Product Brief

CA Operational Intelligence

Key Benefits

- Accelerate issue identification and resolution.
- Optimize resource management to reduce waste and avoid capacity shortages.
- Speed triage with automated root cause analysis.
- Move beyond static thresholds and get smarter anomaly detection.
- Reduce false alerts through algorithmic noise reduction.
- Boost operational efficiency with unified visualization and correlation.

Key Features

- **Service analytics.** Automates root-cause analysis and provides end-to-end visibility across key business services, from the cloud to the mainframe.
- **Anomaly detection.** Generates alerts when abnormal situations arise.
- **Alarm analytics.** Clusters relevant alerts and suppresses noise for faster mean time to resolution.
- **Predictive insights and automated remediation.** Predicts potential issues and provides contextual information for faster remediation.
- **Unified visualization.** Enables both ad-hoc and automated visualization across various domains, speeding issue resolution and boosting productivity.
- **Open, scalable data lake.** The platform can ingest terabytes of data per day, so it can address current requirements and scale to meet future needs.

At A Glance

CA Operational Intelligence enables IT operations teams to make smarter, faster decisions for enhancing user experience and improving IT service quality and capacity. Built on an open, scalable data lake, the solution delivers the most comprehensive cross-domain contextual intelligence, from the cloud to the mainframe. It generates actionable, predictive insights by ingesting and analyzing diverse data sets, including metric, topology, text, and log data. By leveraging the solution's pre-packaged machine learning analytics and integrations with leading tools, IT teams can effectively manage today's complex enterprise environments, deliver a superior user experience, and rapidly realize significant operational efficiencies.

Business Challenges

Modern technologies and architectures are creating IT environments that are increasingly ephemeral, modular, and volatile. IT operations leaders are being tasked with managing these complex environments, which can encompass mainframes, cloud services, and distributed platforms. As they do so, they're encountering significant obstacles:

- **Too much.** These complex, hybrid environments are generating massive amounts of operational data—reports indicate an 88 percent increase in processed metrics, events, and alerts.[1]
- **Too long.** For many operations teams, it takes too long to isolate the source of a problem within these complex environments. These teams lack the visual analytics and automation that are needed to help filter actionable insights from all the noise, so they can't address issues before they have an impact on the business.
- **Too late.** The consequences of reacting too late to issues can be steep. On average, enterprises are losing $21.8 million per year due to downtime.[2] Further, 53 percent of mobile apps are abandoned if they take longer than three seconds to load.[3]

In today's complex, dynamic, and critical environments, the velocity, volume, and variety of data continues to grow—exceeding the cognitive capacity of humans to keep pace. To enable digital transformation, improve customer experiences, and optimize cost efficiency, operations teams must reduce the chaos. Unfortunately, the monitoring tools these teams employ only offer a fragmented, isolated view of IT, which compounds these problems.

1 Digital Enterprise Journal, "Modernizing IT Operations for Digital Economy," December 2016,
    https://www.slideshare.net/dej_io/modernizing-it-operations-for-digital-economy
2 David Gewirtz, ZDNet, "Astonishing Hidden Costs of IT Downtime," May 2017,
    http://www.zdnet.com/article/the-astonishing-hidden-and-personal-costs-of-it-downtime-and-how-predictive-analytics-might-help/
3 Shaun Anderson, "How Fast Should A Website Load in 2018?," March 2018,
    https://www.hobo-web.co.uk/your-website-design-should-load-in-4-seconds/

Solution Overview

CA Operational Intelligence is a machine-learning-driven AIOps solution designed to help IT operations teams deliver a phenomenal user experience, improve service quality, and boost operational efficiencies. The solution provides the most comprehensive service intelligence, analyzing diverse structured and unstructured data sources that can range from the cloud to the mainframe. Built on an open, scalable data lake, the solution helps your IT teams act on potential issues much earlier, isolate the real root cause faster, and ultimately remediate issues before they affect the business.

Leveraging years of expertise, the solution features pre-packaged algorithms and integrations with leading monitoring and automation tools as well as a range of third-party tools and systems, which speeds time to insight and value. The solution also automatically correlates related alerts to better predict cascading events before they spiral out of control. The solution provides more accurate and actionable insights by automatically tracking relevant issues and focusing on related symptoms. This helps less experienced IT operations staff find the root cause of issues faster.

Critical Differentiators

Automated, correlated mapping of topologies and services. The solution features topology analytics capabilities that can automatically discover key IT assets and map them to associated services, enabling more intelligent correlation and prioritization. The solution delivers topology information in a dynamic, graphical

Figure 1: CA Operational Intelligence delivers intuitive visibility into the performance of critical business services.
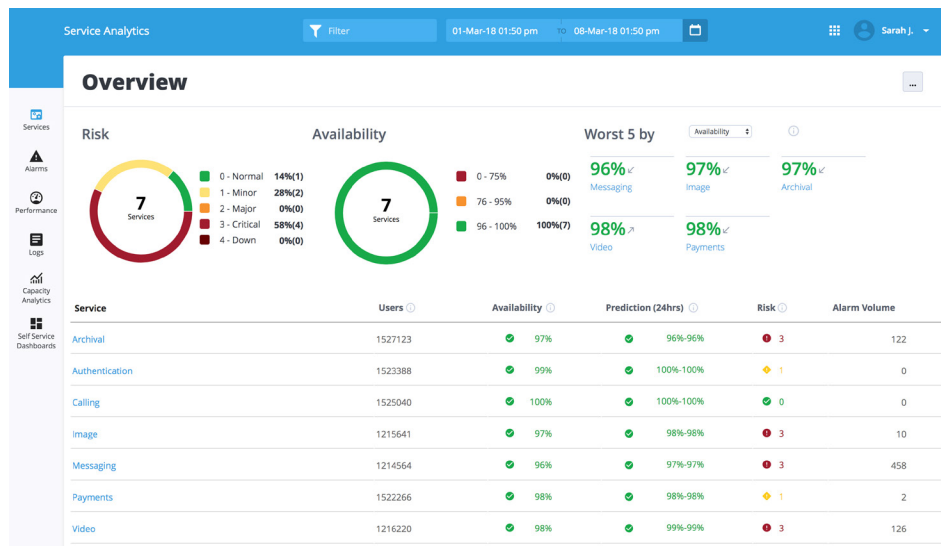
database that offers service-level visibility. You can also break higher-level services into discrete subservices to facilitate ongoing monitoring and analysis.

Intelligence fuels proactive management. With CA Operational Intelligence, your teams can move from reactive firefighting to proactive management. The solution delivers machine-learning-based algorithms that can predict potential issues—so staff can respond before there's a problem and end users are affected.

Automation that enables self-healing operations. Through its integration with Automic Service Orchestration and third-party orchestration tools, the solution enables closed-loop automation that supports the establishment of self-healing operations. Based on monitoring alerts, the solution can trigger automated execution of remediation scripts, and the automated updating of tickets to reflect the steps taken.

Intelligent, automated root cause analysis. The solution delivers machine-learning-driven intelligence that can automatically identify the probable cause of issues. It can consume data and correlate intelligence from multiple architectural layers. Through this correlation, the solution enables teams to intelligently identify the true cause of issues and automatically remediate them, rather than simply tracking symptoms.

Comprehensive coverage fuels AI-driven insights. For true artificial intelligence (AI)-driven insights, comprehensive data sets are essential. CA Operational Intelligence provides extensive depth and breadth of coverage, ingesting structured and unstructured data from sources that range from cloud environments to mainframes. The solution offers support for user experience, metric, alarm, log, topology, text, and API data.

Critical Differentiators (con't)

Flexible integration and adaptation. The solution delivers advanced, pre-packaged integrations and flexible, open APIs that enable fast, efficient integration with a broad range of tools and platforms—and fast adaptation as your environments change. The solution features integrations with CA monitoring and automation platforms, configuration management databases, and IT service management systems like ServiceNow and Remedy. The solution also features OpenConnect, a generic API connector; StreamWeaver, a third-party integration tool; and an easy-to-use RESTFul API. These offerings make it easy for your team to integrate the solution with third-party monitoring tools as well as business and IT data sources to further enrich the data set.

Open, scalable platform. CA Operational Intelligence is a highly flexible solution that can readily adapt to changing and rapidly expanding environments. The solution is built on top of a powerful analytics engine that leverages open technologies, such as ElasticSearch, Apache Kafka, and Apache Spark. The solution can ingest more than six terabytes of data per day and retain more than 100 terabytes, while enabling sub-second query response times.

Built-in algorithms, dashboards, and integrations. The solution comes with built-in machine-learning-driven algorithms, dashboards, and integrations that

Figure 2: CA Operational Intelligence offers intelligent anomaly detection capabilities that help discover potential issues before they affect users.
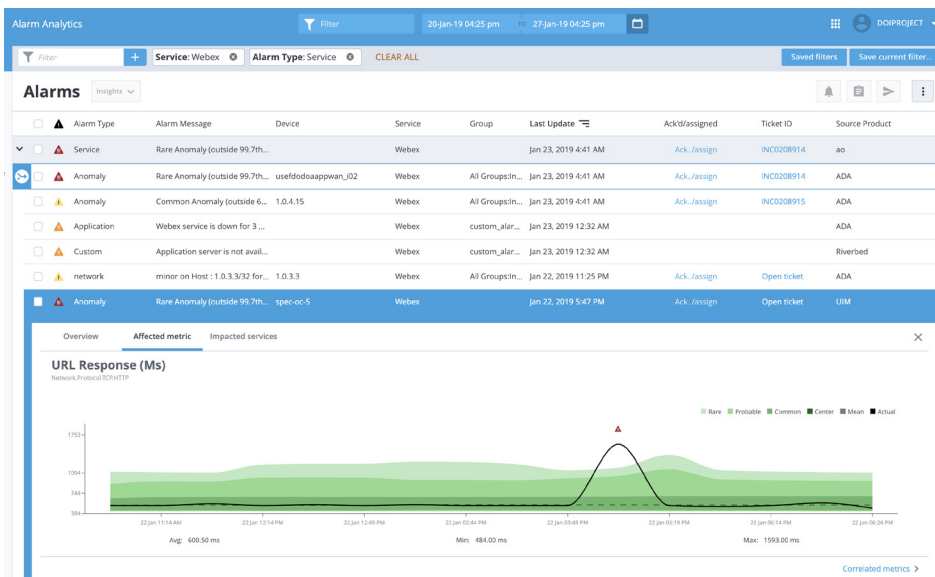
provide immediate insight and speed time to value. The solution features pre-packaged algorithms that support anomaly detection, root cause analysis, alarm management, predictive analytics, and more. Operators don't have to learn or apply new techniques, nor do they have to write and maintain integrations with management tools.

Intelligent alarm management. CA Operational Intelligence provides advanced capabilities for alarm management. Teams can establish automated, policy-based alarm routing. Alarms can automatically be fed into ticketing systems and distributed through a range of channels, including email and Slack.

Customizable, easy-to-use dashboards. The solution provides a modern, intuitive interface and seamless workflows that speed triage and analysis. With the solution's flexible and intuitive

dashboards, users can easily drill down into specific services, data centers, clusters, and hosts to facilitate analysis and remediation efforts.

Related Solutions

- **CA Mainframe Operational Intelligence.** Provides actionable intelligence through aggregating and analyzing data directly from the mainframe, CA mainframe tools and third-party sources.

- **Automic Service Orchestration.** Delivers an open, scalable, and unified approach to establishing automation across your enterprise. It leverages insights from CA Operational Intelligence to enable automated remediation.

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