



Speeding data from cloud to cloud



Cognizant builds secure and reliable hybrid cloud environments using IZO™ Private Connect

Challenge

With over 100 development and delivery centers worldwide and approximately 233,000 employees as of March 31, 2016, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world.

Cognizant Infrastructure Services provides cutting edge global network solutions to its clients with cloud-based network management apps. Edwin Raja, a Senior Architect in Cognizant Infrastructure Services, explains: “Network management services such as monitoring, integration, analytics and automation increasingly use a hybrid model with some elements hosted in our data centres and others running in public cloud environments.”

For its network management service, Cognizant initially chose the Amazon Web Services (AWS) public cloud environment. A secure platform offering global compute, storage, database, analytics and applications, AWS helps businesses scale and grow.

The problem was that connectivity to AWS tended to be over the Internet; and public Internet access circuits are less reliable and secure than the enterprise alternative. “Standard broadband access services might be alright for some,” says Edwin, “but they weren’t sufficient when running global core infrastructures for major companies.”

The answer was the IZO™ Private Connect service, which uses the Tata Communications MPLS-based global network to carry cloud traffic.

Overview and Results

Driven by a passion to help its clients build stronger, more agile and more innovative businesses, Cognizant is a leading provider of information technology, consulting, and business process services worldwide.

Having partnered with Tata Communications for over a decade, services such as IZO™ Private Connect are making a clear difference to the Cognizant business model. That partnership has helped in many ways:

- The integrity of Cognizant cloud-based services has been assured.
- Savings have been realised through better utilisation of Cognizant resources.

IZO™ Private Connect assures security and availability for public, private and hybrid clouds by routing cloud traffic over the Tata Communications global infrastructure. Travelling nearly all the way over the Tata Communications MPLS network, it takes a short hop from a Tata Communications data centre to the cloud service provider.



Cognizant enables its clients' business functions to work faster, cheaper and better. And its ability to conceptualize and architect new and expanded capabilities allows those clients to transform legacy models to take their businesses to the next level.

Solution

It was fortunate that 120 Cognizant locations around the world were already served by a Tata Communications Global VPN. The requirement for robust connectivity between Cognizant and cloud providers' data centres was a significant growth area for the Cognizant Network and Systems Services (NSS) team.

Cognizant NSS acts as an internal service provider for client-facing divisions like Infrastructure Services. Rajesh Deenadayalan, an NSS Senior Manager, says: "Customers' dependence on cloud solutions was growing fast. Trusted by big established enterprises and the hottest start-ups, cloud providers like AWS perfectly matched our agile business model."

In order to enable this, Cognizant found IZO™ Private Connect a perfect solution. It linked businesses to cloud services over the existing Tata Communications MPLS or Ethernet-based Global VPNs. Through their global partner interconnect arrangements, companies now have access to a one-stop-shop that offers end-to-end Tata Communications cloud management to ensure peerless performance.

Manohar Vellaiyan, an NSS Senior Director, says: "With IZO Private Connect our cloud traffic is carried with the same speed and security we get from our Tata Communications Global VPN service. A resilient gateway at a Tata Communications data centre offers the shortest hop to the cloud provider's domain along with firewalled security."

Cloud-to-cloud security assured

By leveraging the existing Tata Communications Global VPN service management wrap, IZO™ Private Connect assures Cognizant of the SLA and support guarantees it already receives and expects. Cognizant meanwhile, escapes the challenge of administrating multiple unreliable Internet cloud connections.

Rajesh Deenadayalan says: "The IZO Private Connect links are more secure than the public Internet. The fact that they're part of a managed service gives additional support and assurance that they don't deviate from our normal high standards."



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Manohar Vellaiyan
Senior Director, Network
and Systems Services
Cognizant

Matchless speed and scalability

Hybrid environments for Cognizant Infrastructure Services clients use cloud services like AWS alongside their own data centre resources. IZO™ Private Connect has been found invaluable in quickly setting up such hybrid environments.

IZO™ Private Connect runs over the Tata Communications Global VPN infrastructure, which is naturally designed to perform to enterprise standards. It therefore matches in-house Cognizant systems for speed while exceeding them in scalability.

Running proofs of concept

Apart from the value of reliable and secure cloud services in helping build its global network infrastructures for clients, Cognizant takes advantage of IZO™ Private Connect in other ways. For instance, running a proof of concept is one of the keys to the Cognizant client engagement model. It means they can experience their Cognizant solutions before making significant investments.

Rajesh Deenadayalan says: “Although proofs of concept are powerful sales tools, building them can be resource-hungry. Using the public Internet to show them to customers may not provide the desired effect due to problems with reliability and latency.”

Saving with virtual assets

Needing a more flexible and less expensive means of constructing and displaying proofs of concept, Cognizant naturally looked to cloud services. It became apparent that using an AWS environment offered the ability to design and test new apps on virtual servers and virtual storage. The cost of commissioning hardware completely evaporated.

“Using AWS accessed over IZO Private Connect, the cost of our proof of concept model considerably diminished,” Rajesh explains. Additionally, the solution up to full production would potentially no longer require a massive data centre build-out.

Available everywhere on the globe

The IZO™ Private Connect service links the Cognizant Global VPN to a Tata Communications data centre in the US. Among sixty Tata Communications data centres worldwide, other points of presence for cloud connectivity are in London, Hong Kong and Tokyo.

Rajesh Deenadayalan brings that huge global infrastructure to life: “We have connected to the Microsoft Azure cloud via Tata Communications data centres in Chennai in India and San Jose in the US. We have also established another AWS connection through the Tata Communications data centre in Frankfurt.”

In fact, use of those two separate cloud platforms makes Cognizant the first multi-cloud-connected Tata Communications customer.



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The right technology from the start

As the first service provider to offer cloud connectivity over MPLS and Ethernet-based private networks, Tata Communications was ahead of the game.

“When we first saw the need for robust cloud-to-cloud connectivity, Tata Communications was just what we wanted,” says Manohar Vellaiyan. “That foresight is why we see them as a strategic, long-term partner.”

Cloud technology is booming and new global players are constantly emerging. Cognizant is increasingly reliant on robust and delay-free connectivity to its own data centres as much as the other cloud service providers. Adds Manohar: “As a company we’re well ahead and can use that learning with customers taking Microsoft Azure services, for example. Tata Communications gives us that vital edge.”

Fast scalability with assured availability

At present, the IZO™ Private Connect link for Cognizant runs at 100Mbps, but its innate scalability means it can quickly be upgraded to 1Gbps and above.

Rajesh Deenadayalan says: “We’re continuing to build our presence as we link to more internal and external customers and see more benefits. It’s reassuring to know that there is scope to quickly scale to higher speeds over our existing infrastructure.”

These are early days in the use of IZO™ Private Connect by Cognizant, but the signs are already excellent. Rajesh concludes: “Because IZO Private Connect uses exactly the same infrastructure as Tata Communications Global VPN we get the same service level for each. In fact, there have been no outages. It’s simply never failed.”

About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process services, dedicated to helping the world’s leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 100 development and delivery centers worldwide and approximately 233,000 employees as of March 31, 2016, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. Visit us online at www.cognizant.com or follow us on [Twitter: Cognizant](https://twitter.com/Cognizant).

About IZO™ Private Connect

IZO™ Private Connect links businesses to cloud services over their existing Tata Communications MPLS or Ethernet-based Global VPNs. Through global partner interconnect arrangements under the AWS Direct Connect program and Microsoft® Azure™ ExpressRoute companies now have access to a one-stop-shop, which offers end-to-end Tata Communications cloud management to ensure peerless network performance.

As part of a cloud enablement platform, companies using IZO™ Private Connect tap into an entire global ecosystem that provides secure, high-performance connections between enterprises, cloud service providers, and third party data centre partners.

About Tata Communications

Tata Communications Limited (CIN no: L64200MH1986PLC039266) along with its subsidiaries (Tata Communications) is a leading global provider of A New World of Communications™. With a leadership position in emerging markets, Tata Communications leverages its advanced solutions capabilities and domain expertise across its global and pan-India network to deliver managed solutions to multinational enterprises, service providers and Indian consumers.

The Tata Communications global network includes one of the most advanced and largest submarine cable networks and a Tier-1 IP network with connectivity to over 240 countries and territories across 400 PoPs, as well as nearly 1 million square feet of data centre and collocation space worldwide.

Tata Communications’ depth and breadth of reach in emerging markets includes leadership in Indian enterprise data services and leadership in global international voice.

Tata Communications Limited is listed on the Bombay Stock Exchange and the National Stock Exchange of India.

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