

# Application Observability for Cloud-Native Microservices



## Challenges Debugging and Monitoring Apps

Microservices allow organizations to focus on business logic, leaving non-functional concerns to AWS. Stateless and distributed, microservices applications are hard to debug and troubleshoot on cloud. Just like any application, microservices applications experience performance problems. Software code fail to execute or take a long time to run, becoming costly performance issues difficult to identify and address. It is frustrating to rely on log piles to find the root-cause of an error if it's your code or an external dependency. Developers must manage debugging, monitoring, troubleshooting, as well as performance optimization at the same time.



## Thundra APM's Solution Observability for Modern Cloud Applications

Built for end-to-end observability, Thundra provides deep performance insights into microservices workloads. Thundra enables software teams to take actions faster to improve the distributed business workflows of cloud applications where data is spread across multiple managed services and third-party APIs. Thundra eases the debugging process with distributed and local tracing of cloud applications. Thundra improves MTTR and consolidates to one platform what used to require multiple costly and disconnected tools to monitor applications, detect issues, alert, debug, troubleshoot, optimize costs, and prove continual performance optimization.

## Benefits

Build healthy cloud applications by discovering issues, understanding root causes, and taking rapid actions.



### Discover Bottlenecks

Detect issues 50% faster by visualizing the serverless architecture aggregated by distributed and line-by-line traces, metrics, and logs viewed in a single pane.



### Troubleshoot in Minutes

Reduce MTTR by 60% with Thundra's actionable real-time alerts. Assess business impact and take rapid actions.



### Optimize Cost

Reduce your bill up to 40%. Identify resource costs and improve resource utilization where necessary.



### Auto Distributed Tracing

Understand your distributed applications' behavior end-to-end, ensure application health with auto instrumentation.

## Thundra on AWS

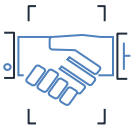
AWS enables software teams to deliver modern applications with managed serverless services. Thundra is an AWS APN Advanced Technology Partner and DevOps competency holder. Thundra APM provides observability & security for modern application teams to safely accelerate software delivery. It enhances AWS serverless technology integration with real-time application performance, and proactive monitoring across development, testing, and production environments while AWS manages the entire infrastructure for the customer. Getting started is made easy with AWS CloudFormation and Lambda Layers. Thundra APM monitors Amazon ECS, Amazon EKS, AWS Fargate, AWS Lambda and many other AWS managed services, and third-party APIs.

## Features



### Trace Distributed Transactions End-To-End!

Trace your distributed transactions end-to-end and understand the root causes of the errors and latencies of your distributed applications by automated tracing. Thundra provides true end-to-end management of distributed applications across serverless architecture, containers, as well as virtual machines.



### Record and Replay Debugging

Thundra's offline-debugging enables you to step over each code line of your application after the execution and track the values of the local variables. It is just like replaying the execution exactly in the same cloud environment. You can debug your event-driven architectures and uncover the unknowns.

## Case Study: GotPhoto Inc.



### Challenges

Discovering the root cause of errors and difficulties responding to the problems of specific customers were big challenges for GotPhoto. Another crucial issue was discovering the reason behind latencies.



### Solution

GotPhoto filled the deficiency of error troubleshooting with Thundra's end-to-end tracing capabilities. Thundra enhanced the efficiency of tracking issues specifically related with selected customers.



### Results

Thundra helped GotPhoto gain visibility on its serverless architecture and brought insight into trackable errors. MTTR was automatically reduced by 60% and application health jumped up by 50%.

## Get started with Thundra APM on AWS

Visit AWS Marketplace or [www.thundra.io](http://www.thundra.io) to purchase or start for "free" today.