# Diagnostic Tools

Dynatrace Training Module

dynatrace

# Agenda

- CPU Profiler & Code Level Analysis

- Memory Dumps

- Process Crash Analysis

- Exception Analysis

- Top Database Statements

- Top Web Requests

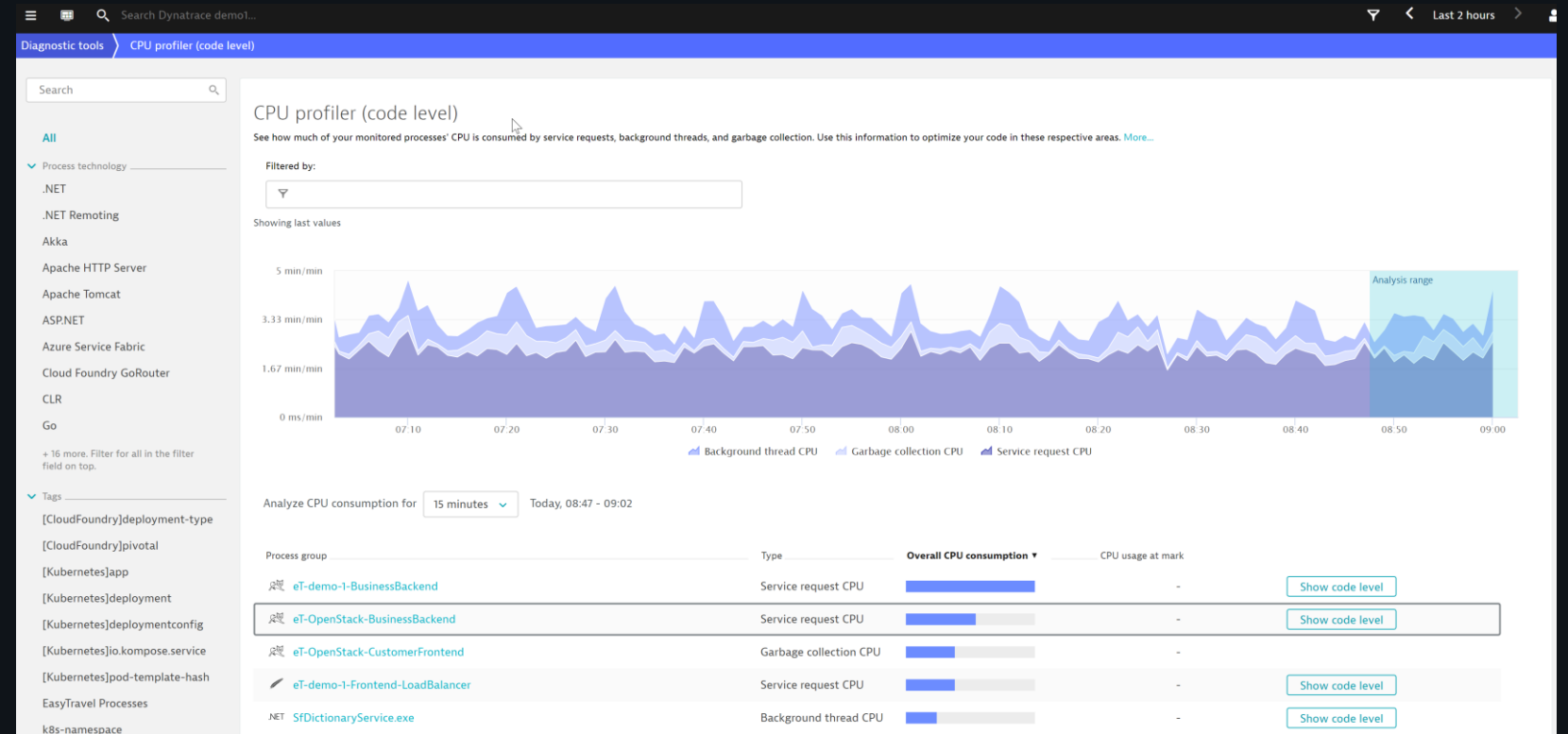# Diagnostic Tools

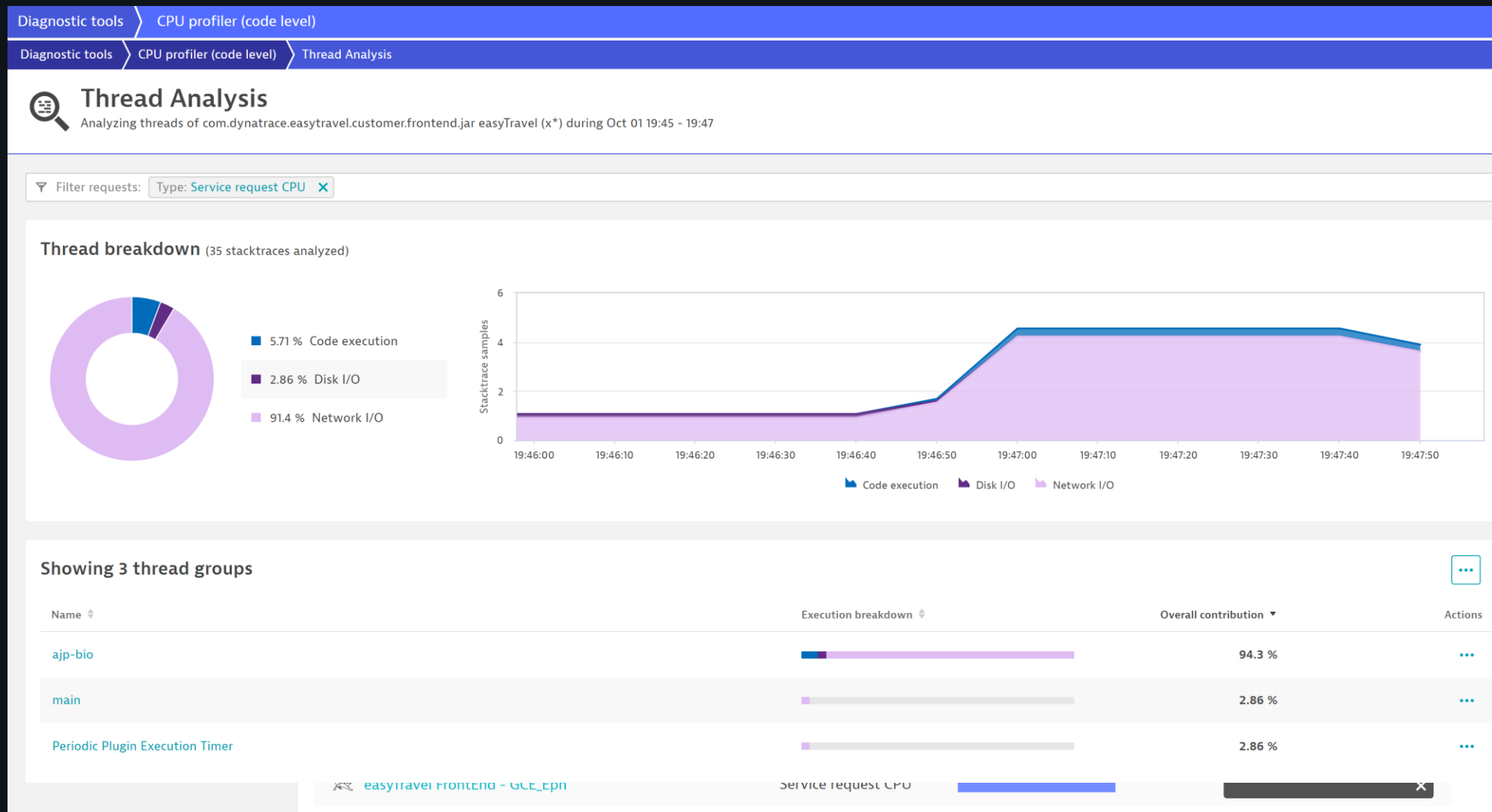## CPU Profiler & Code Level Analysis

# Continuous Thread Analysis

- Continuous Thread Analysis for Java is now available in Early Adopter mode.

- Enable under the Settings -> Server-side service monitoring -> Deep monitoring -> New OneAgent features

| Continuous thread analysis | Early adopter | Java | 1.175 | yes | | |
|---|---|---|---|---|---|---|

Description: This feature enables the continuous thread analysis on java processes. You can find this feature in the CPU profiler in the diagnostic tools.

Release notes: http://www.dynatrace.com/news/blog/oneagent-activegate-release-notes-version-1-175

# Continuous Thread Analysis

# Diagnostic Tools
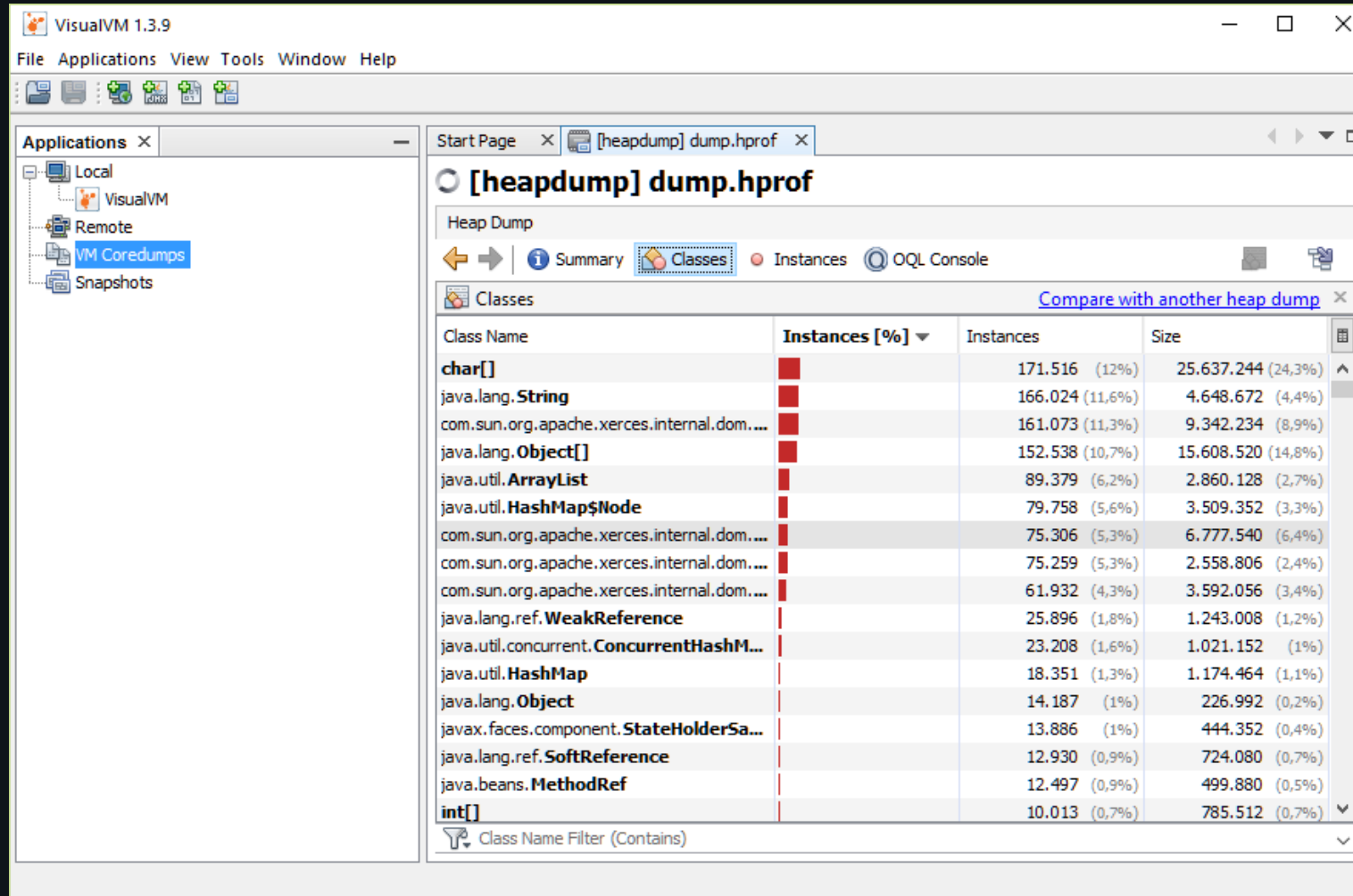
## Memory Dumps

## Memory Analysis

- Memory dumps are first stored locally on the disk of the monitored application-server machine

- The dump can then be uploaded to a specially configured ActiveGate for storage
  - The provided download links direct you to the Environment ActiveGate that received that memory dump
  - This approach ensures that dumps are only available to users who have access to the network location of your Environment ActiveGate

- This precaution provides an additional security layer that ensures that no sensitive data leaves your data center without you explicitly configuring it that way

- Dump downloaded in hprof format for Java apps (with exception of IBM JVM which is in IBM Portable Heap Dump (PHD) Format
  - Analyze dump using your preferred tool such as Eclipse Memory analyzer or VisualVM

# Analyzing dump in VisualVM

# Analyzing Node.js dumps

- Node.js memory dumps are also supported

- These can be opened in Google Chrome's integrated memory heap snapshot analysis tool

# Limitations

- Currently supports only Java, .NET, and Node.js

- Memory dumps are not yet available for PaaS integrations

- Your application server must have adequate space available to store the heap dump

## Diagnostic Tools

## Process Crash Analysis

# Sensitive User Data

- Crash reports may contain sensitive personal information that should not be viewed by all users

- For this reason, your Dynatrace administrator must enable the 'View logs' account-security option in your user profile before you can view sensitive data

# Cleanup

- The log and support alert directories are cleaned up automatically.

  - For support alerts, we process the core dump, then zip it and keep it in order to be sent to cluster

  - For crashes (non-instrumented processes or instrumented ones where we decide Dynatrace is not at fault), we process and then delete the copy of the core dump

# Diagnostic Tools

# Exception Analysis

# Diagnostic Tools

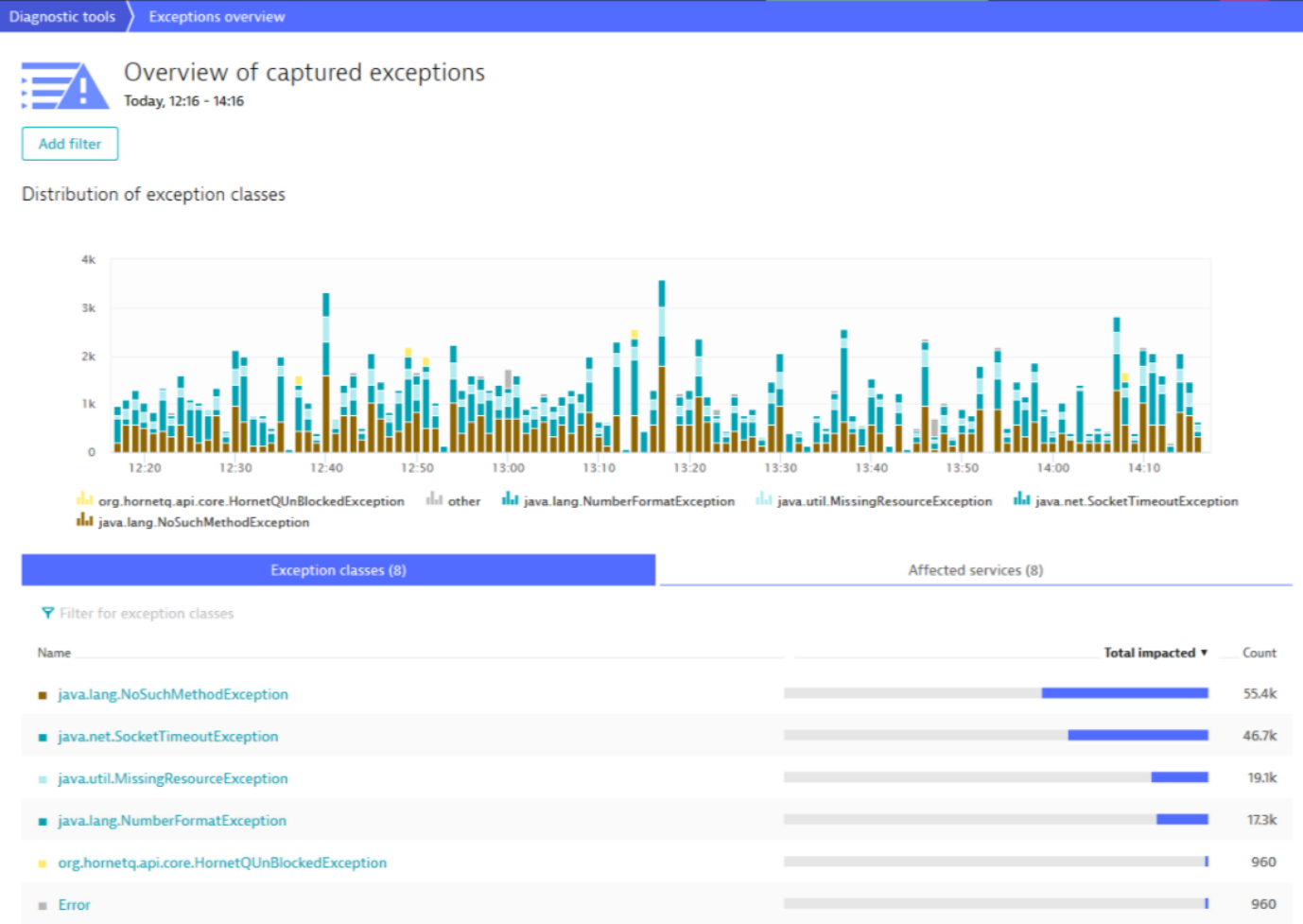## Top Database Statements

## Diagnostic Tools

## Top Web Requests
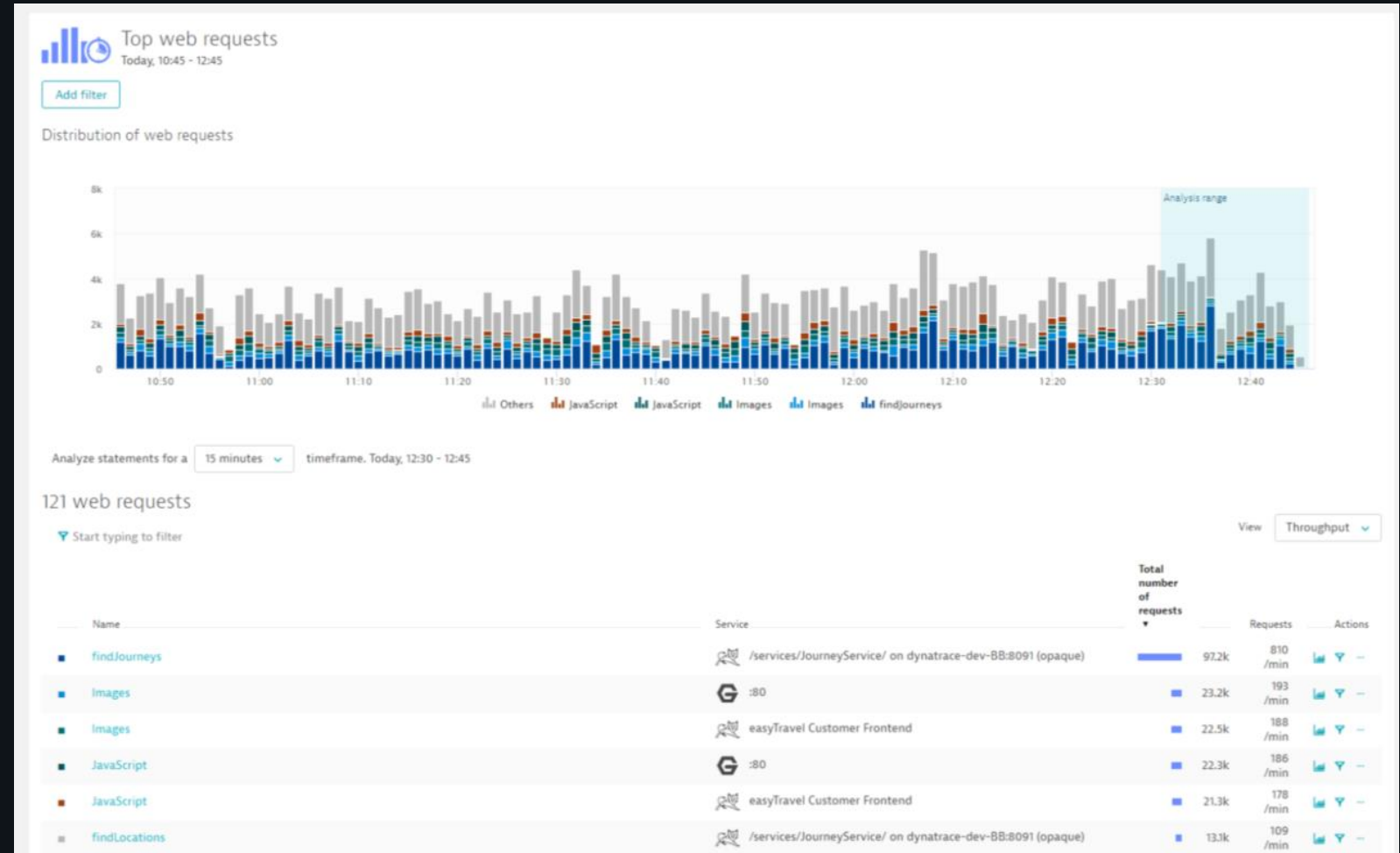
# Questions?

Simply smarter clouds