DIGITIZATION OF FIELD SERVICE OPERATIONS AND HOW CSP's CAN TRANSFORM FIELD SERVICE INTO REVENUE CENTERS

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Communications service providers (CSPs) are experiencing disruption, making it extremely important to deliver a consistently good customer experience (CX) across all interactions. The presence of multiple touchpoints makes it imperative to provide a seamless customer experience even post-sale, such as combinations of product bundles and upgrades, to increase average revenue per user (ARPU) for CSPs.

Digitization of after-sales system touchpoints has become critical for business growth. Field service has become a vital channel of touchpoints beyond traditional channels such as front-end Web channels, mobile, and store channels.

This white paper discusses key industry trends, challenges, and how CSPs can digitize their touchpoints and systems to better serve customers and also use the field service channel as one of the key revenue generation and sales channels.

Key trends

CSPs face unprecedented competition from traditional and digital competitors such as Over-the-Top (OTT) service providers. CSPs have invested in digitization, and setting up multiple touchpoints such as Web channels, mobile channels, apart from the physical store, to enhance the customer experience. The key industry shift: build robust customer data management platforms for a 360-degree view of customers. After-sales and field events generate significant customer touchpoints, making it important to digitize field services and remain relevant to customers.

The figures below, from multiple sources, demonstrate the importance of field service digitization.
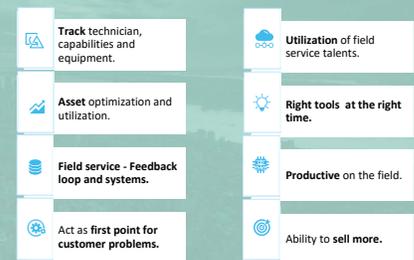
- 70% of organizations will cite customer satisfaction as a primary benefit of digitizing field service management

- 10% of emergency field service work will be both triaged and scheduled by artificial intelligence

- 40% of field service will be performed by technicians who are not employees of the organization, but who are in direct contact with the customer

- 50% increase in overall customer satisfaction

- 75% of field service organizations with over 50 users will deploy mobile apps – for simplified data collection and to add capabilities for technicians

By 2020

70% Organizations will cite customer satisfaction as a primary benefit of digitizing field service management.

10% Emergency field service work will be both triaged and scheduled by artificial intelligence.

40% Field service will be performed by technicians who are not employees of the organization but who have direct contact with the customer.

50% Increase in overall customer satisfaction.

75% Field service organizations with over 50 users will deploy mobile apps – for simplified data collection and add capabilities for technician.

Business Challenge

Communication Service Providers (CSPs) face unprecedented competition. These enterprises have multiple digital consumer touchpoints, diverse product bundles, which demand millions of field service events every year. Hence, it is critical for CSPs to digitize field service and remain relevant to customers.

Track technician, capabilities and equipment.

Utilization of field service talents.

Asset optimization and utilization.

Right tools at the right time.

Field service - Feedback loop and systems.

Productive on the field.

Act as **first point for customer problems.**

Ability to **sell more.**

Impact to NPS (Net Promoter score), impact to customer satisfaction, inefficiency in field operations, lack of systems to capture and control field and consumers.

Figure A: Importance of field service digitization

Why digitize field service

Digitizing end-to-end field operations will improve customer satisfaction and increase Net Promoter Score. Consequently, customers will be open to accepting cross-selling and upselling of relevant bundled offerings. Also, enterprises should deploy the right user interface (UI) and user experience (UX).

Challenges

CSPs need to address several business challenges in digitizing field service operations:

- Physical touchpoints in scheduling resulting in lost data.

- Inability to capture data for analyzing and optimizing field service, personalized interactions for both field service engineers and consumers.

- Field engineer not equipped with the right information about the customer (history, quicker trouble shooting steps, feedback loop).

- Speed of response, too many paper-based processes.

- Marketing function or department lacking sufficient customer feedback loop to ensure effectiveness.

- Inability to promote, cross-sell, or upsell additional services and bundled products.

- Alerts for expiring contracts and maintenance schedules.

- Commodity view, rather than getting to the root of customer issues in dealing with respective products' services sold by CSPs (cable service, computer store devices).
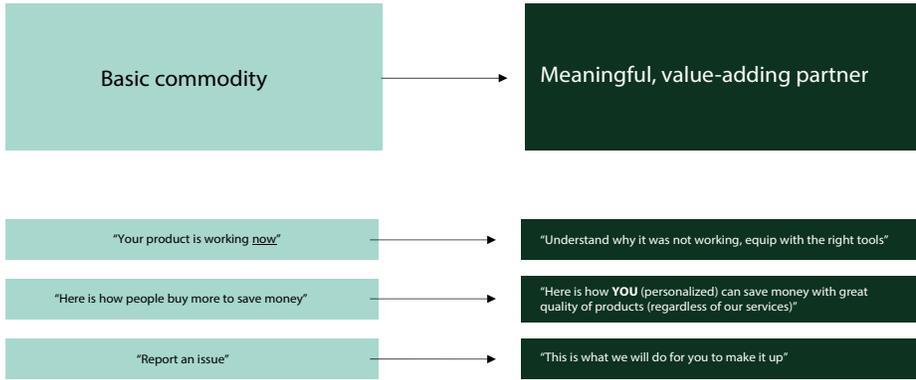
| Basic commodity | → | Meaningful, value-adding partner |

"Your product is working now"	→	"Understand why it was not working, equip with the right tools"
"Here is how people buy more to save money"	→	"Here is how **YOU** (personalized) can save money with great quality of products (regardless of our services)"
"Report an issue"	→	"This is what we will do for you to make it up"

Figure B - Moving away from being a commodity

By 2020

54% Field visits require getting an additional part, resulting in field service agent not finishing the service visit in the first instance.

87% Performance in first-time fix rates wherever there is best-in-class field service systems and is fully digitized.

65% Increase of unified FSM solutions deployments in past three years.

>15% Revenue growth with FSM deployments.

>15% Increase in contract renewals.

>10% Increase in Net Promoter Score.

Figure C – Why digitizing field service is important

What to digitize - Key capabilities in field service management

- Augmented reality (AR), virtual reality (VR), and IoT-driven
  a. Innovation will enable technicians to provide service in real time to manage customer expectations.
  b. Technicians will be able to look into machines without disassembling them to identify malfunctioning parts.
- Artificial intelligence-driven:
  a. Gartner forecasts that 85 percent of customer relationships will be through artificial intelligence (AI) -powered services by the year 2020.
- Customer relationship and 100% success on customer feedback loop

a. Update customer details.
b. View customer history.
c. Collect customer feedback, view or update comments, smart notification.
d. Ensure feedback loop is closed with customer through digital connected consumers.
- Technical work-process optimization
  a. Contact nearest technician.
  b. Auto time tracking.
  c. Send or receive notifications.
- Upsell / billing capabilities
  a. Payments.

b. Package recommender.
c. Marketing / product surveys.
- Work order / activity management
  a. Push notification.
  b. Activity modification.
- Inventory / equipment management
  a. Barcode scanning.
  b. Equipment inspection reports.
  c. Move equipment.
  d. Transfer equipment.
- Troubleshooting / SME support
- Contact SME (chat / call, online help, self-diagnostics)

AR/VR driven troubleshoot & interactions

Field service app, field scheduling, integrate with systems

Fully digitize field touchpoints

Remove friction between field & consumer

Figure D – High-level view of field service capabilities

High-level approach to digitization

Infosys recommends a customer-oriented approach of connecting all pillars of digitization, primarily covering these aspects:

- Experience enablement
- Technology enablement
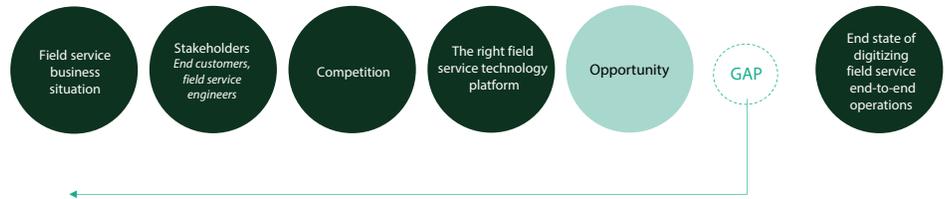- Internal organization / engineers enablement

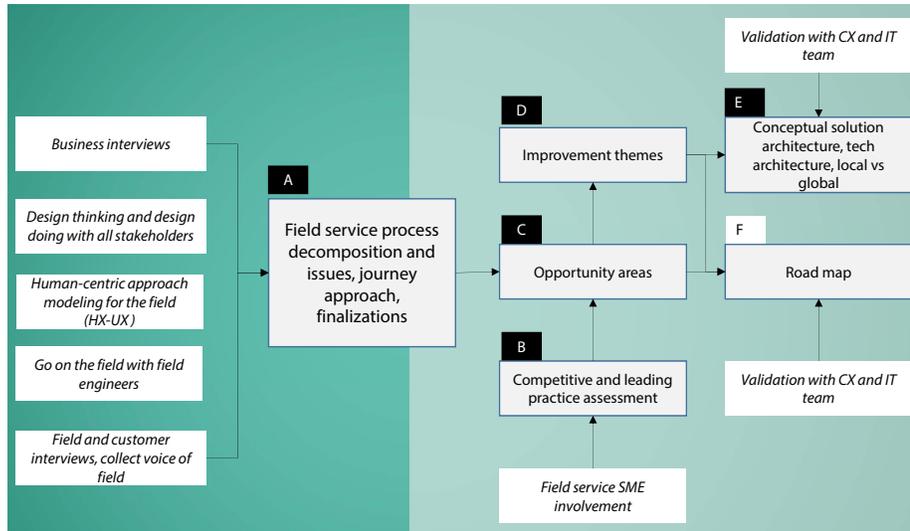*Figure E – Approach to field service digitization*

Figure E – High-level steps to field service digitization

Key metrics to ensure success of digitization of field services

The following business metrics can be monitored and measured by CSPs while digitizing end-to end field service management.

- Net Promoter Score (industry- standard metric)
- Average handling time (contact center)
- First time fix
- SLA compliance
- % of remote resolution
- End-to-end turnaround time
- Schedule adherence (case backlog per day)
- Drive time

About the author

Ramesh Lakshmanan is Associate Vice President of Digital Transformation, AI & Automation, with 20-plus years of experience. Ramesh has worked across retail, CPG, communications, telco and high-tech industries. He has been providing digital strategy consulting, including e-commerce, digital marketing, omnichannel enablement, HX-UX, design thinking and design doing, field service management, digitization of systems, retail operations, practice management and technology-led innovation. Ramesh has a track record of developing and scaling new business opportunities, building trusted partner relationships, providing disruptive solutions, and defining business models.

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