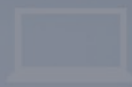
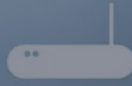




Ativa™
for Fixed Voice
Assurance



In today's highly connected world, reliable and high-quality voice communication is crucial for businesses and individuals alike. However, communication service providers (CSPs) often face numerous challenges when it comes to ensuring seamless voice services over their networks. The lack of comprehensive voice assurance solutions poses significant issues that hinder the delivery of uninterrupted, high-quality, and secure voice communication, and consequently premium user experience.

The challenge of assuring fixed voice services

While the business case for competitive differentiation based on quality of experience is similar for all voice services (whether fixed or mobile), they require a different approach to service assurance.

Carrier-grade service quality and reliability:

A characteristic of modern fixed voice services is that the technology underpinning them has become more fluid due to the trend towards VoIP and SIP connections over legacy dedicated lines. But crucially, the marketing of these services emphasizes on 'business-grade' performance. Service assurance is mission-critical to delivering the differentiation of service reliability.

Rapid service activation: For enterprise voice services, time-to-activate is increasingly critical. Even with the increasing value placed on more reliable service quality from telcos, business customers' expectation for rapid service activation persists. This means the critical path from ordering to provisioning and fulfilment needs to be streamlined to accelerate activation times.

Economies of scale: The unit economics of the 'carrier-grade' (or 'business-grade') claim is the need for a highly effective network and service operations function. Rather than a broadly linear increase in the OPEX as the demand for those services increases, the incremental cost to assure these voice services doesn't change significantly. Service assurance is central for the ability to extract greater margins from economies of scale.

Automated Assurance & Operations for fixed voice services

Infovista's Ativa™ for Automated Assurance and Operations offers a comprehensive solution for voice service providers such as UCaaS, CCaaS, cable and fixed network operators, to proactively assure their services and user experience through end-to-end monitoring and troubleshooting. Powered by Infovista's NLA Cloud Platform™, Ativa benefits from a cloud-native and scalable architecture with multi-tenancy, enhanced security and advanced technologies such as AI/ML and automation, making it fit for purpose in today's complex environments.

Leveraging 30 years of proven experience and close collaboration with leading customers to deliver a comprehensive next-gen assurance solution, Ativa has a unique ability to process and contextualize multi-source data seamlessly within a unified system. The automated correlation of probe and OSS data unlocks visibility over the performance of the underlying network and infrastructure, and how it impacts the quality of service and experience delivered to customers. This holistic full-stack approach enables service providers to gain 360° visibility and control to proactively ensure the premium quality they promise.

Ativa features and benefits

Ativa’s fixed voice assurance solution offers service providers end-to-end visibility of the network performance, service quality and customer experience through intuitive dashboards and troubleshooting tools. It also provides real-time awareness and control through intelligent alarming based on baselining, dynamic threshold setting, and deviation and anomaly detection.

Analytics dashboards and reports

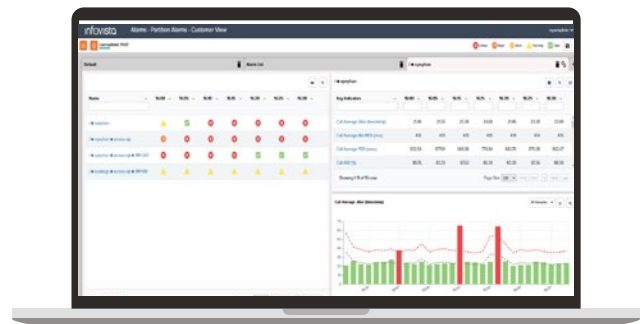
Ativa delivers unified analytics through out-of-the-box dashboards and reports that provide holistic visibility on protocols, QoS and QoE, carriers, customers and others. The report builder functionality brings the flexibility to customize multi-dimensional reports that serve multiple teams in the organization looking after network operations, service operations, carrier management, customer experience management and SLA management.

- **Dimensions:** peering partner, carrier, enterprise customer, network element, protocol, service, media stream
- **Network Elements:** client, SBC, SLB, softswitch, media server, IMS
- **Protocols:** SIP (incl. over TLS), SIP Transaction, RTP, RTCP, RTCP-XR, Diameter, Diameter+, DNS ENUM, ISUP, MGCP, INAP, H.248 /Megaco, SMPP, HTTP, DTMF, T38
- **Key Customer metrics:** MOS, R-factor, one-way audio, call & SIP failure rate, average seizure ratio, post-dial delay, ALOC, registration failure, jitter, delay, latency, packet loss, volume & ratios (calls, procedures, ...)
- **Regulatory-based metrics:** emergency calls, STIR SHAKEN (attestation level, X5U source)

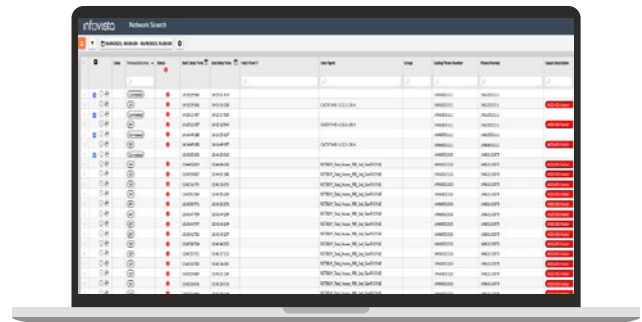
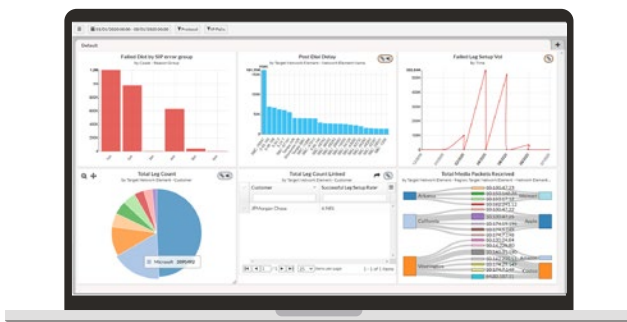
Ativa’s dashboards and reports are dynamically interlinked to simplify the investigation process and provide in-built drill-down workflows from high-level KPIs to individual call records and ladder diagrams for troubleshooting and root-cause analysis (RCA).

Alarming and troubleshooting dashboards

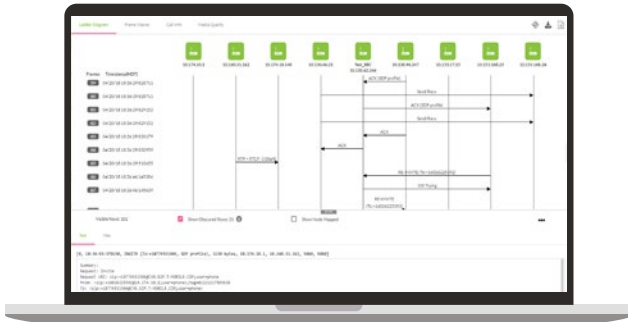
Ativa offers multi-dimensional alarming covering network, peering partners, and customers, as well as the flexibility to customize dashboards for specific requirements such as STIR SHAKEN and emergency calls. Alarms are summarized and displayed along with their severity, reason and other information, with drill-down functionality to related call records, end-to-end call ladder diagrams, PCAP traces and media recordings.



The web-based, customizable troubleshooting application provides near real-time visibility into every packet on the wire with full decoding capabilities. It empowers your operations team to investigate issues by performing subscriber-, network-, and protocol-based tracing for correlated call events. It also provides access to historical packet data as well as network, subscriber and media recordings.



The call ladder diagram feature drastically improves time-to-detection and -resolution of problems by providing end-to-end protocol tracing across clients, load-balancers, SBC, softswitch and IMS, which allows to quickly pinpoint from where the issue originates, in a single pane of glass.



The selective recording functionality enables the recording of thousands of concurrent RTP streams for configurable phone numbers and IP addresses, with the ability to store and playback the media for detailed investigations. This is especially beneficial for scenarios such as closely monitoring and validation new service activations.

Service differentiation and monetization with enterprise self-service portals

With its customer-centric reporting capabilities, Ativa enables close monitoring of individual customer KPIs, providing real-time alerts for any threshold crossings. This empowers service providers to effectively manage and ensure the fulfilment of contracted SLAs.

Coupled with the platform’s multi-tenancy, Ativa can extend its reporting capabilities to the service provider’s enterprise customers through customized and secure self-service portals for monitoring their SLAs and accessing their own data for troubleshooting. This not only promotes transparency and differentiation in the service offering, but also empowers enterprise customers to perform their own investigations, reducing a service provider’s ticket escalations and operational workload.



How Infovista is different

Ativa’s design is inherently modular, offering tailored solution packages that align with various scenarios and specific customer needs. Service providers who own their infrastructure or host their solution on private and public clouds can extend their assurance to cover the performance of the network and infrastructure with Ativa’s 360° Assurance solution. They can also improve their efficiency and resolution times by deploying automation workflows for repetitive and time-consuming tasks.

Network resources and infrastructure monitoring – 360° Assurance

Ativa’s wide-ranging data collection and processing capabilities put it in a unique place to provide holistic visibility by monitoring the underlying network resources and infrastructure carrying the voice service. This means communication service providers can now have visibility over their transport domain, network resources (e.g., CPU, Memory) and virtualized/cloud infrastructure, and more importantly understand how they impact the service quality and customer experience.

This comprehensive approach is delivered through Ativa’s 360° Voice Assurance solution which correlates probe and performance management data to provide visibility on the full stack. It enhances the troubleshooting capability by detecting previously concealed network issues and provides actionable insights into current capacity allocations, resource utilization, and predicted future bottlenecks.

360° Voice Assurance provides true end-to-end visibility across all layers by leveraging the siloed data in an operator’s ecosystem and contextualizing it into new insights for improved troubleshooting, faster time-to-resolution, and increased operational efficiency.

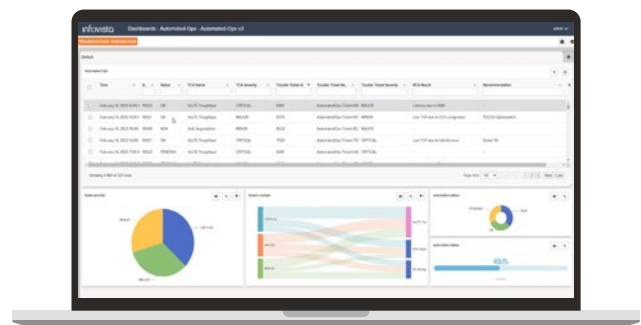


Automation and zero-touch configuration

Powered by Infovista’s NLA Cloud Platform, Ativa inherits its collection of advanced capabilities, with Automation at the forefront. It delivers workflows that automate everyday tasks and processes to streamline operations.

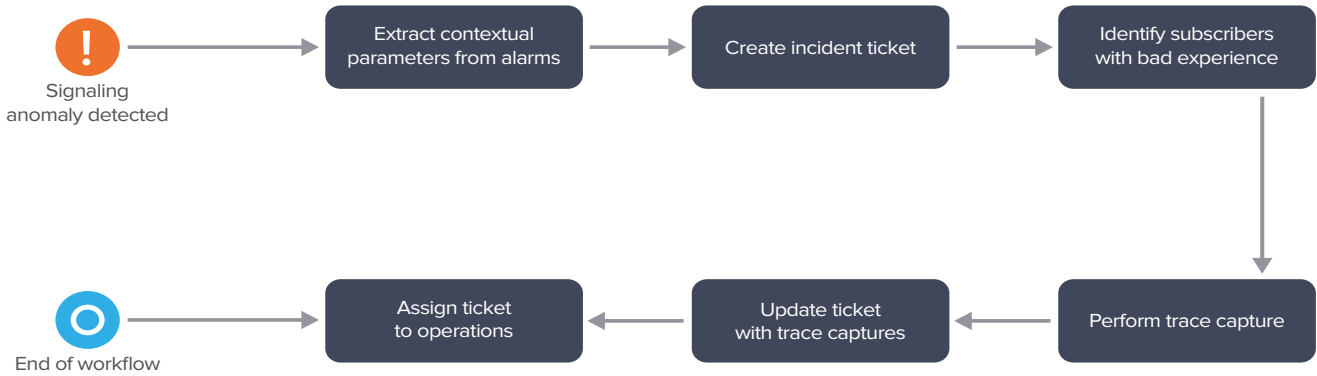
Automation workflows are pre-packaged, co-created and even customizable by service providers themselves through a low-code workflow creator. Multiple out-of-the-box workflows are available and cover use cases such as:

- Automated RCA triggered upon threshold crossing and/or anomaly detection
- Investigation across multiple data sources (PCAP, PM, FM)
- Automated Customer Impact Analysis and business-driven problem prioritization
- Automated trouble-ticket creation, enrichment and assignment to the right team
- Self-healing through open API integrations with service provider ecosystems (NMS/NEM)



The manual troubleshooting procedure typically involves several steps, such as connecting to one or multiple tools, analyzing and correlating contextual multi-dimensional data, collecting trace captures, opening and enriching a trouble ticket with the analysis, and assigning it to the right stakeholder. Service providers often estimate that this process takes at least 20 minutes per ticket, and much longer for complex issues.

By automating this entire process, Ativa significantly reduces the time required to just a matter of minutes, achieving remarkable time savings. This results in increased efficiency and productivity, and most importantly faster resolution times which, in turn, leads to an improved customer experience. Additionally, automation actively contributes to reducing OPEX while enhancing overall performance.



Key takeaways

Ativa empowers service providers to deliver uninterrupted, best-in-class voice services by eliminating complexities, streamlining operations and reducing costs. Embracing this customer-centric approach allows for enhanced customer satisfaction and SLA conformance, lower churn rate and an overall stronger brand, ultimately driving revenue growth.

The Ativa voice assurance solution delivers:

- Proactive monitoring through multi-dimensional reporting and alarming
- AI/ML-based analytics with intelligent dynamic thresholding and anomaly detection
- End-to-end correlated troubleshooting and call ladder diagrams for faster MTTx
- 360° Assurance across customer, service, network and infrastructure in a single pane of glass
- Automation of processes and tasks for higher efficiency and reduced OPEX
- Improved customer experience and SLA conformance; reduced churn
- Differentiated service offering and monetization through enterprise self-service portals (multitenancy)
- Regulatory support (emergency calls, GETS, STIR SHAKEN, ...)
- Cloud-native support, providing scalability, faster time-to-market and overall lower TCO
- Futureproof, open (APIs & SDKs) and interoperable platform
- Proactive security vulnerability testing and remediation
- High availability with Kubernetes, offering 99.99% availability without geo-redundancy

Customer Experiences

According to our customers, partnering with Infovista was the ideal choice to embark on their journey, thanks to the exceptional product capabilities, innovative solutions, and seamless collaboration between the organizations.

Hear it from our customers:

“ Infovista has the most advanced and robust solution on the market ... Through this partnership we have better visibility and enhanced troubleshooting capabilities helping us deliver the best cloud communications experience for our customers. ”

Clint Peck
CTO
Alianza



“ Infovista is the clear choice to support Colt’s expanding VoIP market. Its strong cloud-native platform has all the attributes we need to leverage automation and machine learning to deliver a best-in-class customer experience. ”

Shane Sura
VP of Network Operations
Colt



“ Infovista was the clear partner for us to continue in our rapid growth with differentiated service performance and reliability. We are already seeing the benefits today and I am confident our collaboration will continue to deliver value excellence. ”

Laurent Missa
Senior OSS Team Leader
BICS





About Infovista

Infovista is the global leader in network lifecycle automation (NLA) for the next-gen networks era. With its unique NLA approach, Infovista allows communications service providers (CSPs) and enterprises to improve their network performance and customer experience, optimize their productivity, and reduce their costs, while maximizing return on their investments. Spanning the entire network lifecycle, Infovista's products and solutions leverage an open, integrated, cloud native portfolio that automates tasks, flows, analytics, and decisions to the greatest extent possible. More than 1,000 customers, including 400 Mobile Network Operators, around the world rely on Infovista to plan, design, deploy, test, operate, support, optimize, evolve, report on and monetize their networks.



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