

# MOTIVE HOME DEVICE ANALYTICS

RELEASE 1.0

- **Extends visibility into the digital home ecosystem and increases the percentage of home device issues that can be managed proactively**
- **Enables faster resolution or automated healing of more issues across thousands of permutations of in-home devices, operating systems and services**
- **Resolves complex multi-user, multi-device and multi-service home broadband issues before customers experience them**
- **Helps service providers avoid problems by using machine learning techniques and pattern discovery algorithms to predict emerging home broadband issues**

Motive Home Device Analytics reinvents the customer care experience as a differentiator for home broadband service providers. This solution combines analytics with a closed-loop approach to customer experience management (CEM) to continuously improve customer satisfaction, loyalty and profitability. Using insights derived from analytics, it offers ecosystem-spanning visibility that empowers help desk agents, increases self-care usage and anticipates emerging issues. With Home Device Analytics, service providers can move away from reactive customer care and adopt a more proactive and predictive approach to CEM.

## CLOSING THE LOOP ON CEM

The increasing diversity of home broadband devices and network technologies adds layers of complexity to CEM. At the same time, rising in-home integration and connectivity are creating higher volumes of technical support issues. Most service providers struggle to cope with these challenges. Lacking visibility into the home ecosystem, they find it difficult to keep up with day-to-day problems and resolve them on increasingly short time lines. These difficulties diminish customer satisfaction and drive up the cost of supporting devices and services for the broadband home.

Today's broadband customers expect better customer support. But they don't always get it:

- 96% of customers expect their service providers to proactively notify them about actions being taken – or even better – the solution to an impending problem.<sup>1</sup>
- 50% of technical support calls are related to home network issues.<sup>2</sup>
- 70% of devices returned have nothing wrong with them.<sup>3</sup>
- 89% of churn is caused by poor customer experience.<sup>4</sup>

<sup>1</sup> Nibha Aggarwal, 2012.

<sup>2</sup> Alcatel-Lucent research.

<sup>3</sup> Alcatel-Lucent research.

<sup>4</sup> "2011 Customer Experience Impact Report." Harris Interactive, 2011.

These trends have a direct impact on support costs and profit margins. To reverse these trends, service providers need to close the CEM loop with analytics that can enable them to track more issues and resolve these issues faster.

### **Turn insight to action**

To satisfy home broadband subscribers, a service provider must promote continuous improvement toward proactive and self-healing customer care. This kind of improvement is an operational necessity that can boost customer satisfaction, loyalty and profitability. It is also a business imperative that can provide a competitive advantage.

Home Device Analytics delivers continuous improvement by combining analytics-based insights with a closed-loop process. Together, these capabilities proactively discover, identify and resolve issues with home broadband services and connected devices. By turning insights into actions, they improve the customer experience.

### **Empower assisted care**

Improved visibility into the home network and attached devices can help customer service representatives (CSRs) resolve problems more efficiently and effectively.

Home Device Analytics gives CSRs visibility that spans devices and in-home networking technologies. It captures home device and network data and uses correlation analytics to provide intelligence that improves the customer

experience. Home Device Analytics tracks a wide range of issues based on common call drivers and frequently invoked workflows. CSRs can use the resulting intelligence to quickly identify and resolve more customer problems in a single call. This intelligence reduces CSR training time and helps ensure a consistent experience for all customers and CSRs.

In handling support calls, it is important for CSRs to be able to recognize the difference between normal and abnormal performance. In particular, CSRs need to understand how each subscriber's experience compares to that of other subscribers. Home Device Analytics helps CSRs by measuring individual user experiences against those of all subscribers from a combined network and device perspective. It gives customer care agents a unified view so that they can manage customers across all services, home devices and networks.

### **Drive proactive self-care engagement**

Subscribers want to use self-care. In fact, 75% of consumers would rather access online self-care than contact a call center. Service providers want subscribers to use self-care, too. Just one call to the help desk can erase all profit for a month for a given subscriber. What's more, a call that doesn't go well increases the customer's likelihood to churn by a factor of 1.6.

A self-care strategy can succeed only if it allows customers to get help anytime and anywhere and take greater control of their support issues. Home Device Analytics makes

self-care more efficient and enables subscribers to resolve issues for a broad range of devices. In addition, it offers solutions that can scale to include new devices with little to no need for reconfiguration.

Home Device Analytics also supports self-care use cases that involve automated alerts for end users. These alerts may help users avoid certain problems before they occur. Or, they may offer support-related information that delivers useful information or problem resolution guidance directly to the end user's desktop. This proactive approach dramatically increases ROI in 3 to 11 months based on the volume of calls deflected to self-care.

### **Anticipate and resolve more issues**

A full 96% of "unhappy customers" don't complain about what makes them unhappy. However, 91% of these customers will simply leave and not come back. This is a major problem for service providers: If a customer doesn't call to complain it's impossible to know if there was an issue. Service providers can overcome this problem, but they need a way to identify and diagnose issues without having to rely on direct interaction with customers.

Home Device Analytics uses predictive algorithms to increase the number of reactive and self-care use cases that can become self-healing services. Based on machine learning from Bell Labs, this smart technology uses data continually collected from home devices to predict problems before they occur. Without human assistance, it discovers new patterns

and diagnoses, analyzes and fixes incidents. It also confirms that each given problem is fixed, closes the related ticket and archives it in the closed-loop knowledge management system. The archived ticket includes the remediation steps required to address the problem if it happens again.

### Solution architecture

Motive Home Device Analytics uses a flexible architecture that can be adapted to service providers' unique business objectives and priorities. This flexibility can empower service providers to achieve the goal of delivering a fully optimized home broadband service.

Home Device Analytics combines several key products to make analytics-based insights accessible across customer care, network operations, engineering and marketing departments.

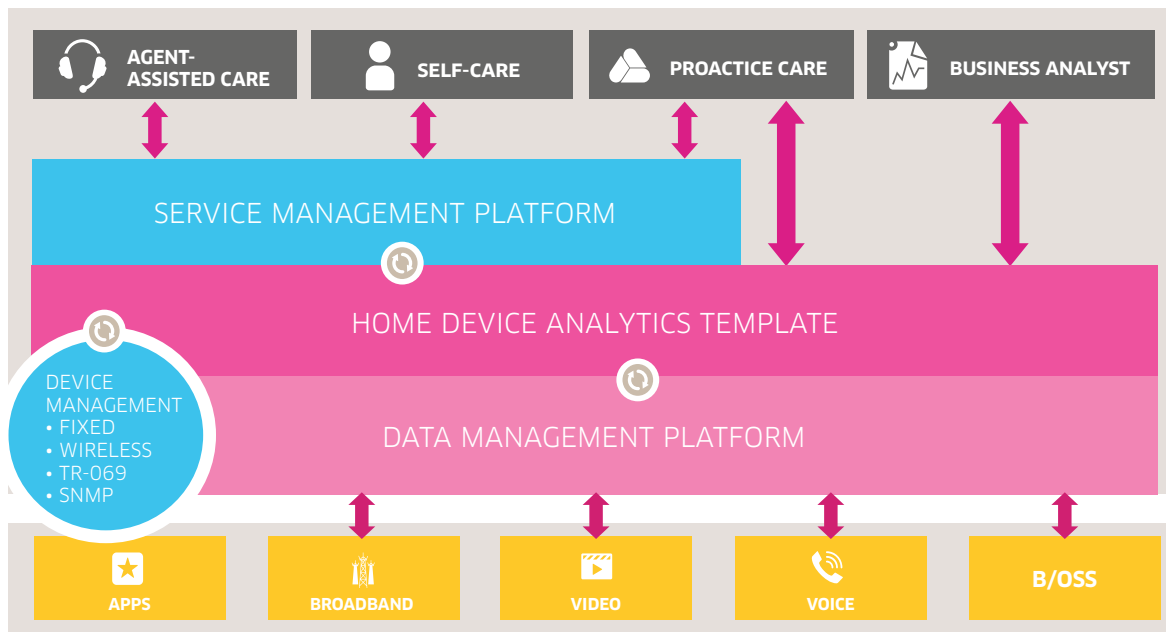
- **Motive Service Management Platform (SMP)** makes it easy to create and execute advanced workflows for agent-assisted care, self-care and proactive care. It reduces average handle time (AHT) by automating problem diagnosis and resolution, providing instant access to device information, and coordinating management tasks across the service delivery ecosystem.
- **Motive Home Device Manager (HDM)** allows service providers to remotely manage

customer premises equipment – including home gateways, IP set-top boxes and VoIP adapters – that makes up a home networking environment. It supports the Broadband Forum's TR-069 standard along with bulk and one-to-one device management, firmware management and zero-touch device activation.

- **Motive Data Management Platform (DMP)** helps service providers collect and store large amounts of broadband home device and network data in a normalized view without requiring expensive server hardware or intensive database administrator overhead. Service providers can add plug-ins and collection points without disrupting the components and analytics logic in the layers above the DMP.

- **Motive Home Device Analytics Template** captures a comprehensive view of the broadband home network. This advanced analytics framework uses the large volume and variety of data in the Motive DMP to interpret, infer, discover and predict key performance indicators (KPIs), insights and actions for a variety of pre-defined use cases. The Home Device Analytics Template is based on a telco-specific business rules engine, a discovery engine, and a repository for KPIs, insights and actions. It is pre-integrated with several key components, including DMP, HDM and SMP.

Motive Home Device Analytics architecture



## PROFESSIONAL SERVICES AND CONSULTING

Motive Home Device Analytics is backed by expert professional and consulting services. These services focus on helping service providers

identify, understand and meet their unique business objectives. Alcatel-Lucent's operations and technology experts benchmark service provider capabilities against industry best practices and create action plans that deliver measurable, impactful improvement. With help

from Alcatel-Lucent, service providers can create a digital home experience that exceeds customer expectations.

To learn more about Alcatel-Lucent Services, visit [www.alcatel-lucent.com/services/](http://www.alcatel-lucent.com/services/)

## SOLUTION FEATURES

FEATURE	BENEFIT
Standardized problem resolution use cases	<ul style="list-style-type: none"> <li>• Lower AHT and raise first call resolution (FCR) rates by guiding CSRs through diagnosis, troubleshooting and resolution processes across multiple devices and home networking technologies</li> <li>• Reduce interventions on customer premises with remote diagnostics and root cause analysis that cover a broad range of home networking issues</li> <li>• Reduce no-fault-found returns and provide a viable alternative to offering a replacement device by precisely diagnosing the cause of a poor perceived experience</li> </ul>
Proactive support use cases	<ul style="list-style-type: none"> <li>• Increase the percentage of home issues that can be proactively detected without agent-assisted care support</li> <li>• Help users avoid problems by automatically alerting them about emerging issues</li> </ul>
Use case discovery	<ul style="list-style-type: none"> <li>• Facilitates customer care evolution by enabling service providers to model, test and deploy new support use cases for new devices and future networking technologies</li> <li>• Reduces complexity with templates that use predefined user interfaces, workflows and data source adapters to address top call drivers</li> <li>• Reduces interventions on customer premises with remote diagnostics and root cause analysis that cover a broad range of home networking issues</li> </ul>
Multi-dimensional analytics	<ul style="list-style-type: none"> <li>• Provides intelligence about any device or group of devices in the home network by correlating device-sourced data with network data and leveraging proven, scalable big data analytics</li> <li>• Eliminates multi-system queries by giving CSRs a subscriber-, network- and device-spanning view of the actual customer experience</li> </ul>
Platform for all future analytics needs	<ul style="list-style-type: none"> <li>• Addresses constantly evolving issues caused by device firmware revisions and settings by offering an open framework that integrates with TR-069 device-source data</li> <li>• Ensures that CSRs and subscribers always get a consistent troubleshooting experience by combining fully automated data correlations with alerts that trigger standardized workflows</li> <li>• Predicts and prevents potential problems by coupling support-related data mining with machine learning</li> </ul>

# SOLUTION BENEFITS

CHALLENGE TO SERVICE PROVIDER	HOW THE SOLUTION ADDRESSES THE CHALLENGE	ADVANTAGES OF ALCATEL-LUCENT APPROACH
Manage the customer experience	<ul style="list-style-type: none"> <li>• Automatically detects and diagnoses problems</li> <li>• Offers a powerful rules engine that enables operators to resolve major outages in real-time, before customers notice them</li> <li>• Helps CSRs and end users resolve issues by ensuring that they have access to timely, relevant support information</li> <li>• Reduces interventions on customer premises with remote diagnostics and root cause analysis for a wide variety of home issues</li> </ul>	<ul style="list-style-type: none"> <li>• Boosts brand perception by reducing major outages</li> <li>• Improves customer experience and Net Promoter Score by decreasing AHT and increasing FCR rates</li> <li>• Manages the customer experience across all permutations of devices and home networks</li> </ul>
Increase operational efficiency and reduce costs	<ul style="list-style-type: none"> <li>• Correlates device, network and customer data</li> <li>• Implements proactive care and supports multiple self-care channels</li> </ul>	<ul style="list-style-type: none"> <li>• Increases visibility of network-level root causes and helps address major issues at the source</li> <li>• Lowers AHT and raises FCR rates with business intelligence that invokes workflows designed to make customer care more efficient</li> <li>• Drives call avoidance strategies and reduces costs related to agent-assisted care</li> <li>• Reduces interventions on customer premises</li> <li>• Reduces no-fault-found returns</li> <li>• Provides continuous data-driven feedback that engineering, IT and vendors can use to provide fixes and drive rapid technical improvements to services, equipment and devices</li> </ul>
Empower tier 2/3 CSRs and enhance self-service care	<ul style="list-style-type: none"> <li>• Combines network, device and subscriber perspectives to gain insights into problem root causes and the customer experience</li> </ul>	<ul style="list-style-type: none"> <li>• Lowers AHT by giving CSRs and customers the data, analysis and processes they need to resolve support issues</li> </ul>
Engage customer to gain access to future value	<ul style="list-style-type: none"> <li>• Combines device and network data with analytics to support the creation of personalized service offers and targeted retention campaigns</li> <li>• Uses multi-dimensional analysis to mine the customer experience across offered devices, manufacturers, models and firmware</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces churn and increases revenue with targeted offers – for example, service or device upgrades – that make sense to customers</li> <li>• Drives and monetizes service usage by making it easy for customers to resolve service issues and consume new services</li> </ul>

## LEARN MORE

Winner of the Strategast | Frost & Sullivan 2013 Global Award for Product Leadership in CEM, the Motive portfolio helps service providers unite decision makers, organizations, processes and strategies around a holistic customer experience vision.

Alcatel-Lucent understands fixed broadband and home networking. We offer global leadership in solutions that seamlessly manage fixed and mobile devices. Our Motive portfolio is the trusted choice of more than 250 service providers, including BT, China Unicom, KPN, STC, Swisscom and Verizon.

In one Tier 1 environment alone, the Motive portfolio is integrated with more than 100 backend systems. The Motive portfolio manages 80 million access lines, 80 million broadband devices and 70 million mobile devices worldwide.

Learn more about the Motive portfolio at [www.alcatel-lucent.com/motive](http://www.alcatel-lucent.com/motive)

---

**www.alcatel-lucent.com** Alcatel, Lucent, Alcatel-Lucent and the Alcatel-Lucent logo are trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. The information presented is subject to change without notice. Alcatel-Lucent assumes no responsibility for inaccuracies contained herein. Copyright © 2013 Alcatel-Lucent. All rights reserved. NP2013113601EN (December)