This IDC study demonstrates how organizations use Tata Communications cloud offerings and managed services as a cost-effective and robust IT platform to support important business applications and services.

Tata Communications Cloud as a Cost-Effective and High-Performing Platform for Key Business Applications

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IDC Opinion

As organizations in India continue to invest in modernizing IT, public cloud technologies sit at the heart of many organizations' digital transformation strategies and have seen widespread adoption over the past few years. The India public cloud services market was estimated at US$6.2 billion in 2022 and is expected to grow at a 2022–2027 CAGR of 23%. Though public cloud offers a host of business benefits, it also comes with a number of challenges both during the initial migration stage and later, while operating it.

This paper details some public cloud challenges, and the approach end users should take to address them. Further, the paper analyzes Tata Communications' cloud solutions and discusses how they help end users address these challenges, subsequently helping to drive their digital transformation initiatives.

IDC conducted in-depth interviews with organizations using Tata Communications cloud offerings and managed services (Tata Communications cloud) as a platform for important business applications and customer-facing services. Study participants reported that Tata Communications Cloud has:

» **Enabled smooth migration** of mission-critical business applications on Tata Communications cloud

» **Delivered substantial cost efficiencies** as a result of the migration to the cloud

» **Ensured required application performance and availability** running on Tata Communications cloud

Business Value Highlights

WHAT'S IMPORTANT

IDC conducted in-depth research with companies that are using Tata Communications Cloud Offerings and Managed Services.

KEY TAKEAWAYS

Tata Communications cloud is perceived by customers as a reliable **custom-built** cloud delivering exceptional ROI through the following benefits:

» Transparent and predictable cost of its cloud offerings

» High application performance on Tata Communications Cloud

» Strong multi cloud management capabilities

» Smooth migration process

» Ease of business: Unified customer experience through cloud offerings, network connectivity, single touchpoint for service assurance and managed services support

Situation Overview

According to IDC's *AP Cloud Survey 2023* (n = 150 for India), 84% of Indian organizations have adopted some form of cloud computing models while 16% are at the stage of discovery, evaluation, or running trial projects on cloud. The vast majority of these customers use public cloud services. Customers face a number of operational and technology challenges while using public cloud services. Some of these challenges include:

» **Migration challenges:** Organizations face multiple challenges while migrating to the cloud mainly due to a lack of adequate technical know-how, understanding of different interdependencies, and existing complexities of their IT infrastructure. Cloud migration processes often take longer than planned, leading to missed timelines and cost overruns. Organizations should work with a cloud service provider that has prebuilt tools, preconfigured templates, and deep experience in executing successful cloud migration projects.

» **Cost overruns:** Customers on public cloud often experience increased costs due to a lack of transparency on the services subscribed, oversubscription, or underutilization of the subscribed services. Second, many of the services like IaaS compute or storage on cloud are offered in standard sizes with limited customization, which do not fit to the customer's unique business requirements. Not designing the public cloud services as per the customer's business requirements leads to unnecessary expenses and often oversubscription to cloud resources leading to higher costs.

» **Performance and workload fitness:** Organizations often face performance challenges when workloads running on the public cloud are not optimized to meet the required performance SLAs. Since the COVID-19 pandemic, many organizations in India have moved their applications to the public cloud in a hurry to support their business. This left very little to no scope for workload fitness analysis essential to select the right cloud deployment model. A lack of good connectivity services also leads to higher latency and lower performance. Customers should work with a cloud provider with the ability to offer performance-optimized network connectivity and do the workload fitness analysis accurately.

» **Hybrid multicloud management:** One of the key challenges organizations often face is cloud management and its operations. IDC observed key challenges that many organizations in India face in managing a hybrid multicloud.

Hybrid cloud estate — on-premises, private, and public cloud — is a complex environment with different maturity levels across platforms, workflows, and management tools and is difficult to bring all under a single pane of glass. In addition, there are differences in security tools, APIs, and integration challenges — **34% respondents pointed this out in IDC's *AP Cloud Survey 2022***.

Professional cloud providers often fall short of customers' expectations in executing an efficient management mechanism and achieved business SLAs.

Working with a cloud service provider also having "managed cloud services" capabilities is an advantage for customers. Cloud service providers executing the cloud migration and implementation stages will be familiar with different cloud components, their interdependencies, management, and monitoring tools and can far more efficiently manage the cloud environment for the end users.

» **Security:** According to IDC research, at least 74% of Indian organizations were affected by ransomware attacks at least once in the past 12 months, and 30% of them experienced a ransomware attack on their public cloud environment. Fragmented IT and security infrastructure, outdated legacy systems, and lack of adequate security management skills make it difficult to trace and control a cybersecurity attack. Many cloud providers in India offer generic security and compliance solutions for all applications. This is not an ideal scenario as security tools need to be customized to different applications and data depending on their business value and security requirements.

Customers should liaison with cloud providers that offer security solutions protecting applications and data across cloud, on-premises infrastructure, datacenter interconnections, and edge locations. In addition, service providers should have an advanced threat detection and management capability that can trace and eliminate cyberthreats before they affect systems.

» **Compliance:** With growing adoption of multiple clouds in India, IT and business executives must manage data governance and compliance challenges to protect customers, citizens, and countries using data privacy, access, and controls. There are two aspects IT teams need to address:

■ **Industry compliance standards:** End users need to assess their compliance maturity and take corrective actions. This involves adherence to certain industry standards such as DoT, RBI guidelines, ISO 27001, PCI DSS standards, HIPAA, IRDA guidelines, and ITGC.

■ **Sovereign clouds strategy:** IDC defines sovereign cloud as one that is "designed to ensure consistent security and local/regional regulatory compliance for sensitive workloads and data." According to IDC's 2023 *AP Cloud Survey,* sovereign clouds enable public sector and regulated private sector organizations to enhance data security and privacy, become future ready for upcoming regulations, and drive data-led innovation.

Customers need an "expert" to implement a sovereign cloud as IT teams with customers might be inexperienced, face performance and network reliability issues, and face high-complexity and implementation costs for these types of cloud solutions.

IDC Primary Research with Tata Communications Cloud Customers

Firmographics

IDC interviewed a few select customers of Tata Communications cloud across consumer goods, healthcare, manufacturing, and software industries about their use of the cloud offerings and managed services to understand the business impact of using Tata Communications cloud for important business applications and services. Overall, study participants were large enterprises with an average employee size of 57,115 and annual revenue of just over US$5 billion per year.

Interviewed customers mentioned a few use cases that they are running on Tata Communications cloud. Some of these use cases are broadly summarized as follows:

» Hospital information system application

» SAP ERP platform

» Document management system, e-office solution

» Retail distributor management systems and analytics applications

» Customer-facing voice and other services applications

On an average, Tata Communications cloud platforms accounted for 42% of their total IT infrastructure foundations, indicative of the importance of Tata Communications cloud to their business activities.

Business Value Derived from Tata Communications Cloud by the Interviewed Customers — Summary

The most significant business benefits of using Tata Communications cloud that were called out by the interviewed customers are summarized as follows:

» Cost-effective and competitively priced

» Smooth migration process

» Quality service offerings, easy to use, superior technical support

» Improved performance and efficiency

Some of the callouts made by the interviewed customers to IDC are quoted as follows:

» "Tata Communications Cloud provides us with performance, availability, and cost benefits — all of these factors are relevant — because of our Tata Communications cloud environment, things are easier for us."

» "Tata allows us to customize at a VM level, which is why we chose Tata Communications cloud."

"We evaluated two to three vendors, but chose Tata Communications Cloud because the overall cost, commitment, and service offering was superior."

Primary Research Finding 1 — Cost-Effective Cloud Offerings

According to interviewed customers, 60% called out Tata Communications cloud is truly cost effective. Interviewed customers cited that Tata communications cloud is competitively priced compared with other players and also helps greatly to eliminate capital expenditures on on-premises IT infrastructure. Customers mentioned that Tata Communications cloud has **a flexible pricing model and customizes costs to actual use**.

The following are some quotes from the interviewed customers:

» "Deploying to the cloud with Tata Communications cloud just made everything easier. We were able to save some time and there are definite cost savings …. We're not seeing any outages and we can leverage cloud capabilities."

» "Our analysis is that Tata Communications cloud reduces costs significantly and it is very competitively priced. So, there are significant cost advantages there."

» "Tata Communications Cloud is more cost effective compared with other public cloud providers for higher-specification configurations — around 15 to 25% more cost-effective."

Primary Research Finding 2 — Smooth Migration Process

Of interviewed customers, 40% specifically called out the design and architecture of Tata Communications cloud for migration. This has helped customers minimize friction associated with deployment and migration across every step of the process from assessment to design planning and, finally, actual migration.

Specific callouts by interviewed customers are mentioned as follows:

» "The project of migrating our SAP application on Tata Communications Cloud was successfully done meeting our expectations. Because of this, our business runs on SAP on Tata Communications Cloud"

» "Deployment was quite efficient with Tata Communications Cloud and it was super quick as per the project plan. Since deployment, scaling up has been really smooth."

Primary Research Finding 3 — Quality of Service Offerings (Simple to Manage and Highly Secure)

In terms of security, several interviewed customers spoke to the positive impact. Some study participants quoted the following:

» "One of Tata Communications cloud's major qualities is that it provides baseline security levels ... so we don't get DDOS attacks because the basics of cloud security are there."

» "We obtained the required backup and disaster recovery capabilities from Tata Communications cloud and these solutions are working very well."

Interviewed customers further noted that Tata Communications Cloud is easy to manage and reduces infrastructure complexity:

» "The single pane of glass with Tata Communications cloud helps mostly for its seamless connectivity across clouds and also because for interoperability is not a challenge."

» "Tata Communications cloud has systems that can reduce complexity in the networks and servers."

Primary Research Finding 4 — Performance and Availability

Interviewed customers mentioned Tata Communications Cloud as providing a high-performing, secure, and resilient platform for running their business-critical applications and services. Some of the specific callouts by study participants are quoted as follows:

> "We used to face latency issues, but we haven't faced any such problems with Tata Communications Cloud because cloud doesn't mean only the infrastructure, but also the interconnections, the cables, and the internet connectivity."

» "With Tata Communications cloud, we've never faced downtime .... So, we find it better in terms of quality, support, and basic security."

» "In 15 months of operations, we have not had an outage of our more mission-critical applications with Tata Communications cloud."

What Should Customers Do?

Among the many challenges that customers face with cloud, challenges related to cost and performance occur as many of the cloud offerings are available in standard sizes (e.g., fix set of compute, storage) and not custom designed to the customer's business needs. In addition, cloud solutions are often not designed to meet specific industry regulations or stringent security protocols. IDC advises cloud customers to consider the following advice before embarking on their cloud journey:

» **Invest in purpose-built cloud:** Customers should work with cloud providers that can design the cloud solution specifically to meet the customer's business needs. This involves customizing different infrastructure, platform, and connectivity components and not selling standard-sized cloud resources. This will help avoid overconsumption or underconsumption of cloud resources, thus exactly meeting performance SLAs and investing only the required budget.

   ■ **Industry cloud solutions** are specifically designed to meet the set industry standards of security, compliance, quality, and availability. An industry cloud designed for a government or financial services industry runs applications specific to that industry. These clouds are further designed to meet industry-specific SLAs, security, and regulatory guidelines all the time. Customers, while planning for purpose-built cloud, should certainly evaluate these options.

» **Work with one-stop-shop cloud service providers:** Customers should prefer cloud providers that offer end-to-end IT solutions ranging from cloud components, network connectivity, datacenter services, and managed services. This leads to working with lesser vendors, managing the cloud environment easier, and being more cost-effective.

» **Develop multicloud management capabilities:** One of the key factors critical to the success of hybrid cloud strategy is the integration of different cloud environments and on-premises IT. Customers should work with service providers that can offer means and technologies to integrate these different environments and help manage them centrally.

In addition, customers need to do multiple tasks during initial assessment, planning, actual implementation, and management of IT. This requires working with an "expert" that is not just a vendor but a partner in their overall IT strategy and business success.

Customers of cloud should consider the following criteria for selecting their strategic cloud service provider:

» Strong digital trust, security, and compliance capabilities

» Digital consulting skills — planning, design, and implementation

» Cost-effective offerings

» Broader portfolio of services — cloud services, networking connectivity, back up/DR, managed services all under one umbrella

» Strong relationships with other ecosystem partners/vendors with the ability to transact purchases

Conclusion

Customers or end users should work with cloud service providers that can be trusted as partners throughout their digital transformation journey. A cloud service provider custom designs the cloud to meet business SLAs of performance, availability, and cost but also helps remain secure and compliant all the time. Customers should select a service provider with deep experience in implementing cloud modernization projects across industries and offers cloud, network, datacenter, and managed services offerings.

Tata Communications cloud is in a strong position to meet the customer's business requirements due to the following key differentiators:

» **Trustworthy and quality of services:** Over 60% of interviewed customers in the IDC research study validated that Tata Communications demonstrates a high quality of services. Tata Communications has helped these customers with reduced time for cloud migrations and deployments, high technical skills for customer support, easy-to-manage cloud platform, and much fewer and shorter outrages.

» **Comprehensive cloud portfolio:** Tata Communications offerings span cloud, network, unified communications, cybersecurity, and carrier services. Within the cloud portfolio, its offerings span cloud infrastructure and platform solutions and services, cloud storage, managed public cloud services for AWS, Azure, GCP, platform for application modernization, and industry-specific cloud such as IZO Financial Cloud for BFSI industry and Government Community Cloud (GCC).

» **Ability to customize:** Tata Communications is in a good position to offer purpose-built cloud solutions, tailor-made to meet their business SLAs. They have industrywide experience in implementing such projects with scale and long-term commitment to quality, security, and performance.

» **Fully compliant environment:** Tata Communications meets all the relevant RBI, IRDAI, SEBI, and MeitY regulations and guidelines with all risk assessment, access control policies, and BCM certifications in place.

» **Competitively priced and cost-effective:** Every customer would prefer to keep IT costs under check. Tata Communications cloud helps to a large extent in being cost-effective. This is through competitively priced cloud offerings and also by designing the cloud components to exactly fit the business requirements thus eliminating unwanted spending on different cloud resources.

Tata Communications Cloud Offerings and Managed Services

Tata Communications is an India-based multinational organization claiming presence in 190+ countries, with over 7,000 customers offering cloud, network, mobility, IoT, collaboration, and security services. Tata Communications claims to carry around 30% of the world's internet routes and connects businesses to 80% of the world's cloud giants.

Tata Communication's cloud portfolio consist of enterprise cloud IaaS, platform as a service, managed services, multicloud services, and industry cloud offerings. Tata offers cloud services through its IZO cloud platform. A detailed summary of Tata communication's cloud portfolio can be grouped into five categories (see Table 1).

Table 1: *Tata Communications' Cloud Portfolio*

IZO Cloud for Enterprise	IZO Cloud Platform and Services	Managed Services	Multicloud Solutions	Industry-Specific Cloud Platform and Services
▪ IZO Private Cloud – IaaS, SAP HANA and Cloud Storage	▪ IZO Cloud Platform for Kubernetes Solutions ▪ Logging as a Service ▪ Analytics Cloud	▪ Managed Hosting Services, Storage, and Backup ▪ Migration Services ▪ Disaster Recovery as a Service	▪ IZO Private Cloud — IaaS ▪ Managed Public Cloud Services for AWS, Azure, and GCP	▪ Government Community Cloud ▪ IZO Financial Cloud

About the Analysts

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MESSAGE FROM THE SPONSOR

At Tata Communications, we help organizations build the right cloud smart approach by formulating a well-defined strategy that is aligned with business objectives and takes into account visibility, interoperability, network and application dependencies, management, and cost.

We enable organizations to unlock significant business value from their cloud investments by weaving their disparate IT infrastructure together, orchestrating the different clouds to provide a unified cloud environment that is optimized and continuously monitored and managed.

With us, companies will not just have a partner with the required skillset to manage their cloud journey but will also find the best fit solution with the capacity and capability to deliver a holistic cloud experience.

IDC Custom Solutions

The content in this paper was adapted from existing IDC research published on www.idc.com.