



Disaster Recovery in the Cloud

What You Will Learn

- 1** The Need for Disaster Recovery
- 2** Public, Private and Hybrid Cloud
- 3** DR and the Cloud
- 4** Products from Novell



The Need for Disaster Recovery

Why Downtime Matters

\$41.3 Billion

Total economic damage from disaster in 2009*

\$10.8 Billion

Economic impact felt in the US from disasters in 2009*

**September 2, 2010 , Business Continuity and Disaster Recovery are top IT Priorities for 2010 and 2011 - Forrester*

Better Understanding of Protection

78% of enterprises have indicated that improving disaster recovery capabilities is a high priority*

Critical Priority 30% - High Priority 48%

- Better able to identify and quantify risk
- Better understanding of economic impact
- Less tolerance for downtime and data loss

*Jan. 25, 2010 – *The State of Enterprise IT: 2009 to 2010* - Forrester

Define Your Objectives

Recovery Time Objective (RTO)

- Time between declaration and service availability
- Time to restore services to useable state

Recovery Point Objective (RPO)

- Data in system lost at disaster time
- Amount of data entered since last backup

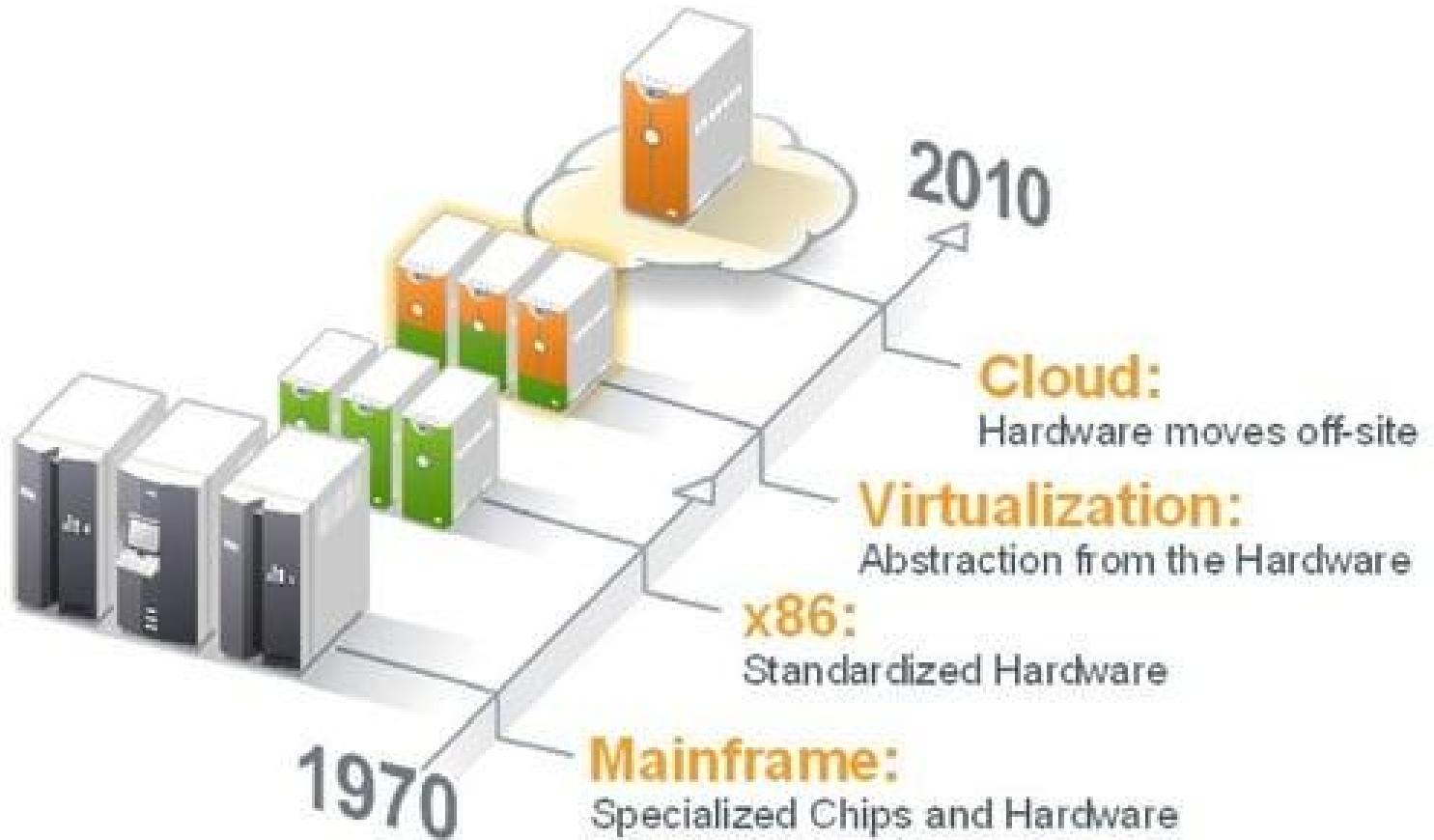
Test Time Objective (TTO)

- Time required to test recovery plans
- Resources used for testing



The Move to the Cloud

From a Big Box to a Big Cloud



Defining Cloud Characteristics

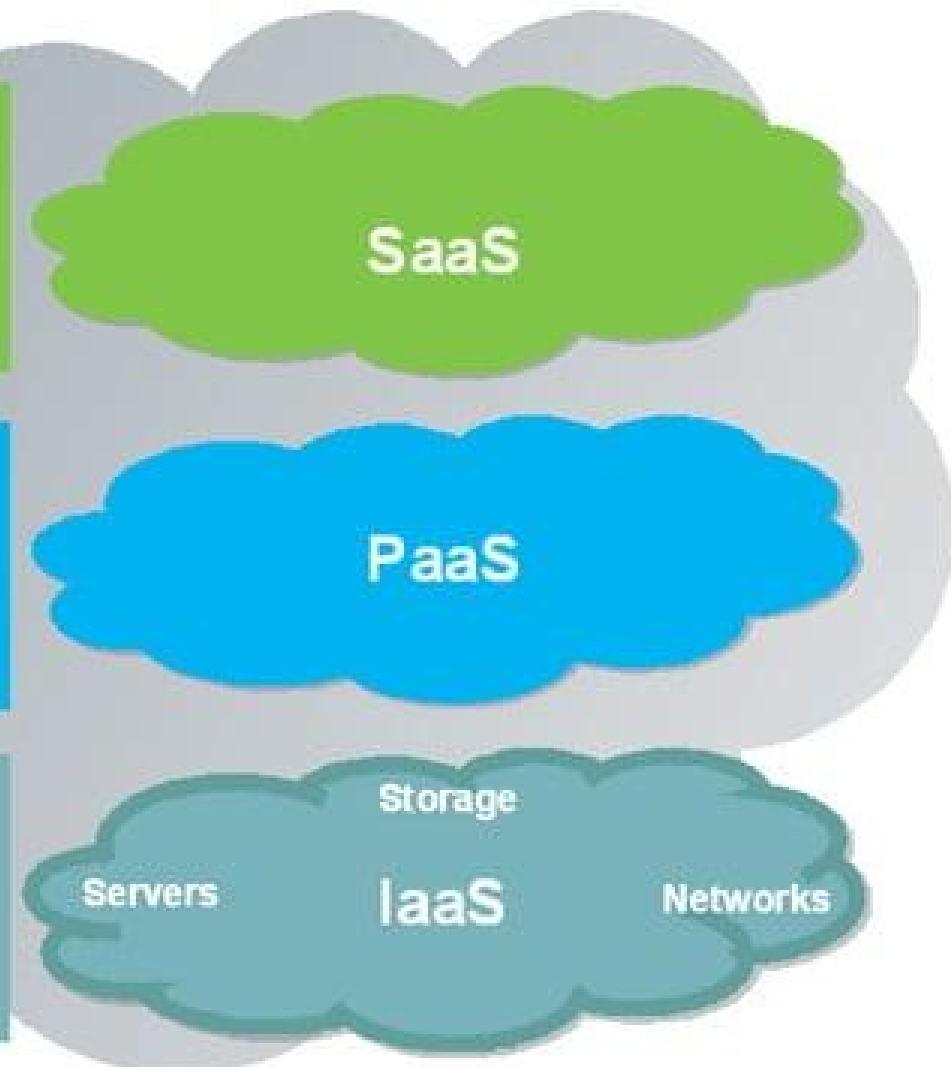


The Cloud Stack

Google Apps, Salesforce.com, online retail, web conferencing, online tax preparation and imaging/printing services

Microsoft Azure, Force.com, Google App Engine, AWS AMI (App runtime environment offered as a service)

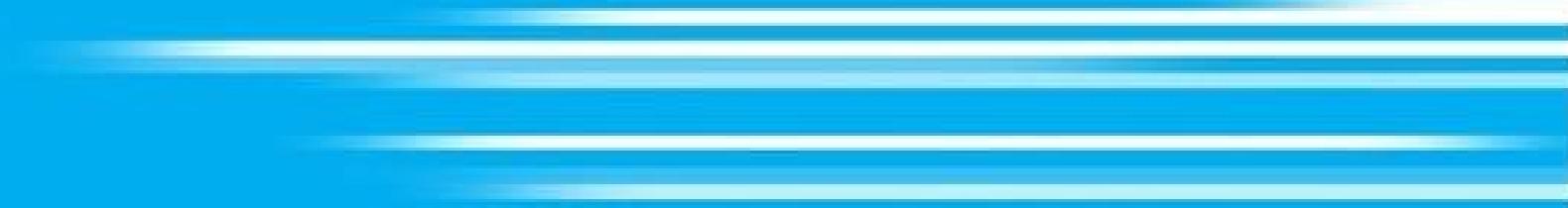
EC2, Rackspace Cloud, Google, Bluelock vCloud, Terremark, BT, AT&T, Verizon, GoGrid, Joyent, SunGard



Your cloud, my cloud

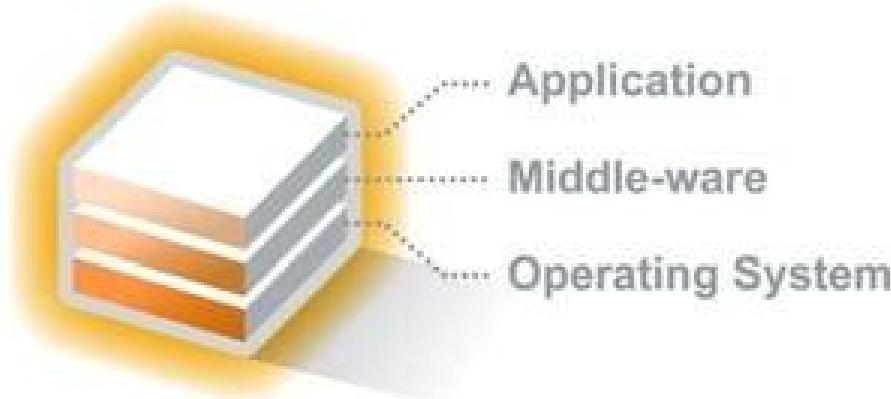
- Public
 - ✓ Scalable and elastic computing services offered to external customers via the Internet.
 - ✓ Typically multi-tenant, where multiple customers are able to share a single set of resources.
- Private
 - ✓ Dynamic and scalable computer services offered to internal customers using equipment the customer owns and delivered over a private network.

DR and the Cloud



What is a Workload?

Workload



A workload is an integrated stack of application, middleware, and operating system that accomplishes a computing task

A workload is portable and platform agnostic—it can run in physical, virtual or cloud computing environments

A workload or a collection of workloads makes up a business service, which is what the end user consumes

Update your DR with Virtualization



One virtual
server host can
protect several
servers in
production



Eliminate the
Multi-Platform
problem

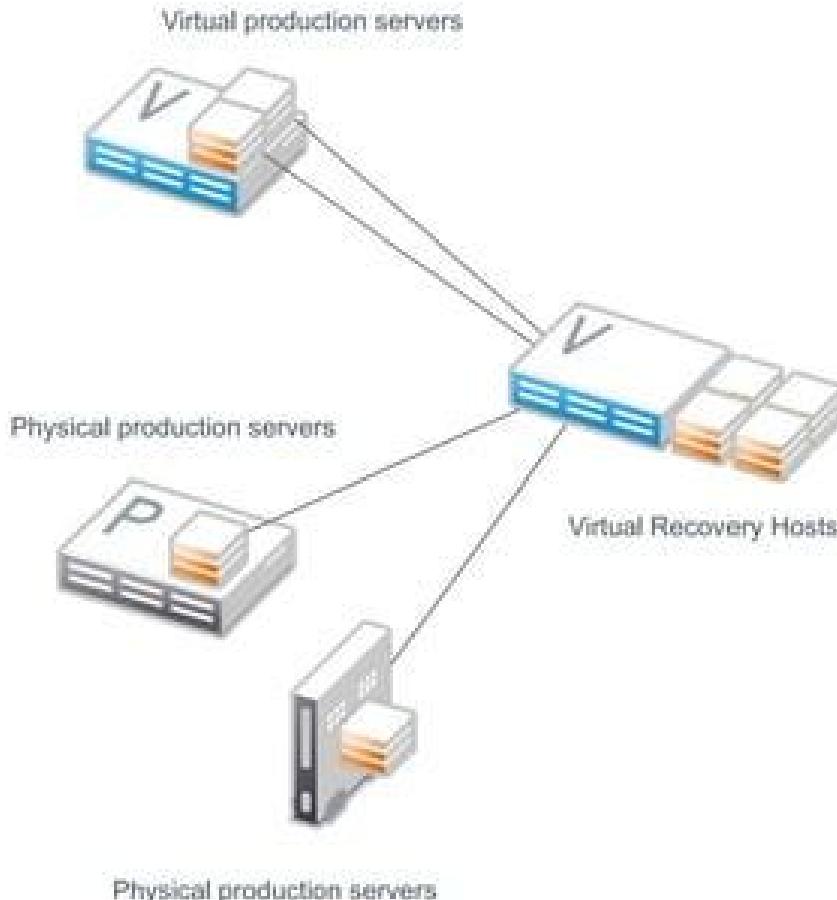


Simplify testing
as Virtual
Machines can
be isolated



Consolidated Recovery

Leveraging Virtual Infrastructure For Protection of All Your Servers



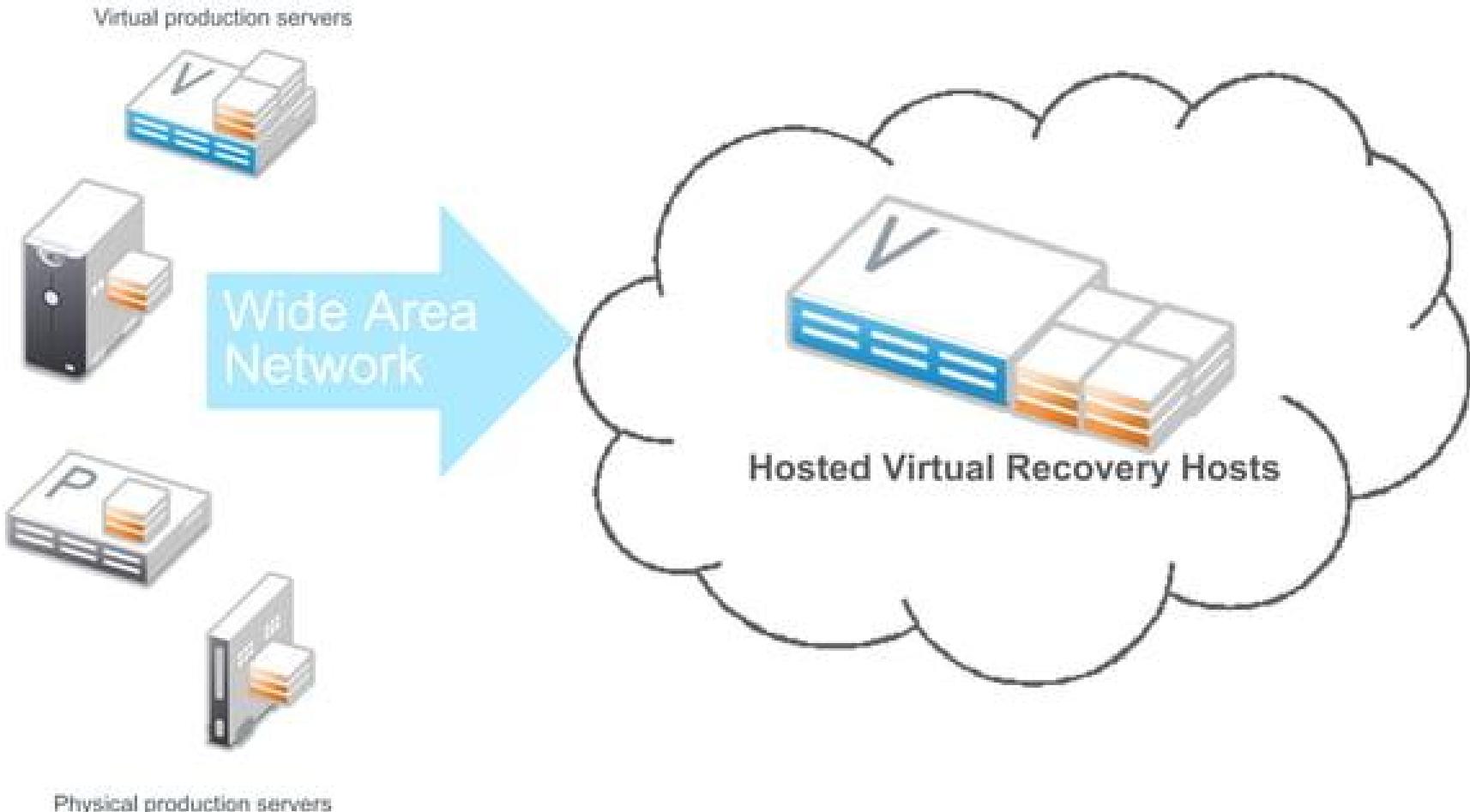
Solution

- Replicate workload into an off-line virtual machine
- One click failover
- One click test restore
- Flexible fallback

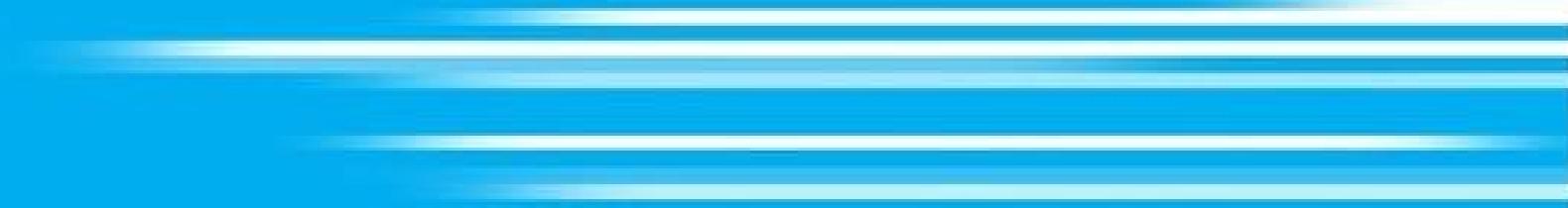
Benefits

- Drastically reduce TCO and achieve whole workload protection
- Simplify testing with bootable backups
- Finally a way to complete your DR architecture

Protect to the Cloud



Products from Novell



PlateSpin Protect

Whole-workload protection for all server workloads.



Backup to
virtual machines

Incremental
replication

Easy to test

One-click
failover

PlateSpin. Forge



World's first disaster recovery hardware appliance with embedded virtualization

Protects up to 25 workloads

Plug In and Protect Solution for :

- Medium enterprises
- Branch or field use for large enterprises
- Hosted recovery

PlateSpin Forge Includes:

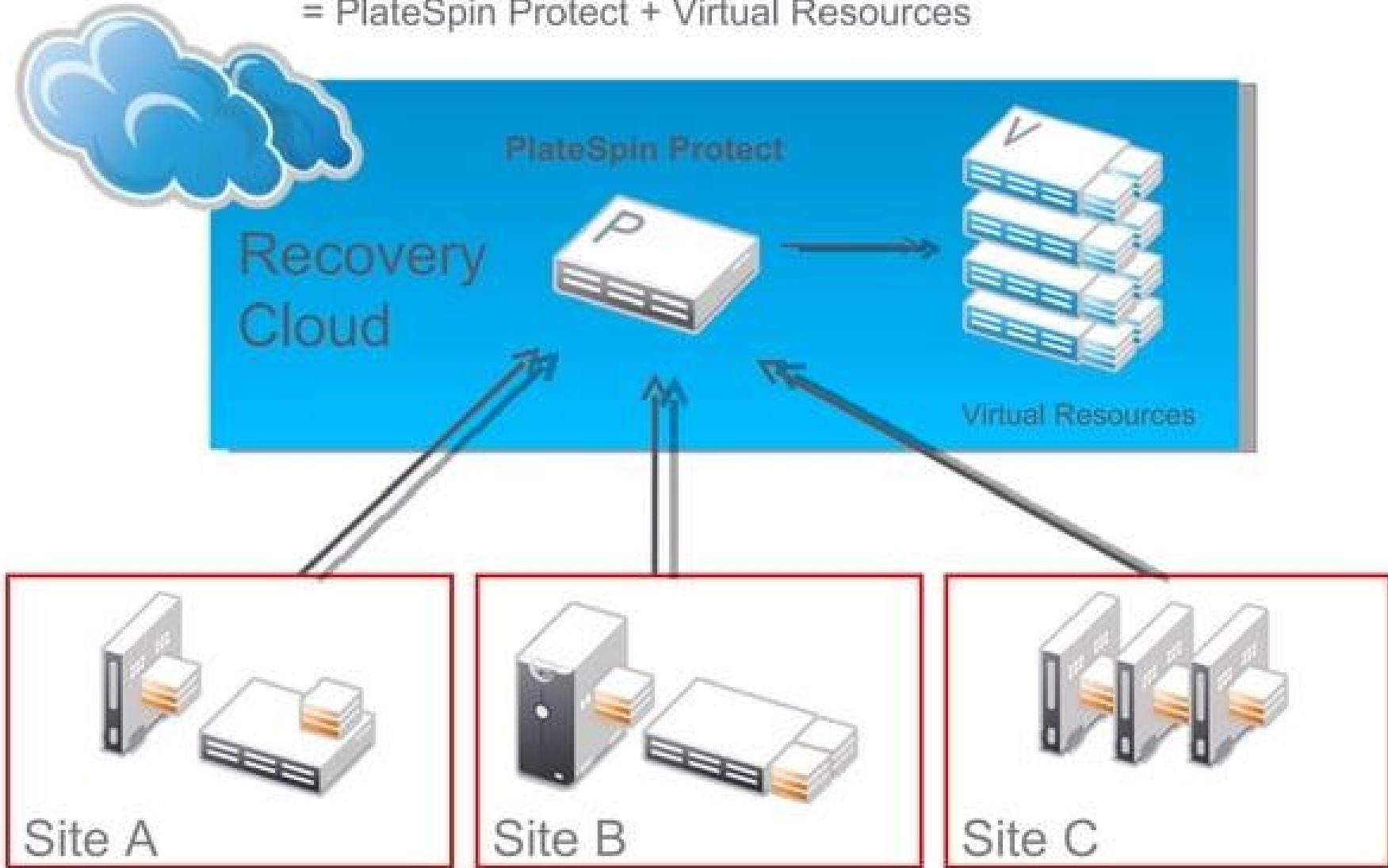
- Storage
- Replication software
- Hypervisor

Build a Protection Cloud



Build a Recovery Cloud

= PlateSpin Protect + Virtual Resources



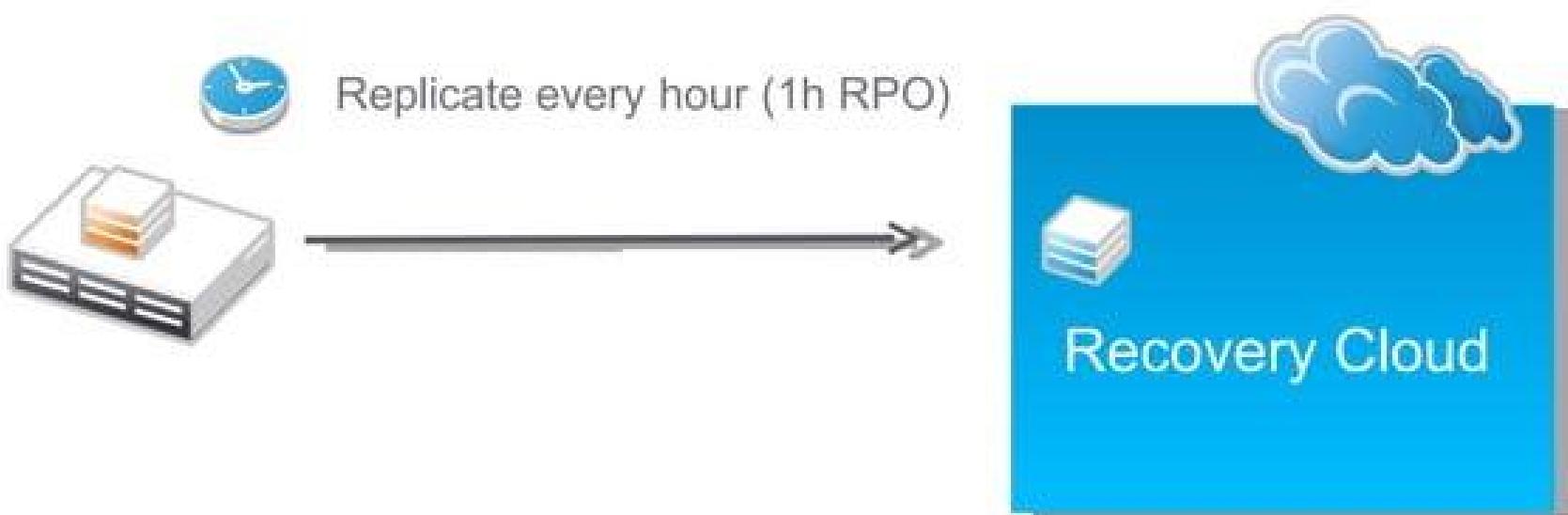
Site A

Site B

Site C

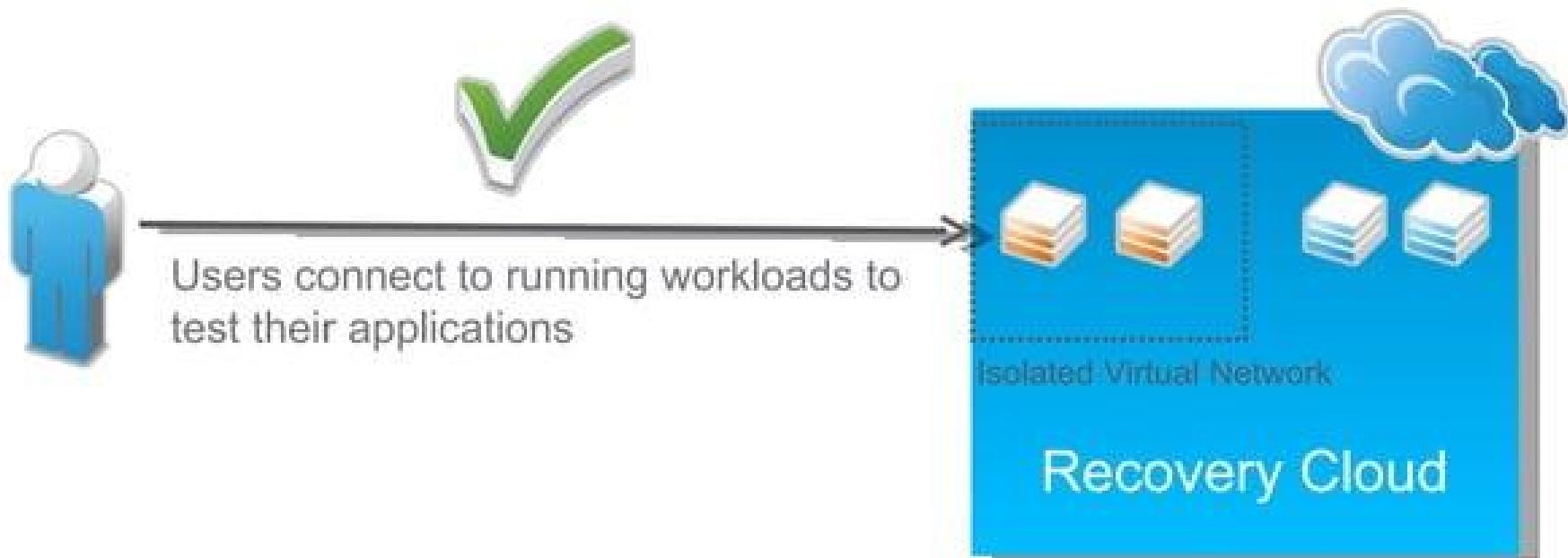
Setup Workload Replications

Scheduled replications: Workload changes are automatically replicated into virtual machines inside the Recovery Cloud



Easy Test Failover

Test Failover: recover workloads in isolated virtual networks to avoid production disruptions



Recover Workloads In Minutes



Offline Detection: PlateSpin Protect sends out notification when the protected workload goes offline

Failover: Workloads are recovered in minutes inside the Recovery Cloud

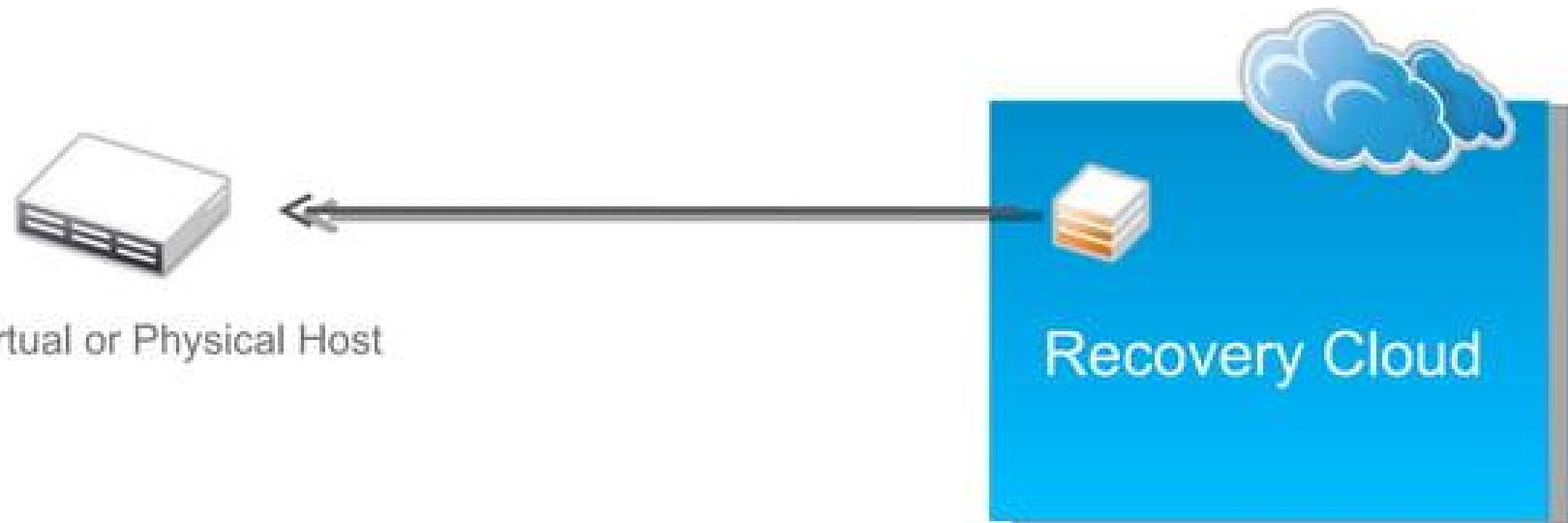


Users connect to workloads running in the Recovery Cloud

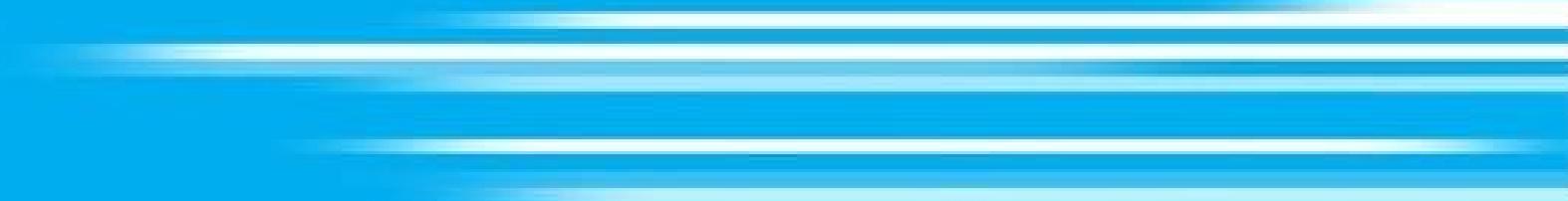


Restore the Production Environment

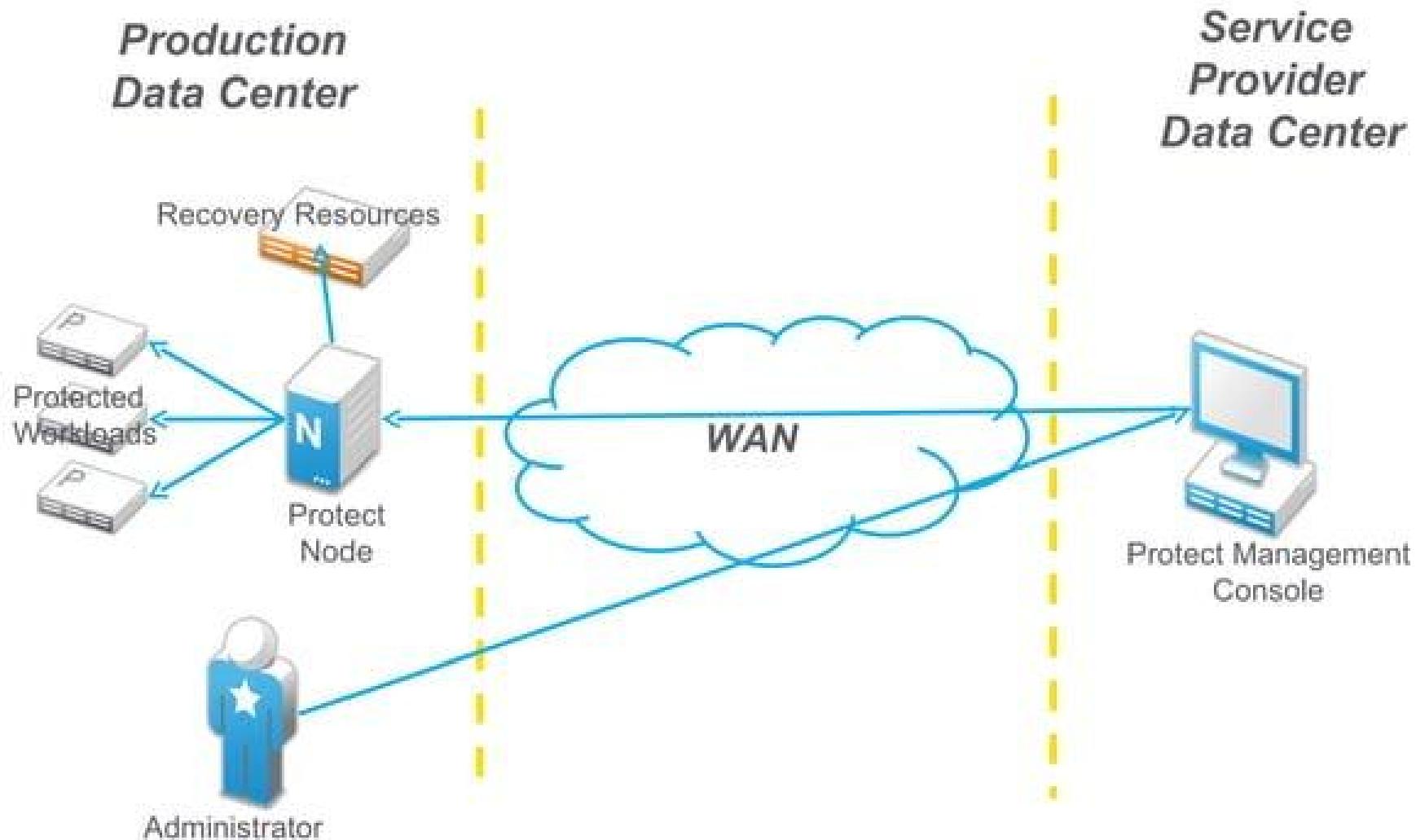
Fallback: move the workload back into production to the same or a different host



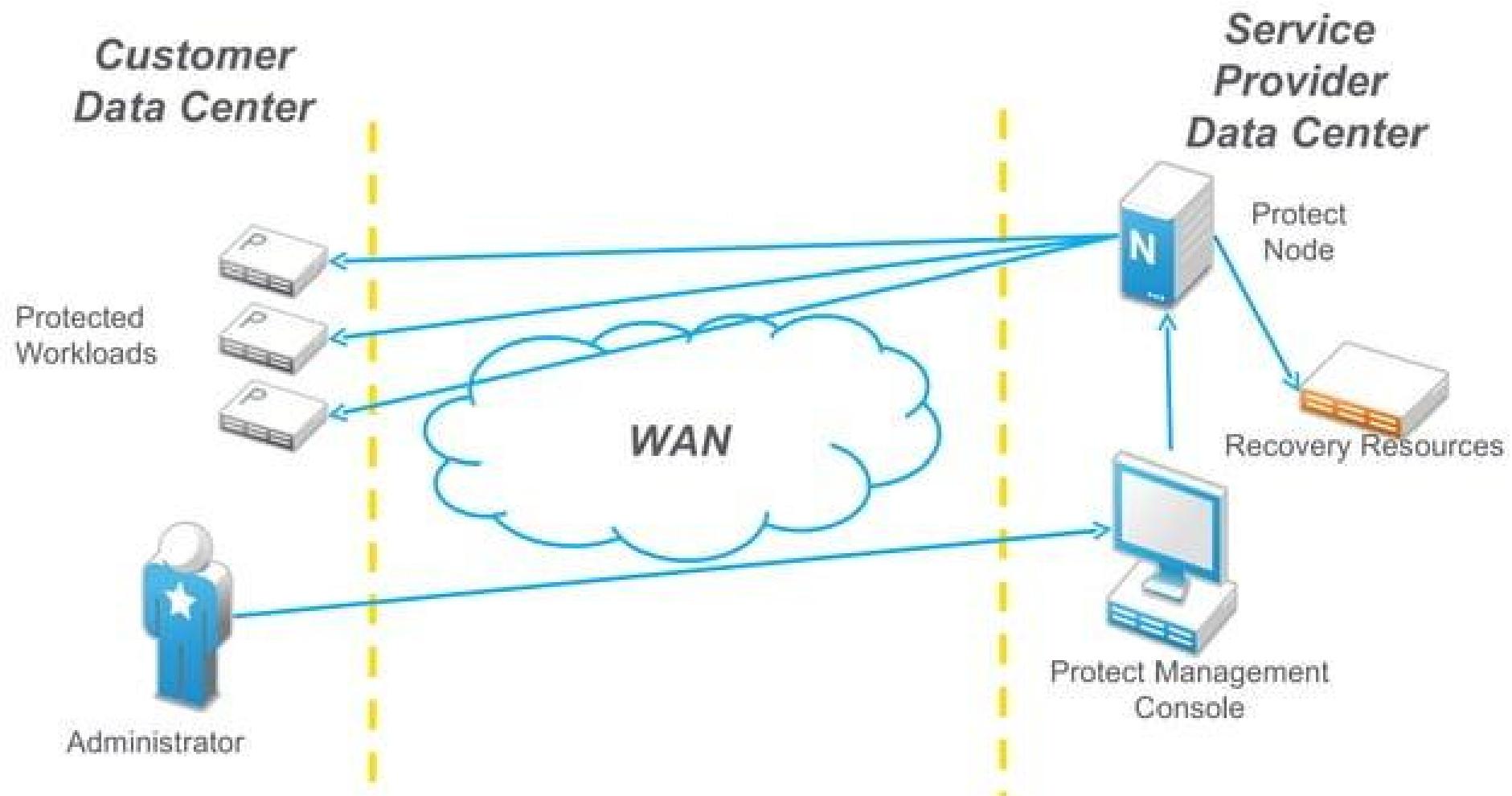
Solution Flexibility



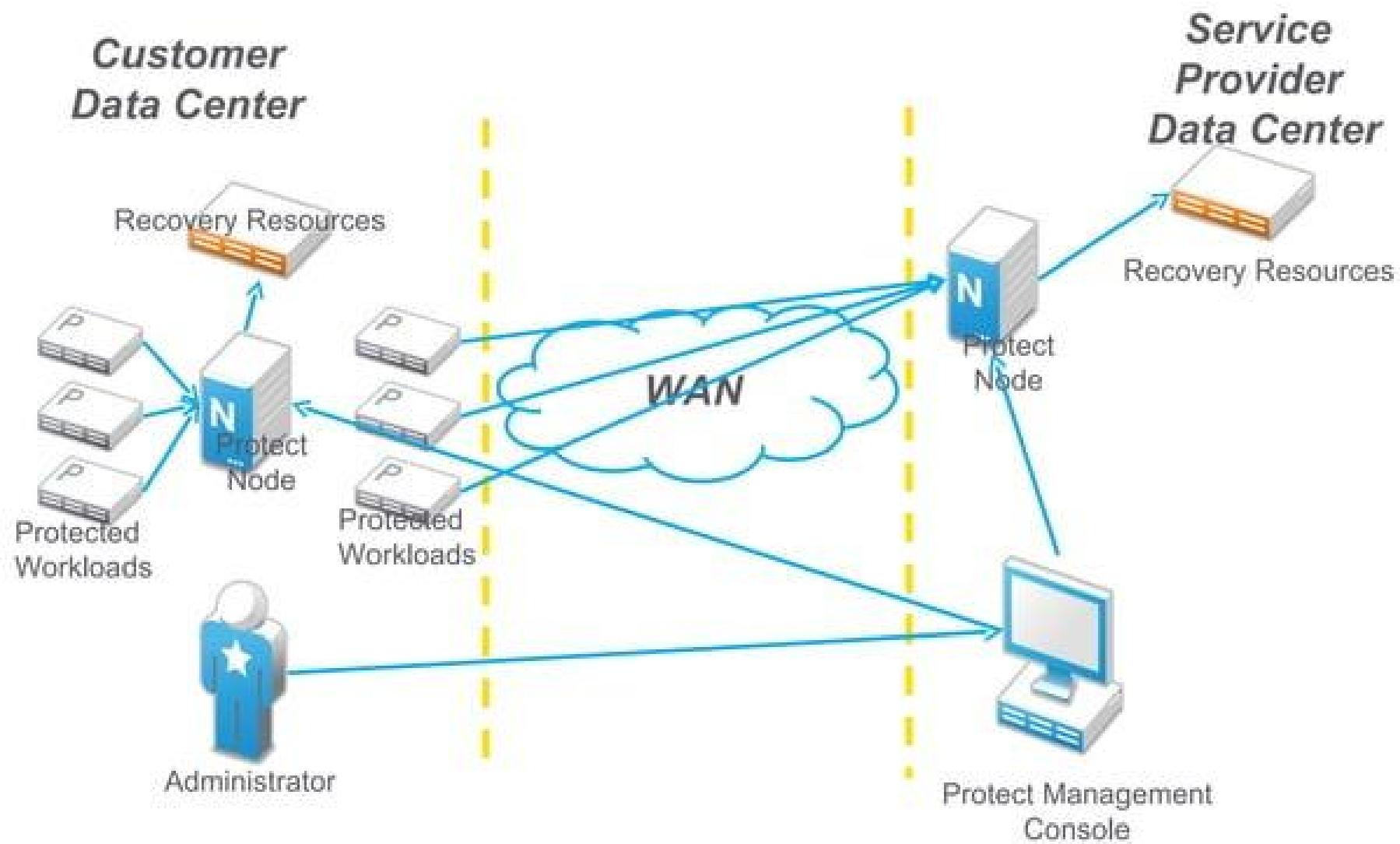
On-Premise



Virtual Private Cloud



Hybrid Model



What do Customers Have to Say?

Customer Results



Nichols College

www.novell.com/success/nichols_college.html

"Disaster recovery solutions can be very complex ... PlateSpin Forge is very straightforward. There's just one piece of hardware to manage. It's low maintenance, and has low overhead. Without it, we certainly would have spent more money on another disaster recovery solution that would have required more resources to support it."

ReedSmith

Reed Smith LLP

http://www.novell.com/success/reed_smith.html

"With PlateSpin Protect, we can recover multiple sites with the same set of hardware quite easily, in a matter of minutes."



Connect

Next Steps

Give it a Try!

- Download a 30 day trial copy of PlateSpin Protect

download.novell.com/index.jsp

Learn More

- Contact Us – 800.529.3400
- Visit
 - www.novell.com/products/forge/
 - www.novell.com/products/protect/