HCLTech | CloudSMART

Transforming Enterprise Observability with IBM Instana

Fully automated and context-driven insights for optimal application performance

IBM Platinum Partner

The modern enterprise ecosystem has become increasingly complex. As modern applications, services and IT environments evolve, the complexity within these ecosystems will only increase. Traditional monitoring tools, designed for a simpler digital era, are now outpaced as they need help to offer the requisite visibility essential for managing the performance of contemporary environments.

This is where IBM Instana's Enterprise Observability Platform makes all the difference. It ensures comprehensive visibility into the intricacies of today's digital architectures by automatically ingesting observability metrics, tracing every request and profiling all processes.

Key challenges faced by enterprises globally

As companies strive to innovate and grow, they must also maintain optimal application performance and uptime despite rapidly expanding and evolving infrastructure. However, there are two key bottlenecks to their success.



Growing complexity in IT environments

As organizations scale their digital operations, their IT environments become increasingly complex, incorporating a mix of cloud, on-premises and hybrid models and containerized microservices-based applications. This complexity can obscure visibility into application performance, making it challenging to identify and resolve issues promptly. Before adopting comprehensive observability solutions like IBM Instana, many organizations relied on a patchwork of point solutions. While these tools aimed to enhance monitoring and incident response, they often fell short, requiring manual intervention, creating incident response backlogs and providing limited insights into the root causes of issues.



The visibility gap

A key business challenge in today's fast-paced digital landscape is the need for immediate and continuous visibility into critical applications. When applications are live, developers constantly race against time to mitigate bugs and minimize downtime. In scenarios where applications serve thousands of users simultaneously, even a minor delay or outage can have significant repercussions, including lost revenue, decreased customer satisfaction and damage to brand reputation.

IBM Instana – Simplifying complexity with observability

IBM Instana is the first and only fully automated Application Performance Management (APM) specifically designed to address the complexities of managing modern, microservice and cloud-native applications. It goes beyond traditional APM solutions by offering zero-effort, comprehensive visibility into every aspect of application performance.

Instana automates the observability process across various environments, including 250 microservice platforms and fourteen programming languages, from metric ingestion to request tracing and process profiling. This automation extends to the CI/CD pipeline, ensuring that every component of the application stack, along with its interdependencies, is continuously monitored. Changes are instantly recognized and analyzed, providing immediate feedback that enables DevOps teams to optimize application performance in real time.

IBM Instana delivers actionable insights with full context by integrating automatic Kubernetes monitoring, serverless support, and extensive cloud platform observability. This empowers teams to make informed decisions swiftly, enhancing pipeline efficiency and application reliability. Automated root cause analysis further streamlines problem resolution, making Instana an indispensable tool for modern IT operations seeking to thrive in an era of digital complexity.

Core features of IBM Instana

IBM Instana is designed from the ground up for modern architecture and is a comprehensive solution. It provides deep insights, automated analysis and proactive monitoring, which empowers teams to deliver stellar performance and exceptional user experiences. These outcomes are attributed to its core features, which include:

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Enterprise observability

Leverage automatically contextualized insights from correlated and analyzed data for intelligent actions, including:

- Comprehensive ingestion of every monitoring metric
- Full tracing of every request
- Detailed profiling of every process

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Application and services monitoring

Real-Time Performance Management: Attain in-depth visibility into your applications and services with real-time performance management to manage performance efficiently, with features like:

- Distributed request tracing
- Complete mapping of service dependencies
- Process profiling in production environments

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Websites end user monitoring

Enhance user satisfaction with detailed insights into browser performance, achieved through:

- Tracing and correlating every browser request
- Capturing and correlating JavaScript errors with source maps
- Providing granular navigation and resource timing views

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Infrastructure, containers and Kubernetes monitoring

Gain effortless control with advanced insights into infrastructure health with zero effort, supported by:

- Application performance correlation
- Automated continuous discovery
- 1-second metric granularity

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Performance and trace analytics

Deploy Unbounded Analytics™ to drill into any data point with flexibility, enabling:

- Filter-based analysis
- Distributed trace analytics
- Open-source tracing analytics
- Call tracing and code level analysis

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Alerting and root cause analysis

Quickly Identify service impacts to find and address the root cause of issues, with:

- Automated anomaly detection
- Correlation of events to their root causes
- Impact-based alerting

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Development pipeline and CI/CD feedback

Achieve faster application delivery by enhancing your DevOps with Pipeline Feedback™, offering:

- Integration with any tool via API
- Release markers on charts
- Comprehensive "before and after" health analysis

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Service dependencies and context

Context Guide™ for Dependency Impact: Instantly see how one component's issues affect others, through:

- Single-click understanding
- Identification of all service impacts
- Dynamic adjustments to the focused entity

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Use case based SmartAlerts™

Streamline alert management with automated and intelligent alerting by generating configurations, featuring:

- Alert management and scoping automation
- Real-world situational use case foundation
- Unlimited flexibility with unlimited dimensions

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Sample reports

Instana observability tools enable customized sample reports that automatically:

- Discovers and maps all services
- Ingests comprehensive observability metrics
- Captures and traces every individual request
- Profiles each process in real-time
- Correlates application dependencies for a complete view

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Monitoring and tracking

Instana operates on a real-time basis to continously track activity, which includes:

- Collective distributed trace for every application call
- Detailed component insights with display of components, timings and correlations for each call
- Comprehensive data coverage to ensure all critical data is captured accurately



IBM Instana's unique capabilities

No sampling

- Ensures comprehensive visibility by collecting and storing traces for 100% of application requests, leaving no transaction unmonitored
- Eliminates the risk of missing critical issues that could impact application performance and user experience

Real-time updates

- Provides updates with 1-second metric granularity, offering near-real-time insights into application and infrastructure health
- Enables swift detection and resolution of issues, minimizing potential downtime and performance degradation

Automated context discovery

- Automates the discovery and mapping of service dependencies and application architecture, requiring no manual intervention
- Keeps pace with dynamic environments, automatically updating maps and metrics to reflect changes in real-time

Versatile monitoring:

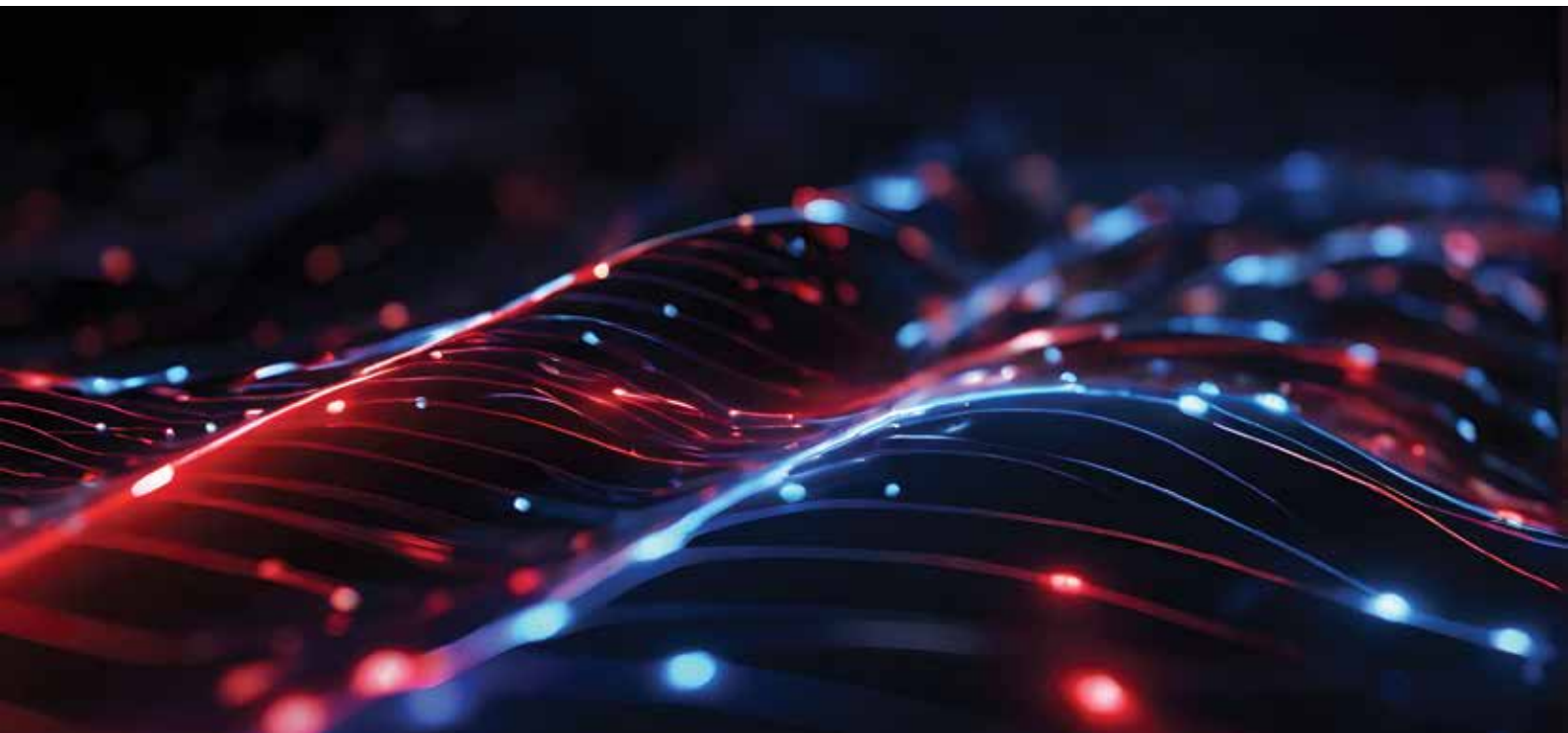
- Offers the flexibility to monitor a wide range of environments, from cutting-edge cloud-native applications to traditional legacy infrastructures
- Ensures consistent observability across diverse IT ecosystems, facilitating a unified approach to performance management

IBM Instana – Delivering business value

IBM Instana's advanced observability capabilities deliver measurable improvements in critical performance areas, helping businesses achieve faster incident resolution, higher application availability, increased operational efficiency and more frequent deployments.

These enhancements streamline IT operations, drive significant cost savings, and enable businesses to innovate rapidly, ultimately leading to a stronger competitive edge and improved customer satisfaction.

Key value offering	Key capability	Quantified value delivered
Quicker production incident resolution	• Proactive detection and automated resolution of production issues • Rapid identification and remediation limiting client impact	• 69% reduction in Mean Time to Detect (MTTD) • 52% reduction in Mean Time to Resolve (MTTR)
Improved application availability	• Real-time insights to identify bottlenecks and anomalies • Machine Learning-driven anomaly detection	• 16 milliseconds response time • 99.99% uptime
Increased operational efficiency	• Automated discovery and configuration of services • Noise filtering to reduce unnecessary alerts and streamline workflows	• 86% reduction in administrative overhead • 20% increase in free developer time
Higher deployment frequency	• Zero-configuration monitoring for infrastructure and applications • True automatic discovery ensuring comprehensive coverage	• 3x increase in deployments



Key value drivers enabled with IBM Instana

HCLTech and IBM Instana transform enterprise observability by enhancing operational efficiency and optimizing performance to drive business success. Here's how HCLTech and IBM Instana work together to empower enterprise outcomes:

Immediate root cause analysis and incident resolution

- Instana's proactive detection with real time insights and automated root cause analysis quickly identifies and resolves issues, minimizing impact on operations
- Significant reductions in Mean Time to Detect (MTTD) and Mean Time to Resolve (MTTR) streamline incident management, ensuring smoother operations

Automated discovery, configuration and workflows

- Instana automates the discovery and mapping of services, reducing the need for manual intervention for configuration and upkeep
- Automated workflows and context mapping provide streamlined operations with comprehensive visibility and control, enhancing efficiency and savings

Machine learning-driven anomaly detection

- Advanced machine learning algorithms detect anomalies and potential issues to provide predictive insights before they escalate, enabling proactive management
- Instana's intelligent alerts provide actionable insights, allowing teams to focus on critical tasks and reduce noise from unnecessary alerts

Full trace dataset for code-level bottleneck identification

- Instana's comprehensive tracing capabilities allow us to collect and analyze distributed traces for every application call, providing a complete picture of system performance
- Detailed trace data identifies bottlenecks and performance issues at the code level, facilitating precise optimizations

Prioritize reliability investments with full context

- Instana provides contextual analysis as it correlates metrics, traces and profiles across the entire application stack, offering a holistic view of system health
- With comprehensive context, organizations can make informed decisions, prioritize reliability investments effectively, focusing on areas that yield the greatest impact

Optimize performance with contextual insights

- Continuous real time monitoring with 1-second metric granularity ensures up-to-date insights into application and infrastructure performance
- Contextual insights enable targeted performance tuning, enhancing application responsiveness and user experience

Key differentiators of working with HCLTech

HCLTech stands out in the industry through unique strengths and a steadfast commitment to client success. Our distinctive approach and proven expertise set us apart, ensuring we deliver unparalleled value to our clients.

Client-centric approach	• At HCLTech, our clients' success is our top priority. This dedication is embedded in our DNA and recognized universally by our customers • Our focus on client satisfaction has resulted in best-in-class satisfaction and renewal rates, acknowledged by advisors and analyst firms
Proven expertise	• With decades of experience across various industries, HCLTech brings a wealth of knowledge and insights to every project, ensuring tailored and effective solutions • We leverage the latest technologies, including AI, machine learning and advanced analytics, to drive innovation and deliver cutting-edge solutions
End-to-end service capability	• From strategic consulting to implementation and managed services, HCLTech offers a full spectrum of services to solve technology-led business challenges • Our holistic approach ensures seamless integration of services, providing clients with a unified solution that addresses all their needs
Global delivery model	• With a global presence and scalable operations, we support clients of all sizes, from growing start-up businesses to large enterprises • Our global delivery model includes multiple Centers of Excellence to ensure continuous support and service availability, regardless of time or location
Innovation and agility	• We excel in deploying solutions quickly and efficiently, helping clients adapt to changing market conditions and technological advancements • By employing agile methodologies, HCLTech ensures flexibility, responsiveness and faster time-to-market for our clients
Robust partner ecosystem	• HCLTech collaborates with leading technology providers such as IBM to deliver integrated solutions that leverage the best available technologies • Our partnerships foster a collaborative ecosystem that drives innovation and enhances the value we deliver to our clients

HCLTech | Supercharging Progress™

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