About our customer

A major American airline whose priority is getting its customers where they need to go. Flight operations is a high stakes business where one minor interruption can mean a loss of millions of dollars a minute and angry travelers.

In order to keep its digital services up and running, the customer turned to BigPanda to update their legacy IT Ops solution, with great success.

How BigPanda keeps a major airline flying with AIOps

To keep flight operations running, dozens of applications need to work in perfect concert. An outage of one minor background service can ground planes and lead to losses that easily reach millions of dollars in lost revenue and customer service nightmares. BigPanda provided the airline with better visibility and control over critical applications and their underlying infrastructure, improving uptime and reducing MTTR by 40%.

Customer challenges

Despite the possibility of immediate and costly negative impact from outages, the airline was using outdated IT Ops monitoring tools. A senior manager for enterprise monitoring recalls that the monitoring tools in place were not well-trusted, and the complex, fragmented environment made it difficult to identify the root cause of IT incidents.

The customer's environment was built around nine legacy HP monitoring consoles that each functioned independently. Adding to the mess were the dozens of other disparate monitoring tools. The sum total of these disjointed parts was an IT Ops organization with no comprehensive view of their IT environment. Incident resolution depended on manual measures driven by informal, anecdotal knowledge shared during "bridge calls from hell" attended by as many as 120 members of network, database, app development, and support teams. What's more, the tools themselves were difficult and time-consuming to implement; it typically took about a month to instrument an application.

To improve application delivery and reduce impacts from outages, the enterprise monitoring manager led an initiative to update the airline's APM technologies.

However, she had a vision for more advanced IT Ops and reached out to BigPanda with a challenge: automate its incident and event management workflows with AIOps. Specifically, reduce MTTR, increase visibility across the organization's IT systems and be able to move at the speed of cloud development and DevOps.

Customer objectives

Get a single view of IT Ops

Consolidate monitoring environment from nine separate legacy HP tools, into a single BigPanda Operations Console

Reduce flood of alert noise

Eliminate duplicates and noise from 2.78M alerts per month, which converted to just 16K ServiceNow tickets

Reduce incident escalations

Identify potential outages before they impact revenue or business continuity

Reduce MTTR for Tier 1 apps by 40%

Cross-correlate and prioritize alerts, to get the right information to the right people at the right time

Improve situational awareness

Enable L1 to more quickly resolve or escalate incidents

The BigPanda solution

The business of keeping planes in the air is a complex one. BigPanda started a Proof of Value (PoV) for the airline to address their desire for increased visibility and insight across their IT environment.

The airline originally considered a field of five solution vendors, but BMC, PagerDuty and ServiceNow were eliminated by a paper-based assessment, leaving only BigPanda and Moogsoft in a head-to-head PoV. An early win for BigPanda was its exceptional speed of implementation, compared to weeks or up to a month for each Moogsoft integration.

Early in the PoV, while only instrumented on a portion of the airline's landscape, an issue arose in an obscure corner of operations that created a critical P1 incident, triggering a ground stoppage. The behind-the-scenes application responsible for logging crews' in-air hours wasn't functioning properly. Without it, personnel couldn't document their compliance with FAA regulations in terms of their eligibility to continue flying; flights effectively had no crews.

The IT Ops team, with BigPanda staff standing by, were able to look at the BigPanda console and saw that multiple events from three sources had been correlated to create an incident underlying the problem. Drilling down from BigPanda directly into specific AppDynamics alerts, BigPanda showed that a process on an IIS server was spinning out of control. Empowered with intelligent correlation and context, the Ops team restarted IIS on the server BigPanda indicated, and the incident was resolved.

After the airline became a customer, it only took 12 weeks to go live in production. Within 15 minutes of going live, BigPanda identified another critical incident. It was again an application issue, but this time it was seen in BigPanda before it became a P1 incident. An operator quickly resolved the issue, with zero impact to the business this time.

Word of BigPanda's success quickly worked its way up the leadership chain at the airline. The VP of IT Infrastructure, Engineering and Operations told the Chief Digital Officer, "One of the ETA (time and attendance app) servers became unresponsive and would have caused an issue with application performance; BigPanda found it [and] alerted Ops, we rebooted the server, thus no P issue and no service interruption—all within 21 minutes!" This outcome showcased three points of value delivered by BigPanda:

– **Exceptional time to value:** By revealing the root cause for a critical incident on Day One, BigPanda delivered an immediate payoff.

– **Rapid time to resolution:** Drilling down from a timeline view directly to the transaction level provided powerful, efficient visibility into root cause.

– **Fostering proactive responses:** Being able to rapidly catch a problem and identify its root cause before a ground stoppage occurred prevented business impact.

Building blocks to speed and visibility in IT Ops

The objective	– Improve performance and availability of business services	
Positive business outcomes	– Improved internal and external customer satisfaction – Improved revenue	– Improved brand loyalty – Improved SLA achievement
Required capabilities	– Automation of manual incident management workflows – Machine learning-driven correlation of noise into actionable insights to improve MTTx	– Ability to integrate with all current and future IT tools, processes and technologies – Unified operations console for all fragmented tools, teams and clouds
Differentiators	– **Open Box Machine Learning:** automatic correlation and the ability to incorporate anecdotal intelligence from the organization – **Domain-agnostic integrations:** consolidation of nine legacy management tools working through BigPanda with ServiceNow	– **No experts required:** enriched incoming alert data with context, for fast, simple uptake by operations – **Rapid time to value:** BigPanda delivered meaningful value literally on Day One by providing fast insight into root cause of a critical issue

The BigPanda difference

That first day set a standard that was tough to match, but the triumphant tone and rapid pace of success continued. For example, one day, as an engineer showed her boss the progress being made in the PoV, he asked about alert enrichment, which was scheduled for a week or two in the future. Thanks to BigPanda, she was able to respond, "Oh, we did that this morning."

BigPanda transformed the airline's NOC with the power of Open Box Machine Learning to correlate millions of alerts into actionable incidents, controlled via a single pane of glass. The airline's senior manager for enterprise monitoring summarizes the BigPanda implementation: "It transformed how we looked at monitoring. We no longer say things like, 'silence this, change this threshold.' Heck no–we're saying, 'firehose everything at Panda, and let Panda do the heavy-lifting.'"

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97%	**40%**	**21**
reduction in IT Ops noise	MTTR improvement	minute critical response preventing P1 outage

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