Perpetuuiti™
Resilience Redefined...

> Saudi Arabia's most renowned Telecommunication Service Provider relies on Perpetuuiti to ensure that disasters wouldn't disrupt its vital customer service and uptime

CLIENT PROFILE

Our client is the Saudi digital enabler of telecommunications services in the Kingdom of Saudi Arabia, and among the operators in the Middle East. The company offers landline and fixed infrastructure, mobile and data services. It also offers mobile, broadband and cloud computing services. The company invested in next-generation networks, or NGNs, upgraded to packet-based architecture where information, services and media can be carried across the network. Their operations expand beyond the borders of the host country which in turn operates a number of mobile networks in MEA & APAC regions. The Telco has been named as the largest in ME and second largest in the MEA region.

Headquartered in Riyadh, the capital of Kingdom of Saudi Arabia, they are dedicated to make life and business easier, for a better KSA.

BUSINESS CHALLENGES

Over the last few years, the Telco giant has been facing multiple challenges in managing its heterogeneous IT infrastructure, driven by a steep growth in new business applications' requirements and adaptation of new technologies. Furthermore, it was getting increasingly challenging to ensure business resiliency and uptime for all the business services. "Being in Telecom services' business it is very critical for us to ensure that we are completely resilient from any disruptions so as our SLAs to our customer does not impact" says our customer's IT Team.

Our client was facing following challenges:

➤ They did not have a robust Disaster Recovery (DR) strategy for their business and core service application portfolio.

➤ They recognized that the existing untested DR position left them at the risk of negatively impacting the business, which required an RTO of 2 hours for their critical applications.

➤ Highly complex heterogeneous IT infrastructure which contains VMWare, Wintel, Solaris LDOM & Zones, OVM, EMC SRDF, RP & Isilon storage with appliances for network management.

➤ Lack of visibility on DR infrastructure and the readiness of DR to take-over the role of primary.

➤ Lack of a single unified tool with a consolidated dashboard for monitoring and managing the heterogeneous DR infrastructure.

➤ Efforts to conduct DR drills and recovery is very high, SME dependent and error prone.

➤ Unpredictable growth leading to huge growth in the IT infrastructure.

➤ Manual DR strategy leading to severe impact in maintaining business continuity and SLAs.

To address these challenges, our client wanted to deploy a complete automated framework, which would take care of the entire Disaster Recovery process and ensured the Telco got a complete consolidated view of the health of business services that were supporting the overall business. They wanted an end-to-end automated solution which could enable the following:

➤ Bringing live multiple databases, applications at DR within the business defined RTO and RPO during a disaster.

➤ Enable maximum protection for their critical business services.

➤ Minimize or eliminate impact on production server.

➤ Real-time visibility into the health of the DR.

➤ Unified monitoring console to view all applications from a single window.

➤ No or minimal dependency on SMEs.

➤ SINGLE CLICK DR OPERATION - planned FAILOVER/FAILBACK and unplanned FAILOVER.

➤ The DR software to run parallel execution of DR operation management with single click of button.

BUSINESS REQUIREMENTS

➤ Automation and simplification of IT DR drills to meet the defined RTO/ RPO for business-critical applications.

➤ Reduce business disruption time, and reduce the dependency on SMEs for conducting DR drills.

➤ Single tool for end-to-end DR Management and Reporting.

➤ Increase the frequency of DR drills to meet the regulatory standards.

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OUR SOLUTION

Perpetuuiti deployed **Continuity Patrol 4.5** to ensure IT DR automation is implemented. Continuity Patrol is in deployment stage to manage all the core IT applications from DR perspective and managing the manual DR procedures.Below illustration describes our methodology for the implementation of DR Automation in the customer's environment:

PoC

Executed Proof of Concept (PoC) successfully on DR Automation using Perpetuuiti's Continuity Patrol tool for customer's 3 critical applications in their PROD environment, in 4 weeks.

Runbok Analysis

IT DR runbooks steps were finalized, sequenced and split wherever possible for parallel execution to reduce drill execution time, for the applications identified for the automation of DR exercises.

Design & Build

➤ Continuity Patrol (CP) tool was installed in the DR site in the Production environment and configured to support SQL Server for metadata.

➤ Communication from CP to all applications, databases and servers were encrypted and updated into the metadata to meet the regulatory requirements.

Configuration

➤ Workflows were configured on CP tool according to the updated IT DR runbook steps of the identified applications, to automate the orchestration of recovery and restoration procedures.

➤ Monitoring of critical parameters for all the associated infra components were enabled along with data replication monitoring and alerting.

Automated Drills

DR drills were successfully executed using CP tool by the single click recovery method for the applications' onboarded onto the tool.

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Monitoring

Continuity Patrol enabled them with single-view dashboard of the Business Service availability, Complete Business to IT View to understand the cascaded impact of any disruption and at the same time gives a real-time financial impact summary of the silent disasters that are happening with in the environment. It does granular monitoring of both primary and DR Infrastructure.

Automation & Orchestration

Continuity Patrol has enabled the provision of doing a single-click switchover/switchback for performing the DR Drills and single-click Failover to handle any kind of actual disaster so that business is not impacted at any cost that too without any human intervention.

Management

Continuity Patrol manages the complete DR lifecycle for the customer where it ensures that application-level changes are also replicated to the DR site in order to maintain complete consistency and seamless user experience.

TECHNOLOGY LANDSCAPE

- 900+ infra components
- 400+ Database instances (Oracle)
- PB of SAN across ZFS, EMC Recovery Point, eNAS & NetApp storage
- Virtualization on VMWare
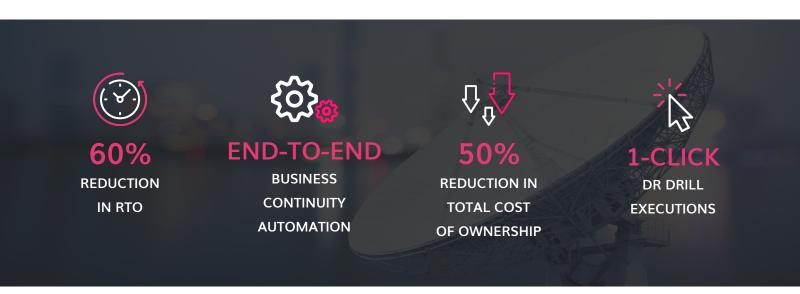- RTO of 1 & 2 hours for multiple business critical applications

RESULTS AND BENEFITS TO BUSINESS

- Management dashboard for DR health and proactive correction through BIA.
- High level of confidence about the availability/ visibility of applications and data in case of disaster.
- Lower revenue loss in case of disaster by lowering the data loss.
- Quicker availability of applications through automated processes.

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➤ Transparency about DR health through various reports.

➤ Production server performance remains intact.

➤ DR runbook executions are automated without dependency of SMEs.

➤ Adherence to Business continuity compliance as per ISO 22301 standards.

➤ Reduced **RTO by 60%**.

➤ Has brought in major visibility to the Business on the overall DR.

➤ IT is able to release the application systems to users on time after completing the DR drills without any business impact.

60% REDUCTION IN RTO	**END-TO-END** BUSINESS CONTINUITY AUTOMATION	**50%** REDUCTION IN TOTAL COST OF OWNERSHIP	**1-CLICK** DR DRILL EXECUTIONS

> We as Applications DR team had evaluated Perpetuuiti's "Continuity Patrol" application among 12 DR automation Tools/Solutions in 2018. The evaluation process involved multiple presentations, demos and POCs, and shortlisted into three solutions. Based on the POC results and success criteria, Continuity Patrol was selected. Automation project started in mid of 2020 and still the project is ongoing.
>
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READY FOR YOUR OWN SUCCESS STORY?

Get in touch with our automation experts and learn how you can fast-track your digital transformation initiatives.

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About Perpetuuiti

Perpetuuiti empowers people and businesses alike. We deliver the world's most-comprehensive and urbane automation platforms making work more human. Our platforms deliver leading-edge automation solutions for modernizing resiliency management, and turbocharging the performance of your applications, IT and business operations at speed and scale to drive exponential efficiencies.

For more information, visit **www.ptechnosoft.com**

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