



GET AHEAD IN THE CLOUDS

MARKET CONTEXT

Cloud is now the default deployment model for any new enterprise application or workload. Over 95% of large enterprises report using some form of public or private cloud service and 75% say they are operating some form of hybrid cloud environment, spanning public and private cloud services.

CUSTOMER CHALLENGE

With nearly every enterprise operating multiple application workloads, delivering a seamless user experience across a diverse IT estate spanning legacy infrastructure to private and public clouds, can be a challenge. As workloads move, the limitations of the enterprise IT stack are quickly exposed.

The enterprise WAN is not optimised for the cloud. Connectivity to cloud providers and data centres must be bilaterally linked to the enterprise network. This can be slow, inflexible and expensive. Meanwhile, the public Internet can't meet demands for secure, reliable and predictable performance.

Enterprises also find themselves struggling to optimise their investments in compute and storage. They are either left with stranded assets or oversubscribed virtualised estates that soak up investment that they were meant to avoid. There are also challenges of easily orchestrating their workloads across multiple public and private clouds.

OUR SOLUTION

For CIOs looking to deliver seamless user experience across multiple workload types, Tata Communications offers IZO™: a flexible, one-stop cloud enablement platform that helps CIOs get the best out of their clouds.

It's all made possible by best-in-class IZO™ Private Connect, IZO™ Public Connect, IZO™ Internet WAN, IZO™ Hybrid WAN and IZO™ SDWAN. IZO™ Private Cloud, IZO™ Cloud Storage, orchestration, security, and our extensive ecosystem of partners (CSPs and ISPs).

Unlike our competitors, we offer global connectivity, the ability to deal with a CIO's total enterprise workload, and to integrate existing cloud systems without tying anyone down to proprietary technologies. Tata Communications guarantees performance for enterprises so that the CIO knows that every user is being helped by information and computing technology, not hindered by it.



MARKET TRENDS

“Most enterprises rank network security and end-to-end SLAs as the top two critical features for cloud enablement”

—OVUM
“OPPORTUNITIES FOR CSPs IN ENTERPRISE-GRADE PUBLIC CLOUD COMPUTING”

“56% of enterprises believe the cloud to be a strategic differentiator that enables operational excellence and accelerated innovation.”

—EVEREST GROUP

CUSTOMER BENEFITS

- Reach more cloud providers and more locations
- Reduce costs
- Accelerate time to market
- Easily take advantage of opportunities in hybrid IT
- Quickly increase business agility and innovation
- Automate IT operations and improve efficiency



A global Internet-based WAN service that gives businesses the security, flexibility and predictability of a private network, with the global reach of the Internet — for the first time.

You can also integrate IZO™ Internet WAN with Tata Communications' Global VPN service to build a global hybrid network with guaranteed performance levels.



IZO™ Private Connect links businesses to leading cloud service providers such as Amazon Web Services, Microsoft Azure, Office 365, Salesforce.com, SoftLayer and Google Cloud Platform. Customers can connect using MPLS or Ethernet via one single provider globally, to ensure network performance.



IZO™ Public Connect is a cloud enablement service that provides a dedicated and deterministic route for Tata Communications' enterprise customers by tagging their data packets for pre-determined delivery over the public Internet.



IZO™ Private Cloud is an OpenStack based cloud solution to manage your IT infrastructure, from application development to business-critical workloads across colocation, hosting, public and private cloud environments. IZO™ Private Cloud offers high- performance, scalable, self-service capabilities from across multiple Tata Communications global data centre locations. With built-in automation, orchestration, and management tools, it provides a flexible, scalable and cost effective IT-ready platform to deploy your applications.



IZO™ Cloud Storage is an integrated solution for your diverse data requirements, ranging from long term archival to high performance storage. Integrated with the global tier-1 network and security services, IZO™ Cloud Storage offers an always available, highly durable and fully secure environment, delivered from across multiple global locations. Supported by a dedicated 24x7 team and best in class SLAs, IZO™ Cloud Storage is an enterprise grade storage platform for all your data needs.



IZO™ Hybrid WAN gives your network the power to evolve through the integration of IZO™ Internet WAN, Global VPN and IZO Private Connect in over 130 countries. It combines innovative application management tools and cloud-based managed security to bring greater flexibility and resilience to your business.



IZO™ SDWAN maximises performance by combining IZO™ Hybrid WAN with cutting edge software-defined and virtualised network technologies in over 130 countries delivered as a managed service. It enables intelligent routing, centralised management and advanced visibility to ensure better end-user experience, simplified branch infrastructure, consistent security policies and lower cost of ownership.

“IZO™ Internet WAN, presents an attractive and differentiated proposition to customers that want to put 100% of their WAN traffic over the public Internet, and at the same time get value-added business-grade VPN embellishments, namely security, a unique performance monitoring dashboard, end-to-end SLAs and support for multiple QoS.

—JOEL STRADLING, RESEARCH DIRECTOR, CURRENT ANALYSIS

NOW YOU CAN BE PRIVATE IN PUBLIC

IZO™ INTERNET WAN

A global Internet-based WAN service that gives businesses the security, flexibility and predictability of a private network, with the global reach of the Internet — for the first time.

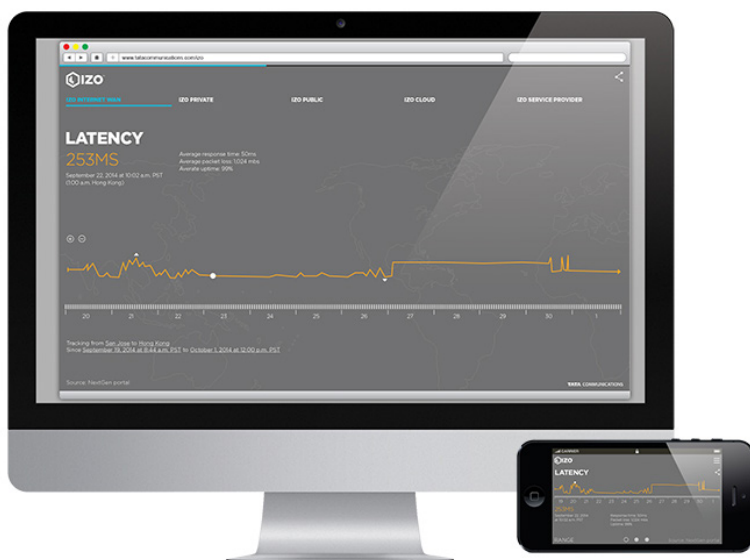
PREDICTABLE: Run your enterprise WAN over the Internet with predictable routing, consistent network performance, end-to-end Service Level Agreements (SLAs) and reporting.

GLOBAL REACH: IZO™ Internet WAN reaches 80+ countries, 1500+ cities, over 1 million buildings, and covers 90% of the world's GDP.

EFFICIENT: Achieve faster deployment times while reducing your network total cost of ownership by up to 30%.

FLEXIBLE: Transition to the cloud at your own pace by integrating IZO™ with your existing Tata Communications Global VPN network to deliver global hybrid networking with guaranteed performance.

VALUE-ADDED SERVICES: Get state-of-the-art security with managed encryption, improve performance with best-in-class WAN optimisation, and integrate with IZO™ Private Cloud



GIVE YOUR NETWORK THE POWER TO EVOLVE

IZO™ HYBRID WAN

IZO™ Hybrid WAN gives your network the power to evolve through the integration of IZO™ Internet WAN, Global VPN and IZO Private Connect in over 130 countries. It combines innovative application management tools and cloud-based managed security to bring greater flexibility and resilience to your business.

SIMPLE NETWORK: Remove unnecessary complexity with guaranteed service performance built into one single contract for multiple networks.

FLEXIBLE TRANSITION: Roll out your IZO™ Hybrid WAN solution at a pace that suits your business – avoiding the need to invest in new equipment or “rip and replace” implementation.

BETTER CLOUD PERFORMANCE: Leverage IZO™ Private Connect to ensure cloud application performance to cloud services like Amazon Web Services, Microsoft Azure, Office 365, IBM Softlayer and Salesforce.com.

ADVANCED REPORTING: Complementary cloud- and premise-based application tools include extensive performance optimisation, and reporting solutions.

COMPREHENSIVE SECURITY OPTIONS: Security options include cloud-based antivirus, content filtering, access control and DDoS protection – plus on-premise security solutions.



NOW YOUR NETWORK CAN'T IGNORE YOU

IZO™ SDWAN

IZO™ SDWAN maximises performance by combining IZO™ Hybrid WAN with cutting edge software-defined and virtualised network technologies in over 130 countries delivered as a managed service. It enables intelligent routing, centralised management and advanced visibility to ensure better end-user experience, simplified branch infrastructure, consistent security policies and lower cost of ownership.

IZO™ SDWAN has two deployment models, Prime and Select, allow you to leverage your existing network investments, and/or choose new technology based on x86 devices for any of your enterprise headquarter and branch locations. IZO™ SDWAN Prime is patent-pending.

MAXIMISE PERFORMANCE: Raise service availability and application performance for better user experience across your network.

SIMPLIFY OPERATIONS: Build with virtualized network functions and centralised configuration tool for streamlined IT operations.

ENSURE SECURITY: Use both cloud-based security and centralised management to enforce globally consistent policy.

GET AGILE: Accelerate intelligent routing policy change implementations through a simpler centralised control.

GAIN CONTROL; Gain full visibility over your entire IT stack, including the underlying network.



TURN YOUR IP VPN INTO A VIP VPN

IZO™ PRIVATE CONNECT

IZO™ Private Connect links businesses to cloud services over MPLS or Ethernet through one single provider globally, to ensure network performance.

Through global agreements with Amazon Web Services, Microsoft Azure, Office 365, Salesforce.com, SoftLayer and Google Cloud Platform, Tata Communications' IZO™ Private provides faster on-boarding and guaranteed performance to the world's leading cloud service providers.

PREDICTABLE: Get guaranteed throughput and availability, with SLAs for consistent network performance.

SIMPLIFIED: Reduce the complexity of network management with a single global relationship that is fully managed, a single bill, and 24/7/365 customer service.

SEAMLESS: Connect to the top public clouds and data centres over our global Tier-1 network — one site to multiple hubs.

SECURE: Protect enterprise data while enjoying dedicated network capacity and high speeds.

Ethernet connectivity to Tata Communications' data centres and across 110+ third party data centres globally

North America	Europe	APAC
Ashburn (x10)	Amsterdam (x4)	Hong Kong (x6)
New York (x2)	London (x8)	Tokyo (x4)
Atlanta (x1)	Frankfurt (x6)	Singapore (x6)
Boston (x1)	Paris (x6)	Sydney (x3)
Chicago (x4)	Brussels (x1)	Melbourne (x1)
San Jose (x7)	Helsinki (x1)	Taipei (x1)
Dallas (x7)	Budapest (x1)	India (x13)
Miami (x1)	Dublin (x1)	
Los Angeles (x1)	Milan (x1)	
New Jersey (x1)	Moscow (x1)	
Seattle (x1)	Madrid (x1)	
Houston (x1)	Stockholm (x1)	
Toronto (x1)	Geneva (x1)	
	Zurich (x4)	



BE A SMOOTH APP OPERATOR

IZO™ PUBLIC CONNECT

IZO™ Public Connect is a cloud enablement service that provides a dedicated and deterministic route for Tata Communications' enterprise customers by tagging their data packets for pre-determined delivery over the public Internet.

It also provides a dedicated and deterministic route for Tata Communications' enterprise customers to reach cloud service providers including Google Cloud Platform.

IMPROVED USER EXPERIENCE: You can now deliver content in a more deterministic manner, improving your customers' experience by improving speed and reliability.

PREMIUM SERVICE FOR PAID CONTENT: You can offer improved Quality of Service (QoS) to your customers.

EASY IMPLEMENTATION: Just turn on the CoS / QoS features on our existing IPT/DIA port.

TRANSPARENCY IN REPORTING AND MONITORING: Per CoS reporting to monitor performance.

Customer Benefits

- Just one hop away from enterprises on Tata Communications' Tier-1 IP network
- Deliver your services on a global QoS network
- Address the challenges of congested enterprise Internet connectivity
- Be part of the new ecosystem for cloud enablement
- Focus on your product, not network issues

Features

- Map different types of traffic to different Classes of Service
- Handle peak traffic requirements
- CoS markings using DSCP, IP precedence bits, and others supported
- Fixed & burstable service
- Burstable for CoS6 traffic
- Customised performance monitoring & reporting
- Per CoS Traffic Report



IZO PARTNERS

CLOUD SERVICE PROVIDERS

The IZO™ Platform brings together leading cloud and data centre providers, giving businesses access to a single ecosystem to connect, end-to-end, across network and cloud platforms.

Backed by Tata Communications' award winning Tier-1 network, IZO™ cloud service provider partners join forces to provide a secure, interoperable, high performance environment that addresses the complications and challenges that companies face in managing global hybrid cloud deployments. The result is faster deployment timeframes, simpler network configurations and a better end-user experience.

IZO™ cloud service provider partners are collaborating to deliver everybody's network cloud.

NETWORK SERVICE PROVIDERS

The IZO™ Platform brings together 35+ network providers to deliver business-class SLAs over the public Internet — for the first time.

Serving 90% of the world's GDP, IZO™ service provider partners, backed by Tata Communications' award winning network, join forces to provide the security, flexibility and predictability of a private network with the global reach of the Internet.

Enterprise-grade customer service and reporting is managed globally by Tata Communications.

The result is faster deployment times, and up to 30% reduction of total cost of ownership — enabling a secure way to connect to the public cloud.

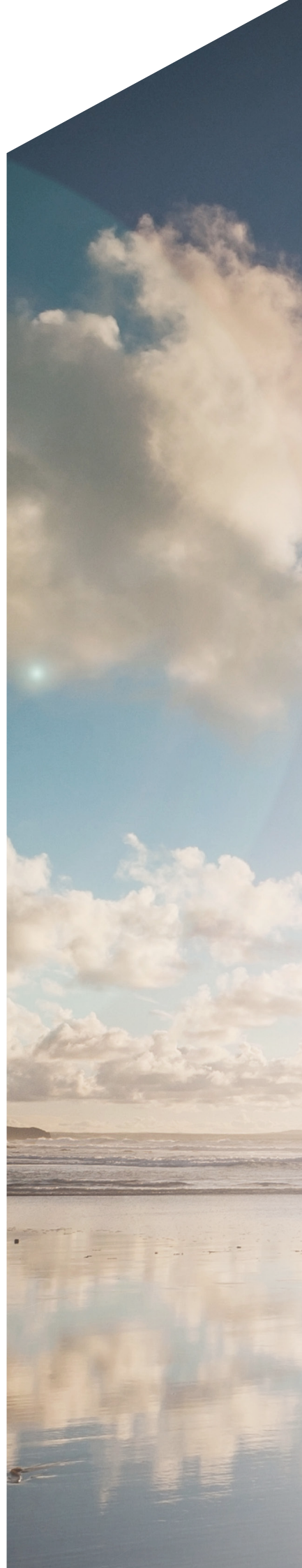
IZO™ network service provider partners are collaborating to deliver everybody's network cloud.

“Tata Communications' IZO™ enterprise WAN and cloud enablement platform leverages its extensive global network and the reach of its partner ecosystem to enable global organisations to harness the cloud – be it private, hybrid or public.”

—MELANIE POSEY, RESEARCH VICE PRESIDENT, IDC

“Tata Communications aims to give enterprises IT control and visibility with IZO™ Private Cloud. The core capability of IZO™ Private Cloud is to put enterprises’ IT back in the driver’s seat with full visibility and control over resources running across multiple IT environments. The next step is to deepen integration of services both horizontally and vertically.”

—AGATHA POON, 451 RESEARCH



TAKE CONTROL OF YOUR CLOUDS

IZO™ PRIVATE CLOUD

A fully integrated and managed enterprise cloud solution based on OpenStack, which provides the advanced automation and orchestration needed to manage multiple IT environments effectively. It acts as a 'single-pane-of-glass' providing complete visibility and control across all enterprise IT resources across network, compute, storage and ensure business continuity by deploying Disaster Recovery environment of your choice.

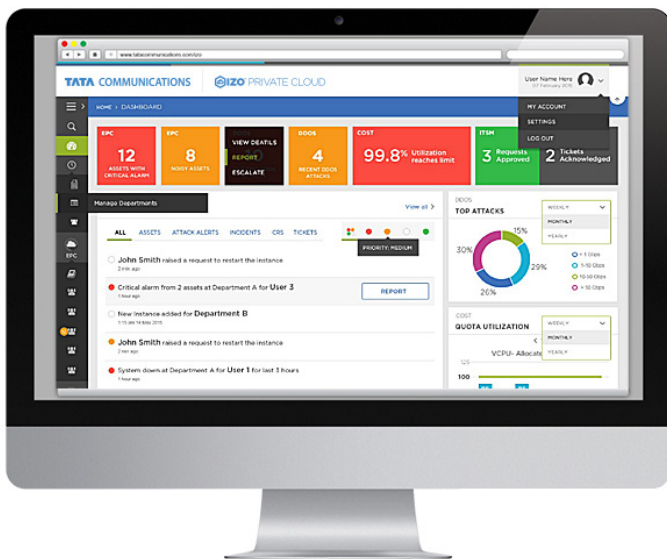
ON-DEMAND SCALABILITY: Users can scale-up and scale-down resources plus burst into public cloud platforms

HYBRID-READY: Integrate, manage and control your distributed IT environments using a single orchestration platform

FREEDOM OF CHOICE: Open and flexible platform with choice of hypervisors, Operating Systems and Storage

SECURITY AND PRIVACY: Dedicated or virtual integrated security architecture, configurable RBAC and LDAP integration with SAML authentication

PEACE OF MIND: 24/7 support with ITIL integrated processes and backed by enterprise SLAs



CLOUD STORAGE TRANSFORMED TO MEET YOUR PRIORITIES

IZO™ CLOUD STORAGE

From highly scalable archival to high performance storage, equip your enterprise with the comprehensive storage suite it needs to meet all your data demands. IZO™ Cloud Storage allows you to store unlimited data in an always available, highly durable and fully secure environment. You will benefit from

AN INTEGRATED OFFERING: Leverage the advantage of our global tier-1 network infrastructure and security services, to enhance your data storage

FULLY MANAGED: Over 300 professionals provide 24/7/365 support to deliver enterprise-grade SLAS, and up to 99.99% platform availability

PREDICTABLE PRICING: Pay only for the data you store, with no additional charges, budget forecasting is now very easy



For more information, visit us at www.tatacommunications.com/IZO