

LET'S TALK

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Let's Talk - Telco's for B2B Enablement

The Role of Telco's to Enable Industry 4.0, IoT, 5G and AI driven Hyperconverged Networks for Cross Industry Enablement

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Note: The views expressed in this article are personal opinions intended to be shared with a like-minded audience.

Introduction

The Role of Telcos in Industry Transformation

Industry 4.0 revolution i.e. The fourth industrial revolution characterized by automation, data exchange, and topics like smart manufacturing.

Telecommunication companies so far played a pivotal role in this digital transformation.

However, we are yet to conclude how telcos contribute to Industry 4.0 through technologies like 5G, IoT, and AI with the existing internal transformation challenges that Telco's have i.e.

- Ever evolving new technologies making difficult to finalise strategy
- Migration from legacy application and architecture silos
- Operating model changes
- GenAI adoption
- Network Cloudification and OpenRAN adoption
- And many more

Telco Infrastructure for Industry 4.0

Building the Foundation is must and it requires investments in all of the following

5G Networks: High-speed, low-latency connectivity for massive IoT deployments.

Private Networks: Customized cellular networks for industrial use cases.

Network Edge Enablement: Processing data closer to the source for real-time insights.

Hyperconverged Networks: Integration of compute, storage, and networking resources.

Call for Action :

There is a lot to be built as foundation with limited time and resources..

Hence, an agile and future proof delivery model and open standards based architecture adoption is the key.

IoT and Telcos

Connecting the Unconnected “Interconnected devices and sensors”

Expectation from Telco's

- Providing reliable connectivity for IoT devices.
- Managing massive data flows efficiently.
- Enabling predictive maintenance and supply chain optimization.

Challenges :

- Lack of Automation in cost effective provisioning and management
- Higher cost to sale due to old B2B models
- Lack of knowledge on end to end ecosystem for businesses

Call for Action :

Modernise the way IoT connectivity is delivered.

Build AI and automation driven monetisation assets.

Reinvent B2B commercial models and invest in cross industry skills.

5G and AI

Powering the Future

What need to be done by Telco's

- **Build 5G: Beyond faster speeds—enabling mission-critical applications.**
- **Enable Network Slicing: Customized virtual networks for specific use cases.**
- **Build AI-Driven Optimization for :**
 - **Predictive network maintenance.**
 - **Dynamic resource allocation.**
 - **Enhanced customer experience.**

Challenges

- **Higher Capex investments in rolling the networks**
- **Qualification of new use cases for better RoI**
- **Legacy Network and OSS silos not allowing for desired automation**
- **Challenges in adoption of new DevSecOps based integrated CI/CT/Cd Models**

Call for Action :

Adopt the open architecture on Network and OSS side.

Build a Distributed AiOps Model

Create an open and shared delivery model for effective CI/CT/CD adoption

Cross-Industry Collaboration

Bridging the Sectors as an enabler

Invest in Collaboration : Telcos partnering with industries beyond telecom

Build ready to be used and packaged use cases e.g. :

- **Smart cities:** Traffic management, energy efficiency.
- **Healthcare:** Remote diagnostics, telemedicine.
- **Manufacturing:** Robotics, supply chain automation.\

Invest in partnerships and building cross industry skills for realising the benefits for end customers

Call for Action :

Telcos play a pivotal role in shaping the future of interconnected industries.

Telco's need to think beyond connectivity and become an enabler for cross industry collaboration by creating connectivity driven platform approach for value creation

Conclusion

The goal is to create sustainable, resilient, and economically viable telecom networks that are open and flexible for Cross-Industry Synergies

- Telcos need to partner with diverse industries and build mutually beneficial use cases e.g. **Smart Manufacturing**: 5G, WiFi 7, and TSN for enhanced production efficiency.
- Consider, **Supply Chain Resilience with a focus on** Onshoring, near-shoring, and AI-driven optimisations.
- Simplify architecture silos and create a **Future ready Lean and Agile** delivery models where AI, Automation and integrated CI/CT/CD models are deployed
- Start thinking beyond connectivity and focus on **Future Prospects** where Telcos will be a catalysts and enablers for innovation and digital transformation.

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