



Alcatel-Lucent OmniVista Network Advisor

Artificial Intelligence-based network operations companion

Overview

In an organisation if one laptop malfunctions only one user is affected. But in a network if there is a malfunction, many, or even all of the users may be impacted.

What we know for sure is that every enterprise network runs a gamut of issues throughout its lifecycle. How these issues are handled on a day-to-day basis or proactively can impact users' Quality of Experience (QoE) greatly.

Studies suggest that implementing a predictive maintenance tool with anomaly detection can provide "25 to 30% operational network efficiency improvement".¹ Additionally, enterprise networks with anomaly detection indicate a "reduction of more than 10% in customer cases reported".²

Having the ability to audit configurations, collect data and inform the IT Management team can help with early detection of issues, which can result in quicker remediation. For example, when a network event is detected, the IT team can quickly be notified and suggestions for remediation made.

Additionally, ongoing monitoring of the network can provide relevant data collection to help technical assistance experts work through similar issues. Interventions can be done in real-time and can reduce interactions and time to resolution, resulting in minimised impact and fallout, ultimately creating a better user experience.

¹ Analysys Mason

² TM Forum





Changing the network management game

Up until recently, network management has been, more or less, an exercise in responding to issues as they occur, often with lengthy debugging activities to determine the root cause of the problem. With the introduction of an Artificial Intelligence (AI)/Machine Learning (ML) companion, we are now moving toward real-time network monitoring and alerting that minimises risk and maximises users' QoE.

With today's expanding networks and contracting budgets, IT organisations are being challenged to do more with less. To address the exponential influx of Internet of Things (IoT) devices, networks will require more automated triggers and actions to reduce IT Manager intervention, more optimisation, and more security. That translates into networks that can reduce risk by identifying network anomalies; mitigate and respond rapidly when issues do arise; as well as optimise network operations to avoid breakdowns or break-ins.

As we look to the future, the evolution of technology will enable a path toward predictive maintenance that will put IT managers ahead of network issues before they become debilitating. In fact, recent research indicates that enterprises will be able to "speed up operations by as much as 20 times"³ with predictive maintenance tools.

³ Globenewswire

The Alcatel-Lucent OmniVista Network Advisor solution

[Alcatel-Lucent OmniVista® Network Advisor](#) is an intelligent and autonomous system, that provides real-time network monitoring and alerts for potential risks, and auto remediation. As a network maintenance tool, it provides the first brick in a new software service that includes AI/ML developed and powered by ALE.

The OmniVista Network Advisor application is an add-on to the [Alcatel-Lucent OmniSwitch® LAN](#) and [Alcatel-Lucent OmniAccess® Stellar WLAN](#) portfolio. It also integrates with 3rd party devices as long as they can send syslogs. And in future, it will integrate with the next generation OmniVista network management solution.

The new OmniVista Network Advisor service is deployed using a hybrid architecture. Some components are in the cloud, and there is also an edge computing element installed on a server in the customer premises.

OmniVista Network Advisor assists in day-to-day network operations, helping to decrease risks and maximise users' QoE.

The three pillars of OmniVista Network Advisor include:

- **Risk/issue identification** or a decreased QoE. An alert is sent when normal network behaviour, as defined by the AI/ML architecture, is compromised.
- **Mitigation and rapid network issue fixes** that can be executed with one tap of a smartphone app or can be automatically carried out when abnormal behaviour or a cybersecurity attack is detected
- **Network optimisation** with fine tuning recommendations from OmniVista Network Advisor. Additionally, the embedded [Rainbow™ by Alcatel-Lucent Enterprise](#) CPaaS solution can be used to provide IT operations optimisation. Microsoft Teams can also be used to receive alerts about network issues and suggest remediation actions. and reaction time are improved, and third-party applications as well as other AI platforms can be integrated (requires a professional services customisation project).

OmniVista Network Advisor supports networks across industries including education, transportation, energy and utilities, healthcare and government keeping them secure, with high availability and superior QoE.

Brochure

OmniVista Network Advisor





Your OmniVista Network Advisor companion

OmniVista Network Advisor provides IT professionals with a companion tool to address today's expanding network needs. By identifying threats, mitigating issues and optimising the network, OmniVista Network Advisor reduces the need for IT intervention and helps ensure the QoE users expect.

Today, the Alcatel-Lucent Enterprise Support and Technical Assistance Center (TAC) hosts a repository that addresses approximately 66% of known network issues as well as the recommended configurations to solve them. Business Partners can access the information manually through their MyPortal access.

The standard TAC procedure when a new ticket is opened, is to verify if the answer or solution already exists in the ALE Knowledge Base. If not, a new entry is added. This expands the repository and helps other customers when new cases are opened.

With OmniVista Network Advisor, the network automatically uses the ALE Knowledge Base repository, to proactively help IT Managers and Partners, by providing tried and tested configurations or workarounds, saving time, reducing interactions and enabling mitigation or rapid response to an event.

How it works

The OmniVista Network Advisor is based on a hybrid architecture. The service combines hybrid processing, on premises and in the cloud, delivering a high performance and easily scalable solution, supported by an AI-based companion.

The OmniVista Network Advisor edge system monitors and retrieves relevant information from the OmniSwitch LAN, OmniAccess Stellar WLAN, and 3rd party device infrastructure on an ongoing basis. This data provides information about the status of the network as well as threats that may compromise the network at any moment.

Two tools are available to help IT and Operations teams address issues:

- **OmniVista Network Advisor Web Management:** In addition to receiving alarms and interacting with the system, all the configuration and collected information can be managed to troubleshoot and interact with the TAC
- **OmniVista Network Advisor App:** Runs on a smartphone, tablet or PC and uses a dedicated bot and communication tool (Rainbow or Microsoft Teams) to provide real-time information from anywhere, anytime.

Additionally, OmniVista Network Advisor decreases the percentage of issues reported by:

- Identifying known issues already reported and existing in the ALE Knowledge Base. This can reduce the number of issues by as much as 50% so that only new, real issues need to be dealt with.
- Network monitoring with immediate alerts about potential risks and suggestions to mitigate them

As we look to the future, integration with [Alcatel-Lucent OmniVista Cirrus Network Management as a Service](#) will provide improved dashboards, interaction with third-party systems and high scalability.

OmniVista Network Advisor is offered as a yearly subscription fee. It requires one license per network device (OmniSwitch, OmniAccess Stellar AP, or 3rd party device).

Brochure

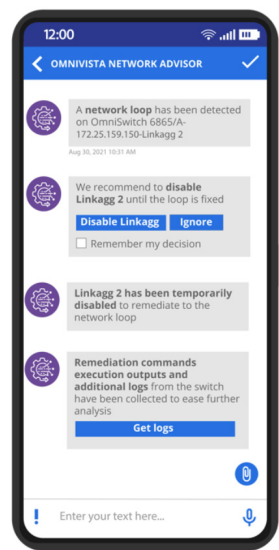
OmniVista Network Advisor



OmniVista Network Advisor in action

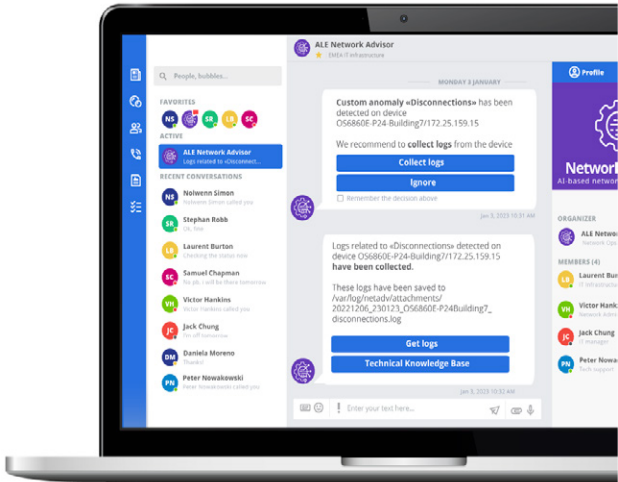
OmniVista Network Advisor delivers on five key areas that IT teams face every day including: Resolving issues rapidly; troubleshooting quickly; accelerating cybersecurity threat detection and mitigation; getting ahead of any configuration issues; and monitoring the network.

Fix a network issue in one tap



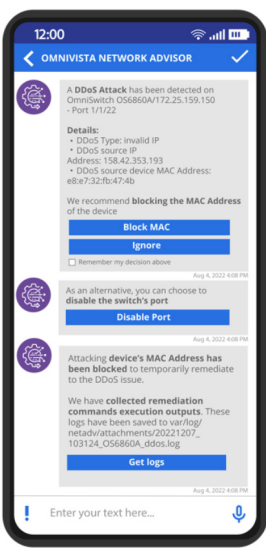
Detects network issues and can apply a solution directly from your smartphone

Reduce troubleshooting effort



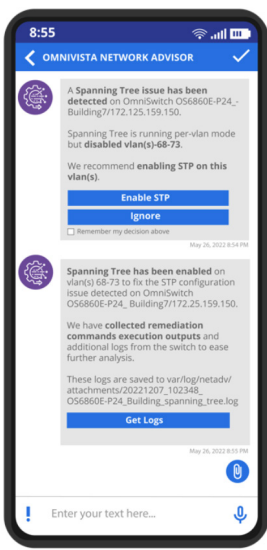
Captures data essential to troubleshoot an issue when it occurs

Detect and react to security threats



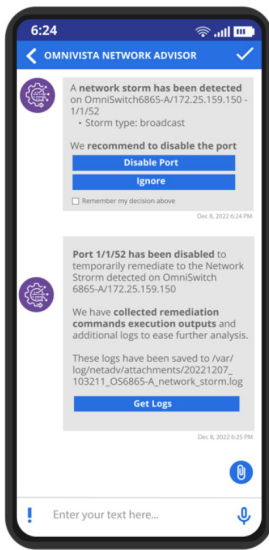
Accelerates cybersecurity threat detection, reaction and mitigation

Configuration audit



Alerts about possible provisioning errors and proposes corrections

Network monitoring



The solution benchmarks network behaviours and highlights any sudden changes



Additionally, OmniVista Network Advisor provides valuable daily/weekly reports that let IT Managers keep track of all issues encountered, how they were resolved and whether they were resolved directly based on the OmniVista Network Advisor recommendation or otherwise, as well, it collects KPI data.



Key take aways

OmniVista Network Advisor at-a-glance:

- 24/7 monitoring
- Real-time alerts identify potential risks
- Promotes conditions and tools for faster troubleshooting
- Automatically mitigate network issues
- Detect network issues
- Rapidly resolve issues with one tap, directly from your smartphone
- Capture data essential to troubleshoot an issue when it occurs
- Accelerate security threat detection, reaction and mitigation
- Configuration audit: Alerts about provisioning errors and proposes corrections
- Network monitoring: Benchmarks network behaviours and highlights changes
- Provides daily/weekly reports and KPIs
- Optimise the network in real-time for better QoE

ALE experience with real customers worldwide revealed that 66% of issues reported were already known in ALE Knowledge Base. Since OmniVista Network Advisor incorporates this same knowledge base, ALE expects to provide readily available responses to more than 50% of the network issues.

The evolution of OmniVista Network Advisor will enable proactive execution of predictive maintenance to avoid known issues well before they happen, resulting in a better user experience and less time troubleshooting issues.

Learn more about how [OmniVista Network Advisor](#) can take your network operations to the next level.

Our goal for a predictive maintenance tool is to achieve zero impact on users for already known issues, reducing actions required to only new concerns.