

Server / Storage Consolidation Plan

using VMWare and Dell EqualLogic



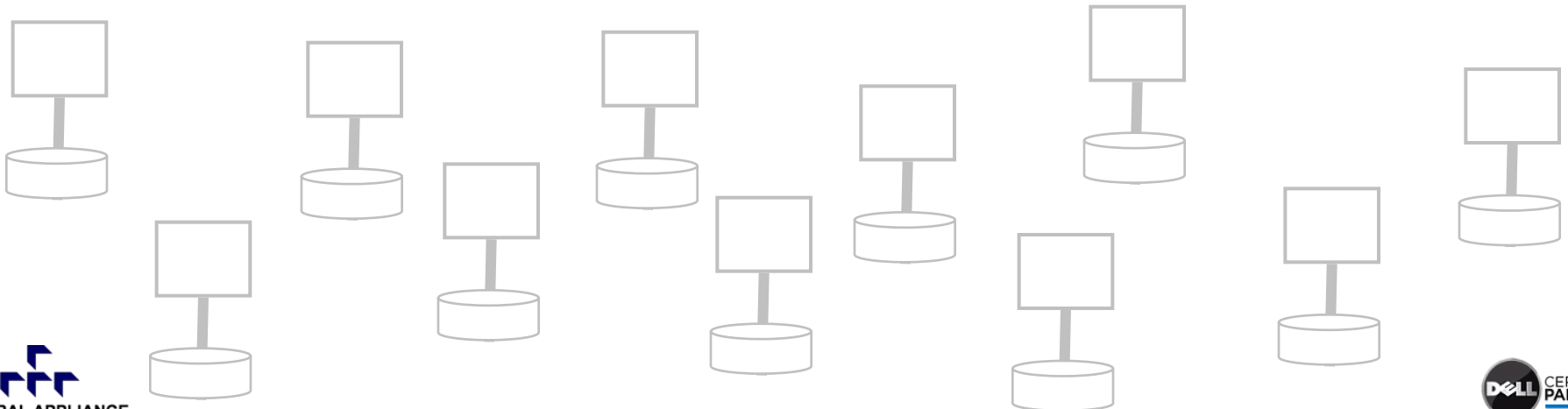
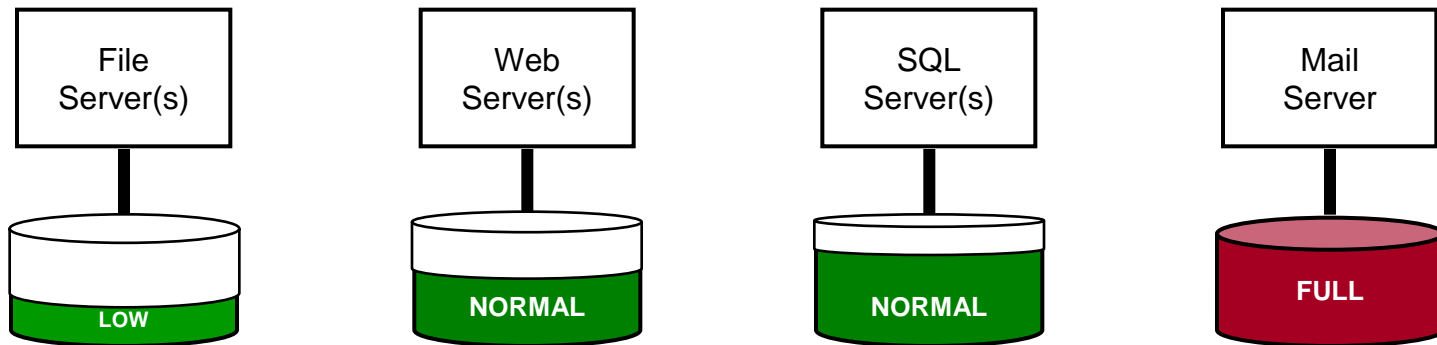
Server / Storage Consolidation Goals

- **Reduce Server/Storage costs**
- **Simplify Scaling**
- **Simplify Management**
- **Eliminate Data Loss**
- **Share Available Space among Servers**
- **Improve Application Availability**
- **Provide Off-Site Disaster Recovery**

Typical issues associated with physical systems

Servers with Directly Attached Storage (DAS) create management issues

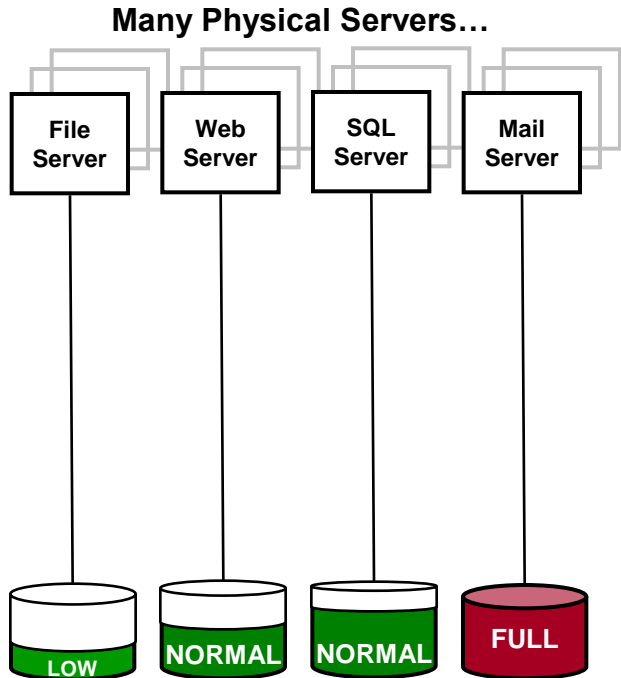
- Expensive to buy and maintain
- Hard to Scale
- Complex to manage
- **“Out of Space”** problems, no sharing



Possible Solution using VMWare with Dell, BUT...

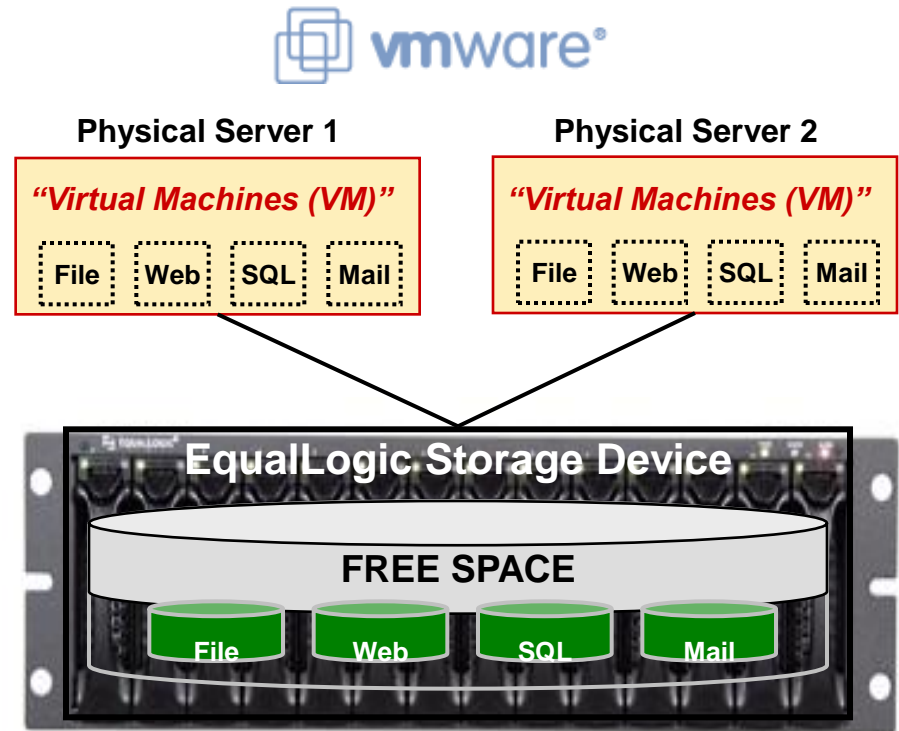
PROBLEM

- Expensive to buy and maintain
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SOLUTION

- Inexpensive to buy and operate
- Unlimited Scalability
- Simpler to manage
- Virtual storage where needed



Virtual Storage

How do we migrate without disrupting applications?



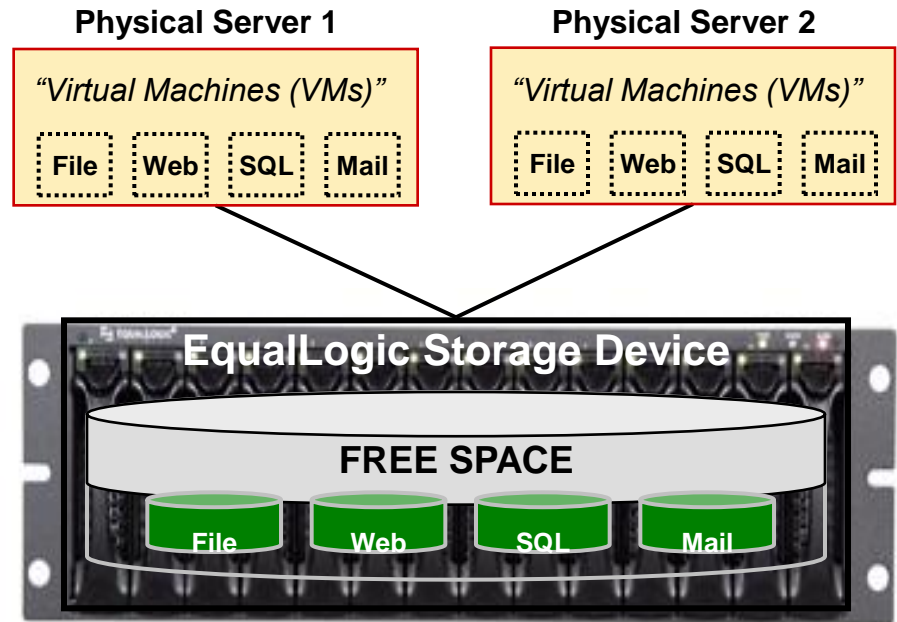
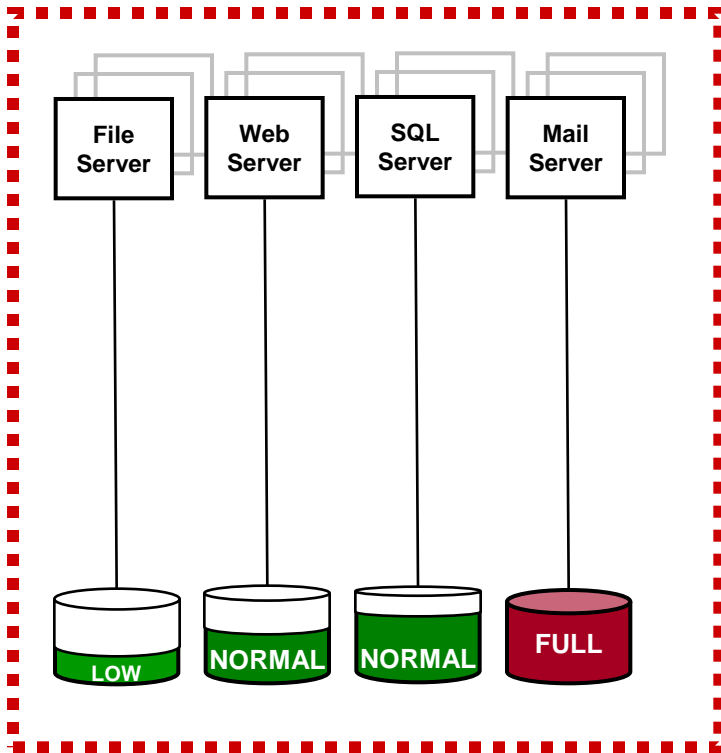
PROBLEM



SOLUTION

No Disruptions allowed !

PRODUCTION APPs



Virtual Storage

Non-disruptive Plan Overview

PROBLEM



SOLUTION

4 Step Plan

1) Consolidate Storage

2) Implement/TEST new VMWare environment

3) Activate VMWare in production

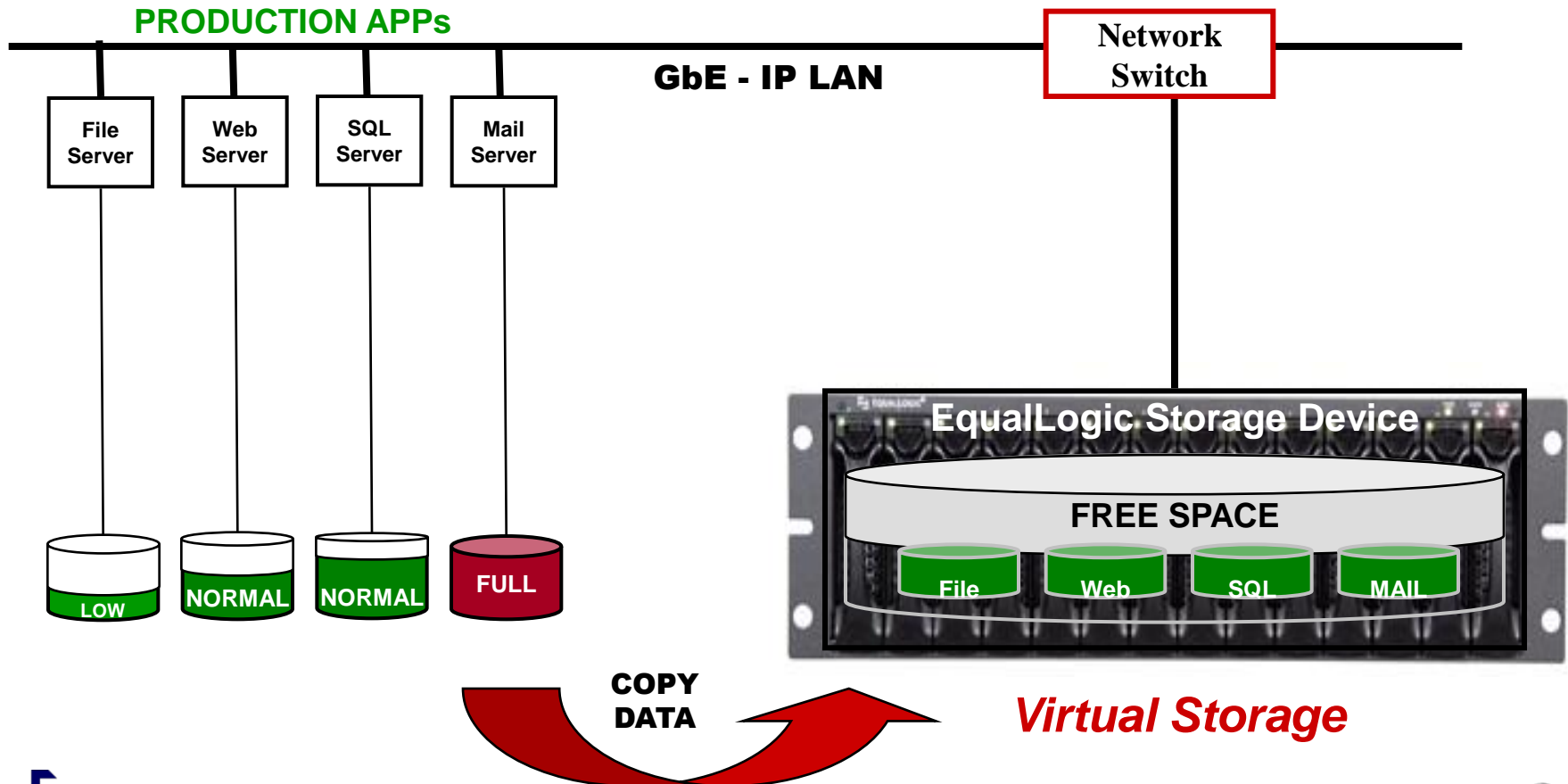
4) (optional) Implement Off-Site Replication

No Disruptions !

 **EQUALLOGIC®**
Virtual Storage

Step 1 – Consolidate Storage

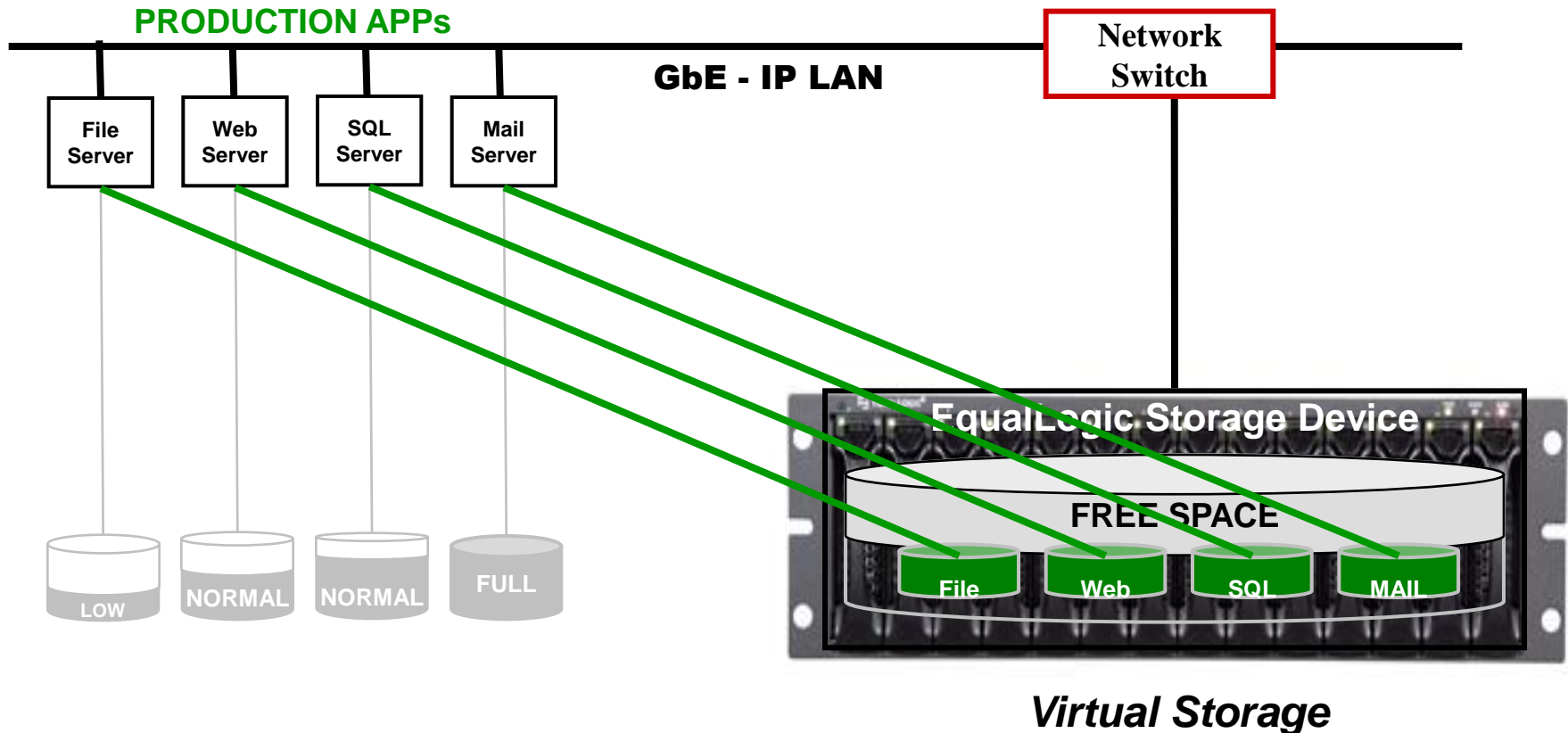
Connect Dell EqualLogic box to switch and copy/mirror volumes



Step 1 Complete

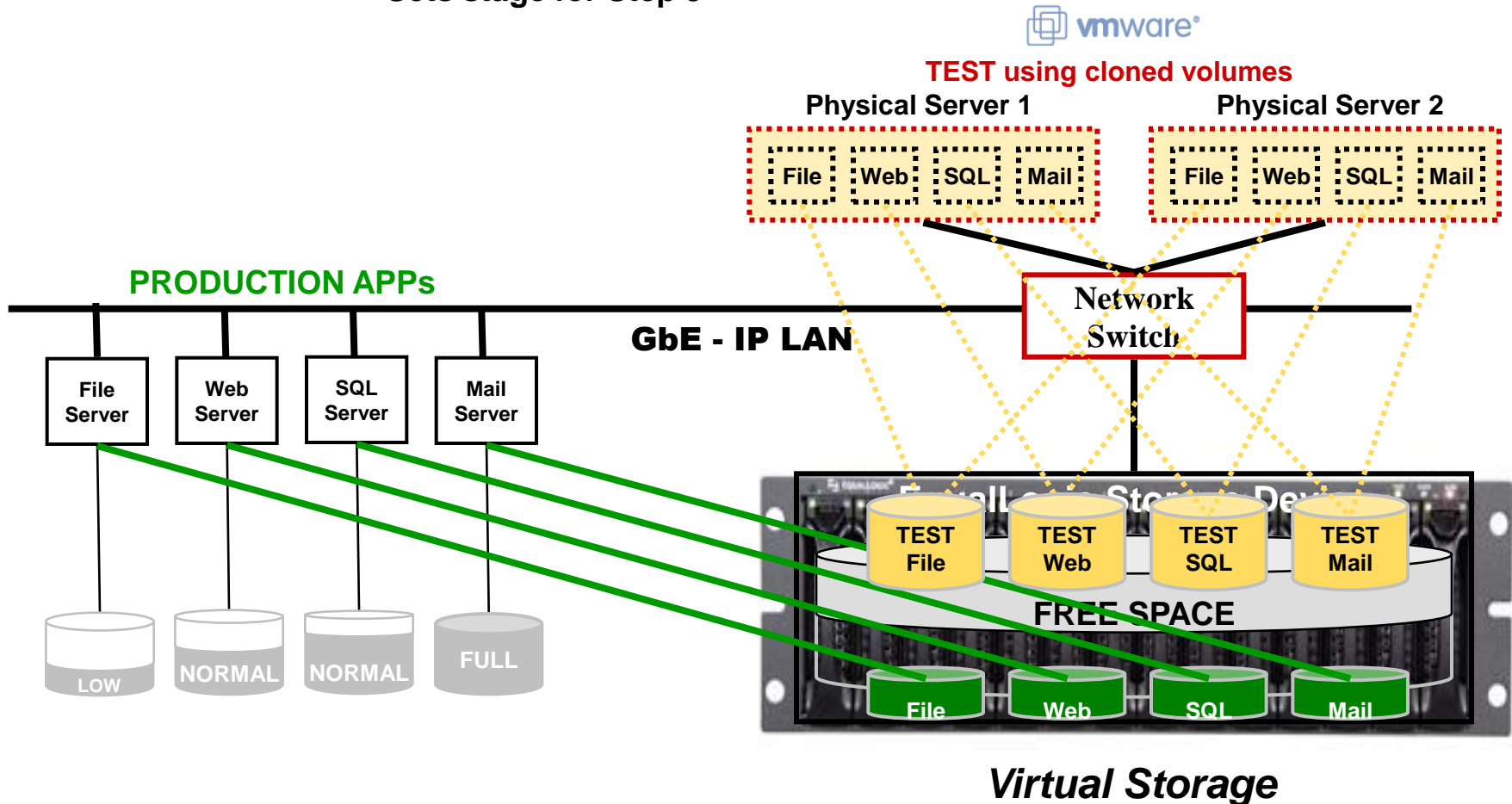
Production Servers begin using consolidated storage on EqualLogic

- Eliminates data loss from equipment failure
- Solves “out of space” problems
- Sets the stage for Step 2



Step 2 – Set up Virtual Machines and TEST

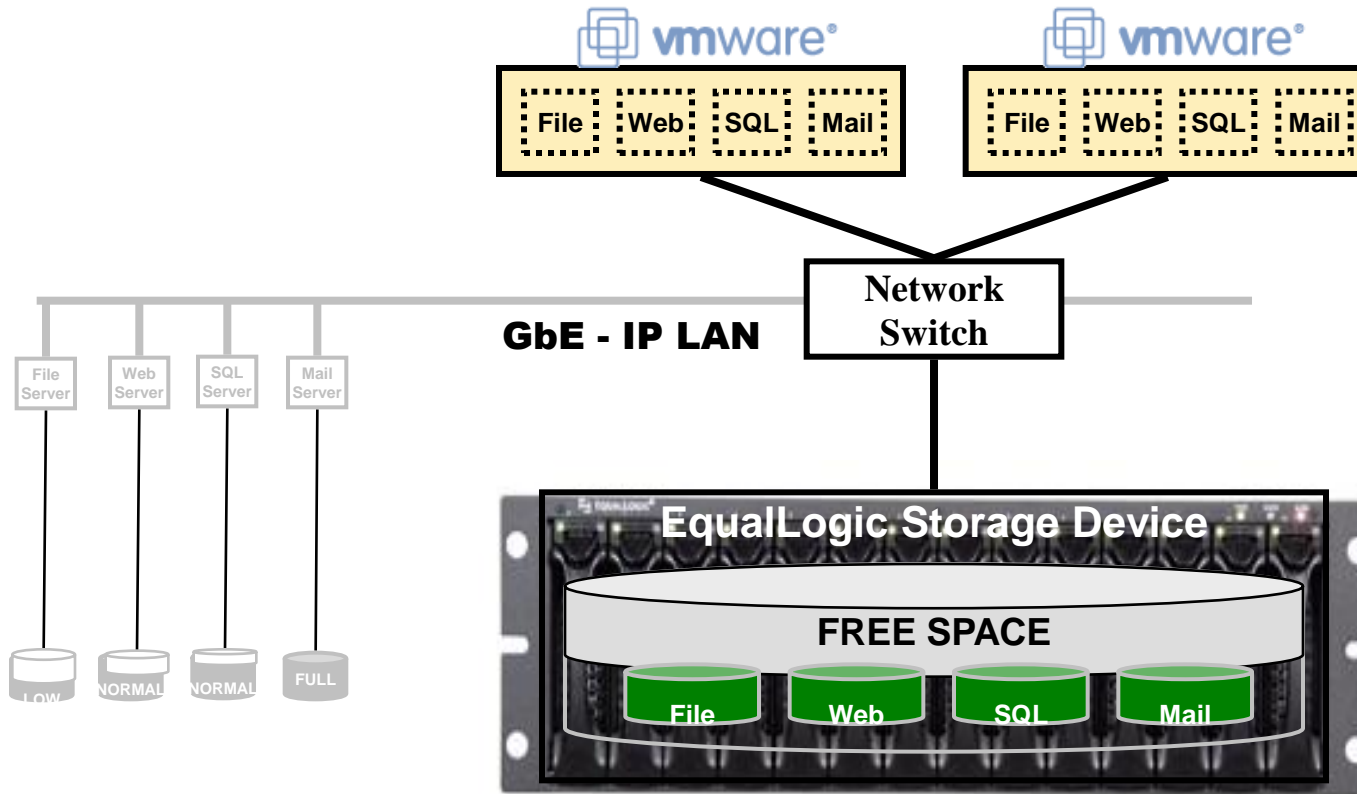
- Use Cloning feature of EqualLogic to create TEST volumes
- Configure VMWare Servers with Virtual Machines
- Test thoroughly while still running apps on former platforms
- Sets stage for Step 3



Step 3 – Activate VMs in Production

- Switch production to new VMWare platform
- Shutdown former servers (or re-deploy)
- Sets stage for Step 4 (optional)

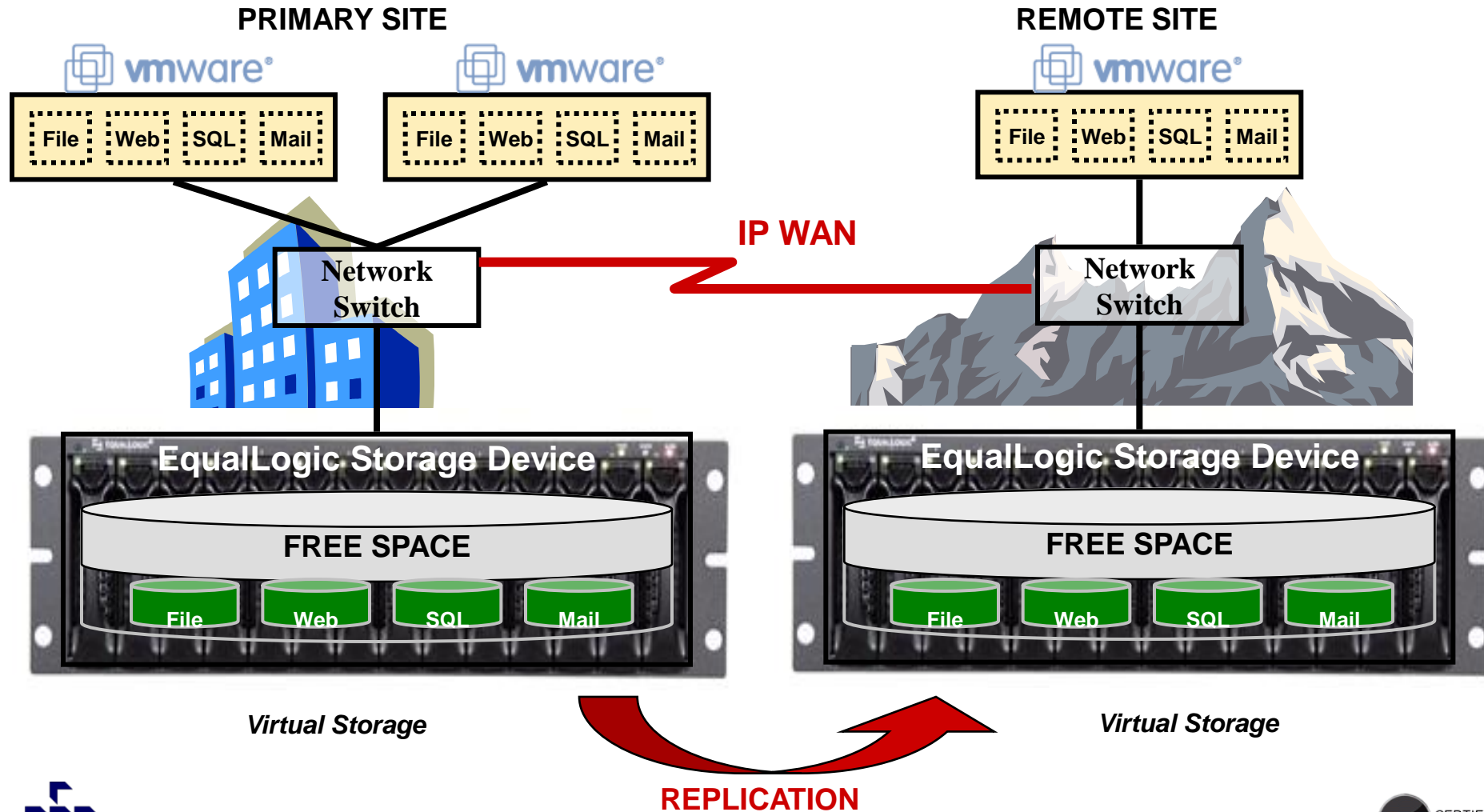
SOLUTION COMPLETE



Virtual Storage

Step 4 – Add Remote Site using EqualLogic Replication

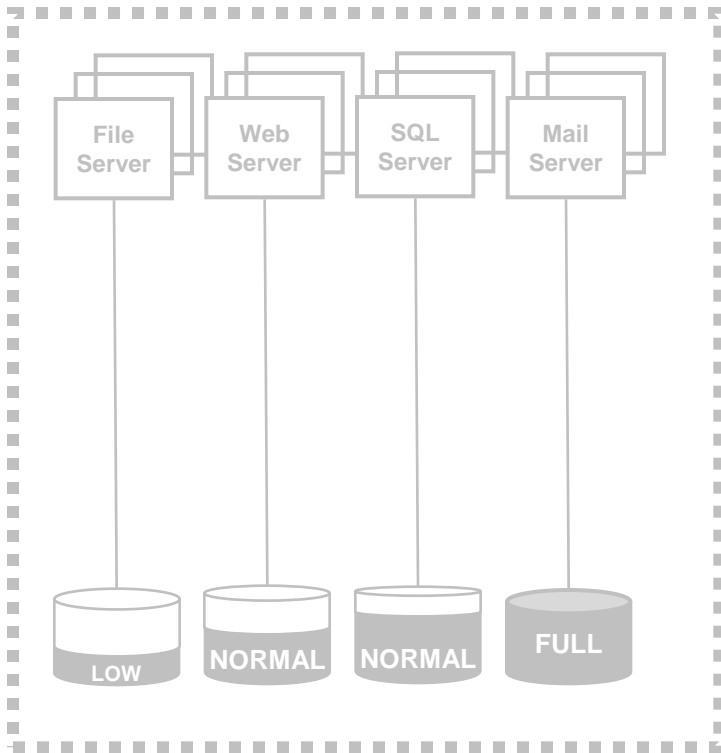
- Add 2nd EqualLogic unit at remote site
- Re-deploy servers to remote site
- Run VMWare images
- Enable **Replication (included at no charge)**



Migration complete with no impact

PROBLEM

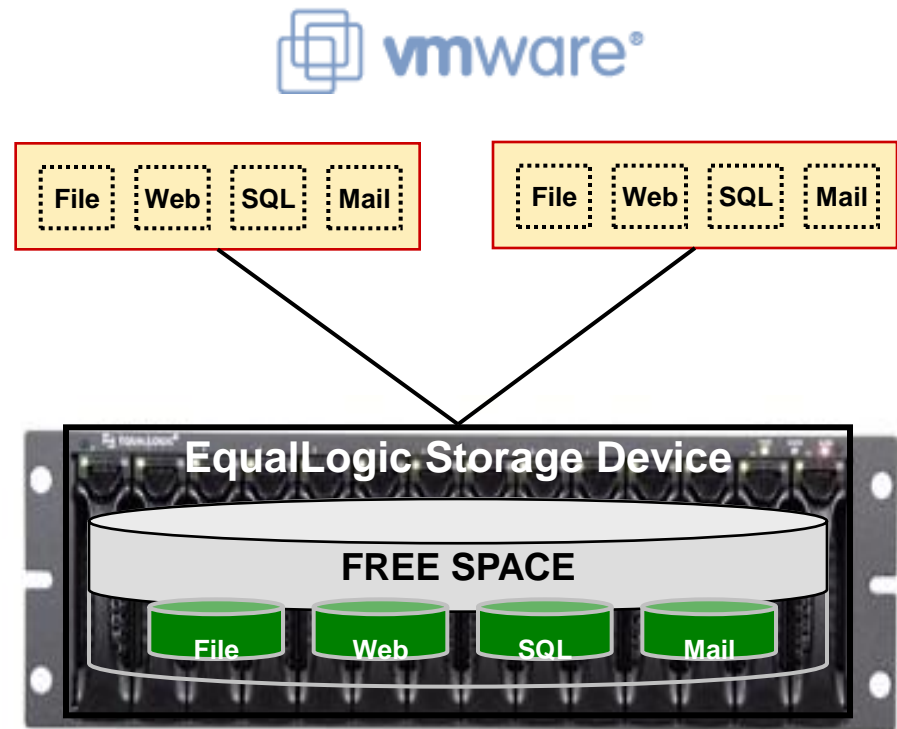
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No Disruptions !

SOLUTION

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Virtual Storage

Summary

Goals Accomplished:

- ✓ Reduce Server/Storage costs
- ✓ Simplify Scaling
- ✓ Simplify Management
- ✓ Eliminate Data Loss
- ✓ Share available space among servers
- ✓ Improve Application Availability
- ✓ Provide Off-Site Disaster Recovery

Next Steps:

1. Get a [Self-Service EqualLogic Quote](#)
2. Connect EqualLogic Device to IP LAN
3. Copy existing volumes to EqualLogic and activate
4. Setup VMWare, TEST and then activate
5. Redeploy old servers and 2nd EqualLogic at Remote Site

Thank You

“Simplicity is the ultimate sophistication.”

- Leonardo Da Vinci