



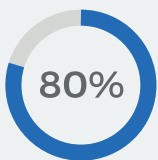
### About the Customer

TiVo Corporation (NASDAQ: TIVO) is a global leader in entertainment technology and audience insights. From the interactive program guide to the DVR, TiVo delivers innovative products and licensable technologies that revolutionize how people find content across a changing media landscape. TiVo enables the world's leading media and entertainment providers to deliver the ultimate entertainment experience.

### Tools Integrated

Amazon CloudWatch, Nagios, Rest APIs, ServiceNow, Slack, SolarWinds, Splunk

### The Results



Achieved alert correlation rate of 80 percent on events triggered by IT monitoring stack



Implementation into production took less than four weeks



Eight monitoring tools in the NOC reduced to one BigPanda Unified Console

## TiVo Unifies Visibility, Accelerates Incident Management with BigPanda

To deliver innovative products and technologies, TiVo relies on complex, dynamic IT operations. As the IT environment grew, so did the complexity of managing service levels. With fragmented tools adding to the challenge, the NOC team needed to make a change. In order to proactively detect and remediate issues, the team deployed the BigPanda Autonomous Digital Operations (ADO) Platform. With the platform's intelligent correlation and Open Box Machine Learning, the NOC team was able to reduce alert noise by 80 percent and significantly speed mean time to resolution (MTTR).

**“ Our NOC has nearly doubled operationally with recent acquisitions and new monitoring tools. To support the business, we needed a platform in the NOC that allows us to scale while at the same time manage our costs. The BigPanda Autonomous Digital Operations Platform matched that need and continues to provide the NOC with a single pane of glass for greater visibility. ”**

**Sanjay Chandra,**

Vice President, IT and Technical Operations

### Growing Complexity and Noise Jeopardize Service Levels

The TiVo service is powered predominantly by proprietary software. With the TiVo products constantly evolving, so did the complexity. When the NOC team added more tools, the amount of data and alerts increased. The architecture is complex in nature, with interconnected and interdependent components marrying cloud and legacy platforms, adding to the challenge of maintaining service levels.

## Gaining Unified Visibility and Intelligent Correlation

### **Fragmented Monitoring**

TiVo runs multiple regional data centers that provision services for cable operators. Given the interrelated nature of the company's operations, a problem isolated to a single data center caused alerts in other data centers.

System monitoring had become very fragmented across eight screens, and ticketing workflows were disjointed. The NOC team needed to proactively detect and remediate provisioning problems before cable operator customers experienced painful outages.

### **Quick Deployment, Rapid Value**

Deploying the platform on 4,000 nodes took less than four weeks. Today, TiVo uses the BigPanda ADO platform in its centralized, 24/7 NOC. The level 1 NOC team, averaging 26 operators, uses the Unified Console to process over 16,000 weekly alerts, but deals with just 200 incidents every week, reflecting a 80% correlation rate.

BigPanda also helps TiVo handle change management and scheduled maintenance. By configuring different dashboards during specific windows of time, operators can now safely ignore alerts caused by upgrades or change-related planned downtime.

## BigPanda Speeds Incident Management

### **One Console, More Insights**

TiVo consolidated eight monitoring tool screens with one, the BigPanda Unified Console. Having a single-pane-of-glass view, the NOC team can triage incoming events with clear ownership and coordination between operator tiers. Powered by autonomous incident detection and Open Box Machine Learning, the platform generates correlated incidents that are easier to investigate, remediate or escalate.

Incidents can be categorized by application, microservice or cloud for improved visibility. Custom dashboards can display system activity by team or individual responsibility, to increase focus and streamline workflows.

### **Contextual Data, Automatic Ticketing**

TiVo integrated the BigPanda ADO platform with ServiceNow to establish smart ticketing. Tickets are created automatically for IT support teams from a single incident. All alerts within the incident are enriched with relevant contextual information — such as runbook URL and service ownership—that is updated in real time.

TiVo continues to grow by acquisitions and new offerings. As its NOC team grows, and its IT infrastructure to match, the BigPanda ADO platform continues to scale to meet the organization's needs for intelligent automation. Given this, the BigPanda ADO platform has already helped TiVo significantly and expects to realize additional ongoing value for the long-term.