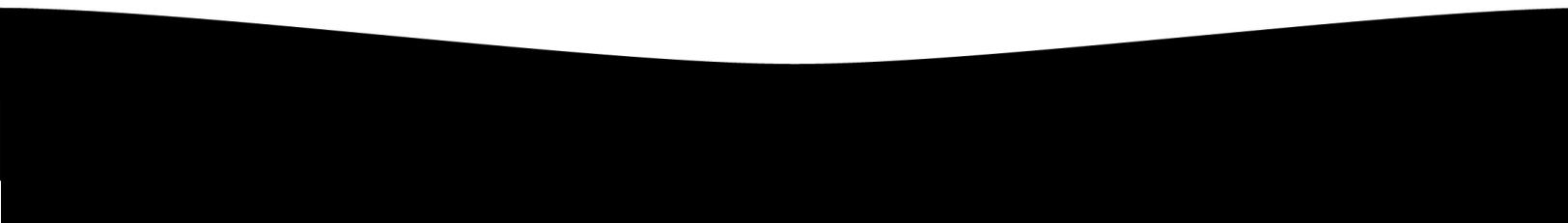# UNITRENDS

ReliableDR Deployment
Blueprint

Local Government
Success Story

Executive Summary

This ReliableDR deployment blueprint describes how the product was deployed by a customer in local government emergency response with mission-critical applications running virtualized under vSphere 4 and 5 with direct attached storage.

Customer Configuration

This installation has three datacenters running active/active/passive and separated by approximately 20 and 40 miles respectively (32 and 64 km). The customer has a complex network topology that services offices in several locations.

Production is run in two datacenters and the DR site is used for recovery and test & dev. Various storage arrays are used in the three datacenters. A third party application is used to backup data to the DR datacenter but not the applications.

ReliableDR was deployed to automate the replication and failover of critical systems so that all DR processes, including testing and failover, can be run without human intervention and kept within established recovery time and recovery point objectives.

Project Definition

The deployment of ReliableDR was part of a consolidation and virtualization project for the customer's Windows & Linux application portfolio, including database backends and critical real time systems.

The customer had a well-defined DR plan that included regular DR tests with active involvement of staff from the line of business. These processes were carried out manually by subject-matter experts, and representatives from the business ascertained the correct functioning of the applications. The ReliableDR implementation project covered all production applications and aimed to automate DR testing processes in order to reduce the testing time.

Protected Applications

The applications that were protected by ReliableDR included a wide variety of packages such as Lotus Notes, geolocation and mapping applications, call handling systems and internally developed applications.

ReliableDR Deployment

ReliableDR was installed and deployed at the DR site. The zero footprint in the production site was a major benefit for the customer. Each site has a vCenter instance to which ReliableDR was connected.

Because of its flat network, the customer chose not to use ReliableDR's re-IP feature to change the IP addresses of the VMs replicated into the DR site.

The initial replication of the VMs was done over several days as the customer opted for a straight copy driven by ReliableDR. Subsequent copies became very quick as change block tracking (CBT) was implemented.

The recovery sets were aligned with RPOs and ReliableDR was configured to run DR tests accordingly.

Benefits of ReliableDR

While ReliableDR has a very rich set of functionality, there were five immediate and major benefits at this installation.
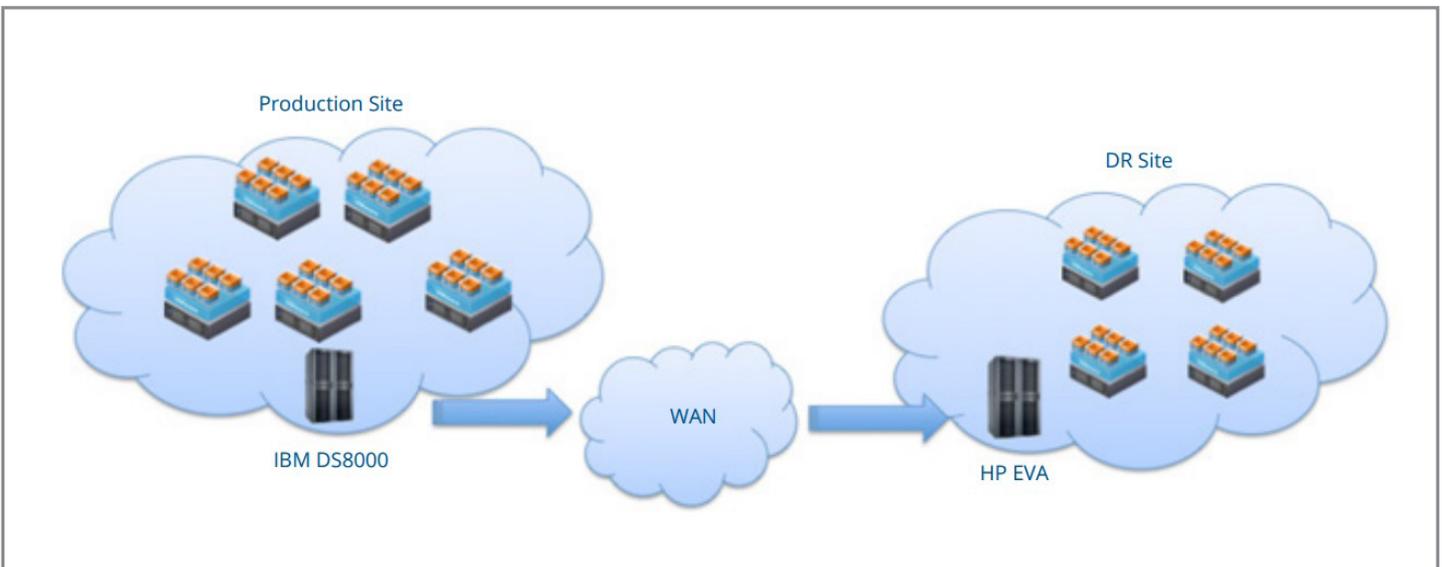
Significantly Improved RTO and DR Testing Time

Prior to the use of ReliableDR, DR tests easily exceeded eight hours and required the presence of several subject-matter experts covering networks, storage, databases, middleware and applications. After ReliableDR was deployed, RTOs were reduced to under one hour. Because ReliableDR assures the success of the tests and generates reports, there is no need for any extra time or presence of subject-matter expert.

Aggressive Recovery Point Objectives

ReliableDR can apply business rules to each application independently, including RPOs. The customer classified its applications into three tiers, depending on their criticality.

Application Tier	Maximum Data Loss
Mission Critical	1 hour
Business Important	6 hours
Non-critical	1 day

ReliableDR leverages snapshot and change block tracking efficiency of the vSphere technology to create Certified Recovery Points (CRPs), i.e. snapshots of applications that are guaranteed to be recoverable.

The ability to test the recoverability of applications as often as needed allowed the customer to meet extremely aggressive RPOs without needed expensive infrastructure. For vital applications, such as the call management system for fire engines, ReliableDR orchestrates twenty four recovery tests per day in order to meet the objective of one hour of maximum data loss.

Business-important applications are tested for recovery four times per day and therefore generate four CPRs daily. Applications containing non-critical services are tested daily.

Compliance/Business Continuity

The customer is a provider of emergency services in the UK. Business Continuity Policies are defined at Senior Management level and implemented throughout the organization.

ReliableDR was found to be an excellent solution to satisfy auditing requirements at the push of a button. It has become much easier to demonstrate compliance for the Windows and Linux virtualized applications.

Scripted and Automated DR Testing

ReliableDR's out-of-the-box functionality was used to test standard Microsoft and Linux packages. DR planners were also able to deploy custom scripts to quickly extend the scope of the DR tests as well as the auditability and compliance of recovery processes.

Are You Ready to Get Protected? Connect with us Today for a Customized Quote

About Unitrends
Unitrends delivers award-winning business recovery solutions for any IT environment. The company's portfolio of virtual, physical, and cloud solutions provides adaptive protection for organizations globally. To address the complexities facing today's modern data center, Unitrends delivers end-to-end protection and instant recovery of all virtual and physical assets as well as automated disaster recovery testing built for virtualization. With the industry's lowest total cost of ownership, Unitrends' offerings are backed by a customer support team that consistently achieves a 98 percent satisfaction rating. Unitrends' solutions are also sold through a community of thousands of leading technology partners, service providers, and resellers worldwide.