Capgemini

AIOps FROM ADMnext

TAKING IT OPERATIONS TO THE NEXT LEVEL

OBSERVING, ORCHESTRATING, AND AUTOMATING IT OPERATIONS

The pressure on IT to do more with less is constant and only intensifying. Business leaders want speed in the delivery of new functionalities, as well as stability for their IT systems and newly released product features. They're looking to IT to help them transform their operations and guide them in leveraging the value that can be derived from the troves of data available. And IT leaders have been striving to deliver here by bringing more reliability, scalability, and customer centricity – all while simultaneously lowering total cost of ownership.

There are many potential strategies for achieving this, however, Capgemini believes that the key to success here lies in increasing performance and service health visibility – and driving a strong digital business.

Driving a strong digital business

Customer expectations have significantly evolved over the past few years, with digital channels being the primary mode of customer-business interface. Digital channels enable real-time service and drive business growth for organizations. With digital channels becoming such primary business enablers, any interruption to IT systems could result in substantial loss of revenue, a damaged reputation, or regulatory liabilities.

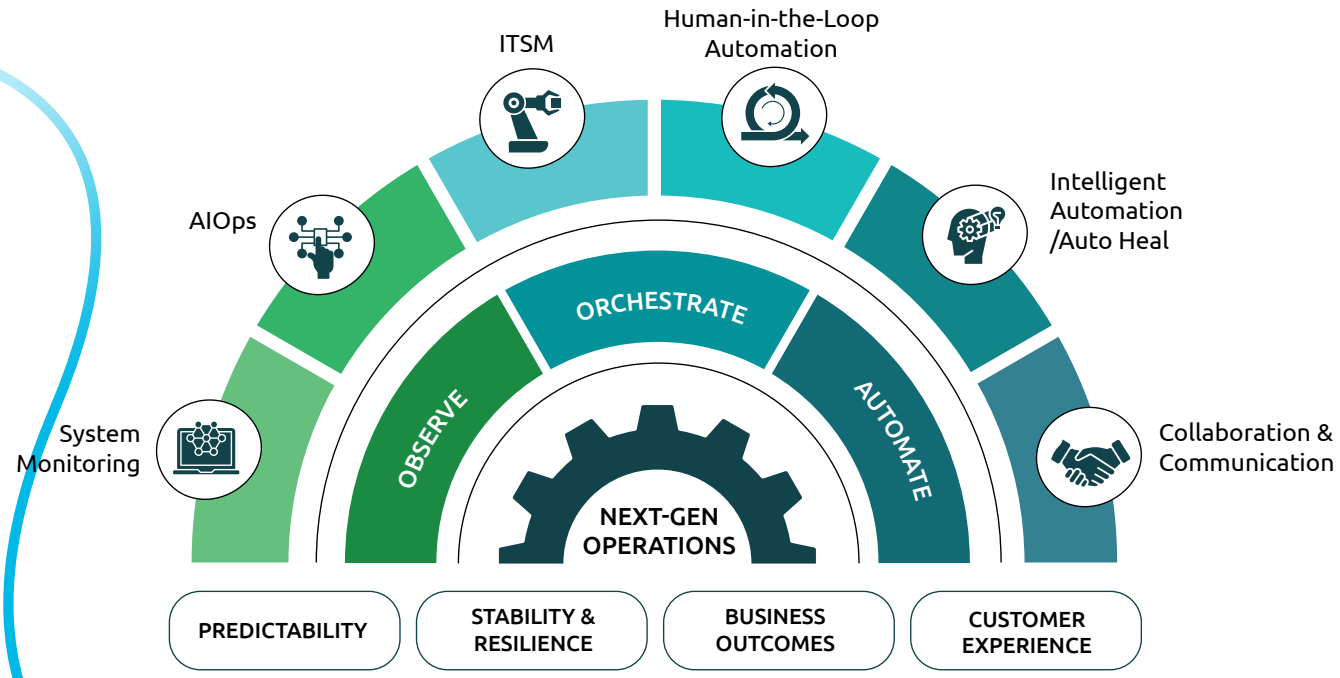
AIOps (Artificial Intelligence for IT Operations): Combining data and automation

But how do you drive a strong digital business and satisfy and exceed the demands of the customers you serve? The answer could lie in AIOps (Artificial Intelligence for IT Operations). Gartner coined the term AIOps in 2016. According to Gartner, "AIOps combines big data and machine learning to automate IT operations processes, including event correlation, anomaly detection and causality determination." AIOps is not a single technology, but rather a combination of disparate technologies for data collection, processing, analysis, and visualization coupled with automation tools and solutions.[1]

The key to AI application – observability, orchestration, and automation

So, how do you adopt AIOps within your IT operations and glean actionable insights from data generated by various IT assets and systems users? To simplify your AIOps implementation approach, it's essential to frame the application of AI across three key pillars – observability, orchestration, and automation. But how do you accomplish this and successfully approach and implement AIOps?

[1]Gartner Research, "AIOps Platforms," August, 2017



Observability

In the most utopian scenario, you need to be self-aware and have the ability to self-announce and self-heal when there are issues. Monitoring in the traditional world is highly siloed, so observability is best achieved by bringing logging, tracing, and metrics from network and storage, along with integrating on-premise servers or building multi-cloud environments into applications. This full-stack monitoring capability will provide deep IT, service performance, and application performance insights.

Orchestration

Service management is the hub of all human-centric activities in IT operations. With AI and ML, it's possible to implement human-in-the-loop (HiL) automation to not only streamline but also optimize incident, problem, and service request management processes. With chatbots and digital voice assistants, automated bots can engage with users and drive self-service to various types of requests, such as password resets or data and report requests.

Automation

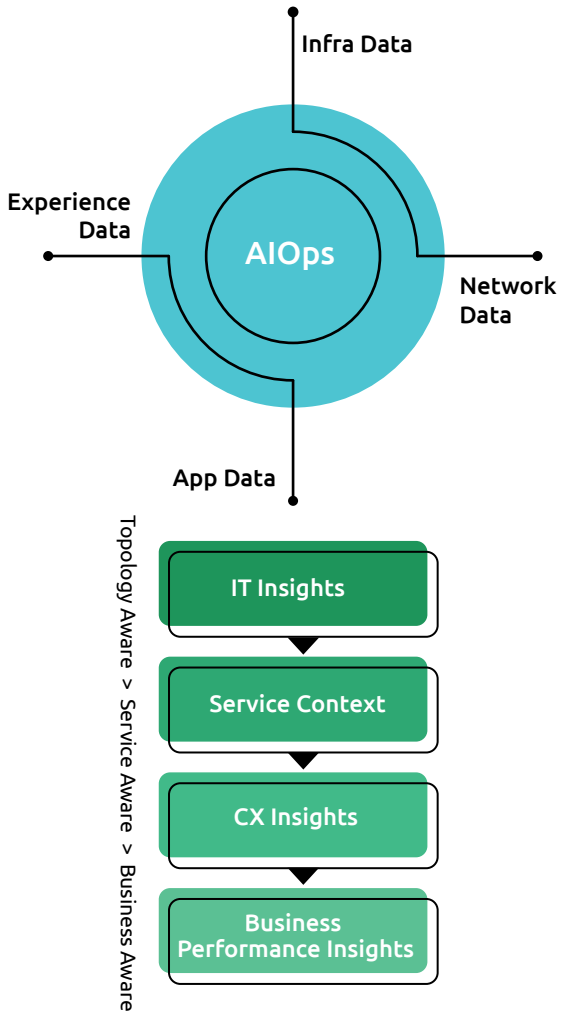
Automation through scripts is nothing new to IT departments and programmers. With advancements in automation using APIs, data management, and GUI-based robotics, we can easily push the envelope by delegating deterministic procedures to bots and empowering human workers to take up more problem-solving challenges. Additionally, AI takes it further by helping us achieve self-heal-based remedial actions.

ATTAINING AWARENESS

DEEP INSIGHTS INTO YOUR IT SYSTEMS, APPLICATIONS, SERVICES, AND CUSTOMER EXPERIENCE

Your customers can easily lose their patience with digital applications that do not offer them the speed and intuitive experience they expect. This is why it's crucial to take a hard look at how you monitor – or rather – observe applications performance business transactions and KPIs.

With digital transformation agendas demanding speed and stability, it's critical that digital-age applications be observable and disseminate information about their performance and functioning. Coding for digital applications is not complete until monitoring analytics is built into the code to attain a holistic view of the health of key business services. This is why observability is essential for a successful DevOps-based operating model.



The monitoring of enterprise networks, infrastructure, and legacy applications is still critical in the current environment. Gartner reports that many enterprises already have over 15 monitoring tools on average. So, there's no dearth of data available from different domains. However, the challenges here lie in siloed monitoring approaches and a lack of end-to-end observability. Additionally, with hybrid landscapes (including cloud) and on-premise environments becoming the norm, obtaining a unified view is now even more important.

Data already available with IT organizations can provide useful insights, however, it can be nearly impossible to effectively utilize this torrent of data. Technologies such as AI and ML can help uncover useful insights by reducing clutter from various events, minimizing false positives, detecting anomalies, and eventually applying root-cause analysis for expedited issue resolution. Organizations expect these technologies to predict and prevent IT outages in order to protect and guarantee positive customer experiences.

Businesses are less concerned about CPUs and more interested in how their end customers and suppliers are impacted by business applications performance. AI can help organizations attain deep insights into IT infrastructure and application performance – in conjunction with user transaction journeys – to rapidly provide answers.

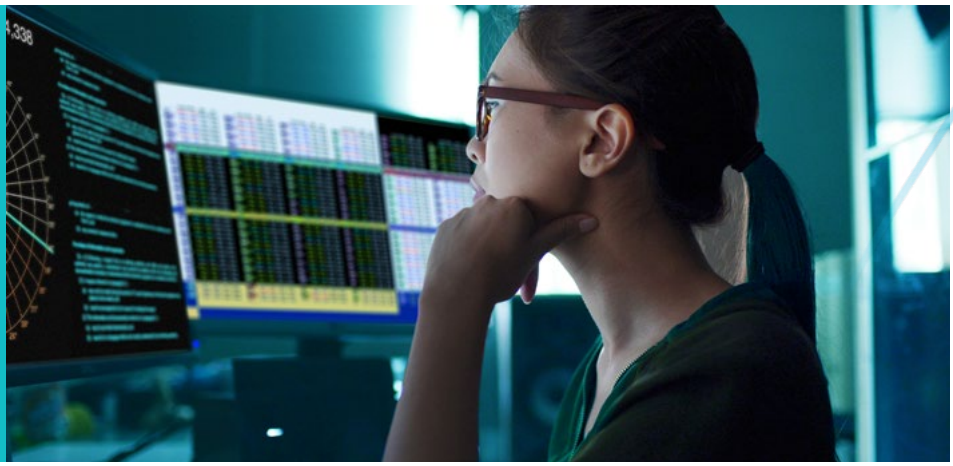
AI/ML solutions are available here to alert you on critical business events. They can be applied to derive more granular insights on a variety of KPIs. Additionally, user experience monitoring can provide a better view of engagement and the adoption of your customer facing products.

Good AIOps solutions can help organizations observe end-to-end customer experience, from business KPIs to underlying applications performance and IT infrastructure availability.

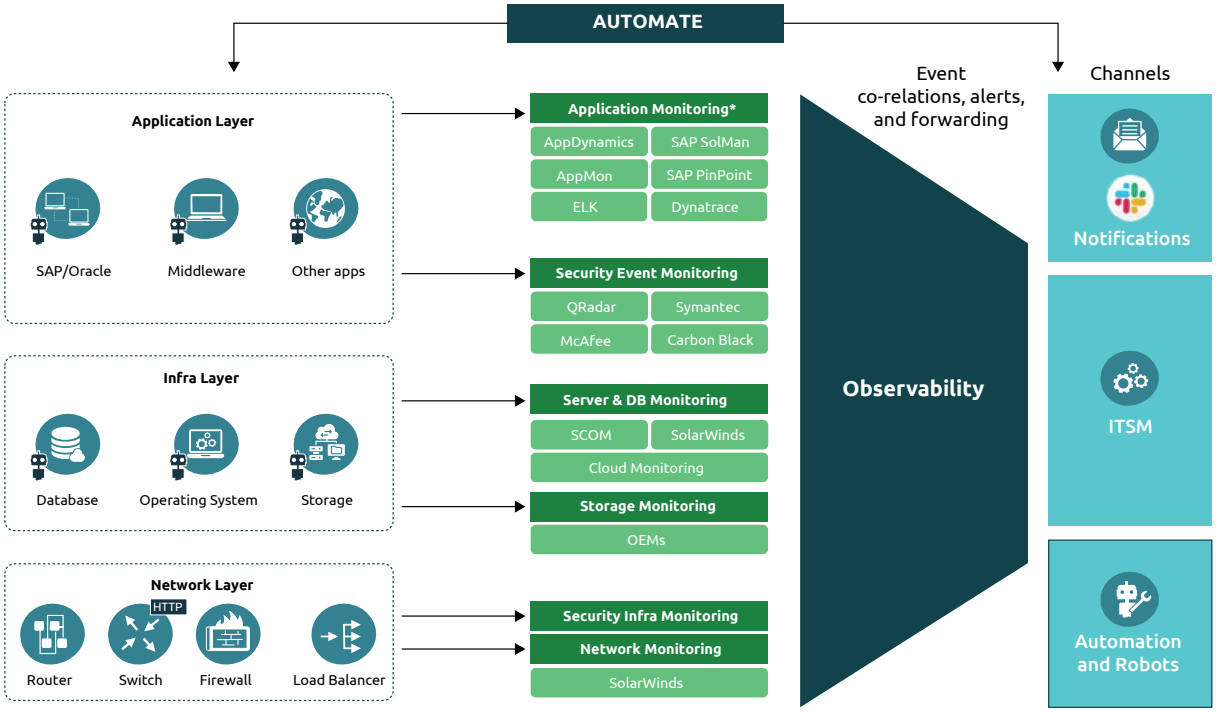
AIOps FROM ADMnext

TAKING YOUR IT TO THE NEXT LEVEL WITH HUMAN-IN-THE-LOOP ALGORITHMS, CHATBOTS, IMPROVED KNOWLEDGE MANAGEMENT, AND CMBD OPERATIONS

Orchestrating automation efforts into a meaningful line-up of activities with human-in-the-loop (HITL) automation, chatbots, improved knowledge management, and configuration management database (CMDB) can enable you to better predict outages, catch performance degradation, and improve root-cause analysis.



End-to-end AIOps architecture



*Sample list of monitoring tools

Human-in-the-loop AI for ITSM

IT Service Management (ITSM) typically serves as the hub for IT operations processes. And two of the most important processes here are incident and problem management. The traditional goals of these two processes are to standardize, optimize, and improve the turnaround of resolution. NLP-based AI solutions can provide a deeper insights into frequent and repeat incidents.

AI can also enable the intelligent routing of remediation workflows (either to a human or prescribed bot) to resolve issues. IT organizations can also continuously assess seasonality using time-series AI algorithms to predict the outcomes of critical business events. These much-needed capabilities provide insights for the better planning operations and support, in order to avoid any major incidents that could have huge negative business impacts.

Chatbots for service request automation

Requests to reset passwords and account locks are common requests that service desk teams have typically been handling manually. AI-based chatbot solutions that are integrated with automated fulfillment can be a viable solution for many IT organizations. These chatbot solutions can eliminate the manual handling of service requests and free up IT resources so they can take on more strategic work.

Knowledge management in service orchestration

To accomplish better outcomes with automation and chatbots, knowledge bases need to be dynamic and up to date. To ensure this, we need AI-based solutions to continuously keep knowledge articles validated according to real-world scenarios. With AI-based analytics and orchestration, knowledge articles can be validated through historical data, and end-user acknowledgement and peer reviews before an object is committed to the system. User input is important here – and driving adoption with knowledge management gamification through AI and analytics will provide a wealth of benefits.

AIOps for better CMDB operations

AIOps can be leveraged for better operation of CMDB that is less manually intensive and always keeps you up to date. With the growth of IT assets from cloud to IoT devices, it is essential that IT teams have workable CMDB – and AIOps automation is key in making this happen.

Visit us **here** to learn more about what Capgemini's ADMnext can do for you AIOps and business as a whole.

Unlocking the potential of AIOps and enabling success at scale with ADMnext and CIAP

When applied correctly, AI-based operations have the potential to markedly improve customer satisfaction and act as enablers for driving top-line results with minimal impact to your bottom-line. There are multiple ways to peel this onion – and enterprises will have to be diligent in order to avoid being pulled into any one particular AIOps direction.

With ADMnext, we enable you to execute your vision rapidly and clearly with a dynamic strategy and roadmap to progressively transform your IT into more proactive and predictable operations.

Central to this transformation is Capgemini Intelligent Automation Platform (CIAP). CIAP is a purpose-built, plug-and-play platform that enables effective IT and applications services delivery. With CIAP, you harness the full potential of intelligent automation for maximum value across your entire operations – seamlessly and at scale. Essentially, CIAP helps you to move from an operations focused, limited value, isolated deployment of automation to an enterprise-wide, automation-first approach for integrated, end-to-end service management.

Contact us below to learn more about ADMnext and CIAP and begin your AIOps journey today.

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