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Role of Newrelic To Monitor Application Performance

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New Relic plays the role of a comprehensive **observability platform** and is a leader in **Application Performance Monitoring (APM)**.[1] Its primary function is to provide real-time, deep visibility into the performance, health, and reliability of applications, microservices, and the entire technology stack.[2]
Here is a breakdown of New Relic's key roles in application performance:

1. Application Performance Monitoring (APM)[3]

This is New Relic's core offering. Its main role is to instrument your application code (using language agents for Java, .NET, Node.js, Python, etc.) to collect, analyze, and visualize crucial performance data.[4]

- **Code-Level Diagnostics:** It tracks individual transactions and traces them down to the exact line of code, helping developers quickly pinpoint the source of performance bottlenecks (e.g., slow functions, inefficient loops).[5]
- **Transaction Tracing:** It records the lifecycle of a request as it moves through various application components, database calls, and external services, showing where latency is occurring.[6]
- **Key Performance Metrics:** It monitors the "golden signals" of application health:[7]
  - **Response Time:** Measures the speed and efficiency of the application.[8]
  - **Throughput:** Tracks the number of transactions processed per minute.[9]
  - **Error Rates:** Quantifies the frequency and types of errors to assess stability.[10]
  - **Apdex Score:** Provides a user-centric measure of satisfaction based on response time thresholds.[11]

2. Full-Stack Observability[12]

New Relic moves beyond just the application to provide a unified view of the entire system, helping correlate application issues with infrastructure problems.[13]

- **Infrastructure Monitoring:** Tracks the health and performance of underlying hosts, servers, containers (e.g., Kubernetes), and cloud services (AWS, Azure, GCP).[14]
- **Log Management:** Centralizes log data and correlates it with performance metrics and traces, providing context for troubleshooting.[15]
- **Distributed Tracing:** Essential for modern microservices architectures, it tracks a single request across all the services it touches to identify performance degradation points in a complex, multi-service environment.

3. Proactive Issue Detection and Alerting[16]

New Relic shifts teams from reactive troubleshooting to proactive problem solving.[17]

- **Real-Time Alerts:** Allows users to set specific thresholds for critical metrics (e.g., response time, CPU usage).[18] When a threshold is breached, it automatically triggers an alert, notifying teams before an issue becomes an outage.[19]
- **Anomaly Detection (AIOps):** Uses AI and machine learning to automatically detect unusual behavior or performance deviations that fall outside of normal operating patterns.[20]
- **Synthetic Monitoring:** Simulates user interactions from various global locations to proactively test the application's availability, performance, and functionality.[21]

4. Enhancing User Experience (UX)[22]

New Relic provides tools to monitor the performance of the application as experienced by actual users.[23]

- **Browser Monitoring (RUM):** Tracks the real user experience (RUM) by monitoring page load times, AJAX requests, and JavaScript errors from the end-user's browser.[24]
- **Mobile Monitoring:** Monitors the performance and crash rates of iOS and Android mobile applications.[25]

In essence, New Relic's role is to provide the data, insights, and tools necessary for development, operations, and business teams to **monitor, analyze, optimize, and secure** their software, ultimately ensuring reliability and a positive customer experience.

What is business observability?

From a financial perspective, technology is a black hole. Many organizations struggle with quantifying the business impact of technology. For example, only 27% of the 2023 Observability Forecast survey respondents said their telemetry data includes business context to quantify the business impact of events and incidents. This is often due to a lack of visibility and data silos between technology and business teams. Connecting the dots back to the business after the fact can be difficult and reactive, resulting in obsolete, non-actionable insights. It shouldn't be an afterthought.

Business observability is the art of capturing, measuring, and managing the live interaction between technology and capital (telemetry data and business analytics). It can help eliminate data silos by actively aligning monetary costs and revenue impacts to the performance of systems, applications, and processes. In other words, it correlates performance with key business results in real time.

When you implement business observability practices, you get visibility into how your applications and infrastructure impact your business so you can make data-driven decisions and achieve significant financial gains.

Business observability process

01
Establish business objectives.
Identify a revenue goal, risk, customer impact, user engagement, or operational efficiency to improve.

02
Capture data from all sources.
Instrument telemetry data from all aspects of the business, including technical components, user interactions, and third-party services.

03
Quantify the financial impact of business metrics.
Measure and assess the effect of system performance on revenue, costs, and customer satisfaction.

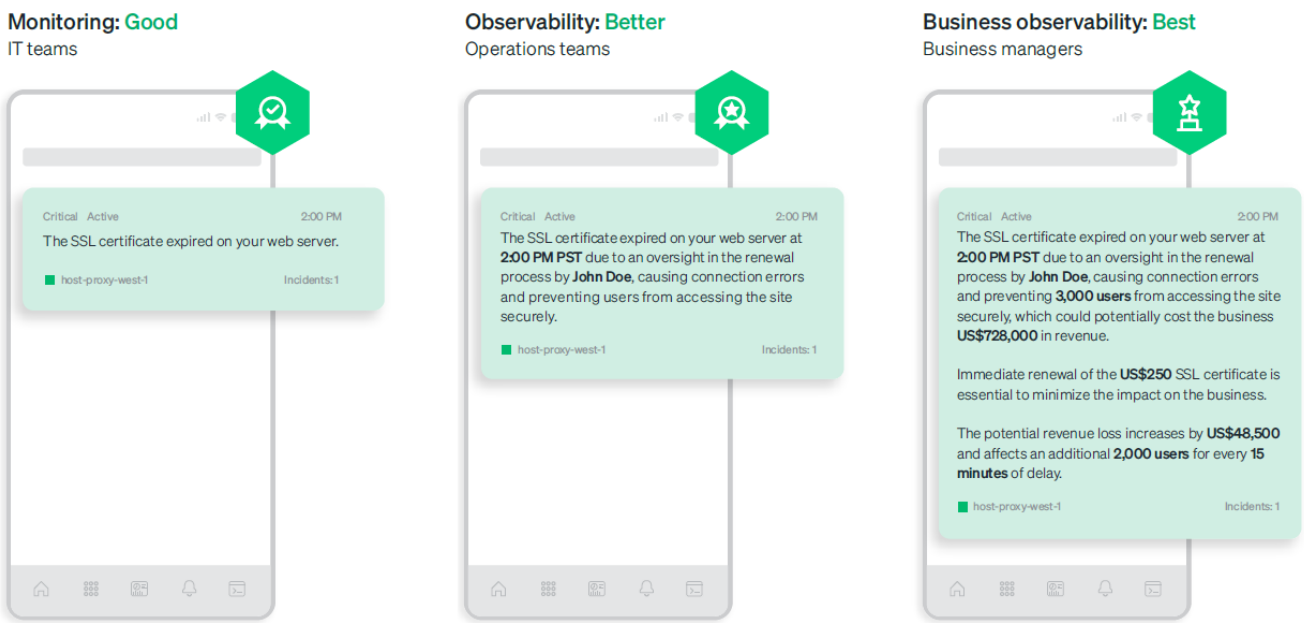
04
View live metrics.
Use advanced visualization to capture real-time activity, track progress toward business objectives, and identify emerging trends or issues.

05
Quickly make data-driven business decisions.
Immediately prioritize and address issues or improvements based on their business impact.

06
Achieve positive business outcomes.
Quantify the results of attaining key business objectives.

Monitoring vs observability vs business observability

But first, let's look at an example of the difference between monitoring, observability, and business observability.



Business observability in action

Now let's look at some common examples by industry.

	Financial services	Media streaming	Retail and ecommerce	Telecommunications
Data sources	• Mobile banking apps • Web-based platforms • ATM networks • Payment gateways • Third-party APIs	• Streaming servers • Content delivery networks (CDNs) • User streaming devices • User interaction on the platform • Payment gateways • Advertising platforms	• Websites • Mobile apps • Payment gateways • Shipping APIs • Customer service portals	• Network equipment (routers, switches, servers) • Customer devices (phones, modems) • Call detail records (CDRs) • Billing and customer relationship management (CRM) systems • Third-party APIs and services
Business metrics	• Transaction success/failure rates • Fund transfer speeds • Loan processing times • Customer engagement time • ATM uptime • Third-party service availability • Net promoter scores	• Stream start times • Buffering times • Advertising layers • Video quality • Subscriber growth and churn rates • User engagement with content • Payment success/failure rates	• Page load times • Conversion rates • Payment success/failure rates • Shipping delays • Customer satisfaction scores	• Network latency • Packet loss • Call drop rates • Network use • Customer churn rates • Service activation times • Billing accuracy
Business outcomes	• Visualize the entire customer journey. • Identify patterns and pain points. • Predict customer behavior. • Enable personalized offerings. • Ensure regulatory compliance.	• Optimize content delivery. • Personalize user experiences. • Predict viewing trends and potential service disruptions. • Ensure a high-quality streaming experience. • Boost subscriber growth and retention.	• Visualize the entire customer journey. • Identify transaction friction points. • Optimize the supply chain. • Personalize marketing efforts. • Predict trends in customer behavior, sales, and inventory management.	• Optimize network coverage. • Ensure equipment efficiency. • Tailor service plans based on usage patterns. • Predict network disruptions, traffic spikes, or changes in usage trends. • Make proactive maintenance and service adjustments.

What's the best platform for business observability?

New Relic is the first observability platform to provide 100% telemetry data coverage for true business observability. The New Relic database is a telemetry data platform with a large Kafka engine that provides programmability for business observability.

All MELT are stored together in a single database, enabling you to correlate all your telemetry data across your entire stack in one place, sort through the data, and instantly query it in real time (while the data is moving).

Your provisioned users automatically get access to the power of the New Relic database and 30+ observability capabilities, including log management, APM, infrastructure monitoring, mobile monitoring, browser monitoring, AIOps, generative AI (GenAI), security monitoring, and more.

Business observability capabilities

The New Relic platform includes many capabilities that can help you achieve business observability.

Dashboards
Visualize critical key performance indicators (KPIs) for your business alongside technical metrics. Custom dashboards can help stakeholders assess the financial impact of system performance and make data-driven decisions quickly.

Digital experience monitoring
Analyze user interactions and conversions by improving the overall digital experience. Digital experience monitoring (DEM)—which includes browser monitoring and mobile monitoring (together known as real user monitoring or RUM) plus synthetic monitoring—can help you identify performance bottlenecks, reduce customer churn, and increase revenue.

Generative AI
Leverage the power of leading large language models (LLMs) with the breadth of our unified telemetry data platform to unite business decisions with full-stack insights. New Relic AI lets you discover cost-saving opportunities, optimize resource usage, and uncover hidden revenue potential across your tech stack using natural language prompts.

Quickstarts
Accelerate your implementation process with New Relic Instant Observability, a catalog of 750+ quickstarts that include pre-built configurations. Quickstarts can help you reduce time-to-value and enable faster insights for cost optimization and revenue enhancement.

Service-level management
Align service performance with business objectives by setting and tracking service-level objectives (SLOs). Service levels can help you minimize the financial impact of downtime and poor user experiences.

Workloads
Group applications, services, and infrastructure by business function Workloads can help you provide more effective resource allocation, cost control, and prioritization based on business value.

About New Relic

As a leader in observability, New Relic empowers engineers with a data-driven approach to planning, building, deploying, and running great software. New Relic delivers the only unified data platform with all telemetry—metrics, events, logs, and traces (MELT)—paired with powerful full-stack analysis tools to help engineers do their best work with data, not opinion.

Delivered through the industry's first usage-based pricing that's intuitive and predictable, New Relic gives engineers more value for their money by helping improve planning cycle times, change failure rates, release frequency, and mean time to resolution (MTTR). This helps the world's leading brands and hyper-growth startups to improve uptime, reliability, and operational efficiency and deliver exceptional customer experiences that fuel innovation and growth