

# Building Resiliency into the DevOps Cloud

Using AI and Automation  
for Unbreakable Continuous Delivery



Dynatrace leverages the Dynatrace API and software intelligence platform to integrate your DevOps tool chain and collaborate engineering and production for excelled auto-remediation and auto-remediation-as-code — on any platform, cloud or stack — without human intervention.



## The Challenge

While cloud, containers, and microservices lead the way for the efficient scaling of DevOps in the cloud, vast complexity, dependencies, manual operations, and a lack of real-time information increase business risk.

- Problem triage time and MTTR exceed acceptable levels
- Lack of visibility into problems that impact prioritizing
- Similarities in engineering and prod on root cause but no coordination
- Scripts exist but are manually executed

Automation can help a host of common problems. It can build resiliency into your cloud pipeline, increase the quality of software performance in production, and lower your operational risk.

*Automatic performance and dependency analysis across the tool chain and stack enables developers to fully understand issues and bottlenecks between critical services across development and production environments.*

## Dynatrace for Automation of Powerful Remediation

Take common, or time-consuming, corrective actions and make sure they never happen twice. Automate them and make your system more resilient and robust! Dynatrace's AI and automation helps dev and prod with:



**End-to-end coverage** for a single integrated view across the end-to-end pipeline including API's for ingestion of tool chain metrics.



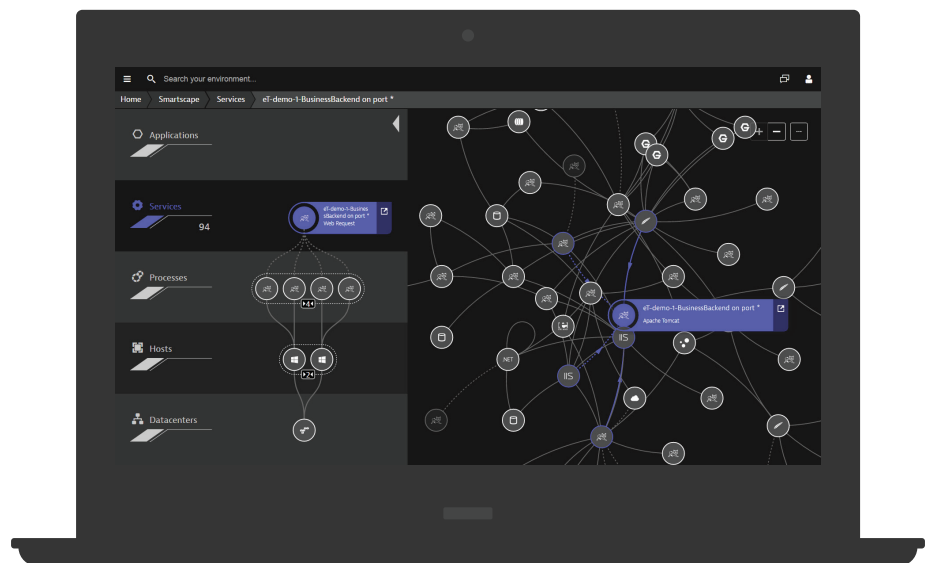
**Superior data collection** through auto-instrumentation of even the largest environments with zero manual configuration.



**Causation-based AI engine** for precise determination of problem root causes, their origin and their severity based on real user and business impacts.



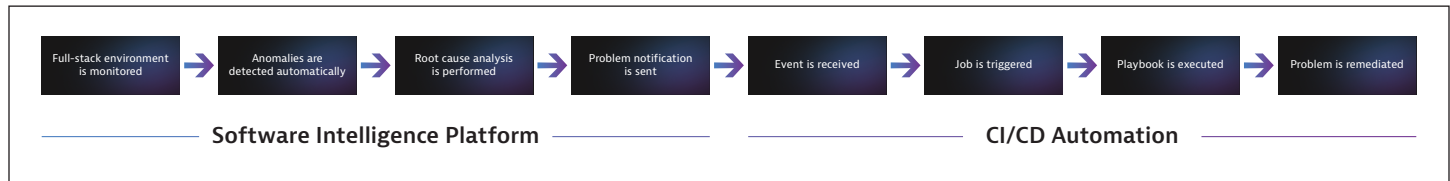
**Powerful auto-remediation** procedures through the integration of Dynatrace software intelligence with CI/CD, workflow and cloud configuration tools.



## AI and automation for unbreakable continuous delivery

Ops and dev team to learn from every problem in production and work closely to build and share frameworks to develop and extend the delivery pipeline to automatically validate and deploy auto-remediation.

- Shift-left and build quality into CI/CD versus repairing issues in production
- Auto-remediate issues and auto-update ticket system on problem / remediation action details
- Shift-right and execute auto-remediation-as-code baking resilience right into the code pack



## Auto-remediation through existing integrations with ITSM, CI/CD and workflow solutions as well as open APIs

Dynatrace Software Intelligence Platform	Conventional AIOps tools
Enables truly autonomous operations	Focuses on alert noise reduction
Uses deterministic AI and fault tree analysis to automatically identify anomaly root cause with unmatched accuracy and reliability	Uses machine learning to correlate problem alerts. Human operators identify the actual root cause
Determines severity of anomaly by measuring real-time impacts on users and business KPIs	Rough estimates of severity based on statistical correlation with historic data
End-to-end coverage of hybrid cloud environments with high-fidelity and context rich monitoring data	Ingestion of data of varying quality from disparate sources
Low cost of ownership through automatic instrumentation and zero manual configuration	High maintenance efforts due to manual configuration and adoption to system changes
Auto-remediation through existing integrations with ITSM, CI/CD and workflow solutions as well as open APIs	Limited options for automation due to a lack of analytic precision

"The AI paves the way for autonomous operations, enabling us to create auto-remediation workflows that remove the need for human intervention."

— Jonathan Hayes  
VP of Global IT Service Excellence at Experian



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Dynatrace provides software intelligence to simplify enterprise cloud complexity and accelerate digital transformation. With AI and complete automation, our all-in-one platform provides answers, not just data, about the performance of applications, the underlying infrastructure and the experience of all users. That's why many of the world's largest enterprises trust Dynatrace to modernize and automate enterprise cloud operations, release better software faster, and deliver unrivalled digital experiences.

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