got a long way into writing my autobiography and it's lost. Fifteen years of handwritten notebooks went and photographs and so on," Branson told Britain's The Sunday Times.

"Running a business, we have a meticulous computer backup system so I'd assumed all that was completely safe. But it turns out the backup was also in the house.

"Everything filed on the computers there in the past few years is lost, both business-related and personal... But these are things. And as long as you have your family and friends around you, they're not that important," he added.

<http://www.hindustantimes.com/StoryPage/Print/739287.aspx>

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The real test

- Regardless of which tools / approaches you suggest to your client, implore them to run (or have you run) fire-drill type restore tests, for both their protection and yours.