

# Orion™ | Voice Services

## Service Assurance for Converged Networks



### Converged Networks Deliver Opportunities and Challenges

For many carriers, convergence wields a double-edged sword. On one side, the ability to deliver voice, video and data services seamlessly over any combination of mobile, PSTN and IP networks opens the door for new services and premium revenue streams with lower deployment costs. On the other side, this same capability has the potential to complicate daily operations exponentially.

Orion | Voice Services, a part of Tektronix Unified Assurance for Converged Networks, is uniquely poised to handle both the opportunities and the challenges of convergence.



Personalized, dashboard portlets allow individual users to select specific services and markets to monitor at a glance.

With Orion, marketing and sales organizations can leverage usage and market performance reporting to keep revenue streams surging and subscribers satisfied. At the same time, Orion can also assist network operations personnel with proactive management of convergence complexities.

In managing a successful migration to a converged network architecture, service providers face significant technical and operational challenges. To be successful, carriers must be able to do the following.

- Focus efforts and prioritize actions on revenue-generating services.
- Detect and prevent service problems affecting various markets before they become customer complaints or trouble tickets.
- Minimize time and costs for troubleshooting and repair.
- Increase staff efficiency and maximize value from all skill levels.
- Reduce churn, increase customer satisfaction and protect margins.
- Minimize operational costs and optimize capital expenditures.

**Product Capabilities**

Orion | Voice Services for Converged Networks meets the needs of competitive service providers with applications designed to deliver the following benefits.

Proactive Monitoring

- Near real-time monitoring delivers a comprehensive view of services and market performance.
- Track performance based on actual customer traffic with easy-to-use dashboard displays.
- Refreshed every 5 minutes, dashboard and report metrics provide a true picture of service and market health.

- Graphical displays offer contextual perspective with KPIs reported against preset thresholds and trending over time.

Roadblock Identification:

- Extensive reporting and near real-time call-flow analysis enables the identification of roadblocks and revenue barriers.
- Actionable paths from market performance degradation to affected signaling/media nodes facilitate root cause failure analysis.
- Thoroughly analyze issues with guided paths to failed call data record logs and extended drill-through to call trace tools.

**Failed Node Metrics**

- Access Points, Call Agents, Media Gateways, Signaling Gateways, Switching Points (SSP), Signaling Transfer Points (STP), Unfailed Nodes

**Signaling and Media Metrics**

- Service Performance, Market Performance, Sub-Market Performance, Calendar Performance, Rate Period Performance

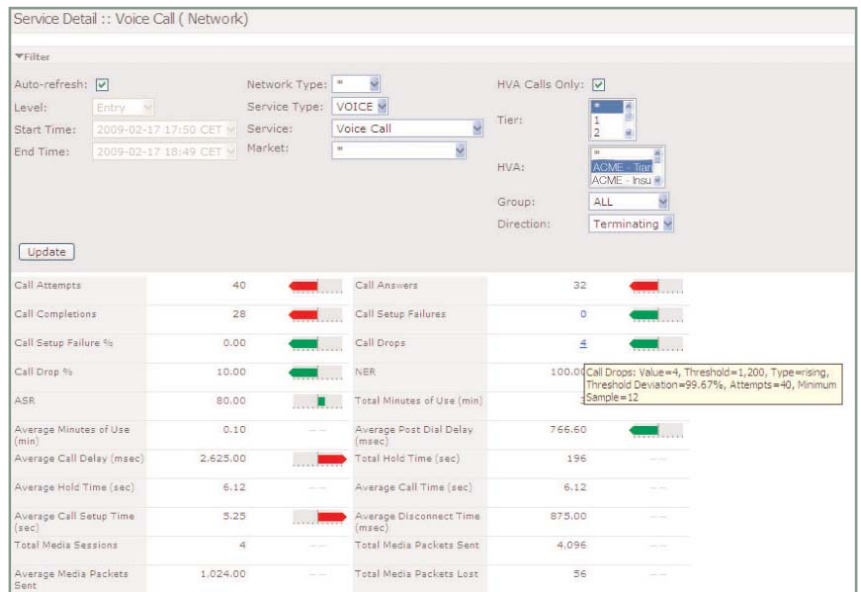
**Multiple Organizations Benefit from Orion | Voice Services for Converged Network**

Marketing and Sales:

- Tailor products and plans based on actual usage patterns.
- Provide reports that characterize how customers are using your products.
- Track service uptake by individual markets.
- Identify unique affected users to combat developing customer churn liabilities.
- Pinpoint actual service impacts during an outage.
- Monitor service volumes by market to predict future growth areas.

Product Management:

- Ensure end-to-end performance of services from rollout to revenue.
- Proactively monitor individual markets for service uptake and volume metrics to validate service launch and improve rollout processes.



Orion customers who also purchase Beamer™ will benefit from additional HVA filters and summary-level portlet views of service performance reported for selected key accounts.



#### Operations:

- Automatically monitor and correlate all traffic across networks and protocols.
- Prioritize resolution efforts and accelerate troubleshooting efforts with drill-through call flow analysis and leg-by-leg trace capabilities.

#### Network Planning and Engineering:

- Optimize network capacity and manage just-in-time deployments for growth with minimal CapEx.
- Visualize service volume analysis of growing markets over time to keep infrastructure spending in line with actual demand.

Call Drops By Failed Node		
Failed Node	Node Type	Call Drops
ACP_N001	Access Points	443
ACP_N002	Access Points	148
SG_N008	Signaling Gateways	147
NN_150.0.0.0	Call Agent	12
NN_150.0.0.1	Call Agent	12

Investigate failure types by the specific, affected nodes.

## Key Applications

#### My Homepage Portlets

- Real-time and historical service performance metrics
- Drill-down actionable path for troubleshooting
- Java-based presentations support PDF and CSV export formats

#### Planning / Analysis

- OLAP trending and historical analysis

#### Management Reporting

- Pre-defined network performance summary reports

#### Ad Hoc Reporting (optional)

- Direct query access to the Oracle RDBMS

## Product Capabilities

### Customer Satisfaction and Churn Reduction

- Proactive detection and analysis of services and market performance provides the insight needed to improve and maintain customer satisfaction levels.
- Track the number of unique affected users with specialized reporting capabilities to identify events that could potentially contribute to customer dissatisfaction and churn in a given market.
- Tracking service failures with reference to the subscriber enables you to see how many unique users are affected by a specific condition.
- Affected subscriber views support filtering by individual service (Emergency Calls, Voice Calls, Instant Messages), Market and Submarket for enhanced analysis and resolution triage.
- Share a subset of performance data (real-time dashboards and drill-through reporting) with end-customers as part of a premium-level service offering. Secured Customer Portal options enable Enterprises and Carrier Partners a selective view of their own performance data.

### Operations Streamlining

- Long term historical service performance reporting, graphing, data retention, trending and impact analysis enables thorough management of services by market and sub market.
- Alarms, KPI Forwarding and Web Services interfaces facilitate OSS integration efforts.
- Single application to manage voice services over IP, PSTN and mobile networks reduces multi-vendor complexities.\*

\*Targeted for future release.



With Tektronix' Converged Networks solutions, carriers are equipped to make informed decisions. The following is a representative list of questions that could be answered with the help of Orion | Voice Services.

- What is the Voice Service uptake in the Market in the last 2-hours?
- What about the IM (instant messaging service)?
- What is the Average MOS per Call for the G.711 codec?
- What was the Average PDD for all the 911 calls in the last 5-minutes?
- What is the Average Packet Loss in the sub market?

### Signaling and Media Measures

#### Signaling Measures

- Call Attempts
- Call Answers
- Call Completions
- Call Failures
- Call Failure %
- Average MOU
- Abnormal Releases
- NER
- Call Setup Time/Average
- Post-Dial Delay/Average
- Disconnect Time/Average
- Affected Subscribers
- Short Calls
- Dual Seizures
- Circuit Resets
- IUP Calls

#### Media Measures

- Session Attempts
- Session Completed
- Session Failures
- Total Packets Sent
- Total Packets Lost
- Packets Lost %
- Octets Sent
- "Excellent" Bin Count
- "Good" Bin Count
- "Fair" Bin Count
- "Poor" Bin Count
- "Unacceptable" Bin Count
- Average Kilobits
- Average R-Factor Score
- Average MOS Score
- Average Packet Latency
- Average Packet Jitter
- Projected MOS-CQ

#### About Tektronix:

Tektronix Communications provides network operators and equipment manufacturers around the world an unparalleled suite of network diagnostics and management solutions for fixed, mobile, IP and converged multi-service networks.

This comprehensive set of solutions support a range of architectures and applications such as LTE, fixed mobile convergence, IMS, broadband wireless access, WiMAX, VoIP and triple play, including IPTV.

#### For Further Information:

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology.

Please visit [www.tektronixcommunications.com](http://www.tektronixcommunications.com)

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