New Technologies – Docker, CloudFoundry and NodeJS

Stig Skilbred, Sr. Presales Consultant

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Applications are Architected Differently

Monolithic

(Tightly-coupled dependent, waterfall, change intolerant)

Microservices

(Agile, loosely-coupled, independent, continuous delivery)

Why Microservices?

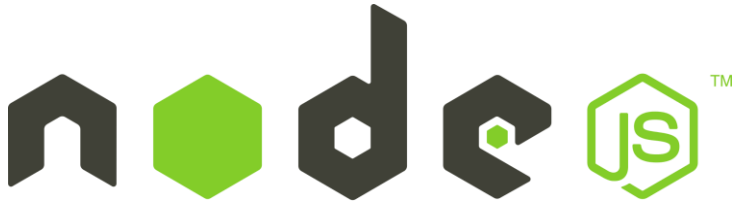
Portable

Flexible

Speed

BRING APPS & DIFFERENTIATION TO MARKET QUICKLY

Enabling Technologies & Enterprise Adoption



- All-Time Leader in Enterprise Buying Intention [1]
- 94% are either using or investigating the technology [2]
- 65% expect to deploy containers in production in the next 12 months [2]

- JavaScript top spot for programming languages - ***RedMonk*** [3]
- "the biggest shift in enterprise development in more than a decade"- ***Forrester Research*** [4]
- Used by Uber, Netflix, Walmart, LinkedIn, PayPal, New York Times, Groupon.. more

- Used in two of the top three US insurance companies, two of the top three North American telecommunications companies and seven Fortune 500 industrial companies [5]
- to be installed "in 20%-35% of the Fortune 500" [6]

....just a few, many more

[1] https://d3oypxn00j2a10.cloudfront.net/assets/img/ETR%20Net%20Score/ETRNetScore.pdf
[2] http://www.enterprisetech.com/2015/06/17/barriers-to-container-adoption-persist-survey-finds
[3] http://redmonk.com/sogrady/2015/07/01/language-rankings-6-15/
[4] http://www.infoworld.com/article/2907190/javascript/javascript-will-lead-a-massive-shift-in-enterprise-development.htm
[5] https://pivotal.io/platform/press-release/pivotal-cloud-foundry-record-breaking-fastest-first-year-sales-growth-for-an-open-source-product
6 http://www.informationweek.com/cloud/platform-as-a-service/cloud-foundry-pros-and-cons/d/d-id/1320427

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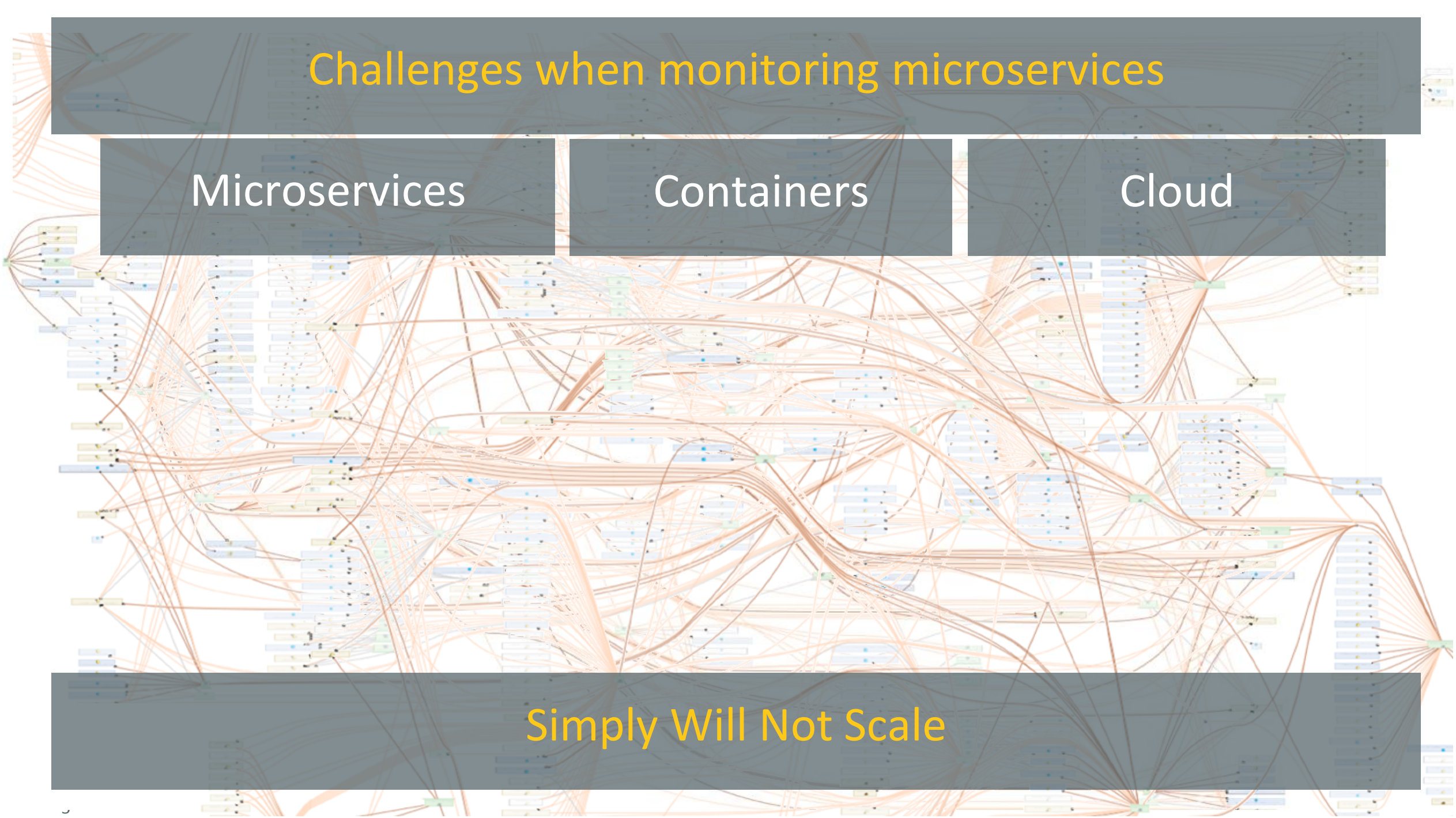
Challenges when monitoring microservices

Microservices

Containers

Cloud



Simply Will Not Scale

Elegance @Scale

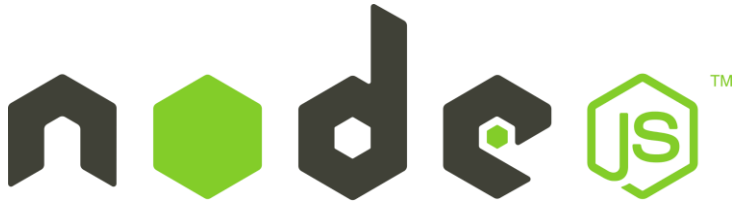
Smart Instrumentation
- Collect what you need when you need it

Scale Monitoring
- Monitor @scale and clustering

Ease Administration
- Get control with CA APM ACC

Simply Visualize Large Complex Data
- CA APM Team Center Perspectives role-base task views based on pivotable attributes

Support for Modern Development Technologies



Monitor apps deployed to Docker containers with java agent

Collects basic container health metrics (Field Pack)

Visualize app performance and Docker health in one view

Real time monitoring of Application and Node.js health/performance

Automatic collection of deep dive diagnostic details

Easily install and deploy agents without having to modify the Node.js app source code

New Node.js agent

Easily monitor apps deployed using CF java build pack

Collects basic health metrics from Pivotal CF (Field Pack)

Visibility into application performance and CF Pivotal health

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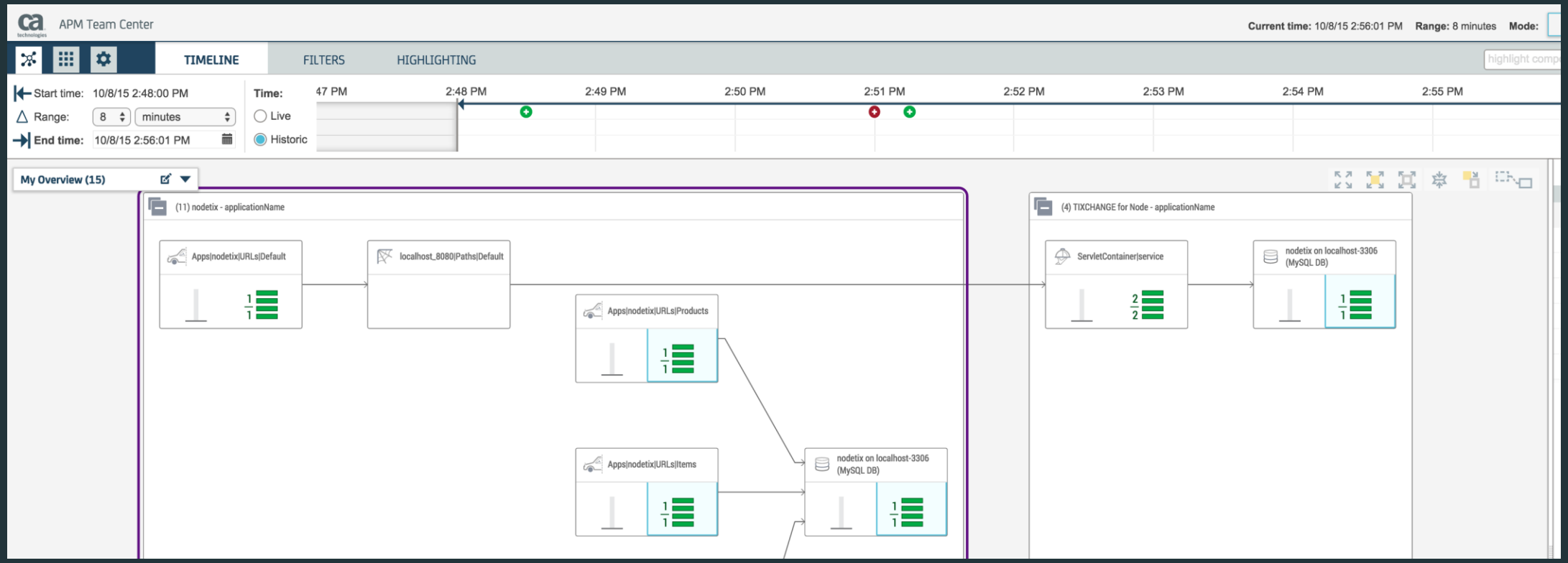
Node.js Agent



Monitors apps written in node.js

Automatically collects deep dive diagnostic snapshots

Correlates performance to application tiers

Does not require any modifications to the Node.js app source code

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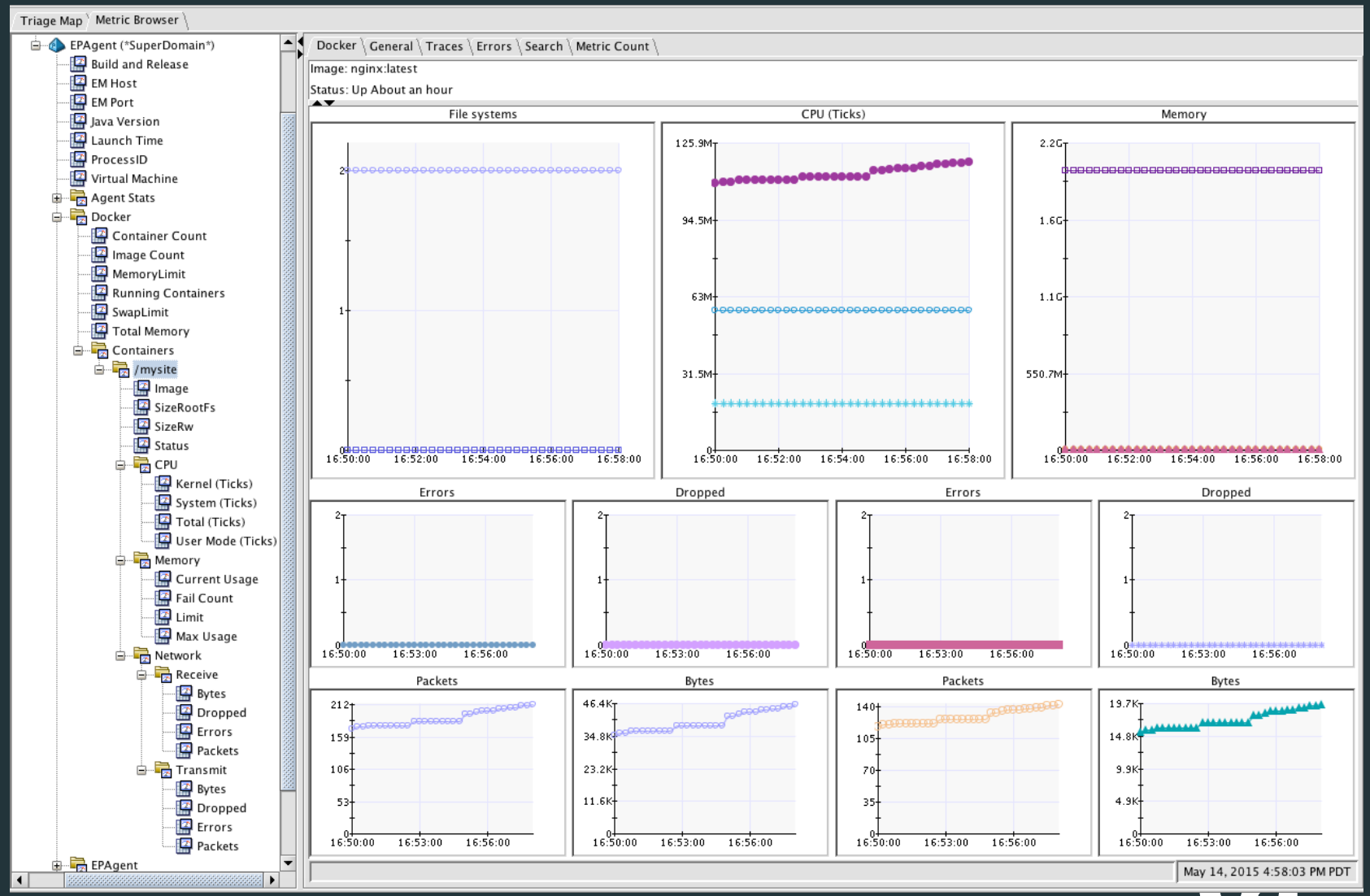
Docker Containers

Monitors the performance of apps deployed in Docker Containers (agent)

Collects health metrics of Docker Containers (field pack)



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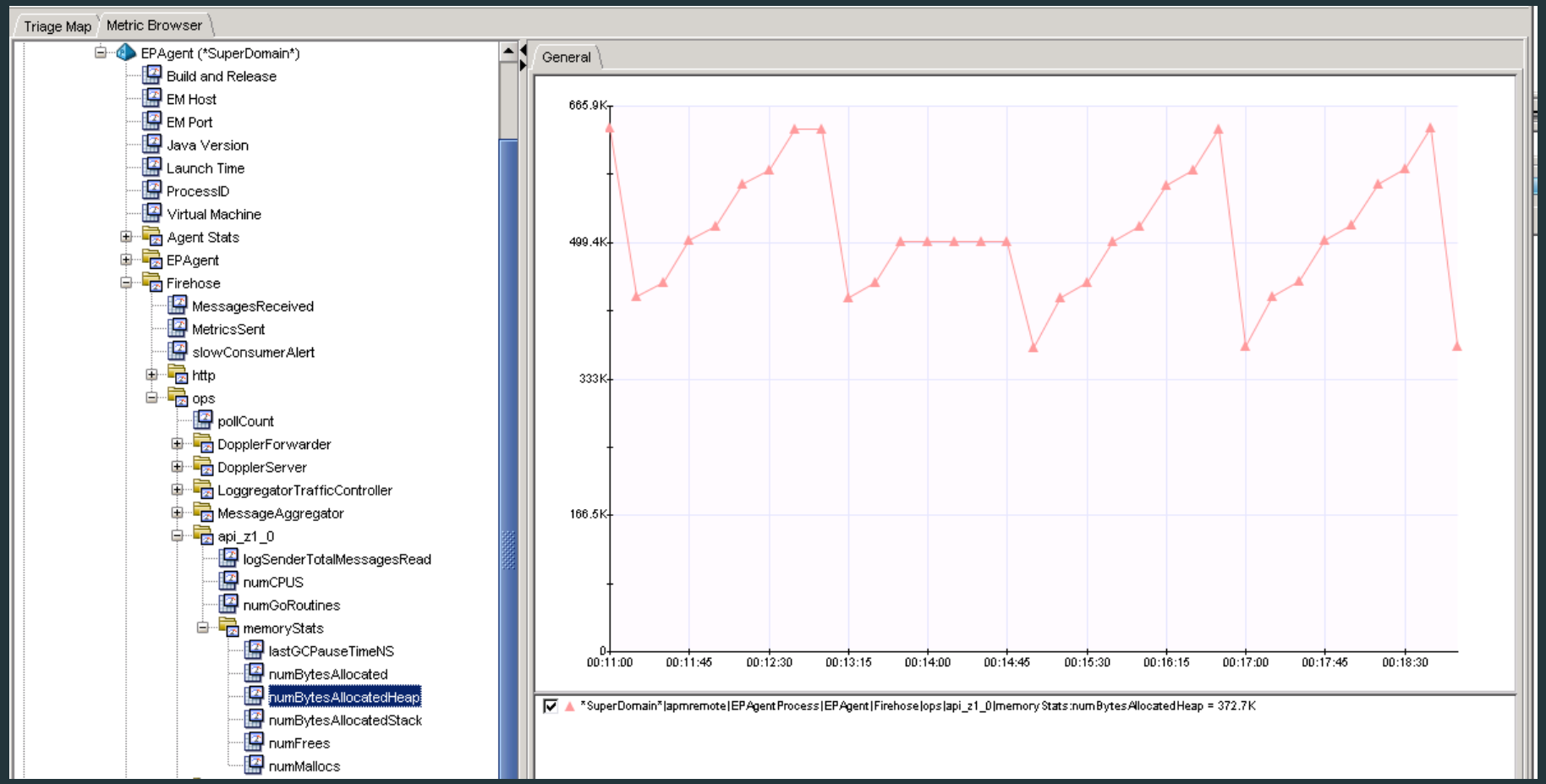
Cloud Foundry

Monitors apps deployed to CF (agent 9.7/later)

Easily deploy agent using CF BuildPack

Collects basic perf metrics from Pivotal CF (Field Pack)



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EASY | PROACTIVE | INTELLIGENT | COLLABORATIVE

Driving Toward

E.P.I.C. APM

The Key to Stimulate User Loyalty and
Differentiate Your Business in the App Economy

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