

# Telecommunications companies are accelerating their mutation towards digital service providers by :

Focus on four strategic priorities which require new business capabilities along the value chain

1. Digitizing operational processes with customer experience at the center of everything to deliver superior products and services to an increasingly sophisticated customer base
2. Innovating in search of new business models and new markets to diversify their future sources of revenue, enabling the intelligent enterprise journey of all relevant industries with intelligent connectivity

**Customer First**

**Operational Excellence**

**Revenue Stream Diversification**

**Intelligent Connectivity**

Plan, Build and Operate	Acquiring and Retaining	Fulfilling and Delivering	Billing and Settling	Analyzing and Optimizing	Procurement Excellence	Finance	Human Resources
<ul style="list-style-type: none"> <li>Align network deployment and expansion strategy with margin and customer experience insights to ensure smart investment</li> <li>Single holistic view of network QoS with real time, repeatable and pre-emptive insight to guarantee customer experience</li> <li>Use predictive models &amp; digital twins to minimize equipment downtime and improve customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>Personalized service offerings with micro-segmentation and profiling by mapping the digital and physical customer experience</li> <li>Provide a contextualized digitized experience across all touch points</li> <li>Empower retail staff to deliver personalized offerings with real time customer insights</li> <li>Predictive and proactive customer engagement to reduce churn and increase loyalty</li> <li>Drive feedback to resolution in no time</li> </ul>	<ul style="list-style-type: none"> <li>Serial No / IMEI based device management to provide personalized device offerings including leasing, periodical replacement, etc</li> <li>Enable store to digitally trigger fulfillment for models such as buy online, pickup in store and buy online and return in store</li> <li>Open integration with emerging models of customer delivery (eg: Uber Rush, 3D Printing)</li> <li>Deliver up-to-date device usage insights for vendors to optimize their product strategy</li> </ul>	<ul style="list-style-type: none"> <li>Present subscribers with a seamless interface through integrated customer care and dispute management</li> <li>Manage payments from multiple sources in one system and enable flexible payment options for customers</li> <li>Meet the needs of the outcome focused consumers with flexible monetization of any consumption model</li> </ul>	<ul style="list-style-type: none"> <li>Build a digital platform to shift to a model that supports Average margin per user (AMPU)</li> <li>Individual margin supported customer engagement to optimize experience for high value customers</li> </ul>	<ul style="list-style-type: none"> <li>Organize the supplier network to respond to personalized service delivery</li> <li>Orchestrate the C2M (customer to manufacturer) model to meet the need for customized smart devices and IoT devices</li> <li>Support field technicians to reserve and procure materials directly from internal sources with direct buying capability</li> </ul>	<ul style="list-style-type: none"> <li>Gain a 360-degree view of customer/financial data and profitability</li> <li>Provide personalized payment options for seamless use across all sales channels</li> <li>Continuous cash collection</li> </ul>	<ul style="list-style-type: none"> <li>Educate staff to provide ultra personalized experience</li> <li>Onboard and train employees quickly and seamlessly</li> <li>Identify &amp; forecast skill gaps and address them</li> <li>Meet service levels and drive revenue with appropriate staffing levels in stores</li> <li>Turn new hires into ambassadors</li> </ul>
<ul style="list-style-type: none"> <li>Plan, execute and monitor projects in real time and across multiple years to minimize deviations in schedule, cost, scope</li> <li>Cloud based asset information sharing to enable collaborative maintenance process</li> <li>Track and trace of moving assets such as cable reels to optimize inventory replenishment</li> <li>Support field service with optimized workforce scheduling and mobile apps</li> </ul>	<ul style="list-style-type: none"> <li>React quickly to market opportunities with marketing automation and integrated operation</li> <li>Capture dynamic insights in real time to enrich profiles and make data-driven decisions</li> <li>Leverage chatbot / conversational AI to offer 24/7 customer interaction while lowering operational costs</li> <li>Automate routing and ticketing for customer disputes and complaints</li> <li>Faster and efficient crowd service</li> </ul>	<ul style="list-style-type: none"> <li>Ensure supply chain excellence for all equipment with a common platform (eg: Network, Customer, IT, Employee)</li> <li>Improve supply chain planning with unified demand forecasting and integrated processes</li> <li>Enable near real time inventory visibility across locations to fulfill demand from anywhere</li> <li>Enable integrated supply chain of all customer premise equipment (CPE) models (telco owned, leased, customer owned)</li> </ul>	<ul style="list-style-type: none"> <li>Automate converged billing processes for complex bundled services</li> <li>Streamline revenue collection and payment reconciliation to reduce days sales outstanding</li> <li>Deliver a single version of truth for real-time billing information that are visible to all parties</li> <li>Comply with IFRS mandates for revenue recognition</li> <li>Blockchain enabled roaming settlement to reduce transactional cost and avoid fraud</li> </ul>	<ul style="list-style-type: none"> <li>Improve profit potential with a strategic, business-focused profitability platform</li> <li>Uncover granular profit leakage with advanced analytics and machine learning algorithms including margin driver and outlier analysis</li> <li>Reduce reporting cycles with real-time data access</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with all supply chain partners using a single business network</li> <li>Enable self-service requisitioning with cross-content and catalog search</li> <li>Facilitate tailor-made service offerings</li> <li>Offer an equipment-specific service portfolio</li> <li>Provide 360-degree visibility into spending and suppliers</li> <li>Leverage blockchain to ensure integrity of supplier master data and avoid payment fraud</li> </ul>	<ul style="list-style-type: none"> <li>Deploy a foundation for soft closes</li> <li>Support closed-loop, real-time planning at any level</li> <li>Provide one universal ledger for a single source of the truth</li> <li>Enable predictive forecasts and dynamic simulation</li> <li>Machine learning &amp; intelligent RPA enabled smart finance to improve efficiency and automation</li> </ul>	<ul style="list-style-type: none"> <li>Manage workforce training and ensure certification compliance</li> <li>Predict, procure and optimize contingent labor, services, and service delivery across regions</li> <li>Empower employees with real-time insights</li> <li>Empower employees with conversational-AI based digital assistants for business apps</li> <li>Enable social collaboration among teams</li> <li>Alignment between contingent workforce &amp; operating assets to ensure safety &amp; compliance</li> </ul>
<ul style="list-style-type: none"> <li>Collaborate cross industries to deliver on-demand personalized services (usage-based auto insurance, financial services...)</li> <li>Offer the digital infrastructure to adopt, enable and retain digital partners and their innovations</li> <li>Monetize device and sensor data management services for enterprise customers</li> </ul>	<ul style="list-style-type: none"> <li>Motivate sales teams and drive new revenue streams with compelling incentive schemes</li> <li>Co-innovation and structured requirement collections based on customer interactions</li> <li>Deliver seamless omnichannel engagement to enable multiple partnership GTM models</li> <li>Transform telco retail outlet into a connected space to promote new digital services</li> </ul>	<ul style="list-style-type: none"> <li>Deliver digital home services securely with new consumer edge devices</li> <li>Blockchain enabled mobile device management to enable new business model such as device insurance</li> </ul>	<ul style="list-style-type: none"> <li>Integrated lead to cash to accelerate time to market for new revenue streams</li> <li>Flexible monetization &amp; settlement platform to enable multi-sided business model</li> <li>Enable faster selling by dynamically configuring and bundling complex offers for telco B2B business</li> <li>Manage usage rights, authorizations, privileges given to a customer for digital services</li> </ul>	<ul style="list-style-type: none"> <li>Capitalize on growth opportunities of new business initiatives by simulating outcomes through what-if analysis</li> <li>Granular margin insights to ensure profitable digital services within a complex partnership ecosystem</li> <li>Orchestrate service delivery from partner organizations</li> </ul>	<ul style="list-style-type: none"> <li>Partner relationship management including recruiting, on-board, performance evaluation and optimization</li> <li>Use analytics to understand how different resources strategies impact budgets</li> <li>Orchestrate service delivery from partner organizations</li> </ul>	<ul style="list-style-type: none"> <li>Integrate mergers and acquisitions quickly</li> <li>Design new business models rapidly</li> <li>Set up the finance function as an enabler for business transformation and external growth</li> <li>Real-time project financial performance to ensure overall solution profitability</li> <li>Integrated budgeting / planning to develop and facilitate multiple business models</li> </ul>	<ul style="list-style-type: none"> <li>Drive knowledge sharing and community building</li> <li>Foster and train innovative mindset and skillset in developing, operating and analyzing new digital services powered by ecosystem</li> <li>Improve talent acquisition efficiency through automatic job and resume matching</li> <li>Enable higher employee engagement through total rewards</li> </ul>
<ul style="list-style-type: none"> <li>Develop and deploy IoT solutions to transform customers from vertical businesses</li> <li>Provide edge computing enabled networks to support intelligent enterprise journey of all relevant industries</li> <li>Transform network asset management to facilitate the lifecycle of virtual assets</li> <li>Deliver dedicated service levels for enterprise customers with the next gen network</li> </ul>	<ul style="list-style-type: none"> <li>Open up telco capabilities including anonymous customer insights, location insights, identity verification for digital partners</li> <li>Deliver virtualization and network slicing enabled on demand services with open marketplace capabilities</li> </ul>	<ul style="list-style-type: none"> <li>Leverage established customer premise equipment (CPE) supply chain capabilities for partner driven IoT devices management</li> <li>Accelerate the GTM of next generation CPEs – VCEP / cloud CPE for both B2C and B2B market</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate platform based business model and B2B2X models for the next gen network</li> <li>Provide flexible and agile monetization and settlement of on demand services with dedicated SLA</li> </ul>	<ul style="list-style-type: none"> <li>Ensure profitable tariffs and contracts in the super complex business model driven by next gen network</li> <li>Optimize planning and expansion of next gen network with granular margin insights of each base stations</li> </ul>	<ul style="list-style-type: none"> <li>Holistic procurement management to achieve smart Capex spending on next gen network</li> <li>Maximize visibility into spend and turn data into actionable intelligence</li> <li>Combine network-driven intelligence with integrated spend management</li> </ul>	<ul style="list-style-type: none"> <li>Integrated budgeting / planning to develop, facilitate and prioritize investment planning for next gen network</li> <li>Involve customers and different partners in multisided business models</li> <li>Enable flexible asset accounting for virtual network assets and co-owned/shared network assets</li> </ul>	<ul style="list-style-type: none"> <li>Identify and contract talent with specific noncore skills to deliver new services outside the current business scope</li> <li>Upskill current staff with tailored training models</li> <li>Recruit, adopt and retain talents from different industries to orchestrate digital ecosystem and enrich portfolio</li> </ul>

Typical business benefits\*

- Service & maintenance cost: -10%–15%
- Unplanned asset downtime: -5%–10%
- Increase return on assets
- Offer win rate: +10%
- Customer satisfaction: +10%–20%
- Internal sales productivity: +10%–15%
- Improved customer retention
- On-time delivery: +10%–30%
- Days in inventory: -12%–15%
- Reduction in order fulfillment lead time
- Cost of accounts receivable management: -10%–25%
- Subscription invoice processing time: -25%–30%
- Improved average margin per user
- Risk management and compliance costs: -25%–30%
- Procurement function cost: -15%–20%
- Worker acquisition time: -30%–40%
- Days payables outstanding on targeted spend: -2–5 days
- Audit costs: -20%–40%
- Days to close annual books: -40%–50%
- Costs for business and operations analysis and reporting: -5%–10%
- Lower costs related to time and attendance function
- HR full-time equivalents: -44%

	Digital Core SAP S/4HANA	Intelligent Suite Extensions	Intelligent Technologies					
	<ul style="list-style-type: none"> <li>Maintenance operation</li> <li>Enterprise portfolio and project mgmt.</li> <li>Linear asset management</li> <li>Multiresource scheduling</li> <li>Real estate management</li> <li>Environment, health and safety</li> </ul>	<ul style="list-style-type: none"> <li>Extended warehouse management</li> <li>Marketing management</li> <li>Commerce telco and media accelerator</li> <li>Customer service management</li> <li>Sales performance management (Calliduscloud)</li> <li>Configure, price and quote</li> </ul>	<ul style="list-style-type: none"> <li>Digital twin for mobile networks</li> <li>Telco energy consumption optimization</li> <li>Connected cable reel</li> </ul>					
	<ul style="list-style-type: none"> <li>Efficient logistics and order fulfillment</li> <li>S/4HANA for fashion &amp; vertical business</li> <li>S/4HANA for retail merchandise management</li> <li>Advanced available to promise</li> </ul>	<ul style="list-style-type: none"> <li>Integrated business planning</li> <li>Customer activity repository</li> <li>Extended warehouse management</li> <li>Supply chain collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Global track and trace</li> <li>Vehicle insights</li> </ul>					
	<ul style="list-style-type: none"> <li>Receivables management &amp; payment handling</li> <li>Convergent invoicing</li> <li>Credit and collections management</li> <li>Billing and revenue innovation mgmt.</li> </ul>	<ul style="list-style-type: none"> <li>Revenue accounting and reporting</li> <li>Subscription billing SAP C/4HANA</li> <li>Configure, price and quote</li> </ul>	<ul style="list-style-type: none"> <li>Cash application</li> <li>Business integrity screening</li> </ul>					
	<ul style="list-style-type: none"> <li>Operational procurement</li> <li>Sourcing &amp; contract management</li> <li>Invoice management</li> <li>Supplier &amp; category management</li> </ul>	<ul style="list-style-type: none"> <li>Financial planning and analysis</li> <li>Profitability and performance management</li> <li>Process mining</li> </ul>	<ul style="list-style-type: none"> <li>Customer profitability analytics (BDMA)</li> <li>Digital boardroom</li> </ul>					
	<ul style="list-style-type: none"> <li>Commodity procurement</li> <li>Central requisitioning</li> <li>Direct and indirect material sourcing</li> <li>Supply chain collaboration</li> <li>Supplier management &amp; collaboration</li> <li>Guided end-user buying SAP Concur</li> <li>External workforce management</li> <li>Services procurement</li> <li>Spend analysis</li> </ul>	<ul style="list-style-type: none"> <li>Governance, risk, and compliance</li> <li>Digital payments add-on</li> <li>Financial service network</li> <li>Integrated business planning</li> </ul>	<ul style="list-style-type: none"> <li>Contract consumption</li> <li>Supply base optimization</li> <li>Goods and invoice receipt reconciliation</li> </ul>					
	<ul style="list-style-type: none"> <li>Core accounting</li> <li>Basic financial operations</li> <li>Cost management and profitability analysis</li> </ul>	<ul style="list-style-type: none"> <li>Core human resources and payroll</li> <li>Talent management</li> <li>Time and attendance management</li> <li>Human capital analytics</li> <li>Workforce scheduling and optimization</li> </ul>	<ul style="list-style-type: none"> <li>Cash application</li> <li>Accounts payable</li> </ul>					
	<ul style="list-style-type: none"> <li>Internet of Things</li> </ul>	<ul style="list-style-type: none"> <li>Machine Learning</li> </ul>	<ul style="list-style-type: none"> <li>Analytics</li> </ul>					
	<ul style="list-style-type: none"> <li>Data Intelligence</li> </ul>	<ul style="list-style-type: none"> <li>Blockchain</li> </ul>	<ul style="list-style-type: none"> <li>Big Data</li> </ul>					
	<b>SAP Cloud Platform:</b> API Business Hub - Market Place - Portal - API Management - Collaboration Services - Mobile Services - UX Services - Big Data Services - Security Services - Analytics Services - Integration Services							
	<b>SAP Data Management:</b> SAP HANA - SAP Data Hub - Meta Data & Lifecycle Management - SAP Vora - Orchestration & Governance - Smart Data Integration - 3 <sup>rd</sup> Party Spark / Hadoop - Streaming Analytics - Data Lifecycle Management							

\*Benefits are based on early adopters of SAP S/4HANA or conservative outside-in benefits due to moving from a traditional enterprise resource planning system to enhanced SAP S/4HANA and line-of-business or cloud capabilities. (19/03) © 2019 SAP SE or an SAP affiliate company. All rights reserved. For information or questions send email to gary.pan@sap.com