Your Digital Network. Your Future.
Network Services

Accenture Field Installation & Repair Services Transformation: Effectively Managing Field Operations While Improving the Customer Experience

High performance. Delivered.
The Digital Economy: Raising the Bar for Field Service

As the new, interconnected digital world continues to evolve, pressures on communications service providers (CSPs) are evolving along with it. Full connectivity, mobility and big data are rapidly changing customers' behaviors, needs and expectations. To stay abreast of these expectations, leading CSPs are pursuing dramatically improved agility, flexibility and productivity—while also striving to reduce operating costs in order to enable needed investment in improved quality of service.

The real-time and near-real-time experiences offered by highly digitalized retailers and service providers are leading to changed expectations for the services CSPs provide, including digital TV and other home services. As customers' reliance on these services increases, they are becoming acutely aware of any issues with network quality. In some segments, they are demanding 100% network availability. In addition, they now expect improvements such as proactive service monitoring, preventive maintenance, and faster issue resolution times.

The new digital economy is also raising the bar for customer service. Companies such as Google and Amazon excel in delivering a superior customer experience, providing consistency, interactivity and simplicity in all touch points in order to achieve greater customer satisfaction.

All of these issues are subjecting CSPs' field service functions to radically changed customer expectations. In fact, a recent Accenture consumer research reveals that customers' frustration with field service is creating real problems and threatening to affect the very nature of the provider-customer relationship:

• Nearly three in four customers (73%) indicate that service appointments take longer than promised and that issues are not being resolved during the first visit.
• More than four in five customers (81%) say that their experience with the repair or service technician impacts their overall trust in the provider or its brand.
• One-half of customers state that the main reason to switch providers is the quality of customer service.
• And only one in four customers say they trust the company with whom they have a relationship.1

These new expectations pose significant challenges for CSPs, ranging from network maintenance to customers' interactions with them and their representatives in the field. Customers' problems with service response times, network availability and other service contract terms can lead not only to increased churn, but also to fines or penalties from regulatory authorities.

1 Accenture Field Service Consumer Research, 2014.
Meanwhile, field service functions are also facing the challenge of operating more efficiently, as CSPs’ shrinking profit margins are adding to the pressures they face to achieve cost savings and increase productivity. As shown in Figure 1, Accenture research indicates that nearly one-third (32%) of the OPEX breakdown for a typical telecom provider consists of workforce-intensive costs related to network services. Thousands of field technicians and back office agents are typically employed to run and support core processes related to these services, including network maintenance, service activation and customer-initiated repair.

Customer service departments that support installation and repair services have a significant impact on both cost and customer satisfaction. They are typically decentralized, with separate management for contact centers and field forces. And they also frequently cope with low management visibility into operations, as well as a lack of automation, poor coordination and communication, and less than robust analytics capabilities.

Furthermore, initiatives to achieve transformation in customer and field service organizations have typically proven to be long and complex, posing further challenges for the introduction of innovative processes that could drive improvements in customer service.
Figure 1: Typical Telecom OPEX Breakdown

- 28% Depreciation
- 7% Network Creation and Maintenance
- 10% Service Activation
- 15% Customer Initiated Repair
- 3% Network Supplier
- 5% Care
- 5% Billing
- 4% NBD
- 3% Sales
- 3% IT Infrastructure
- 3% Other
- 2% Marketing
- 2% CRM Other
- 1% F&A
- 1% Credit and Collections
- 1% HR
- 1% F&A
- 7% Enterprise Other
- 1% HR
- 1% Credit and Collections
- 15% Customer Initiated Repair
- 10% Service Activation
- 7% Network Creation and Maintenance
- 3% Network Supplier
- 28% Depreciation
- Non-Network Costs
- Network Costs
- Network Workforce Intensive Costs
The Accenture Solution: FIRST - Field Installation & Repair Services Transformation

Accenture Field Installation & Repair Services Transformation (FIRST) offers broad-ranging capabilities designed to take CSPs to the next level of sophistication in addressing rising market pressures and operational challenges. FIRST is an integrated framework of services supported by a robust, scalable and flexible digital platform and cutting-edge advanced analytics practices. It enables CSPs to improve field performance, operate with improved agility and effectiveness, and deliver an improved customer experience.

FIRST’s main benefits for customer experience include:

• Greater visibility of the quality perceived by the customer
• Proactive monitoring of the customer service network enabling providers to anticipate complaints
• Increased first-time-right interventions, leading to greater customer satisfaction
• Faster issue resolution times, leading to close to 100% service availability
• Multi-channel access to technical support and introduction of self-assurance functionalities
• Enhanced self-service troubleshooting features that reduce customer complaint calls

• User-friendly support guidelines and procedures that help customers in managing their network and services

FIRST’s main benefits for field performance include:

• Enhanced performance visibility and management capabilities achieved through comprehensive descriptive analytics tools and a structured governance model
• Analytical capabilities geared to solving structural issues and continuously improving operations, leading to greater visibility, predictability and structured decision making
• Disruptive innovations, on top of typical business as usual operations, maximizing field force productivity and quality through recurrent root-cause analysis
• Full process digitalization and automation, eliminating manual activities

The FIRST Capability Framework

The Accenture FIRST solution provides these improvements by transforming the installation and repair processes. The transformation framework encompasses a set of consulting and managed services that will support the CSPs in defining, implementing and running a new customer-driven operation model. This model leverages the FIRST technology platform—a fully integrated solution containing the key components required
to manage the entire life cycle of the process. The platform is cloud-based and delivered as a service. It takes advantage of both off-the-shelf commercial solutions and open source technologies, making changes easy and cost effective, and simplifying integration with CSPs' legacy toolsets, if required.

A Centralized Command Center
A centralized Command Center manages these functions in an integrated manner in order to establish best practices and deliver improvements on relevant key performance indicators (KPIs). It enables control of all aspects and phases of the process, from the moment the client makes contact with the CSP until the completion of new service installation or repair. The Command Center also provides comprehensive, integrated management of key functions associated with effective field force management, including customer experience management, demand forecasting and resource planning, performance management, quality/efficiency improvement and effective field force training.

FIRST Services
Following are more details about FIRST services provided by Accenture within the Command Center framework:

Customer Experience
Service delivery and assurance are key steps on the customer journey, and have a strong influence on customers’ overall customer satisfaction and relationship with the CSP. FIRST’s approach encompasses tools and processes to assess customer experience by depicting the customer journey in order to identify sources of deviations from a satisfactory path, as well as using triggers to define the communication and escalation processes.

Accenture leverages its Digital Assurance solution, a flexible and modular solution designed to be integrated with CSP legacy systems in order to implement a comprehensive E2E service management that proactively monitors customer-perceived quality and anticipates complaints. The solution enables control of the home/office network through device-specific capabilities that are easily accessible to both CSP agents and customers themselves, including features like Home Devices Discovery, Online Home Connection Mapping, Self Troubleshooting and Self Configuration.

Forecasting & Planning
Accurate forecasting and planning are essential to ensure adequate provision of network services and expert resources. Accenture FIRST tools speed up benefit realization across the planning process. They include:

- Demand Forecasting: Handles strategic and tactical decisions on field force and Command Center planning, using causal factors (e.g., weather forecasts) as well as sophisticated ARIMA models that provide up to 90% daily accuracy, with high granularity.
- Capacity Planning: Enables the definition of workforce sizing (field technicians and back office support agents). A powerful simulation tool optimizes allocation and allows for what-if analysis.
- Production Control: Continuously analyzes the plan and what is happening in daily operations, providing feedback to the short-term plan and ensuring that all defined targets are accomplished.
Figure 2: Service Capabilities Supported by Cloud-based Technology Assets

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Technology:
- Motive
  - CPE Monitoring

Workforce Management:
- WFM
- Technician Management
- Mobile App

Analytics:
- Performance Dashboard
- Forecasting & Planning
- Root-cause Analysis
• Governance Model: Ensures that the E2E process is accurate, so that all stakeholders are aligned with key concepts, assume responsibility for each part of the process, provide reliable information and take corrective actions as appropriate.

Forecasting and planning tools give CSPs the ability to optimize resource allocation in order to address both the peaks and troughs of demand, increasing workforce productivity while assuring that customer service levels are met.

Performance & Control
The FIRST approach focuses on operational excellence to improve efficiency in both the field and customer care, leveraging the Accenture FIRST Platform, which includes a pre-defined KPI structure with extensive drill downs, from a strategic view to the operational level, with multiple dynamic visualization options, including charts, gauges, maps, and grids. The target users for the predefined dashboards are not only specialized resources, such as dispatchers and capacity planners, but also executive-level employees. All users are provided with a clear view of service levels, such as speed, quality or efficiency, in multiple dimensions—e.g., region or service type.

Major benefits of FIRST’s structured and comprehensive reporting framework for network service and field force management include:
• Helps in performance comparison and assessment and also regulatory compliance
• Gives thoughtful insight and trend capture across various steps of the Field force operations within the Network Service space
• Give a crisp view of the critical data and the emerging action items across various dimensions, end to end indicators and drill downs
• The data patterns from the executive summary is leveraged for further insight into RCA, Issue Trees and Hypothesis

Quality & Efficiency
Accenture FIRST leverages previous cross-geography engagements at large CSPs to deploy a Root-Cause Analysis (RCA) framework, which encompasses an extensive list of major business and operation challenges, using structured three-level issue-trees and pre-defined hypotheses. The solution comprises the following tools and techniques to enrich the customer experience:
• Detailed issue trees linked to performance parameters
• Testing of the hypotheses deduced from issue trees in RCA templates, as defined by Accenture
• Simulation templates to determine financial impacts

Issue trees are used to break down a single business issue into several levels, with each level signifying the division of the original issue into several subqueries, finally culminating in the final hypotheses. Validation of each hypothesis is accomplished through various analytical tools, such as data mining and
statistical techniques, permitting a response to the original query. The testing and validation of the hypothesis formed in the issue tree is carried out through advanced analytical methods, allowing for conclusions on validity and simulations of business impacts, providing greater predictability of the results expected from improvement plans.

By leveraging its knowledge base and pre-built platform, business analysts are able to apply Accenture FIRST’s methodology to conduct recurrent hypothesis-driven analysis cycles based on major business issues, and to define action plans geared to achieving improved business outcomes, including increased quality and reduced cost.

The major benefits of Accenture FIRST’s exhaustive RCA framework for network service and field force management are that:

• The issue can be broken down into manageable and definable chunks across the Network Services, enabling a clearer prioritization of factors which helps to focus objectives.

• There is greater understanding of the issue and its frequent interconnections with contradictory root causes, driving better insight into customer problems

• It helps establish who and what the political actors and processes are at each stage

• The process of analysis often helps build a shared sense of understanding, purpose and action for an efficient performance across network and field services

Field Force Academy
In order to stimulate strong performance, FIRST establishes a comprehensive approach to training that involves the entire field team. It includes competency assessment, training preparation and delivery via multiples platforms (e-learning, videos, apps), as well as certification and performance monitoring (integrated with workforce management solution) and continuous updates.

Expertise in Key Business Processes
Command Center functions are supported by proven Accenture capabilities in key business processes, including ticket triage and dispatch management, strengthened by powerful self-service tools that are integrated with the care process, ensuring a consistent customer experience.

Multi-channel Self-Service
FIRST provides enhanced customer experience and cost reduction through innovative digital technology. Self-service tools include:

• Service & Order Tracking: A single, easy-to-use digital hub allows customers to follow up on their service quality and usage.

• Service Quality Monitoring: Provides notifications about network failure in the customer’s region, with easy access to troubleshooting tools.

• Field Tech Tracking: A simple-to-use digital interface enables follow-up on break/fix ticket status and schedules push notifications including job status, appointment date and time.

• Collaborative Tools: Forums and knowledge bases increase the customer’s ability to address configuration problems and home network parameters.
Accenture's customer self-service solutions integrate with CSPs' e-care platforms, allowing for online self-troubleshooting, service scheduling, order tracking and FAQ. Key benefits include reduction of inbound calls to technical support, along with transparent and agile access to main assurance and fulfillment services.

**Ticket Triage**
Ticket Triage is a multi-layered solution that leverages analytics and technology to more effectively evaluate incoming work requests for back office and field technicians. The solution uses customized filters for each client to deliver process and configuration changes that help reduce non-productive work, automate workflows and improve efficiencies—ultimately saving money.

By leveraging analytics, FIRST proactively reviews and analyzes work requests in order to understand the root causes and define new business rules. Advanced reporting, forecasting and tracking capabilities are used to identify key value drivers and to track results.

FIRST's business event processing platform uses automation to apply client-specific rules that guide the analysis, categorization, rejection or closure of each ticket. The model provides a continuous improvement loop, allowing investigation of new opportunities to build upon the benefits realized.

Accenture's FIRST team leverages top-industry tools and techniques to dig deep into a client's data in order to identify opportunities for root-cause analysis. Every ticket passes through filters that are customized for each client, allowing the uncovering of hidden opportunities for improvement—ultimately reducing wasteful work efforts.

**Dispatch Management**
Accenture provides capacity and scheduling management capabilities and tools to improve quality, including:

- Appointment booking. There is a single booking GUI for all systems, with up-to-date information.
- Quota management. Field force capacity is tuned in order to achieve a balance between installations and faults resolution, optimizing the ability to address the established SLAs.
- Shift planning. Shifts are automatically generated to cover demand.
Accenture FIRST's cloud-based technology platform leverages an innovative digital technology that allows CSPs to improve service quality and efficiency. This technology uses open-source applications (microservices) to provide a modular approach that is scalable and flexible enough to address any client needs. Key features include:

- **End-to-end orchestration**: Flexible cloud-based architecture, leveraging open-source software, controls the end-to-end process flow and supports the services framework, encompassing:
  - A multi-channel troubleshooting service, including scripts and automated analytic logic, and leveraging integration with the network Integration layer in order to increase self service capabilities and remote resolution
  - Automated ticket triage that provides automatic correlation of tickets and analysis of the root cause of fallout.
  - Work order management, with cross-department workflow tracking back office and field activities.
  - Appointment booking that integrates customer care channels with a workforce management solution, allowing for creation and modification of appointments with pre-defined rules, according to field force slot availability.

- **Workforce management**: Technician management capabilities include shift planning, the establishment of a resource pool, and resource certification. Mobile apps for technicians use digital solutions to enhance workforce management capabilities and to provide added support for upselling, knowledge management, motive certification and troubleshooting.

- **Analytics**: Analytics capabilities include a performance dashboard for performance and value realization monitoring and business KPIs improvement; forecasting and optimization analytic models that encompass order and support, technician planning and resource simulation; and root-cause analysis, including detailed issue tree and correlation and techniques to enrich the customer experience.
Why Accenture

The challenges of overseeing an effective field force while maintaining a strong customer franchise during times of disruptive change require an integrated, flexible and proven solution that not only addresses network requirements, but also provides effective management of operations.

By integrating network technology management with customer care and powerful analytics tools, Accenture FIRST provides comprehensive management of the entire installation and repair process in a way that takes account of changing customer requirements and expectations for reliability and flexibility.

The FIRST platform integrates all the required technology in one flexible, cloud-based platform, enabling rapid deployment and acceleration of desired results. The technology and functionality to support key processes is already in place, and can be rapidly customized to meet specific provider needs.

In fact, Accenture Field Installation & Repair Services Transformation can fully transform CSPs' network customer service operations in a five-to-eight-month timeframe, leading to faster implementation and the realization of benefits 12 to 18 months sooner than when using traditional methods.

Additional measurable operational benefits include:

**Improved Customer Experience**
- A 5 to 10% increase in customer satisfaction rates.
- A 15 to 20% reduction in average installation and repair time.
- A 20 to 25% increase in remote resolution of issues.

**Increased Process Efficiency**
- A 10 to 15% increase in field force productivity.
- A 25 to 30% improvement in back-office optimization.
- More than 90% forecasting accuracy, enhancing operation predictability.

Beyond delivering these benefits, FIRST is also closely integrated with two other key Accenture offerings related to CSPs' support for home customers:

- **Home as an OS**, which supports the CSP's delivery and management of a new set of connected home services that run on top of current consumer connections, leveraging their footprint of CPEs and connections.
- **Network Modernization**, which aims to support the CSP in its journey to migrate from the legacy platforms to new infrastructure, reducing the impact to customers and optimizing the cost of deployment.
Together, these three offerings help CSPs transform the way they deploy, operate and manage the services they offer to home customers.

To reach their desired destination, today’s communications service providers are looking to collaborate with partners who have the industry expertise, digital orientation, depth in technology, and ecosystem relationships to help them build their next-generation services, networks and operations.

Accenture brings multiple advantages to organizations seeking to achieve this transformation. There is no organization better at IT transformation, and with the convergence of network and information technology: Accenture is now bringing its tools for process and governance to the network world. Accenture also has an extensive track record working with a vast majority of the large enterprise customers—Fortune 500 and others—whose needs CSPs are seeking to address.

Accenture's positioning in the communications industry, as reflected in reports by independent industry analysts such as Gartner, Inc., demonstrates that among vendors working with CSPs, Accenture is a leader that can help them maximize the benefits of their existing assets in the digital context, and create new capabilities that bring revenue from new sources.

As you pursue the opportunities offered by Digital Network Transformation, insist on having a partner who understands the breadth of your requirements... and is fully equipped to help you turn your vision into reality.
For more information

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About Accenture

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