

Customer Experience Management Platform

Excel your customers' Wi-Fi experience and ensure access layer performance with one solution, on truly open standards



Introduction

The ultimate objective of every Communication Service Provider (CSP) is to ensure the satisfaction of all customers. The alternative is rather pessimistic: rising customer complaints, leading to increased customer care costs and high churn rates. That's why it's crucial to know what exactly affects your subscribers' experience.




The quality of customer experience can be impacted by both the access network and in-home factors. However, many solutions on the market only address one of these areas, resulting in partial visibility. These solutions often require the complex and expensive installation of custom software agents on the CPEs.

As a consequence, service providers either don't have an accurate understanding of the experience of their subscribers, or they're facing complicated integration processes.

You can avoid this impasse by choosing a solution based on truly open standards: TR-069/TR-369, which proactively monitors both the access and in-home sides of the network. A thorough analysis can identify the root causes of connection issues even before customers are affected. This leads to fewer customer complaints, or if they do happen - resolved more efficiently. Our solution does exactly that (and more!).

Customer Experience Management Platform

A Customer Experience Management (CEM) is designed to reduce the number of interventions required for customer care and optimize the use of related resources. It combines proactive access network monitoring, subscribers WiFi experience management, and helpful tools for customer care staff and managers in one place. It comes equipped with features such as smart Wi-Fi monitoring, speed tests, and troubleshooting workflows, as well as APIs for self-management applications. This allows customers to perform quick diagnostics and tackle simple issues independently. By leveraging all of these tools, CSPs can increase operational efficiency, prevent customer issues before they occur, and as a result, reduce truck rolls. The platform is seamlessly integrated with our CSP product portfolio, which provides additional growth opportunities.

-  **Agent Dashboards:** Designed for first-line agents with a focus on single-device analytics, performance management, and automated troubleshooting workflows.
-  **Managerial Tools:** Equipped for second-line supervisors, offering system-wide insights for root cause analysis, intervention analytics, outage detection, and Mesh upsell strategies.
-  **REST API Integration:** Ensures a smooth connection with customer applications, granting end-users access to technical insights from ACS.

With CEM, we empower agents to deliver quicker, more efficient customer service while providing a structured approach to technical interventions.

Main benefits



Tools for customer care staff working in the first, second, and third line of support, as well as an API for the end-customer app.



Insight into subscribers' in-home experience, including coverage in the "last 10 meters" and monitoring access-layer performance in one place.



Direct impact on CSPs revenue by reducing Customer Care operational costs and customer churn rate through efficient troubleshooting.



Identifying extenders upsell opportunities thanks to tracking service usage.

Differentiators



Interoperability – Open standards stack (TR-069/TR-369), ensuring a vendor-agnostic ecosystem for customers, contrary to custom software on CPEs/agents.



Use cases – Wi-Fi/in-home experience, Access Layer performance (FTTx, FWA, HFC, xDSL performance).



Customization – Customization to match customers' needs, including new dashboards, KPIs, workflows, and integrations of external data sources (i.e. OLTs).



Deployment – Built on top of AVSystem's ACS, which can be implemented either on-premises or on a cloud.

Key single-device dashboard features

- ✓ Dedicated KPI view with graphical indication of KPI status
- ✓ Visualization of the whole in-home network, including mesh extenders with live touch, allowing immediate tracking of changes in the user's home network
- ✓ Use-case-based recommendations showcasing problem Root Cause Analysis and guidance for the agent
- ✓ Historical performance

Customer Experience Management

00001001DEA6 Last visit time: 2023.06.27 15:36:05 Next connection: 4 min

Dashboard

- WiFi dashboard
- WiFi configuration
- Network topology
- User equipment
- Configurations

Search user equipment

Bandwidth & SLA

TR-143 remote speed test data from 2022.12.23 16:26:00

Data plan (SLA)	100 Mbps
Download speed	34.02 Mbps
Upload speed	6.43 Mbps

Bandwidth usage pattern: Anomaly

Run speed test | History

Customer history

Interventions pattern: 3 interventions last week

Service status

Device type	huawei hg532e v100r001c253b04
Customer ID	FAE00738
Customer name	John Doe
Serial Number	4857544340A363A7
ONT State	online
ONT Offline Since	-
Provisioning	provisioned
Data Plan	FTTX_150MB
Account Number	002235235121

History

Time range: Last week

Connection stability: Fair

Data plan	100 Mbps
Bandwidth usage download	112.62 GB
Bandwidth usage upload	2.34 GB
Bandwidth usage peaks above 70%	37
Bandwidth usage pattern	Anomaly

Download

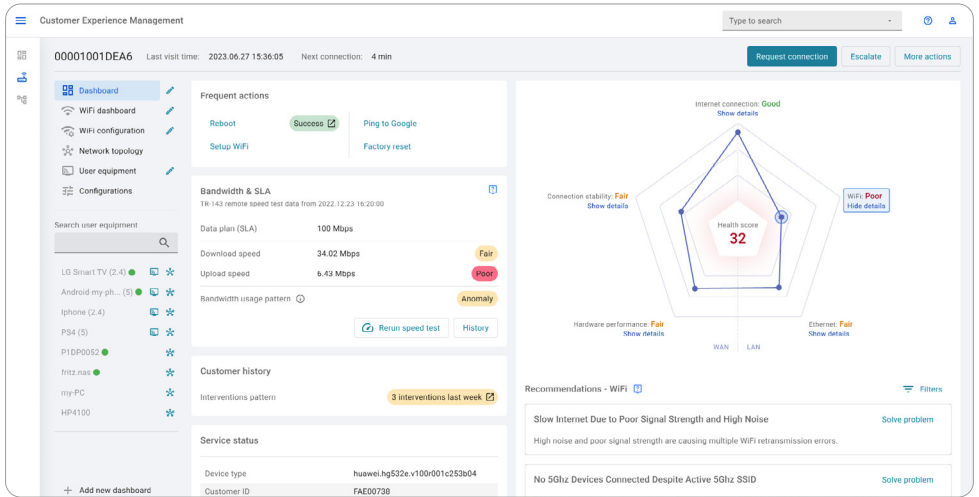
Hardware performance

— Bandwidth usage — TR-143 speed test - system — Ookla speed test - user

Recommendations - WiFi

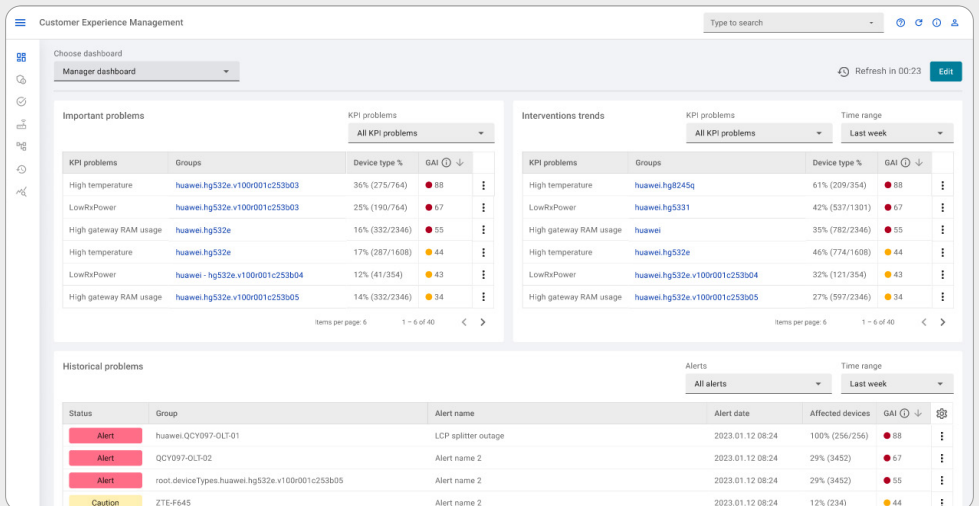
- Slow Internet Due to PC: High noise and poor signal
- No 5Ghz Devices Connected
- SSID are split - the names are different
- Slow Internet on STA D: 1 out of 5 stations experiencing slow internet

Close



Key network dashboard features

- ✓ Installation-wide alerts on device firmware groups sorted by their importance
- ✓ Thematic group dashboards focused on i.e. performance, along with drill-down and export capabilities
- ✓ Installation-wide dashboard suggesting users for Mesh extender upsell and displaying statistics of Mesh extender adoption
- ✓ Comparative analysis of intervention trends between firmware groups
- ✓ Correlation of the number of interventions (devices opened in UMP GUI) and poor KPIs/bandwidth usage



API for end-customers

API for end-customers allows the extension of the end-customer app with technical CPE information in a unified manner regardless of the number of CPE vendors. The API endpoint is designed to gather all CPE information during a single CPE session to minimize customer waiting time:

- ✔ Online status – upon logging in, customers see their CPE online/offline status (including outage indication) based on the Connection Request in the UMP or external integrations (i.e. OLTs in the FTTx scenario);

- ✔ List of their end-user equipment with their last week's online/offline status;
- ✔ Access management – the ability to temporarily disconnect one of the end-users equipment or to set up permanent whitelisting;
- ✔ Change SSID/password, and get information if the channel is not optimal with a button to change it to the suggested one.



AVSystem

Broadband services management and assurance on truly open standards.

AVSystem was founded in 2006 with a focus on providing automation solutions for connected device ecosystems. Although the company started by serving the telecommunications industry, it has since expanded its services to various sectors in over 60 countries. Catering local internet service providers as well as multinational telco operators and enterprises, we develop top-notch solutions dedicated to telecommunications, WiFi VAS, and the rapidly growing Internet of Things. Our goal is to create flexible and dynamic technology based on open standards accessible to everyone. We not only follow the newest trends but also co-create them with other IT industry pioneers by actively participating in organizations such as the Broadband Forum.

Get in touch!
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