AWS
re:Invent

DEM53-S

Monitoring user experience and third-party APIs for your AWS workloads

Archana Kesavan

Director, Product Marketing

ThousandEyes

AWS re:Invent

aws

ThousandEyes

We empower companies with Internet and cloud intelligence, enabling them to deliver superior digital experiences.

ThousandEyes

2010 | Founded

HQ | San Francisco

Locations

Austin, USA	Toronto, CA	Amsterdam, NL
New York, USA	Tokyo, JP	Dublin, IE
Seattle, USA	Sydney, AU	London, UK
		Munich, DE

130+
Global 2000 Companies

70+
Fortune 500 Companies

6 of the **7**
Top US Banks

20 of the **25**
Top SaaS Companies

18 of the **10**
Top Global Software Companies

We help companies like these manage digital experiences

SOFTWARE AND SERVICES

box · DocuSign · EllieMae · lyft
okta · salesforce · slack · zendesk
EVERNOTE · servicenow · Symantec.

FINANCIAL SERVICES

FIS · GEICO · S&P Global · SAXO BANK
M&T Bank · mastercard · H&R BLOCK
USbancorp · Scotiabank · TD Ameritrade

RETAIL AND ECOMMERCE

AutoTrader · Columbia · ebay · FAREWAY
lululemon athletica · Shutterfly · richrelevance
Room&Board · Snapfish · wayfair

HEALTHCARE

AIM SpecialtyHealth. · Avera · eClinicalWorks
FAIRVIEW · SIERRA ONCOLOGY · Roche

MEDIA AND ENTERTAINMENT

CBS Interactive · COMCAST TECHNOLOGY SOLUTIONS · CONDÉ NAST
Disney streaming services · HI-REZ STUDIOS · iHeartMEDIA · Riot GAMES
Sony Interactive Entertainment · The Washington Post · zynga

EDUCATION

ascend LEARNING · GEORGETOWN UNIVERSITY Georgetown College · HONG KONG BAPTIST UNIVERSITY
THE UNIVERSITY OF THE WEST INDIES · DEPARTMENT OF EDUCATION · THE UNIVERSITY OF TEXAS AT AUSTIN
THE OHIO STATE UNIVERSITY · Udemy

COMMUNICATIONS

CenturyLink · Dialpad · EATEL
KIO Networks · Mitel Powering connections · NTT Communications
Rakuten · RingCentral · SDN COMMUNICATIONS

CLOUD INFRASTRUCTURE

Akamai · EQUINIX · DigitalOcean
NetApp · neustar · VERISIGN

TECH HEAVYWEIGHTS
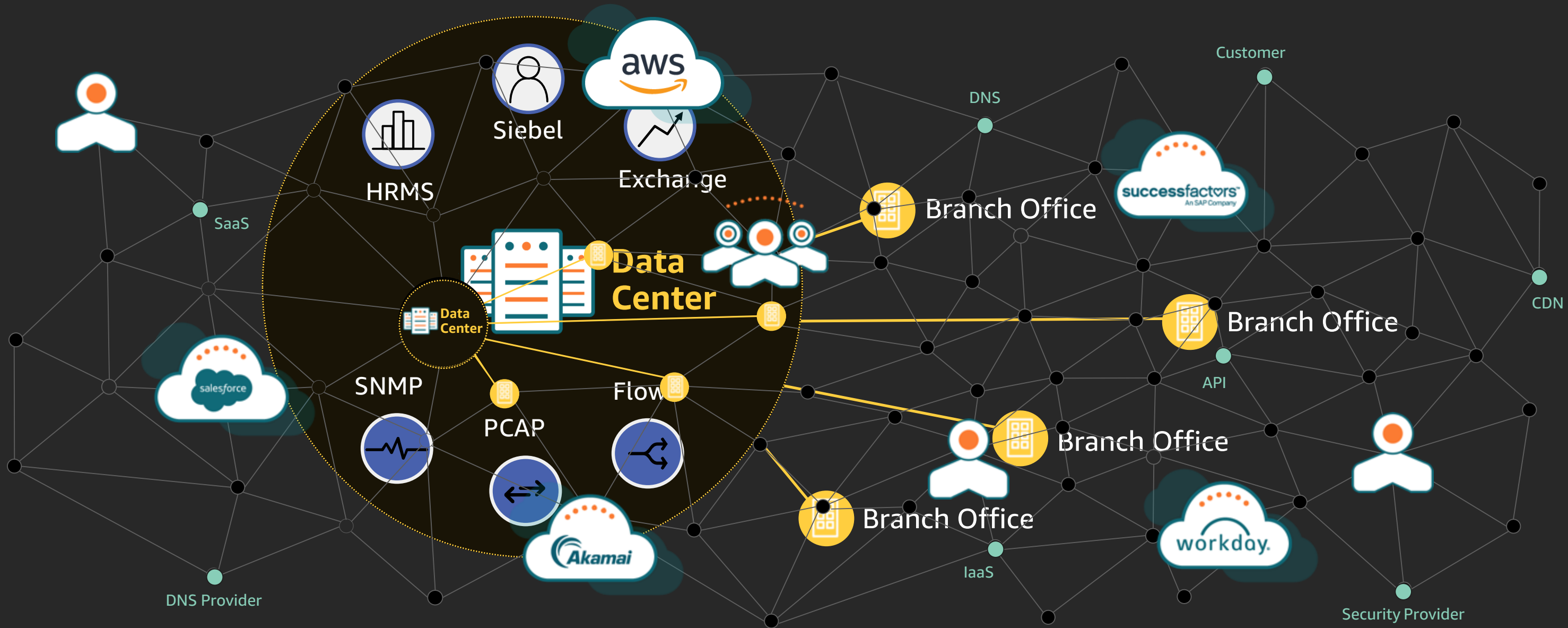
CISCO · hp · IBM
intel · Microsoft

Cloud migration is rapidly maturing
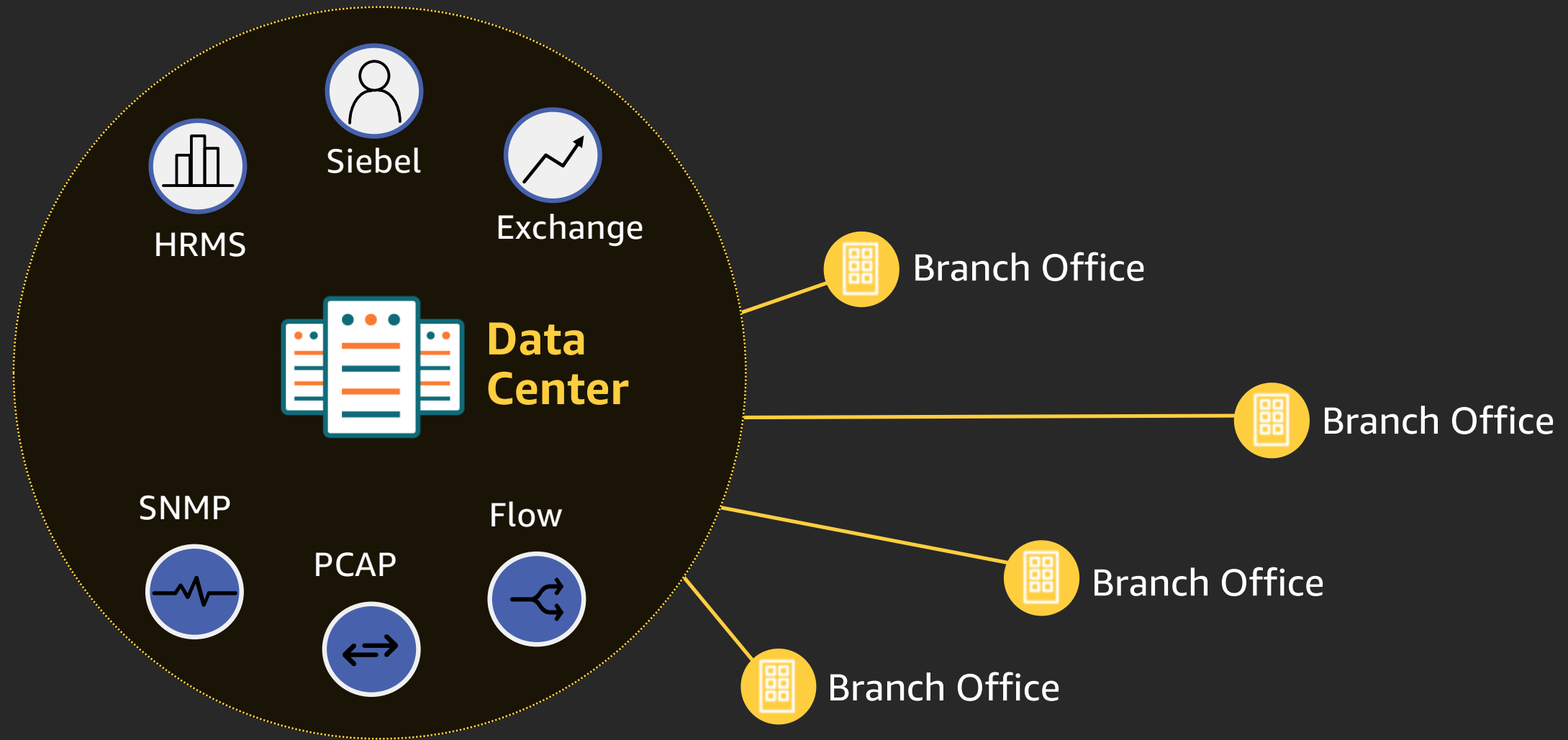
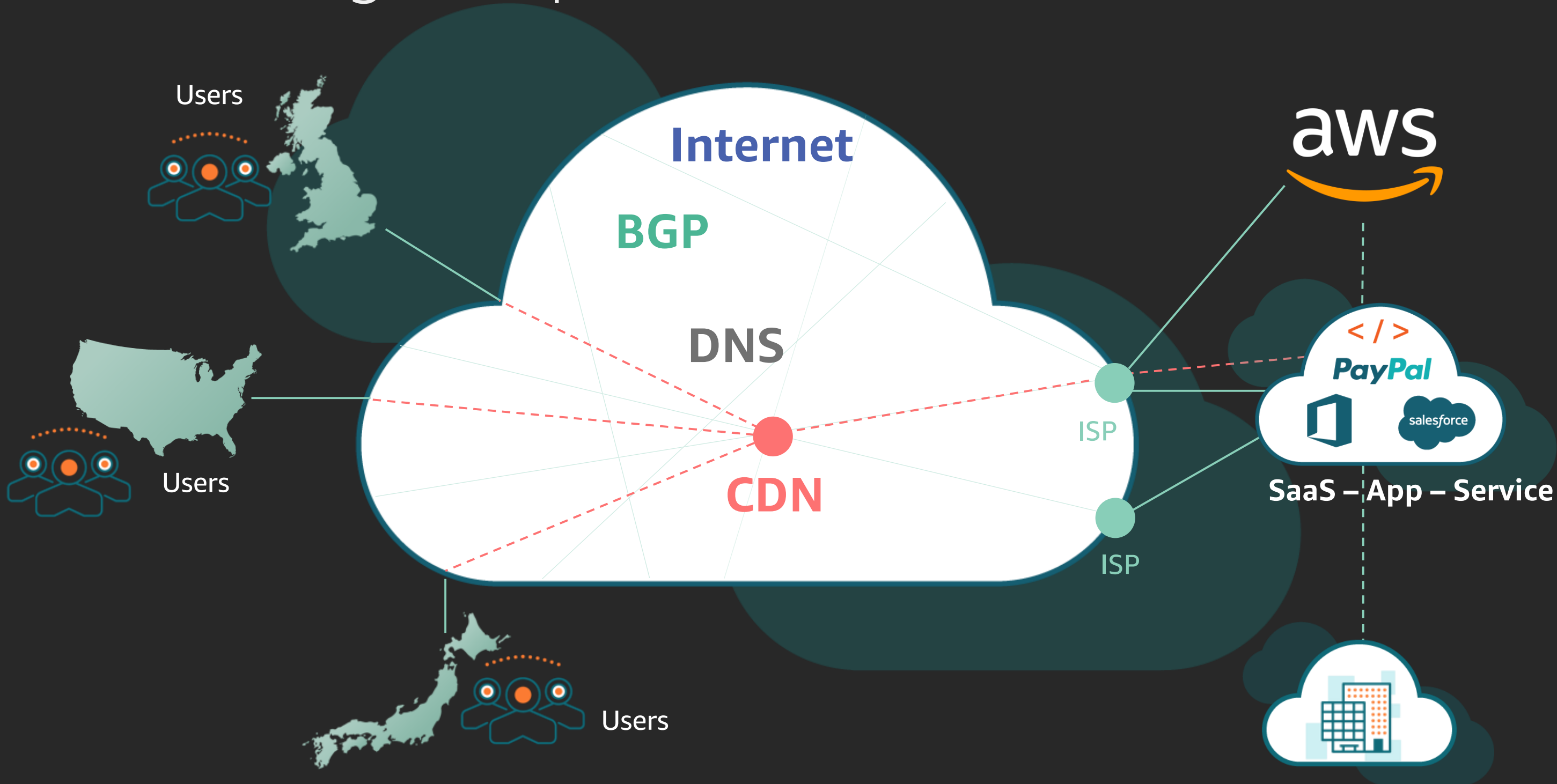Moving to the cloud is the default now

But interdependencies prevail

User experience relies on multiple services such as CDNs and DNS, API endpoints, and SaaS

Customer digital experience

Internet

BGP

DNS

CDN

Users

Users

Users

ISP

ISP

aws

PayPal

salesforce

SaaS – App – Service

Third-party APIs can be affected by internet connectivity

Current Status - May 31, 2018 PDT

Amazon Web Services publishes our most up-to-the-minute information on service availability in the table below. Check back here any time to get current status information, or subscribe to an RSS feed to be notified of interruptions to each individual service. If you are experiencing a real-time, operational issue with one of our services that is not described below, please inform us by clicking on the "Contact Us" link to submit a service issue report. All dates and times are Pacific Time (PST/PDT).

North America	South America	Europe	Asia Pacific	Contact Us

Recent Events | **Details** | **RSS**

✅ Amazon Elastic Compute Cloud (Ohio) | [RESOLVED] Internet Connectivity   less ⌃

> 12:36 AM PDT We are currently investigating connectivity issues in the US-EAST-2 Region.
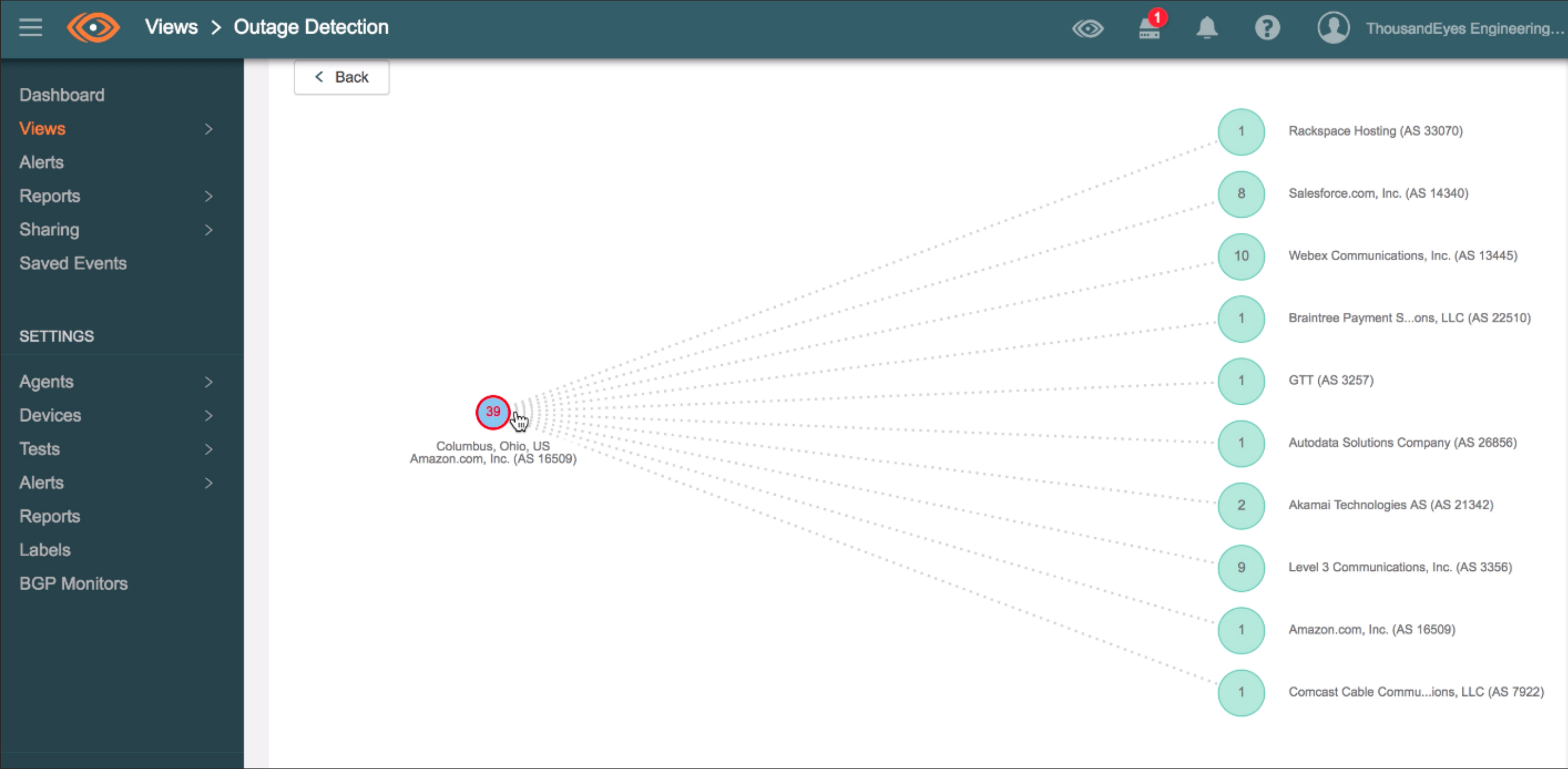> 1:01 AM PDT Between 12:11 AM and 12:45 AM PDT we experienced impaired Internet connectivity in the US-EAST-2 Region. The issue has been resolved and the service is operating normally.

✅ AWS Internet Connectivity (Ohio) | [RESOLVED] Internet Connectivity   less ⌃

> 12:49 AM PDT We are currently investigating connectivity issues in the US-EAST-2 Region.
> 12:59 AM PDT Between 12:11 AM and 12:45 AM PDT we experienced impaired Internet connectivity in the US-EAST-2 Region. The issue has been resolved and the service is operating normally.
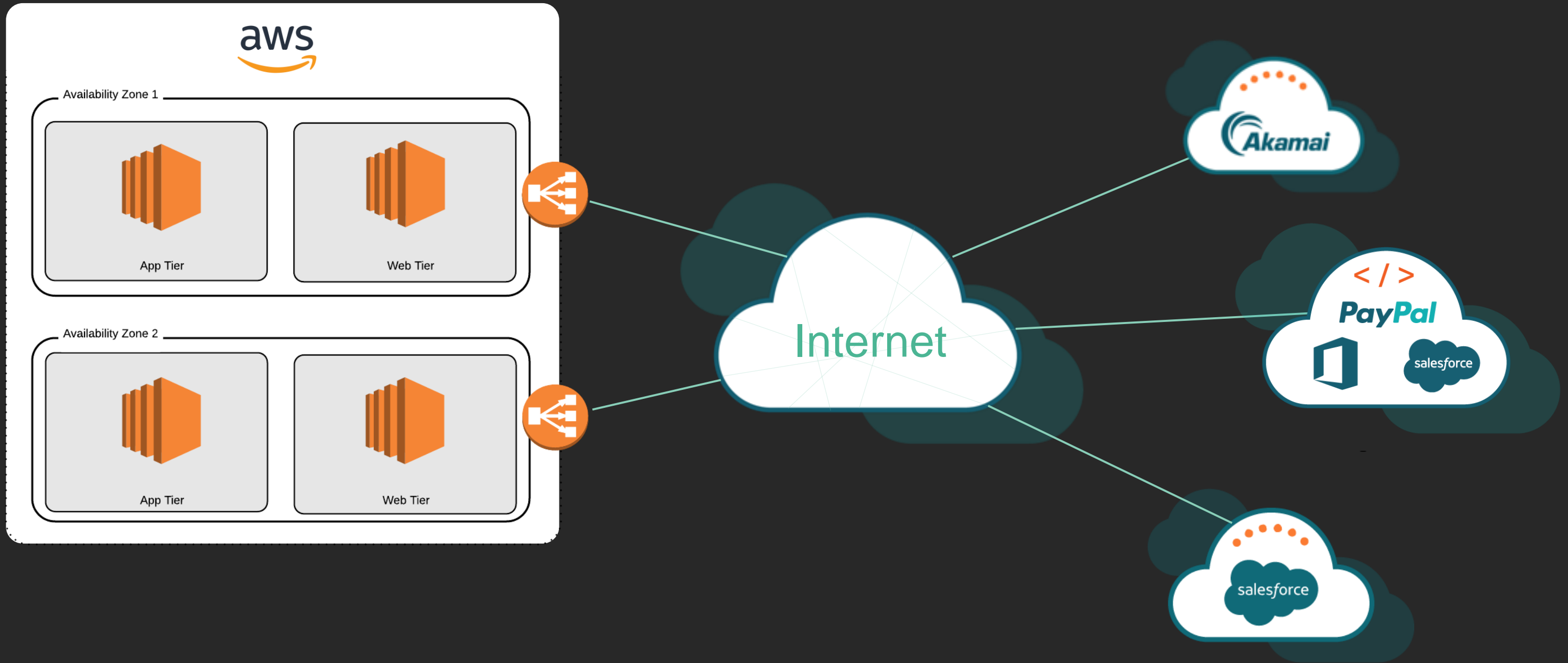
ISP impacts connectivity from US-EAST-2

Monitoring service delivery paths beyond AWS

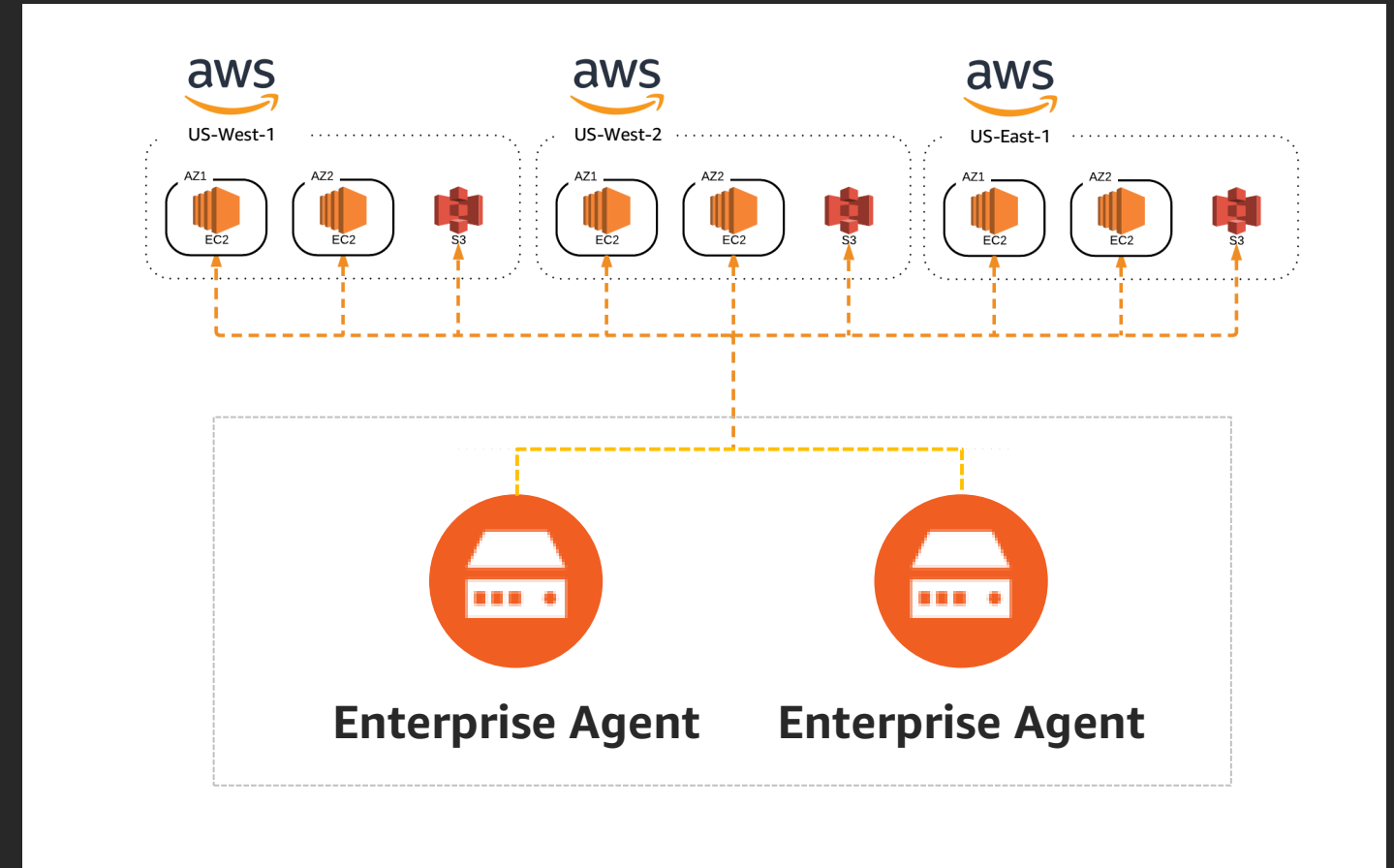# ThousandEyes internet and cloud intelligence

Customer Digital Experience

Modern WAN

Employee Digital Experience

Dashboards　　**Visualizations**　　**Reports & Alerts**　　**APIs & Integrations**

ThousandEyes

Scale Out – Collective – Algorithmic

Cloud Vantage Points

180+ Cities Around the World

ISP | Broadband | Cloud Provider

Enterprise Vantage Points

Enterprise Data Centers, Branch Offices & VPCs

Cisco | Docker | JNPR | Linux | MSFT | VMW

End-User Vantage Points

End-User Laptops and Desktops

Apple | Microsoft

Let's consider a simple APP-API interaction

Step 1: Deploy ThousandEyes in a VPC

- **Deploy ThousandEyes Enterprise Agent as an Amazon EC2 instance in your VPC**
  - t2.medium

- **Requirements:**
  - ThousandEyes account and SSH key pair
  - A VPC network (present by default in a new AWS account)
  - An IP subnet in the VPC network (present by default in a new AWS account)
  - Privileges to deploy a new AWS **CloudFormation** stack with an **EC2** instance

Deploy using AWS CloudFormation

Step 2: Set up a test to monitor connectivity paths

Correlated visibility in one view

Time Correlated

App Experience
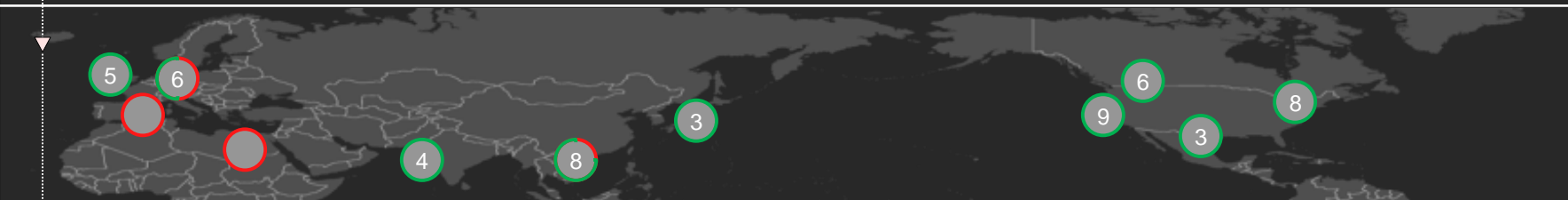- Transaction scripting, page load

HTTP/DNS/RTP Server
- HTTP availability, response time, throughput

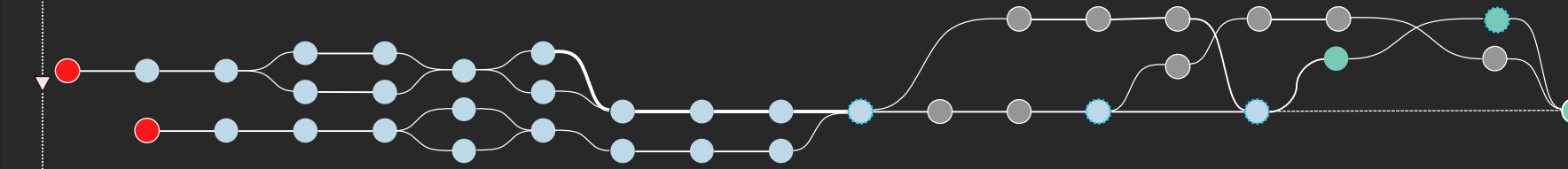**Scope and Domain**
- Geo, HTTP phase, errors

Network Metrics
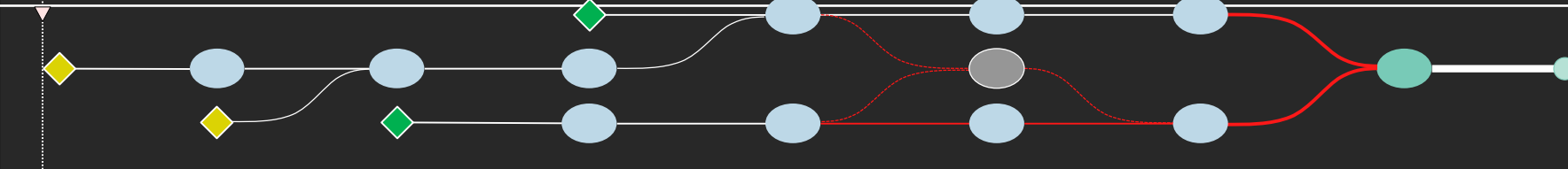- Packet loss, latency, jitter

Path Visualization
- Hop-by-hop; multipoint; bidirectional
- Metrics and data per hop
- Integrated outage detection

BGP Monitoring
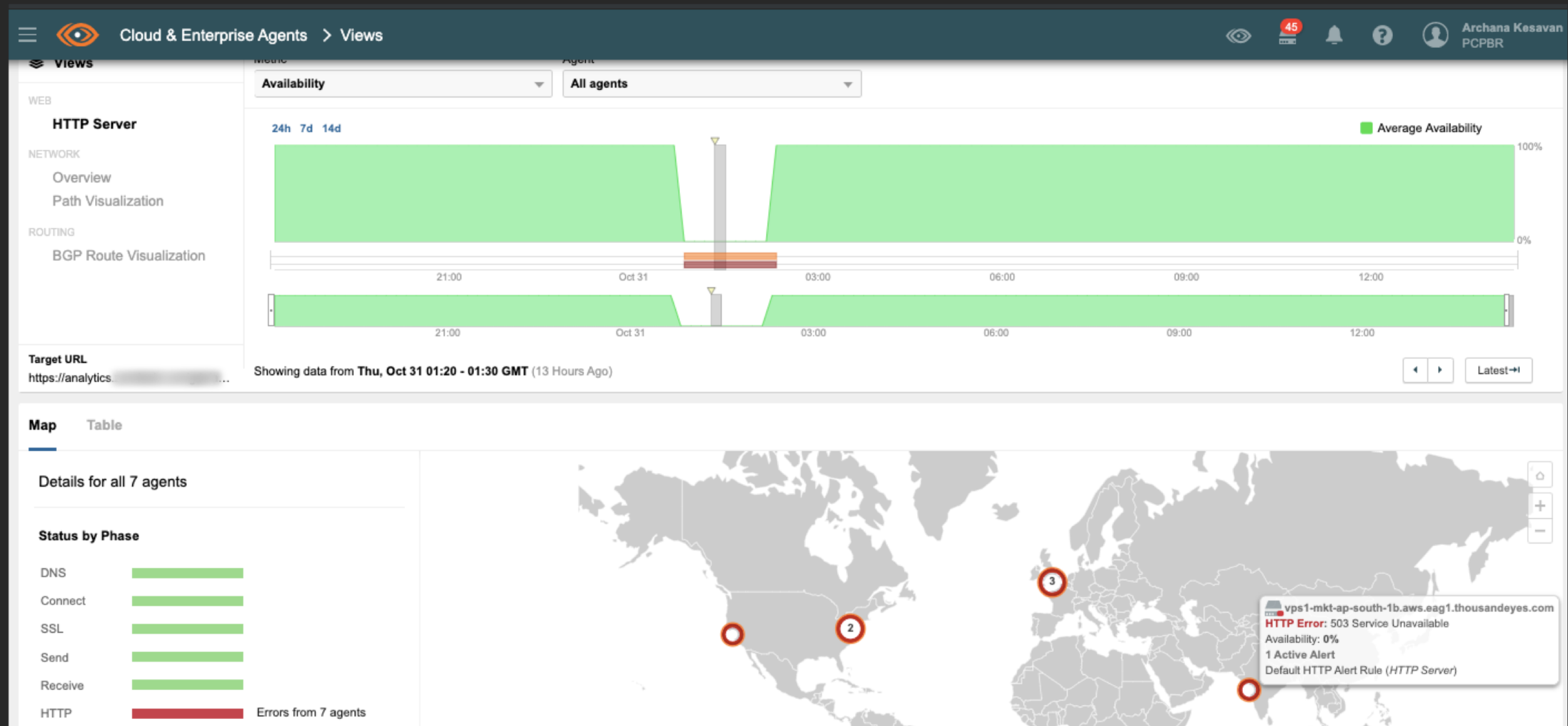- Reachability, path changes, updates

Step 3: Start monitoring your API endpoints

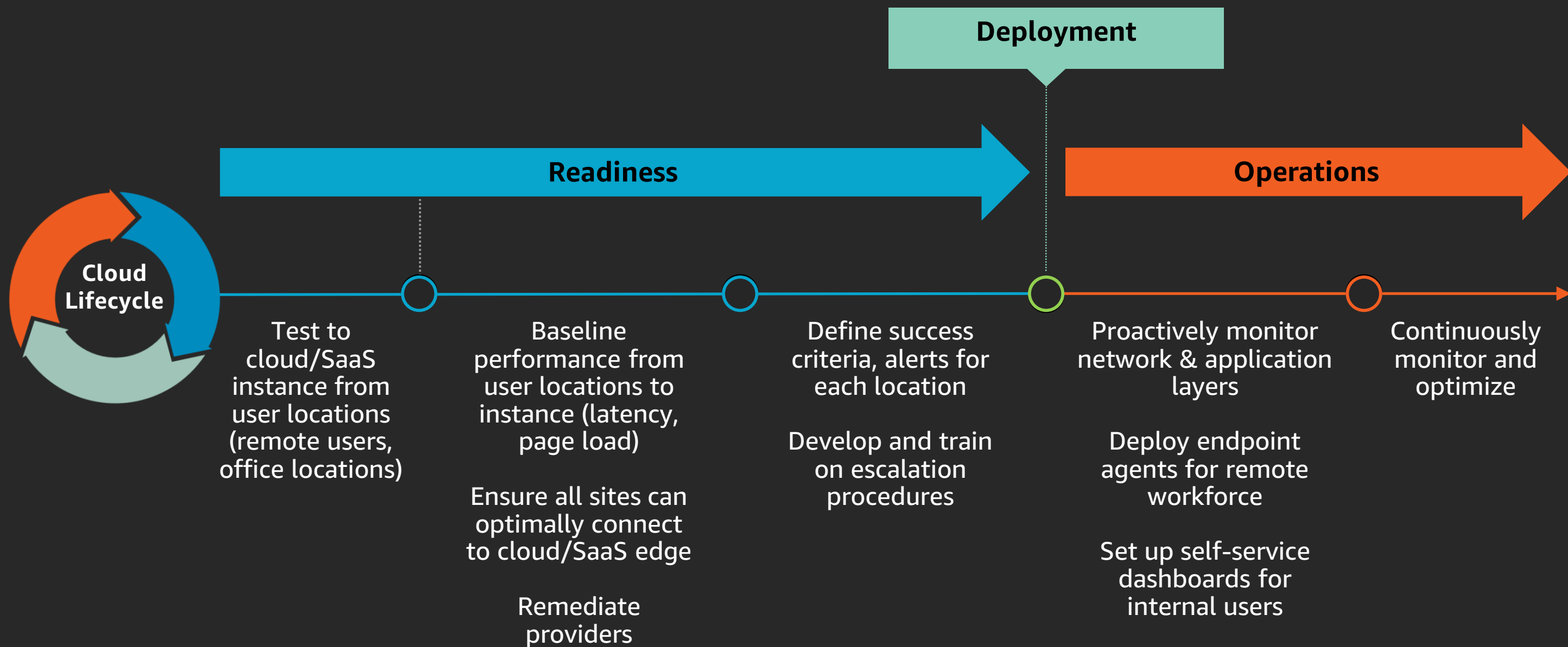# Step 4: Get insights into connectivity paths
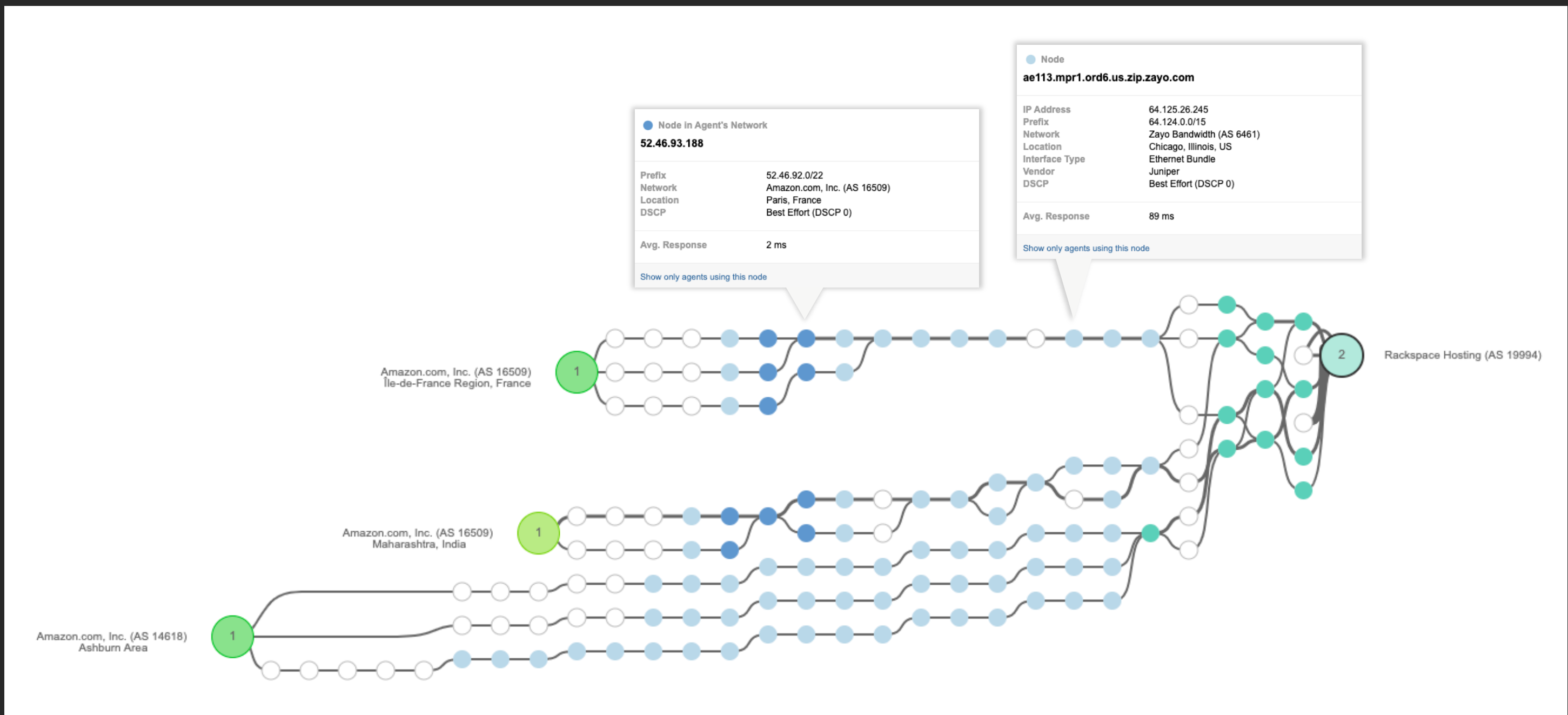
Automation and integration

- Open, native REST APIs

- Full automation of configuration, operation, and data consumption

- Integrations with popular configuration automation tools, ITSM, and data platforms

- ThousandEyes GitHub

- developer.thousandeyes.com

Strategic planning for cloud-centric ops

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Cloud adoption lifecycle best practices

Deployment

Readiness

Operations

Cloud Lifecycle

Test to cloud/SaaS instance from user locations (remote users, office locations)

Baseline performance from user locations to instance (latency, page load)

Ensure all sites can optimally connect to cloud/SaaS edge

Remediate providers

Define success criteria, alerts for each location

Develop and train on escalation procedures

Proactively monitor network & application layers

Deploy endpoint agents for remote workforce

Set up self-service dashboards for internal users

Continuously monitor and optimize

Please complete the session survey in the mobile app.

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