



Accelerate SAP Migrations to AWS

Itelligence NTT Data Accelerates SAP Migration by 3X with AWS, CloudEndure Migration, and NetFoundry

CASE STUDY



itelligence NTT DATA Business Solutions



Intelligence NTT Data knows SAP! Founded in 1989, Intelligence NTT Data is a global SAP Platinum Partner who designs and implements tailor-made SAP software implementations. Their solutions drive innovation in SAP software and help shape the future for their customers.

The replication of business-critical data generated by environments like SAP into the cloud is not a trivial effort. Success in executing these replications can be affected by multiple factors including network bandwidth, data error rates, and storage performance.

Intelligence employs CloudEndure® Migration, offered by AWS, to replicate their SAP infrastructure from a data center in Malaysia to the AWS cloud in the us-west-2 (Oregon) region. CloudEndure Migration helps automate and orchestrate the replication process. Intelligence's goal was to achieve Continuous Data Protection (CDP) mode in the CloudEndure Migration environment which ensures all data is securely replicated and protected in the AWS cloud.

Intelligence NTT Data experienced significant issues in the replication process due to unique networking challenges including network instability and performance issues. This was further complicated by significant backlogs of approximately 320GB of data that was not being replicated daily. This represented a serious business risk for Intelligence NTT Data, as their customers expected that their data was being protected and secured continuously.

Intelligence attempted to solve the problem by increasing their internet subscription speed for an existing VPN connection from 125 Mbps to 250 Mbps but the massive daily backlog persisted. As Intelligence experienced, traditional networking that uses private circuitry or VPN technologies are too cumbersome, expensive and lack the overall performance to carry out the demanding data transmission requirements for large SAP replications.

Intelligence NTT Data and NetFoundry achieve CDP status with a 3X performance improvement

Intelligence NTT Data was introduced to NetFoundry to solve their networking challenges. The companies collaborated to quickly establish a test-bed that implemented NetFoundry's zero trust networking platform. This test-bed established a cloud orchestrated private network connection between the Intelligence data center in Malaysia and AWS data center in Oregon USA. The new software-defined network was deployed and was fully functional in only a few hours. The teams could now begin testing.

Prior to switching the SAP workload to the NetFoundry network, an IPerf test was performed to compare the performance of the existing VPN vs. Netfoundry. IPerf is a widely used tool for network performance measurement and tuning. It is significant as a cross-platform tool that can produce standardized performance measurements for any network.

The transfer of replication traffic from the challenging SAP environment to the NetFoundry network was executed seamlessly by doing policy-based routing to the NetFoundry Gateways in the Malaysia data center and in AWS.

The IPerf test results showed the NetFoundry solution delivered almost three times (3X) more throughput on a 250 Mbps Internet underlay compared to the legacy VPN 1:1 Internet connection!

Existing VPN: 71 mbps						NetFoundry: 189 mbps					
250 Mbps Connection without NetFoundry						Results with NetFoundry					
[13]	0.00-300.00 sec	517 MBytes	14.4 Mbits/sec	209	sender	[13]	0.00-300.00 sec	1.46 GBytes	41.7 Mbits/sec	3895	receiver
[13]	0.00-300.00 sec	514 MBytes	14.4 Mbits/sec		receiver	[SUM]	0.00-300.00 sec	6.59 GBytes	189 Mbits/sec		sender
[SUM]	0.00-300.00 sec	2.48 GBytes	71.0 Mbits/sec	1364	sender	[SUM]	0.00-300.00 sec	6.58 GBytes	189 Mbits/sec		receiver
[SUM]	0.00-300.00 sec	2.47 GBytes	70.6 Mbits/sec		receiver	iperf Done.					
iperf Done.											

The CloudEndure team made some adjustments on the replication agents to push more data to the replication site and NetFoundry provided optimized connectivity to achieve Continuous Data Protection mode and continuous replication with zero downtime for the SAP infrastructure.

THE BENEFITS

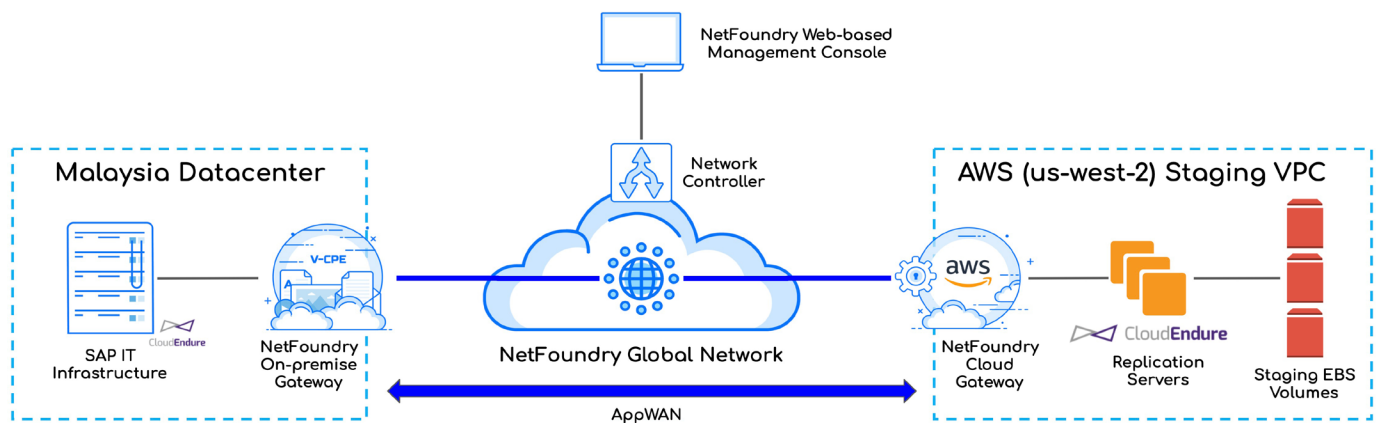
The Intelligence NTT Data and NetFoundry teams were able to establish, test, and validate a significantly improved high performance networking solution - the very same day that customer was introduced to NetFoundry.

By using AWS CloudEndure and NetFoundry, Intelligence realized these benefits:

- A 3X improved connectivity compared to conventional VPN
- Achieved Continuous Data Protection mode in CloudEndure Migration
- Implementation was completed in less than 6 hours
- Agile, scalable, global capable networking with next generation security capabilities
- No hardware procurement or installation was involved
- Two data centers were connected in a few minutes
- Simple, efficient management with a cloud based NaaS platform

Much like how the AWS cloud implements software-defined services to deliver agility and scalability for SAP infrastructure, NetFoundry implements cloud-based orchestration to instantly spin up and manage zero trust, performant, edge-to-cloud networks over the Internet.

NetFoundry partners with CloudEndure Migration to accelerate the entire application migration process into the AWS cloud. CloudEndure Migration streamlines application migrations with automation to convert your virtual machines from their source infrastructure into AWS. The NetFoundry zero trust networking platform optimizes network throughput performance for CloudEndure Migration.



ABOUT NETFOUNDRY

NetFoundry is the leader in Cloud Native Networking, enabling businesses to simply, securely and cost-effectively connect distributed applications across edges, clouds and service meshes. The NetFoundry platform, delivered as SaaS, enables businesses to connect applications without the costs and complexity of VPNs, custom hardware and private circuits. NetFoundry's platform is accessed via APIs, SDKs and DevOps tools integrations, enabling practitioners, application developers, and network administrators to get the levels of automation and agility which are only possible with connectivity-as-code. NetFoundry is headquartered in Charlotte, North Carolina, with offices in California, Colorado, New York, London, Bangalore, and Singapore.

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