About our customer

A leading premium streaming service offering live and on-demand TV and movies.

With more than 40 million subscribers in the U.S. alone, delivering reliable service in this growing and highly competitive sector is a must.

After experiencing frustration with their IT Ops solution, the provider turned to BigPanda to give them greater control, visibility, and reliability.

Tools integrated

21 total tools including CloudWatch, Datadog, Jira and New Relic

How BigPanda safeguarded subscriber experience for millions of live IPTV subscribers

As the only streaming service to offer customers live channels plus an on-demand library, this provider experienced increased demand as more people became "cord-cutters," and canceled their cable TV. To succeed in this market, providers must be able to deliver their content flawlessly, whether its live or on-demand. However, they were struggling with outages, resulting in a service interruption during a major live event. The service provider vowed, "never again," and BigPanda is helping to make good on that promise.

Customer challenges

The customer has been an engineering-driven company since the day it was founded. By late 2018, there were approximately 1,000 developers writing code and putting it up on a cutting-edge, elastic platform, based on cloud-native microservices and containers.

Their entry into the live TV market was hampered from the start by underinvestment in monitoring and management tools. The customer's Network Operations, Video-on-Demand and Broadcast IT teams and tools were isolated from each other. They were wrangling tens of thousands of alerts every day. Homegrown tools and a rudimentary CMDB severely limited visibility and context. Additionally, the organization's focus had always been on infrastructure, with more attention to the software environment sorely needed.

With more than 40 million subscribers, the customer's on-demand and live TV offerings depended on more than 1,300 microservices, all of which lacked context and telemetry. The majority of incidents were being escalated, and it was common for 40 teams to be involved in resolutions, which depended on informal, undocumented processes and heroics.

The result was an often chaotic and stressful environment. The IT organization's 'all hands-on deck' approach led to 18-hour days for a week straight, just to restore services. What's more, it was common for dozens of teams to be brought in to help handle a critical incident, only to eventually discover that their involvement wasn't needed. This approach led to overtaxed teams, degraded service, and staff who were unable to focus on their core imperative of driving innovation.

The customer built its first NOC, but without automated correlation, enormous manual effort was needed to cull through large numbers of alerts to triangulate the problem.

Complex sets of services must interact flawlessly to avoid critical outages. In this customer's case, a system for extending live programming beyond its scheduled time failed, which resulted in a service cutover that interrupted the broadcast. What the customer lacked was a strong foundation of IT Ops. As the environment scaled, keeping it all up and running with a target of four-nines availability became more of a challenge.

After the live TV service suffered four Severity 0 incidents in a single week, the service provider reached out to BigPanda.

Customer objectives

Streamline incident resolution

Calm noisy monitoring data to enhance visibility and reduced response teams by an order of magnitude

Domain-agnostic integrations

Integrate 21 tools including CloudWatch, Datadog, Jira, and New Relic, plus 17 other monitoring and collaboration tools

Break down functional silos

Enable collaboration across engineering, product teams, operations and 80 DevOps teams

Auto-remediate incidents

Attach remediation intelligence to incidents, creating automated playbooks that protect customer-facing services from impact before they would occur

Enrich alerts

Add information, value, and context to alerts, delivering additional insights that improve incident management

The BigPanda solution

The NOC team brought in BigPanda to conduct a Proof of Value (PoV). Their goal was to improve the NOC's ability to consolidate, normalize, enrich and correlate all their tools and data, in order to improve results for subscribers.

When the PoV began, the teams identified impact duration as the primary KPI to focus on, with ServiceNow as a key point of integration for incident metrics. As the customer and BigPanda reinvented the incident management environment, they adopted the following objectives for success:

– **Zero inbox:** Ensuring that every incident was identified and acted upon in a timely manner is a firm requirement, ensuring that incidents never stayed in "Active" or "Unhandled" status for an extended time.

– **Playbook-centric:** Institutional intelligence must be documented in playbooks that outline actions in every phase of event management workflow, from automation to user actions and tools. These playbooks are used to enrich incidents in the BigPanda platform, giving first-line operators crucial information on how to handle incidents.

– **Flexible methodology:** The alert environment must be capable of being reorganized and restructured as needed, by factors such as severity, services, locations, teams, or queues.

Just three months later, the PoV had successfully delivered on those goals. The customer's NOC team wanted to ensure that BigPanda's PoV would withstand the test of production and to affirm their confidence in the platform. With another major live event on the horizon, they asked BigPanda to keep the PoV running and actively support it during the event. BigPanda agreed, and as a result there were no outages, improved viewer experience, and healthy service availability during the event.

Soon after, the Senior NOC Manager was promoted to Director of Production Operations, owning the NOC, SRE, Tooling and DevOps teams.

The customer signed its contract with BigPanda, kicked off implementation the next month and went live just two months later.

BigPanda

Building blocks for reliable IPTV service

The objective	– Improve performance and availability of business services	
Positive business outcomes	– Improved internal and external customer satisfaction	– Improved brand loyalty – Improved SLA achievement
Required capabilities	– Automation of manual incident management workflows – Advanced analytics for performance tracking and ongoing optimization	– Ability to integrate with all current and future IT tools, processes and technologies
Differentiators	– **Support for existing tools and processes:** built on top of ServiceNow and enhanced by playbooks; shortened incident queues – **Rapid time to value:** just over three months passed between the beginning of the PoV and production	– **Operational analytics and reporting:** increased efficiency by pinpointing which teams are needed to respond to an incident – **Domain-agnostic platform:** able to integrate across 20+ customer tools

The BigPanda difference

Today, there are three groups at the service provider using BigPanda: the NOC, Video-on-Demand Ops, and Live-Ops. Holistic visibility across all three enables far greater efficiency than before. In fact, a typical incident response now requires just an application person, an infrastructure person, and a NOC engineer, compared to the dozens of teams that were common previously.

Internal workflows are enabled by 21 BigPanda integrations that were put in place during the onboarding process, including CloudWatch, Datadog, Jira, New Relic, SolarWinds and a range of internally developed tools. These integrations support monitoring, receiving alerts, and sending incidents and alerts to Slack, ServiceNow, and PagerDuty. The implementation also included creating 47 enrichments that add information, value, and context to alerts, as well as supporting environment tagging.

BigPanda's Event Correlation and Automation platform is able to normalize, enrich, correlate, and consolidate alert data from across these and many other sources. Global insights based on that information help automate incident response and pinpoint root cause.

Knowing in real time what domains need to be involved in responding to a particular incident allows for a more focused team to be assembled early in the process. The IT Ops teams are also able to address the underlying cause of incidents earlier, avoiding escalation to more critical severity levels and the involvement of additional teams.

As BigPanda came online, the operations teams started seeing new alerts and correlations that had been hidden before. Reducing the noise in the customer's IT environment enabled the IT Ops teams to be proactive instead of reactive, making subscriber services more resilient.

The outcomes of the BigPanda implementation have reached beyond the tactical noise reduction that led the customer to start on this journey in the first place. The customer is experiencing strategic outcomes as well:

– **Lower incident impact:** Improved visibility, coordination, and root-cause analysis, which simplified incident response and shortened duration of MTTM by more than 60%—from an hour and 42 minutes to 40 minutes—which resulted in a world-class MTTA of 3.5 minutes. This improved service uptime, availability and customer experience.

– **Greater adaptability:** The flexibility of the environment means that in the face of constant change, incident management is more capable of adapting than before, which helps safeguard future quality.

– **Efficiency through automation:** Using insights from their BigPanda implementation, the customer is now reducing overhead and repetitive work by scheduling auto-remediation for as many as 40% of incidents.

80
DevOps teams,
unified by BigPanda

40%
incident
auto-remediation

60%
MTTR
reduction

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