Tata Communications Recognized as the

2021

Company of the Year

Indian Managed
Multi Cloud Industry
Excellence in Best Practices

FROST *&* SULLIVAN

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Tata Communications excels in many of the criteria in the managed multi cloud space.

AWARD CRITERIA

Visionary Innovation & Performance	Customer Impact
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

Market Overview

Well-defined multi-cloud strategies accelerate enterprises' digital transformation processes by increasing agility and flexibility and reducing costs. These strategies manage workloads and applications efficiently across all cloud deployment models, including public, private, and hybrid. They allow enterprises to smoothly transition between various cloud providers depending upon the business needs. Multi-cloud is not just fueling the digital transformation; it has also become a savior for many companies to ensure business continuity during times of unforeseen crisis such as the COVID-19 pandemic.

The cloud has become a mainstream requirement for enterprises to drive their digital transformation, but there is still a need for efficient multi-cloud management solutions. Cloud providers & managed service providers should offer a multi-cloud management solution that reduces complexity and enables enterprises to focus on their business operations. There is a need for a collaborative framework that represents a key component in facilitating enterprises to utilize their multiple cloud resources optimally. To end this, cloud providers should evaluate incorporating collaborative tools that allow users to share knowledge on a common platform to drive innovation. [1]

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[1] *Accelerating Digital Transformation through Multi-Cloud Adoption,* (Frost & Sullivan, June 2020).

Effective Strategies and Services for Meeting the Unmet Needs

Multi-cloud enables enterprises to leverage benefits from multiple cloud vendors easily and significantly eliminates vendor lock-in. It gives businesses the capability to outgrow the cloud they use as better deals become available with other providers. Further, multi-cloud also offers flexibility in data deployment and allows users to move their workloads to multiple clouds as per their requirements.[2] Tata Communications introduces a clear-eyed strategy for multi-cloud services and solutions to the global market that attends to the concerns and needs of customers both in the short and long terms. The company is leading among third-party cloud service providers in managed multi-cloud service space by leveraging its telecommunication provider proficiency. Its extensive multi-cloud portfolio enables digital transformation for enterprises by unifying workloads on a single pane, giving each workload a choice of platforms to run on multiple models (e.g., public clouds, managed hosting, private cloud, cloud container and storage, and financial cloud services). The company has robust end-to-end managed service capabilities for the multi-cloud environment, including cloud architecture design, consulting, migration, deployment, and ongoing management across platforms and services.

As customers move towards a cloud-first strategy, they are still dependent on the traditional infrastructure and services or proprietary systems that require heavy investments. Most customers work with only one strategic cloud partner and want to add other partners to their ecosystem. It restricts customers from using legacy platforms as migrating workloads to the cloud becomes challenging due to interoperability issues and a lack of centralized visibility of cloud environments. To address this challenge, Tata Communications supports migration to and across any cloud, such as on-premise to IZO™ Private Cloud/ Amazon Web Services (AWS)/Azure / Google Cloud (GCP), IZO™ Private Cloud to AWS/Azure/GCP, and across AWS, Azure and GCP. Based on the workload and definitive requirements, the company suggests services and delivers them securely to meet the end-to-end customer needs.

> *"Tata Communications enables enterprises to manage environments with flexibility, agility, and scalability of the cloud while giving them complete control to manage larger footprints. It efficiently manages workloads and applications across all cloud deployment models and allows a smooth transition between various cloud providers depending upon the business needs."*
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> *- Apalak Ghosh, Associate Director ICT*

Tata Communications offers a single pane of management and orchestration across cloud environments allowing customers to manage their infrastructure, platforms, and application portfolio easily. Frost & Sullivan notes that Tata Communications creates an environment that can be managed comprehensively through a single pane of glass as part of its managed multi-cloud management capability.

The company provides an integrated suite of multi-cloud services under one umbrella. With IZO™ Private Connect, Tata Communications behaves as a standalone provider that securely connects enterprises to cloud environments over multiprotocol label switching, facilitating network performance. Tata Communications ensures the customers are buying the optimal solution with its IZO™ Private Connect by addressing the unique constraints and providing a positive experience throughout the product lifecycle.

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[2] *Accelerating Digital Transformation through Multi-Cloud Adoption,* (Frost & Sullivan, June 2020).

Frost & Sullivan notes that Tata Communications creates a secure cloud infrastructure with its IZO™ Managed Cloud by providing a roadmap to deploy and migrate to the cloud. Using its consultative approach, the company first assesses the customer's digital infrastructure and then offers the ideal solution customized to their demands. It ensures smooth migration and optimal performance through continual monitoring and management. Moreover, the company gives its customers the liberty to explore different cloud ecosystems with its cloud management platform, IZO™ Cloud Command. The platform provides efficient end-to-end management of multi-cloud environments. It integrates heterogeneous information technology (IT) environments [IZO™ Private Cloud, public clouds (AWS/Azure/GCP), and dedicated hosting] and offers continuous autonomous governance for all cloud resources.

Tata Communication's Cloud Migration services extend the right strategy to expedite the shift to the cloud by tackling hurdles associated with cost, visibility, interoperability, network and application dependencies, and management. The company comprehensively evaluates the customer's architecture and dependencies and provides an end-to-end migration approach leading to optimized performance and cost-effectiveness. The company builds the desired environment based on customer requirements using the right tools and technology, ensuring seamless, secure migration. The entire process is supported by its unrivaled managed security solutions and round-the-clock network monitoring systems. Furthermore, Tata Communications is in a prime position to manage failure or disasters with its structured Disaster Recovery service offering an effective near-zero business disruption. Frost & Sullivan notes that Tata Communications empowers enterprises to distribute their workloads across multiple environments while mitigating associated risks.

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> **- Ruman Ahmed, Best Practices Research Analyst**

As multi-cloud architecture consists of cross-cloud data transfers, this approach at times can result in security risks. For multi-cloud to operate in a unified way, Tata Communications applies cybersecurity techniques across the entire infrastructure, creating a more secure posture for traffic between clouds and inside the data center. The company implements security policies based on Network and Information Systems Directive practices that ensure the safety of multi-clouds and information. It maintains compliance with industry standards like Payment Card Industry Data Security Standard or Health Insurance Portability and Accountability Act by using a standard templatized orchestration across these environments with its portal. It is also compliant with Service Organization Control 3 (SOC 3) and CSIR certification. Tata Communications impresses Frost & Sullivan with its effective multi-cloud strategy that establishes a secure regulatory framework across cloud operations that will address both the external compliance factors and internal policy required for digital transformation.

Tata Communications enables enterprises to manage IT environments with flexibility, agility, and scalability of the cloud while giving them complete control to manage larger footprints. It efficiently manages workloads and applications across all cloud deployment models and allows a smooth transition between various cloud providers depending upon the business needs. The company offers IT services management capabilities and delivers the processes associated with service management, incident management, problem management, fault management, change management, and release management through a centralized configuration management database. The dashboard provides transparency to customers with regular reports on the health and the performance of their environment. Using its telecommunication provider capabilities, it ensures uninterrupted network connectivity across disparate cloud environments with minimal delays.

One factor hindering the demand for multi-cloud is the need for expertise to handle large and complex infrastructure projects efficiently. Tata Communications creates differentiation by eliminating the need for different skillsets to manage workloads running in different environments. The company gives its customers the liberty to define a policy and seamlessly deploy it on a cloud of their choice. It manages the complexity that arises with diverse cloud vendors and cloud environments utilized by customers. The company's IT Service Management Portal (ITSM) is integrated with an application programming interface that helps customers automate their processes. It provides operational agility to users through multiple clouds and enables them to utilize resources effectively and develop new applications quickly.

Leadership Focus

Tata Communications acutely focuses on different industry verticals and enhances the resiliency of systems, reduces costs, and maximizes advanced computing capabilities. It transformed the journey of e-commerce customers with flexibility and bursting options and migrated the workloads on containerized platforms. The company also ensures the portal functions smoothly by configuring continuous integration/ continuous delivery (CI/CD) automation. The company has the advantage of understanding the technology and customer requirements and extending its capabilities as an experienced and efficient managed multi-cloud provider by helping customers drift to newer environments. Tata Communications also caters to the banking financial services and insurance (BFSI) vertical, a highly regulated space with specific predefined frameworks by creating a BFSI community cloud platform – IZO™ Financial Cloud . Frost & Sullivan notes that Tata Communications' has the unique potential to anticipate the customer pain points then implement technology to achieve favorable operational outcomes.

Tata Communications launched IZO™ Cloud Containers on IZO™ Private Cloud to ensure the software runs reliably from one environment to another from a technology adoption outlook. It facilitates multiple application deployment by managing application diversity as customers move to microservices architecture. The company successfully created an environment modernizing customers' applications, giving it a competitive advantage as it has the in-house capability to support customers in any cloud environment. It plays the role of an orchestrator while helping customers migrate to container environments.

Best-in-Class Processes

Frost & Sullivan recognizes Tata Communications for its efforts in implementing best practices across customer support with its IT management services, enhancing the customer experience. The company securely connects businesses across the globe while supporting customers' vital business operations with unwavering and accessible customer support. It is based on the IT Infrastructure Library (ITIL) framework of best practices for managing and deploying disparate environments. Tata Communications creates standardized policies across these environments based on network and information systems to address the cyber-attacks. It caters to not just deploying these policies but also monitoring the compliances. The company delivers over-the-top service in case of downtime or failure. Customers are moving towards modernization of their applications and will depend on container platforms and DevOps. In such scenarios, the company ensures best practices are deployed with its expertise to support DevOps or CI/CD pipelines for improving software delivery.

As a managed service provider, the company ensures it is compliant with various industry standards. It provides a high level of security with its certifications, including International Organization for Standardization (ISO) 27000 for information security, ISO 27017 for securing the cloud-based environment and minimizing the potential risk of a security incident, and ISO 27018 for data privacy as data privacy bill is becoming relevant with the Indian region. Tata Communications impresses Frost & Sullivan with its efforts in managing different customer environments with comprehensive best practices while maintaining desired industry standards.

Superior Customer Experience

With its advanced technology and futuristic approach, Tata Communications anticipates the multi-cloud necessities and creates tailored solutions to meet those demands. The company understands that technology is not a challenge for customers but adopting that technology for specific business requirements is a more significant challenge. It simplifies technology adoption for its customers as a service provider trying to fill the market gaps. The value that the company delivers to its customers is a choice of the cloud environment. Its consulting-led approach enables enterprises to place applications in a best-suited cloud environment such as private or public cloud-based on factors such as load, scalability, application lifecycle, cost optimization, and end-user experience.

A challenge that customers face is around the visibility of cost involved as it is a subscription-based service. Most enterprises have budget disaggregation or lack of unified budget. Tata Communications addressed this challenge with its IZO™ Cloud Command Portal, which predicts costs and helps C-level executives estimate annual capital expenditure budgets based on the customer's historical trends and utilization. It gives the flexibility to choose among different cloud providers creating financial benefits to the users. Moreover, the portal gives customers the liberty to measure, monitor, and manage their cloud environments. The portal regularly updates users with the pricing and activity log of each cloud provider. Frost & Sullivan notes that Tata Communications provides cost-performance optimization by allowing enterprises to avail the best breed cloud service at an optimal cost.

Tata Communications makes migrations easier with its multi-cloud services merged with expertise and skillset. As a result, it offers a one-stop solution to manage deployments and multiple vendor partners embedded with expertise, ensuring seamless interoperability, expansion, and consistency. The company's ability to expand its services to meet evolving market needs and changing customer demands enables it to achieve optimal customer satisfaction. Tata Communications aims to transform customers' digital transformation journey with its robust digital platform while providing the capabilities to expand.

The company participates in the customer's journey throughout the project lifecycle. From lead generation, order to delivery, all processes are digitized by the platform as a single console for all its services. It gives customers complete visibility of their footprint and the assets deployed. The platform monitors the functioning of services and provides customers with a health report giving customers agility and transparency in using services. The company's platform behaves as a customer interface for product communication transforming the entire lifecycle with a digital experience. Tata Communications, a well-established digital ecosystem enabler, is helping its customers with their cloud adoption and providing next-gen security for cloud environments.

Conclusion

More cloud providers mean more complexity in managing them. In today's digitally connected work environment with an increasing number of applications, complexity is already high, and networks are extremely delicate to handle.[3]

Tata Communications introduces a clear-eyed strategy to seamlessly manage multi-cloud infrastructure and environments to the Indian market. It accelerates delivery, reduces cloud infrastructure costs, and avoids vendor lock-in. The broad multi-cloud portfolio enables digital transformation for enterprises by bringing together all workloads on a single pane, and each workload can run on multiple models such as public clouds, managed hosting, private cloud, cloud container and storage, and financial cloud services. The company offers migration to and across any cloud, such as on-premise to IZO™ Private Cloud/ Amazon Web Services (AWS)/Azure/Google Cloud (GCP), IZO™ Private Cloud to AWS/Azure/GCP, and across AWS/ Azure/GCP.

With its IZO™ Cloud Command offering, a cloud management platform, the company provides customers with a simplified management view through its functionality and data integration from multiple environments. Tata Communications supports enterprises in managing and optimizing applications on multi-cloud infrastructure with security, reliability, speed, and scale. It offers a one-stop solution to manage deployments and multiple vendor partners embedded with expertise, ensuring seamless interoperability, expansion, and consistency. The company's ability to expand its services to meet evolving market needs and changing customer demands enables it to achieve optimal customer satisfaction. Tata Communications aims to transform customers' digital transformation journey with its robust platform and services while providing the capabilities to expand.

With its services, comprehensive platform, and superior customer experience, Tata Communications earns Frost & Sullivan's 2021 Indian Company of the Year Award in the managed multi-cloud industry.

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[3] *Accelerating Digital Transformation through Multi-Cloud Adoption* (Frost & Sullivan, June 2020).

What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends: Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first-to-market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Best Practices Implementation: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.
Learn more.

Key Impacts:

■ **Growth Pipeline:** *Continuous Flow of Growth Opportunities*

■ **Growth Strategies:** *Proven Best Practices*

■ **Innovation Culture:** *Optimized Customer Experience*

■ **ROI & Margin:** *Implementation Excellence*

■ **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

■ Mega Trend (MT)

■ Business Model (BM)

■ Technology (TE)

■ Industries (IN)

■ Customer (CU)

■ Geographies (GE)