

DATA SHEET

Ativa™ User Plane Applications Solution



Enhance User Plane traffic insights in next generation mobile networks

Through the **User Plane Applications Solution**, Infovista Ativa™ enables mobile network operators to intuitively visualize and troubleshoot user applications performance in any networks. The solution package improves application reliability, reduces time-to-resolve, enhances network application SLA performance, and improves quality of experience (QoE).

Operators use the User Plane Application Solution to monitor subscriber traffic usage, get visibility into encrypted traffic and identify trends and patterns in application demand to proactively manage network optimization and provide superior QoE to customers.

What we can do

- Monitor:** Correlated CP & UP KPIs/KQIs
- Detect:** Application-specific service quality degradations failures and associated network performance issues
- Isolate:** Application-specific quality of experience degradations
- Resolve:** Identify faults faster and take action to resolve them
- Visualize:** Correlated CP & UP KPIs/KQIs, data and OTT application performance and quality for multiple dimensions (device, location, network elements, etc.)






Benefits for customers

- Network visibility:** Application category performance visibility
- Application and customer behavior:** Application and customer behavioral analysis
- Richer Analytics:** Multi dimensional analysis of User Plane traffic down to the single application

The solution package enables a detailed multi-dimensional analysis of user traffic performance, either as an individual or complimentary solution to other Ativa solutions.

The package uses our powerful DPI engine to provide application level key performance indicators for proactive service assurance for specific applications and sessions. This enables users to visualize application and customer behavior and to generate rich analytics down to single application level.

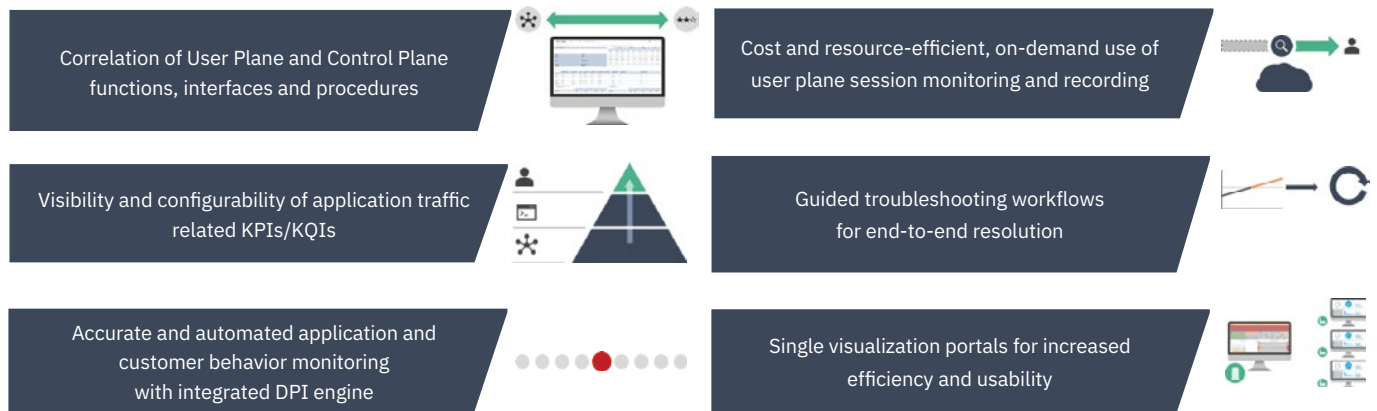
Users	Benefits	Key features
<ul style="list-style-type: none"> <li> Quality and Operational Teams</li> <li> CMO and enterprise lines of business</li> <li> Network Planning Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Correlate UP and CP KPIs and KQIs for operational simplification</li> <li>• Proactively detect and resolve application and user data issues</li> <li>• Reduce MTTx with correlated troubleshooting</li> <li>• Increase customer QoE and performance</li> <li>• Reduce operations tools TCO</li> <li>• Provide clear visibility of customer experience for a broad set of stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Support for User- and Control Plane application specific functions and interfaces</li> <li>• Fully cloud-native architecture, with highly efficient resource workload</li> <li>• Support for DPI-based user plane monitoring</li> <li>• Intuitive user interface with guided root-cause analysis</li> </ul> <div data-bbox="1114 936 1433 1003" style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center; font-weight: bold;">             User Plane Application Solution Package         </div>

## Business challenges addressed by the solution

Current network and service monitoring solutions limit the operators’ ability to visualize and proactively manage their operations with a focus on the customer, resulting in poor customer experience, high OPEX, the reliance on multiple ‘silo’ assurance systems and an inability to respond quickly to changes in network usage and performance. Some typical challenges are listed below:

<b>Limited domain or layer monitoring tools</b>	Monitoring tools are designed for specific network domains, and often used by separate teams, resulting in the lack of a comprehensive, correlated view of service experience, application performance and network resource performance.
<b>Lack of data correlation for deep going analytics</b>	Network monitoring tools traditionally provide network specific KPIs in an isolated way. They are not designed to aggregate information coming from different sources or network layers for deeper analytics.
<b>Lack of readiness to guarantee customer SLAs</b>	Traditional troubleshooting tools are designed for static, simple network topologies, in which the root cause of an issue can be isolated often without extensive investigation. Guaranteeing customer SLAs requires a good understanding of application and customer behavior, associated with network resources and limitations.
<b>Manually intensive, increasingly complex operations</b>	Networks are becoming more dynamic, increasing the operational complexity especially when it comes to cross-domain interaction or end-to-end services. In lots of cases, this requires today multiple individual manual operations, which are time and resource consuming.
<b>High user application resource workload</b>	Visualizing user plane at scale is increasingly resource-intensive, both in terms of the monitoring tools themselves and the workload needed, in particular when resource consuming DPI capabilities are needed for understanding application usage.

The User Plane Application Solution addresses these problems with an end-to-end view of user application performance, with cross-domain correlation and guided workflows for rapid problem identification, root-cause analysis and resolution.



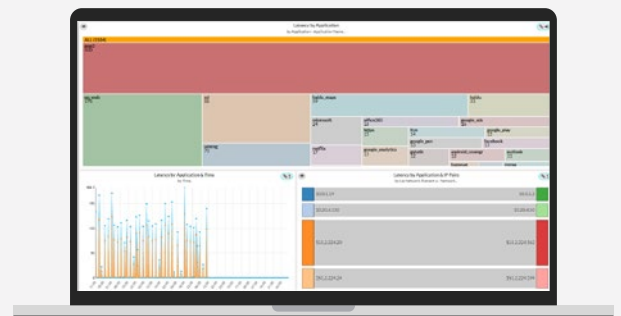
## Key features of the solution

The solution package includes pre-configured dashboards, KPIs and analytics / troubleshooting capabilities specific to user plane applications, including:

### Dashboards and reports

**Service dashboards** showing key user plane applications and service KPIs that can be filtered by device types, network element types, locations, operation types and others. They summarize KPIs including success and failure rates, volumes, procedure durations etc. These dashboards include:

- Service and traffic dashboards
- Device and location dashboards
- Application dashboards



**Interactive reports** that enable DPI-based application category performance visualization, enabling faster isolation of problems and issues. Filters dashboard views by any combination of factors, such as device types, subscriber types, protocols, procedure and visualize based on certain areas:

- Control plane -PS Core
- User plane -PS Core UP
- Application home
- Application roaming



Analytics and troubleshooting

**End-to-end tracing** tools, providing a single solution for analyzing multi-service and multi-protocol 5G network environments from a single pane of glass. Features include:

- Support for cross-protocol correlation for the rapid identification of problems and root-causes
- Support for drill-down analysis across user plane and control data.
- End-to-end session tracing, regardless of any mobile technology used



KPIs and interfaces

**Comprehensive mobile networks interface** support, including all SBI interfaces, protocols and monitoring points, supporting:

- Interfaces: GTPv1-C, GTPv2-C ( S11,S5/S8, S2b) , PFCP, Sxa, Sxb, N4
- GTP-U (Gn, S1U, S5/S8. S2b, N3)
- Metrics: control plane service access, latency, service retainability
- Metrics: user plane traffic volume, session duration, application performance
- Geographical resolution: country, region, city, cell -for home and roaming, APN
- Device: manufacturer, model, OS
- Application details: name, category
- RAT: 3G, 4G and 5G



## 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 1,500 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.