INFOSYS AI OPERATIONS SOLUTION POWERED BY APPDYNAMICS

APPDYNAMICS
part of Cisco

Infosys®
Navigate your next

AI operations solution for Next-Gen Application Management

In today's digital world, high performance and availability of IT systems are not only critical differentiators, but also among primary expectations from the organizations and consumers to sustain and grow the business. Most of the Enterprise IT landscape have a complex mix of legacy, ERP, SaaS combined with increasing footprint of cloud native systems that support their critical business operations. Increase in application downtime and inability to predict business impact upfront causes disruptions in business operations, degrading end-user experience and results in cost and revenue leakage. To improve operations efficiency and end-user experience, the focus needs to shift from reactive issue resolutions to preventive and predictive management that will avoid impact to the business processes and KPIs that matter to business. This will require organizations to have the ability to constantly observe and identify disruptions in these systems, make intelligent decisions in real-time and take preventive actions before customers and business processes are impacted like a living organism.

Challenges

There are several common challenges that enterprises across industry verticals face during the implementation of resilient and business aware operations.

- Multiple monitoring tools for on-premise, legacy, ERP, cloud native applications and underlying infrastructure which creates un-curated alert storms to the IT operations team

- Lack of correlations and insights from the alerts and events coming from disparate sources sources result in high manual effort involved in triaging to identify the actionable alerts and the corresponding root causes that are to be fixed

- Significant increase in manual efforts and inefficiencies resulting in higher cost of operations

- No ability to predict critical failures and take proactive self-healing actions to avoid impact to the users

- Lack of clear understanding of the impact on business processes and metrics due to failures in the underlying application and infrastructure components

Live Enterprise solution

Infosys Live Enterprise solution is aimed at ensuring that the services continuously sense the changes in the environment, proactively analyze the impact, decide the best course of action, acting to resolve with least human intervention and learning from every interaction to make future interactions predictive and less dependent on manual actions. Infosys Live Enterprise Automation Platform is an integrated cloud enabled open platform for end-to-end application management services including problem analytics, self-healing, business process KPIs monitoring, robotic process automation (RPA), and cognitive automation. The solution with its micr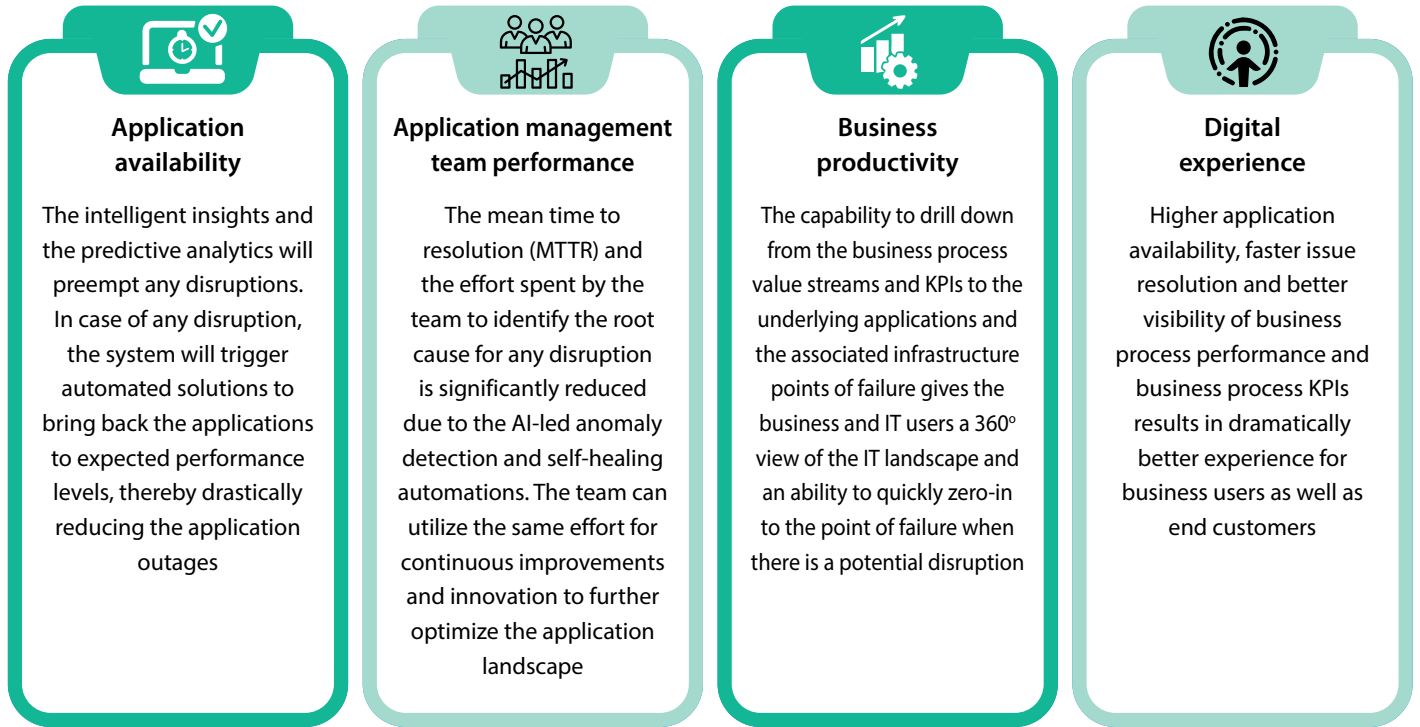oservices architecture applies technologies like artificial intelligence (AI), conversational AI, cognitive automation to make IT operations intelligent and business outcome driven and the enterprise sentient. The key highlights of the platform are:

- It models customer journeys and value streams of the Live Enterprise in its business control center

- It builds knowledge graph-based correlation of heterogenous systems and business processes

- It predicts, decides the next-best action & diagnoses with its digital brain, powered by big data analytics & stream processing technologies

- It leverages bots for automated self-healing actions

Business outcomes from such a Next-Gen Application Management Services (AMS) solution

A solution that is built on the principles of Live Enterprise and infused with AIOPs and SRE techniques brings all round benefits as shown in the diagram across multiple dimensions:

Application availability

The intelligent insights and the predictive analytics will preempt any disruptions. In case of any disruption, the system will trigger automated solutions to bring back the applications to expected performance levels, thereby drastically reducing the application outages

Application management team performance

The mean time to resolution (MTTR) and the effort spent by the team to identify the root cause for any disruption is significantly reduced due to the AI-led anomaly detection and self-healing automations. The team can utilize the same effort for continuous improvements and innovation to further optimize the application landscape

Business productivity

The capability to drill down from the business process value streams and KPIs to the underlying applications and the associated infrastructure points of failure gives the business and IT users a 360° view of the IT landscape and an ability to quickly zero-in to the point of failure when there is a potential disruption

Digital experience

Higher application availability, faster issue resolution and better visibility of business process performance and business process KPIs results in dramatically better experience for business users as well as end customers

---

Application availability

40-50%
lesser application outages

Application management team efficiency

50%
faster mean-time-to-identify issues and better support team performance

Business productivity

30-50%
improved business end user productivity resulting in correspondingly reduced cost and revenue leakages

Digital experience

3X
higher customer loyalty & improved end user experience

Infosys AI Operations Solution on Live Enterprise Application Management Platform powered by Cisco AppDynamics for Next-Gen AMS

Infosys AI Operations Solution is a holistic offering built on Infosys Live Enterprise Automation Platform to improve the availability, reliability, and performance of application landscape through AI-led predictive analytics and site reliability engineering (SRE) techniques. Infosys Live Enterprise Automation Platform is an open platform that helps enterprises accelerate their journey towards the live enterprise vision, through a platform-centric approach for application management services (AMS). Infosys AI Operations Solution is now powered with Cisco AppDynamics' full-stack business observability platform to provide clients with the ability to monitor the entire IT stack - from customer-facing applications, right down to the core network and infrastructure. This gives the platform capability to fix any performance or availability related issues before they affect the end-users and the business, thereby making the applications more resilient.

Why Cisco AppDynamics for Infosys AI Operations Solution

In today's digital world, the applications are just the front door to an expansive digital landscape that is evolving and growing in scale and complexity. With more interdependencies, more data, more clouds, and providers, it all adds up to more blind spots. Today, 75 percent of global technologists say they are faced with more IT complexity than ever before, and wrestle with overwhelming "data noise" without the resources and support they need. Managing and monitoring of applications, infrastructure, security and networks from isolated islands turns out to be inefficient and ineffective and becomes beyond human scale and capability.

Cisco AppDynamics' full-stack observability platform moves beyond domain monitoring into full-stack visibility, insights, and actions, transforming siloed data into actionable insights that provide shared context for your IT teams.

The unified contextual insights driven from a single solution provides full-stack observability across your entire application landscape. This helps you deliver exceptional digital experiences, while correlating them to your business impact.
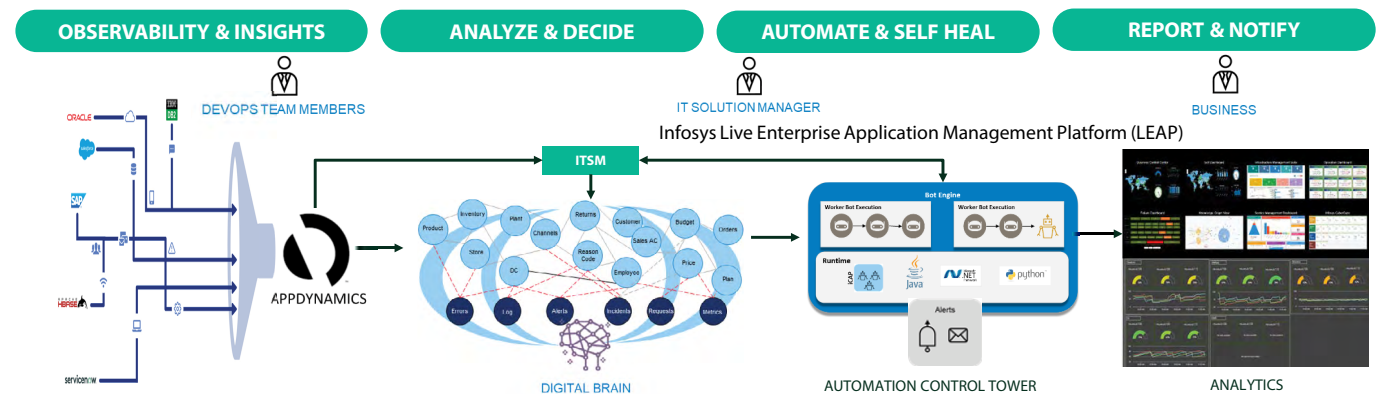
Infosys AI Operations Solution delivers on 4 key objectives of Next-Gen AMS

The Infosys AI Operations Solution is built on SRE principles, and constantly senses the signals coming from infrastructure, network, database servers and application components through AppDynamics' observability platform. The AIOps engine processes the signals by applying AI algorithms for correlations, anomaly detection, and prediction. Once a problem is predicted, actions like self-healing or notifications are triggered automatically by the cognitive automation components. Automated resolution can be orchestrated at a rapid pace either with front-end robotic process automation (RPA), or back-end digital workers (created by assembling multiple microbots together) as shown. Overall, it delivers on these 4 key capabilities:

Holistic observability, predictive analytics and cognitive BOTs

OBSERVABILITY & INSIGHTS — DEVOPS TEAM MEMBERS — APPDYNAMICS

ANALYZE & DECIDE — ITSM — DIGITAL BRAIN

AUTOMATE & SELF HEAL — IT SOLUTION MANAGER — Infosys Live Enterprise Application Management Platform (LEAP) — Bot Engine — AUTOMATION CONTROL TOWER — Alerts

REPORT & NOTIFY — BUSINESS — ANALYTICS

Observability and insights

AppDynamics gives intelligent insights from holistic telemetry of metrics, traces, and errors across the application landscape. It includes the enviro-topology and dependencies and can be extended to observe the user experience and behavior attributes.

Analyze and decide

The knowledge graph and the AI algorithm led analytics accelerate the root cause identification and nudges the support engineers with anomaly predictions. The digital brain applies advanced analytics to correlate and classify the alerts, metrics, and incidents. This gives a 360° view of the IT landscape and the business relationships for a more effective impact analysis.

Automate and self-heal

The cognitive automation control tower then helps in problem prioritization, recommendation of auto resolution with digital worker bots and completes the auto resolution of the issue. The digital workers can be quickly assembled with the help of 20K+ microbots available out of the box in the AIOps bot factory.

Report and notify

The platform also pivots the entire application management on business process KPIs and business outcomes vis-à-vis the traditional model of IT SLA led application management. Business and IT users will be able to focus attention on the right areas as the platform presents exhaustive dashboards of business process KPIs, value stream models showing the impact of IT disruptions to the upstream applications, business processes and critical business KPIs that matter to the client.

Why choose Infosys AI Operations Solution powered by Cisco AppDynamics for your landscape

CXOs today want far greater business value from application management than what traditional, reactive, and manually intensive solutions can provide. They need business-aligned and AI-led solutions that offer predictability, resiliency and better business outcomes. The mix of legacy applications, products and cloud hosted platforms create barriers to get end-to-end visibility. Infosys AI Operations Solution on Live Enterprise Application Management Platform powered by Cisco AppDynamics addresses all these expectations and challenges faced by clients. It also helps achieve optimization of IT operation using AIOps approach, and makes the application management proactive, self-healing, and aligned to business outcomes. Apart from these, the following differentiated features make Infosys AI Operations Solution the natural choice for clients to elevate their application management model:

1. Pre-built integrations through adapters reduces time-to-market and help realize value early on. Clients start seeing the benefits in days without having to wait for weeks and months

2. Hosted SaaS offering for Cisco AppDynamics and Live Enterprise Application Management Platform

avoids the need for clients to provision IT infrastructure and hence significantly reduces lead time of security reviews and approvals

3. Flexible consumption-based service catalogue pricing model and a very compelling bundled price for Cisco AppDynamics licenses

4. A solution that brings synergy by amplifying the platform capabilities of an industry leader in observability services. and a trusted managed services partner for navigating clients to next-gen application management

A phased approach for Next-Gen AMS with Infosys AI Operations Solution to accelerate time to benefits
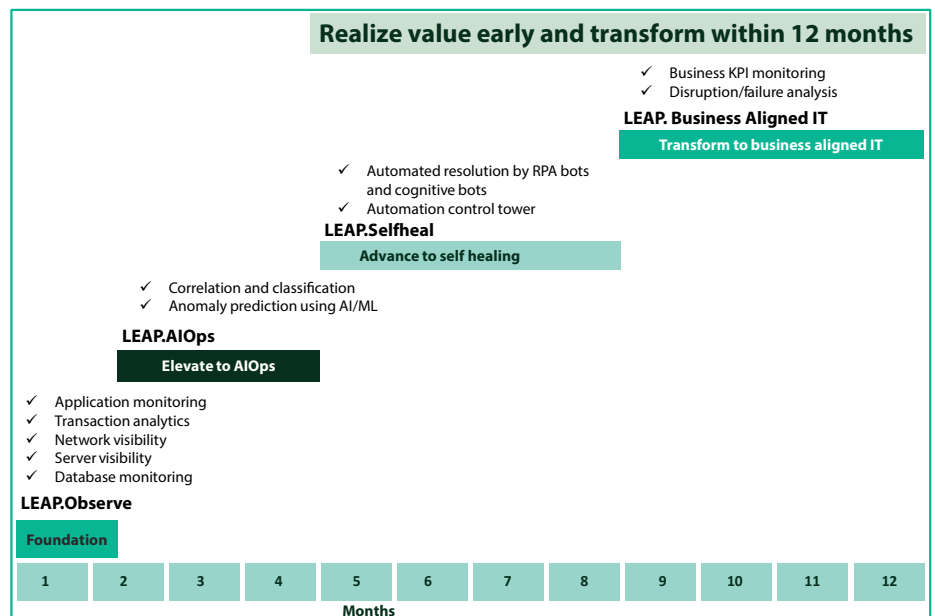
One of the critical success factors of any transformation program is the time to value, and clients would expect to see quick results from any solution. To cater to this, we have designed an implementation strategy, which provides value in the first 4 to 6 weeks and continues to make incremental progress iteratively. The target end-state of business aligned IT, where key applications are managed fully to achieve optimum business outcomes through a business process KPI-centric view can be achieved in 3 to 6 months.

This phased approach comprises of 4 phases as shown in the diagram:

1. **Foundation:** We begin with implementing the full stack observability services of AppDynamics for a select set of say 20 business critical applications and configure the observability services to get the right insights about the applications. If the client already has Cisco AppDynamics implemented in their landscape, then we can directly start with the Elevate phase

2. **Elevate to AIOps:** This is where we start ingesting the insights from Cisco AppDynamics into IInfosys Live Enterprise Automation Platform to proactively predict anomalies and disruptions. This is done by predictive analytics, correlation, and de-duplication of the telemetry data, by applying AIOps techniques

3. **Advance to self-healing:** In this phase, using the army of 20000+ microbots in the bot factory and cognitive automation studio, we start orchestrating auto remediations for the anomalies and disruptions identified by the Infosys AI Operations Solution. If the client has already invested in some RPA tool or other automation tools, then we could integrate them into the platform to achieve a unified automation solution across the client enterprise. This phase will be implemented in a fully agile model to visualize continuous value, where a set of automation solutions are released in every sprint of 4 to 6 weeks.

4. **Transform to business aligned IT:** Finally, we configure the solution to start monitoring the business process KPIs that matter and give a 360^0 IT view to show how the disruptions and incidents are impacting the business outcomes. The digital brain shows the relationships and associations of various entities across the IT stack and the applications to the business process and business KPIs. This helps the application management team to prioritize and focus on the right areas and right work items to minimize the impact to business.

Realize value early and transform within 12 months

✓ Business KPI monitoring
✓ Disruption/failure analysis
LEAP. Business Aligned IT
Transform to business aligned IT

✓ Automated resolution by RPA bots and cognitive bots
✓ Automation control tower
LEAP.Selfheal
Advance to self healing

✓ Correlation and classification
✓ Anomaly prediction using AI/ML
LEAP.AIOps
Elevate to AIOps

✓ Application monitoring
✓ Transaction analytics
✓ Network visibility
✓ Server visibility
✓ Database monitoring
LEAP.Observe
Foundation

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Months

Infosys Live Enterprise Automation Platform and Cisco Observability platform

Infosys Live Enterprise Automation Platform provides a platform centric approach to Application Management powered by a digital AI brain. The digital AI brain uses observability to sense the business and IT health, sentience to predict if something is going to disrupt. It also provides analytics to make intuitive decisions with best action and a cognitive automation studio for automating the actions, thereby helping our clients realize the vision of a live enterprise.

Unlike traditional AMS solutions which are targeted towards cost optimization, we are pivoting Live Enterprise Application Management Platform around user experience, business outcomes, reliability and agility apart from cost reduction.

1. **Experience Centric AMS:** operations aligned to customer needs to deliver superior experience

2. **Zero Touch AMS:** infuse optimal levels of automation and accelerated cloud adoption

3. **Resilient AMS:** reliable and available IT systems assuring continuity

4. **Outcome driven & Cognitive AMS:** business aligned, insights driven, learning, and improving always

5. **Innovative & Agile AMS:** digital tech innovations delivered fast through agile processes

Infosys Live Enterprise Automation Platform provides an integrated platform for Next-Gen AMS

Easy integration with client tools

One stop platform for AMS: Transition to transformation

Cloud First, flexible architecture
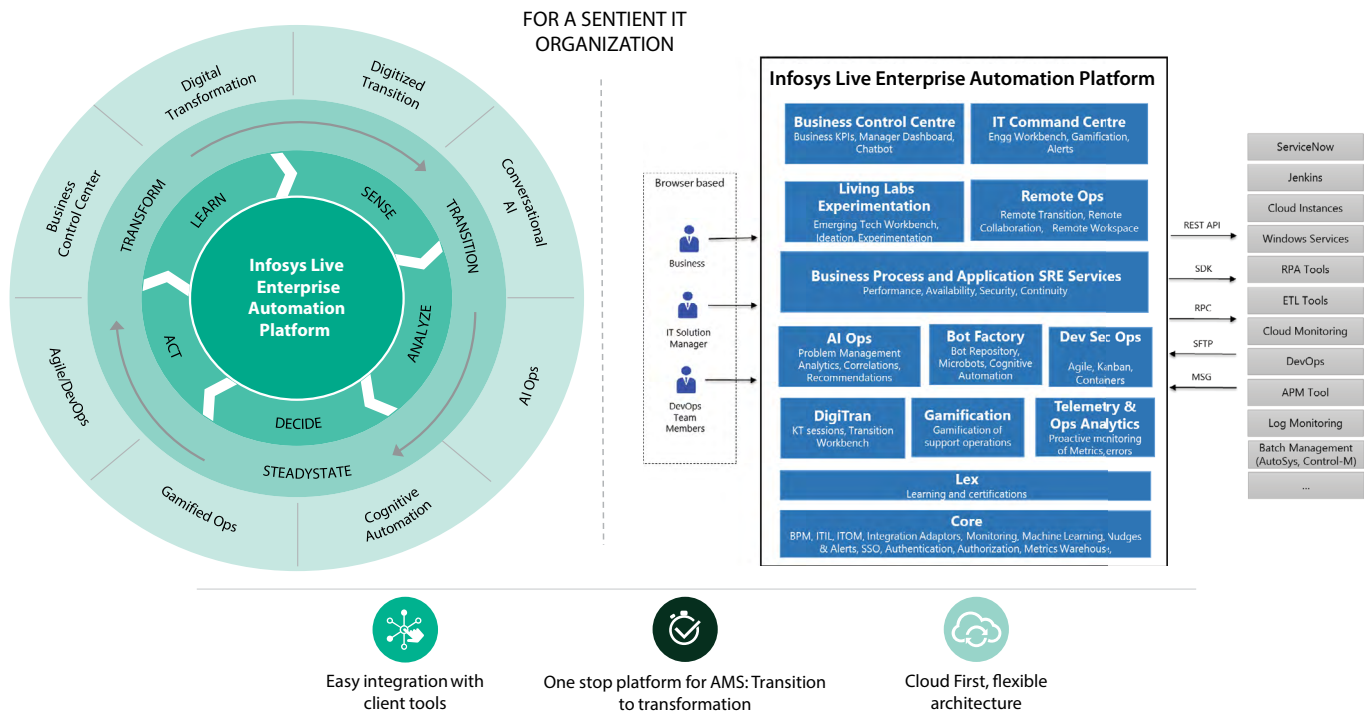
Full-stack observability delivers an architecture to transform your operations today with integrations across AppDynamics®, Cisco ThousandEyes, Cisco Intersight™, and Cisco Secure Application.

- AppDynamics adds the business context and correlation that enables teams to align and prioritize based on what matters most to their bottom line

- ThousandEyes integrations enable application performance to be correlated to the network and internet that connects users and services

- Application performance integrations with Cisco Intersight optimization services proactively ensures performance for application experiences, while minimizing cloud costs

- Cisco Secure Application in AppDynamics protects business-critical applications, while balancing the risk. It protects these applications regardless of their location, from the inside out at runtime and also maintains speed and uptime.

This full-stack observability solution enables you to deliver unmatched application experiences and streamlined operations. By centralizing and correlating application performance analytics across the full stack, IT teams can better collaborate to isolate issues and optimize application experiences. Our unique combination of full-stack observability and business telemetry gives you the power to prioritize your actions so you can deliver flawless customer experiences that drive revenue streams while accelerating digital transformation.

Getting started

Find out how your organization can infuse AIOps and cognitive automation into your application management to achieve tranquil operations and enhanced business user experience. Get started on your Next-Gen AMS journey – use the valuable data ingested from your application to generate intelligent insights that can trigger proactive remediations to eliminate disruptions before business processes get impacted. Learn more about Infosys Live Enterprise Application Management.

References

1. "Full-Stack Observability from Cisco At-a-Glance", Cisco AppDynamics
2. "Full-stack observability use cases", Cisco AppDynamics
3. "Agents of Transformation 2021: The rise of full-stack observability", Cisco AppDynamics, 2021
4. "Aligning IT To Business With A Next-Gen Application Management Solution Strategy", Infosys, Sep 2021

About the Authors

Praveen Rao Pejaver
Associate Vice President, Infosys

Praveen Rao Pejaver is an evangelist for next-gen application services at Infosys. As the Unit client solution head, he helps clients create solutions for the Live Enterprise driven by cloud and cognitive first principles. He has 3 decades of experience in the IT Industry across industry domains. Praveen can be reached at praveen_pejaver@infosys.com

Vineeth A V
Delivery Leader, Infosys

Vineeth A V is a Delivery Leader with over 20 years of IT consulting, program management and operations optimization experience. He is the evangelist for Live Enterprise platform for Next-Gen application management services at Infosys, bringing AI/ML platform led solutions in transforming Operations. He can be reached at vineeth_av@infosys.com

Jay Zammit
Vice-President, Channel Sales Engineering at Cisco AppDynamics

A highly experienced Systems Engineering Leader with over 33 years of experience working in various leadership positions across Application Performance Management (APM), AIOps, Cloud, Middleware, AppDev, Integration, Big Data, Analytics and IoT. He has a proven track record and reputation of being able to quickly understand the complex, break it down into manageable components, make decisions, and then effectively communicate in simple terms the vision, solution, and execution plan backed by strong technical understanding from both an architectural and implementation perspective across a broad set of capabilities. Jay can be reached at jay.zammit@appdynamics.com

Shashank Pandey
Senior Sales Engineer at Cisco AppDynamics

Shashank leads the Sales Engineering practice for SI Partners at AppDynamics. With 13+ years of industry experience, Shashank has been instrumental in deploying application monitoring and performance engineering solutions across several enterprise customers for SAP/non-SAP environments. He is a technical champion of the AppDynamics platform & has delivered several enablement sessions across global platforms. Shashank can be reached at shashank.pandey@appdynamics.com

For more information, contact askus@infosys.com

Infosys
Navigate your next

Infosys.com | NYSE: INFY

Stay Connected