



# Telco Case Study

How one of the world's largest telco providers ensures 24x7 business continuity and service availability





# **Company**

One of the world's largest telco providers, with over 100 million subscribers over multiple continents.

#### **IT Environment**

With three mega datacenters and dozens of secondary sites across multiple time zones, the IT environments includes more than 20,000 physical servers and a similar number of virtual servers supporting hundreds of business-critical applications. Local and geo-clustering are widely-used across all tier-1 and tier-2 applications, based on Veritas Cluster Server, MSCS, Oracle RAC, VMware HA, and SRM. Dozens of Petabytes are stored on a combination of EMC, HDS, IBM and NetApp gear, and replicated using native storage replication as well as Oracle DataGuard.

#### BENEFITS AT A GLANCE

- √ 85% reduction in downtime and data loss incidents
- ✓ 70% decrease in time spent on resolving emergency issues
- ✓ Shorter and more successful DR tests
- ✓ Tighter collaboration across IT domains and teams



# **Challenges**

With millions of landline and mobile subscribers relying on the company for connectivity, service availability and disaster recovery readiness is of paramount concern for every employee, and especially those in charge of the IT infrastructure.

Since high availability and disaster recovery readiness are vital to the company and its customers, major investments have been made over the years to modernize configuration and asset management and put in place an effective DR testing plan.

As can be expected in such complex environment, configuration changes take place in different parts of the datacenter on a daily basis. While most changes are performed without a hitch, there was no visibility to the implications and risks introduced by such modifications on the overall stability, service availability and DR readiness of the datacenter. Over time, as the IT environment has become more dynamic and complex, keeping the production and disaster recovery in complete sync across IT teams and domains (e.g., server, storage, databases and virtualization) has become a challenge.

When some misconfiguration issues and other human errors resulted in downtime and service disruptions, it became apparent that a better risk mitigation strategy was required to maintain the company's commitment to its customers and its reputation as an industry leader.



## In Search of a Solution

Following a critical outage that affected service to millions of customers, IT management set out to find a solution that would address these challenges.

The key requirements for the solution were defined as:



- Detect configuration changes across the entire datacenter and DR environments
- Predict the impact of such changes across IT domains on service availability and disaster recovery readiness
- Provide management with a consolidated view of downtime and data loss risks across the entire environment
- Help the relevant teams pinpoint the source of the risk
- Operate in a non-intrusive manner (preferably agentless)
- Integrate with the service management system used by the IT organization



## **Evaluation**

The team identified Continuity Software's AvailabilityGuard as a potential solution that met all these requirements. Although the solution was already in use by other telco providers, the first step was an evaluation of AvailabilityGuard in the company's own environment by conducting a one-time health check of their datacenter.

The scope of the one-time health check was defined to provide sufficient information that would be of immediate value to the organization. It encompassed the billing, CRM, and ERP systems. Within 48 hours, a detailed report with the findings was furnished by Continuity Software. For the first time, the IT team was able to see the complete status of potential downtime and data loss risks across the entire technology stack for the systems included in the evaluation.

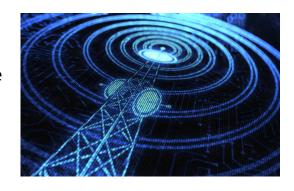
The report revealed a number of risks that resulted from miscommunication or lack of coordination among the teams (e.g. storage and database). Since none of the teams had visibility beyond its domain, these risks were essentially a blind spot for the organization. Once identified, these issues were fairly easy to correct, aided by specific recommendations included in the health check report.

The results of the one-time health check made it clear to the organization that ongoing monitoring of such risks is the only way to prevent unexpected downtime and data loss in the future and ensure the service availability levels and disaster recovery objectives (RPO and RTO) the company was committed to.



# **Implementation**

One year following the initial implementation, AvailabilityGuard is now used to monitor all Tier One and Tier Two business services, encompassing over 2,000 servers. With the AvailabilityGuard system in place, daily scan of the IT



infrastructure is performed and service availability risks are addressed immediately as they are uncovered.

The primary users of AvailabilityGuard are members of the business continuity group, who monitor the system daily for new issues. AvailabilityGuard is integrated with HP Service Manager, so the relevant teams are immediately notified when new risks are detected. In addition, lead users have been identified from each IT discipline to serve as the AvailabilityGuard technology champions within their domain.

Reports from the system are reviewed on a monthly basis by representatives of the storage, virtualization, Unix, Windows, and the different database groups, who use the information for continuous improvement of business continuity best practices.



## **Results**

Since the company has implemented the AvailabilityGuard solution, downtime and data loss incidents have decreased by over 85%.

With a single system that works across all IT domains, collaboration among the various teams has become effortless and more frequent. Although some of the IT personnel were initially skeptical about the value of AvailabilityGuard, they quickly realized how it is helping them to be more productive. Because problems are identified and resolved early on, there is a 70% decrease in time spent on resolving emergency issues. And they certainly appreciate the fact that they get fewer emergency calls in the middle of the night.

Another benefit of the proactive monitoring performed by AvailabilityGuard is smoother and more streamlined DR tests. The latest DR test run was the best in the company's history, with only minor issues discovered. As a matter of fact, it was the first test ever that did not require a rerun.

Last but not least, AvailabilityGuard is integrated into the company's enterprise Risk Dashboard, so the CIO and senior management can always keep pulse on critical service availability and disaster readiness metrics.

With AvailabilityGuard now well-ingrained in the company's overall IT infrastructure and processes, the company is planning to expand the scope of the systems covered by AvailabilityGuard to include all production and DR systems.



# **About Continuity Software**

Continuity Software is a leading provider of Business Continuity and Disaster Recovery Risk Management solutions.

The AvailabilityGuard software helps many of the world's largest telco, finance, utilities, and other organizations mitigate downtime and data loss risks by monitoring production and remote replication environments to detect hidden vulnerabilities and gaps.

With AvailabilityGuard, you will be confident your service availability and data protection goals can be met on a consistent basis.

#### For more information

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