Customer care success stories
We are an experienced leader in Customer Care

<table>
<thead>
<tr>
<th>Metric</th>
<th>10%</th>
<th>20%</th>
<th>40%</th>
<th>50%</th>
<th>75%</th>
<th>90%</th>
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<tbody>
<tr>
<td>Time a customer is on the phone</td>
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<td>Solved on first contact</td>
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<td>Escalations reduction</td>
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<td>Call reduction due to successful self-help/IVR</td>
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<td>Propensity To Call (PTC)</td>
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<td>Call/Complaints reduction</td>
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<td>NPS/recommend to others</td>
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<td>Truck rolls reduction due to self-care</td>
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Deployed by leading CSPs globally

+3B€ in savings achieved
North American CSP automates to deliver omni-channel service
North American Operator leverages analytics to reduce home Wi-Fi calls
North American CSP improves network insights for Field Service
Swisscom enhances in-home Wi-Fi experience
BT enhances self care to improve customer service
European service provider leverages home analytics to improve subscriber experiences
Middle East Operator reduces complexity and costs associated with customer care
Middle East CSP optimizes customer care across channels
Turk Telekom: Evolution to proactive assurance
Asian operator implements proactive care to improve the in-home experience
North American CSP automates to deliver omni-channel service

**Challenges**

- Siloed applications across channels
- Limited ability to enable a single process across devices or services
- Ability to support multiple lines of business

**Solution**

- Service Management Platform for single process automation
- Integration of over 370 APIs and 125 systems
- GUI agnostic application for multiple users
- Process improvements optimize workflow resolution

**Benefits**

- $750M savings over four years
- Workflows customized across services to support any device and customer type
- Collaborative environment for BizOps and TechDev to support business-driven automation of workflows

“Nokia’s workflow engine is a powerful tool and it provides consistency with processes, eliminating the need to train every individual technician and Care Agent on process changes – keeping everyone current and in sync.” President, Tech Ops
North American CSP leverages analytics to lower home Wi-Fi related calls

**Challenges**
- Too many truck rolls
- Unnecessary drop ship actions
- Device alarms without tickets
- Inability to assess root cause from ticket narrative

**Solution**
- Home analytics to confirm that the device has a problem before issuing a drop ship
- Recommendation engine to suggest proactive actions
- Dashboard views to assess network health and identify potential Wi-Fi coverage issues
- Alarm-ticket timing analysis leveraged to define proactive actions for ticket avoidance

**Benefits**
- Reduces the average handling time of calls
- Improves call avoidance
- Enables CPE team to assess and improve the quality of the firmware
North American CSP improves network insights for Field Services

Challenges
• Field Services wants improved coverage, integration and diagnostic insights
• Legacy tools for line testing are being phased out and don’t cover lines for new service areas and new DSLAM types

Solution
• Field Tech Console (FTC), integrated with Field Tech’s existing mobile tools
• Network Analyzer Copper (NA-C) for insights
• FTC enables technicians to run SMP workflows and access NA-C’s network quality insights:
  • View line quality KPIs, quality history, and proactively diagnosed problems
  • Run new diagnostic tests

Benefits
• Techs can see service quality status and detected problems before the dispatch
• Faster in-field troubleshooting
• Higher ‘First time Right’ job completion with real-time verification of activations and repairs
Swisscom enhances in-home Wi-Fi experience

**Challenges**

- Home Wi-Fi issues driving 40% of calls
- Many customers cannot manage home network issues on their own
- Limited insight into the home network; can only provide reactive/on-site support

**Solution**

- Home Analytics provides the home network data through HDM/TRM
- New firmware testing using quality Indicators for all cases
- Detection of firmware build issues and dependencies
- Router data available in central data lake allows for complex data analysis

**Benefits**

- 90% first time right for HAL recommendations, appropriate for L1 support
- Accurate troubleshooting, consumer devices are visible and measurable
- Intermittent issues are resolved by applying historical data

“Newly acquired insights and action recommendations are individualized and refer to specific terminals. We can approach customers proactively and, during customer contact, can resolve the problem with greater probability.”

Andreas Arnold, Technical Cluster Lead, CPE & Home Devices, Swisscom
BT enhances self care to improve customer service

**Challenges**

- Reduce call center call volume through automation and self-care
- Lower costs by consolidating systems into a single platform
- ‘Right First Time’ every time
- Align self-service with customers’ lifestyles

**Solution**

- Service management platform for automated self care across services, vendor agnostic device management, home analytics
- Multiple integrations to DSP’s OSS/BSS systems
- Custom web services integration layer for simplified access to Nokia solutions
- Use case application across domains
- Nokia hosted solution

**Benefits**

- Multi-million dollar cost savings
- Significant improvement in first call resolution/first time right
- Large reduction in inbound calls
- Simplified operations and lower risk with hosted solution
European service provider leverages home analytics to improve subscriber experiences

**Challenges**

- Limited ability to collect home network insights for the purpose of customer segmentation and upsell opportunities
- Low customer satisfaction with network performance
- Inability to prevent common Wi-Fi issues such as interference and dead zones
- High volume of call center traffic relating to common Wi-Fi issues

**Solution**

- Complete solution involving Service Management Platform (SMP) Home Device Manager (HDM) and Home analytics (HAL)
- Custom scores built across cable, DSL and VoIP domains and aggregated to network wide map based on time and location
- Custom reports built in order to rank most affected accounts, per domain and issue type.

**Benefits**

- New end user visibility of Wi-Fi usage
- 20% call reduction in first month
- New network monitoring and reporting capabilities
- OPCO achievements shared at Group level for further expansion

“We are advertising the fact that we can fix home WiFi issues before our subscribers realize it in our marketing campaigns” - Head of Fixed Networks
Middle East CSP optimizes customer care across channels

**Challenges**

- Multiple tools, fragmented procedures
- Manual handling of customer trouble tickets
- Low first call resolution and a high number of escalations to operation engineers
- High operational cost and low customer satisfaction
- Inability to maintain manual processes as device and service complexity increases with digital transformation

**Solution**

- Service Management Platform (SMP) to automate the customer care operations in a single framework
- Workflow engine operating across all technologies and services
- Deflect calls to self-care through different channels (web/mobile app, IVR, IPTV, OTT apps) - self service application
- Automate customer field activities – field tech application

**Benefits**

- 50% improvement in first call resolution for fixed customers and 60% for mobile customers
- 25% reduction in inbound calls applying self service channels: IVR, IPT and App
- $20M in operating costs saved annually for both Level2 support and truck rolls
- Reduced churn rate through better customer service

"Nokia SMP is critical to our customer care operations" – Senior director of automation
Turk Telekom: Evolution to proactive assurance

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solution</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>• Identify issues proactively</td>
<td>• Certification of new subscribers</td>
<td>• Guarantee 100% quality by monitoring of fiber activations</td>
</tr>
<tr>
<td>• Reduce number of new subscriber tickets</td>
<td>• Certification of customer ticket closure</td>
<td>• Reduce churn with visibility into VIP customer networks</td>
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<tr>
<td>• Reduce churn within the first month of subscription</td>
<td>• Proactive Assurance for larger customer groups</td>
<td>• Reduce repeat truck rolls and call volume with verification of recovery of QoS disruption for customers who received assurance services</td>
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<tr>
<td>• Reduce the number of recurring tickets and associated costs</td>
<td>• Wi-Fi Management</td>
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Asian Operator implements proactive care to improve the in-home experience

**Challenges**

- Reduce truck roll costs
- Improve average handle time and first call resolution
- Improve customer experience with proactive home gateway health repair

**Solution**

- Service Management Platform Home Analytics, Home Device Manager
- Proactive actions based on home analytics insights
- Main use cases supported: Proactive Wi-Fi channel optimization, GW reboot and channel change

**Benefits**

- 12% reduction in calls
- Fewer truck rolls
- SMP workflows used by field services for real time testing and diagnostics (e.g., network/device speed test) has reduced repeat field visits
About Nokia
We create the technology to connect the world. We develop and deliver the industry’s only end-to-end portfolio of network equipment, software, services and licensing that is available globally. Our customers include communications service providers whose combined networks support 5.7 billion subscriptions, as well as enterprises in the private and public sector that use our network portfolio to increase productivity and enrich lives.

Through our research teams, including the world-renowned Nokia Bell Labs, we are leading the world to adopt end-to-end 5G networks that are faster, more secure and capable of revolutionizing lives, economies and societies. Nokia adheres to the highest ethical business standards as we create technology with social purpose, quality and integrity.

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