comviva
A TECH MAHINDRA COMPANY

UNLEASHING
THE POWER OF FIBER

CONNECTIVITY REDEFINED

UNLEASHING
THE POWER
OF FIBER

A Playbook

Envision a tomorrow where buffering becomes a thing of the past, where devices react with the swiftness of a thought, and where the digital realm melds seamlessly with our reality. This imminent future is at our doorstep, wrapped in the strands of fiber-optic technology. These threads not only carry data but also harbor the potential to reshape entire industries, economies, and the very fabric of our lives. However, here's the twist: embracing this potential necessitates more than just connecting a few cables. It calls for a roadmap – a playbook that skillfully navigates through the intricacies of trends, technologies, and strategies.

Whether you're a business or technology leader, consider this playbook your guiding compass. Together, we'll plunge into the currents of trends that shape the fiber landscape, unveil the roles played by key actors, surmount the challenges that lie ahead, and illuminate the path that leads to harnessing the capabilities of Business Support Systems (BSS). As you peruse these playbook pages, you'll find yourself armed with a checklist, a mental roadmap, and a vision to actualize the potential of fiber. This potential will not only transform businesses but also redefine lives.

The journey begins here, and the power of fiber is waiting to be unleashed!
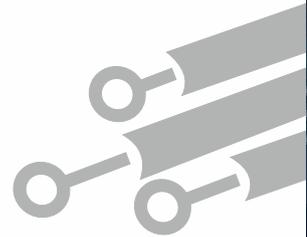
FIVE TRENDS SHAPING THE FIBER CONNECTIVITY LANDSCAPE

Fiber as the bedrock
powering the 5G revolution

Fiber infrastructure plays a crucial role in facilitating the deployment of 5G networks by meeting the demands for higher bandwidth and lower latency. That's why telcos are investing in building the fiber infrastructure to fuel 5G growth. In fact, 5G and fiber go hand-in-hand for AT&T. By 2025, the company expects 75% of its networkfootprint to be served via fiber and 5G.

The unshakable foundation of
smart city infrastructure

Fiber optics provide unparalleled bandwidth, allowing for faster andmore reliable communication networks.nThis is essential for smart city applications, including real-time traffic management, environmental monitoring, and public safety systems, among others. This smart city is revolutionizing urban living by harnessing the power of a cutting-edge fiber network.

DID YOU KNOW?

20% average increase in net promoter score of fiber-based broadband compared to non-fiber access

Data transmission over fiber uses up to 12 times less energy than on copper.

Supercharging the
cloud computing surge

As organizations increasingly rely on cloud based services, fiber connectivity plays a crucial role in ensuring fast and reliable data transfer between usersandcloud infrastructure. Fiber-optic links are indispensable for achieving high-speed data transmission, minimizing latency, and facilitating effortless access to cloud resources, unlocking new opportunities for productivity, innovation, and growth.

The unstoppable
Fiber To The Home (FTTH) expansion

The global FTTH market's value will grow from $9.5 billion in 2017 to more than $37 billion by the end of 2027, 14.4% compound annual growth rate(CAGR). Key growth factors include, increase of smart home and gadgets government initiatives, usage in multiple industries, and demand for improved internet infrastructure. The US government has already pledged $65 billion to accelerate this expansion.
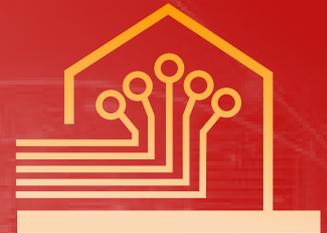
Leading the
sustainability movement

Fiber optic cables can help reduce energy consumption and lower carbon emissions as they use light to transmit data, whereas copper and coaxial cables use electricity, making them an essential tool for sustainability. Here is a comparison chart highlighting key aspects of data transmission over copper vs. fiber optic cables.

KEY FIBERCO OFFERINGS AND PLAYERS

Wholesale Fiber

Wholesale Fiber businesses focus on building and maintaining robust Fiber-optic networks & leasing or selling Fiber connectivity to other entities who require high-speed, reliable, and scalable network

Dark Fiber

Dark Fiber enables businesses to establish their own private network infrastructure, giving them complete control over their data transmission and networking environment.

Fiber to Business

Refers to the FiberCo and Businesses that provide Fiber-optic connectivity solutions specifically tailored to meet the networking needs of businesses and organizations.

Fiber Access

Fiber Access customers include residential users and small businesses that rely on high-speed internet connectivity for various purposes.
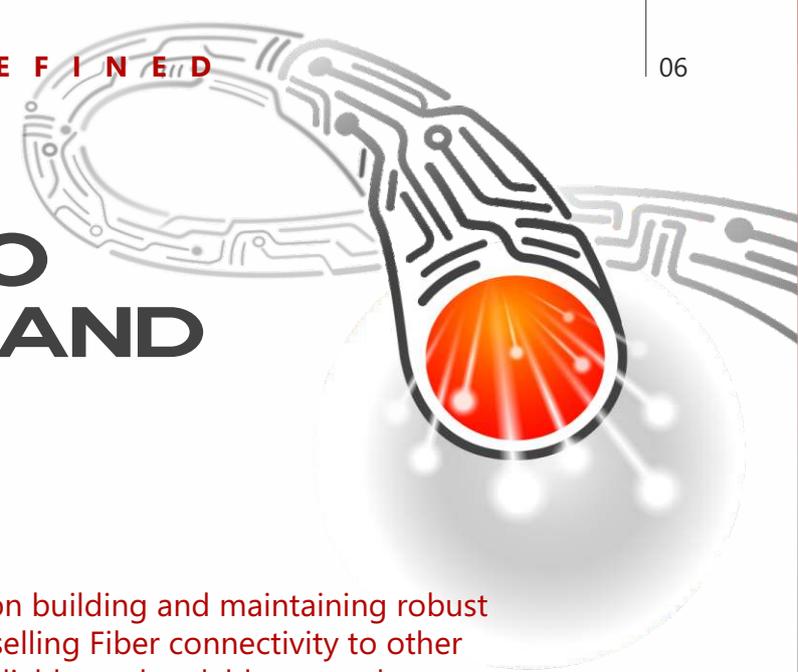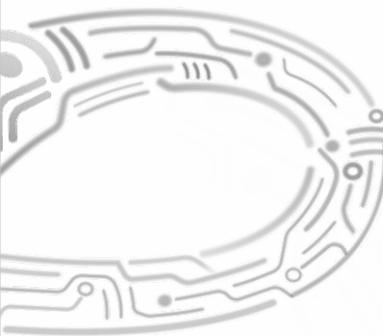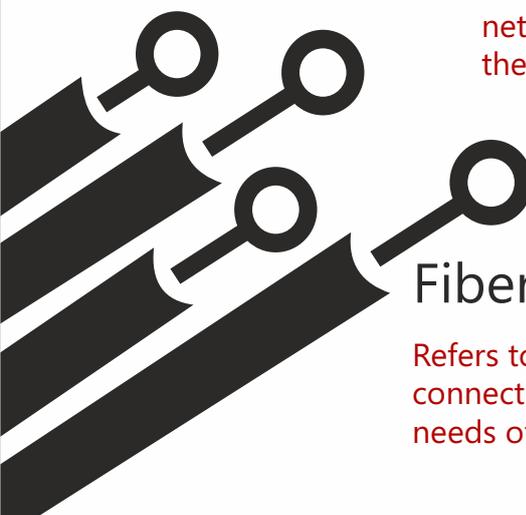
CHALLENGES IMPACTING THE FIBER UPTAKE

Implementing and managing fiber optic networks comes with its share of challenges. Let's uncover the obstacles that ISPs face in implementing these networks

Service Activation & Provisioning

Integrating new fiber services with existing systems can pose compatibility challenges, requiring careful coordination for seamless service activation. Efficiently activating and provisioning services is crucial to meet customer expectations and monetize fiber investments quickly.

Network Operations & Customer Support

Complex fiber services demand efficient customer support systems capable of handling troubleshooting, fault management, and timely issue resolution. Managing fiber networks and delivering exceptional customer support require robust tools and resources

Scalability & Future-Proofing

Fiber optic networks must accommodate increasing bandwidth demands and data-intensive applications. Planning for future bandwidth requirements and expanding networks to meet growing demands can be complex. Balancing scalability and cost efficiency is key

HARNESSING BUSINESS SUPPORT SYSTEMS (BSS) FOR FIBER BUSINESS SUCCESS

In the competitive realm of the Fiber Business, Business Support Systems (BSS) merge as the cornerstone of growth and achievement, influencing multiple dimensions of the enterprise as illustrated in the chart below

1 Partner Ecosystem

2 Products & Marketing

3 Fulfilment & Assurance

Network Rollout & Deployment

Commercial Model & Revenue Management

Sales

Network Planning and Design Strategy

3

1

4

5

6

POWERING DYNAMIC PRODUCT PORTFOLIOS AND SEAMLESS CUSTOMER EXPERIENCES

Once the Strategy and Business Model are set, BSS shapes a diverse product portfolio with third-party services. Success depends on compelling customer journeys and optimized experiences through strategic go-to-market plans and tailored marketing tools

Essential BSS Product Catalog and Sales Engine enable seamless interactions with customers, catering to individual consumers and enterprises' complex connectivity needs with precise efficiency

Customer Data takes center stage, meticulously managed in the CRM system. Prioritized customer support and issue resolution strengthen loyalty and satisfaction

Vital real-time insights with BSS Billing, Invoicing, Account Management, and Reconciliation capabilities offer up-to-the-minute visibility into key businessmetrics

Smooth customer order fulfillment is paramount, requiring agile provisioning and coordinated partner efforts for timely deliveries

Embracing a dynamic cosystem, the Fiber Business collaborates with strategic partners, crucial for intricate Enterprise solutions and enriched Retail offerings with integrated third-party services, building strong commercial relationships.

In an ever-connected, innovative world, BSS supports the thriving Fiber Business, orchestrating efficiency from strategy to sales, elevating businesses in the evolving market.

STRATEGIC BUSINESS MODELS

Strategy Domain	BSS Relevance	Dark Fiber/ Wholesale Backhaul	Wholesale Access	Dark Fiber/ Fiber for Enterprise	Fiber for Consumer	Telco Netco Operations
STRATEGY (Business Model)	NO	Providing capacity-based, wholesale infrastructure for service provider or enterprises	Providing last mile access for other service providers (for consumer or enterprise business)	Provide Fiber connectivity solutions, for Enterprises and services/ products on-top of connectivity	Provice fiber access and Internet Service to consumers	Provide Fiber connectivity solution being created as separation of Legacy Telecom Service and Infrastructure Business
PRODUCTS AND MARKETING	YES	Limited number of products and customers.	Simple products	Connectivity products and value-adding enterprise products	Starting with simple products, extending with Content / VAS	Expanding infrastructure products to more and new customers
SALES	YES	Dedicated Sales Force for limited number of customers. Wholesale agreements and contracts	Dedicated Sales Force for limited number of customers. Capture new regions.	Basic conectivity as a starting point, but expanding to more complex	Competing on Internet Access with established telecom service providers	Establishing new sales channels for new markets / customer segments
FULFILLMENT AND ASSURANCE	YES	Simple capacity add-on based on overall pre-provisioned capacity	Simple capacity add-on based on overall pre-provisioned capacity	Depending on product portfolio from simple to complex order orchestration with integrations	Order Management to provision physical and digital products (and partner products)	Enhancing existing fulfillment solutions with optimized processes and external interfaces
COMMERCIAL MODEL AND REVENUE MANAGEMENT	YES	Wholesale agreements with revenue based on activations	Wholesale agreements with revenue based on activations	Billing towards enterprises with partner reconciliation	Direct Billing to consumers	Expanding existing infrastructure business from cost to profit center
PARTNER ECOSYSTEM	YES	Reseller Partners, especially for Industry solution	Reseller Partners, especially for Industry solution	Reseller Partners, especially for Industry solution	Reseller Partners, especially for Industry solution	

BSS REQUIREMENTS FOR DIFFERENT FIBER COMPANIES
Strategy Domain

Dark Fiber/ Wholesale Backhaul

- **Simple**, cost optmized solution with good sales capabilities for frame agreements and geographic expansion.
- **Essential:** Partner (Resellers/Service Providers) Management, Billing
- **Lightweight** Commercial Order Management (integrated with OSS)
- **Limited,** lightweight Product Catalog

Dark Fiber/ Fiber for Enterprise
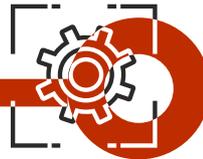
- **Flexible**, expandable catalog and sales engine with partner integration.
- **Strong CRM** and CPQ capabilities
- **Digital Self-service** / Self-Care interfaces for customers

Telco Netco Separation / Unbundling
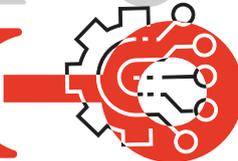
- **Sales / Commerce solution** to sit on top of existing IT solutions in order to expand business with new customers.
- **Digital channels** and guided selling (CPQ) capabilities.
- **Advanced CRM** capabilities beyond existing IT solutions

Fiber for Consumer

- **Flexible**, expandable catalog and sales engine with partner integration.
- **Digital Self-service** / Self-Care interfaces for customers.
- **Depending** on customer base cost-optimized deployment

Wholesale Access

- **Simple, cost optmized** solution with good sales capabilities for frame agreements and geographic expansion.
- **Essential:** Partner (Resellers/Service Providers) Management, Billing
- **Lightweight** Commercial Order Management (integrated with OSS)
- **Limited**, lightweight Product Catalog

THE CHECKLIST FOR BSS DEPLOYMENT

Implementing and managing fiber optic networks requires robust BSS to streamline operations and ensure efficient service delivery. To help ISPs in their fiber network deployment, here is a checklist of essential BSS components:

SERVICE ORDER MANAGEMENT

BILLING AND REVENUE MANAGEMENT

CUSTOMER RELATIONSHIP MANAGEMENT

RESOURCE AND CAPACITY PLANNING

WORKFLOW AND PROCESS AUTOMATION

REPORTING AND ANALYTICS

INTEGRATION AND API SUPPORT

SCALABILITY AND FLEXIBILITY
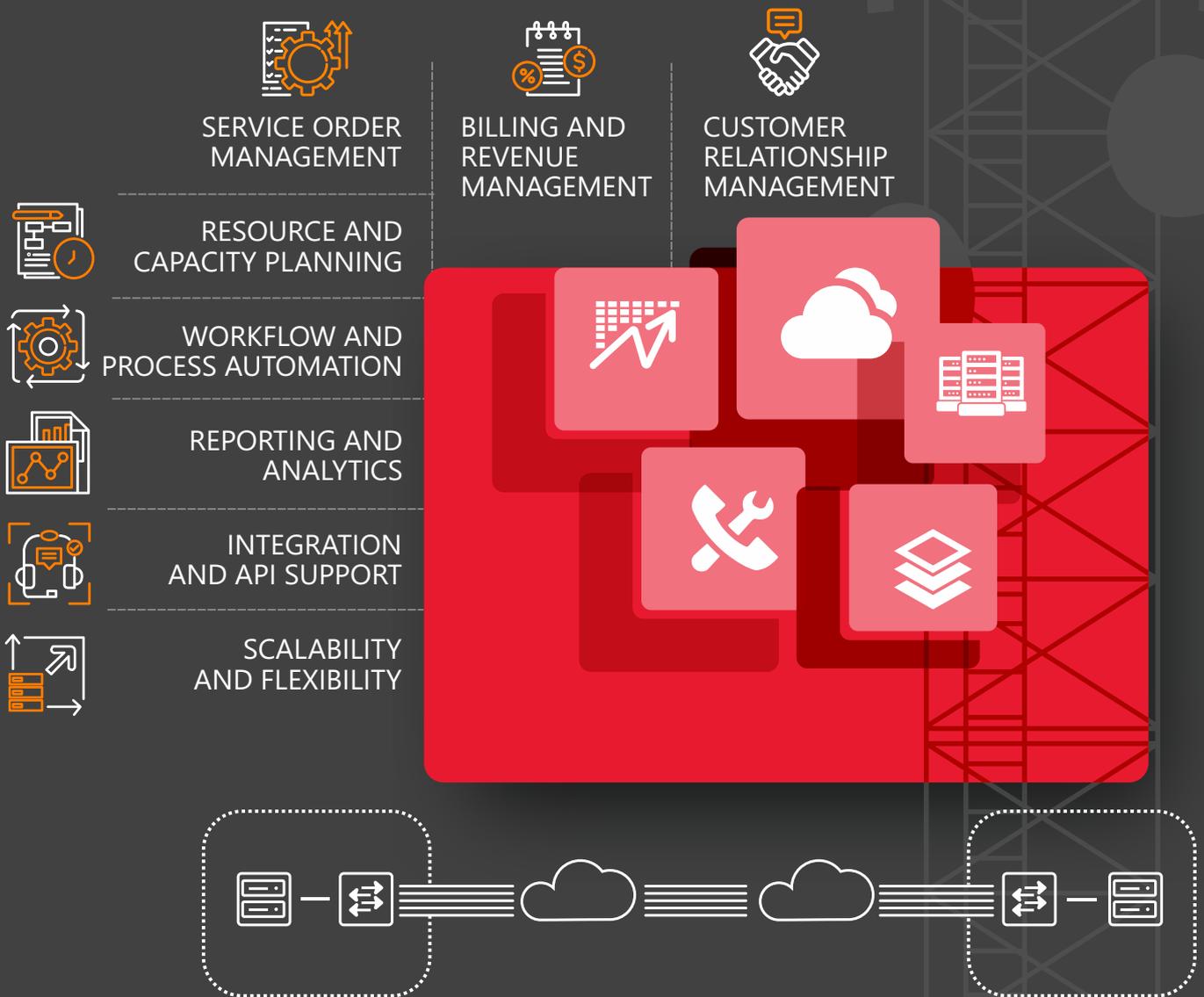
Assess your fiber readiness to gauge your current position in the fiber journey and identify the necessary actions to progress further

FUELING FIBERCO SUCCESS

Monetization is crucial for Fiberco success. To achieve it, Fibercos must prioritize digital channels, self-service options, product portfolio expansion, and partner ecosystem. This strategic approach demands the implementation of agile Business Support System (BSS) capabilities that facilitate quick deployment and seamless scalability for evolving needs.

A specialized BSS is invaluable for Fibercos, streamlining customer relationship management, billing, and service provisioning for fiber-based networks. It integrates with product portfolios and partner ecosystems, enabling faster time-to-market. Its adaptability caters to diverse customer demands and keeps Fibercos ahead in changing technology trends. It empowers Fibercos to elevate customer experience, optimize revenue generation, and stay competitive in the dynamic telecommunications landscape.

CONNECTIVITY REDEFINED