



## MULTI-OBJECT CORELATION ANALYSIS AND ROOT CAUSE ANALYSIS

# Increase Operational Efficiencies by Leveraging AI/ML Driven Advanced Analytics and Auto Incidents

### ZIXI ADVANTAGES

- **Centralized Management** – ZEN Master provides a centralized view of the entire Zixi-enabled contribution and distribution network
- **Security** – Best-in-class enhanced with DTLS and AES standards-based protection
- **Reliability** – Experience ~100% uptime with Zixi’s patent pending hitless failover that provides redundant transmission options for high reliability and disaster recovery
- **Ultra Low Latency** – With network adaptive forward error correction and recovery, proven millisecond live linear latency
- **High Availability** – Leverage the Zixi SDVP on Zixi as a Service to bond and load balance diverse internet or fiber circuits for increased high availability between facilities
- **Interoperability** – Zixi is compatible with the largest ecosystem of encoders and decoders and live video protocols

### Intelligent Data Platform

IP broadcast workflows can be immensely complex comprising of dozens of sources streaming to hundreds of destinations, across a multitude of network and infrastructure environments. These systems can generate numerous errors ranging from low level warnings to revenue impacting events such as network outages. Sifting through the noise to determine the actionable is a major challenge from broadcast network operations.

Built with in the SDVP, Zixi’s Intelligent Data Platform (IDP) uses advanced analytics, ML and AI to make sense of the avalanche of stream data flowing across intricate media supply chains, helping human operators focus on transmission issues and understand where problems are likely to occur before failures are noticed. IDP has access to the global Zixi Enabled network and analyzes over 9 billion telemetry data points daily to understand object and network behaviors and deliver truly actionable insights.

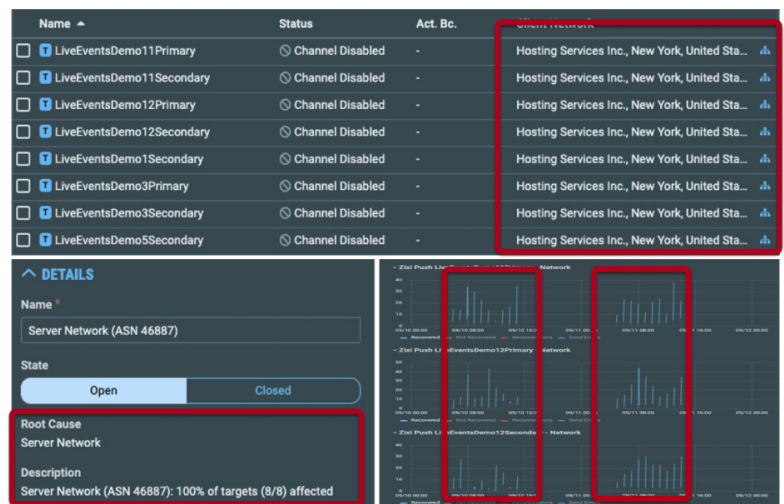
### Auto Incidents

#### Reduce Noise and Enable Monitoring by Exception

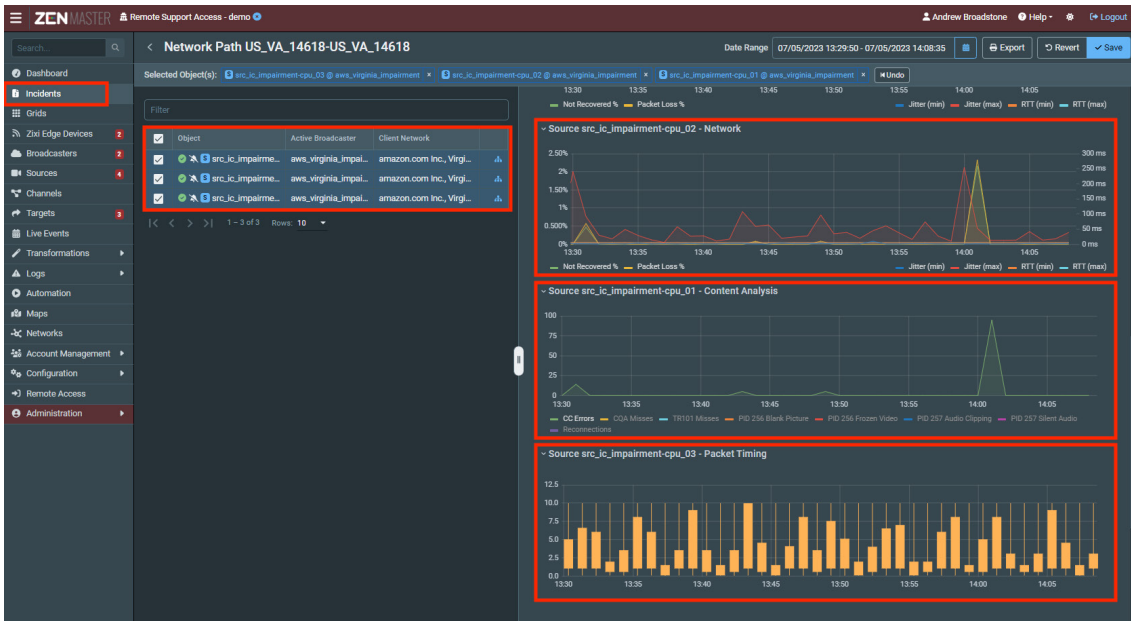
Zixi’s Intelligent Data Platform leverages advanced models to understand KPI and telemetry errors that would signal an issue prior to them happening. MOCA automatically analyzes incidents across all channel sources and target destinations. Incidents are created by grouping low level errors into a meaningful set that share a common attribute, helping operators rapidly identify probable root causes and understand their impacts across seemingly unrelated channels. This enables the operators to dramatically reduce the time it takes to determine the root cause of the problem and significantly improves incident resolution performance.

### Correlation Analysis

- Identifies common cause across channels
- Greatly speeds up root cause analysis (RCA)
- Analysis summarizes incident attribution across channel objects, including shared source networks, server networks and/or broadcasters
- RCA reports with correlation analysis automatically generated complete with corresponding timeframes and time-aligned metric graphs



MOCA analyzes resources that have active incidents and automatically detects correlated attributes, such as a shared server network that is contributing to a high failure rate for channel targets that are using that network.



Auto Incidents are accessible within ZEN Master user interface under a separate tab. Once an Incident is selected, all its objects and its respective graphs are displayed helping users better understand the correlation of errors experienced by different objects across a time period indicating a common root cause for those errors.

### Consolidated Views with Interactive Graphs

Incidents are automatically generated and are assigned a name using a default naming convention using the system determined root cause followed by an ASN. Once an incident is selected, all the affected objects are grouped and presented with diagnostic graphs and logs of all the errors occurred over a period. These dynamic graphs help visualize the blast radius while comparing the low-level events simultaneously. Users can select different objects to deep dive into an incident, make notes and share PDF as an RCA document. Incident correlation is performed on dropped packets as well as various ZEN Master errors and warnings including network disconnections, CC errors and low bitrate warnings.

**Root Cause - Network Path Error: 92% of targets (11/12) on Network Path US\_NY\_32780-US\_UT\_35873 have network errors**

**DETAILS**

Name *	Start Time	End Time
Network Path US_NY_32780-US_UT_35873	7/6/23, 11:07 AM	7/6/23, 11:58 AM
State	Created By	Created At
Open Closed	System	Jul 6, 2023, 11:57:00 AM
Runtime State	Updated By	Updated At
Ended	System	Jul 6, 2023, 11:57:00 AM
Duration	50m, 14s	

**NOTES**

Auto Incidents utilize MOCA to determine the root cause of the incident and provide the user with a concise summary of the impacted objects.

### ABOUT ZIXI

Zixi provides a cloud based and on-premise Software-Defined Video Platform enabling the management, orchestration, monitoring, and delivery of broadcast-quality live and live linear video over any IP network, protocol, cloud provider or edge devices to broadcasters, enterprises, over-the-top video providers, and mobile service providers around the world. Over 15+ years, the Zixi Enabled Network (ZEN) of partners has grown to over 400+ OEM and service providers with whom Zixi serves well over 700+ customers representing most of the top media brands around the world with 20,000+ channels delivered daily. [www.zixi.com](http://www.zixi.com) | [sales@zixi.com](mailto:sales@zixi.com)