Five Characteristics of the Digital Telco

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Summary

The role of telecom services companies has evolved dramatically in recent years. Once a provider of basic communication and connectivity functionality, today's telco is increasingly partnering with executive leaders to support critical business strategies around digital transformation. This shift has been driven largely by technology innovations that have redefined the deployment and management of traditionally static and monolithic communications ecosystems. The result: the emergence of the "*digital telco*," with capabilities ideally suited to guide enterprises on their transformation journey. This Point of View outlines five key characteristics of the new-age telco, which can be defined as:

- Modularity

- Agility

- Intelligent Automation

- Personalization

- Insight Generation

> **TODAY'S TELCO IS INCREASINGLY PARTNERING WITH EXECUTIVE LEADERS TO SUPPORT CRITICAL BUSINESS STRATEGIES AROUND DIGITAL TRANSFORMATION.**

Modularity

Historically, telecommunications networks operated as monolithic entities of cables, wires, switches and routers. To add new functionality, extend coverage or tailor services to meet specific customer needs, carriers had to manually install, remove and configure equipment. The process was expensive, inefficient and labor-intensive.

The emergence of Software-Defined Networking (SDN) changes the game by turning the traditional equipment-driven telecom environment into one managed by software. This enables sophisticated remote management functionality, characterized by intelligent automation, autonomic monitoring, zero-touch provisioning and predictive maintenance. These capabilities, in turn, break down the monolithic and slow-moving telecom infrastructure into easily configurable and customizable components. The result is a new world of possibilities to respond to customer needs.

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Agility

Consider an auto insurer moving from paper-based claims processing to a model where customers file claims using mobile apps. The app has to be developed and back office records must be digitized. Then, a communications platform is needed to manage the flow of data between the back-end data and the front-end user. Beyond enabling the app, the platform has to capture and analyze data to continually improve the customer experience.

Here, SDN enables the agility required to transition a business from a physical to a digital environment. For the digital telco, insight into the flow of data through each level of the enterprise provides an opportunity to create an interactive data repository that yields insights that can improve operations and the customer experience.

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Automation

The rapid expansion of intelligent automation capabilities is transforming business and operational strategies. From basic Robotic Process Automation tools that perform specific, repeatable tasks based on clearly defined rules, to Artificial Intelligence (AI)-enabled applications that analyze data to identify patterns and draw conclusions, technology is redefining the relationship between the digital and human workforce.

The opportunity lies in optimizing the division of labor between machines and people. The concept of assigning the boring, repetitive tasks to robots and the high-level work to people is straightforward and obvious. But executing that vision presents a challenge and *requires a clean slate approach to breaking down and re-creating workflows from scratch.*

Telcos are leveraging automation to transcend slow and inefficient human-based processes to enable proactive intervention. To enhance cybersecurity, for example, smart tools are being used to analyze network traffic, identify DOS attacks and apply patches before any damage is done. Under the traditional people-based model, by the time a threat is identified and a patch ordered, it's often too late to stop.

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Personalization

By applying agility, automation and customization to telecom management, SDN supports the ability to provide a hyper-personalized focus on customer requirements and expectations. By virtue of its visibility into the flow of data through the communications ecosystem, the digital telco can collect data at the point of business activity, manage data at the packet and circuit level and analyze data on a back-end intelligent platform.

The telco can leverage that capability to help businesses understand, anticipate and address customer requirements. In the highly competitive retail sector, digital solutions that improve the user experience, enhance the brand and simplify the buying experience are essential to gaining a competitive edge. Retailers are embracing the use of AI and analytics to gain insights into customer buying patterns. These insights can be used, for example, to send automated alerts to sales staff with specific suggestions on how to entice a customer to close a sale.

To support such a model, a secure SD-WAN solution provides the bandwidth required by newer and more sophisticated digital in-store devices. Usage-based pricing, meanwhile, allows the retailer to manage expenses.

By enabling increasingly personalized interactions, the telco evolves from a provider of commodity services to a strategic partner in how businesses engage with customers.

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Insight Generation

In addition to enabling personalization, the telco's end-to-end oversight of data creates an opportunity to leverage analytics to deliver actionable insights that translate into business value and continuous operational improvement.

A key driver is Edge Intelligence – the "tip of the spear" of the Internet of Things. By deploying smart sensors directly at the point of critical activity, and linking those sensors to analytical platforms, businesses are redefining traditional models. The applications range from the mundane to the cutting edge:

- Temperature Monitoring

  - *Restaurants identify and prevent refrigerator and freezer failures*, as well as conduct predictive maintenance. Benefits include educed labor costs, enhanced safety and risk mitigation.

  - *Pharmacies gauge and document temperatures of medicinal storage units* to ensure the safety of prescription drugs and reduce liability.

- Fleet Management

  - *Transportation companies optimize routes, manage inventory and delivery schedules*, track cargoes and monitor driver behavior and engine performance.

- Location Monitoring

  - To enhance personal safety, sensors can send alerts in case of danger and precisely track movement.

  - Airlines use sensor tags to manage luggage and quickly retrieve lost items.

Conclusion

In today's business and technology environment, the telco is evolving from a communications services company to a business solutions company. The core attribute is the ability to apply intelligence, automation and analytics to manage the complexity of telecom environments from the edge to the back office.

But technology innovation isn't enough. While we increasingly have the ability to make quick, predictive and fact-based decisions, executing those decisions requires agile business models that align with a digital agenda.

About the Author

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