

Basic Synthetics for Automated SLA Checks

February 2020

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Course information

- This course is a hands-on training where you will become familiar with the advanced features and functions of Dynatrace Synthetic.
- This course is designed to teach you how to create synthetic monitors, alerts, dashboards, and reports, as well as introducing you the Dynatrace API.
- Each student will have their own Dynatrace environment to use during the hands-on exercises, and generally follow along during the course sections.

Course Pre-requisites

- Each student should have the following:
- Working laptop with wireless connectivity
- Microsoft Remote Desktop Client
- Recent version of Chrome with the ability to add the Dynatrace extension
- <https://github.com/Dynatrace/perform-2020-hotday>

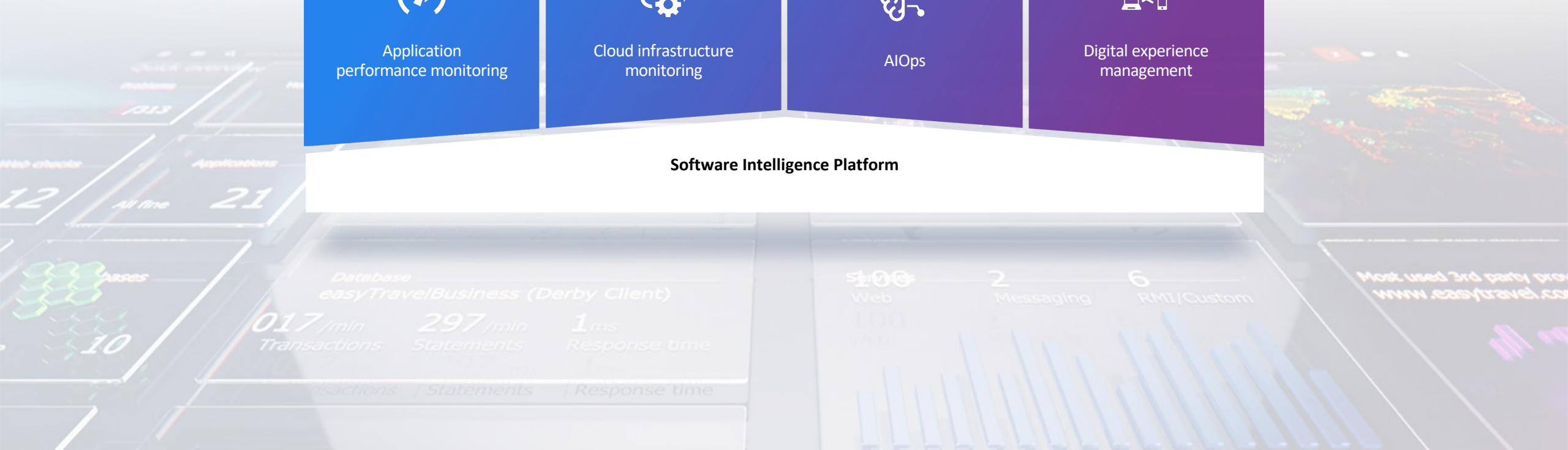
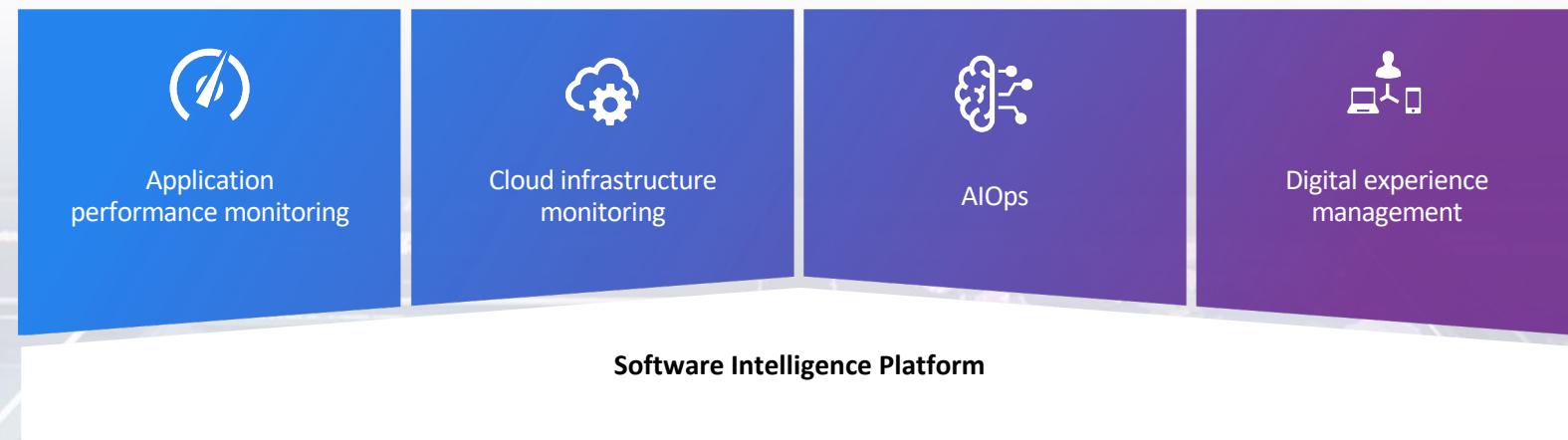
Agenda

- Introduction
- Dynatrace Overview
- Initial Configuration (Exercise 1)
- Synthetic Monitoring
- Create a Monitor, Navigate the Interface, Analyze and Review Results (Exercise 2)
- Edit Test Settings (Exercise 3)
- Break (3PM)
- HTTP Monitors (Exercise 4)
- Tagging, Outage Handling, Performance Thresholds and Alerts/Problems (Exercise 5/6)
- Consuming the data: Reporting, Charts and Dashboards (Exercise 7)
- Dynatrace API (Exercise 8)
- Account settings and consumption
- Summary and Q&A

Dynatrace overview

Software intelligence built for the enterprise cloud

Go beyond APM with the Dynatrace all-in-one platform



THE SOLUTION

- Hybrid Multi-Cloud
- Web-scale and Automation
- Container and Microservices
- DevOps

Digital Experience

One Platform. Simplify

- Single view across your entire hybrid-cloud ecosystem from **monolithic** and **mainframe** to your new **cloud** platform.
- Full stack** coverage for **DEM**, APM, Cloud Infrastructure and AIOps
- Deep **cloud integrations** with all leading cloud providers.



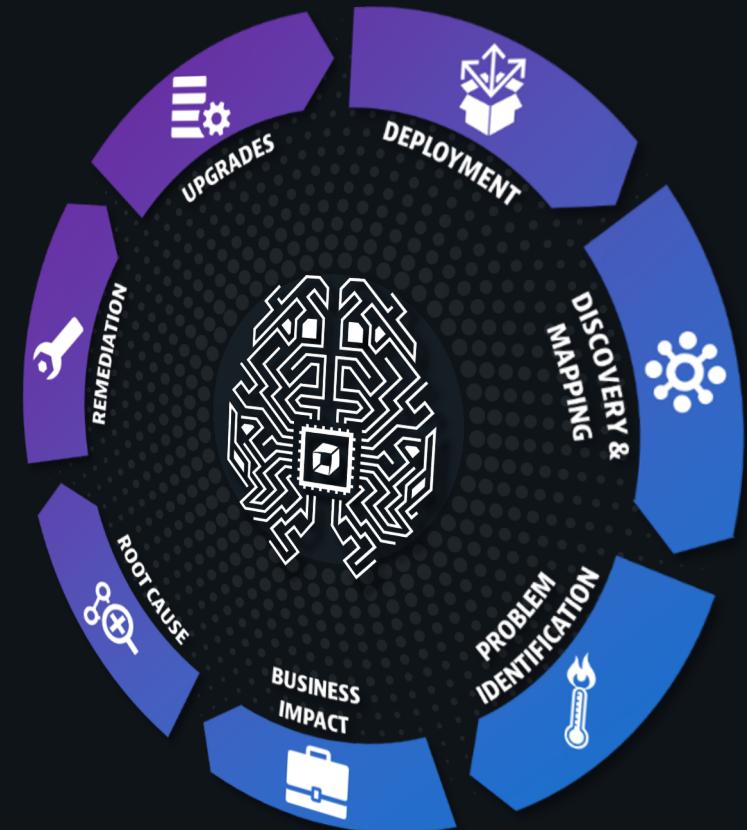
THE SOLUTION

Hybrid Multi-Cloud
Web-scale and Automation
Container and Microservices
DevOps
Digital Experience

Fully automated, with scale, out of the box.

Dynatrace does the work for you

- AI continuously analyzes to find problems with root cause and business impact explained
- **OneAgent** automatically instruments your applications, log files, containers and more
- **Real time** topology discovery & mapping across dynamic environments
- Software intelligence for 100,000+ hosts with Dynatrace **web-scale** architecture



THE SOLUTION

Hybrid Multi-Cloud
Web-scale and Automation
Container and Microservices
DevOps
Digital Experience

Containers? No problem.

- **Auto discover** microservices and containers without code or image changes
- **Automatic** and continuous dependency mapping
- **Monitor** containerized processes transparently
- **OneAgent** on the host is all it takes



THE SOLUTION

Hybrid
Multi-Cloud

Web-scale and
Automation

Container and
Microservices

DevOps

Digital Experience

Release better software faster

- **Continuous feedback**
A.I. provides real time feedback for dev, test, operation and biz teams.
- **Measure and communicate**
A single source of truth enhances team productivity and decision making.
- Build an **unbreakable** delivery pipeline and enable self-healing.



THE SOLUTION

Hybrid
Multi-Cloud

Web-scale and
Automation

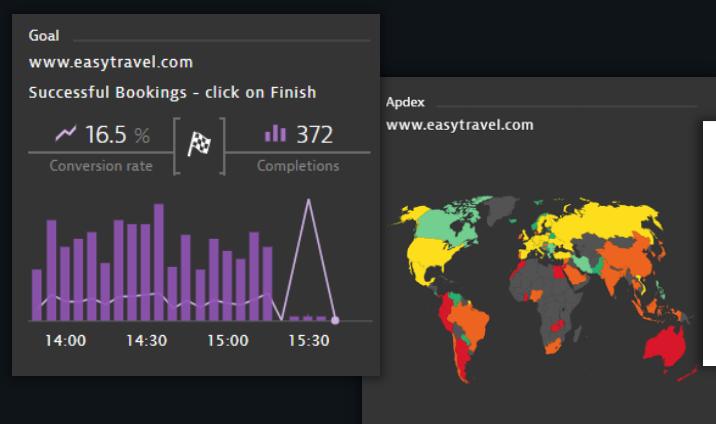
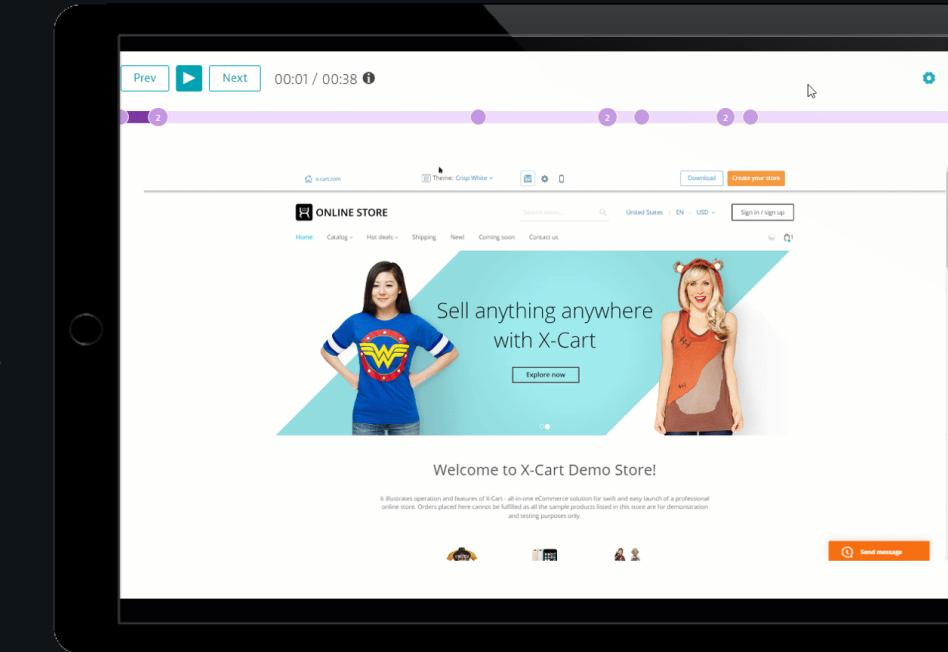
Container and
Microservices

DevOps

Digital Experience

Deliver perfect digital experiences

- **Full visibility** into real user journeys.
- **Identify** user sessions by ID and understand **business impact**.
- **See** exactly what your users see with Session Replay.
- Get **proactive** with synthetic monitoring.



Business impact analysis
An analysis of all affected service calls and impacted real users during the first 10 minutes of the problem shows the following potential impact.

1.64k Impacted users 324k Affected service calls

Show more

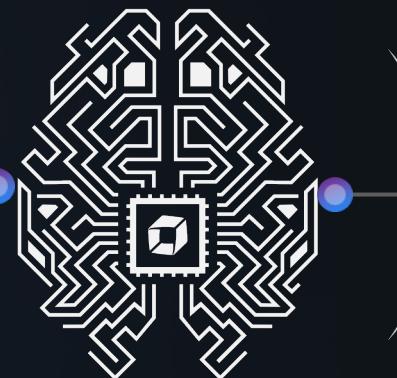
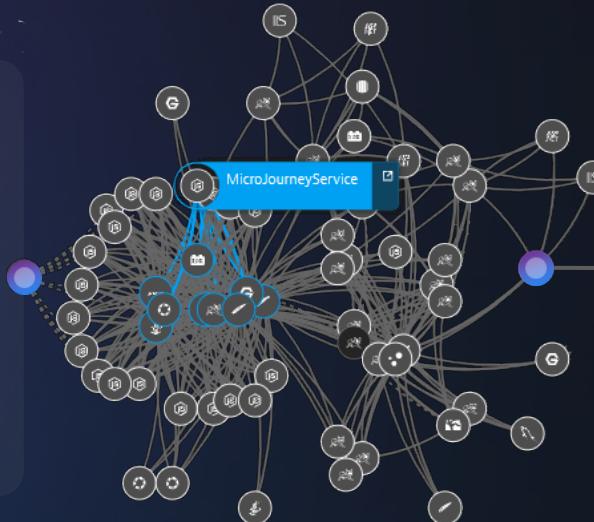
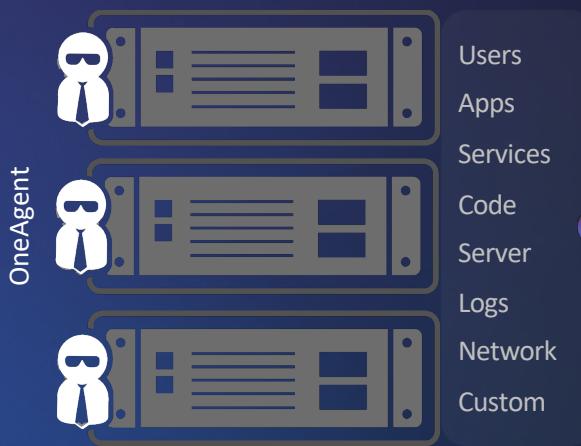
Better data makes Dynatrace A.I. and massive automation possible

High fidelity data

Mapped end-to-end

Deterministic AI

Answers + Action

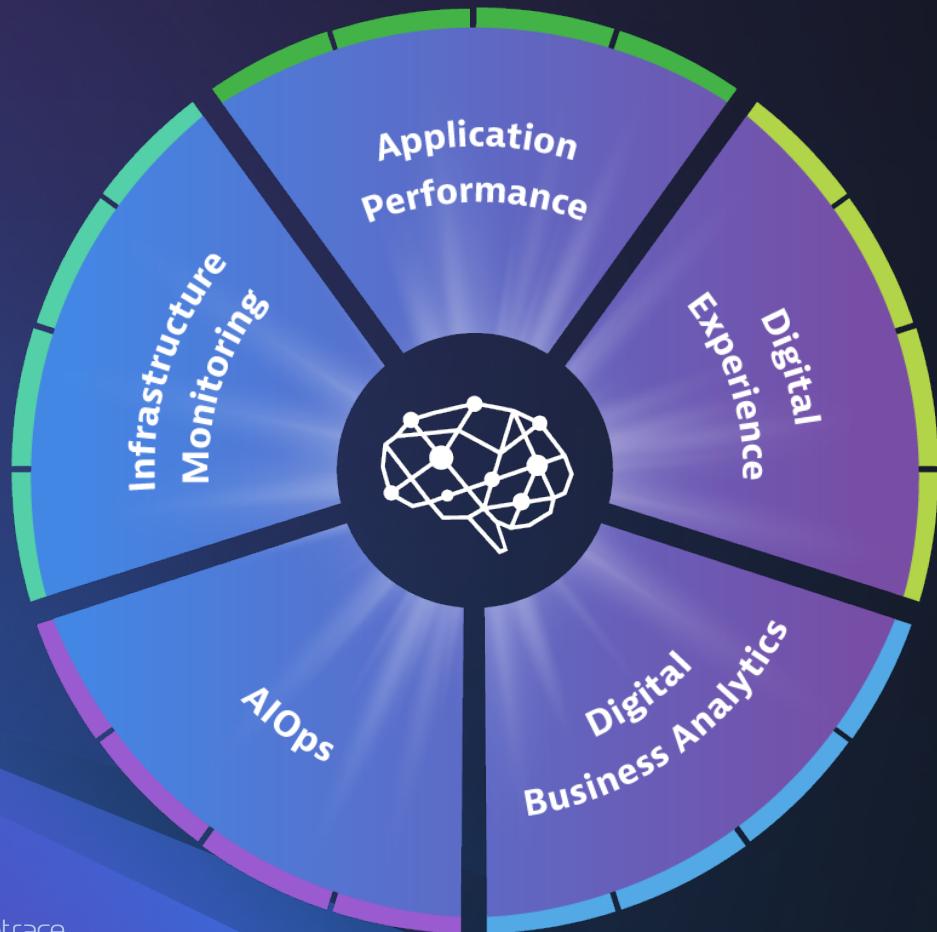


- Automated problem detection
- Business impact determined
- Root cause explained
- No alert storms
- Trigger self healing

Completely automated

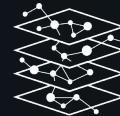
Dynatrace - Software intelligence built for the enterprise cloud

All-in-one, all you need



Why we are radically different

Full-stack observability



No blind spots, app & digital experience data tied to biz metrics

AI at the core



Real-time answers to business questions, not data on glass

All-in-one platform



Unified data model for Biz, Dev, & Ops

Fully automated



Ecosystem integration and automation

Web scale



Scalable, secure, data residence

Initial configuration

ActiveGate

What is an ActiveGate and when to use one

- Reduce outgoing connections
- Access sealed networks
- Store memory dumps
- Control load distribution of AWS monitoring
- Collect external logs
- Monitor using an ActiveGate plugin
- Monitor virtualized infrastructure
- Monitor Platforms via API (Cloud Foundry, Azure, AWS, Kubernetes)
- Execute local Browser Synthetics
- Execute local HTTP monitors

[For HTTP monitors](#), an ActiveGate or a group of ActiveGates can act as a private synthetic location. The HTTP monitor will then be executed via the specified ActiveGate(s).

Exercise 1 - Hands on

Access your Dynatrace tenant and Configure an ActiveGate

How to access your Dynatrace ActiveGate environment

- Access your ActiveGate Host Remote Desktop
- username: dtu.training
- password: @perform2020

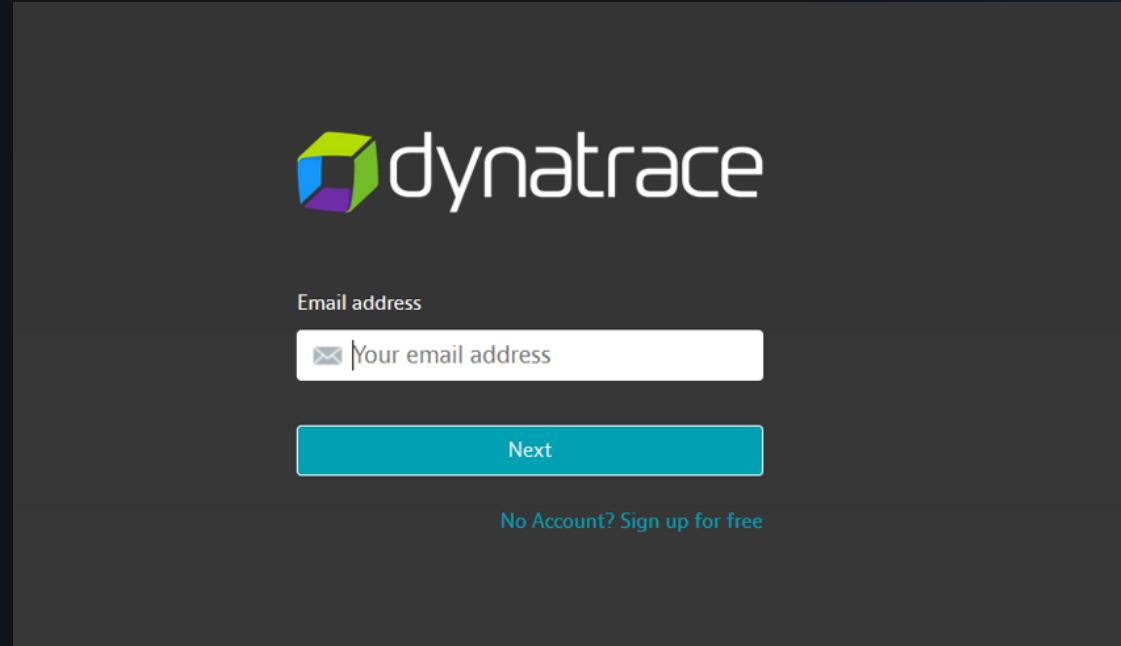
Wifi Information

SSID: HOTDay

Password: H@ndsOn!

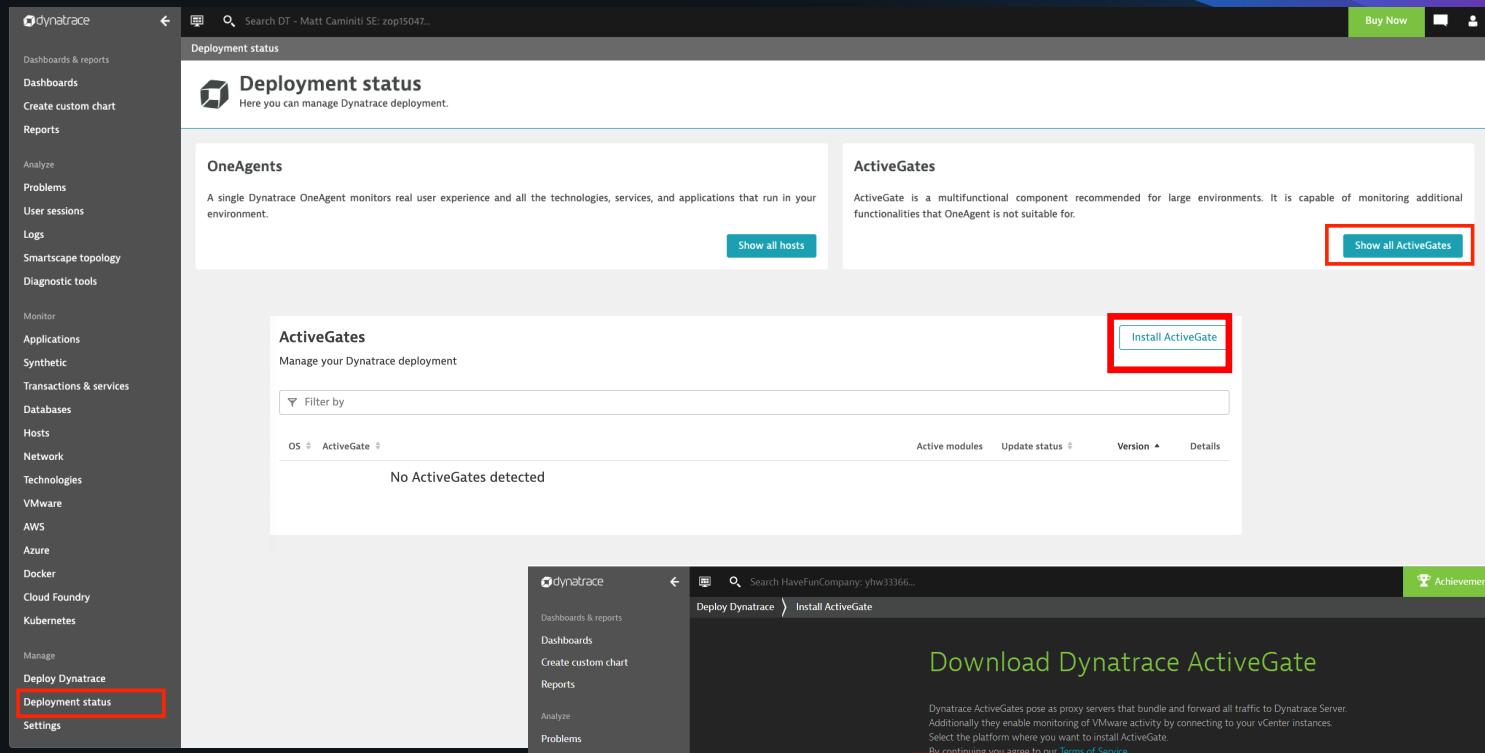
Access your Dynatrace tenant environment

- Access your Dynatrace tenant via the card we distributed earlier
- Connect to Tenant from ActiveGate Server (will make install faster)
- <https://<tenantID>.sprint.dynatracelabs.com>
- Username: student<number>@trial.dynatracelabs.com
- Password: Dyn@trac3



Install Dynatrace ActiveGate

- On the main left hand menu go to “Deployment Status”
- Click on Show all ActiveGates
- Click Install ActiveGate from the upper right corner
- Click Windows



Install Dynatrace ActiveGate

- Set the radio button to
“Run synthetic monitors from a private location”
- Click 'Download installer'

The screenshot shows a web interface for downloading the Windows Environment ActiveGate. At the top, there's a breadcrumb navigation: Deploy Dynatrace > Install ActiveGate > Download Windows Environment ActiveGate. The main title is "Download Windows Environment ActiveGate". Below it, instructions say: "Run ActiveGate installer on a Windows machine that has access to the Internet. For more information on ActiveGate purposes, see [ActiveGate use cases](#)". A numbered list provides steps: 1. What's the purpose of this ActiveGate? It lists three options with radio buttons: "Route traffic, monitor cloud environments, monitor remote technologies with plugins" (unchecked), "Run synthetic monitors from a private location" (checked and highlighted with a red box), and "Monitor mainframe" (unchecked). Step 2. Download the installer and copy it to the target host. A blue "Download installer" button is highlighted with a red box. Step 3. Run the installer via command prompt on the target host. Step 4. Verify the ActiveGate installation. At the bottom, there's a file download link: "Dynatrace-ActiveGate-Windows-x86-1.181.144.exe" followed by "ENABLE_SYNTHETIC=true" and a "Copy" button. A "Show deployment status" button is also present.

Install Dynatrace ActiveGate

- On the ActiveGate install page
- Copy the installer command line

The screenshot shows a web browser window with the following content:

Deploy Dynatrace > Install ActiveGate > Download Windows Environment ActiveGate

Download Windows Environment ActiveGate

Run ActiveGate installer on a Windows machine that has access to the Internet.
For more information on ActiveGate purposes, see [ActiveGate use cases](#).

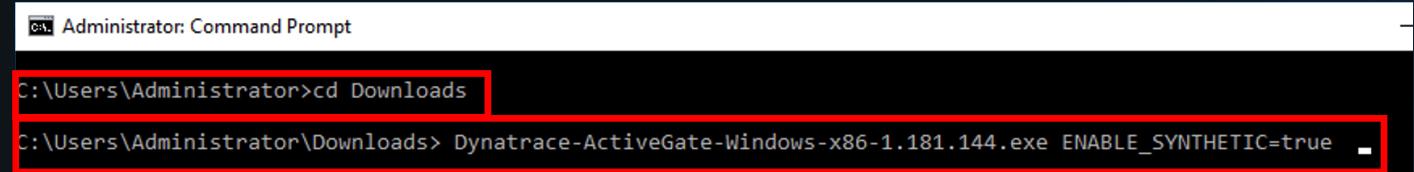
1. What's the purpose of this ActiveGate?
 Route traffic, monitor cloud environments, monitor remote technologies with plugins
 Run synthetic monitors from a private location
 Monitor mainframe
2. Download the installer and copy it to the target host.
[Download installer](#)
3. Run the installer via command prompt on the target host.

```
Dynatrace-ActiveGate-Windows-x86-1.181.144.exe  
ENABLE_SYNTHETIC=true
```

A red rectangle highlights the command line text.
4. Verify the ActiveGate installation.
[Show deployment status](#)

Install Dynatrace ActiveGate

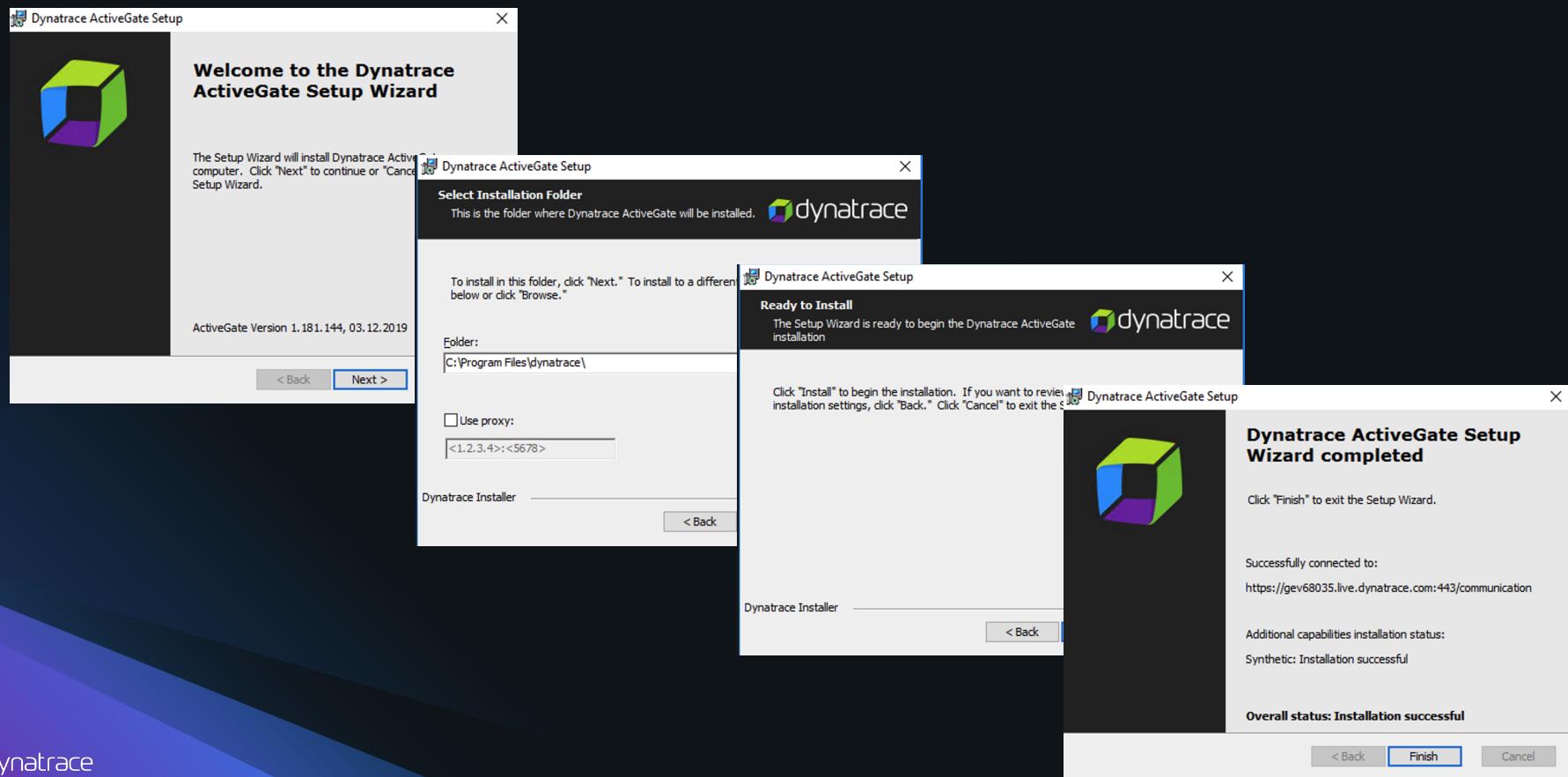
- In a command prompt run the following
 - cd Downloads
 - Paste copied command - Dynatrace-ActiveGate-Windows-x86-1.181.144.exe ENABLE_SYNTHETIC=true
 - This will start Install Wizard



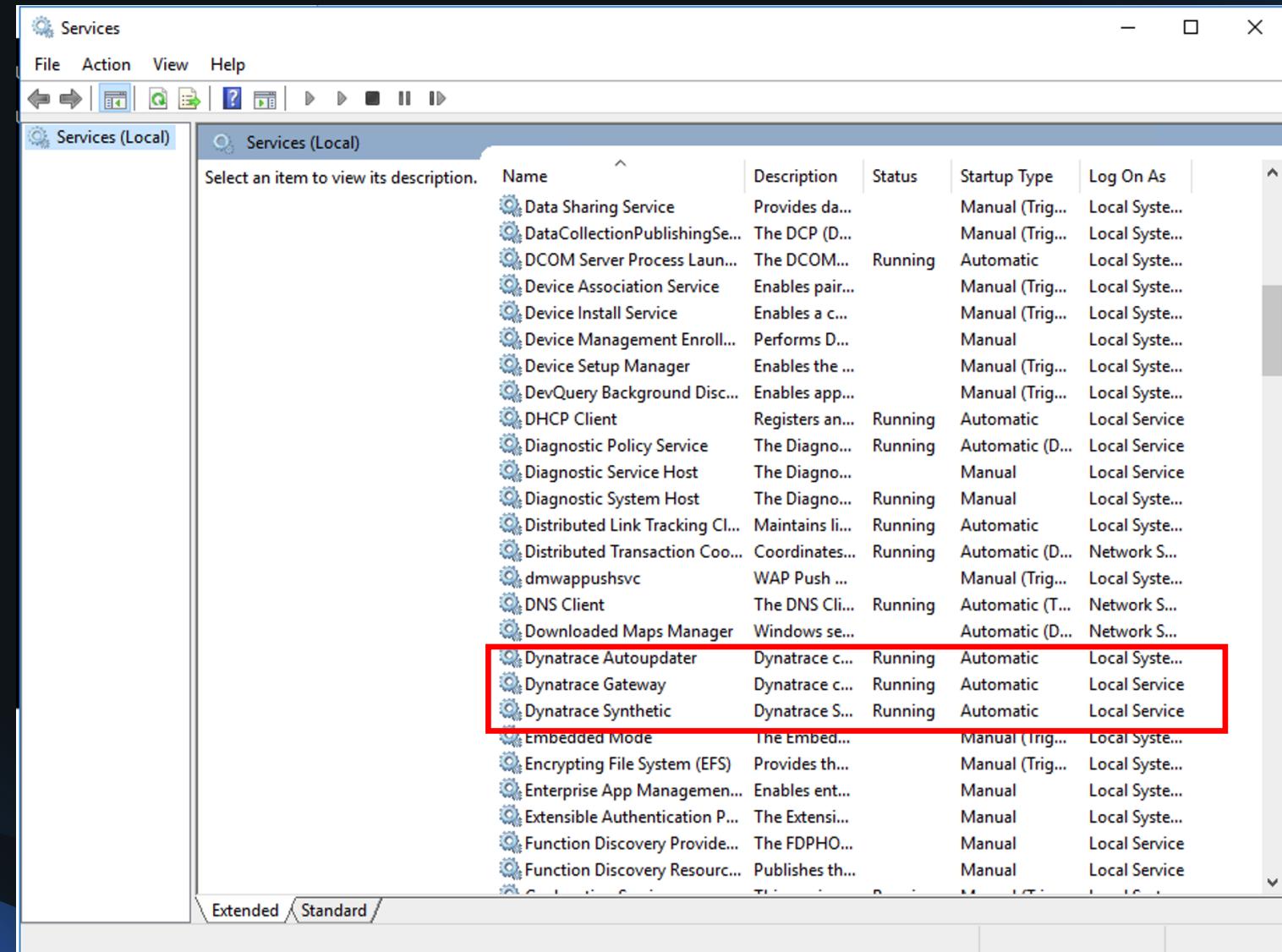
The screenshot shows an 'Administrator: Command Prompt' window. The command line displays two lines of text: 'C:\Users\Administrator>cd Downloads' and 'C:\Users\Administrator\Downloads> Dynatrace-ActiveGate-Windows-x86-1.181.144.exe ENABLE_SYNTHETIC=true'. Both lines are highlighted with a red rectangular box.

Install Dynatrace ActiveGate

- Follow install Wizard



ActiveGate Windows Services



Name	Description	Status	Startup Type	Log On As
Data Sharing Service	Provides da...	Running	Manual (Trig...	Local Syst...
DataCollectionPublishingSe...	The DCP (D...	Running	Manual (Trig...	Local Syst...
DCOM Server Process Laun...	The DCOM...	Running	Automatic	Local Syst...
Device Association Service	Enables pair...	Running	Manual (Trig...	Local Syst...
Device Install Service	Enables a c...	Running	Manual (Trig...	Local Syst...
Device Management Enroll...	Performs D...	Running	Manual	Local Syst...
Device Setup Manager	Enables the ...	Running	Manual (Trig...	Local Syst...
DevQuery Background Disc...	Enables app...	Running	Manual (Trig...	Local Syst...
DHCP Client	Registers an...	Running	Automatic	Local Service
Diagnostic Policy Service	The Diagno...	Running	Automatic (D...	Local Service
Diagnostic Service Host	The Diagno...	Running	Manual	Local Service
Diagnostic System Host	The Diagno...	Running	Manual	Local Syst...
Distributed Link Tracking Cl...	Maintains li...	Running	Automatic	Local Syst...
Distributed Transaction Coo...	Coordinates...	Running	Automatic (D...	Network S...
dmwappushsvc	WAP Push ...	Running	Manual (Trig...	Local Syst...
DNS Client	The DNS Cli...	Running	Automatic (T...	Network S...
Downloaded Maps Manager	Windows se...	Running	Automatic (D...	Network S...
Dynatrace Autoupdater	Dynatrace c...	Running	Automatic	Local Syst...
Dynatrace Gateway	Dynatrace c...	Running	Automatic	Local Service
Dynatrace Synthetic	Dynatrace S...	Running	Automatic	Local Service
Embedded Mode	The Embed...	Running	Manual (Trig...	Local Syst...
Encrypting File System (EFS)	Provides th...	Running	Manual (Trig...	Local Syst...
Enterprise App Managemen...	Enables ent...	Running	Manual	Local Syst...
Extensible Authentication P...	The Extensi...	Running	Manual	Local Syst...
Function Discovery Provide...	The FDPHO...	Running	Manual	Local Service
Function Discovery Resourc...	Publishes th...	Running	Manual	Local Service

ActiveGate files are named and stored as outlined below:

Installer file name: Dynatrace-ActiveGate-Windows-<version>.exe

Default file locations:

Installation folder %ProgramFiles%\dynatrace\gateway\

Log folder %ProgramData%\dynatrace\gateway\log

Private Synthetic Log folder %ProgramData%\dynatrace\synthetic\log

Config folder %ProgramData%\dynatrace\gateway\config

Temporary folder %ProgramData%\dynatrace\gateway\tmp

Configure Dynatrace ActiveGate for HTTP Monitors

- On the main left hand menu go to “Deployment Status”
- Click “Show all ActiveGates”
- Verify the ActiveGate

The screenshot shows the Dynatrace web interface with the main left-hand navigation menu. The 'Deployment status' option is highlighted with a red box. The main content area displays the 'Deployment status' page. On the right side, there is a section titled 'ActiveGates' with a sub-section titled 'ActiveGates'. A red box highlights the 'Show all ActiveGates' button. Below it, a detailed view of an ActiveGate configuration is shown, with a red box highlighting the 'Up to date' status under the 'Update status' column.

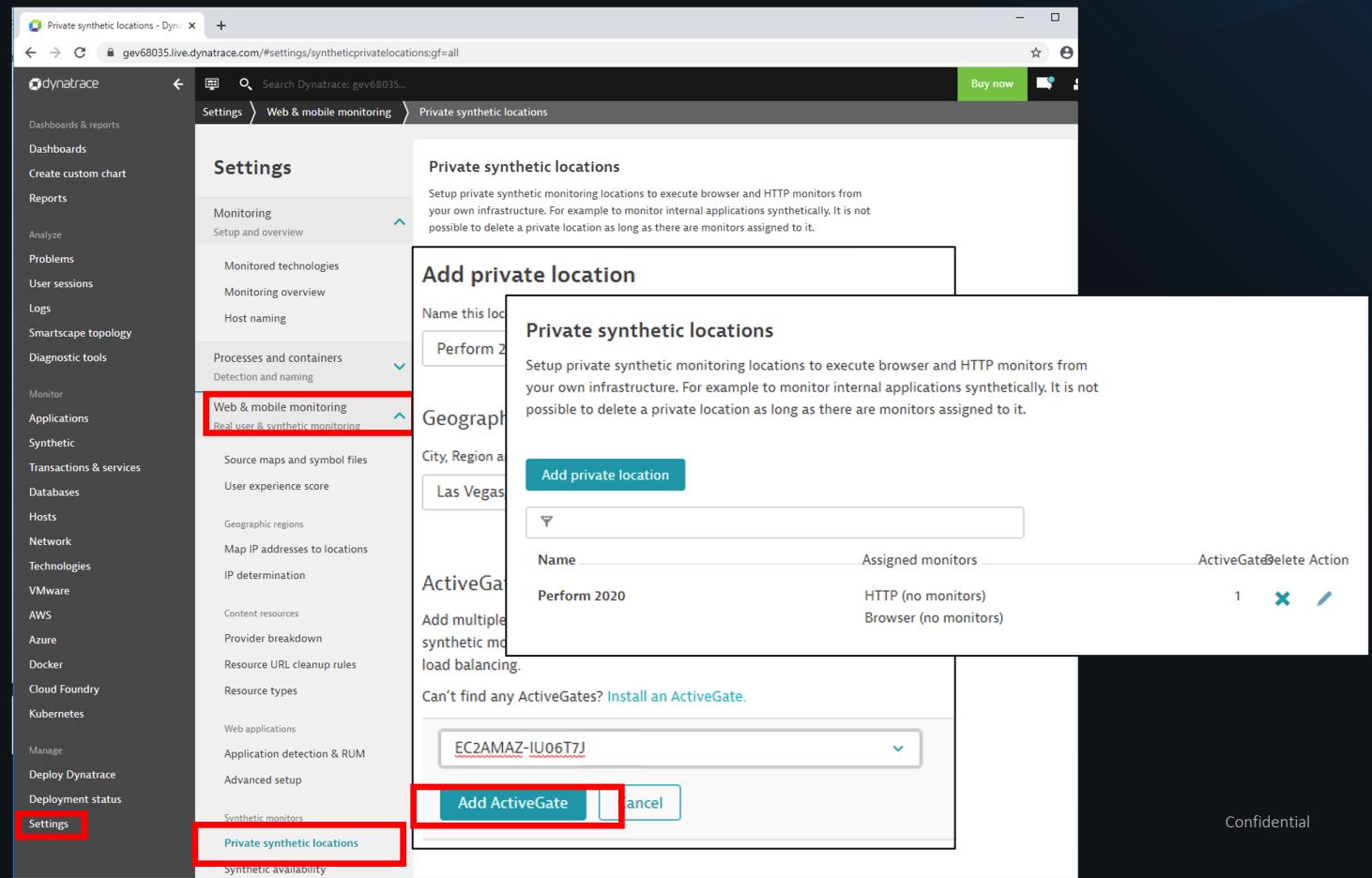
OS	ActiveGate	Active modules	Update status	Version
EC2AMAZ-ILU06T7J			Up to date	1.183

Properties		Modules
OneAgent routing	Disabled	AWS
OS	Windows	Azure
IP #1	172.31.34.26	Cloud Foundry
IP #2	[2001:0:34f1:8072:24691326:53e0:ddde\$]	DB Insight
<button>Update ActiveGate</button>		Kubernetes
		Open Stack
		Plugins
		Synthetic
		VMware

Synthetic monitoring details	
Browser type	Chromium
Browser version	74.0.3729.169
Synthetic Engine version	1.181.15.20191120-205840
Synthetic Engine status	Running
Synthetic Player version	1.181.8.20191106-180233
Private location	Unassigned
Synthetic Engine health check	Ok
HTTP monitors	Enabled
Browser monitors	Enabled

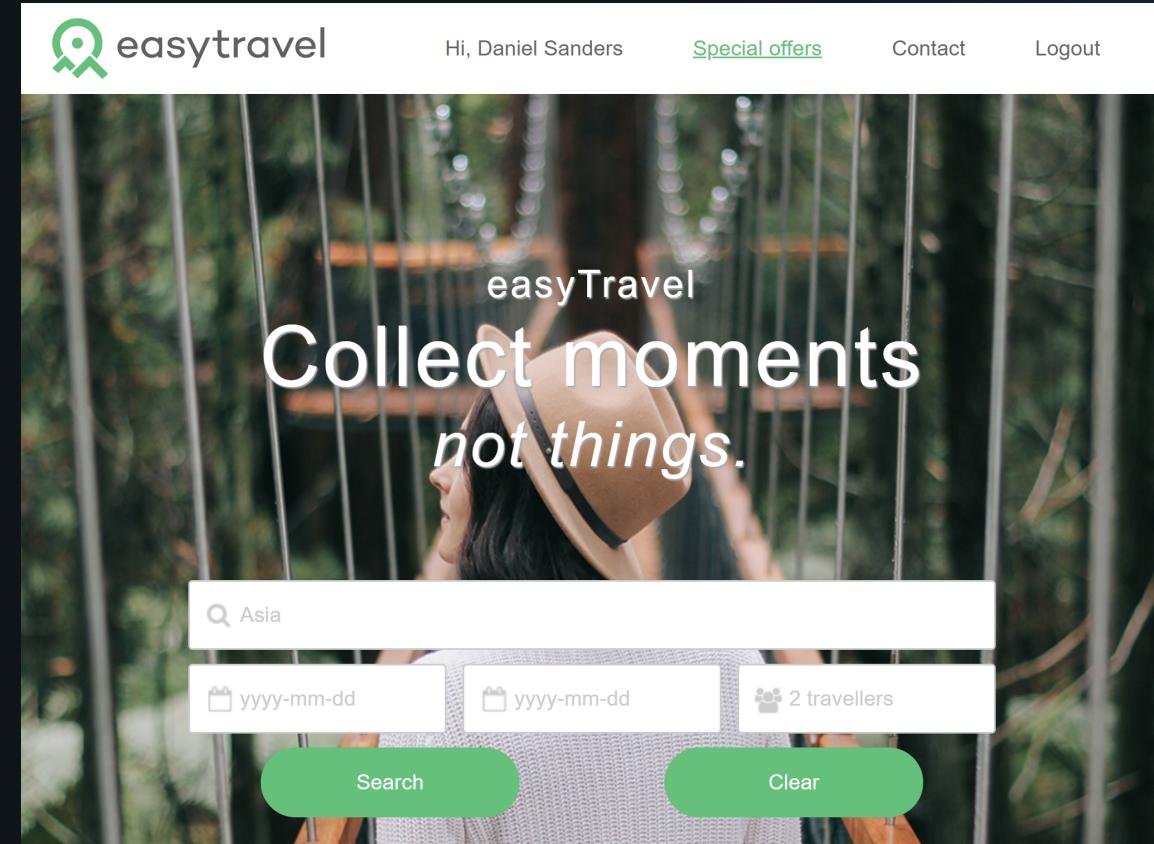
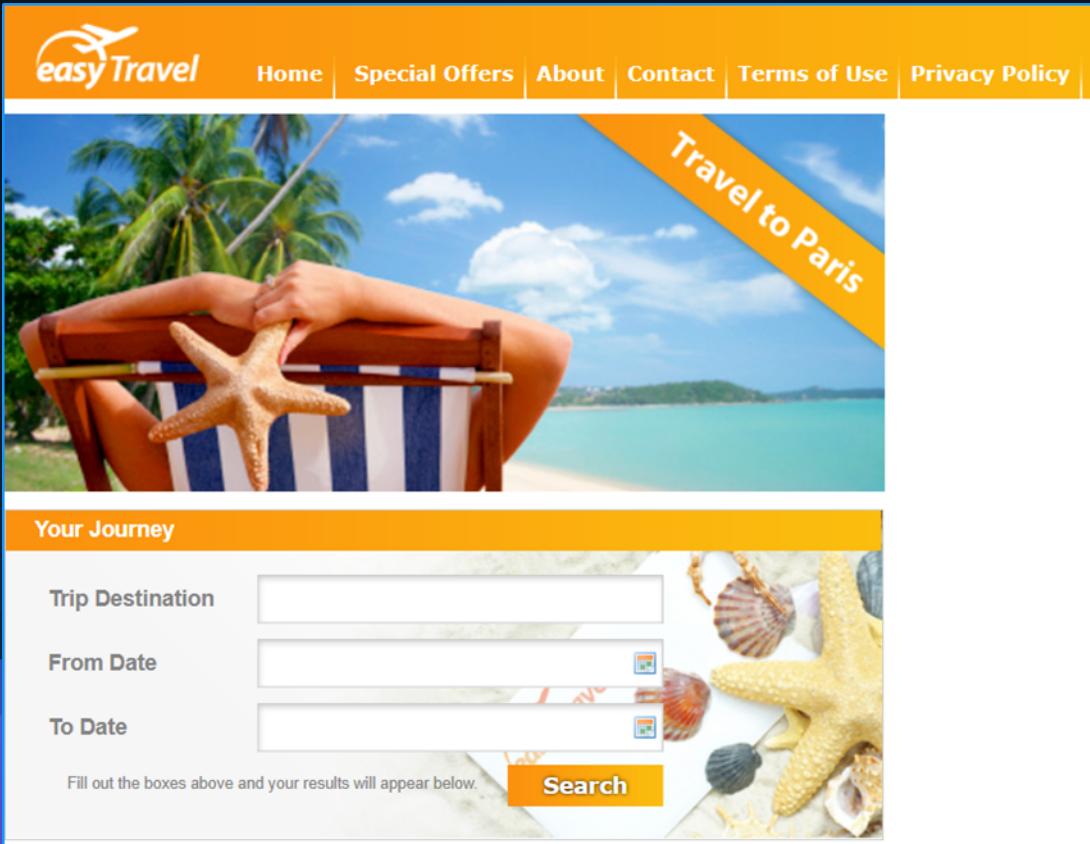
Configure Dynatrace ActiveGate for HTTP Monitors

- On the main left hand menu go to “Settings”
- Click “Web & Mobile Monitoring” in the middle menu
- Click Private Synthetic Locations
- Click Add Private Location
- Name this Location - Perform2020
- Add Geographic Location
- Choose your ActiveGate
- Click Add ActiveGate
- Click Save Changes



How to access easyTravel

- Navigate to the URL <http://easytravel.freeddns.org:9080/>
- Navigate to the URL <http://easytravel.freeddns.org:8079/>



Synthetic monitoring

Architecture

Customer Environment

OneAgent(s)



End user

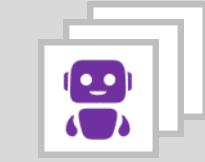


ActiveGate

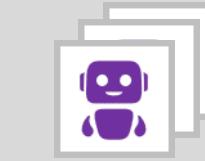


- Secure traffic to SaaS
- Run HTTP tests

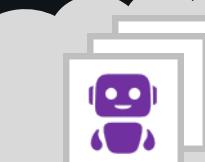
AWS



Azure



Alibaba

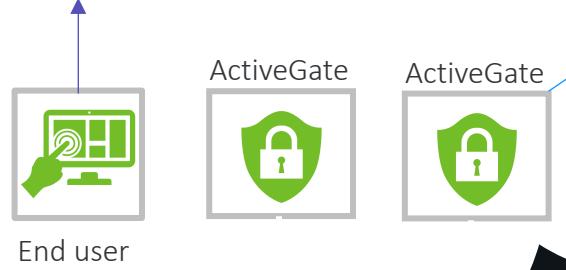
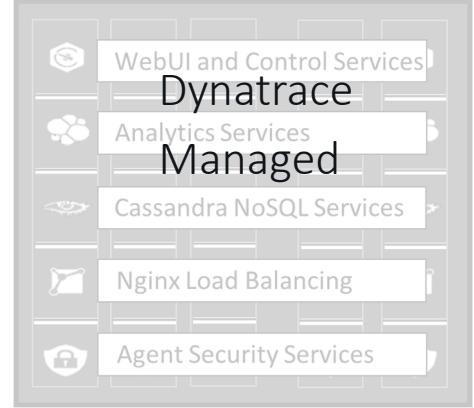


- Location runs multiple machines
- Failover and elasticity at locations
- Single IP address for each location
- Secure
- Runs later version of Chrome

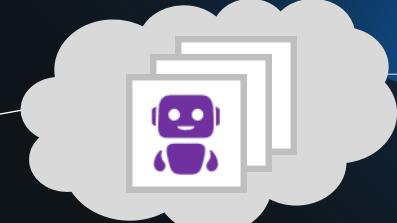
Dynatrace SaaS



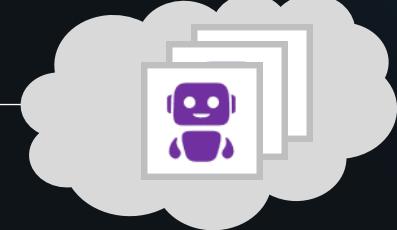
Customer Environment



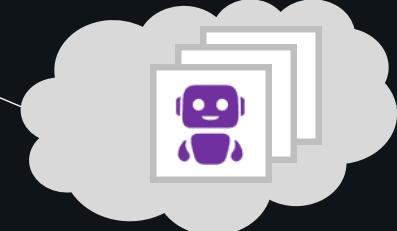
AWS



Azure



Alibaba



Dynatrace SaaS



Mission Control Monitoring

- Location runs multiple machines
- Failover and elasticity at locations
- Single IP address for each location
- Secure
- Runs later version of Chrome

Storage and Retention

- 35 days: Synthetic code-level data, including waterfall charts and screenshots
- 10 days: Server-side code-level data (PurePath data, for OneAgent users)
 - Can be increased at additional cost (SaaS)
- 5 years: Time series data (action, location, core metric trending)
 - Metrics are aggregated using following rules
 - 1 minute intervals – 14 days
 - 5 minute intervals – 28 days
 - 1 hour intervals – 400 days
 - 1 day intervals – 5 years

<https://www.dynatrace.com/support/help/deploy-dynatrace/oneagent/capabilities/data-retention-periods/>

Events and actions

Dynatrace synthetic example

- A Dynatrace synthetic monitor is comprised of **Events**
- An Event can be a click, keystroke, navigate, tap, or Javascript

The screenshot shows the Dynatrace CSM PE Demo interface for creating a synthetic monitor. The top navigation bar includes a search bar, user profile, and a summary icon. The main page title is "Create synthetic monitor". The interface is divided into three tabs: Type, Configuration, and Clickpath. The Clickpath tab is active, showing 9 recorded clickpath events. The left sidebar lists "Synthetic events" numbered 1 to 9, each with a thumbnail preview. The main area displays the event details and configuration options. Each event row includes a "Name" input field, a "Type" dropdown (set to "Click" for most events), "Move up/down" arrows, and a delete "X" button. The events listed are:

Event Number	Name	Type	Move up/down	Delete
1	Loading of "http://www.wunderground.com"	Navigate	▲ ▼	X
2	click on "Log in"	Click	▲ ▼	X
3	click on "form-signin-email"	Click	▲ ▼	X
4	keystrokes on "form-signin-email"	Keystroke	▲ ▼	X
5	click on "form-signin-password"	Click	▲ ▼	X
6	keystrokes on "form-signin-password"	Keystroke	▲ ▼	X
7	click on "Sign in"	Click	▲ ▼	X
8	click on "My Profile"	Click	▲ ▼	X
9	click on "Sign Out"	Click	▲ ▼	X

A success message at the bottom states: "✓ Your fast playback was successful." At the bottom right are buttons for "Cancel", "Record again", "Playback clickpath", and "Continue".

Dynatrace synthetic example

- A Dynatrace synthetic monitor is comprised of **Events**
- An Event can be a click, keystroke, navigate, tap, or Javascript
- Events that initiate network activity, such as page loads or navigates, are called **Actions**
- You are billed for **Actions**

The screenshot shows the Dynatrace CSM PE Demo interface for creating a synthetic monitor. The top navigation bar includes a search bar and user profile icons. The main area has tabs for 'Type', 'Configuration', and 'Clickpath'. The 'Clickpath' tab is active, showing 9 recorded clickpath events. Each event is listed with its name and type (e.g., Click, Keystroke). The first event, 'Loading of "http://www.wunderground.com"', is highlighted with a red box. Below the event list, a message says 'Your fast playback was successful.' At the bottom, there are buttons for 'Cancel', 'Record again', 'Playback clickpath', and 'Continue'.

Event Number	Name	Type	Move up/down	Delete
1	Loading of "http://www.wunderground.com"	Navigation	▲ ▼	X
2	click on "Log in"	Click	▲ ▼	X
3	click on "form-signin-email"	Click	▲ ▼	X
4	keystrokes on "form-signin-email"	Keystroke	▲ ▼	X
5	click on "form-signin-password"	Click	▲ ▼	X
6	keystrokes on "form-signin-password"	Keystroke	▲ ▼	X
7	click on "Sign in"	Click	▲ ▼	X
8	click on "My Profile"	Click	▲ ▼	X
9	click on "Sign Out"	Click	▲ ▼	X

Dynatrace synthetic example

- A Dynatrace synthetic monitor is comprised of **Events**
- An Event can be a click, keystroke, navigate, tap, or Javascript
- Events that initiate network activity, such as page loads or navigates, are called **Actions**
- You are billed for **Actions**
- The number of **Actions** and **Events** is shown when you configure a monitor

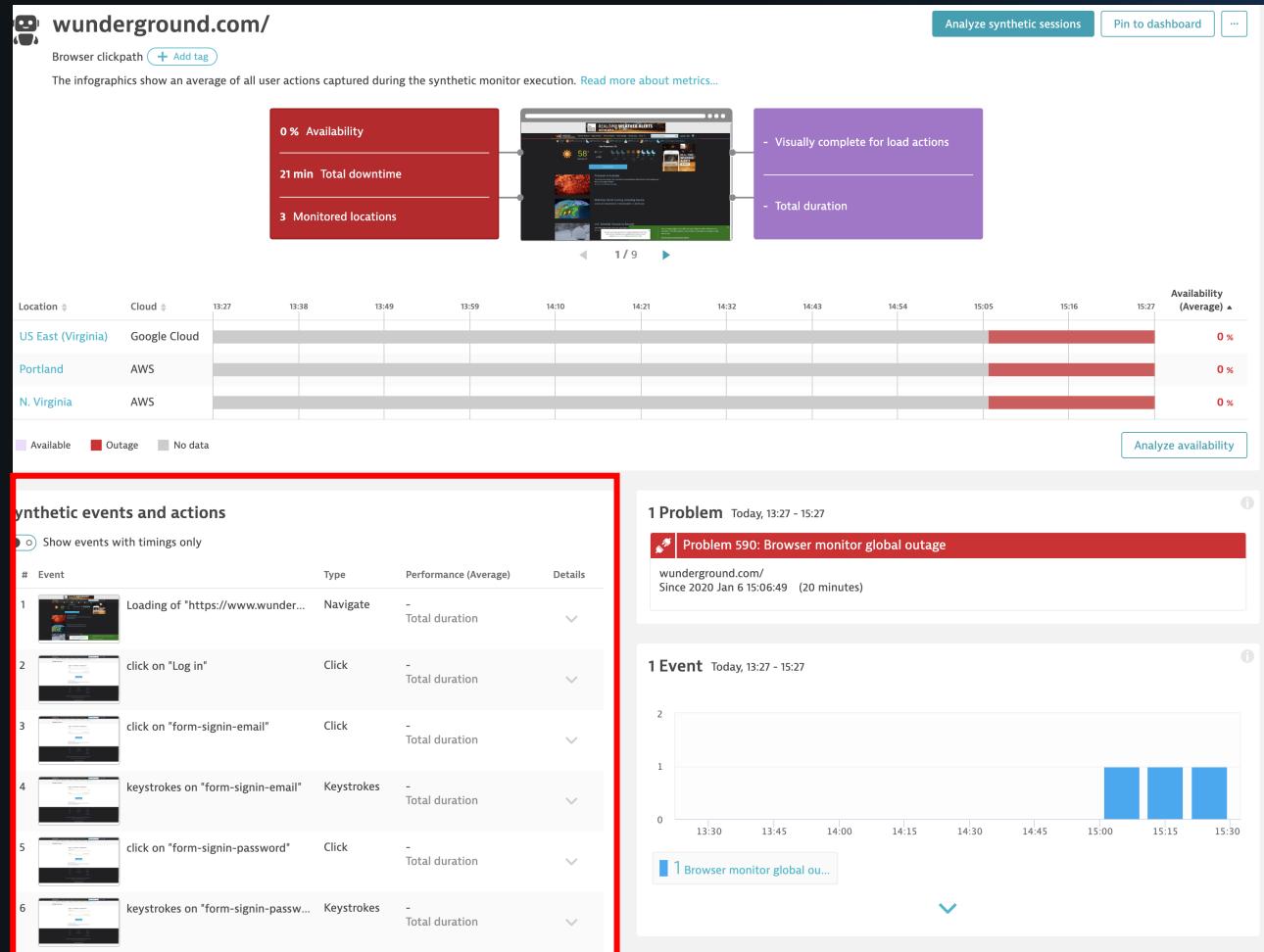
The screenshot shows the 'Create synthetic monitor' page in the Dynatrace interface. It has two tabs: 'Type' (selected) and 'Configuration'. The 'Summary' section contains fields for URL (http://www.wunderground.com), Name (wunderground.com), and Type (Browser clickpath). Below these are buttons for 'Change URL or name' and 'Change configuration'. The 'Recorded clickpath' section is highlighted with a red box and contains two rows: 'Synthetic events' (9) and 'Synthetic actions' (4). At the bottom is a 'Edit clickpath' button. The 'Configuration' tab on the right lists device profile (Desktop 1024x768, no throttling), frequency (every 15 min), locations (3 locations), and executions per hour (12). Estimated synthetic actions per month is listed as 35,040.

Recorded clickpath
Synthetic events: 9
Synthetic actions: 4

Estimated synthetic actions per month: 35,040

Dynatrace synthetic example

- A Dynatrace synthetic monitor is comprised of **Events**
- An Event can be a click, keystroke, navigate, tap, or Javascript
- Events that initiate network activity, such as page loads or navigates, are called **Actions**
- You are billed for **Actions**
- The number of **Actions** and **Events** is shown when you configure a monitor
- **Actions** capture performance metrics and are found on a Synthetic monitor overview



Summary

- **Events** are the total count of instructions in your script, while **Actions** are a subset of the events that triggered requests and are therefore billable
- The number of **Actions** in a Dynatrace Synthetic monitor should be similar to the number of page transitions and/or requests in a regular browser.
- In this example, we saw 4 billable **Actions** in the Dynatrace Synthetic monitor
- $4 \text{ Actions} * 3 \text{ Locations} = 12 \text{ executions} * 4 \text{ per hour (every 15 min)} * 24 \text{ hours} * 30.416 \text{ days}$
- Consumption is 35,040 DEM Units per Month

Exercise 2 - Hands on

Create a monitor

Hands-on exercise – Create a synthetic browser monitor

1. Select **Synthetic** from the navigation menu.
2. Click **Create a synthetic monitor** (top right)
3. Click **Create a browser monitor**
4. Install the Dynatrace Synthetic Chrome extension (bottom left)
5. Enable 'Allow in incognito' in extension settings
6. Refresh the page
7. Enter URL: <http://easytravel.freeddns.org:9080/>
8. Click **Record Clickpath** (bottom left)
 - Perform several actions
9. Click Play back Clickpath
10. Click **Select frequency and locations**
 - Select locations, change frequency
11. Click **View monitor summary**
12. Click **Create browser monitor**

Create a synthetic monitor

The screenshot shows the Dynatrace Synthetic monitors dashboard. On the left is a navigation sidebar with various monitoring categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, Manage, and Application. The main area displays 8 Synthetic monitors in a table format. The table columns include Synthetic monitor, Creation date, Type, Device profile, Status, Availability, and Total duration. The monitors listed are:

Synthetic monitor	Creation date	Type	Device profile	Status	Availability	Total duration
angular easytravel booking	May 27 2019	Browser clickpath	Desktop	active	93.27 %	16.94 s
Citrix Receiver	Jan 16 2019	HTTP	n/a	active	100 %	0.02 s
easyTravel demo booking	Nov 29 2019	Browser clickpath	Desktop	active	99.09 %	31.49 s
perfwear-shop	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.01 s
www.angular.easytravel.com	Mar 29 2019	Browser clickpath	Desktop	active	99.27 %	9.78 s
www.easytravel.com - HTTP	Nov 13 2018	HTTP	n/a	active	99.65 %	0.51 s
www.weather.easytravel.com	Nov 08 2017	Browser	Desktop	active	99.49 %	1.53 s
www.easytravel.com	Nov 08 2017	Browser	Desktop	inactive	-	-

A red box highlights the "Create a synthetic monitor" button in the top right corner of the main dashboard area.

Select monitor type

The screenshot shows the Dynatrace web interface with a purple header bar. The main title is "Create synthetic monitor". On the left, there's a sidebar with various navigation links like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic (which is currently selected), Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.

The main content area has tabs at the top: Type, Configuration, Frequency and locations, and Summary. The Type tab is active, showing the question "What type of synthetic monitor do you want to create?". It has two options:

- Create a browser monitor**: Represented by a small icon of a browser window with a chart and a play button. Below it is a description: "Simulate user behavior in a real browser. A browser monitor is a simulated user session driven by a modern web browser. You can either monitor a URL or record a sequence of clicks and user input that should be replayed during monitoring." A red box surrounds this entire section.
- Create an HTTP monitor**: Represented by a small icon of a terminal window with some code-like text. Below it is a description: "Create a basic HTTP monitor. An HTTP monitor uses a simple HTTP request to monitor the availability of a URL used by your application."

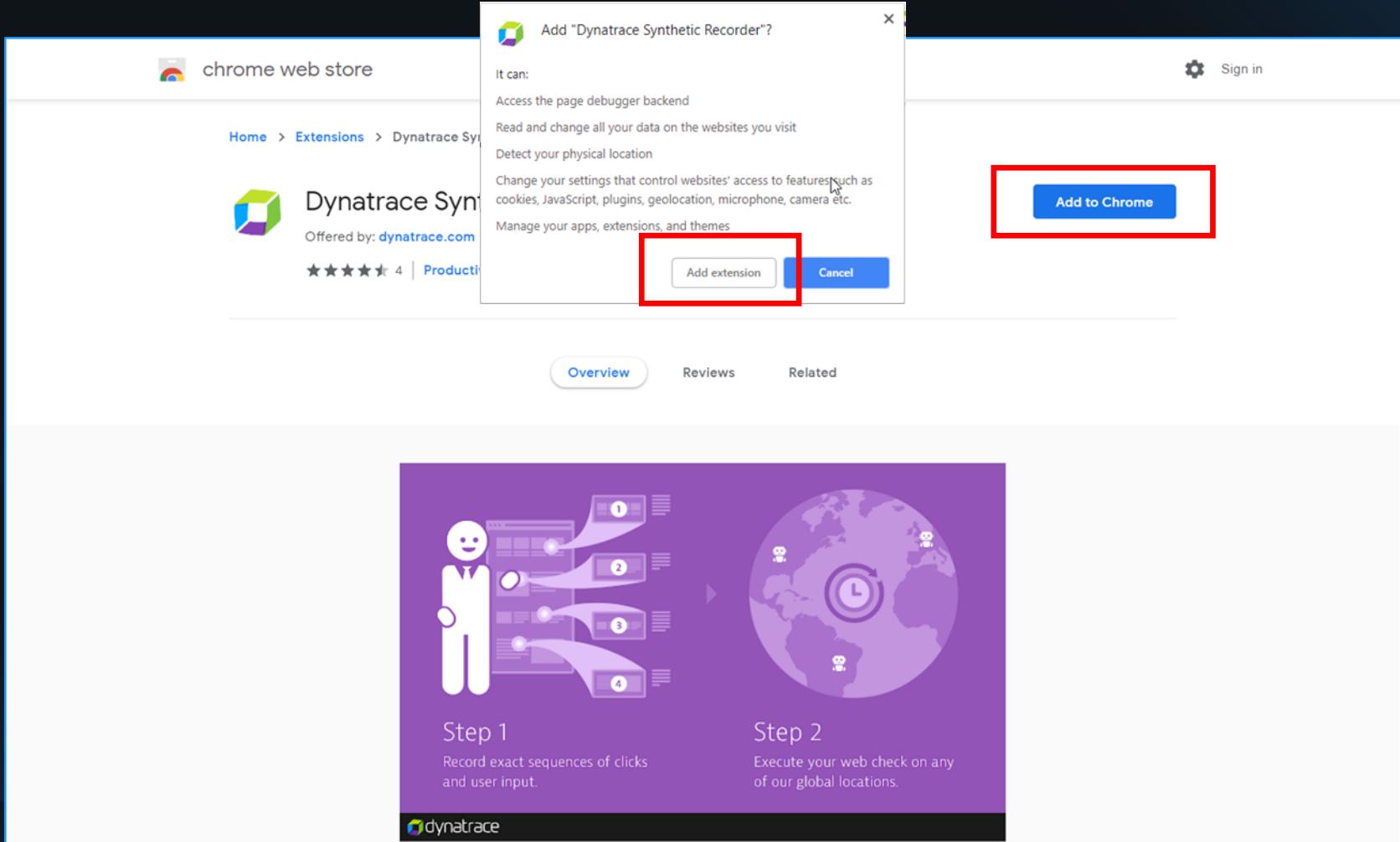
At the bottom right of the main content area, there are three small icons: a downward arrow, a red square with the number 1, and a user profile icon.

Install Dynatrace recorder

The screenshot shows the Dynatrace Perform interface with the following details:

- Left sidebar:** Lists various monitoring categories: Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.
- Top navigation bar:** Includes a search bar "Search PE tenant: vth51258...", a user icon, and a notification badge "1".
- Current page:** "Create synthetic monitor" under "Synthetic".
- Device profile settings:** Device set to "Desktop", Screen size (pixels) 1920 x 1080 px, Bandwidth (download, upload, latency) set to "No throttling", and User agent set to "Default Dynatrace user agent".
- Additional options:** Radio buttons for "Enable global login authentication", "Enable additional HTTP headers", "Block specific requests", "Set cookies", and "Bypass Content Security Policy (CSP) of monitored page".
- Clickpath events:** A section for creating or recording clickpath simulations, with a note about the Dynatrace Synthetic Recorder extension.
- Buttons at the bottom:** "Install Dynatrace Synthetic Recorder" (highlighted with a red box), "Manually add clickpath events", "Cancel", and "Select frequency and locations".

Add Chrome extension



Manage extensions > Allow in incognito

The screenshot shows the 'Extensions' settings page in Google Chrome. At the top, there's a blue header bar with the 'Extensions' tab, a search bar labeled 'Search extensions', and a 'Developer mode' toggle switch which is turned off. Below the header, there's a sidebar with links like 'geolocation, microphone, camera, etc.' and 'Manage your apps, extensions, and themes'. The main content area has a section titled 'Site access' with the sub-instruction 'Allow this extension to read and change all your data on websites you visit:'. It lists three options: 'On click', 'On specific sites', and 'On all sites', with 'On all sites' selected. A red box highlights a section titled 'Allow in incognito' which contains a warning: 'Warning: Google Chrome cannot prevent extensions from recording your browsing history. To disable this extension in incognito mode, unselect this option.' A blue toggle switch is shown next to the warning. Below this, there are other settings: 'Allow access to file URLs' (disabled), 'View in Chrome Web Store' (checkbox checked), 'Source' (Chrome Web Store), and 'Remove extension'.

Refresh the page

The screenshot shows the Dynatrace Perform interface with the following details:

- Header:** Search bar: "Search PE tenant: vth51258..".
- Sidebar:** Navigation menu with sections like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.
- Main Content:**
 - Synthetic tab:** Sub-tab "Create synthetic monitor" selected. Buttons: "Visual mode" (highlighted) and "Script mode".
 - Device profile:** Device dropdown: "Desktop", Screen size (pixels): "1920 x 1080 px", Bandwidth (download, upload, latency): "No throttling", User agent: "Default Dynatrace user agent".
 - Additional options:** Radio buttons:
 - Enable global login authentication
 - Enable additional HTTP headers
 - Block specific requests
 - Set cookies
 - Bypass Content Security Policy (CSP) of monitored page
 - Clickpath events:** Text: "Create or record a clickpath simulating multiple page actions or just monitor page availability by selecting frequency and locations." A note about the Synthetic Recorder extension is present, with the "Refresh the page" link highlighted by a red box.
 - Buttons:** "Install Dynatrace Synthetic Recorder" and "Manually add clickpath events".
 - Footer:** "Cancel" and "Select frequency and locations" buttons.

Create a new monitor

The screenshot shows the 'Create synthetic monitor' wizard in the Dynatrace interface. The top navigation bar includes a search bar, a 'Synthetic' tab, and a 'Create synthetic monitor' button. The main content area has four tabs: 'Type' (selected), 'Configuration', 'Frequency and locations', and 'Summary'. The 'Type' tab is titled 'Configure a browser monitor'. It features two input fields: 'Type in the URL of the site you want to monitor' (with placeholder 'For example, http://www.mysite.com') and 'Name this monitor' (with placeholder 'For example, mysite'). These fields are highlighted with a red rectangle. Below these fields are two mode buttons: 'Visual mode' (selected) and 'Script mode'. The 'Device profile' section includes dropdowns for 'Device' (set to 'Desktop'), 'Screen size (pixels)' (set to 1920x1080px), 'Bandwidth (download, upload, latency)' (set to 'No throttling'), and 'User agent' (set to 'Default Dynatrace user agent'). The 'Additional options' section contains five checkboxes, all of which are currently selected: 'Enable global login authentication', 'Enable additional HTTP headers', 'Block specific requests', 'Set cookies', and 'Bypass Content Security Policy (CSP) of monitored page'. At the bottom, there's a section for 'Clickpath events' with the instruction: 'Create or record a clickpath simulating multiple page actions or just monitor page availability by selecting frequency and locations.'

Device profile

The screenshot shows the 'Create synthetic monitor' interface in the Dynatrace web application. The top navigation bar includes icons for search, refresh, and notifications (3). The main title is 'Synthetic > Create synthetic monitor'. The configuration is divided into several tabs: Type (selected), Configuration, Frequency and locations, and Summary.

Type Tab: Subtitle 'Configure a browser monitor'. Fields include 'Type in the URL of the site you want to monitor' (example: http://www.mysite.com) and 'Name this monitor' (example: mysite). Below these are 'Visual mode' and 'Script mode' buttons, with 'Visual mode' selected.

Device profile section (highlighted by a red box): Contains settings for 'Device' (set to 'Desktop'), 'Screen size (pixels)' (1920 x 1080 px), 'Bandwidth (download, upload, latency)' (set to 'No throttling'), and 'User agent' (set to 'Default Dynatrace user agent').

Additional options: A list of checkboxes for monitoring features: 'Enable global login authentication' (checked), 'Enable additional HTTP headers' (unchecked), 'Block specific requests' (unchecked), 'Set cookies' (unchecked), and 'Bypass Content Security Policy (CSP) of monitored page' (unchecked).

Clickpath events: A note: 'Create or record a clickpath simulating multiple page actions or just monitor page availability by selecting frequency and locations.'

Additional options

The screenshot shows the 'Create synthetic monitor' wizard in the Dynatrace interface. The 'Type' step is selected. The 'Configuration' tab is active, showing fields for 'Type in the URL of the site you want to monitor' (with placeholder 'For example, http://www.mysite.com') and 'Name this monitor' (with placeholder 'For example, mysite'). Below these are tabs for 'Visual mode' (selected) and 'Script mode'. The 'Device profile' section includes a 'Device' dropdown set to 'Desktop', a 'Screen size (pixels)' field (1920 x 1080 px), a 'Bandwidth (download, upload, latency)' dropdown set to 'No throttling', and a 'User agent' dropdown set to 'Default Dynatrace user agent'. A red box highlights the 'Additional options' section, which contains the following checkboxes:

- Enable global login authentication
- Enable additional HTTP headers
- Block specific requests
- Set cookies
- Bypass Content Security Policy (CSP) of monitored page

The 'Clickpath events' section at the bottom is described as creating or recording a clickpath simulating multiple page actions or monitoring page availability by selecting frequency and locations.

Record clickpath

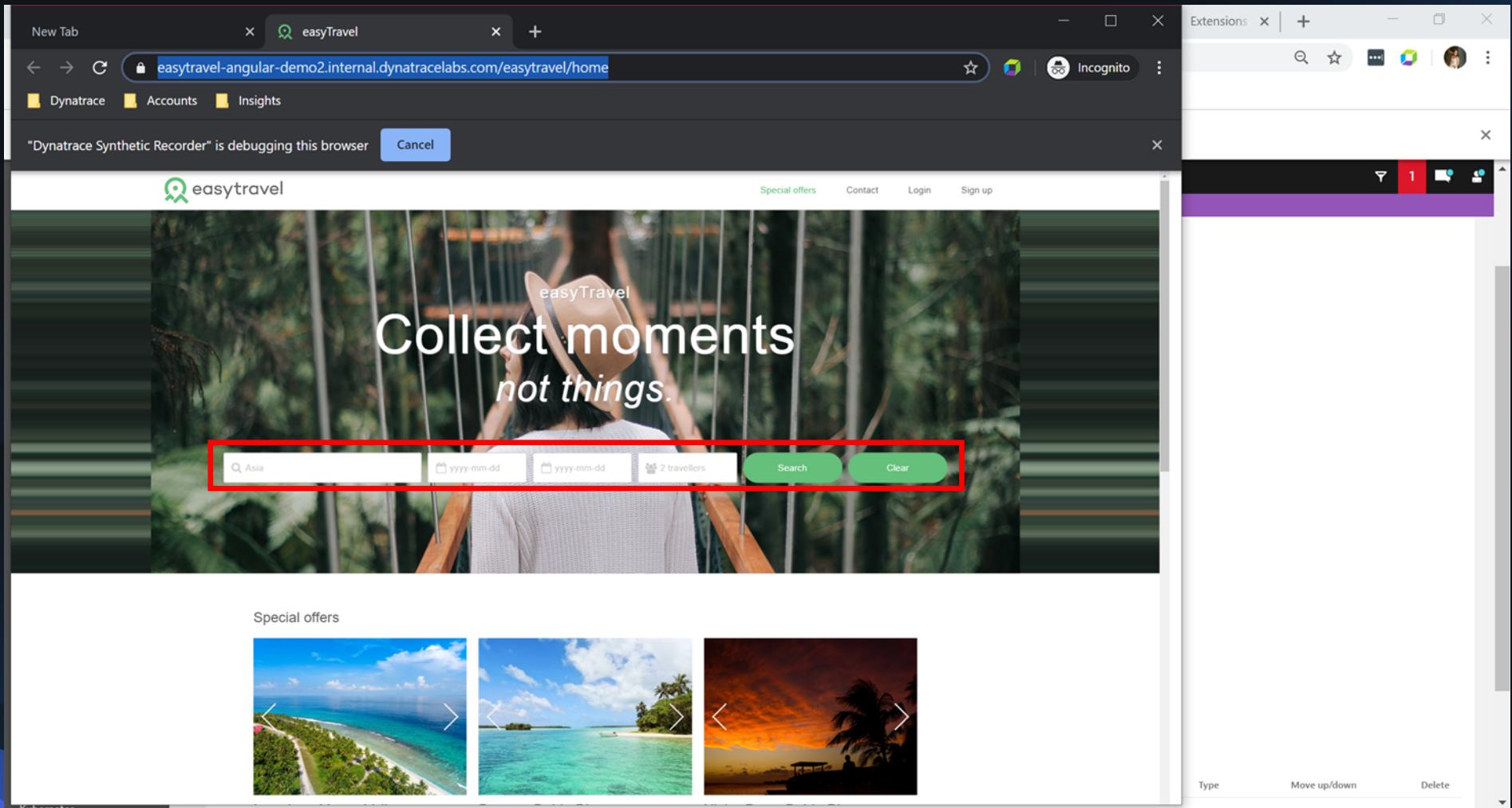
The screenshot shows the Dynatrace Perform interface with the 'Synthetic' tab selected. The main area is titled 'Create synthetic monitor' with two input fields: 'For example, http://www.mysite.com' and 'For example, mysite'. Below these is a button '+ Add tag'. A navigation bar at the top right includes icons for search, refresh, and user profile.

The left sidebar lists various monitoring categories: Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage. The 'Synthetic' category is currently active.

The main configuration area includes:

- Device profile:** Device dropdown set to 'Desktop', Screen size (pixels) set to 1920 x 1080 px, Bandwidth (download, upload, latency) dropdown set to 'No throttling', and User agent dropdown set to 'Default Dynatrace user agent'.
- Additional options:** A list of checkboxes:
 - Enable global login authentication (checked)
 - Enable additional HTTP headers (checked)
 - Block specific requests (checked)
 - Set cookies (checked)
 - Bypass Content Security Policy (CSP) of monitored page (checked)
- Clickpath events:** A section for creating or recording a clickpath, with a note: 'Create or record a clickpath simulating multiple page actions or just monitor page availability by selecting frequency and locations.' It contains two buttons: 'Record clickpath' (highlighted with a red box) and 'Manually add clickpath events'.
- Buttons at the bottom:** 'Cancel' and 'Select frequency and locations'.

Record the clickpath



Configured clickpath

The screenshot shows the Dynatrace Perform interface with the following details:

- Left Sidebar:** Contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.
- Top Bar:** Includes a search bar "Search PE tenant: vth51258...", a user icon, and a notification badge "1".
- Current Path:** Synthetic > Create synthetic monitor > Clickpath events.
- Content Area:** A table titled "Click events in the list below to add content validations, edit wait time, or change input text." with the following data:

Synthetic events	Name	Type	Move up/down	Delete
1	Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigate	▲ ▼	X
2	click on "search:destination"	Click	▲ ▼	X
3	keystrokes on "search:destination"	Keystroke	▲ ▼	X
4	click on "search:submit"	Click	▲ ▼	X
5	click on "recommendation:result"	Click	▲ ▼	X
6	click on "book:booknow"	Click	▲ ▼	X

Bottom Buttons: Cancel, Record again, Play back clickpath, and Select frequency and locations.

Record again or playback

The screenshot shows the Dynatrace interface for creating a synthetic monitor. On the left is a sidebar with various navigation links. The main area is titled "Create synthetic monitor" and contains a list of recorded synthetic events. Each event is numbered and includes a preview image, a name, a type, and controls for moving up/down and deleting.

Event Number	Preview Image	Name	Type	Move up/down	Delete
1		Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigate	▲ ▼	X
2		click on "search:destination"	Click	▲ ▼	X
3		keystrokes on "search:destination"	Keystroke	▲ ▼	X
4		click on "search:submit"	Click	▲ ▼	X
5		click on "recommendation:result"	Click	▲ ▼	X
6		click on "book:booknow"	Click	▲ ▼	X

At the bottom right, there are four buttons: "Cancel", "Record again" (which is highlighted with a red box), "Play back clickpath", and "Select frequency and locations".

Playback clickpath

The screenshot shows the Dynatrace Perform interface with the following details:

- Left Sidebar:** Lists various monitoring categories: Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.
- Top Bar:** Includes a search bar "Search PE tenant: vth51258...", a user icon, and a notification badge "1".
- Current View:** "Synthetic" > "Create synthetic monitor".
- Main Content:** "Add synthetic event" dialog. It lists six events in a table:

Number	Image	Name	Type	Move up/down	Delete
1		Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigate	▲ ▼	X
2		click on "search:destination"	Click	▲ ▼	X
3		keystrokes on "search:destination"	Keystroke	▲ ▼	X
4		click on "search:submit"	Click	▲ ▼	X
5		click on "recommendation:result"	Click	▲ ▼	X
6		click on "book:booknow"	Click	▲ ▼	X
- Message:** A red-bordered message box at the bottom left says "✓ Your last playback was successful."
- Buttons:** "Cancel", "Record again", "Play back clickpath" (highlighted in blue), and "Select frequency and locations".

Select frequency and location

The screenshot shows the Dynatrace interface for creating a synthetic monitor. On the left is a sidebar with various monitoring categories like Dashboards & reports, Problems, and Applications. The main area is titled "Create synthetic monitor" and shows a list of "Clickpath events". Each event is represented by a small screenshot thumbnail, a name, and a type (e.g., Click, Keystroke). The events listed are:

Synthetic events	Name	Type	Move up/down	Delete
1	Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigate	▲ ▼	X
2	click on "search:destination"	Click	▲ ▼	X
3	keystrokes on "search:destination"	Keystroke	▲ ▼	X
4	click on "search:submit"	Click	▲ ▼	X
5	click on "recommendation:result"	Click	▲ ▼	X
6	click on "book:booknow"	Click	▲ ▼	X

At the bottom right, there are buttons for "Cancel", "Record again", "Play back clickpath", and a prominent blue button labeled "Select frequency and locations", which is highlighted with a red box.

Select locations

The screenshot shows the Dynatrace Perform interface with the title "Create synthetic monitor". On the left, there is a sidebar with various navigation options like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, Manage, and Help. The "Synthetic" section is currently selected.

In the main content area, there is a heading "3 locations selected" and a search bar "Filter by cloud provider, continent, country, city or by IP address". A button "Hide inactive locations" is also present. The table lists the selected locations:

Location name	Cloud	Type	Browser version	Country	Continent	IP address
AWS Linux		Private	Chromium ver. 73.0.3683.75	United States	North America	-
AWS Win2016		Private	Chromium ver. 74.0.3729.169	United States	North America	-
Abu Dhabi (uaecentral)	Azure	Public	Chrome ver. 78.0.3904.87	United Arab Emirates	Asia	20.37.82.153, 20.37.82.154...
Amsterdam (westeurope)	Azure	Public	Chrome ver. 78.0.3904.87	Netherlands	Europe	52.157.248.165, 52.157.249...
Bahrain (me-south-1)	AWS	Public	Chrome ver. 78.0.3904.87	Bahrain	Asia	15.185.49.140, 15.185.69.5...
Beijing (cn-beijing)	Alibaba	Public	Chrome ver. 78.0.3904.87	China	Asia	39.105.174.59, 39.105.201...
Busan (koreasouth)	Azure	Public	Chrome ver. 78.0.3904.87	South Korea	Asia	40.80.234.187, 40.80.235...
Canberra (australiacentral)	Azure	Public	Chrome ver. 78.0.3904.87	Australia	Oceania	20.36.36.121, 20.36.38.21...
Cape Town (southafricanwest)	Azure	Public	Chrome ver. 78.0.3904.87	South Africa	Africa	102.133.0.104, 102.133.0.1...
Cardiff (ukwest)	Azure	Public	Chrome ver. 78.0.3904.87	United Kingdom	Europe	40.81.120.132, 40.81.122.1...
Chennai (southindia)	Azure	Public	Chrome ver. 78.0.3904.87	India	Asia	40.81.72.203, 40.81.76.13...
Cheyenne (westcentralus)	Azure	Public	Chrome ver. 78.0.3904.87	United States	North America	13.77.205.232, 13.78.128.2...
Chicago (northcentralus)	Azure	Public	Chrome ver. 78.0.3904.87	United States	North America	23.96.186.164, 23.96.215...
Des Moines (centralus)	Azure	Public	Chrome ver. 78.0.3904.87	United States	North America	23.99.136.69, 40.67.190.1...
Dubai (me-east-1)	Alibaba	Public	Chrome ver. 78.0.3904.87	United Arab Emirates	Asia	47.91.104.27, 47.91.104.10...
Dubai (uaenorth)	Azure	Public	Chrome ver. 78.0.3904.87	United Arab Emirates	Asia	20.46.146.157, 20.46.147.1...
Dublin (eu-west-1)	AWS	Public	Chrome ver. 78.0.3904.87	Ireland	Europe	3.248.152.102, 18.200.871...

Select frequency (scroll up)

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage. The main area is titled "Create synthetic monitor" and is currently on the "Frequency and locations" tab. The "Type" tab is selected. The "Frequency and locations" section includes a dropdown menu for monitoring frequency: "Monitor my website every" with options 5, 10, 15, 30, and 60 minutes, where 15 is highlighted. Below the dropdown is a note: "Dynatrace offers a global network of public synthetic locations out of the box. You can also setup private locations." A world map shows three locations marked with purple pins: one in North America, one in Europe, and one in Asia. At the bottom, it says "3 locations selected" and there is a "Filter by cloud provider, continent, country, city or by IP address" input field and a "Hide inactive locations" button.

View monitor summary

The screenshot shows the Dynatrace Perform interface. On the left is a navigation sidebar with various monitoring categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage. A search bar at the top right says "Search PE tenant: vth51258...". A modal window titled "Create synthetic monitor" is open, listing 20 different locations with their provider (Azure, Alibaba, AWS), visibility (Public), browser version (Chrome ver. 78.0.3904.87), location (e.g., Singapore, Sydney, Tokyo, Texas, Zürich), continent (Asia, Oceania, South America, North America, Europe), and IP range. Most entries have an "Early adopter" badge. At the bottom right of the modal are "Cancel" and "View monitor summary" buttons, with the latter being highlighted by a red box.

Location	Provider	Visibility	Browser Version	Location	Continent	IP Range
Singapore (southeastasia)	Azure	Public	Chrome ver. 78.0.3904.87	Singapore	Asia	13.67.35.225, 40.90.188.1...
Singapore (ap-southeast-1)	Alibaba	Public	Chrome ver. 78.0.3904.87	Singapore	Asia	47.74.179.194, 47.74.211.2, ...
Singapore (ap-southeast-1)	AWS	Public	Chrome ver. 78.0.3904.87	Singapore	Asia	13.250.162.25, 18.138.205...
Stockholm (eu-north-1)	AWS	Public	Chrome ver. 78.0.3904.87	Sweden	Europe	13.48.107.254, 13.48.156.1...
Sydney (ap-southeast-2)	Alibaba	Public	Chrome ver. 78.0.3904.87	Australia	Oceania	47.74.66.250, 47.74.70.101...
Sydney (ap-southeast-2)	AWS	Public	Chrome ver. 78.0.3904.87	Australia	Oceania	3.24.189.189, 3.106.79.114,...
São Paulo (sa-east-1)	AWS	Public	Chrome ver. 78.0.3904.87	Brazil	South America	18.229.12.101, 18.229.115.2...
São Paulo (brazilsouth)	Azure	Public	Chrome ver. 78.0.3904.87	Brazil	South America	191.232.211.93, 191.232.21...
Texas (southcentralus)	Azure	Public	Chrome ver. 78.0.3904.87	United States	North America	13.65.31.96, 13.85.11.125, 2...
Tokyo (ap-northeast-1)	Alibaba	Public	Chrome ver. 78.0.3904.87	Japan	Asia	47.74.25.179, 47.74.33.252,...
Tokyo (ap-northeast-1)	AWS	Public	Chrome ver. 78.0.3904.87	Japan	Asia	13.112.243.168, 18.176.38...
Tokyo (japaneast)	Azure	Public	Chrome ver. 78.0.3904.87	Japan	Asia	40.115.136.49, 40.115.156.1...
Toronto (canadacentral)	Azure	Public	Chrome ver. 78.0.3904.87	Canada	North America	40.82.184.168, 40.82.188...
Victoria (australiasoutheast)	Azure	Public	Chrome ver. 78.0.3904.87	Australia	Oceania	13.70.182.87, 20.40.162.78...
Virginia (us-east-1)	Alibaba	Public	Chrome ver. 78.0.3904.87	United States	North America	47.89.178.166, 47.89.183.2...
Virginia (eastus)	Azure	Public	Chrome ver. 78.0.3904.87	United States	North America	20.185.111.140, 52.188.72.1...
Zhangjiakou (cn-zhangjiakou)	Alibaba	Public	Chrome ver. 78.0.3904.87	China	Asia	39.98.83.156, 39.98.191.1...
Zürich (switzerlandnorth)	Azure	Public	Chrome ver. 78.0.3904.87	Switzerland	Europe	51.107.0.113, 51.107.0.210, ...

Summary and create monitor

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.

The main area is titled "Create synthetic monitor" and includes tabs for "Type", "Configuration", "Frequency and locations", and "Summary".

Type Tab:

- Summary:** URL & type: URL: https://easytravel-angular-demo2.internal.dynatracelabs..., Name: easyTravel Booking, Type: Browser clickpath. Change URL or name.
- Configuration:** Device profile: Desktop 1920x1080, no throttling, Frequency: every 15 min, Locations: 3 locations, Executions per hour: 12. Change configuration.
- Frequency and locations:** Recorded clickpath: Synthetic events: 6, Synthetic actions: 6. Edit clickpath.
- Summary:** Consumption: Estimated synthetic actions per month: 52,560.

Create browser monitor button is highlighted with a red box.

Complete!

Synthetic > easyTravel Booking

Search PE tenant: vth51258...

Last 2 hours 1

easyTravel Booking

Browser clickpath [+ Add tag](#)

The infographics show an average of all user actions captured during the synthetic monitor execution. [Read more about metrics...](#)

- Availability
0 min Total downtime
0 Monitored location

- Visually complete for load actions
- Total duration

Setting up monitor

Location Cloud 08:49 08:59 09:09 09:19 09:29 09:39 09:49 09:59 10:09 10:19 10:29 10:39 10:49 Availability (Average) ▲

Location	Cloud	08:49	08:59	09:09	09:19	09:29	09:39	09:49	09:59	10:09	10:19	10:29	10:39	10:49	
AWS Win2016															
Chicago	Azure														
Amsterdam	Azure														

Available Outage No data

Analyze availability

Synthetic events and actions

Event Type Performance (Average) Details

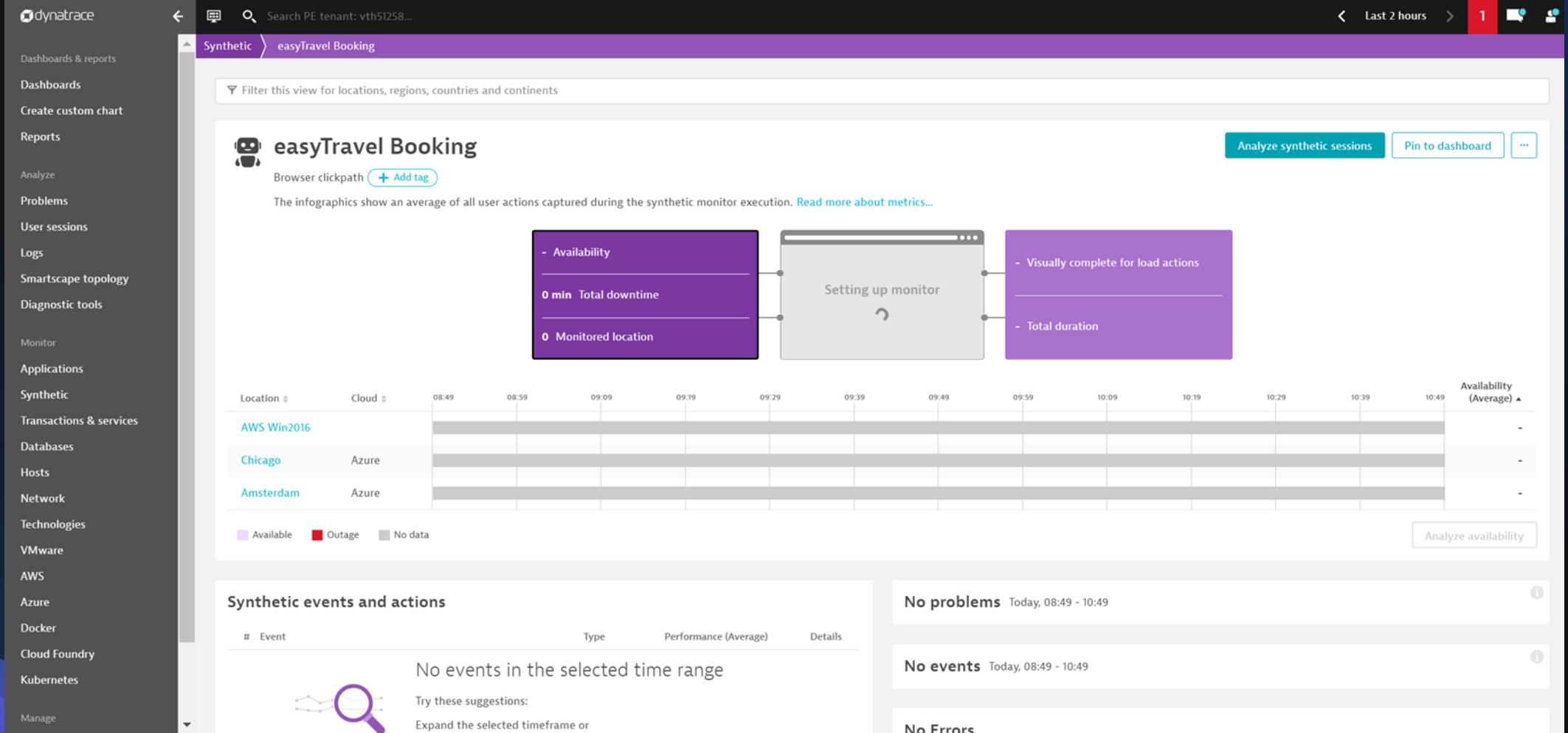
No events in the selected time range

Try these suggestions:
Expand the selected timeframe or

No problems Today, 08:49 - 10:49

No events Today, 08:49 - 10:49

No Errors



Hands-on exercise – Create a synthetic browser monitor

1. Select **Synthetic** from the navigation menu.
2. Click **Create a synthetic monitor** (top right)
3. Click **Create a browser monitor**
4. Install the Dynatrace Synthetic Chrome extension (bottom left)
5. Enable ‘Allow in incognito’ in extension settings
6. Refresh the page
7. Enter URL: <http://easytravel.freeddns.org:9080/>
8. Click **Record Clickpath** (bottom left)
 - Perform several actions
9. Click Play back Clickpath
10. Click **Select frequency and locations**
 - Select locations, change frequency
11. Click **View monitor summary**
12. Click **Create browser monitor**

Navigating the synthetic view

Synthetic list view

The screenshot shows the Dynatrace interface for managing synthetic monitors. On the left, a sidebar lists various monitoring categories like Dashboards, Reports, and Synthetic, with 'Synthetic' highlighted by a red box. The main area displays a list of 8 synthetic monitors, each with a thumbnail, name, creation date, type, device profile, status, availability, and total duration.

8 Synthetic monitors

Filtered by: Start typing to filter synthetic monitors...

Synthetic monitor	Creation date	Type	Device profile	Status	Availability	Total duration
angular easytravel booking	May 27 2019	Browser clickpath	Desktop	active	100 %	15.94 s
Citrix Receiver	Jan 16 2019	HTTP	n/a	active	100 %	0.02 s
easyTravel demo booking	Nov 29 2019	Browser clickpath	Desktop	active	100 %	32.05 s
perfwear-shop	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.22 s
www.angular.easytravel.com	Mar 29 2019	Browser clickpath	Desktop	active	100 %	8.99 s
www.easytravel.com - HTTP	Nov 13 2018	HTTP	n/a	active	100 %	0.50 s
www.weather.easytravel.com	Nov 08 2017	Browser	Desktop	active	100 %	1.53 s
www.easytravel.com	Nov 08 2017	Browser	Desktop	inactive	-	-

Default filters

The screenshot shows the Dynatrace Synthetic monitors dashboard. On the left, there's a sidebar with various navigation options. A red box highlights the 'Status', 'Type of synthetic monitor', 'Device profile', 'Monitored location', and 'Application' sections under the 'Synthetic' category.

8 Synthetic monitors

Filtered by:

Start typing to filter synthetic monitors...

Synthetic monitor ▲	Creation date ▲	Type ▲	Device profile ▲	Status ▲	Availability ▲	Total duration ▲
 angular easytravel booking 17 synthetic events, every 5 min, 2 locations	May 27 2019	Browser clickpath	Desktop	active	100 %	15.94 s
 Citrix Receiver 1 request, every 5 min, 1 location	Jan 16 2019	HTTP	n/a	active	100 %	0.02 s
 easyTravel demo booking 18 synthetic events, every 5 min, 2 locations	Nov 29 2019	Browser clickpath	Desktop	active	100 %	32.05 s
 perfwear-shop 7 synthetic events, every 15 min, 2 locations	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.22 s
 www.angular.easytravel.com 17 synthetic events, every 10 min, 1 location	Mar 29 2019	Browser clickpath	Desktop	active	100 %	8.99 s
 www.easytravel.com - HTTP 1 request, every 5 min, 1 location	Nov 13 2018	HTTP	n/a	active	100 %	0.50 s
 www.weather.easytravel.com every 15 min, 2 locations	Nov 08 2017	Browser	Desktop	active	100 %	1.53 s
 www.easytravel.com Synthetic monitor is inactive, no runs for the past 25 d 9 h 54 min	Nov 08 2017	Browser	Desktop	inactive	-	-

Set a filter

The screenshot shows the Dynatrace interface for managing synthetic monitors. On the left, a sidebar lists various monitoring categories like Dashboards, Reports, and Synthetic. The Synthetic section is selected and expanded, showing a list of filters under 'Type of synthetic monitor'. A red box highlights the 'Browser clickpath' filter, which is selected, resulting in four results displayed in the main content area.

4 Synthetic monitors

Filtered by:

Start typing to filter synthetic monitors...

Synthetic monitor ▲	Creation date ▲	Type ▲	Device profile ▲	Status ▲	Availability ▲	Total duration ▲
angular easytravel booking 17 synthetic events, every 5 min, 2 locations	May 27 2019	Browser clickpath	Desktop	active	100 %	15.94 s
easyTravel demo booking 18 synthetic events, every 5 min, 2 locations	Nov 29 2019	Browser clickpath	Desktop	active	100 %	32.05 s
perfwear-shop 7 synthetic events, every 15 min, 2 locations	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.22 s
www.angular.easytravel.com 17 synthetic events, every 10 min, 1 location	Mar 29 2019	Browser clickpath	Desktop	active	100 %	8.99 s

Sort monitors

The screenshot shows the Dynatrace interface for managing synthetic monitors. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, Manage, and Application. The main content area is titled "4 Synthetic monitors" and includes a search bar and a "Create a synthetic monitor" button. A "Filtered by:" section contains a search input field. The main table lists four synthetic monitors:

Synthetic monitor	Creation date	Type	Device profile	Status	Availability	Total duration
easyTravel demo booking	Nov 29 2019	Browser clickpath	Desktop	active	100 %	32.05 s
perfwear-shop	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.22 s
angular easytravel booking	May 27 2019	Browser clickpath	Desktop	active	100 %	15.94 s
www.angular.easytravel.com	Mar 29 2019	Browser clickpath	Desktop	active	100 %	8.99 s

Synthetic table view

The screenshot shows the Dynatrace interface for managing synthetic monitors. The left sidebar contains navigation links for Dashboards & reports, Reports, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, and Kubernetes. A search bar at the top right says "Search Dynatrace demo2...". The main area is titled "Synthetic" and displays "4 Synthetic monitors" sorted by duration. A red box highlights the "List" and "Grid" view selection buttons at the top of the monitor list. The monitor details are as follows:

Monitor Name	Type	Monitoring Interval	Locations	Availability	Duration
easyTravel demo booking	Browser clickpath	Every 5 min	2 locations	100 %	32.05 s
perfwear-shop	Browser clickpath	Every 15 min	2 locations	100 %	23.22 s
angular easytravel booking	Browser clickpath	Every 5 min	2 locations	100 %	15.94 s
www.angular.easytravel.com	Browser clickpath	Every 10 min	1 location	100 %	8.99 s

Additional filters

The screenshot shows the Dynatrace Synthetic monitors dashboard. On the left, there's a sidebar with navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, and Kubernetes. A search bar at the top says "Search Dynatrace demo2...". The main area is titled "Synthetic" and shows "4 Synthetic monitors" sorted by duration. Each monitor card includes a screenshot, name, type, monitoring frequency, locations, availability, and duration. A red box highlights the "Create a synthetic monitor" button in the top right corner.

4 Synthetic monitors
sorted by duration

Filtered by:

Start typing to filter synthetic monitors...

Monitor	Type	Monitoring Frequency	Locations	Availability	Duration
easyTravel demo booking	Browser clickpath	Every 5 min	2 locations	100 %	32.05 s
perfwear-shop	Browser clickpath	Every 15 min	2 locations	100 %	23.22 s
angular easytravel booking	Browser clickpath	Every 5 min	2 locations	100 %	15.94 s
www.angular.easytravel.com	Browser clickpath	Every 10 min	1 location	100 %	8.99 s

Create a synthetic monitor

Additional filters

The screenshot shows the Dynatrace Synthetic monitors dashboard. On the left, a sidebar lists various monitoring categories like Dashboards & reports, Reports, Problems, and Diagnostic tools. The main area displays four synthetic monitors, each with a screenshot, name, location, availability, and duration. A red box highlights a dropdown menu on the right side of the screen, which contains sorting options: sort by name, sort by availability, sort by duration, sort by type of synthetic monitor, and sort by device profile.

4 Synthetic monitors

sorted by duration

Filtered by:

Start typing to filter synthetic monitors...

Monitor	Name	Type	Location	Availability	Duration
easyTravel demo booking	Browser clickpath	Browser	Every 5 min 2 locations	100 % Availability	32.05 s
perfwear-shop	Browser clickpath	Browser	Every 15 min 2 locations	100 % Availability	23.22 s
www.angular.easytravel.com	Browser clickpath	Browser	Every 10 min 1 location	100 % Availability	8.99 s

sort by name

sort by availability

sort by duration

sort by type of synthetic monitor

sort by device profile

Synthetic details

Select a synthetic test

The screenshot shows the Dynatrace interface for managing synthetic monitors. On the left is a navigation sidebar with various monitoring categories like Dashboards, Reports, Problems, and Synthetic. The Synthetic section is currently selected and expanded, showing a list of filters: Status (Active: 7, Inactive: 1), Type of synthetic monitor (Browser: 2, Browser clickpath: 4, HTTP: 2), Device profile (Desktop: 6, n/a: 2), and Monitored location (Dublin (AWS): 2, Gdańsk (Other): 4, Gdańsk lab: 3, Portland (AWS): 5). The main content area displays a table titled "4 Synthetic monitors" with columns for Synthetic monitor, Creation date, Type, Device profile, Status, Availability, and Total duration. The table lists four entries:

Synthetic monitor	Creation date	Type	Device profile	Status	Availability	Total duration
easyTravel demo booking	Nov 29 2019	Browser clickpath	Desktop	active	100 %	32.05 s
perfwear-shop	Apr 18 2019	Browser clickpath	Desktop	active	100 %	23.22 s
angular easytravel booking	May 27 2019	Browser clickpath	Desktop	active	100 %	15.94 s
www.angular.easytravel.com	Mar 29 2019	Browser clickpath	Desktop	active	100 %	8.99 s

A red box highlights the entry for "angular easytravel booking".

Synthetic details

Search Dynatrace demo2...

Last 24 hours

Synthetic angular easytravel booking

Filter this view for locations, regions, countries and continents

angular easytravel booking

Browser clickpath

The infographics show an average of all user actions captured during the synthetic monitor execution. [Read more about metrics...](#)

93.71 % Availability

1 h 36 min Total downtime

2 Monitored locations

5.44 s Visually complete for load actions

0.98 s Visually complete for XHR actions

16.83 s Total duration

Analyze synthetic sessions Pin to dashboard ...

Location Cloud yesterday, 13:49 15:32 17:15 18:58 20:40 22:23 today, 00:06 01:49 03:32 05:15 06:58 08:40 10:23 12:06 13:49 Availability (Average) ▲

Location	Cloud	13:49	15:32	17:15	18:58	20:40	22:23	00:06	01:49	03:32	05:15	06:58	08:40	10:23	12:06	13:49	Avg.
Portland	AWS				■					■			■				93.31 %
Dublin	AWS				■					■			■				94.10 %

Available ■ Outage ■ No data Analyze availability

Synthetic events and actions

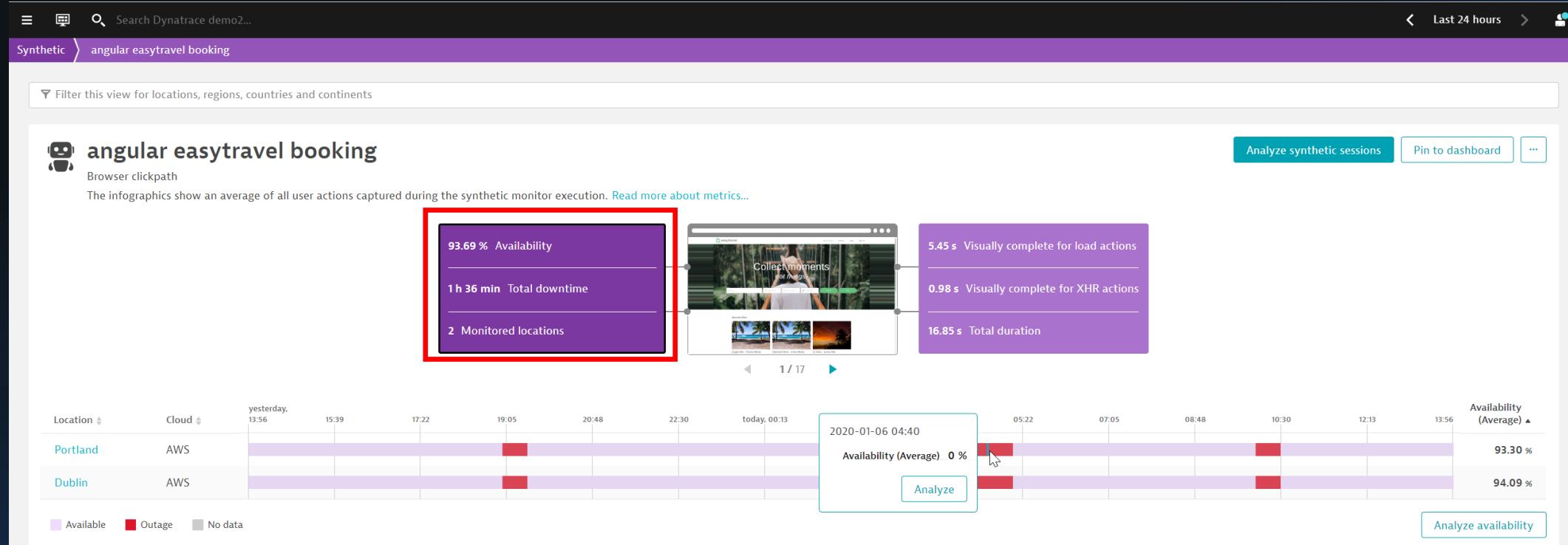
Show events with timings only

#	Event	Type	Performance (Average)	Details
1	 Loading of "https://easytravel-angular-demo2.internal.dynatrace.com"	Navigate	5.44 s Visually complete	▼

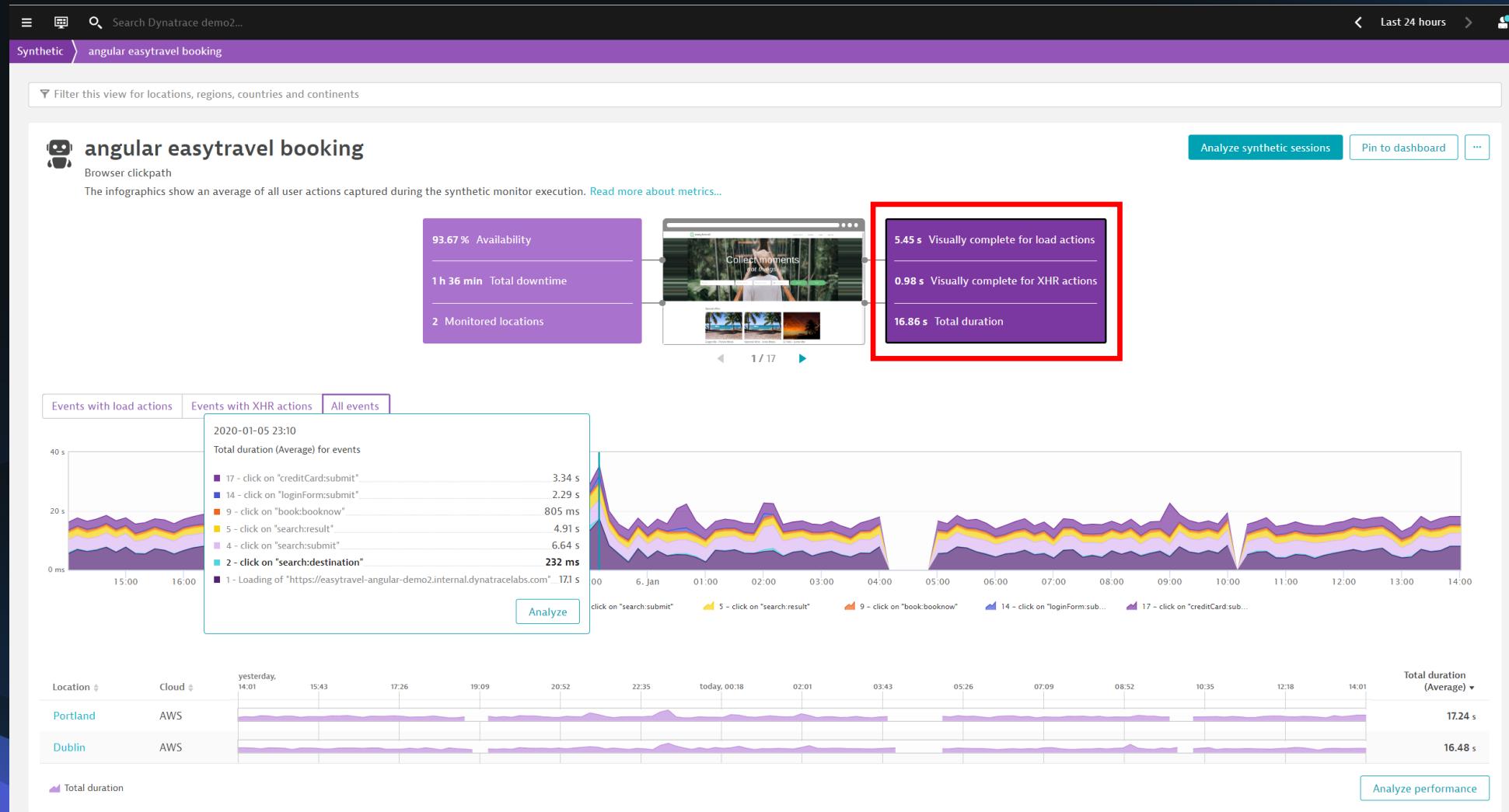
3 Problems Yesterday, 13:49 – Today, 13:49

3 Events Yesterday, 13:49 – Today, 13:49

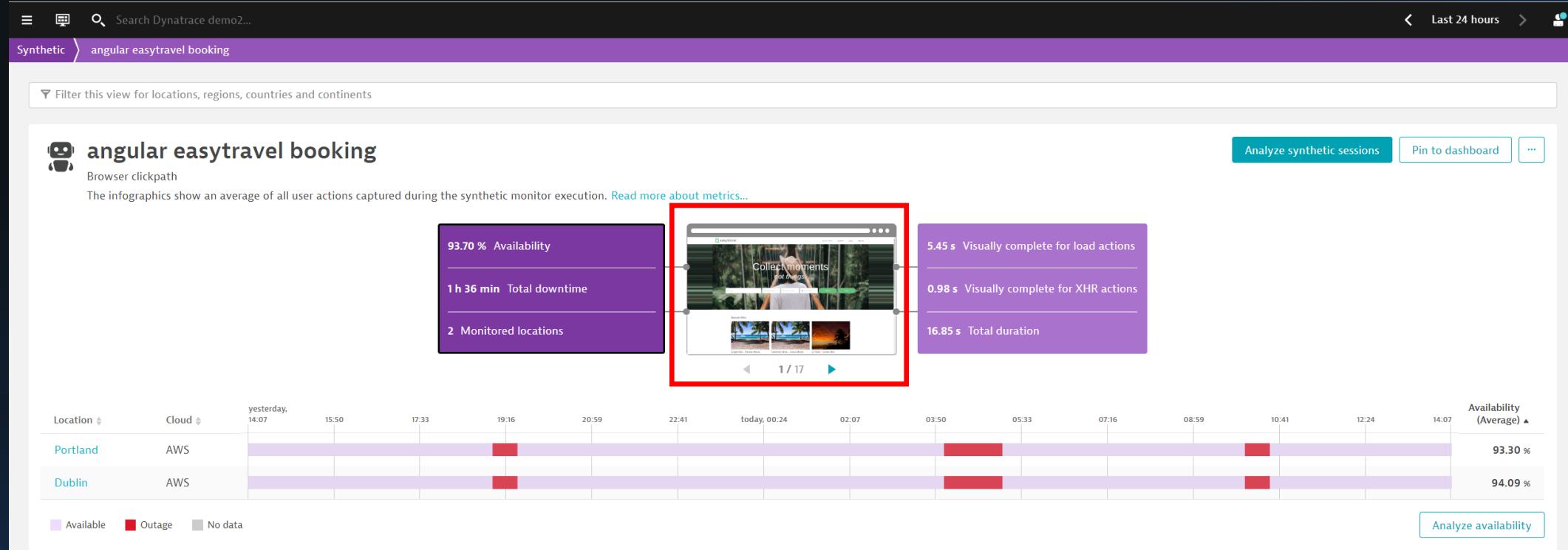
Synthetic availability



Synthetic performance



Screenshots



Synthetic events and actions

Synthetic angular easytravel booking

Last 24 hours

Synthetic events and actions

Show events with timings only

#	Event	Type	Performance (Average)	Details
1	Loading of "https://easytravel-angular-demo2.internal.dynatrace.com"	Navigate	5.43 s Visually complete	Analyze

Average performance of load actions

Action	User action duration	Load event end	Load event start	Visually complete	HTML downloaded	Speed index	DOM interactive	Time to first byte
1	5.88 s	5.55 s	5.44 s	2.27 s	0.25 s	8.49 s	8.34 s	0.25 s
2	2.12 s	5.55 s	5.55 s	2.27 s	0.25 s	8.49 s	8.34 s	0.25 s

2020-01-05 23:10

Legend:

- User action duration: 17.1 s
- Load event end: 17.1 s
- Visually complete: 14 s
- Load event start: 17.1 s
- Speed index: 8.49 s
- HTML downloaded: 301 ms
- DOM interactive: 8.34 s
- Time to first byte: 298 ms

Analyze

Contributing load actions

Loading of page /easytravel/home

#	Action	Type	Duration	Details
2	click on "search:destination"	Click	0.20 s	Visually complete
3	keystrokes on "search:destination"	Keystrokes	-	Total duration
4	click on "search:submit"	Click	4.44 s	Total duration

3 Problems Yesterday, 14:13 - Today, 14:13

3 Events Yesterday, 14:13 - Today, 14:13

3 Synthetic availability errors

37 Errors

1502 – The html element could not be found to perform action 1401 – Validate text match failed

Error code	Error	Count	Analyze
1502	The html element could not be found to perform action	23	Analyze
1401	Validate text match failed	14	Analyze

Analyze errors

Maintenance and problems

Search Dynatrace demo2...

Synthetic > angular easytravel booking

Last 24 hours

Synthetic events and actions

Show events with timings only

#	Event	Type	Performance (Average)	Details
1	Loading of "https://easytravel-angular-demo2.internal.dynatrace.com"	Navigate	5.42 s Visually complete	▼
2	click on "search:destination"	Click	0.20 s Visually complete	▼
3	keystrokes on "search:destination"	Keystrokes	- Total duration	▼
4	click on "search:submit"	Click	4.43 s Total duration	▼
5	click on "search:result"	Click	0.30 s Visually complete	▼
6	click	Click	- Total duration	▼
7	selectOption	Select option	- Total duration	▼
8	click	Click	- Total duration	▼
9	click on "book:booknow"	Click	0.25 s Visually complete	▼
10	click on "loginForm:username"	Click	- Total duration	▼

Maintenance in the selected time frame

Reoccurring daily maintenance

3 Problems Yesterday, 14:27 - Today, 14:27

- Problem 735: Browser monitor local outage
angular easytravel booking
Jan 6 10:03 - Jan 6 10:22 (18 minutes)
- Problem 638: Browser monitor local outage
angular easytravel booking
Jan 6 04:02 - Jan 6 05:02 (59 minutes)
- Problem 292: Multiple application problems
2 applications
Jan 5 18:58 - Jan 5 19:40 (42 minutes)

3 Events Yesterday, 14:22 - Today, 14:22

3 Synthetic availability errors

Events

Search Dynatrace demo2...

Last 24 hours

Synthetic angular easytravel booking

1	Loading of "https://easytravel-angular-demo2.internal.dynatrace.com"	Navigate	5.44 s Visually complete	▼
2	click on "search:destination"	Click	0.20 s Visually complete	▼
3	keystrokes on "search:destination"	Keystrokes	- Total duration	▼
4	click on "search:submit"	Click	4.44 s Total duration	▼
5	click on "search:result"	Click	0.30 s Visually complete	▼
6	click	Click	- Total duration	▼
7	selectOption	Select option	- Total duration	▼
8	click	Click	- Total duration	▼
9	click on "book:booknow"	Click	0.25 s Visually complete	▼
10	click on "loginForm:username"	Click	- Total duration	▼

3 Events Yesterday, 14:32 - Today, 14:32

2

1

0

15:00 18:00 21:00 6. Jan 03:00 06:00 09:00 12:00 15:00

3 Synthetic availability errors

Events ▾ Time ▾ Details

Validate text match failed, The html element could not be found to perform action from 2 locations Today, 10:03

Entity angular easytravel booking

Time today, 10:03 - 10:22 (18 min)

The html element could not be found to perform action from 2 locations Today, 04:02

Validate text match failed from 2 locations Yesterday, 19:03

37 Errors

30

20

10

Errors

Synthetic angular easytravel booking

6	click	Click	- Total duration
7	selectOption	Select option	- Total duration
8	click	Click	- Total duration
9	click on "book:booknow"	Click	0.25 s Visually complete
10	click on "loginForm:username"	Click	- Total duration

Properties

- Bandwidth
- Device
- Estimated synthetic actions per execution
- Frequency
- Bypass login forms
- Locations
- Configured (recorded) synthetic events
- Type
- URL

Monitored applications

Name	Load actions	XHR actions	Actions
www.angular.easytravel.com	Visually complete: 2.1 s	Visually complete: 0.4 s	38.2 /min

Worldmap

Show aggregated real-user traffic

37 Errors

2020-01-05 19:00 - 2020-01-05 20:00

Analyze errors

1401 - Validate text match failed 7

Analyze errors

1502 - The html element could not be found to perform action 23

1401 - Validate text match failed 14

Analyze errors

https://easytravel-angular-demo2.internal.dynatracelabs.com

Monitored applications

Synthetic angular easytravel booking

6	click	Click	- Total duration
7	selectOption	Select option	- Total duration
8	click	Click	- Total duration
9	click on "book:booknow"	Click	0.25 s Visually complete
10	click on "loginForm:username"	Click	- Total duration

Properties

Bandwidth	No throttling
Device	Desktop
Estimated synthetic actions per execution	15
Frequency	every 5 minutes
Bypass login forms	No login
Locations	2
Configured (recorded) synthetic events	17
Type	Browser clickpath
URL	https://easytravel-angular-demo2.internal.dynatracelabs.com

Last 24 hours

37 Errors

Analyze errors

Error code Error Count Analyze

1502	The html element could not be found to perform action	23	Analyze
1401	Validate text match failed	14	Analyze

Analyze errors

Monitored applications

Name	Load actions	XHR actions	Actions
www.angular.easytravel.com	Visually complete: 2.1 s	Visually complete: 0.4 s	38.2 /min

Worldmap

Show aggregated real-user traffic

World map

Synthetic angular easytravel booking

1 2 >

Edit clickpath

Properties

Bandwidth No throttling

Device Desktop

Estimated synthetic actions per execution 15

Frequency every 5 minutes

Bypass login forms No login

Locations 2

Configured (recorded) synthetic events 17

Type Browser clickpath

URL <https://easytravel-angular-demo2.internal.dynatracelabs.com>

This monitor consumed 4,100 synthetic actions from yesterday, 14:00 - today, 14:36.

Edit settings

1401 Validate text match failed 14

Analyze errors

Monitored applications

Name	Load actions	XHR actions	Actions
www.angular.easytravel.com	Visually complete: 2.1 s	Visually complete: 0.4 s	38.2 /min

Worldmap

Show aggregated real-user traffic

0.00 1.47k active users

available outage

View real-user worldmap

Properties

Search Dynatrace demo2...

Synthetic angular easytravel booking

1 2 >

Edit clickpath

Properties

Bandwidth No throttling

Device Desktop

Estimated synthetic actions per execution 15

Frequency every 5 minutes

Bypass login forms No login

Locations 2

Configured (recorded) synthetic events 17

Type Browser clickpath

URL <https://easytravel-angular-demo2.internal.dynatracelabs.com>

This monitor consumed 4,100 synthetic actions from yesterday, 14:00 - today, 14:36.

Edit settings

1401 Validate text match failed 14

Analyze errors

Monitored applications

Name	Load actions	XHR actions	Actions
www.angular.easytravel.com	Visually complete: 2.1 s	Visually complete: 0.4 s	38.2 /min

Worldmap

Show aggregated real-user traffic

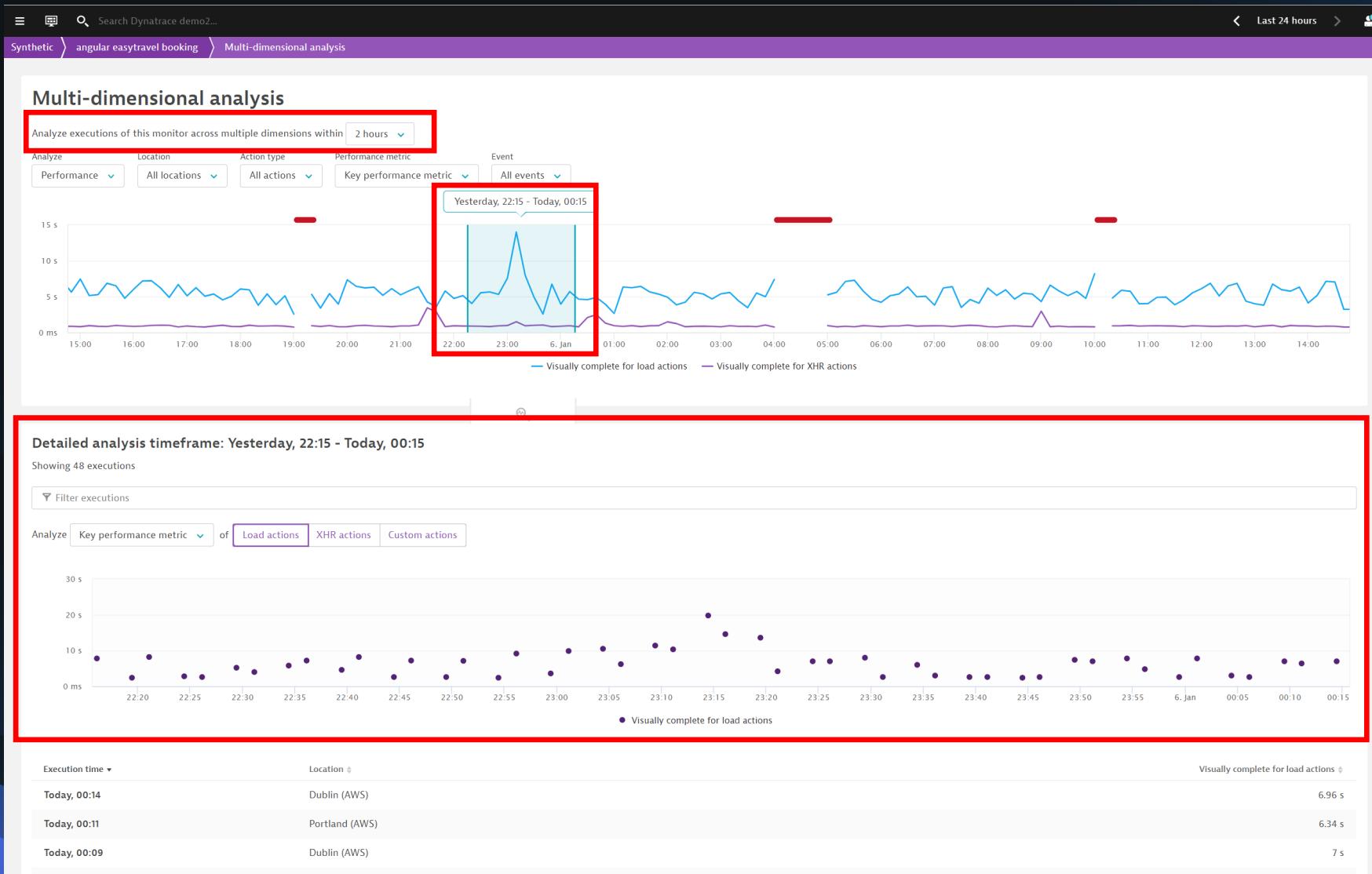
0.00 1.47k active users

available outage

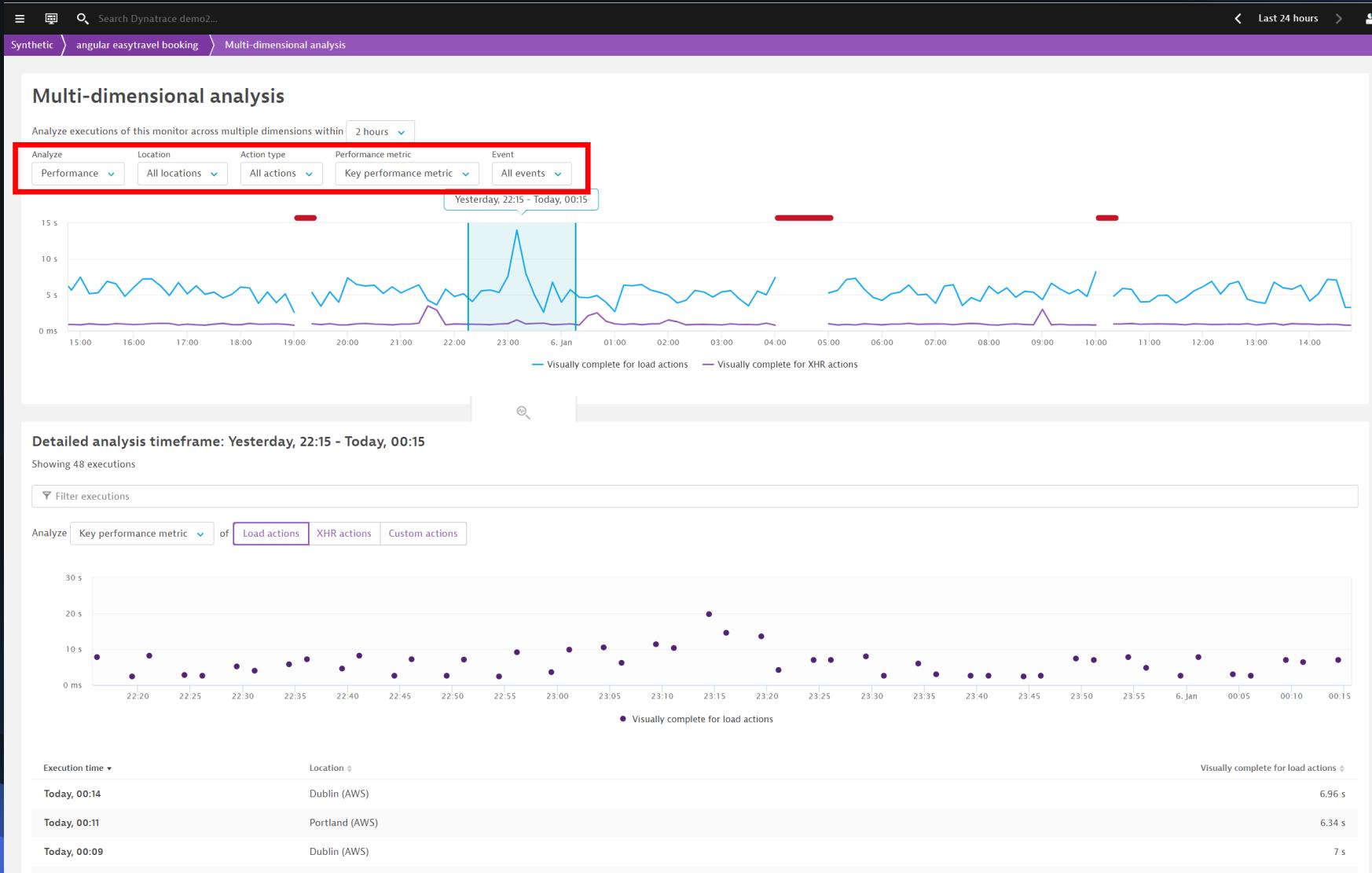
[View real-user worldmap](#)

Multidimensional analysis

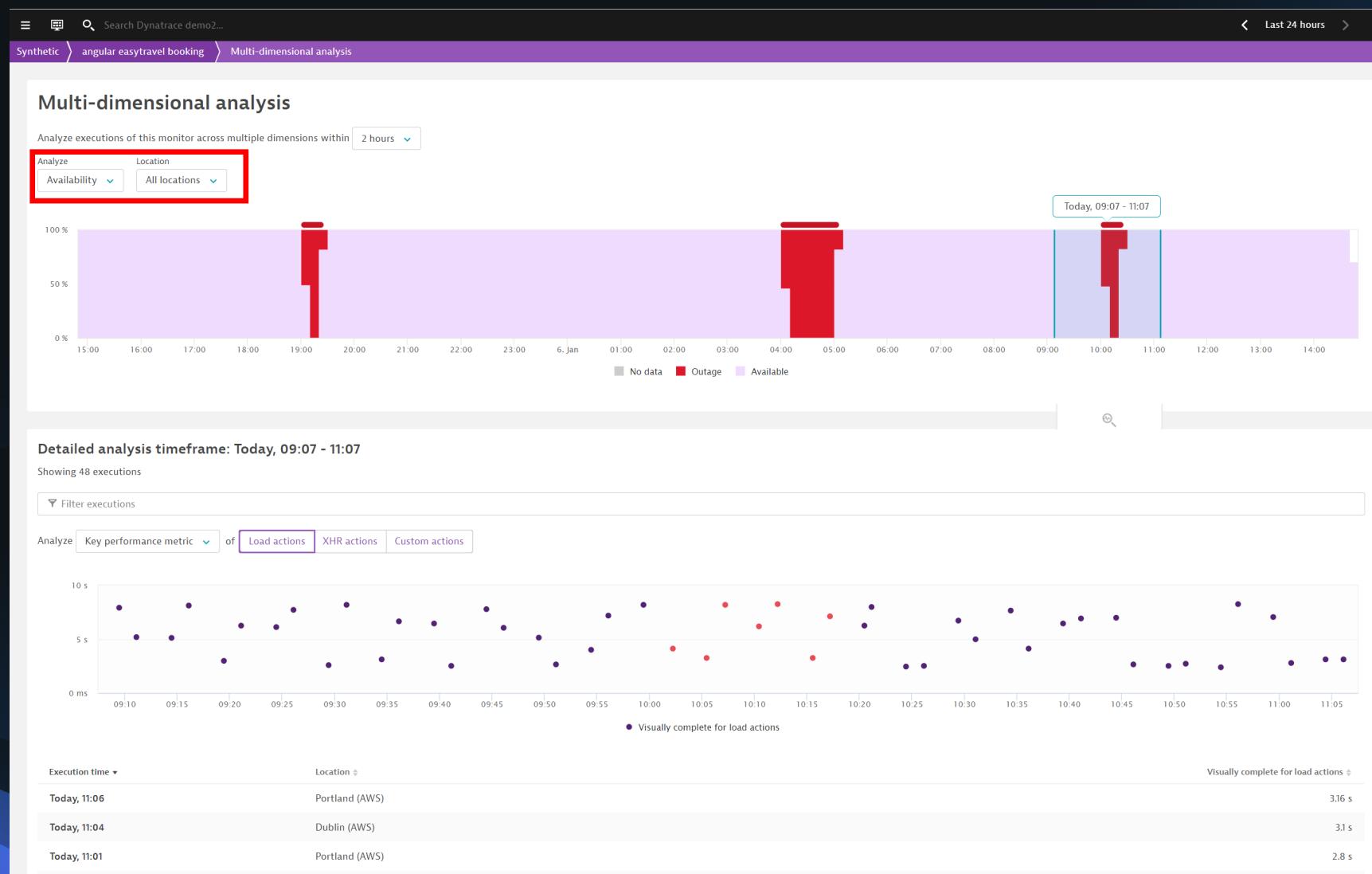
Multi-dimensional analysis



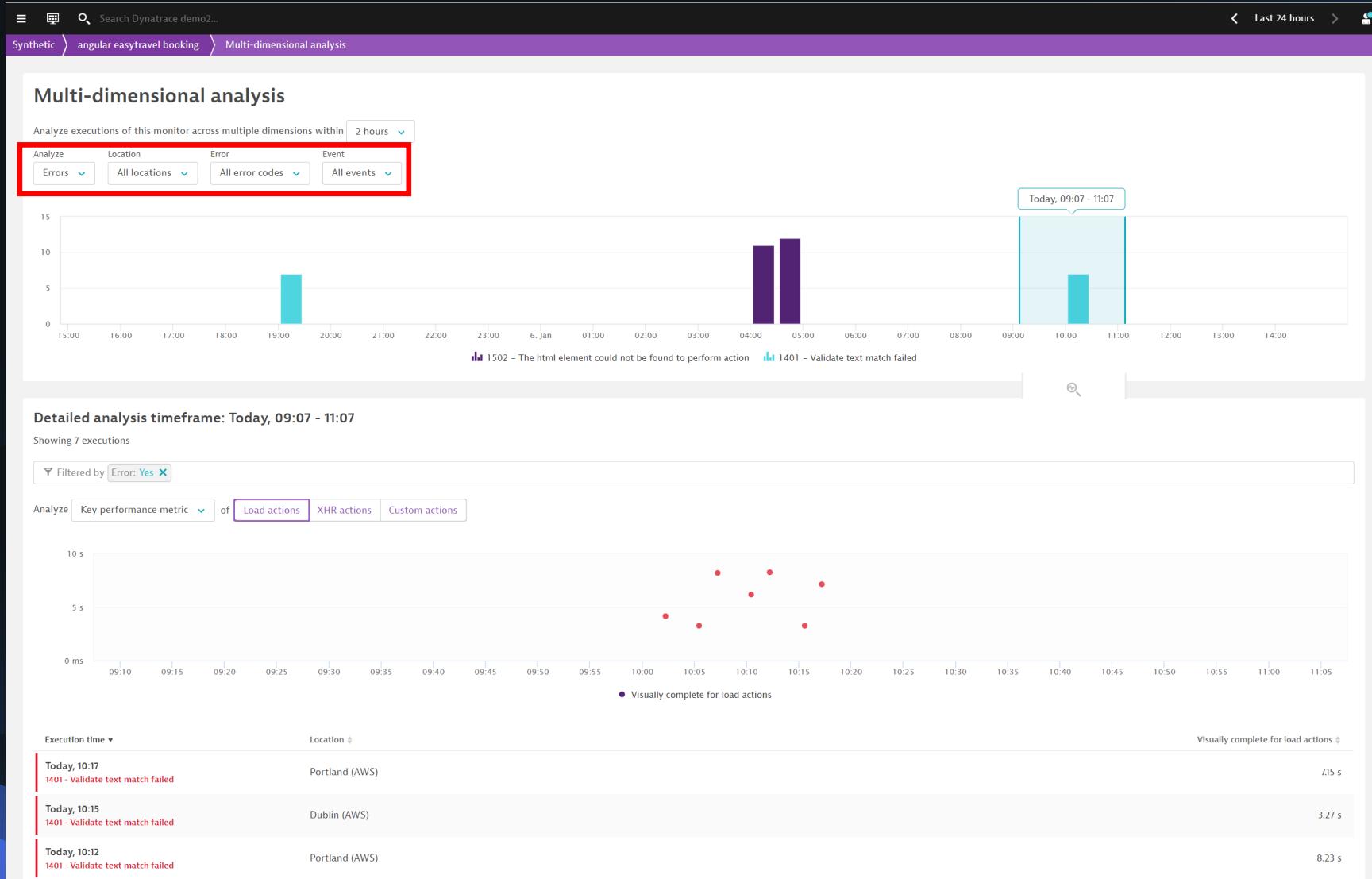
Analyze performance



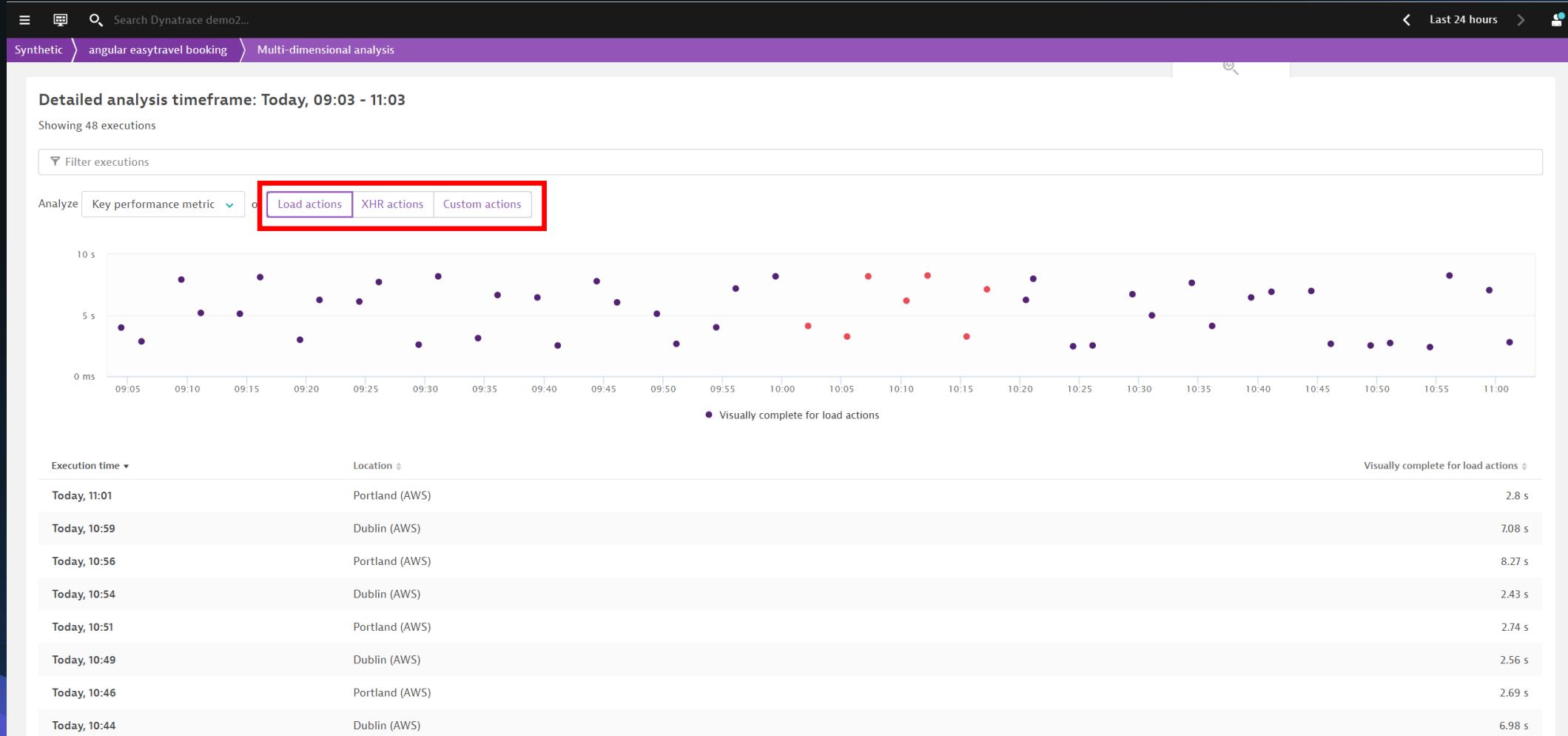
Analyze availability



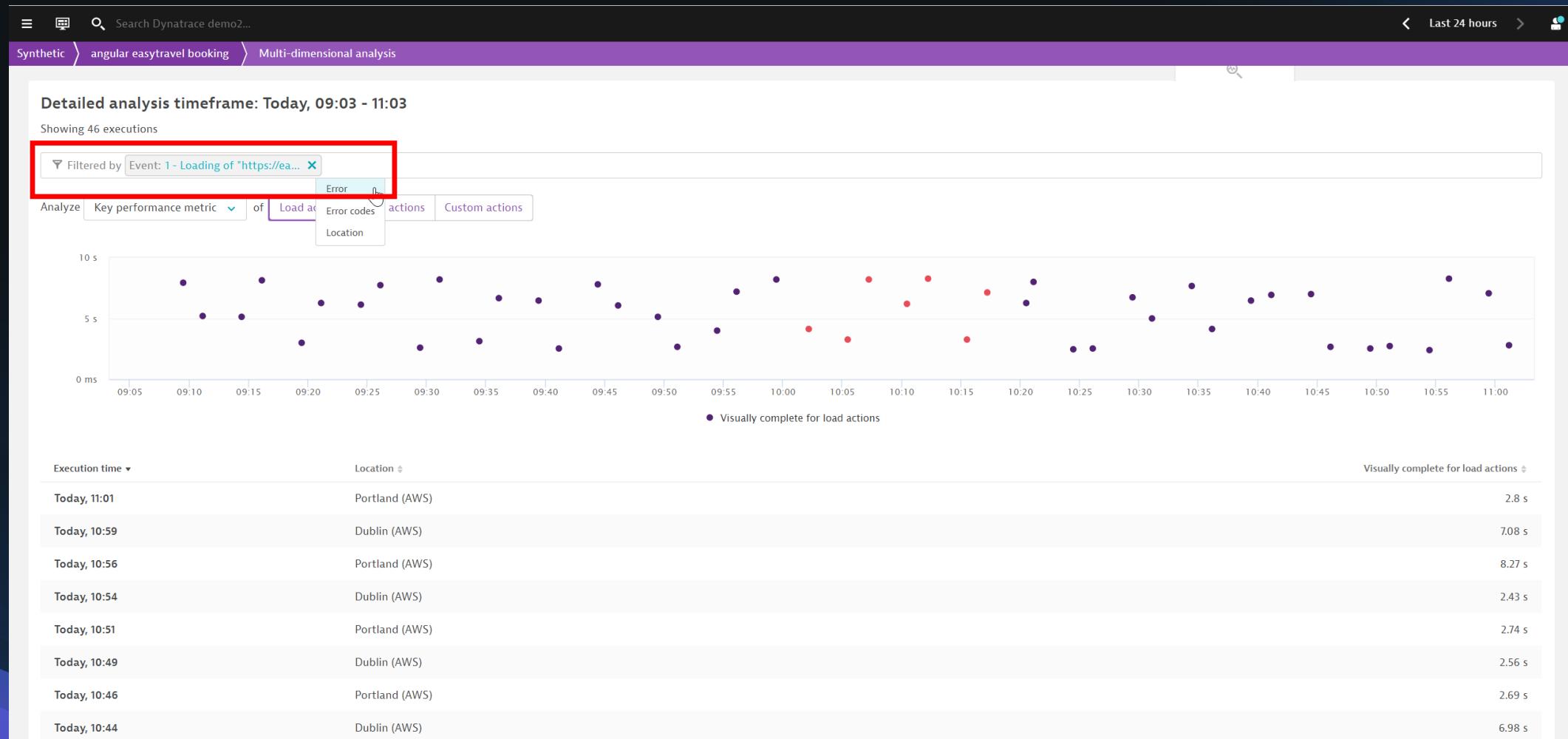
Analyze errors



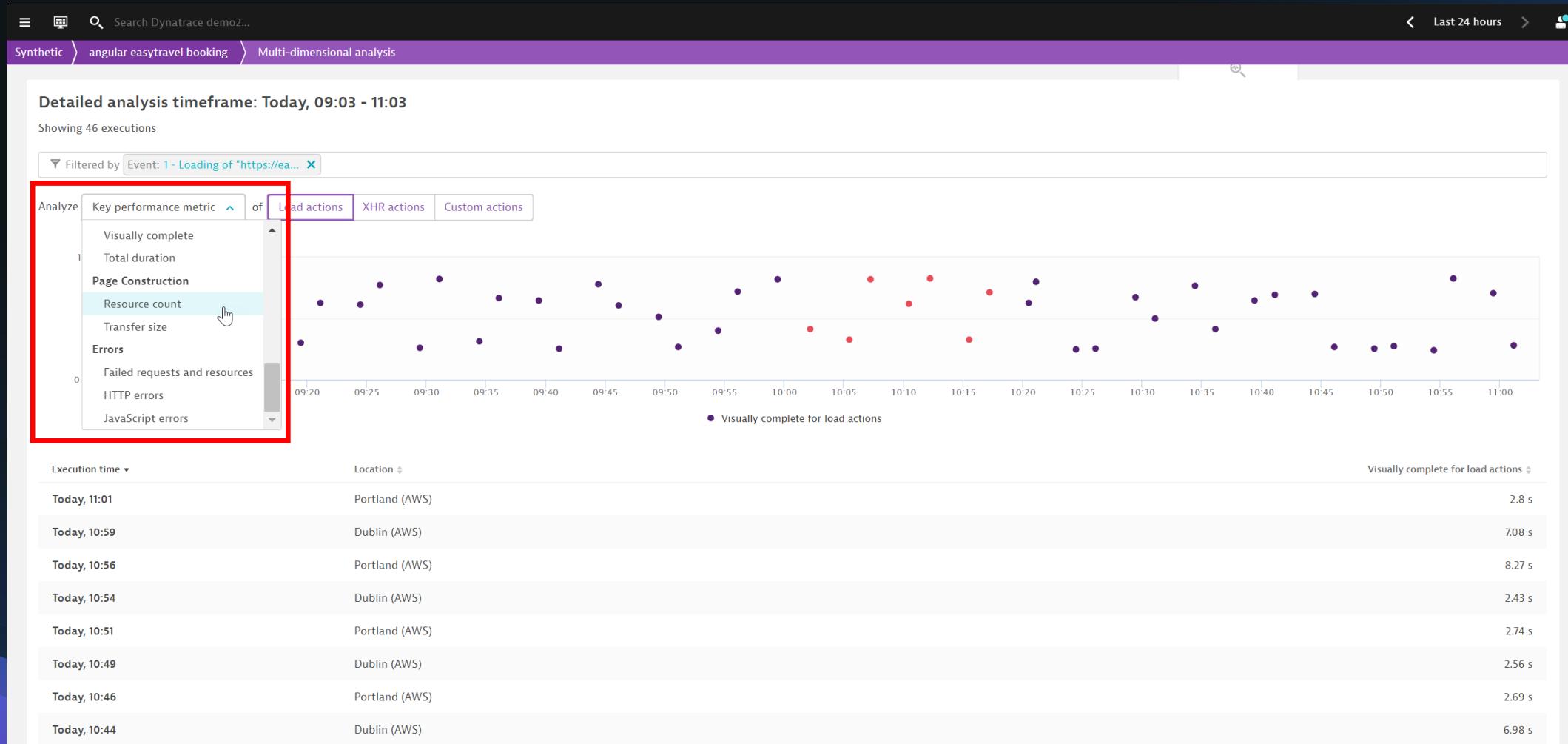
Scatter plot



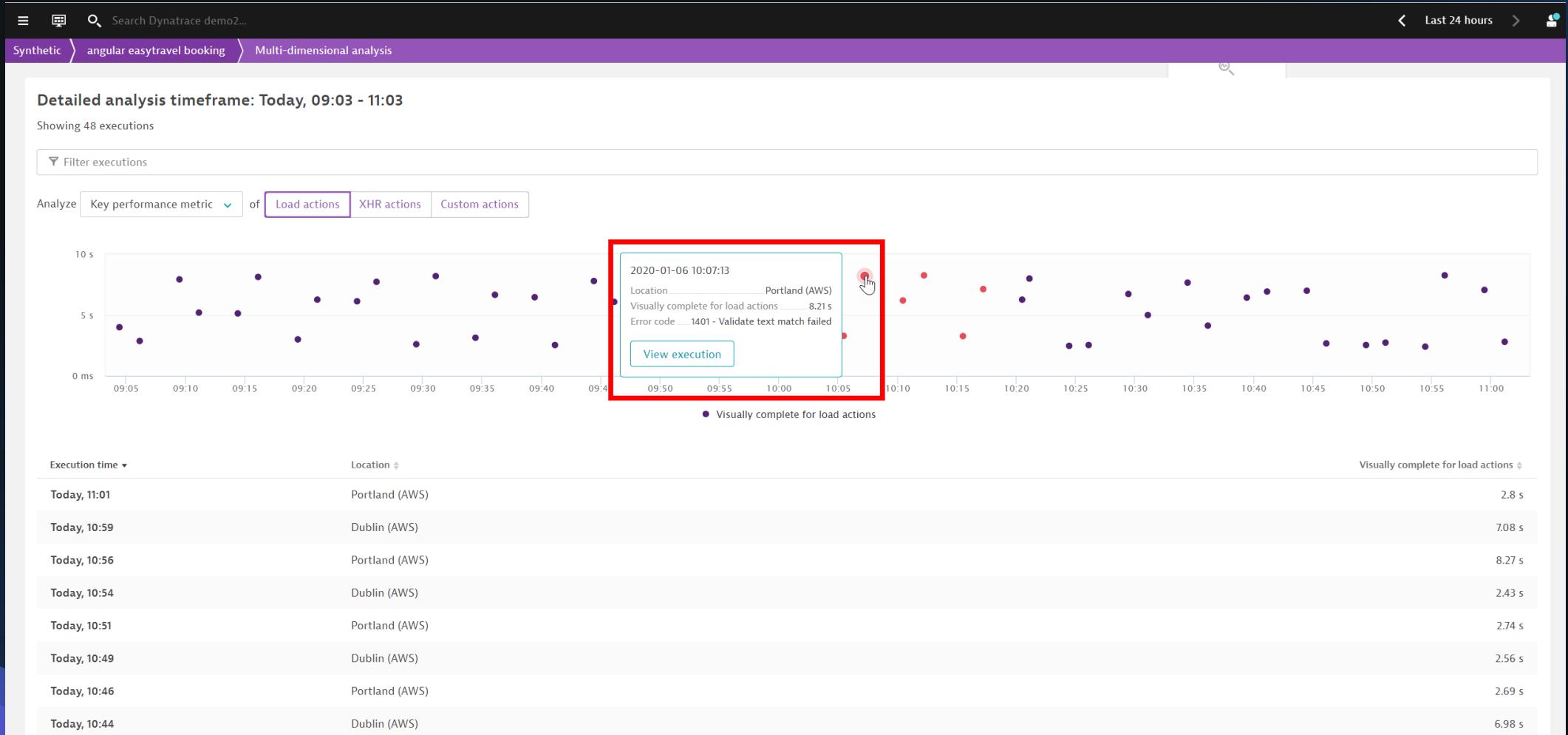
Scatter plot



Scatter plot

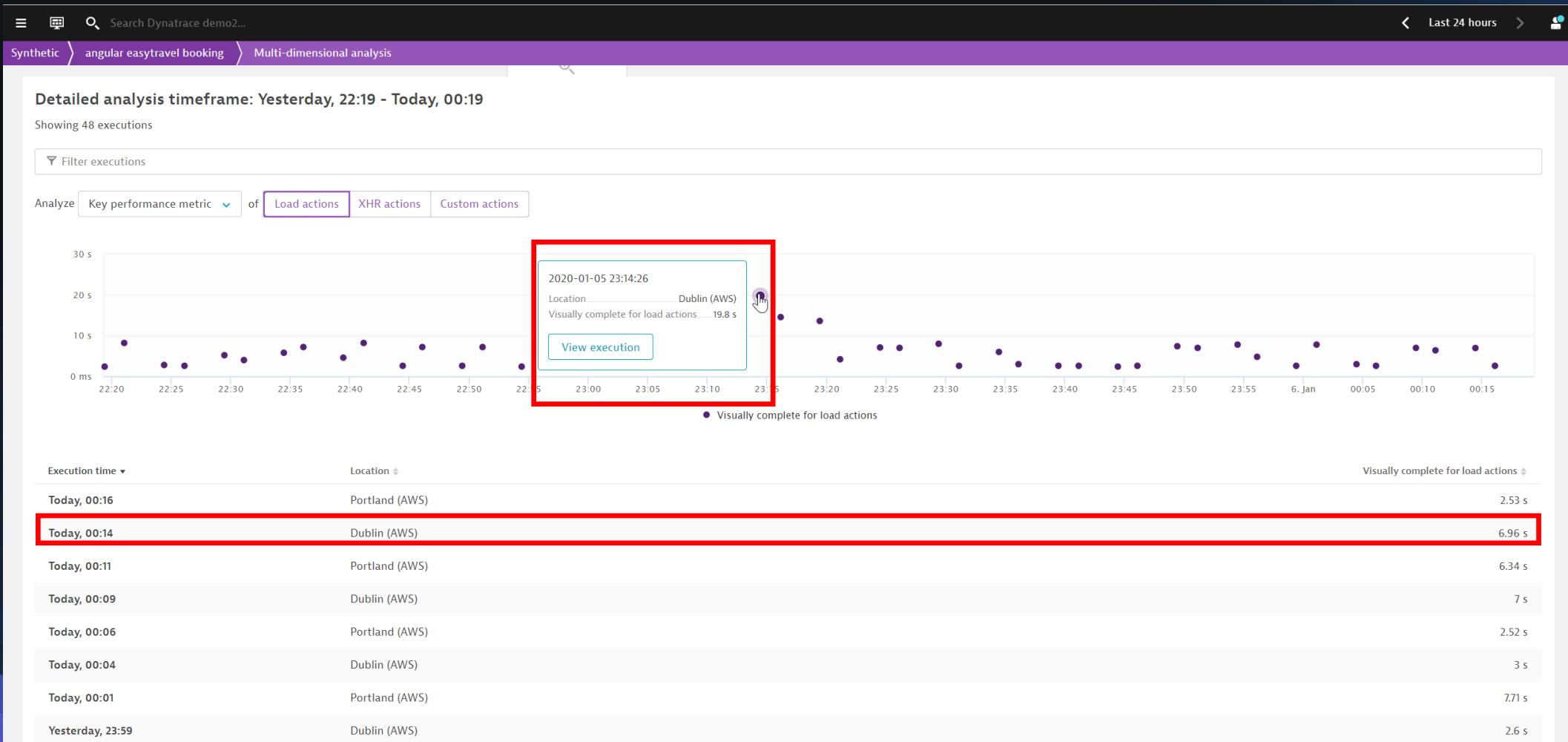


Scatter plot



Waterfall graphs

Waterfall – View execution



Waterfall – Execution details

Synthetic > angular easytravel booking > Multi-dimensional analysis

Last 24 hours

Execution time ↓

Yesterday, 23:14

Yesterday, 23:16

Yesterday, 23:19

Yesterday, 23:09

Yesterday, 23:04

Yesterday, 23:11

Yesterday, 23:01

Yesterday, 22:56

Yesterday, 22:41

Yesterday, 22:21

Yesterday, 23:29

Yesterday, 23:54

Today, 00:01

Yesterday, 23:49

Yesterday, 22:36

Yesterday, 22:46

Yesterday, 22:51

Yesterday, 23:26

Yesterday, 23:24

Today, 00:09

Synthetic execution on Jan, 05 2020 23:14

Location: Dublin (AWS)

Start time: Jan, 05 2020 23:14:26

End time: Jan, 05 2020 23:15:47

Show only events with timings

1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"

2 - click on "search:destination"

3 - keystrokes on "search.destination"

4 - click on "search:submit"

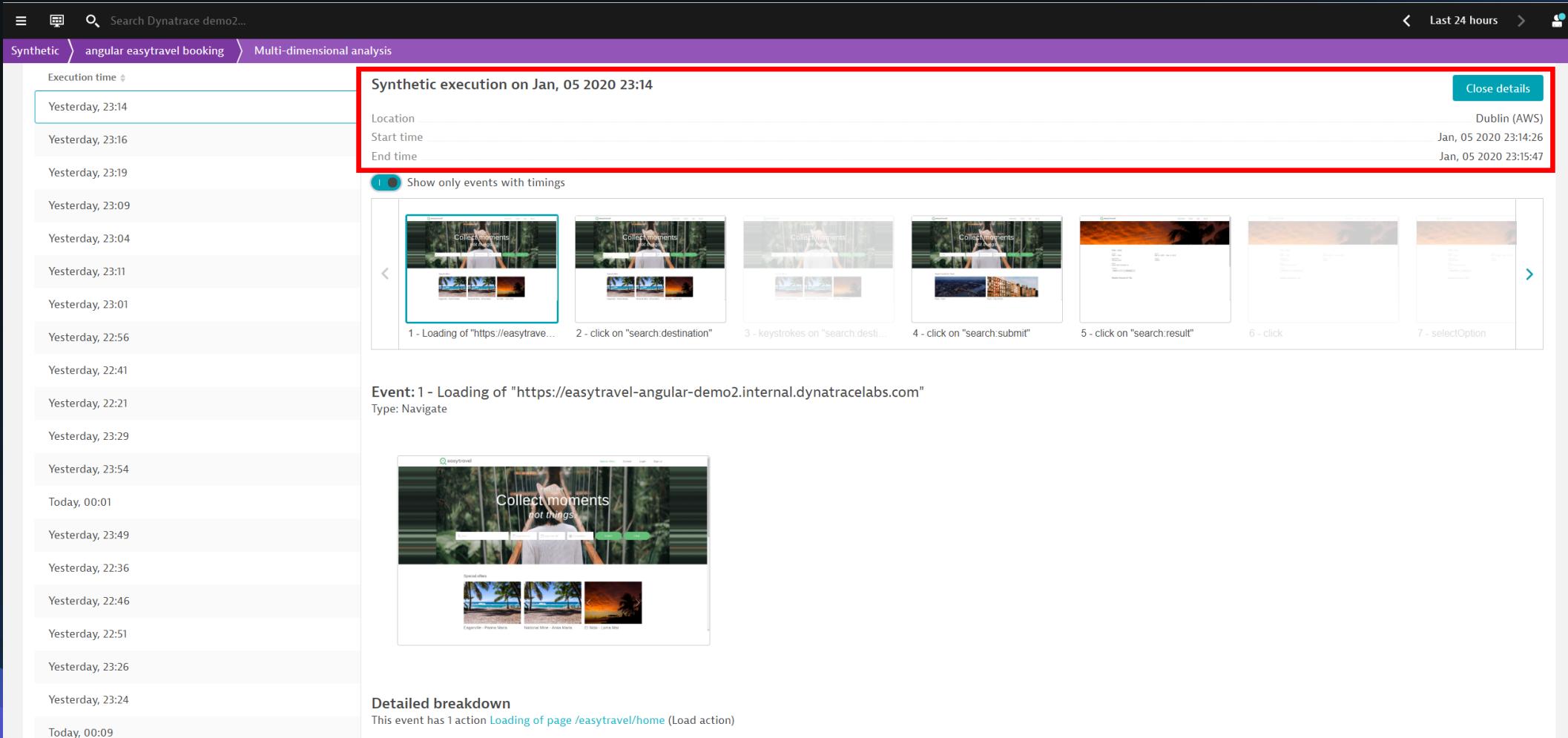
5 - click on "search:result"

6 - click

7 - selectOption

Event: 1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"
Type: Navigate

Detailed breakdown
This event has 1 action [Loading of page /easytravel/home](#) (Load action)



Waterfall – Select event

Synthetic > angular easytravel booking > Multi-dimensional analysis

Execution time ↓

Yesterday, 23:14

Yesterday, 23:16

Yesterday, 23:19

Yesterday, 23:09

Yesterday, 23:04

Yesterday, 23:11

Yesterday, 23:01

Yesterday, 22:56

Yesterday, 22:41

Yesterday, 22:21

Yesterday, 23:29

Yesterday, 23:54

Today, 00:01

Yesterday, 23:49

Yesterday, 22:36

Yesterday, 22:46

Yesterday, 22:51

Yesterday, 23:26

Yesterday, 23:24

Today, 00:09

Synthetic execution on Jan, 05 2020 23:14

Location: Dublin (AWS)

Start time: Jan, 05 2020 23:14:26

End time: Jan, 05 2020 23:15:47

Show only events with timings

1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"

2 - click on "search:destination"

3 - keystrokes on "search.destination"

4 - click on "search:submit"

5 - click on "search:result"

6 - click

7 - selectOption

Event: 1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"
Type: Navigate

Detailed breakdown
This event has 1 action [Loading of page /easytravel/home](#) (Load action)

Close details

Waterfall – View screen shots

Synthetic > angular easytravel booking > Multi-dimensional analysis

Execution time ↓

Yesterday, 23:14

Yesterday, 23:16

Yesterday, 23:19

Yesterday, 23:09

Yesterday, 23:04

Yesterday, 23:11

Yesterday, 23:01

Yesterday, 22:56

Yesterday, 22:41

Yesterday, 22:21

Yesterday, 23:29

Yesterday, 23:54

Today, 00:01

Yesterday, 23:49

Yesterday, 22:36

Yesterday, 22:46

Yesterday, 22:51

Yesterday, 23:26

Yesterday, 23:24

Today, 00:09

Synthetic execution on Jan, 05 2020 23:14

Location Dublin (AWS)

Start time Jan, 05 2020 23:14:26

End time Jan, 05 2020 23:15:47

Show only events with timings

Close details

1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"

2 - click on "search:destination"

3 - keystrokes on "search.destination"

4 - click on "search:submit"

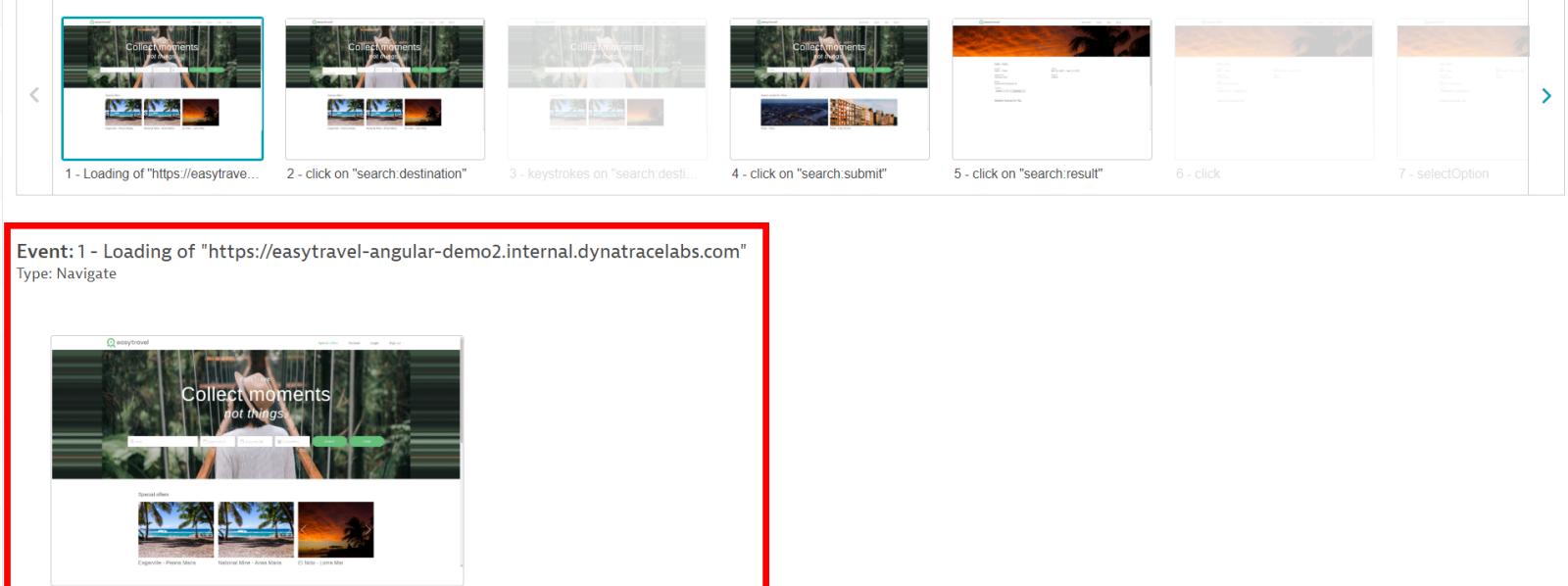
5 - click on "search:result"

6 - click

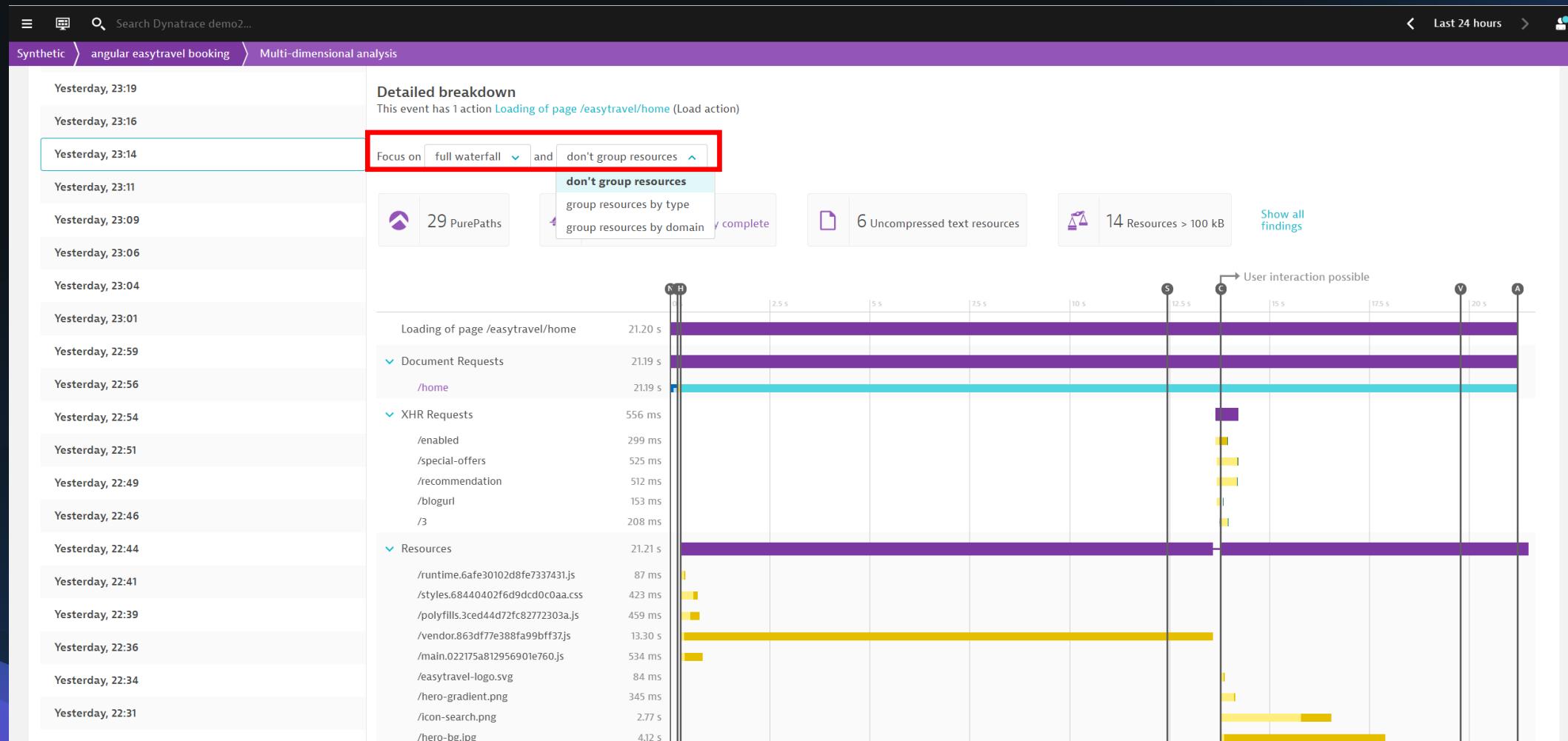
7 - selectOption

Event: 1 - Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"
Type: Navigate

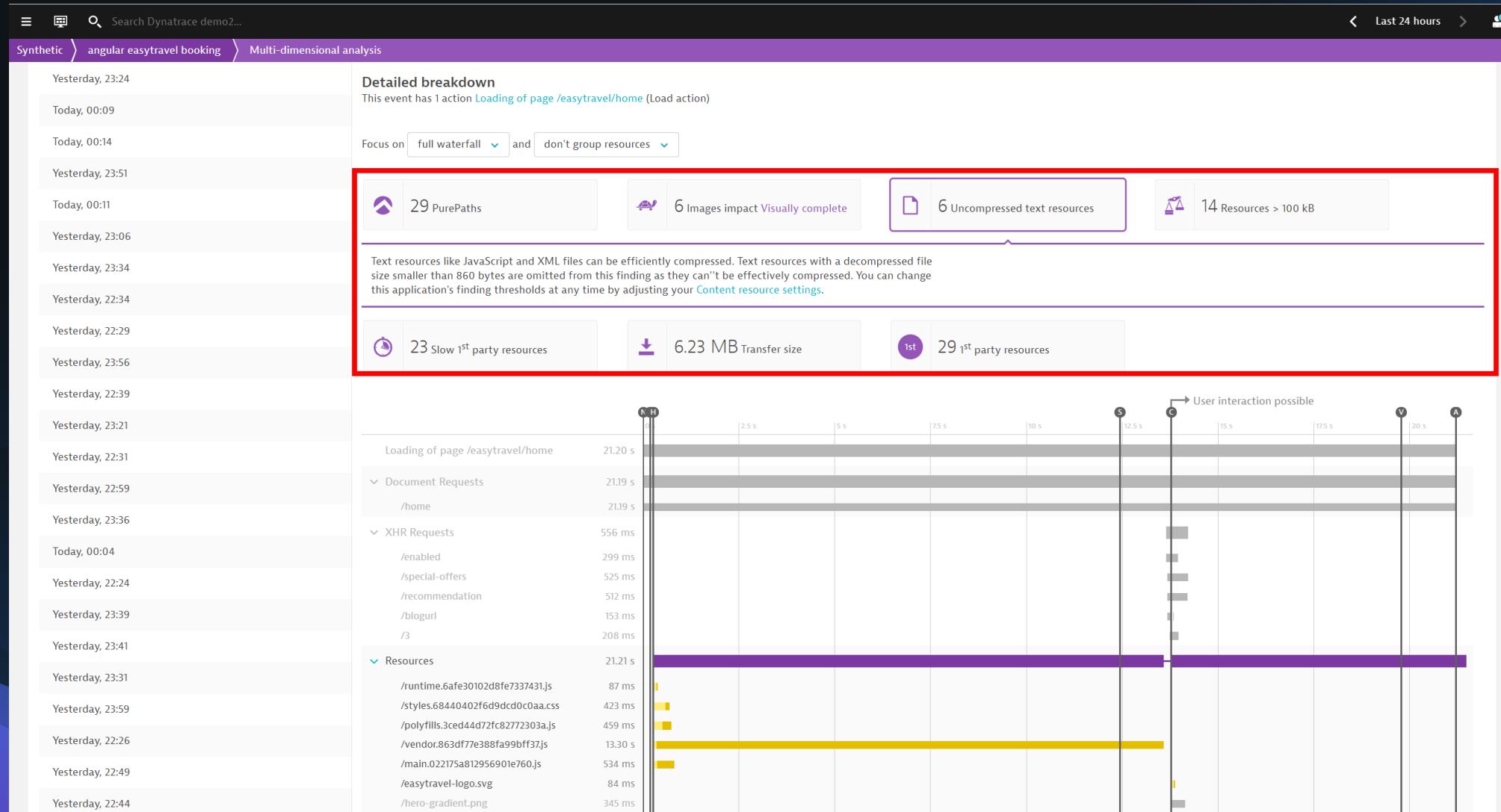
Detailed breakdown
This event has 1 action [Loading of page /easytravel/home](#) (Load action)



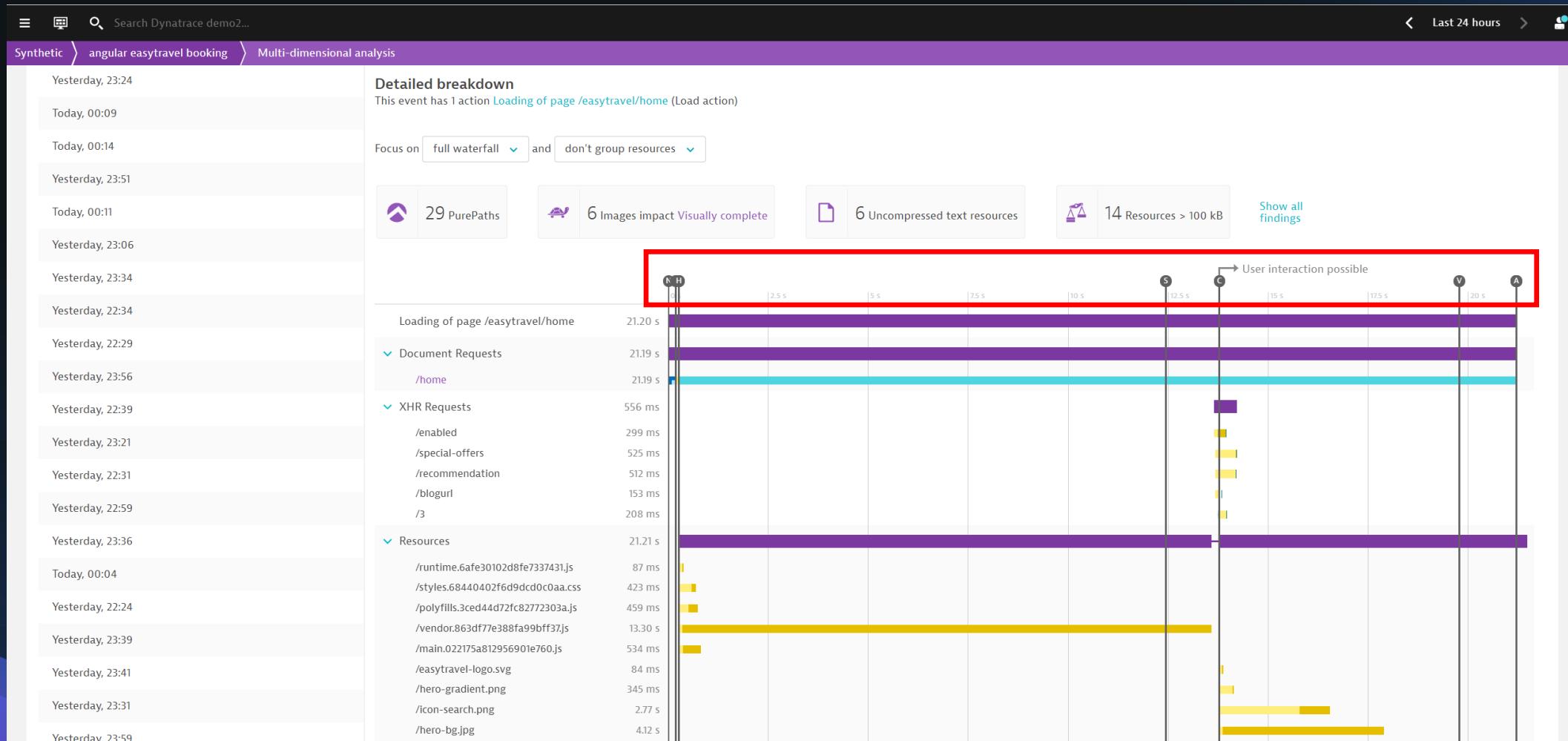
Waterfall – Focus



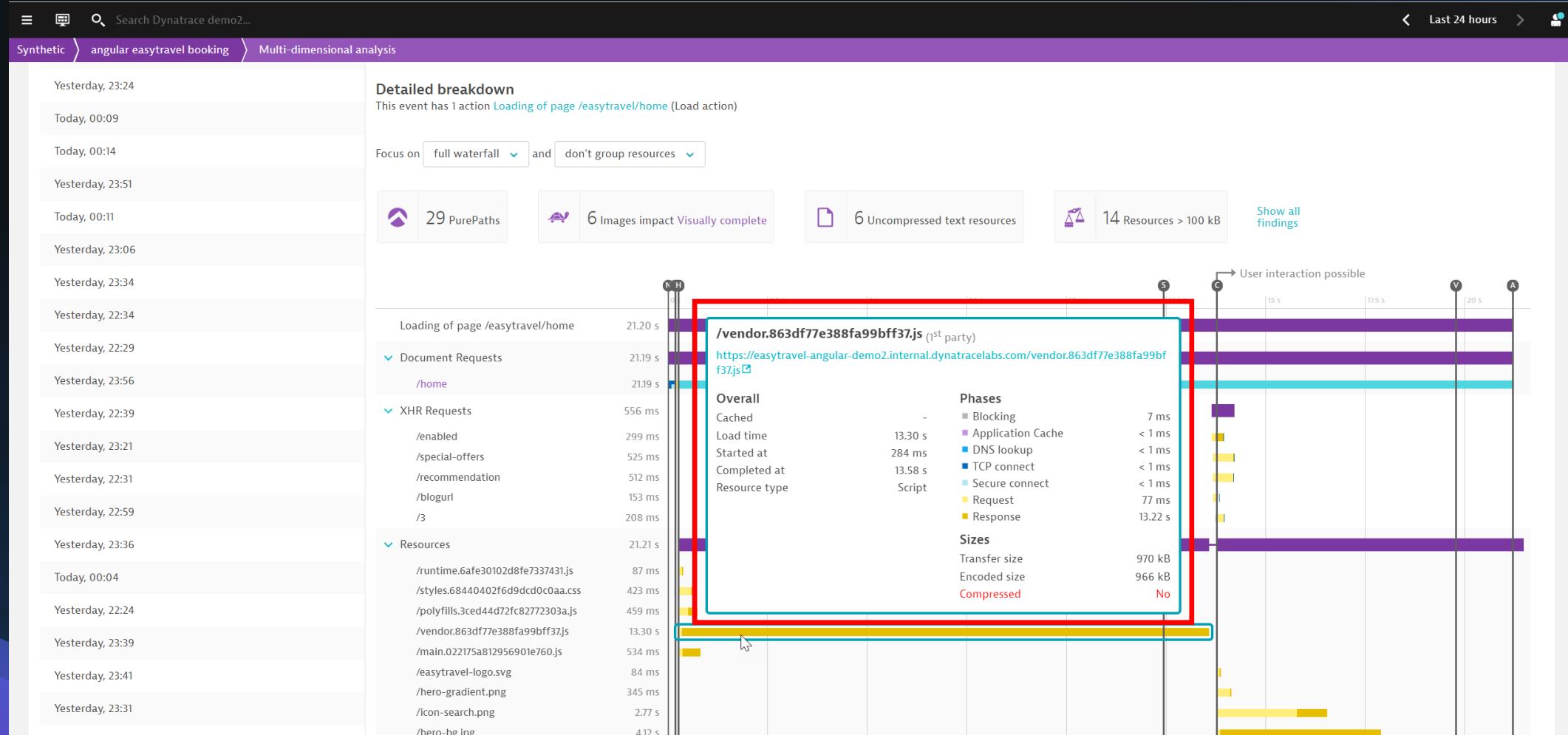
Waterfall – Top findings



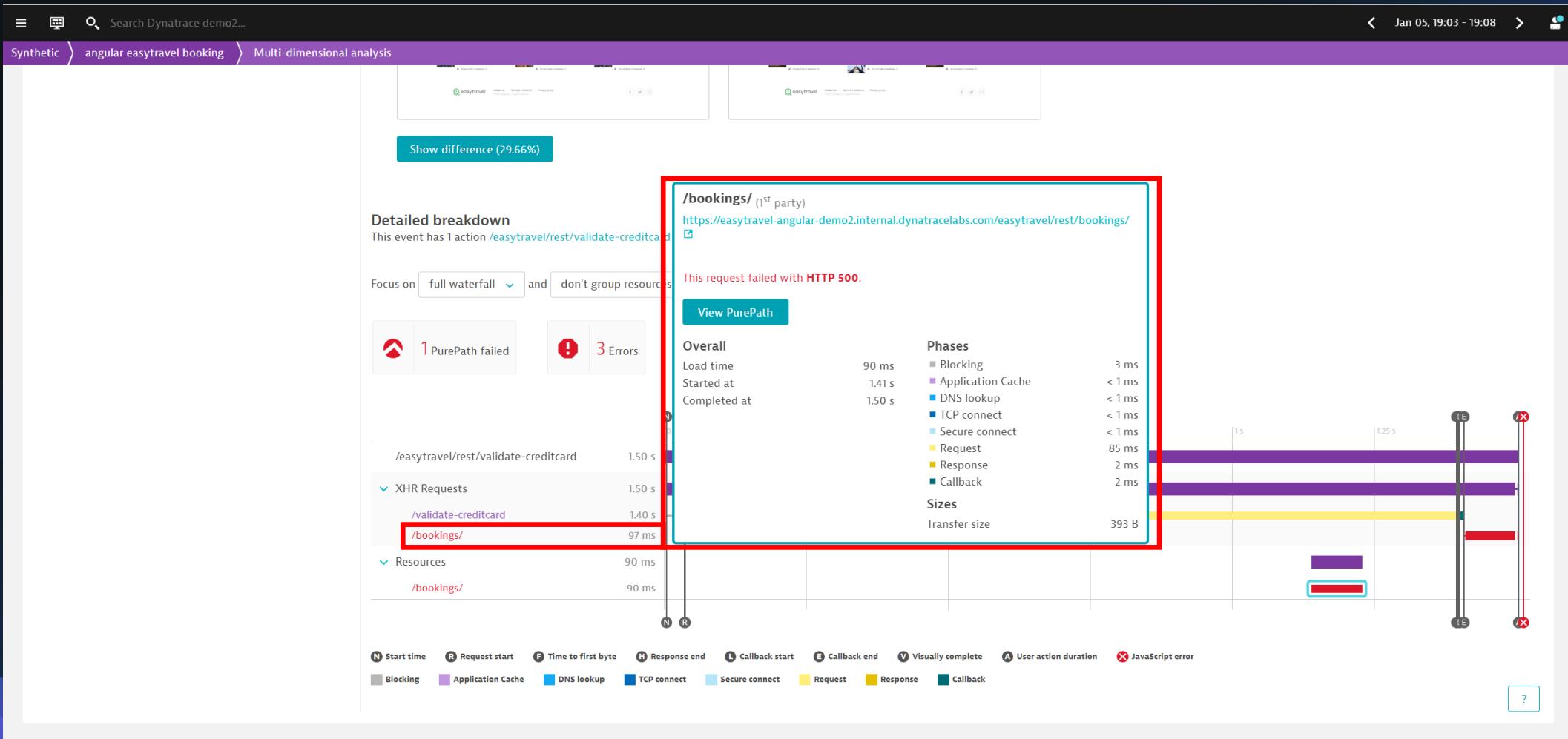
Waterfall – Browser events



Waterfall – Resource breakdown

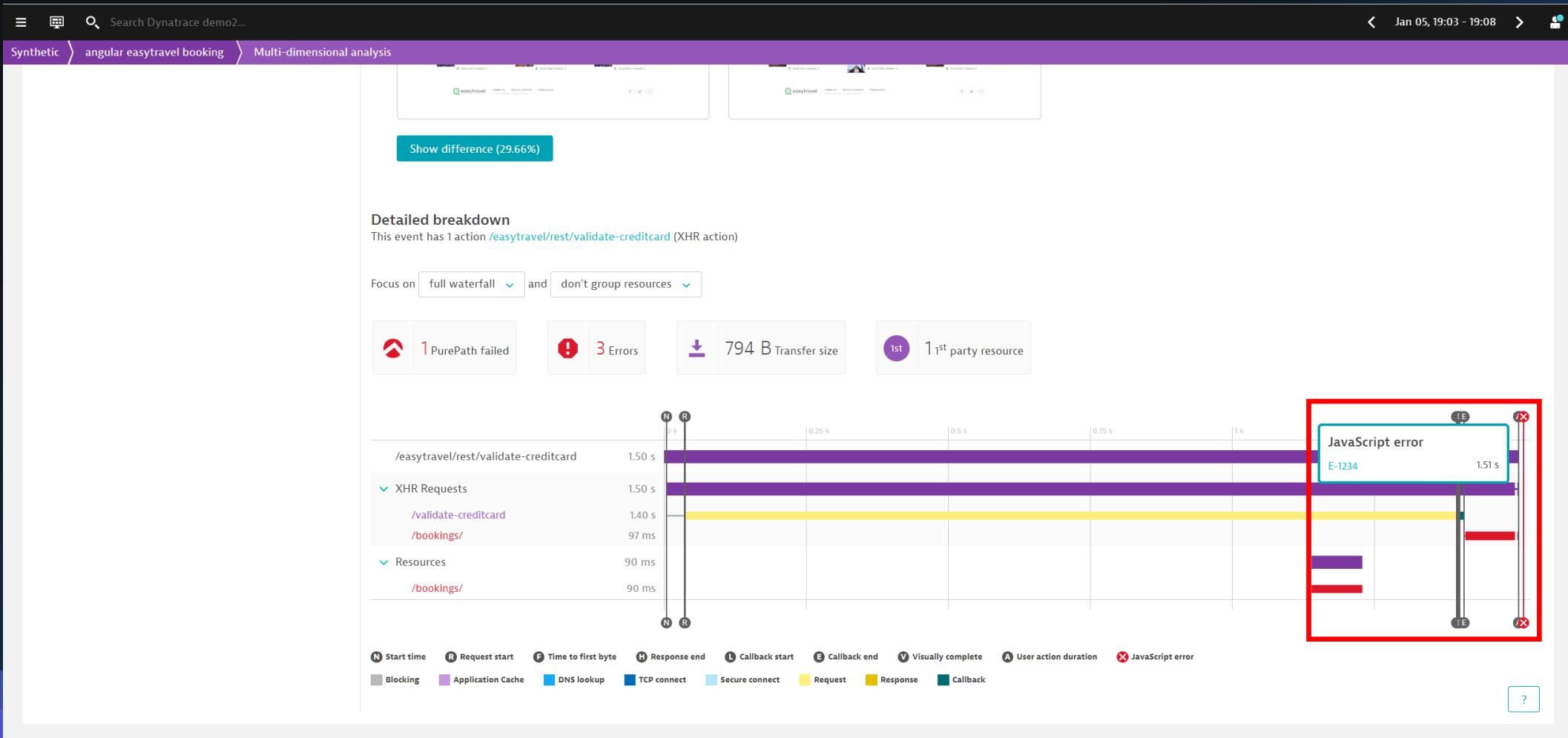


Waterfall – Resource errors



Waterfall – View PurePath

Waterfall – JavaScript errors



Waterfall – JavaScript errors

The screenshot shows the Dynatrace Perform interface with the following navigation path: Synthetic > angular easytravel booking > Multi-dimensional analysis > Error details.

JavaScript error details
for /easytravel/rest/validate-creditcard

Select occurrence: Error 1 at 1.30200 s - E-1234

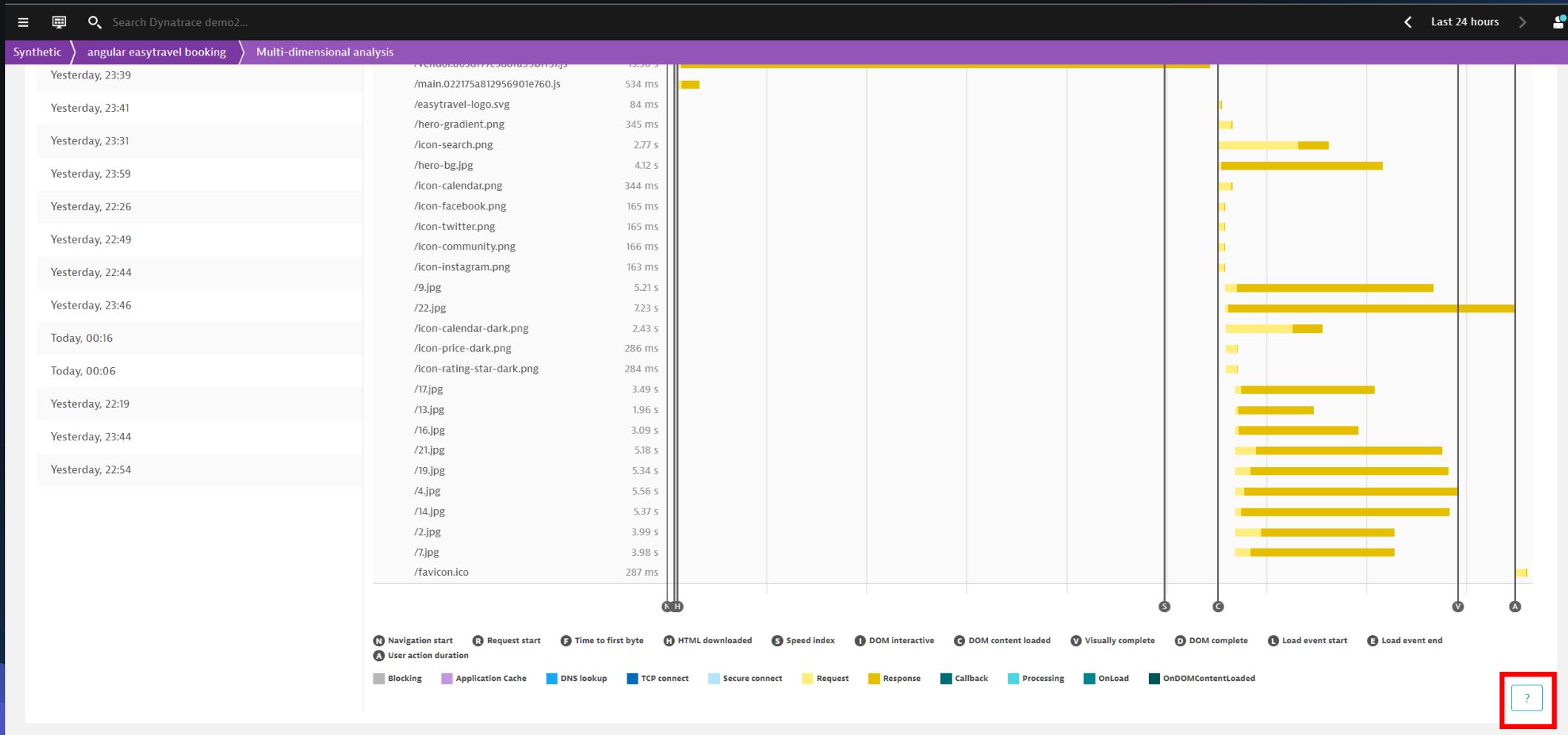
Script file: dtagent_LCA27SVadefghijlmoqrvxy_I0183191126091556.js : 186/53
Script origin: hiigamhnpkamaodlfhjbdifijfmiocae
Occurring domains: easytravel-angular-demo2.internal.dynatracelabs.com
Message: E-1234
Info: ▲ No stacktrace was supplied with the error information therefore Dynatrace generated a stacktrace. While this stacktrace will be accurate in the majority of cases sometimes it might be incomplete.

Stacktrace

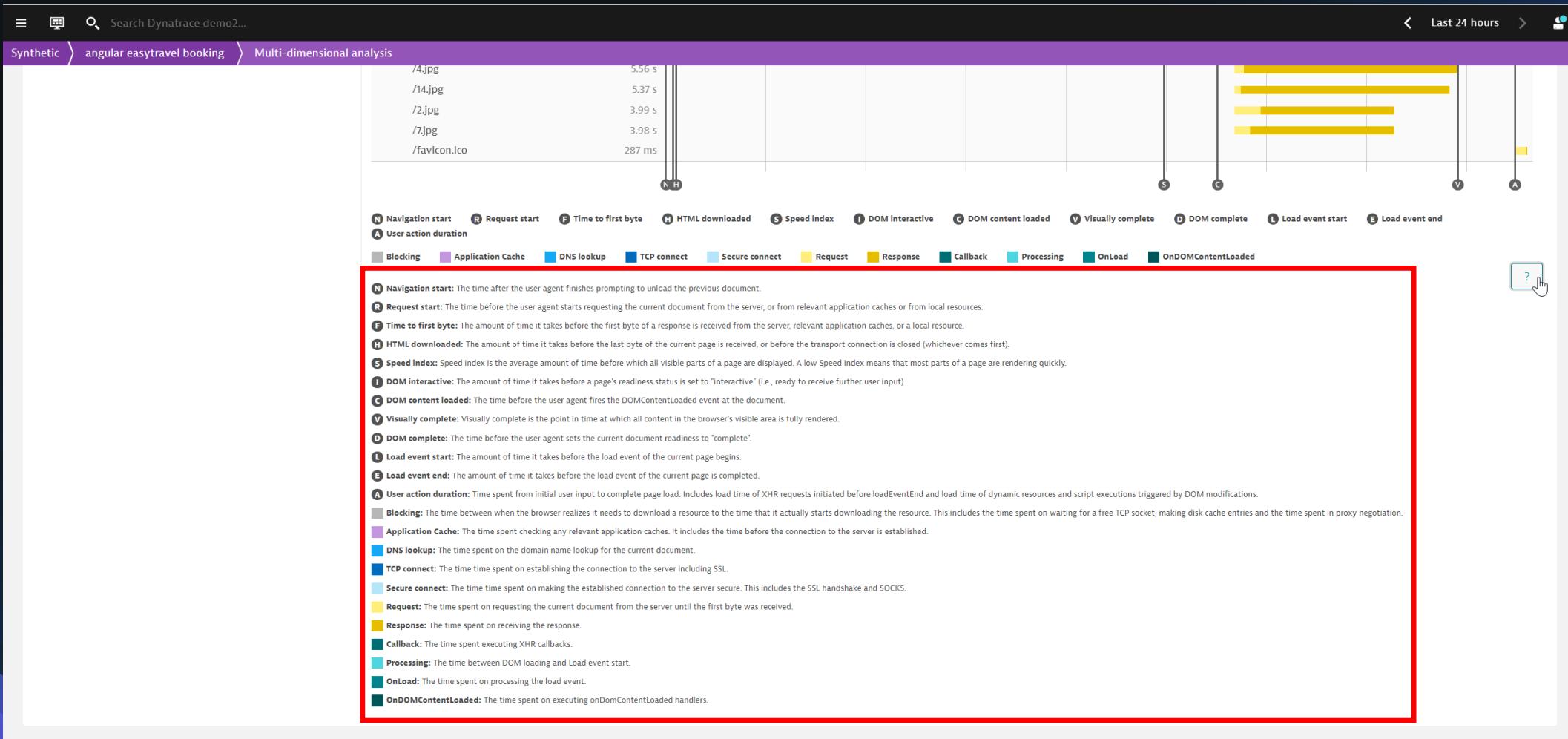
Below you can see the stacktrace for this error. If you open a stackframe we will try to detect any files that can be used to better visualize and help you in analyzing this specific frame. In addition you will have the ability to upload your source maps and JavaScript files so that we can use these instead of any detected files.

Stackframe	Status	Analyze
at a.reportError (chrome-extension://hiigamhnpkamaodlfhjbdifijfmiocae/src/libraries/jsAgent/dtagent_LCA27SVadefghijlmoqrvxy_I0183191126091556.js : 186/53)	Not analyzed	✓
at n.handleError (https://easytravel-angular-demo2.internal.dynatracelabs.com/main.022175a812956901e760.js : 1/162421)	Not analyzed	✓
at Object.next (https://easytravel-angular-demo2.internal.dynatracelabs.com/vendor.863df77e388fa99bff37.js : 1/182182)	Not analyzed	✓
at t.to [as _next] (https://easytravel-angular-demo2.internal.dynatracelabs.com/vendor.863df77e388fa99bff37.js : 1/173971)	Not analyzed	✓
at t._tryOrUnsub (https://easytravel-angular-demo2.internal.dynatracelabs.com/vendor.863df77e388fa99bff37.js : 1/332787)	Not analyzed	✓
at t.next (https://easytravel-angular-demo2.internal.dynatracelabs.com/vendor.863df77e388fa99bff37.js : 1/331932)	Not analyzed	✓

Waterfall – Metrics



Waterfall – Metrics



Monitor settings

Navigate to Monitor Settings

The screenshot shows the Dynatrace interface for monitoring the 'easyTravel Booking' service. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, and Manage.

The main content area displays the 'easyTravel Booking' synthetic monitor settings. It includes a summary card with metrics: 95.77% Availability, 1 h 9 min Total downtime, and 3 Monitored locations. Below this is a screenshot of the application interface showing a travel booking page. To the right are two purple boxes: one for visually complete load actions (3.06 s) and one for XHR actions (1.14 s), both with a total duration of 8.12 s.

A large blue box highlights the 'Edit', 'Disable', 'Delete', and 'View report' buttons in the top right corner of the main content area.

Below the summary card is a timeline showing availability for three locations: N. Virginia (AWS), Virginia (Azure), and Portland (AWS) over a 24-hour period. The timeline indicates availability (purple), outages (red), and no data (grey). The average availability for these locations is 95.76%.

The bottom section contains tabs for 'Synthetic events and actions' (selected) and 'Maintenance'. The 'Synthetic events and actions' tab shows one event: '1 Loading of "https://easytravel-angular-d..."' (Type: Navigate, Performance: 3.07 s). The 'Maintenance' tab shows 'Reoccurring daily maintenance (1 more)' and '17 Problems' from Yesterday, 09:45 - Today, 09:45.

Monitor setup

Monitor settings

The screenshot shows the 'Monitor setup' page for a synthetic monitor named 'angular easytravel booking'. The left sidebar lists various configuration tabs: Monitor setup (selected), Recorded clickpath, Frequency and locations, Outage handling, Performance thresholds, Advanced setup, and Help & feedback. The main content area is titled 'Monitor setup' and contains the following fields:

- Monitor name:** angular easytravel booking
- Define device emulation settings:** Device (Desktop) and Screen size (pixels) (1920 x 1080 px).
- Bandwidth (download, upload, latency):** No throttling.
- User agent:** Default Dynatrace user agent.
- Select a key performance metric for this monitor:** A dropdown menu shows 'Visually complete' selected. Other options include Load actions, XHR actions, and Custom actions.
- Assign synthetic monitor to a web application:** A note states that connecting to a web application will bring availability information. A button labeled 'Connect another application' is present.

Recorded clickpath

Recorded clickpath

The screenshot shows the Dynatrace Perform interface for a synthetic monitor named "angular easytravel booking". The left sidebar contains navigation links: Synthetic, angular easytravel booking, Settings, Recorded clickpath (which is selected), Monitor setup, Recorded clickpath (selected), Frequency and locations, Outage handling, Performance thresholds, and Advanced setup. The main content area is titled "Recorded clickpath" and displays a list of events:

Event Number	Action Description	Type	Move up/down	Delete
1	Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigate	▲ ▼	X
2	click on "search:destination"	Click	▲ ▼	X
3	keystrokes on "search:destination"	Keystroke	▲ ▼	X
4	click on "search:submit"	Click	▲ ▼	X
5	click on "search:result"	Click	▲ ▼	X
6	click	Click	▲ ▼	X

At the top right of the main content area are two buttons: "Play back clickpath" and "Record again".

Play back and record again

The screenshot shows the Dynatrace Perform interface for a synthetic monitor named "angular easytravel booking". The left sidebar has sections like Monitor setup, Recorded clickpath (selected), Frequency and locations, Outage handling, Performance thresholds, and Advanced setup. The main area is titled "Recorded clickpath" and shows a list of events:

Event Number	Action	Type	Move up/down	Delete
1	Loading of "https://easytravel-angular-demo2.internal.dynatracelabs.com"	Navigation	▲ ▼	X
2	click on "search:destination"	Click	▲ ▼	X
3	keystrokes on "search:destination"	Keystroke	▲ ▼	X
4	click on "search:submit"	Click	▲ ▼	X
5	click on "search:result"	Click	▲ ▼	X
6	click	Click	▲ ▼	X

At the top right of the main area, there are two buttons: "Play back clickpath" and "Record again", which are highlighted with a red box.

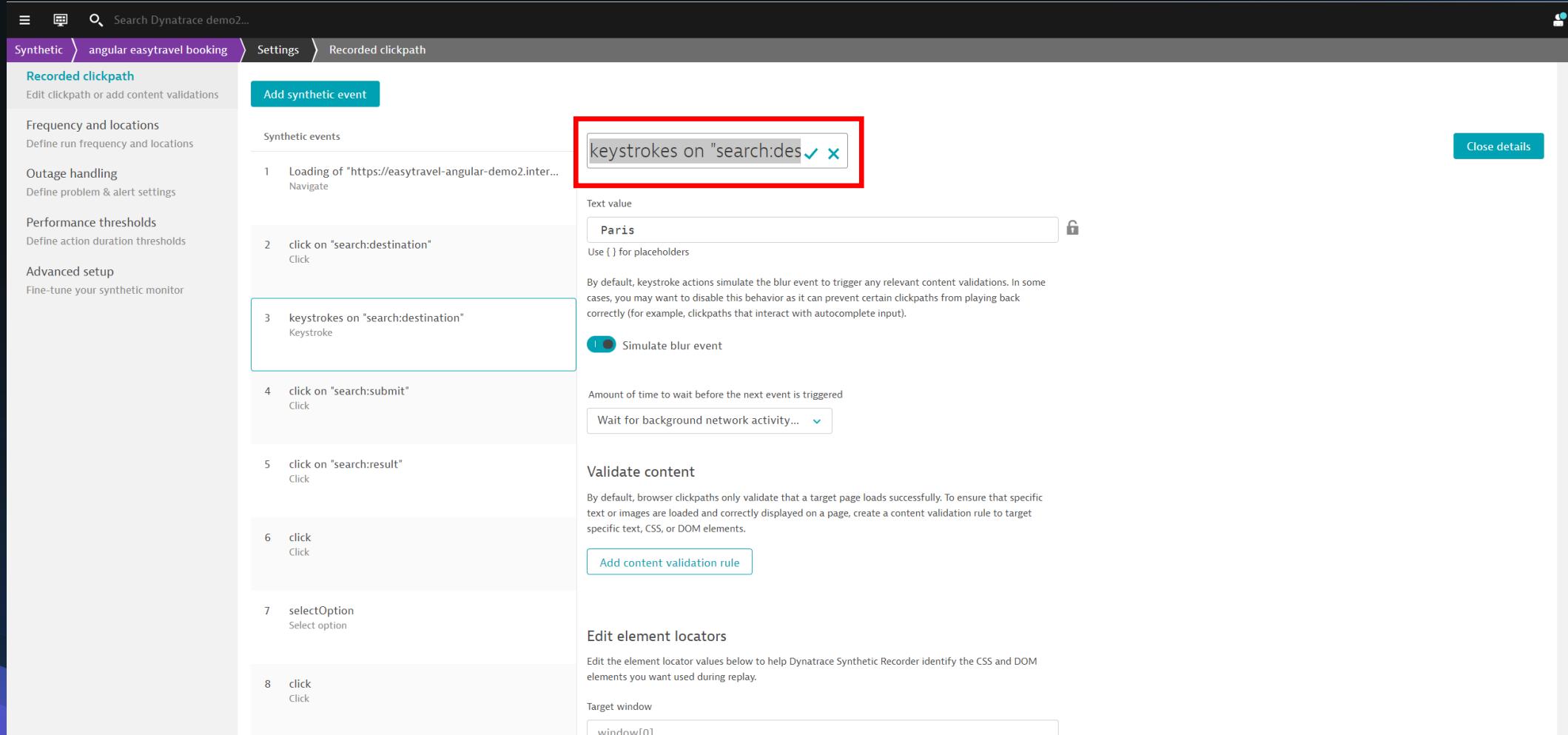
View event details

The screenshot shows the Dynatrace Perform interface for editing a recorded clickpath. The left sidebar includes options like 'Recorded clickpath', 'Frequency and locations', 'Outage handling', 'Performance thresholds', and 'Advanced setup'. The main area displays a list of events with the third one, 'keystrokes on "search:destination"', highlighted with a red box. To the right, a detailed view shows the event's text value ('Paris'), a note about simulating blur events, and a dropdown for waiting for background network activity. Below this is a 'Validate content' section with a 'Add content validation rule' button. Further down is an 'Edit element locators' section with a 'Target window' set to 'window[0]' and a table of locators:

Type	Input	Delete	Edit
CSS	#search\destination	X	▼
CSS	input[name="location"]	X	▼
DOM	document.forms[0]\location	X	▼
CSS	.hero-form-input:eq(0)	X	▼
CSS	html body:nth-child(8) app-root app-dashboard:nth-child(2) app-main-layout div div:nth-child(2) app-hero div section form:nth-child(...)	X	▼

At the bottom, there are 'Delete synthetic event' and 'Close details' buttons.

Set event name



The screenshot shows the Dynatrace Synthetic recorder interface. The top navigation bar includes icons for search, refresh, and settings, followed by the text "Search Dynatrace demo2...". Below the navigation, the breadcrumb path is "Synthetic > angular easytravel booking > Settings > Recorded clickpath". On the left, a sidebar lists several configuration sections: "Recorded clickpath" (selected), "Edit clickpath or add content validations", "Frequency and locations" (Define run frequency and locations), "Outage handling" (Define problem & alert settings), "Performance thresholds" (Define action duration thresholds), and "Advanced setup" (Fine-tune your synthetic monitor). The main content area displays a "Recorded clickpath" with 8 steps: 1. Loading of "https://easytravel-angular-demo2.inter...", 2. click on "search:destination" (Click), 3. keystrokes on "search:destination" (Keystroke, highlighted with a red box), 4. click on "search:submit" (Click), 5. click on "search:result" (Click), 6. click (Click), 7. selectOption (Select option), and 8. click (Click). To the right of the clickpath, there are sections for "Text value" (Paris, with a placeholder note), "Simulate blur event" (radio button selected), "Amount of time to wait before the next event is triggered" (Wait for background network activity...), "Validate content" (Add content validation rule), "Edit element locators" (Target window: window[0]), and "Close details".

Text value

The screenshot shows the Dynatrace Synthetic Recorded clickpath editor. The left sidebar lists navigation options: Synthetic, angular easytravel booking, Settings, Recorded clickpath, Frequency and locations, Outage handling, Performance thresholds, and Advanced setup. The main area displays a recorded clickpath with 8 steps:

- 1 Loading of "https://easytravel-angular-demo2.inter... Navigate
- 2 click on "search:destination" Click
- 3 keystrokes on "search:destination" Keystroke (highlighted with a blue border)
- 4 click on "search:submit" Click
- 5 click on "search:result" Click
- 6 click Click
- 7 selectOption Select option
- 8 click Click

Step 3, "keystrokes on 'search:destination'", has a "Text value" input field containing "Paris". A red box highlights this input field. Below it is a note: "By default, keystroke actions simulate the blur event to trigger any relevant content validations. In some cases, you may want to disable this behavior as it can prevent certain clickpaths from playing back correctly (for example, clickpaths that interact with autocomplete input)." There is also a "Simulate blur event" toggle switch.

Step 3 also includes a "Validate content" section with a "Add content validation rule" button and a "Edit element locators" section with a "Target window" input field containing "window[0]".

Wait rules

The screenshot shows the Dynatrace Synthetic Recorded clickpath configuration page. The left sidebar includes links for Synthetic, angular easytravel booking, Settings, and Recorded clickpath. The main area displays a sequence of events:

- 1 Loading of "https://easytravel-angular-demo2.inter...". Type: Navigate.
- 2 click on "search:destination". Type: Click.
- 3 keystrokes on "search:destination". Type: Keystroke. This step is highlighted with a blue box and has a red box around its dropdown menu.
 - Text value: Paris
 - Use {} for placeholders
 - Simulate blur event (radio button)

By default, keystroke actions simulate the blur event to trigger any relevant content validations. In some cases, you may want to disable this behavior as it can prevent certain clickpaths from playing back correctly (for example, clickpaths that interact with autocomplete input).
- 4 click on "search:submit". Type: Click.
- 5 click on "search:result". Type: Click.
- 6 click. Type: Click.
- 7 selectOption. Type: Select option.
- 8 click. Type: Click.

A dropdown menu for the third step's wait rule is open, showing options like "Wait for background network activity..." and "Wait for next event". The "Wait for background network activity to complete" option is selected and highlighted with a red box.

Edit element locators
Edit the element locator values below to help Dynatrace Synthetic Recorder identify the CSS and DOM elements you want used during replay.

Target window
window[0]

Validate Content

The screenshot shows the Dynatrace Perform interface with the following navigation path: Synthetic > angular easytravel booking > Settings > Recorded clickpath.

The main area displays a recorded clickpath consisting of 14 steps:

- 5 click on "search:result" Click
- 6 click Click
- 7 selectOption Select option
- 8 click Click
- 9 click on "book:booknow" Click
- 10 click on "loginForm:username" Click
- 11 keystrokes on "loginForm:username" Keystroke
- 12 click on "loginForm:password" Click
- 13 keystrokes on "loginForm:password" Keystroke
- 14 click on "loginForm:submit"

A modal window titled "Validate content" is open, explaining that browser clickpaths only validate page load success. It allows creating content validation rules to target specific text, CSS, or DOM elements. The "contains visible text" option is selected and highlighted with a red box. Other options include "contains element", "contains text in element", "contains text in DOM or any resource", and "Evaluate as regular expression".

The "Target window" field contains "window[0]".

At the bottom of the modal are "Save" and "Cancel" buttons.

Below the modal, under "Edit element locators", there is a table for adding locators:

Type	Input	Delete	Edit
CSS	#search\destination	X	V

Element locators

The screenshot shows the Dynatrace Perform interface with a recorded clickpath for an 'angular easytravel booking' synthetic event. The clickpath consists of 16 numbered steps, with steps 7 through 16 highlighted in light gray. A red box highlights the 'Edit element locators' dialog box, which is overlaid on the clickpath.

Edit element locators

Edit the element locator values below to help Dynatrace Synthetic Recorder identify the CSS and DOM elements you want used during replay.

Target window

window[0]

Add locator

Type	Input	Delete	Edit
CSS	#search\destination	X	▼
CSS	input[name="location"]	X	▼
DOM	document.forms[0]["location"]	X	▼
CSS	.hero-form-input:eq(0)	X	▼
CSS	html body:nth-child(8) app-root app-dashboard:nth-child(2) app-main-layout div div:nth-child(2) app-hero div section form:nth-child(...	X	▼

Delete synthetic event

Add event

The screenshot shows the Dynatrace Perform interface for adding a synthetic monitor. The top navigation bar includes icons for search, refresh, and user profile, followed by the text "Search Dynatrace demo2...". Below the navigation is a breadcrumb trail: Synthetic > angular easytravel booking > Settings > Recorded clickpath. On the left, a sidebar titled "Monitor settings" for "angular easytravel booking" lists various setup options: Monitor setup, Recorded clickpath (selected), Frequency and locations, Outage handling, Performance thresholds, and Advanced setup. The main content area is titled "Recorded clickpath" and contains tabs for "Clickpath" (selected) and "Script". A sub-section titled "Add synthetic event" shows fields for "Name" (empty) and "Select synthetic event type" (set to "Navigate"). A dropdown menu is open, showing options: Navigate (selected), Click, JavaScript, Keystroke, Tap, Select option, and Cookie. The "Select option" field contains the value "easytravel-angular-demo2.internal.dynatracelabs.com". Below this, a table lists four recorded events: 1. "click on \"search:destination\"", 2. "keystrokes on \"search:destination\"", 3. "click on \"search:submit\"", and 4. "click on \"search:destination\"". Each row includes columns for "Type" (e.g., Click, Keystroke), "Move up/down" (with up and down arrow icons), and "Delete" (with a red X icon). At the top right of the main content area are two buttons: "Play back clickpath" and "Record again".

Script mode

The screenshot shows the Dynatrace Synthetic monitor settings interface. The navigation bar includes icons for dashboard, search, and user profile, followed by the text "Search Dynatrace demo2...". Below the navigation is a breadcrumb trail: Synthetic > angular easytravel booking > Settings > Recorded clickpath. On the left, a sidebar lists monitor settings: Monitor setup, Recorded clickpath (selected), Frequency and locations, Outage handling, Performance thresholds, and Advanced setup. The main content area is titled "Recorded clickpath" and contains tabs for "Clickpath" (selected) and "Script". A note states: "This is the .json representation of the monitor. Download script as .json. For additional details see Scripting browser monitors." Below this is a large code block representing the recorded clickpath script:

```
1 {
  "configuration": {
    "device": {
      "orientation": "landscape",
      "deviceName": "Desktop"
    }
  },
  "type": "clickpath",
  "version": "1.0",
  "events": [
    {
      "type": "navigate",
      "wait": {
        "waitFor": "page_complete"
      },
      "description": "Loading of \"https://easytravel-angular-demo2.internal.dynatracelabs.com\"",
      "url": "https://easytravel-angular-demo2.internal.dynatracelabs.com"
    },
    {
      "type": "click",
      "wait": {
        "waitFor": "network"
      },
      "target": {
        "locators": [
          {
            "type": "css",
            "value": "#search\\:destination"
          },
          {
            "type": "css",
            "value": "input[name=\"location\"]"
          },
          {
            "type": "dom",
            "value": "document.forms[0][\"location\"]"
          }
        ]
      }
    }
  ]
}
```

At the top right of the main content area are two buttons: "Play back clickpath" and "Record again".

Script mode

- Benefits for editing script in browser:
 - **Autocomplete** - just press Ctrl+space to see the list of suggestions
 - **Syntax highlighting** makes it easier for you to write script code
 - **Instant error validation** - the editor instantly shows a warning for any error in the script; hover your cursor over it to see what's wrong and a suggestion for how to fix it

```
1 {
2   "configuration": {
3     "device": {
4       "orientation": "landscape",
5       "deviceName": "Desktop"
6     }
7   },
8   "type": "clickpath",
9   "version": "1.0",
10  "events": [
11    {
12      "type": "navigate",
13      "wait": {
14        "waitFor": "page_complete"
15      },
16      "description": "network"
17    },
18    {
19      "type": "click"
20    }
21  ],
22  "target": {
```

Frequency and locations

Frequency and locations

Synthetic > angular easytravel booking > Settings > Frequency and locations

1

Monitor settings

angular easytravel booking

- Monitor setup
- Recorded clickpath
- Frequency and locations**
- Outage handling
- Performance thresholds
- Advanced setup

Frequency and locations

Select how frequently this monitor should run at each enabled location. For more information, see [how do I create a browser monitor?](#)

Monitor my website every **5** minutes from:

Dynatrace offers a global network of public synthetic locations out of the box.
You can also setup [private synthetic locations](#).



3 locations selected

Filter by cloud provider, continent, country, city or by IP address

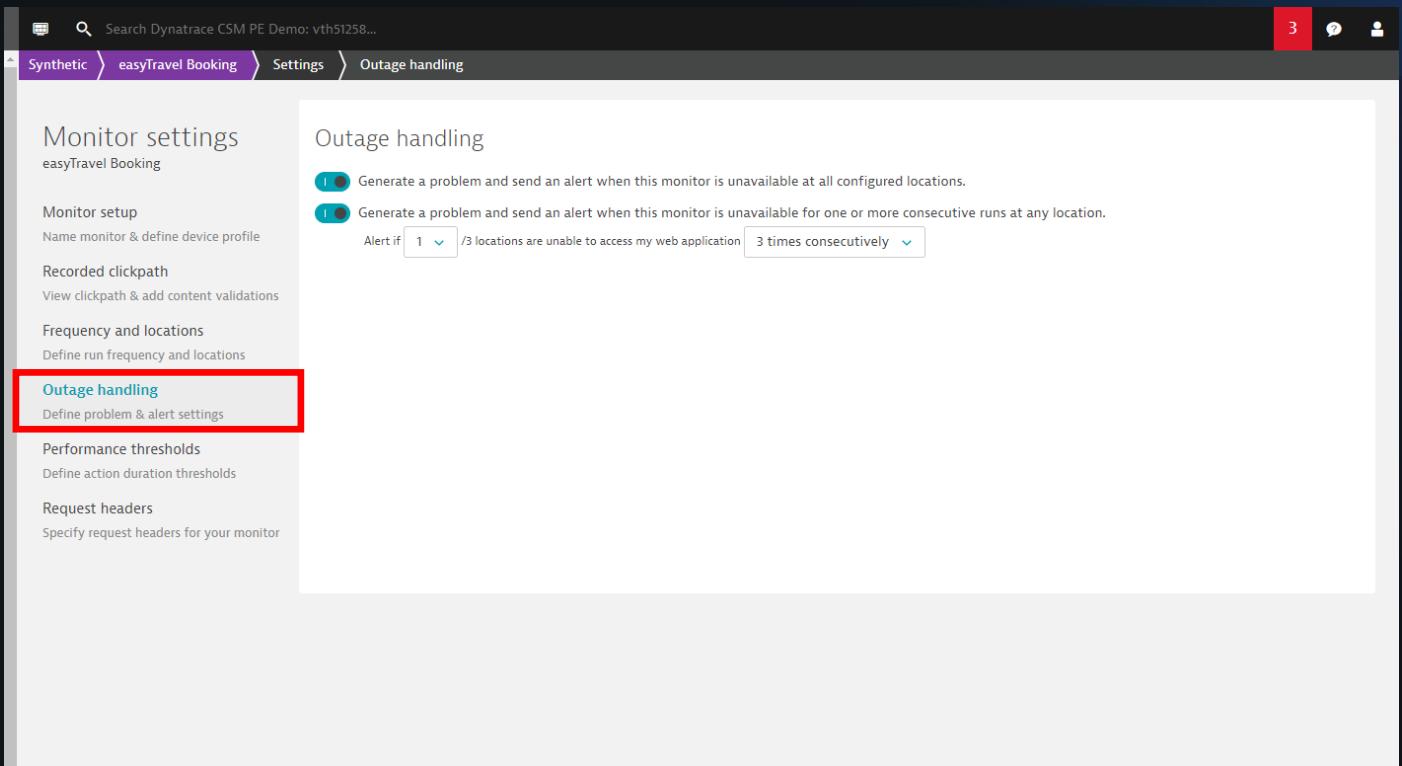
Hide inactive locations

Location name	Cloud	Type	Browser version	Country	Continent	IP address
Cape Town (southafricawest) Early adopter	Azure	Public	Chrome ver. 78.0.3904.87	South Africa	Africa	102.133.0.104, 102.133.0.1...
Johannesburg (southafricanorth) Early adopter	Azure	Public	Chrome ver. 78.0.3904.87	South Africa	Africa	102.133.130.128, 102.133.1...
Beijing (cn-beijing) Early adopter	Alibaba	Public	Chrome ver. 78.0.3904.87	China	Asia	39.105.174.59, 39.105.201...
Hohhot (cn-huhehaote) Early adopter	Alibaba	Public	Chrome ver. 78.0.3904.87	China	Asia	39.104.16.25, 39.104.16.17...
Mumbai (ap-south-1) Early adopter	Alibaba	Public	Chrome ver. 78.0.3904.87	India	Asia	149.129.133.16, 149.129.13...

Outage handling

Outage handling

- Disable/enable problem creation on outages
- By design a failed execution is rescheduled immediately to avoid false alerts due to infrastructure problems
- Enabling thresholds will result in problem card creation in UI. Configure problem notification delivery to receive notifications (e.g. email)



Set outage handling

The screenshot shows the Dynatrace web interface with a sidebar on the left and a main content area on the right.

Left Sidebar:

- Dashboard & reports
- Dashboards
- Create custom chart
- Reports**
- Analyze
- Problems
- User sessions
- Log files
- Smartscape topology
- Diagnostic tools
- Monitor
- Applications
- Synthetic**
- Transactions & services
- Databases
- Hosts
- Network
- Technologies
- VMware
- AWS
- Azure
- Docker
- Manage
- Deploy Dynatrace
- Deployment status
- Settings

Top Bar:

- dynatrace logo
- Search bar: Search Dynatrace CSM PE Demo: vth51258...
- Notification icon: 3
- User icon

Main Content Area:

The main content area shows the navigation path: Synthetic > easyTravel Booking > Settings > Outage handling.

The page title is "Outage handling" under "easyTravel Booking".

Two options are listed:

- Generate a problem and send an alert when this monitor is unavailable at all configured locations.
- Generate a problem and send an alert when this monitor is unavailable for one or more consecutive runs at any location.

Define custom outage triggers

The screenshot shows the Dynatrace interface for defining custom outage triggers. The left sidebar lists various monitoring categories like Dashboards & reports, Dashboards, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the navigation path: Synthetic > easyTravel Booking > Settings > Outage handling. The 'Outage handling' section is active, showing two configuration options:

- Generate a problem and send an alert when this monitor is unavailable at all configured locations.
- Generate a problem and send an alert when this monitor is unavailable for one or more consecutive runs at any location.

Alert if /3 locations are unable to access my web application on first occurrence
2 times consecutively
3 times consecutively

A red box highlights the second configuration option, specifically the dropdown menu where '3 times consecutively' is selected.

Disable outage handling

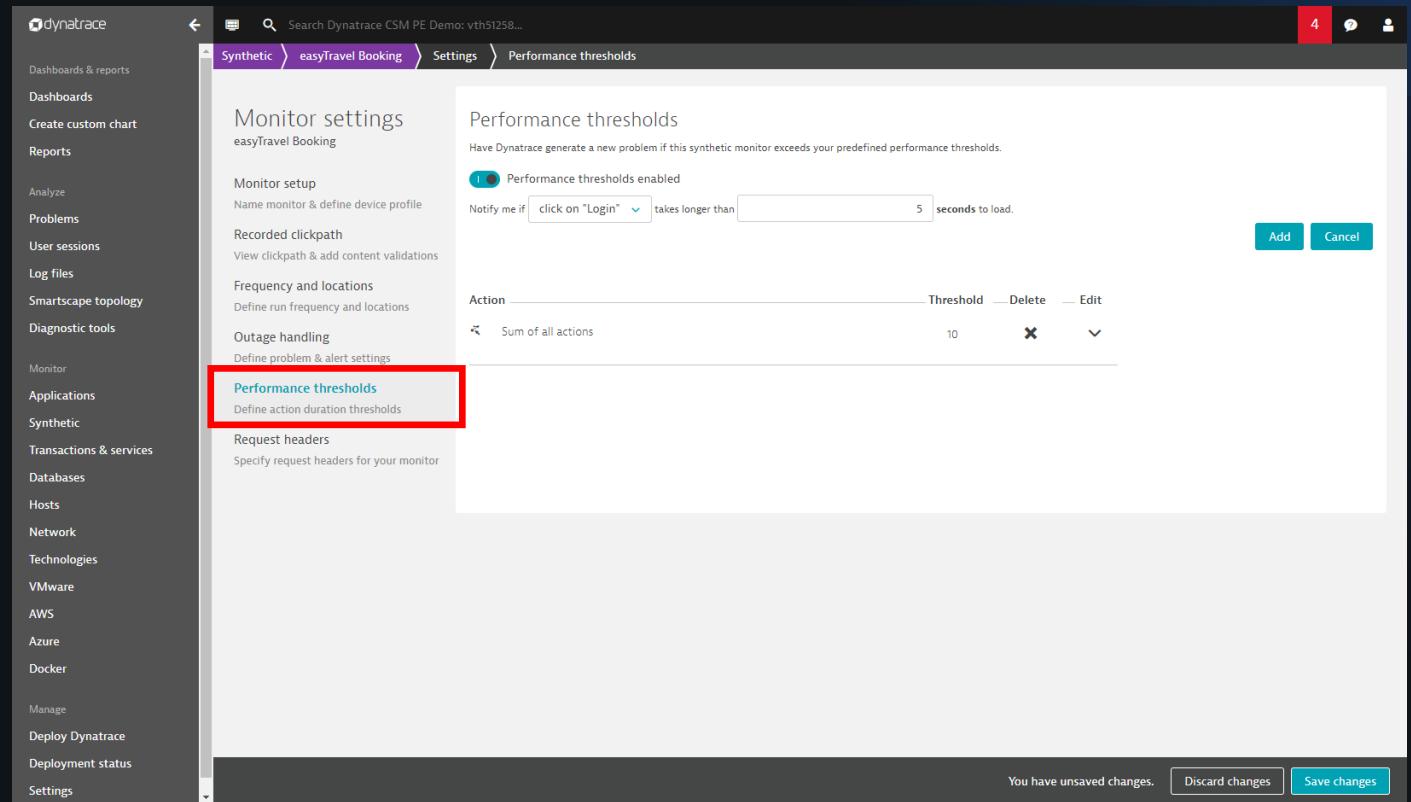
The screenshot shows the Dynatrace web interface with the following navigation path: Synthetic > easyTravel Booking > Settings > Outage handling. The left sidebar lists various monitoring categories like Dashboards & reports, Dashboards, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The 'Outage handling' section in the main content area is highlighted with a red box around its two configuration options:

- Generate a problem and send an alert when this monitor is unavailable at all configured locations.
- Generate a problem and send an alert when this monitor is unavailable for one or more consecutive runs at any location.

Performance thresholds

Performance thresholds

- Disable/enable problem creation for performance issues
- Performance thresholds notify you when a specific action or synthetic monitor exceeds the threshold from a **single location for any 3 out of the past 5 test runs**
- Enabling thresholds will result in problem card creation in UI. Configure problem notification delivery to receive notifications (e.g. email)



Set performance thresholds

The screenshot shows the Dynatrace web interface with a dark theme. The left sidebar contains a navigation menu with categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The 'Synthetic' category is selected, followed by 'easyTravel Booking', 'Settings', and finally 'Performance thresholds'. The main content area is titled 'Performance thresholds' and includes a sub-instruction: 'Have Dynatrace generate a new problem if this synthetic monitor exceeds your predefined performance thresholds.' Below this is a section titled 'Performance thresholds' with a sub-instruction: 'Define action duration thresholds'. A red box highlights a radio button labeled 'Performance thresholds disabled'.

Default performance thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the 'easyTravel Booking' monitor settings. The 'Performance thresholds' section is active, displaying a table with one row:

Action	Threshold	Delete	Edit
Sum of all actions	10	X	(Red box)

At the bottom right of the main content area, there are buttons for 'Discard changes' and 'Save changes'. A message at the bottom center says 'You have unsaved changes.'

Edit performance thresholds

The screenshot shows the Dynatrace web interface with the following navigation path: Synthetic > easyTravel Booking > Settings > Performance thresholds.

The left sidebar contains the following menu items:

- Dashboards & reports
- Dashboards
- Create custom chart
- Reports
- Analyze
- Problems
- User sessions
- Log files
- Smartscape topology
- Diagnostic tools
- Monitor
- Applications
- Synthetic
- Transactions & services
- Databases
- Hosts
- Network
- Technologies
- VMware
- AWS
- Azure
- Docker
- Manage
- Deploy Dynatrace
- Deployment status
- Settings

The main content area displays the "Performance thresholds" configuration page for the "easyTravel Booking" monitor. The page includes the following sections:

- Monitor settings**: easyTravel Booking
- Performance thresholds**: Have Dynatrace generate a new problem if this synthetic monitor exceeds your predefined performance thresholds.
- Action**: Sum of all actions
- Threshold**: 10 seconds
- Notify message**: Notify me if **Sum of all actions**, which has had an **average duration of 18.67 seconds** over the last 24 hours, takes longer than **10 seconds** to load.
- Buttons**: Save, Cancel

A red box highlights the "Action" row in the table. At the bottom of the page, there is a message: "You have unsaved changes." followed by "Discard changes" and "Save changes" buttons.

Set custom thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the 'easyTravel Booking' monitor settings under the 'Synthetic' category. The 'Performance thresholds' section is active, with a sub-section titled 'Performance thresholds' containing the instruction: 'Have Dynatrace generate a new problem if this synthetic monitor exceeds your predefined performance thresholds.' A red box highlights the 'Add threshold' button. Below this, a table lists a single threshold rule:

Action	Threshold	Delete	Edit
Sum of all actions Notify me if Sum of all actions, which has had an average duration of 18.67 seconds over the last 24 hours, takes longer than 10 seconds to load.	10	X	^

At the bottom right of the main content area, there are 'Save' and 'Cancel' buttons. At the very bottom of the screen, there is a message: 'You have unsaved changes.' followed by 'Discard changes' and 'Save changes' buttons.

Set custom thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the 'easyTravel Booking' synthetic monitor settings. The 'Performance thresholds' section is highlighted with a red box. It displays a message: "Have Dynatrace generate a new problem if this synthetic monitor exceeds your predefined performance thresholds." Below this is a configuration card: "Performance thresholds enabled" (status icon), "Notify me if Loading of 'h...ws.com:8079/'", "which has had an **average duration of 3.13 seconds** over the last 24 hours, takes longer than seconds to load.", and "Add" and "Cancel" buttons. A table below lists a threshold rule: Action "Sum of all actions", Threshold "10", Delete "X", and Edit "▼". At the bottom, a message says "You have unsaved changes." with "Discard changes" and "Save changes" buttons.

Delete performance thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the 'easyTravel Booking' synthetic monitor settings. Under 'Monitor settings', the 'Performance thresholds' section is selected. It displays a table with one row: Action: Sum of all actions, Threshold: 10, and a 'Delete' button with a red box around it. At the bottom, there are buttons for 'Discard changes' and 'Save changes'. A message at the bottom says 'You have unsaved changes.'

Disable thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main content area shows the 'easyTravel Booking' synthetic monitor settings. The 'Performance thresholds' section is highlighted with a red box around the 'Performance thresholds disabled' toggle, which is currently selected (indicated by a black dot). The text above the toggle reads: "Have Dynatrace generate a new problem if this synthetic monitor exceeds your predefined performance thresholds."

Exercise 3 - Hands on

Edit test settings

Hands-on exercise – Configure Monitor Settings

1. Select **Synthetic** from the navigation menu.
2. Select the browser monitor you want to configure.
3. Click the Browse (...) button and select **Edit**
4. Enable Outage Handling
 - Enable “Generate a problem and send an alert when this monitor is unavailable for one or more consecutive runs at any location”
 - Alert if 1/2 locations are unable to access my web application 1 time consecutively
5. Enable Performance Thresholds
 - Enable performance thresholds
 - Edit **sum of all actions** threshold to 15s
 - For clickpaths, **Add threshold** and set an action-specific threshold to 5s
6. Click **Save changes** in bottom right when finished

Advanced setup

Advanced setup

The screenshot shows the 'Advanced setup' page within the Dynatrace Perform interface. The left sidebar lists various monitor settings: Monitor setup, Recorded clickpath, Frequency and locations, Outage handling, Performance thresholds, and Advanced setup (which is currently selected). The main content area is titled 'Advanced setup' and contains three sections: 'Enable additional HTTP headers', 'Block specific requests', and 'Set cookies'. The 'Enable additional HTTP headers' section has a red error message: 'This field cannot be empty.' The 'Block specific requests' section shows a pattern input field containing 'For example 'https://*.example.com/'' with an error message: 'Request header filter does not match the required pattern'. The 'Set cookies' section includes fields for Name, Value, Domain, and Path.

Search Dynatrace demo...

Synthetic > angular easytravel booking > Settings > Advanced setup

Monitor settings
angular easytravel booking

Monitor setup
Name monitor & define device profile

Recorded clickpath
Edit clickpath or add content validations

Frequency and locations
Define run frequency and locations

Outage handling
Define problem & alert settings

Performance thresholds
Define action duration thresholds

Advanced setup
Fine-tune your synthetic monitor

Advanced setup

Enable additional HTTP headers

Specify request headers that will be set for all requests performed by this monitor.

Header Value

This field cannot be empty.

Add another header

Only apply headers to requests matching a pattern

Block specific requests

All requests matching the specified patterns will be blocked during the execution of the monitor.

Pattern

For example 'https://*.example.com/'

Request header filter does not match the required pattern

Add another pattern

Set cookies

Specify cookies that will be sent with requests performed by this monitor.

Name	Value
Use () for placeholders	Use () for placeholders

Domain Path (optional)

For example, 'example.com' For example, '/' or '/mydir'

Use () for placeholders Use () for placeholders

Save Cancel

Bypass Content Security Policy (CSP) of monitored page

HTTP monitors

HTTP monitors

- An HTTP monitor uses a simple HTTP request to monitor the availability of a given URL
- The request is executed with a set of specified parameters such as:
 - HTTP headers, HTTP method, user agent, response validation
- HTTP monitors also support basic authentication, can include POST data, follow redirects, include custom headers and accept SSL certificates
- You can define performance thresholds & outage handling to trigger problems and be displayed within the analysis
- HTTP monitors cost 0.1 DEM units

Requirements

- HTTP monitors run on a Dynatrace ActiveGate, installed on a host provided by the customer
 - From within the Dynatrace portal -> left-menu -> Deployment status -> Install ActiveGate
 - For HTTP monitors, ActiveGate must run on a Linux host
- ActiveGate is installed on a customer machine, which allows you to deploy inside your firewall/network if you need to monitor internal pages, web services, etc.
- ActiveGate configuration for HTTP monitors can be found here:
<https://www.dynatrace.com/support/help/monitor/synthetic/activegate-configuration-for-http-monitors/>

Pre- and post-execution scripting enables sophisticated API monitoring use cases

Think of your API use cases, including the monitoring of services used by mobile apps, and consider when your use cases will include:

- Complex authentication
- Logic between requests
- Passing of information between requests
- The use of custom functions that perform response parsing
- Other custom code

Exercise 4 - Hands on

Create an HTTP Monitor

Hands-on exercise – Configure an HTTP Monitor

1. Select **Synthetic** from the navigation menu.
2. Select **Create a Synthetic monitor**
3. Select **Create an HTTP monitor**
 - Install ActiveGate if needed
4. Define The Following Parameters 
5. Select **Location**
6. Continue and Create Monitor

Monitor Name: EasyTravel-REST-Login
Enter URL: <http://easytravel.freeddns.org:9080/easytravel/rest/login>
Step Name: EasyTravel REST Login
HTTP Method: POST
Post Execution Script:

```
if (response.getStatusCode() != 200) {  
    api.fail("HTTP error: " + response.getStatusCode());  
}  
  
var responseBody = response.getResponseBody();  
api.info(responseBody);  
Request Header: Content-Type application/json  
Request Body:  
{  
    "username": "yaseminwen",  
    "password": "yaseminwen"  
}  
Validation Rule: "firstName":"Yasemin"
```

Create a new monitor

The screenshot shows the Dynatrace interface with the following details:

- Header:** Search bar with "Search Dynatrace: ozs40750...", Achievement unlocked!, Last 2 hours, and user profile.
- Sidebar:** Navigation menu with categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic (highlighted), Transactions & services, Databases, Hosts, Network, Technologies, VMware, and AWS.
- Current View:** Synthetic monitor list titled "1 Synthetic monitor".
- Buttons:** "Create a synthetic monitor" button (boxed in red).
- Filtering:** "Filtered by:" dropdown with "Start typing to filter synthetic monitors...".
- Table Headers:** Creation date, Type, Availability, Total duration.
- Table Data:** One entry for "Easytravel Booking Process" (Browser type, created Today, availability -). It includes a status icon, a robot icon, and the text "1 synthetic event, every 15 min, 1 location".
- Left Sidebar:** Filter sidebar with sections: All (1), Status (Active, 1), Type of synthetic monitor (Browser, 1), Device profile (Desktop, 1), and Monitored location (Jackson, WI, 1).

Create an HTTP monitor

The screenshot shows the Dynatrace web interface with a sidebar on the left containing various navigation links such as Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main area is titled "Create synthetic monitor" and has a progress bar at the top with three steps: "Type" (selected), "Configuration", and "Summary". The "Type" step asks "What type of synthetic monitor do you want to create?". It offers two options: "Create a browser monitor" (represented by a browser icon) and "Create an HTTP monitor" (represented by a code snippet icon). A red box highlights the "Create an HTTP monitor" button.

Provide a Name for the HTTP Monitor & Add HTTP Request

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar lists various monitoring categories like 'Create custom chart', 'Reports', 'Analyze', 'Problems', etc. The main area is titled 'Synthetic' and 'Create synthetic monitor'. A progress bar at the top indicates four steps: 'Type' (selected), 'Configuration', 'Frequency and locations', and 'Summary'. The 'Configuration' step is active, showing a red box around the 'Name this HTTP monitor' input field which contains 'EasyTravel-REST-Login'. Below it is a 'UI Configuration' tab. A red arrow points to the 'Add HTTP request' button. A table below lists columns for '#', 'Name', 'HTTP Request URL', 'HTTP Method', 'Move up/down', and 'Delete'. The 'HTTP Request URL' column shows 'No HTTP requests defined'. At the bottom right are 'Cancel' and 'Select frequency and locations' buttons.

Name this HTTP monitor

EasyTravel-REST-Login

Add tag

UI Configuration Script

Add HTTP request

#	Name	HTTP Request URL	HTTP Method	Move up/down	Delete
		No HTTP requests defined			

Cancel Select frequency and locations

Add HTTP Request

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar lists various monitoring categories like Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Cloud Foundry, Kubernetes, Manage, Deploy Dynatrace, Deployment status, and Settings. The main area is titled "Create synthetic monitor" and is on the "Configuration" step of a four-step process. The "Type" step is completed, and the "Frequency and locations" and "Summary" steps are yet to be done. In the "Configuration" step, the monitor is named "EasyTravel-REST-Login". The "UI Configuration" tab is selected. Under "Choose request type", "HTTP request" is chosen. The "Type the HTTP request URL" field contains "http://easytravel.freeddns.org:9080/easytravel/rest/lc". Below it, "Name" is set to "EasyTravel REST Login" and "HTTP Method" is set to "POST". A red box highlights this configuration section, and a red arrow points to the "Add HTTP request" button. At the bottom, there are "Cancel" and "Select frequency and locations" buttons.

<http://easytravel.freeddns.org:9080/easytravel/rest/login>
EasyTravel REST Login

Additional HTTP options

EasyTravel REST Login 

Type the HTTP request URL

http://easytravel.freeddns.org:9080/easytravel/rest/login

Use {} to add values set in scripts.

HTTP Method

POST

User agent (optional)

User agent

I Response status code verification

Fail if status code is

You can use exact number, range or status class mask. Multiple values can be separated with comma, ie: 404, 405-410, 5xx
HTTP status code verification is available for Active Gates version 177 or higher

Additional HTTP options

Additional options

Enable pre-execution script

Enable post-execution script

```
1 if (response.getStatusCode() != 200) {  
2     api.fail("HTTP error: " + response.getStatusCode());  
3 }  
4 var responseBody = response.getResponseBody();  
5 api.info(responseBody);
```

Set authentication/authorization

Add client certificate

Set additional HTTP headers

Header name	Header value
Content-Type	application/json 

Use {} to add values set in scripts.

[Add another header](#)

Additional HTTP options

The screenshot shows the 'Additional HTTP options' dialog box with two main sections highlighted by red boxes:

- Request body**: This section contains a radio button for 'Request body' (selected) and another for 'x-www-form-urlencoded'. Below is a code editor showing a JSON payload:

```
1 {  
2   "username": "yaseminwen",  
3   "password": "yaseminwen"  
4 }
```

Below the code editor is a note: "Use {} to add values set in scripts."
- Set rules for response validation**: This section contains a dropdown menu with "Pass if" selected, followed by a condition: "text contains \"firstName\":\"Yasemin\"". There is also a checkbox for "Interpret content match as regular expression". Below these are three buttons: "Follow redirects", "Accept any SSL certificate", "Cancel", and "Select frequency and locations".

Select your ActiveGate location

The screenshot shows the Dynatrace Perform interface for creating a synthetic monitor. The left sidebar lists various monitoring categories like Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, and Network. The main area is titled "Synthetic" and "Create synthetic monitor". A navigation bar at the top includes "Start here", a search bar, and user icons. The current step is "Frequency and locations".
The "Frequency and locations" section contains the following fields:

- Monitor my website every minutes
- 1 location selected
- Filter by location name or by ActiveGate address
- Location Type
- Perform 2020 Private
- ActiveGate addresses
EC2AMAZ-AIRK6V9

A red arrow points from the "Perform 2020" checkbox to the "Go to Summary" button.

Summary screen

The screenshot shows the Dynatrace interface with a sidebar on the left containing various monitoring tools: Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, and Network. The main area is titled "Synthetic" and "Create synthetic monitor". It has four tabs: Type, Configuration, Frequency and locations, and Summary. The "Summary" tab is selected. The summary details are as follows:

Name	EasyTravel-REST-Login
Frequency	every 1 minute
Locations	one location
HTTP requests	1
Estimated synthetic actions per month	4,380

At the bottom right of the summary section, there are two buttons: "Cancel" and "Create HTTP monitor". A red arrow points to the "Create HTTP monitor" button.

Check your monitor

Search HaveFunCompany: uwjh93694...

Synthetic | EasyTravel-REST-Login

HTTP monitor running from 1 location, every 1 minute

100 % Availability | 62 ms Response time

1 Locations | 0 Total outages | 0 min Total downtime

Location | 19:47 20:11 20:35 20:59 21:23 21:47 Average Details

Perform 2020 | 100 %

Available | Outage | No Data

Response size | All locations

Average response size

Properties

Frequency: every 1 minute | Locations: 1 | Requests: 1 | Pre/post-execution scripts: Yes

Start here | Last 2 hours | Pin to dashboard | ...

No problems in the selected time frame

HTTP status codes

200 (OK) | Last status code (21:44)

200 (OK) | Top HTTP status code (Today, 19:47 - 21:47)

Show status codes of All locations

Status 2xx

1 HTTP request

Show data for All locations

HTTP method	Request name	Request URL	Pre/post-execution scripts	Response time	Details
POST	EasyTravel REST Login	http://easytravel.lfreeddns.org:9080/easytravel/rest/login	Yes	62 ms	▼

Assign HTTP monitor to web application

If this check monitors one or more of your web applications, you should connect the check with them. This will bring availability information to your web application and failed tests will result in problems correlated to these web applications.

Edit settings | Assign monitor to application

Hands-on exercise – Configure an HTTP Monitor

1. Select **Synthetic** from the navigation menu.
2. Select **Create a Synthetic monitor**
3. Select **Create an HTTP monitor**
 - Install ActiveGate if needed
4. Define The Following
 - Monitor Name: EasyTravel-REST-CreditAuthCheck
 - Enter URL: <http://easytravel.freeddns.org:9080/easytravel/rest/validate-creditcard>
 - Step Name: EasyTravel REST Credit Card Authorization
 - HTTP Method: POST
 - Request Header: Content-Type application/json
 - Request Body: {"creditCardNumber":"9121769940739708"}
 - Validation Rule: {"valid":true}
5. Select **Location**
6. Continue and Create Monitor

Create a new monitor

The screenshot shows the Dynatrace interface with the following details:

- Header:** Search bar with "Search Dynatrace: ozs40750...", Achievement unlocked!, Last 2 hours, and user profile.
- Sidebar:** Navigation menu with categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic (highlighted), Transactions & services, Databases, Hosts, Network, Technologies, VMware, and AWS.
- Current View:** Synthetic monitor list titled "1 Synthetic monitor".
- Buttons:** "Create a synthetic monitor" button (boxed in red).
- Filtering:** "Filtered by:" dropdown with "Start typing to filter synthetic monitors...".
- Table Headers:** Creation date, Type, Availability, Total duration.
- Table Data:** One entry for "Easytravel Booking Process" (Browser, Today, -), 1 synthetic event, every 15 min, 1 location, monitored from Jackson, WI using a Desktop device profile.

Create an HTTP monitor

The screenshot shows the Dynatrace web interface with a sidebar on the left containing various navigation links such as Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The main area is titled "Synthetic" and "Create synthetic monitor". A progress bar at the top indicates steps: Type (selected), Configuration, and Summary. The "Type" step asks "What type of synthetic monitor do you want to create?". It offers two options: "Create a browser monitor" (represented by a browser icon) and "Create an HTTP monitor" (represented by a code snippet icon). The "Create an HTTP monitor" button is highlighted with a red box.

Provide a Name for the HTTP Monitor & Add HTTP Request

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar lists various monitoring categories like Dashboards, Reports, and Applications. The main area is titled 'Create synthetic monitor' and is on the 'Configuration' step of a four-step wizard. A red box highlights the 'Name this HTTP monitor' input field, which contains 'EasyTravel-REST-CreditAuthCheck'. Below it is a 'UI Configuration' tab. A red arrow points to the 'Add HTTP request' button. The table below has columns for Name, HTTP Request URL, HTTP Method, Move up/down, and Delete. The table shows 'No HTTP requests defined'. At the bottom are 'Cancel' and 'Select frequency and locations' buttons.

#	Name	HTTP Request URL	HTTP Method	Move up/down	Delete

EasyTravel-REST-CreditAuthCheck

Add HTTP Request

The screenshot shows the Dynatrace interface for creating a synthetic monitor. The left sidebar lists various monitoring categories like Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, and VMware. The main area is titled "Create synthetic monitor" under "Synthetic". It has a "Configuration" section where the monitor is named "EasyTravel-REST-CreditAuthCheck". The "UI Configuration" tab is selected. A red box highlights the "Type the HTTP request URL" field containing "http://easytravel.freeddns.org:9080/easytravel/rest/v1/validate-creditcard" and the "Name" field containing "EasyTravel REST Credit Card Authorization". Below these are fields for "HTTP Method" (set to POST) and "Add HTTP request" (a blue button with a red arrow pointing to it). Other tabs include "Script" and "Script editor".

<http://easytravel.freeddns.org:9080/easytravel/rest/v1/validate-creditcard>
EasyTravel REST Credit Card Authorization

Additional HTTP options

EasyTravel REST Credit Card Authori...  [Close details](#)

Type the HTTP request URL

Use {} to add values set in scripts.

HTTP Method

User agent (optional)

Response status code verification

Fail if  status code is 

You can use exact number, range or status class mask. Multiple values can be separated with comma, ie: 404, 405-410, 5xx

HTTP status code verification is available for Active Gates version 177 or higher

Additional HTTP options

Set additional HTTP headers

Header name: Content-Type Header value: application/json

Use {} to add values set in scripts.

Add another header

Request body

x-www-form-urlencoded raw

Request body

```
1 {"creditCardNumber": "9121769940739708"}
```

Use {} to add values set in scripts.

Set rules for response validation

Pass if: Interpret content match as regular expression

Follow redirects

Accept any SSL certificate

Select your ActiveGate location

The screenshot shows the Dynatrace Perform web interface with the following details:

- Sidebar:** Includes links for Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, and Network.
- Header:** Shows the Dynatrace logo, a search bar with the placeholder "Search HaveFunCompany: uwh93694...", and a "Start here" button.
- Current View:** "Synthetic" > "Create synthetic monitor".
- Step Progress:** A horizontal bar with four steps: Type (selected), Configuration, Frequency and locations (selected), and Summary.
- Frequency and locations:** Set to "Monitor my website every 1 minutes".
- Location Selection:** Shows "1 location selected". A dropdown menu allows filtering by location name or ActiveGate address. A table lists locations:

Location	Type	ActiveGate addresses
Perform 2020	Private	EC2AMAZ-AIRK6V9
- Buttons:** "Cancel" and "Go to Summary" (highlighted with a red arrow).

Summary screen

The screenshot shows the Dynatrace interface with a purple header bar. The header includes the Dynatrace logo, a back arrow, a search icon, a search bar containing "Search HaveFunCompany: uwh93694...", a green "Start here" button, and a user icon.

The left sidebar has a dark background with white text, listing various monitoring categories: Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Logs, Smartscape topology, Diagnostic tools, Monitor, Applications, and Synthetic. The "Synthetic" category is currently selected, indicated by a grey arrow pointing to it.

The main content area has a white background. At the top, there's a navigation bar with tabs: "Type" (selected), "Configuration", "Frequency and locations", and "Summary". Below this is a section titled "Summary" with the following configuration details:

Name	EasyTravel-REST-CreditAuthCheck
Frequency	every 1 minute
Locations	one location
HTTP requests	1
Estimated synthetic actions per month	4,380

At the bottom right of the main content area are two buttons: "Cancel" and a teal-colored "Create HTTP monitor" button, which is highlighted with a red arrow.

Check your monitor

Search HaveFunCompany: uwjh93694...

Synthetic | EasyTravel-REST-Login

HTTP monitor running from 1 location, every 1 minute

100 % Availability | 62 ms Response time

1 Locations | 0 Total outages | 0 min Total downtime

Location | 19:47 20:11 20:35 20:59 21:23 21:47 Average Details

Perform 2020 | 100 %

Available | Outage | No Data

Response size

Show response size | All locations

Average response size

Properties

Frequency: every 1 minute | Locations: 1 | Requests: 1 | Pre/post-execution scripts: Yes

Edit settings

No problems in the selected time frame

HTTP status codes

200 (OK) | Last status code (21:44)

200 (OK) | Top HTTP status code (Today, 19:47 - 21:47)

Show status codes of | All locations

Status 2xx

1 HTTP request

Show data for | All locations

HTTP method	Request name	Request URL	Pre/post-execution scripts	Response time	Details
POST	EasyTravel REST Login	http://easytravel.lfreeddns.org:9080/easytravel/rest/login	Yes	62 ms	

Assign HTTP monitor to web application

If this check monitors one or more of your web applications, you should connect the check with them. This will bring availability information to your web application and failed tests will result in problems correlated to these web applications.

Assign monitor to application

Break

Credential Vaulting

The screenshot shows the Dynatrace interface with the sidebar open. The sidebar contains the following navigation items:

- Smartscape topology
- Diagnostic tools
 - Monitor
 - Applications
 - Synthetic
 - Transactions & services
 - Databases
 - Hosts
 - Network
 - Technologies
 - VMware
 - AWS
 - Azure
 - Docker
 - Cloud Foundry
 - Kubernetes
- Manage
- Deploy Dynatrace
- Deployment status
- Settings (highlighted with a red arrow)

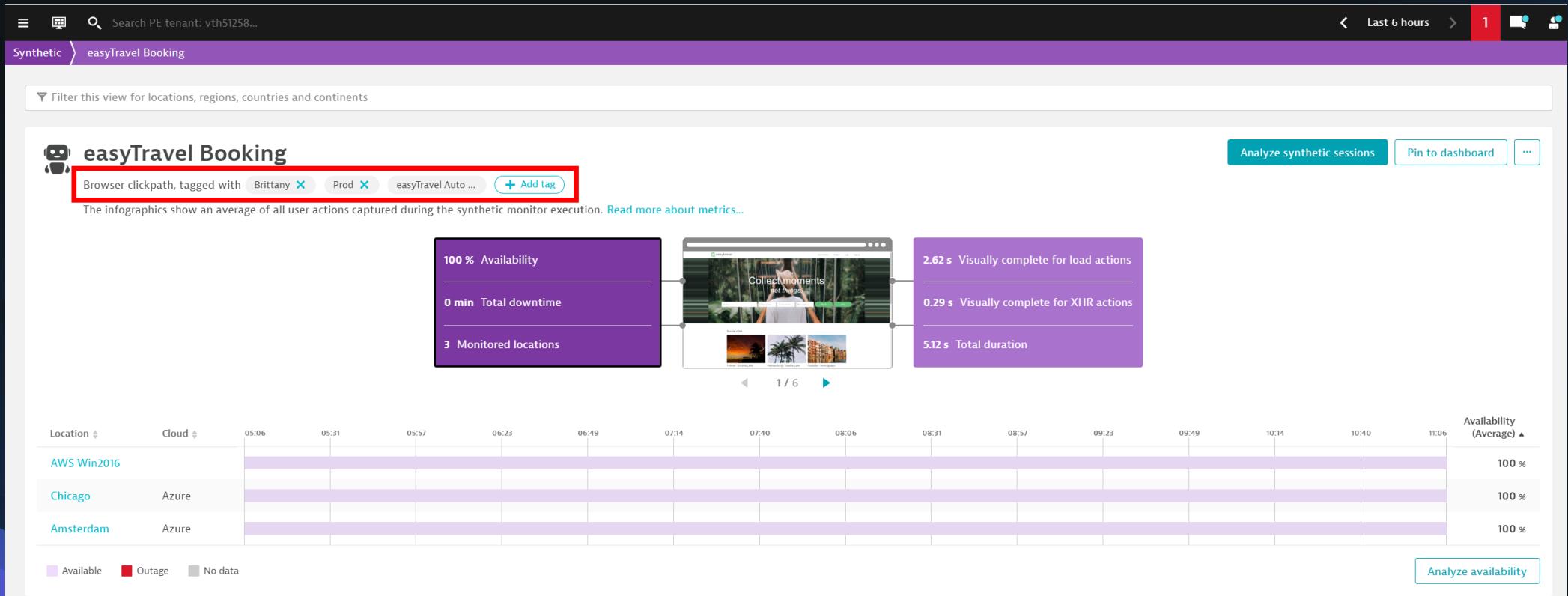
The main content area is titled "Credential vault". It includes a sub-header "Settings" and a "Credential vault" section. The "Credential vault" section contains the following text:
Credential vault provides a secure central storage for credentials that can be used in Synthetic HTTP monitors.

Below this text is a search bar labeled "Start typing to filter credentials...". To the right of the search bar are two buttons: "Add user and password credential" and "Add certificate credential". A red arrow points to the "Add user and password credential" button. At the bottom of the "Credential vault" section, there is a table header with columns: Type, Name and description, Used by, Owner, Delete, and Details. The table body below the header shows the message "No credentials stored".

Tagging

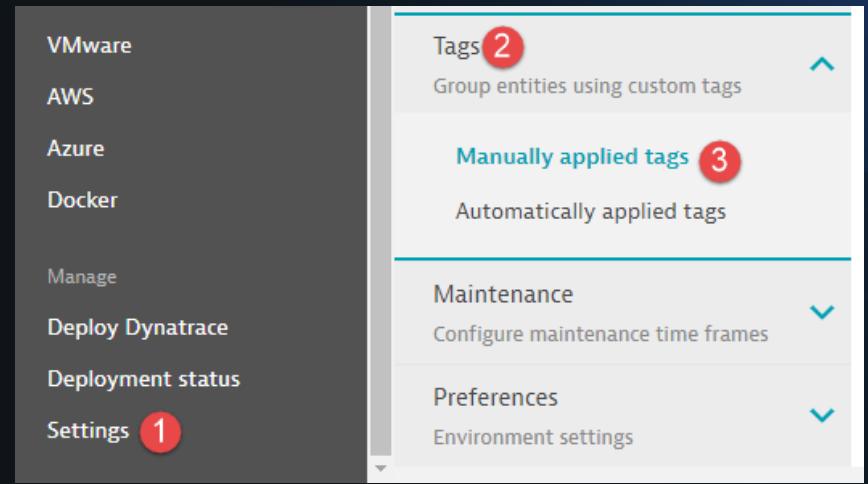
Tagging

Add metadata to synthetic monitors, hosts, process groups, services and applications - to categorize and group entities, and create subset user views.



Tagging

- Use cases
 - Filtering views
 - Charts
 - Dashboards
 - Problems
 - Alert notifications
 - Management zones
 - Maintenance windows
 - And more!
- Can be applied
 - Manually or automatically



Use tags as filters

The screenshot shows the Dynatrace Perform interface for managing synthetic monitors. On the left, a sidebar lists various filter categories: Status (All, Active, Inactive), Type of synthetic monitor (Browser, Browser clickpath, HTTP), Device profile, Monitored location, Application, and Tags. The 'Tags' section is expanded, showing a list of tags: Brittany (9), **Brittany - easyTravel** (9), Candice (1), CustomerTest (1), dean-test (1), easyTravelAngular (1), Foley Tests (2), Jasmin (2), JenTest (1), and Judith (1). A blue callout points to this list with the text "Tags listed as a filter option". At the bottom of the sidebar, there are buttons for "Keep this filter" and "+ 5 more. Filter for all in the filter field on top." A blue speech bubble at the top right says "Tags also available in the filter bar". The main content area displays a table titled "9 Synthetic monitors" with columns for Name, Creation date, Type, Device profile, Status, Availability, and Total duration. The table lists nine monitors, all of which contain the tag "easyTravel". A blue callout points to the table with the text "Filtered list of all monitors containing the selected tag".

Name	Creation date	Type	Device profile	Status	Availability	Total duration
easyTravel About	Dec 07 2018	Browser	Desktop	active	100 %	1.64 s
easyTravel Booking	Jul 31 2019	Browser clickpath	Desktop	active	100 %	7.71 s
easyTravel clickpath				active	100 %	2.11 s
easyTravel Contact	Dec 07 2018	Browser	Custom	active	100 %	2.54 s
easyTravel Homepage	Dec 07 2018	Browser	Custom	active	100 %	2.64 s
easyTravel Login	Dec 14 2018	Browser clickpath	Custom	active	100 %	2.87 s
easyTravel Privacy Policy	Dec 07 2018	Browser	Custom	active	100 %	1.49 s
easyTravel Search	Aug 22 2019	Browser clickpath	Desktop	active	100 %	9.42 s
easyTravel Special Offers	Dec 07 2018	Browser	Custom	active	100 %	2.85 s

Tags listed as a filter option

Tags also available in the filter bar

Filtered list of all monitors containing the selected tag

Tagging in bulk

Settings > Tags > Manually applied tags

Manually applied tags

Use manual tags to organize monitoring data and analysis based on related entities in smaller environments. Tags simplify searches for related services, process groups, and hosts. They also facilitate the collection of related metrics into meaningful groups for analysis.

For large, dynamic environments, it's recommended that you use automated rule-based tags.

Add new custom tag Add

Once you've created a tag, select it from the list below to tag your services, process groups, or hosts. Alternatively, you can add tags directly from individual service, process-group, and host pages.

Filter by name

Name	Tagged components
Brittany	8
Classic Comparison	7
Desktop	0
Java	4
Ryan	17
Yahoo	1
yahoo3	0

Tags can be applied Manually or Automatically

For a given tag, preview all tagged (or untagged) entities and make changes

The screenshot shows the Dynatrace CSM interface with the following navigation path: Settings > Tags > Manually applied tags > easyTravel. The main panel displays the 'easyTravel' tag settings, which include 4 associated components. The components listed are: easyTravel Blog, easyTravel Home Page, easyTravel Search, and www.easytravel.com. Each component has a 'Tag component' checkbox checked, indicated by a green checkmark. The interface includes a search bar and dropdown filters for 'All types' and 'Tagged'.

Name	Tag component
easyTravel Blog	<input checked="" type="checkbox"/>
easyTravel Home Page	<input checked="" type="checkbox"/>
easyTravel Search	<input checked="" type="checkbox"/>
www.easytravel.com	<input checked="" type="checkbox"/>

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, Settings, and Maintenance.

The main content area shows the 'easyTravel' tag settings. It includes a sidebar with Monitoring, Process groups, Web & mobile monitoring, Cloud and virtualization, Server-side service monitoring, Log Analytics, Anomaly detection, Alerting, Integration, Tags, Manually applied tags, Automatically applied tags, and Maintenance sections.

The 'Manually applied tags' section lists components associated with the 'easyTravel' tag:

Name	Tag component
Yahoo Alert example	<input type="checkbox"/>
www.kodaiishikawa.com	<input type="checkbox"/>
User Agent Test Mobile	<input type="checkbox"/>
User Agent Test Laptop	<input type="checkbox"/>
Tomcat Homepage	<input type="checkbox"/>
TestTieToSynthetics	<input type="checkbox"/>
Target Home Page - Comparison	<input type="checkbox"/>
statefarm home	<input type="checkbox"/>
Sony Mobile	<input type="checkbox"/>
SFDC Monitoring via CSMs	<input type="checkbox"/>

A blue callout box with the text "Quickly select multiple monitors to apply a tag in a bulk edit" points to the checkbox column of the table.

Exercise 5 - Hands on

Add a Tag

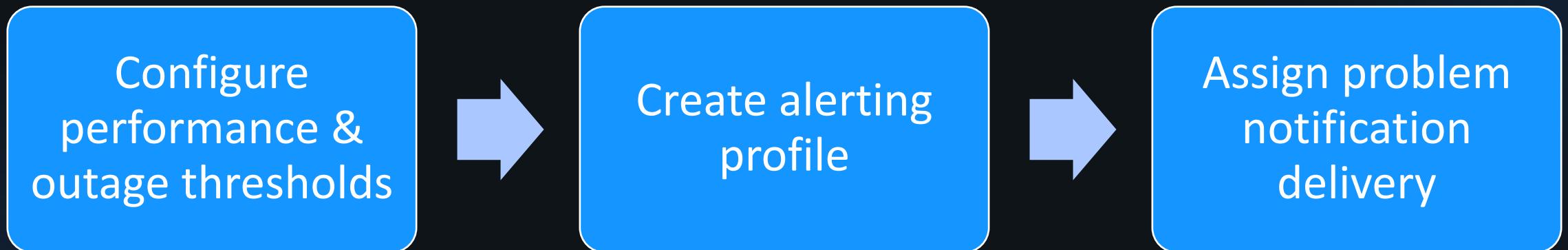
Hands-on exercise – Tag your monitor

- Select Synthetic from the navigation menu.
- Select the browser monitor you want to configure.
- Click Add tag
- Give your tag a name (e.g. your first name) and click Add
- Review Tags in Settings
- Select Settings from the navigation menu
- Select Tags > Manually applied tags
- Select a tag to edit, assign it to more tests if you wish

Alerting

Creating an alert

In its simplicity, there are three steps to create an alert for a synthetic monitor:



Step 1

Configure performance and outage thresholds

Where do I define thresholds?

- Thresholds are defined in monitor settings
- Menu > Synthetic > Select test > Browse icons > Edit > Outage handling / Performance thresholds

The screenshot shows the Dynatrace CSM PE Demo interface. The top navigation bar includes a search bar, a red notification box with the number 3, and user profile icons. Below the navigation, the breadcrumb path is: Synthetic > easyTravel Booking > Settings > Outage handling. On the left, a sidebar lists several options: Monitor settings (easyTravel Booking), Monitor setup (Name monitor & define device profile), Recorded clickpath (View clickpath & add content validations), Frequency and locations (Define run frequency and locations), Outage handling (highlighted with a red box), Performance thresholds (Define action duration thresholds), Request headers (Specify request headers for your monitor), and Help (Send feedback). The main content area is titled "Outage handling". It contains two configuration sections: "Generate a problem and send an alert when this monitor is unavailable at all configured locations" and "Generate a problem and send an alert when this monitor is unavailable for one or more consecutive runs at any location". Under the second section, there is a dropdown menu set to "Alert if 1 /3 locations are unable to access my web application 3 times consecutively".

Step 2

Create alerting profile

What is an alerting profile?

- Alerting profiles allow you to control which conditions result in problem notifications and which don't
- You must set up an alerting profile before assigning a notification delivery method
- Alerting profiles are based on **tags** - make sure tests you want to receive notifications on are tagged

Where do I define alerting profiles?

- Menu > Settings > Alerting > Alerting profiles

The screenshot shows the Dynatrace web interface with a dark theme. The left sidebar contains a navigation menu with sections like 'Create custom chart', 'Reports', 'Analyze', 'Problems', 'User sessions', 'Log files', 'Smartscape topology', 'Diagnostic tools', 'Monitor', 'Applications', 'Synthetic', 'Transactions & services', 'Databases', 'Hosts', 'Network', 'Technologies', 'VMware', 'AWS', 'Azure', 'Docker', 'Manage', 'Deploy Dynatrace', 'Deployment status', and 'Settings'. The 'Alerting' section is expanded, showing 'Alerting profiles' which is also expanded, revealing 'Integration' and 'Tags' options. The main content area is titled 'Alerting profiles' and contains a brief description: 'Alerting profiles enable you to set up fine-grained alert-filtering rules that are based on the severity, customer impact, associated tags, and/or duration of detected problems. Alerting profiles enable you to control exactly which conditions result in problem notifications and which don't. This includes all problem-push notifications that are sent via the Dynatrace mobile app and displayed in the Dynatrace web UI. Alerting profiles can also be used to set up filtered problem-notification integrations with 3rd party messaging systems like Slack, HipChat, and PagerDuty.' Below this is a 'Create new alerting profile' input field and a 'Create' button. A table lists existing alerting profiles:

Profile name	Delete
Default	X
CA	X
Classic Comparison	X
deletemelater	X
easyTravel	X
easyTravel test	X
Email to text	X
RyanProfile	X
VHOT	X

Alerting profile configuration

- In alerting profiles, the only rules relevant to synthetic monitors are **Availability alert** and **Slowdown alert**
- Availability alerts correspond to outage handling thresholds, and slowdown alerts correspond to performance thresholds

The screenshot shows the Dynatrace web interface for managing alerting profiles. The left sidebar contains navigation links for Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, and Deploy Dynatrace. The main content area is titled "Edit profile" for "VHOT". It includes sections for "Settings" (Monitoring, Process groups, Web & mobile monitoring, Cloud and virtualization, Server-side service monitoring, Log Analytics, Anomaly detection, Alerting), "Assign profile to users" (with a table showing users brittanyconnett@gmail.com, linanarod@yahoo.com, and ryandee@gmail.com), and a "Create alerting rule" section. Three alerting rules are listed: "Availability alert (Immediate; All entities)", "Error alert (Immediate; All entities)", and "Slowdown alert (After 30 mins; All entities)". The "Slowdown alert" rule is highlighted with a red box.

Rule	Delete	Edit
Availability alert (Immediate; All entities)	X	V
Error alert (Immediate; All entities)	X	V
Slowdown alert (After 30 mins; All entities)	X	V
Resource alert (After 30 mins; All entities)	X	V
Custom alert (Immediate; All entities)	X	V

Alerting rule configuration

- Alerting profile rules are filtered by tag
- In the below example, this availability rule is assigned to any entities (e.g. tests) that have easyTravel Mobile tag
- Reminder: thresholds were defined in monitor settings. Here, I am defining if I want to notify for availability alerts, slowdown alerts, or both and for which tags (i.e. group of tests) this applies

The screenshot shows the Dynatrace CSM PE Demo interface with the following navigation path: Settings > Alerting > Alerting profiles > Edit profile. The main title is "easyTravel" with a pencil icon. A sub-instruction says: "Create one or more filter rules for this alerting profile. Problems are filtered based on severity level, tagged impact, and problem duration." Below this, there is a "Create alerting rule" button. The "Rule" section contains an "Availability alert (Immediate; easyTravel Mobile)" entry. Under "Problem severity level", "Availability" is selected. A note says: "Send a notification if a problem remains open longer than 0 minutes." A red box highlights the "Filter problems by tag" section, which includes a dropdown menu set to "Only include entities that have any tags" and a "Select tag" dropdown containing "easyTravel Mobile". There is also a "Remove filter" button and a "Create tag filter" button. At the bottom of the page, there are three other alerting rule entries: "Error alert (Immediate; All entities)", "Slowdown alert (After 30 mins; easyTravel Mobile)", and "Resource alert (Immediate; All entities)".

Step 3

Assign problem notification delivery

What is a problem notification?

- Once an alerting profile is created, you need to configure how problem notifications will be delivered
- Dynatrace offers several out-of-the-box integrations that automatically push Dynatrace problem notifications to your third-party messaging or incident management systems

The screenshot shows the Dynatrace CSM PE Demo interface. The top navigation bar includes a search bar, a user icon, and a red notification badge with the number '1'. Below the navigation is a breadcrumb trail: Settings > Integration > Problem notifications > Set up notifications. The main content area has a sidebar on the left with sections like Monitoring, Process groups, Web & mobile monitoring, Cloud and virtualization, Server-side service monitoring, Log Analytics, Anomaly detection, Alerting, and Alerting profiles. The 'Alerting' section is currently selected. The main panel title is 'Integrate with other notification systems'. It contains a brief description: 'Integrate Dynatrace problem notifications with your organization's existing incident-management system or team-collaboration channel. Please keep in mind that, for individual users, the Dynatrace mobile apps are the preferred method of receiving problem notifications, as your custom watch settings do not apply within 3rd-party systems integration.' Below this are ten integration options, each with an icon and a brief description:

- OpsGenie**: Integrate with an OpsGenie incident management platform.
- VictorOps**: Integrate with the VictorOps incident management platform.
- PagerDuty**: Integrate with the PagerDuty incident management platform.
- Slack**: Integrate with a Slack team collaboration channel.
- HipChat**: Integrate with a HipChat team collaboration chat.
- Email**: Notify other systems via email. This option is highlighted with a teal border.
- ServiceNow**: Integrate with a ServiceNow enterprise service management.
- Ansible Tower**: Integrate with the Ansible Tower deployment management platform.
- xMatters**: Integrate with the xMatters incident management platform.
- Custom integration**: Integrate by building your own web hook.
- JIRA**: Integrate with JIRA to automatically create issues.
- Trello**: Integrate with Trello to automatically create cards on your board.

Where do I define problem notifications?

- Menu > Settings > Integration > Problem notifications

The screenshot shows the Dynatrace web interface with a dark theme. On the left is a navigation sidebar with various monitoring and management options. The main area is titled "Integration" and specifically focuses on "Problem notifications". A sub-section titled "Alerting channel" is selected, showing a single entry for "Email" with the address "matt.caminiti@dynatrace.com". There are "Delete", "Edit", and "Active" buttons next to the email entry.

Left sidebar (Navigation):

- Create custom chart
- Reports
- Analyze
- Problems
- User sessions
- Logs
- Smartscape topology
- Diagnostic tools
- Monitor
- Applications
- Synthetic
- Transactions & services
- Databases
- Hosts
- Network
- Technologies
- VMware
- AWS
- Azure
- Docker
- Cloud Foundry
- Kubernetes
- Manage

Main Content Area:

Settings > Integration > Integrate Dynatrace with 3rd party systems

Host naming

Filter by integration type

Alerting channel ▲

	Delete	Edit	Active
Email matt.caminiti@dynatrace.com	X	edit icon	active icon

Processes and containers

Detection and naming

Web & mobile monitoring

Real user & synthetic monitoring

Cloud and virtualization

Connect cloud & virtualization types

Server-side service monitoring

Manage & customize service monitoring

Log Monitoring

Set up management of logs

Anomaly detection

Configure detection sensitivity

Alerting

Configure alerting settings

Alerting profiles

Integration

Integrate Dynatrace with 3rd party systems...

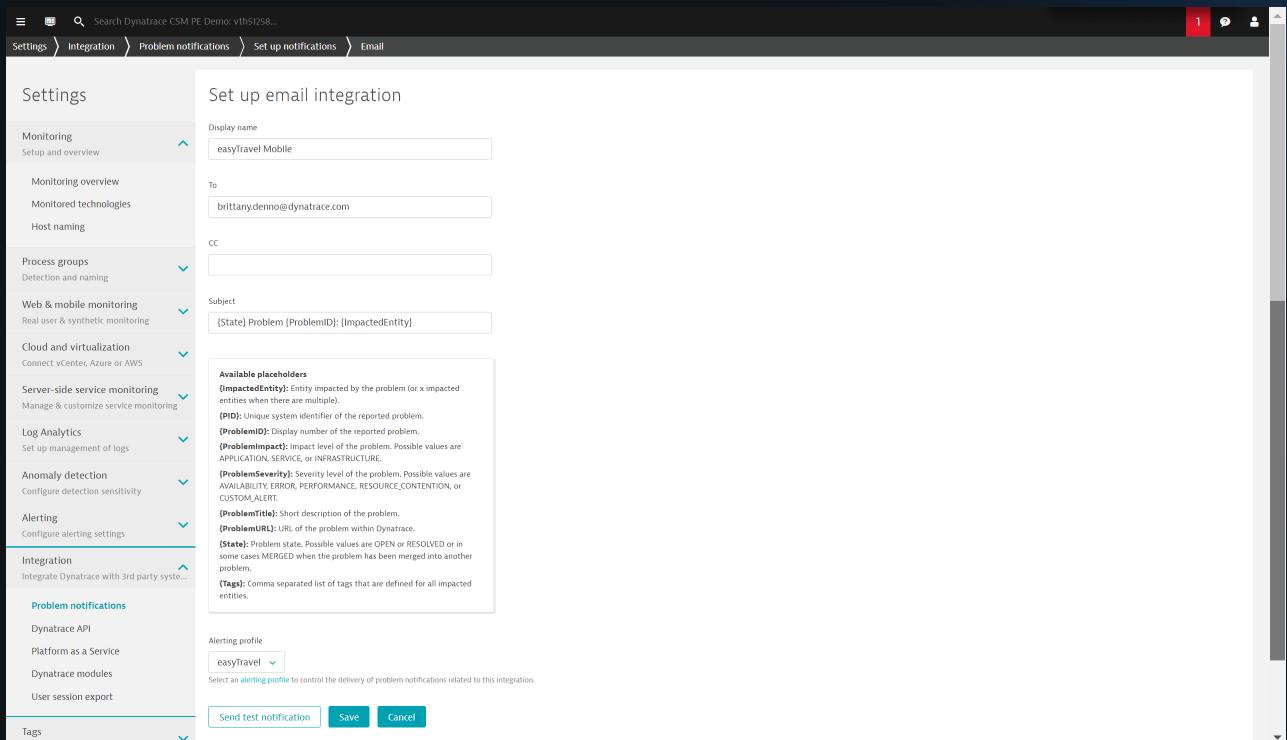
Problem notifications

Dynatrace API

Platform as a Service

Problem notification – email example

- Multiple destinations can be added to To: and CC: fields
- Subject can be customized with available placeholders & text
- Select which alerting profile you want assigned to this notification destination
- In this example, email notifications will be sent to matt.caminiti@dynatrace.com based on criteria in alerting profile easyTravel



Example email notification – what does it look like?

You will get an **open** and **resolved** notification.

The image displays two side-by-side screenshots of an email client interface, likely Microsoft Outlook, illustrating the difference between an 'OPEN' and a 'RESOLVED' problem notification from Dynatrace.

Left Screenshot (OPEN Problem):

- Subject:** OPEN Problem 338: Synthetic monitor global outage for Synthetic m...
- From:** Dynatrace team <no-reply@dynatrace.com>
- To:** Connell, Brittany
- Content:** Mon 5/14/2018 3:51 AM
OPEN Problem 338: Synthetic monitor global outage for Synthetic monitor BBR Login
- Section Headers:** OPEN Problem 338 in environment vth51258
- Details:** 1 impacted application
Synthetic monitor
BBR Login
Synthetic monitor global outage
1 failure
Actions: click on "username" and Login
Type: The html element could not be found to perform action and Wait for validate timeout
Geolocation: N. California and San Jose
- Links:** Open in Browser

Right Screenshot (RESOLVED Problem):

- Subject:** RESOLVED Problem 338: Synthetic monitor global outage for Synthe...
- From:** Dynatrace team <no-reply@dynatrace.com>
- To:** Connell, Brittany
- Content:** Mon 5/14/2018 4:23 AM
RESOLVED Problem 338: Synthetic monitor global outage for Synthetic monitor BBR Login
- Section Headers:** RESOLVED Problem 338 in environment vth51258
- Details:** 1 impacted application
Synthetic monitor
BBR Login
Synthetic monitor global outage
1 failure
Actions: click on "username" and Login
Type: The html element could not be found to perform action and Wait for validate timeout
Geolocation: N. California and San Jose
- Links:** Open in Browser

Exercise 6 - Hands on

Configure an alert notification

Hands-on exercise – Configure an alert notification

STEP 1: Ensure your tests are **tagged**

STEP 2: Create alerting profile

1. Settings > Alerting > Alerting Profile
2. Create alerting profile name > Click **Create**
3. Delete Error, Resource, and Custom alerting rules
4. Expand **Availability**
5. Filter problems by tag > Select **Include entities that have any tags**
6. Click **Create tag filter**
7. Choose your Tag > **Save**
8. Click **Done**

STEP 3: Create problem notification

1. Settings > Integration > Problem Notification
2. Click **Set up notifications**
3. Select **Email**
4. Configure
 - Remember to choose your **Alerting Profile**

Problems

What is a problem?

- A “problem” in Dynatrace includes the AI-driven analysis, environmental context, root cause analysis, and other details provided for one or more incidents in your environment
- Problems can express themselves in your environment as performance degradations, improper functionality, or lack of availability

Problem notifications

- In addition to email delivery, Dynatrace offers out-of-the-box integrations that push problem notifications to your third-party messaging or incident-management systems

Integrate with other notification systems

Integrate Dynatrace problem notifications with your organization's existing incident-management system or team-collaboration channel. Please keep in mind that, for individual users, the Dynatrace mobile apps are the preferred method of receiving problem notifications, as your custom watch settings do not apply within 3rd-party systems integration.



OpsGenie

Integrate with an OpsGenie incident management platform.



VictorOps

Integrate with the VictorOps incident management platform.



PagerDuty

Integrate with the PagerDuty incident management platform.



Slack

Integrate with a Slack team collaboration channel.



HipChat

Integrate with a HipChat team collaboration chat.



ServiceNow

Integrate with a ServiceNow enterprise service management.



Email

Notify other systems via email.



JIRA

Integrate with JIRA to automatically create issues.



Trello

Integrate with Trello to automatically create cards on your board.

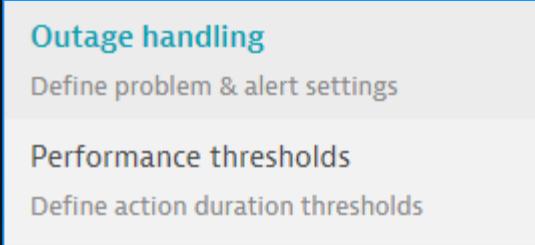


Custom integration

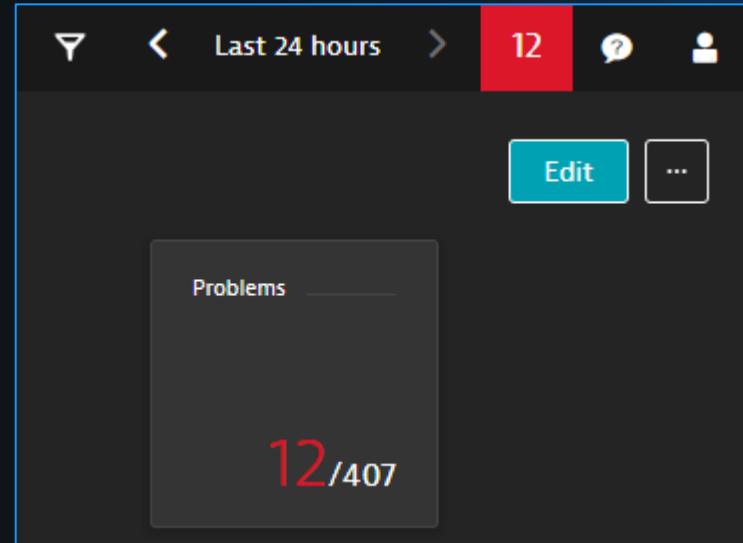
Integrate by building your own web hook.

Problems

- Problems for synthetic monitors are based on the thresholds in the monitor settings



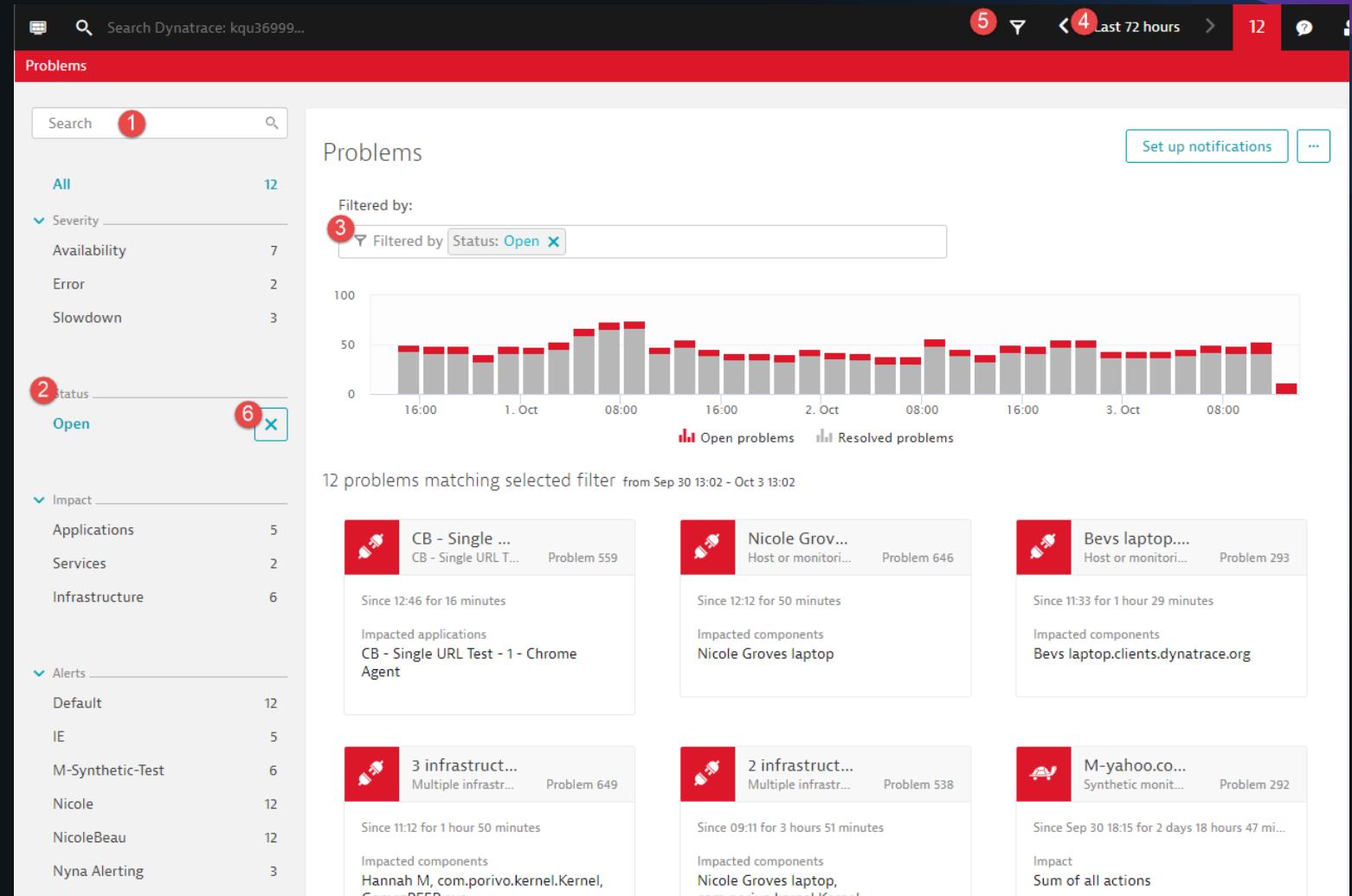
- Problems for applications (RUM) are based on AI logic and baselines
- Dynatrace AI correlates all events that share the same root cause into a single, trackable problem



Problems

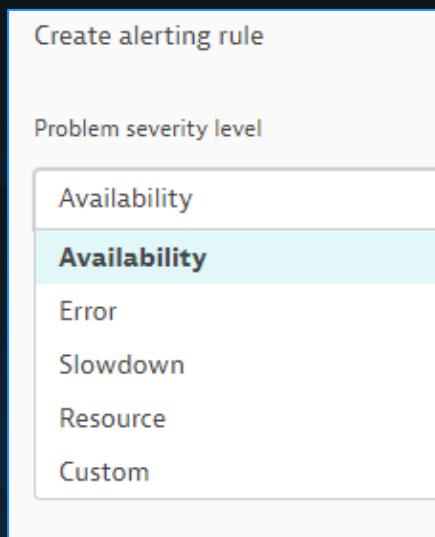
Problem cards can be filtered by

1. Monitor name (or Problem ID)
2. Status
3. Tag
4. Time
5. Management zone
6. “Keep this filter” in left nav lets you select more criteria



Problems - severity level

- Severity level is different than in Classic - there are multiple **Problem types**, which are called severity levels



Starting with the highest severity level, the severity levels supported in Dynatrace are:

1. **Availability:** Availability events indicate a severe incident within your environment, such as a complete outage or unavailability of servers or processes. These event types have the highest severity level.



2. **Error:** Error events are used to inform you of increased error rates or other error-related incidents that interfere with the regular operation of your environment.



3. **Slowdown:** A slowdown event indicates a decrease of performance in one of your operational services or applications. Slowdown events are less severe than error or availability events. Nevertheless, they inform you of potential issues with the performance of your services.



4. **Resource:** Any situation that leads to resource contention is reported as a resource event. Typical examples are CPU saturation and memory saturation events.



Problems

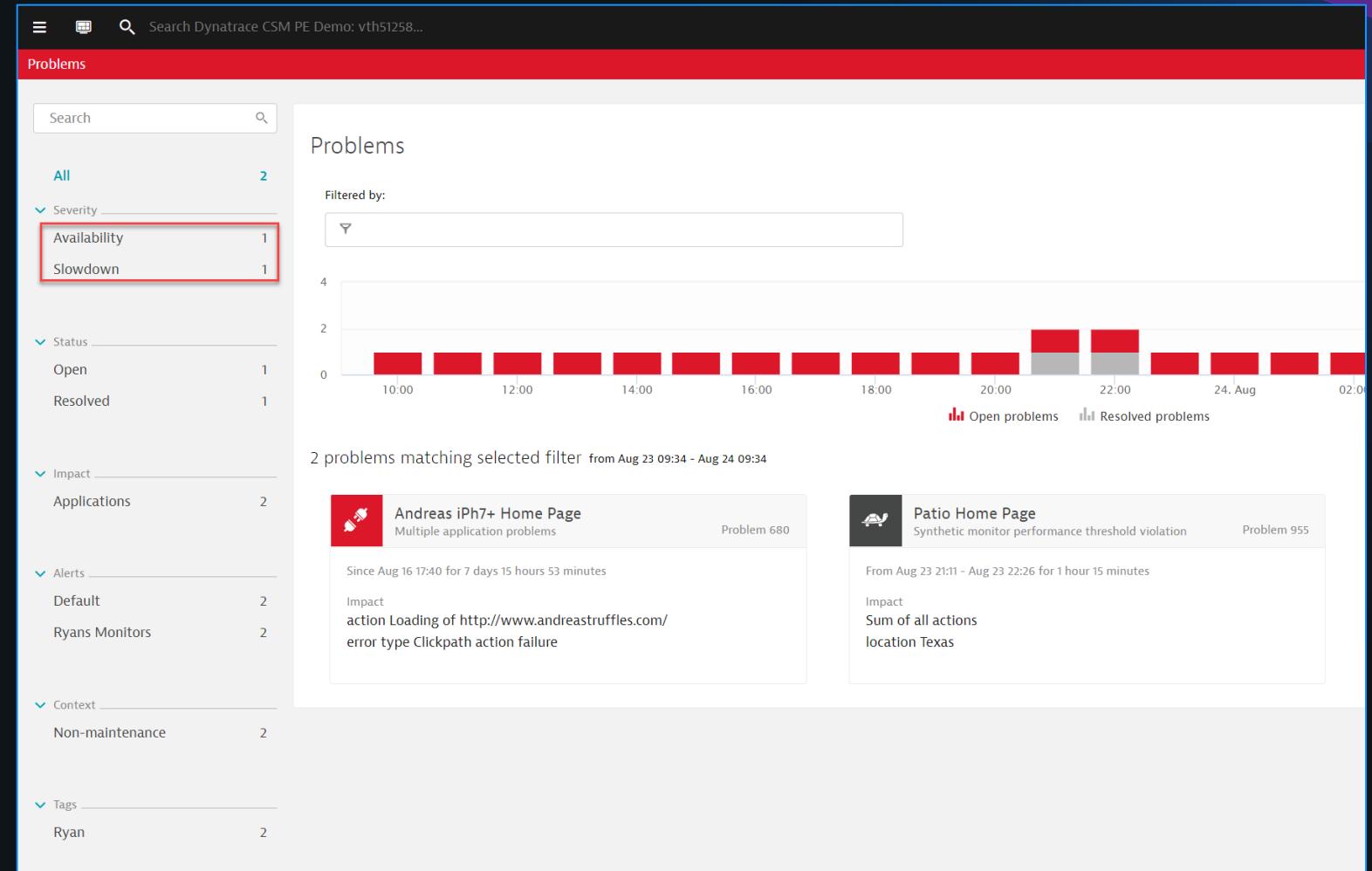
Types related to Synthetic monitors:

1. Slowdown

- FKA response time

2. Availability

- FKA transaction failure



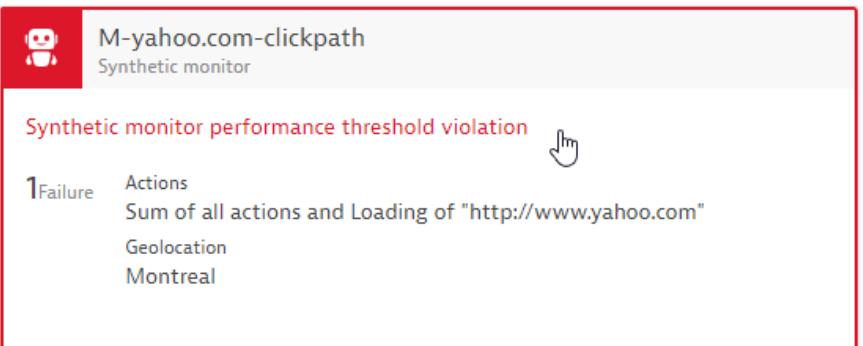
Problem card

 M-yahoo.com-clickpath: Synthetic monitor performance threshold violation
Problem 292 detected at Sep 30 18:15 (open for 3 days 21 hours 45 minutes).
This problem affects real users.

	Affected	Recovered	Monitored
Applications	1	-	30
Services	-	-	14
Infrastructure components	-	-	737

 309,540 Dependencies analyzed

1 impacted application



 M-yahoo.com-clickpath
Synthetic monitor

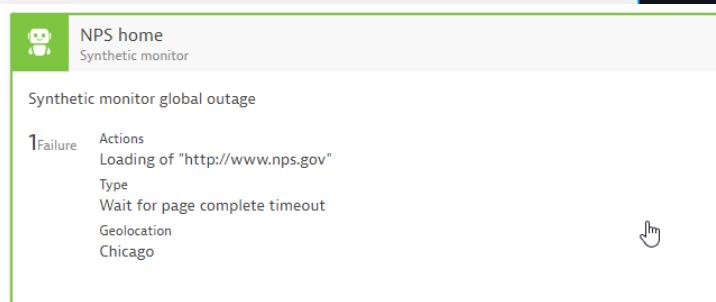
Synthetic monitor performance threshold violation 

1 Failure Actions
Sum of all actions and Loading of "http://www.yahoo.com"
Geolocation
Montreal

Red = current

Green = recent

Black = historic



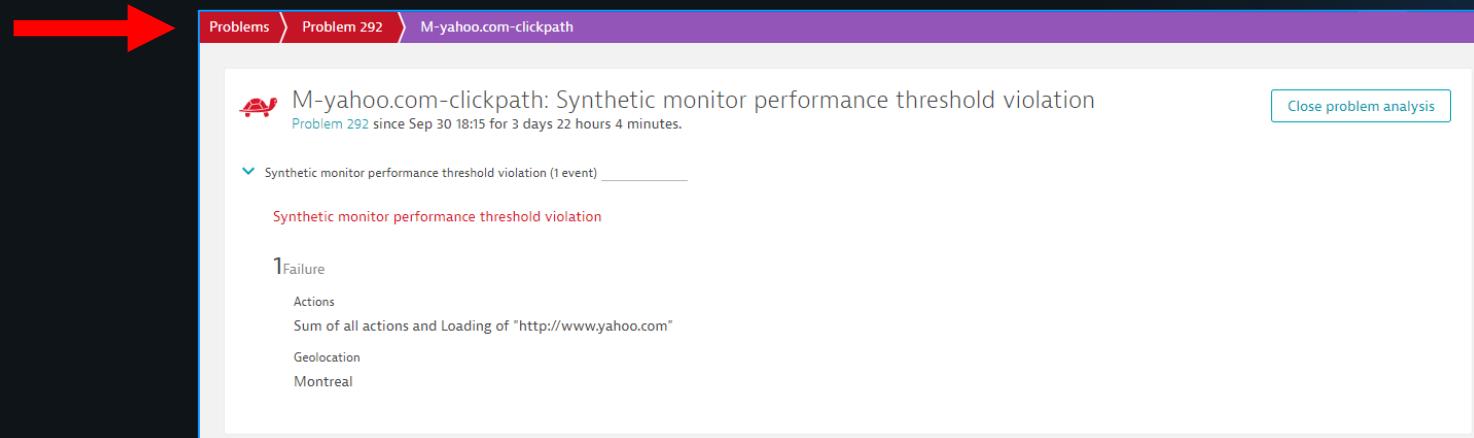
 NPS home
Synthetic monitor

Synthetic monitor global outage 

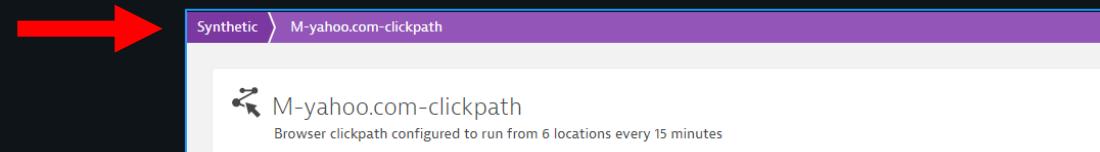
1 Failure Actions
Loading of "http://www.nps.gov"
Type
Wait for page complete timeout
Geolocation
Chicago

Problem drill down

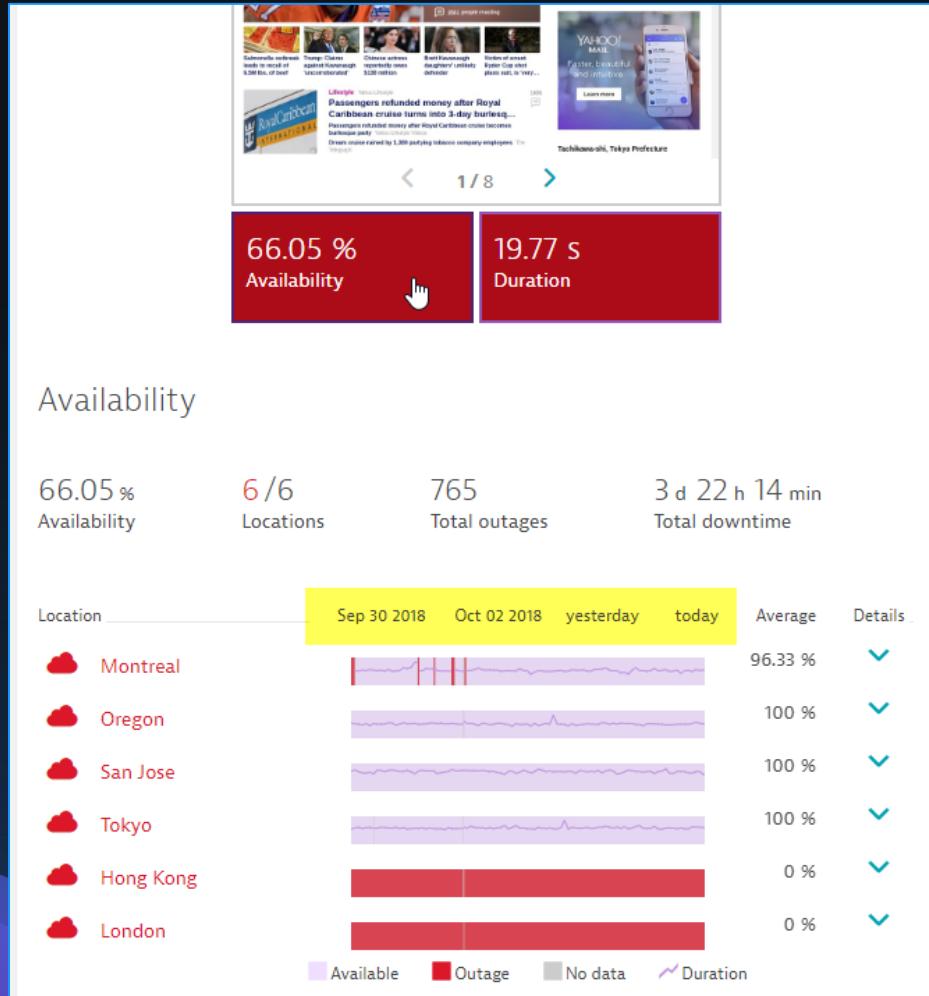
- Click the impacted application box to drill down to the synthetic details page, within the context of this problem



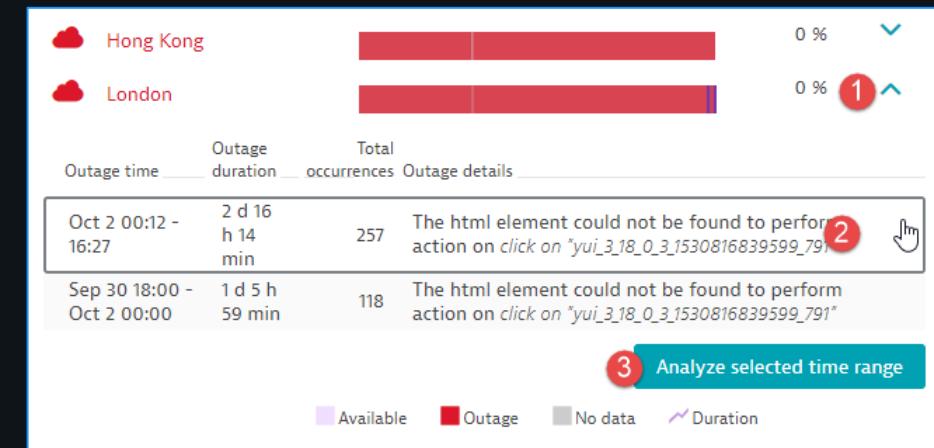
- Click “close problem analysis” to drop back to the synthetic details page, with no problem context



Problem drill down

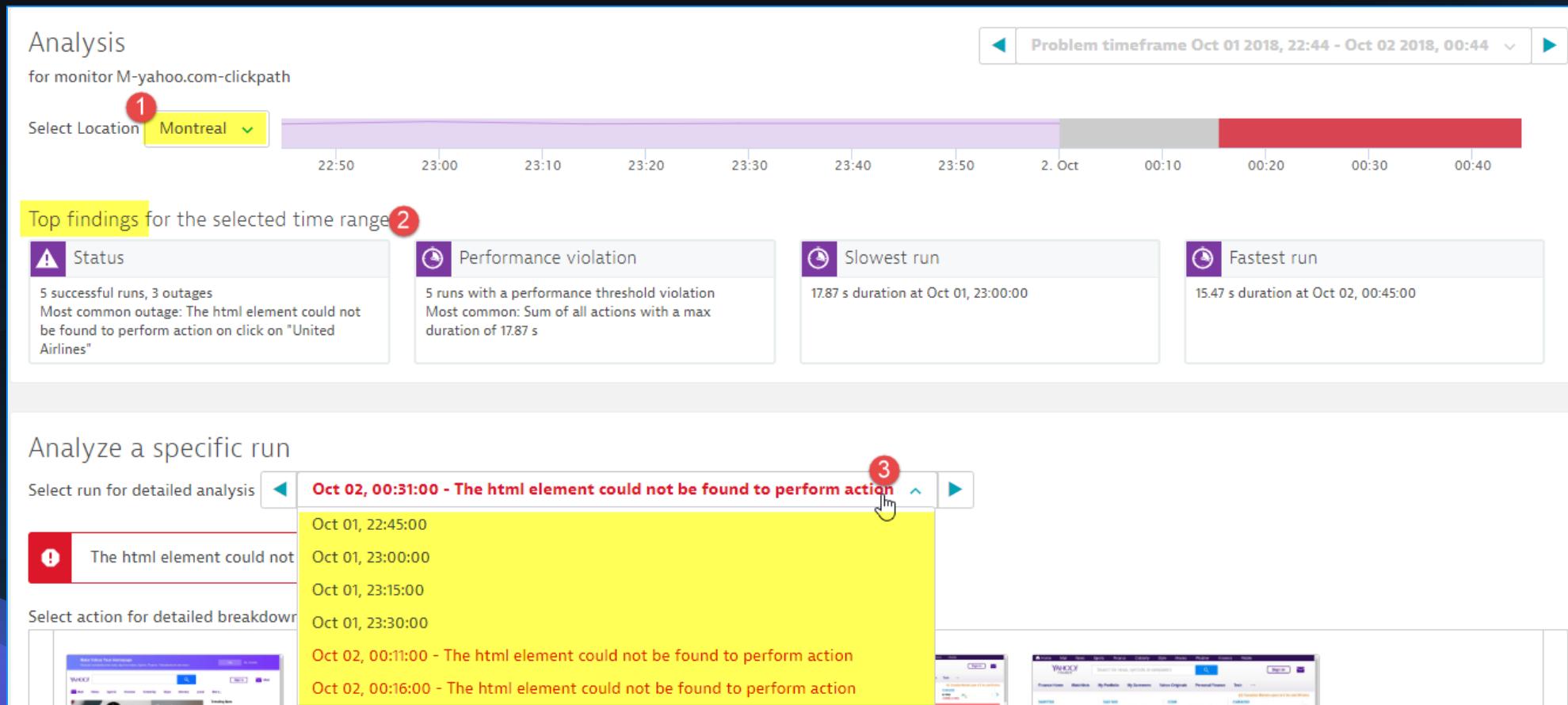


- Here you are being shown data for the timeframe of the Problem
- Click Availability or Duration box to reveal that metric and breakdown by location
- 1) Unroll a location bar, 2) select a line item or click in the bar on a time of interest (this highlights a time range in the bar), 3) then click Analyze



Problem drill down

At the analysis level, you can show by location, click on top findings to show specific runs, or select from the dropdown list of executions (timestamps shown are filtered for the selected location, e.g., Montreal below)



Troubleshooting

Maintenance windows

Maintenance window types

- In Dynatrace, there are two types of maintenance windows:
 - Planned
 - Unplanned
- Planned maintenance window times are excluded from synthetic SLA report calculation, whereas unplanned maintenance windows are not. **The best practice is to create a planned maintenance window before periods of known maintenance.**
- With planned maintenance windows, you have the options to:
 - Detect problems and alert
 - Detect problems but don't alert
 - Disable problem detection during maintenance

Maintenance window SLA calculations

- Planned maintenance periods are excluded from synthetic SLA report calculation in the following areas:
 - Availability Reports
 - Custom Dashboards - Synthetic Monitor tile (this needs to be enabled in Synthetic Monitor tile settings)
- Times are **not** excluded from the Synthetic Details page of a monitor.

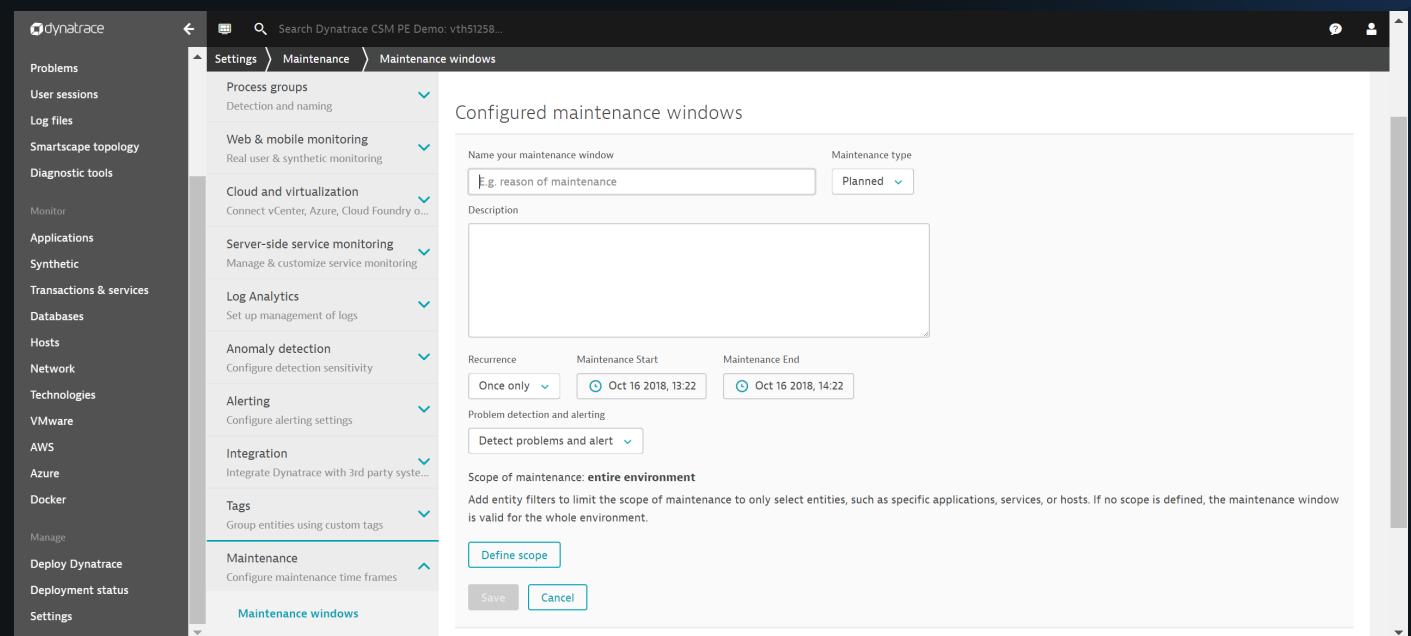
Create maintenance window

The screenshot shows the Dynatrace CSM PE Demo interface. The left sidebar is titled 'dynatrace' and contains several sections: Dashboards & reports, Dashboards, Create custom chart, Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, Hosts, Network, Technologies, VMware, AWS, Azure, Docker, Manage, Deploy Dynatrace, Deployment status, and Settings. The 'Settings' section is highlighted with a red box. The main content area shows the 'Maintenance windows' page under 'Settings'. A red box highlights the '+ Create maintenance window' button. Below it, the 'Configured maintenance windows' section lists three entries: 'Code update' (Aug 16 2018 - Dec 31 2018, 15:59 (America/New_York) (applies to tagged browser monitors & clickpaths)), 'Overnight Laptops' (Daily from 17:00 - 08:00; Jun 19 2018 - Dec 01 2019, 17:21 (applies to tagged hosts)), and 'Unplanned Midnight-to-Noon' (Daily from 00:00 - 12:00; Apr 01 2018 - Jan 01 2020, 09:28 (applies to BBR Login)). Each entry has a green edit icon and a red delete icon.

Configure maintenance window

Maintenance window options:

- Name
- Planned or unplanned
- Description
- Reoccurrence (daily, weekly, monthly, once)
- Problem detection and alerting
 - Detect problems and alert
 - Detect problems but don't alert
 - Disable problem detection during maintenance
- Define scope
 - Based on tags



Viewing maintenance windows

The screenshot shows the Dynatrace Perform interface. At the top left, there is a message box with a red border containing the text "Maintenance in the selected time frame" and a "Code update" section with a key icon and the message "Code deployment tonight... could affect test performance!". Below this, there is a summary of "2 Problems in the selected time frame". A specific problem is highlighted with a red bar at the top, labeled "Problem 91: Synthetic monitor performance threshold violation" with a key icon. The problem details show it's associated with "easyTravel Blog" and occurred "Since 2018 Nov 11 20:28:59 (2 days 12 hours 35 minutes)". A detailed view of this problem is shown in a modal window. The modal has a red header bar with the same problem title and key icon. It displays the "easyTravel Blog" name, the "Synthetic monitor performance threshold violation" issue, and the ID "Problem 91". It also shows the duration "Since Nov 11 20:28 for 2 days 12 hours 35 minutes". Inside the modal, a red box highlights the "Maintenance window" section, which contains a key icon and the message "Problem occurred during maintenance window". Below this, the "Impact" section is described as "Sum of all actions and action Loading of Home Page multiple locations".

Maintenance in the selected time frame

Code update
Code deployment tonight... could affect test performance!

2 Problems in the selected time frame

Problem 91: Synthetic monitor performance threshold violation

easyTravel Blog
Since 2018 Nov 11 20:28:59 (2 days 12 hours 35 minutes)

easyTravel Blog
Synthetic monitor performance threshold violation
Problem 91

Since Nov 11 20:28 for 2 days 12 hours 35 minutes

Maintenance window
Problem occurred during maintenance window

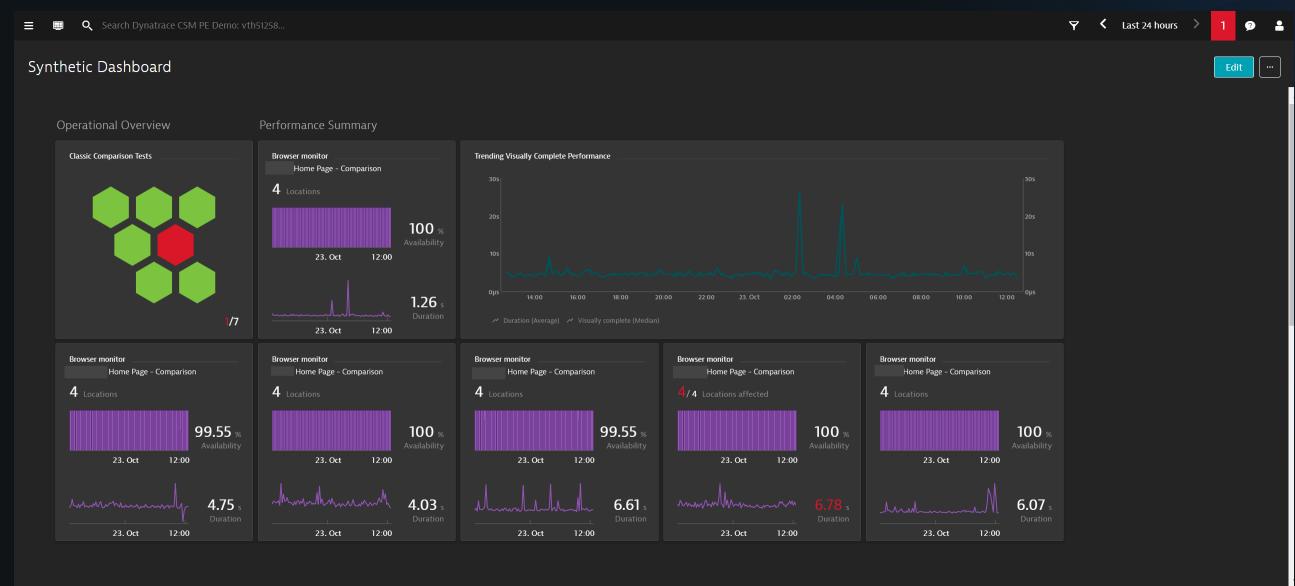
Impact
Sum of all actions and action Loading of Home Page multiple locations

Consuming data

Reporting

Custom dashboards

- Dashboards offer a flexible, customizable solution for reporting needs
- Public sharing is available
- Get scheduled updates via email is currently in early adopter



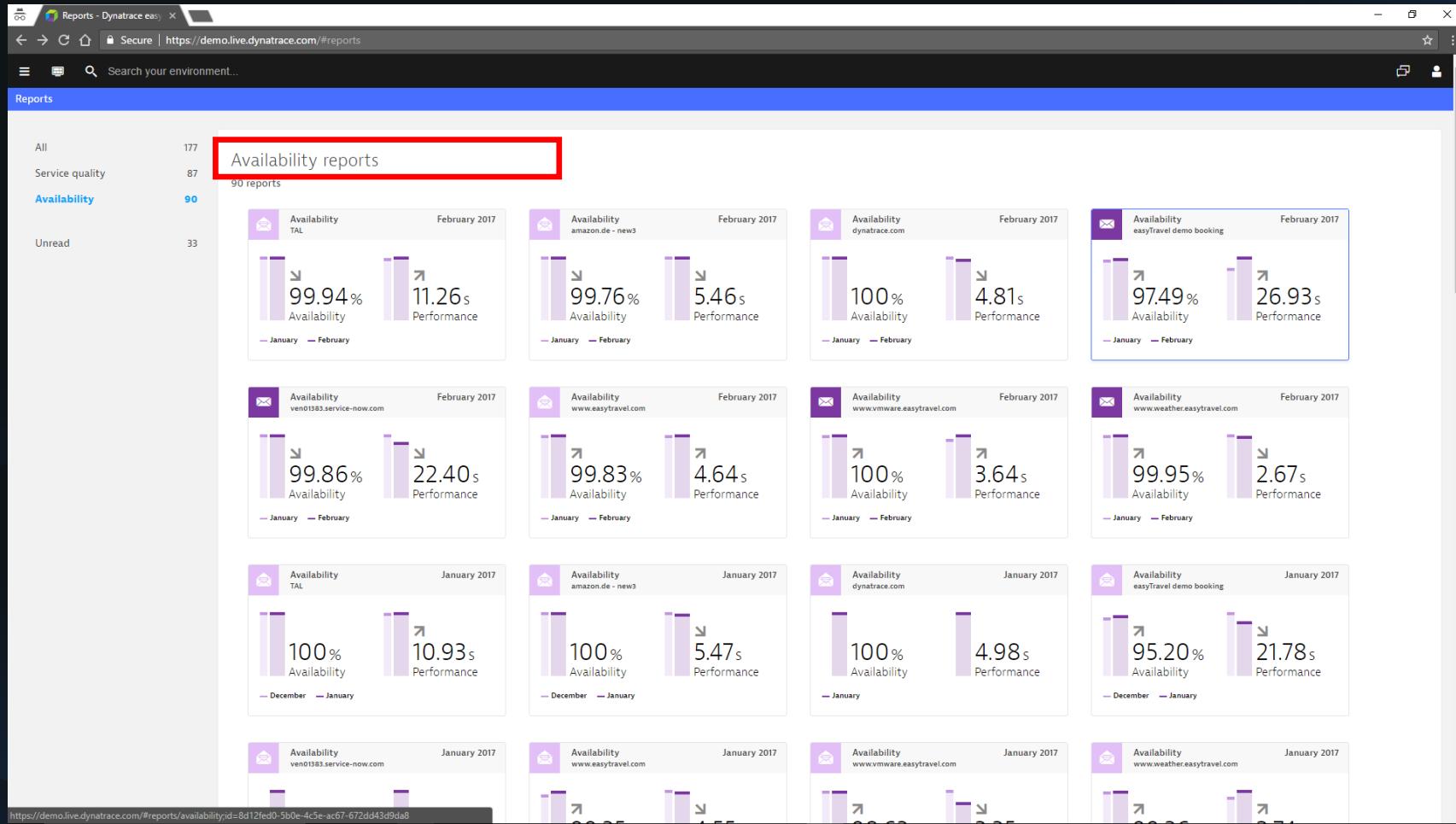
Reports

- There are two types of reports included current in the product:
 - Service quality reports
 - Availability reports
 - Report/test
- Reports are generated weekly, Sunday nights at midnight
- The unread filter on the reports page will display only unread reports
- You can share reports with anyone
 - Sharing a report will generate a link
 - Anyone can view this link without logging in

Availability reports

- Summarize the results of synthetic tests completed over the past week or month
- Offer an overview of availability and performance
- Availability and performance are summarized and charted over time for trend analysis
 - Takes into account Maintenance windows & *****
- Outages are detailed by location

Examining availability reports



Examining availability reports

Search your environment...

Reports Availability: easyTravel demo booking February 2017

Availability report: easyTravel demo booking

February 2017 Full month ...

97.49% Availability

26.93s Performance

Once every 15 minutes 3 Locations

35 Outages monitored 4 fewer than last month

Total downtime 23 h 11 min

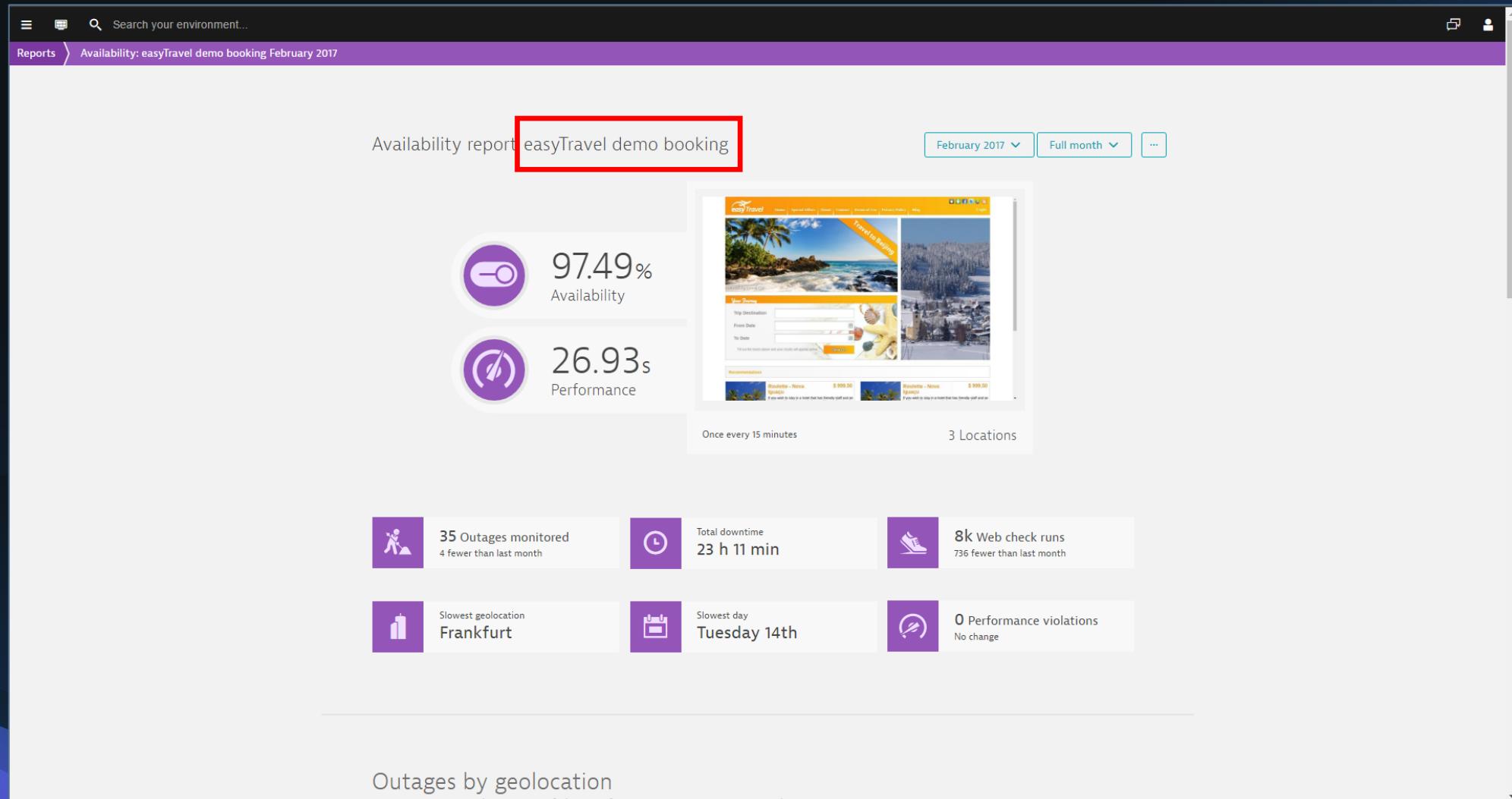
8k Web check runs 736 fewer than last month

Slowest geolocation Frankfurt

Slowest day Tuesday 14th

0 Performance violations No change

Outages by geolocation



Examining availability reports

The screenshot shows the Dynatrace Perform interface for examining availability reports. The top navigation bar includes a search bar and a user profile icon. The main title is "Availability report easyTravel demo booking". Below the title, there are filters for "February 2017", "Full month", and a three-dot menu. A large callout box highlights the key performance metrics: "97.49% Availability" and "26.93s Performance". To the right of the metrics is a thumbnail of the "easyTravel" website. Below these metrics, it says "Once every 15 minutes" and "3 Locations". Further down, there are six smaller cards: "35 Outages monitored" (4 fewer than last month), "Total downtime 23 h 11 min", "8k Web check runs" (736 fewer than last month), "Slowest geolocation Frankfurt", "Slowest day Tuesday 14th", and "0 Performance violations" (No change). At the bottom, there is a section titled "Outages by geolocation".

Availability report easyTravel demo booking

February 2017 Full month ...

97.49% Availability

26.93s Performance

Once every 15 minutes

3 Locations

35 Outages monitored
4 fewer than last month

Total downtime
23 h 11 min

8k Web check runs
736 fewer than last month

Slowest geolocation
Frankfurt

Slowest day
Tuesday 14th

0 Performance violations
No change

Outages by geolocation

Examining availability reports

The screenshot shows the Dynatrace Perform interface with the following details:

- Search bar:** Search your environment...
- Breadcrumbs:** Reports > Availability: easyTravel demo booking February 2017
- Title:** Availability report easyTravel demo booking
- Date Range:** February 2017 (dropdown), Full month (dropdown), ... (button)
- Key Metrics:**
 - Availability: 97.49% (Icon: Keyhole)
 - Performance: 26.93s (Icon: Lightning bolt)
- Thumbnail Preview:** A screenshot of the easyTravel website showing a search interface for "Trip to Beijing". The preview is highlighted with a red border.
- Monitoring Summary:**
 - Outages monitored: 35 (Icon: Person digging)
 - Total downtime: 23 h 11 min (Icon: Clock)
 - Web check runs: 8k (Icon: Shoe)
- Geolocation Data:**
 - Slowest geolocation: Frankfurt (Icon: Bar chart)
 - Slowest day: Tuesday 14th (Icon: Calendar)
 - Performance violations: 0 (Icon: Screwdriver)
- Section:** Outages by geolocation

Examining availability reports

Screenshot of the Dynatrace Perform interface showing an availability report for "easyTravel demo booking February 2017".

The dashboard displays key performance metrics:

- Availability:** 97.49% (Performance icon)
- Performance:** 26.93s (Performance icon)
- Outages monitored:** 35 (Icon highlighted with a red box)
- Total downtime:** 23 h 11 min
- Web check runs:** 8k (8k fewer than last month)
- Slowest geolocation:** Frankfurt
- Slowest day:** Tuesday 14th
- Performance violations:** 0 (No change)

Below the metrics, there is a section titled "Outages by geolocation".

Header navigation: Search bar, Reports, Availability: easyTravel demo booking February 2017.

Time filters: February 2017, Full month, ...

Image of the easyTravel website interface is shown on the right side of the dashboard.

Examining availability reports

Screenshot of the Dynatrace Perform interface showing availability and performance metrics for an easyTravel demo booking.

Search bar: Search your environment...

Breadcrumbs: Reports > Availability: easyTravel demo booking February 2017

Main title: Availability report easyTravel demo booking

Date filters: February 2017, Full month, ...

Key metrics:

- Availability: 97.49% (Icon: Key)
- Performance: 26.93s (Icon: Refresh)

Monitoring details:

- Once every 15 minutes
- 3 Locations

Outage summary:

- 35 Outages monitored (Icon: Mountain)
- 4 fewer than last month
- Total downtime: 23 h 11 min (Icon: Clock, highlighted with a red box)
- 8k Web check runs (Icon: Ship)
- 736 fewer than last month

Geolocation details:

- Slowest geolocation: Frankfurt (Icon: Bar chart)
- Slowest day: Tuesday 14th (Icon: Calendar)
- 0 Performance violations (Icon: Headphones)
- No change

Outages by geolocation:

Dynatrace Perform logo

Confidential

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

February 2017 Full month ...

○ 97.49% Availability

○ 26.93s Performance



Once every 15 minutes 3 Locations

○ 35 Outages monitored
4 fewer than last month

○ Total downtime
23 h 11 min

○ 8k Web check runs
736 fewer than last month

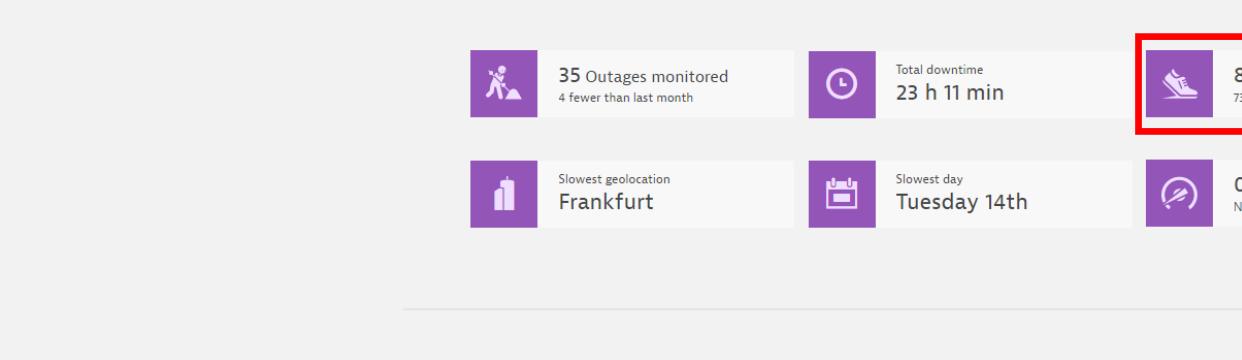
○ Slowest geolocation
Frankfurt

○ Slowest day
Tuesday 14th

○ 0 Performance violations
No change

Outages by geolocation

Services outages and instances of slow performance across locations



Examining availability reports

S Search your environment...

Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

February 2017 Full month ...

97.49% Availability

26.93s Performance

Once every 15 minutes 3 Locations

35 Outages monitored 4 fewer than last month

Total downtime 23 h 11 min

8k Web check runs 736 fewer than last month

Slowest geolocation Frankfurt

Slowest day Tuesday 14th

0 Performance violations No change

Outages by geolocation

Dynatrace Perform Confidential 22 9

Examining availability reports

S Search your environment...

Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

February 2017 Full month ...

97.49% Availability

26.93s Performance

Once every 15 minutes 3 Locations

35 Outages monitored 4 fewer than last month

Total downtime 23 h 11 min

8k Web check runs 736 fewer than last month

Slowest geolocation Frankfurt

Slowest day Tuesday 14th

0 Performance violations No change

Outages by geolocation

Dynatrace Perform Confidential 23 0

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking February 2017 Full month ...

Once every 15 minutes 3 Locations

97.49% Availability

26.93s Performance

35 Outages monitored 4 fewer than last month

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8k Web check runs 736 fewer than last month

Slowest geolocation Frankfurt

Slowest day Tuesday 14th

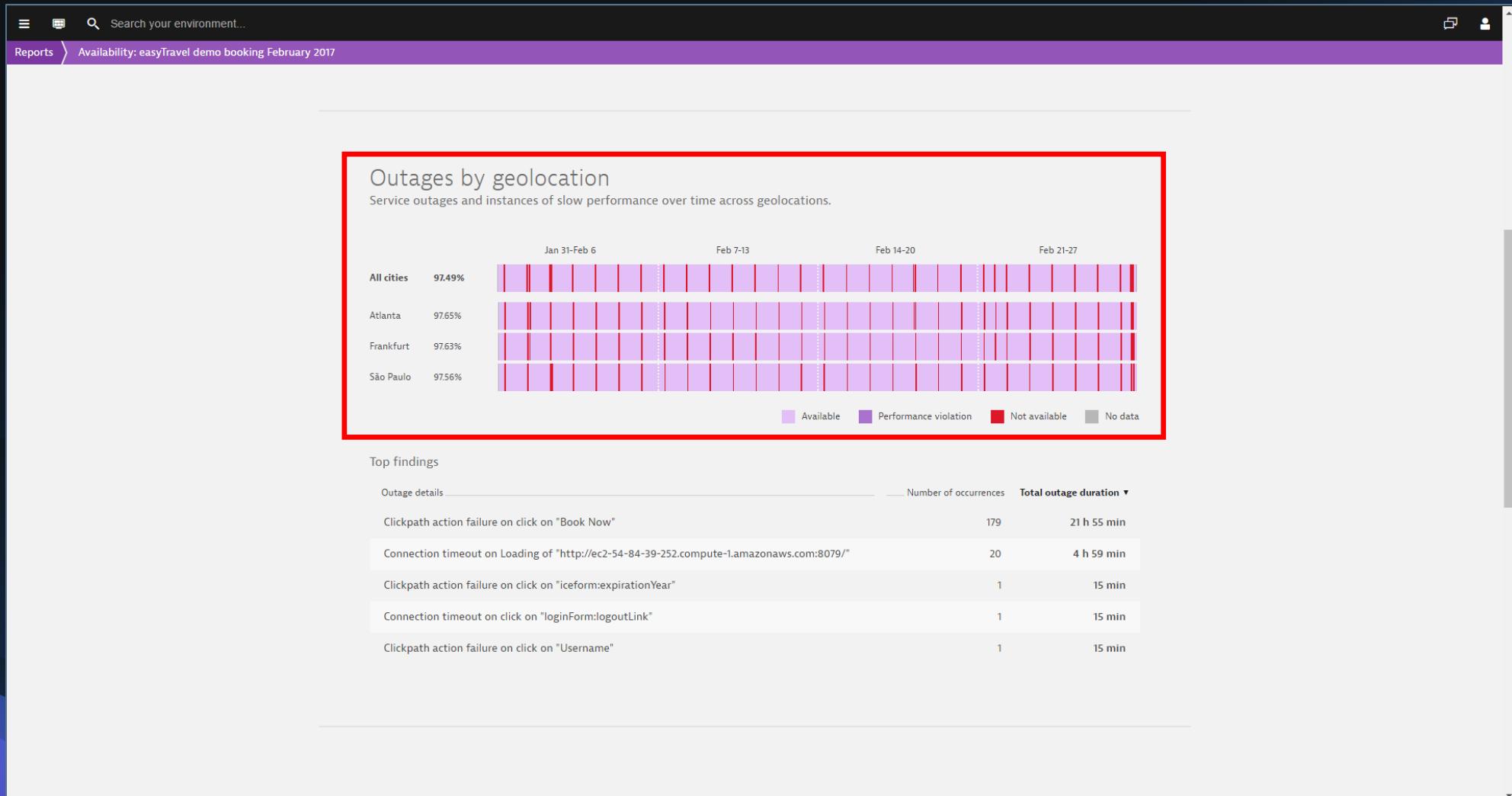
0 Performance violations No change

Outages by geolocation

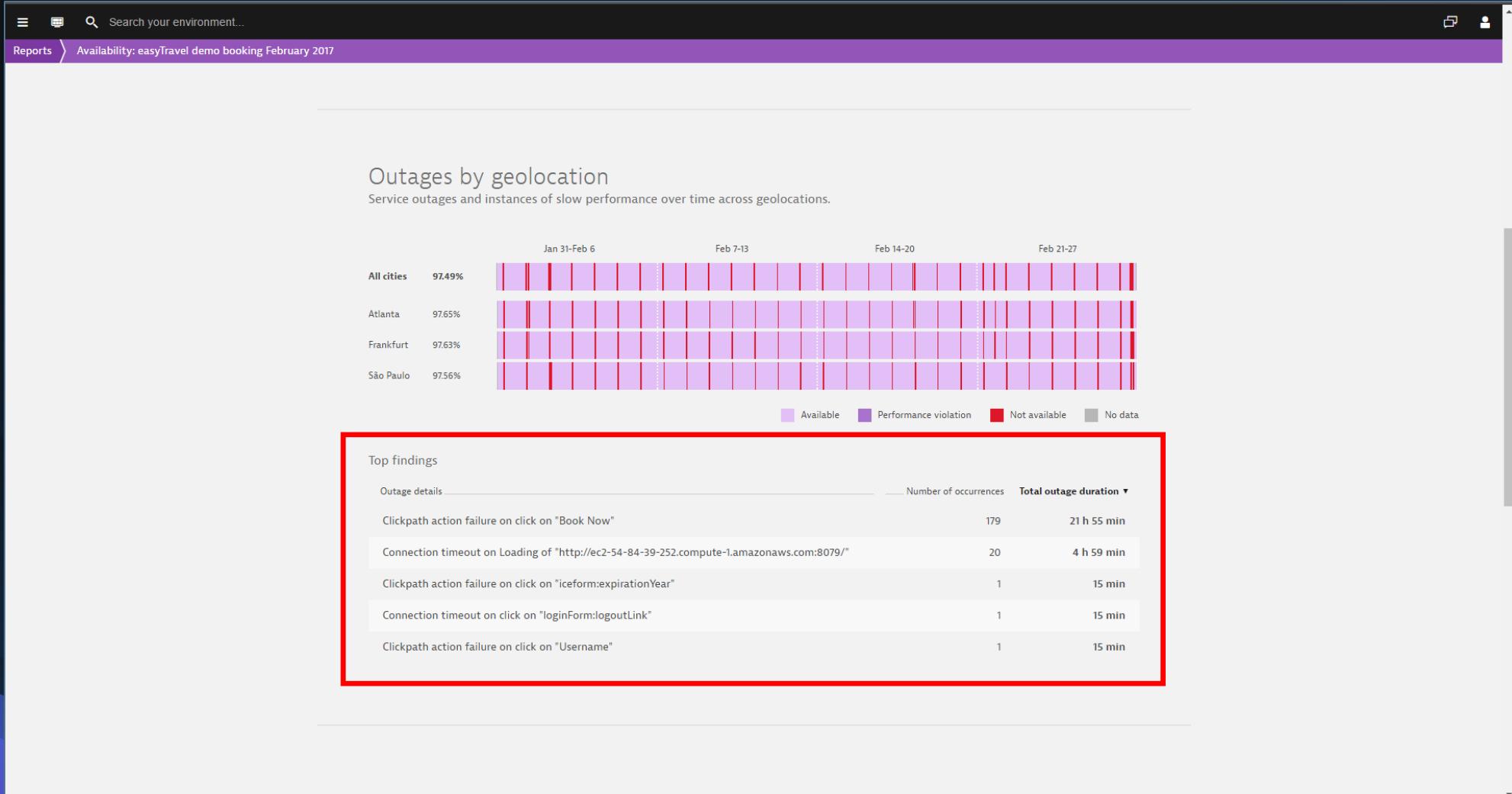
Outages by geolocation

Services, outages, and instances of slow performance across all locations

Examining availability reports



Examining availability reports



Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Best and worst performing geolocations

1	Atlanta	19.18s
2	São Paulo	29.40s
3	Frankfurt	32.24s

Availability and performance trends

Availability

Month	Availability (%)
Nov	~96%
Dec	~91%
Jan	~95%
Feb	~98%

Performance

Month	Performance (s)
Nov	~22s
Dec	~25s
Jan	~23s
Feb	~25s

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Examining availability reports

S Search your environment...

Reports Availability: easyTravel demo booking February 2017

Location	Latency
Atlanta	19.18s
São Paulo	29.40s
Frankfurt	32.24s

Availability and performance trends

Availability

Month	Availability (%)
Mar	~98%
Apr	~98%
May	~98%
Jun	~98%
Jul	~98%
Aug	~98%
Sep	~98%
Oct	~98%
Nov	~96%
Dec	~91%
Jan	~95%
Feb	~97%

Performance

Month	Performance (s)
Mar	~25s
Apr	~25s
May	~25s
Jun	~25s
Jul	~25s
Aug	~25s
Sep	~25s
Oct	~25s
Nov	~25s
Dec	~25s
Jan	~25s
Feb	~25s

dynatrace Perform

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

February 2017 Full month ...

97.49% Availability

26.93s Performance

Once every 15 minutes 3 Locations



35 Outages monitored 4 fewer than last month

Total downtime 23 h 11 min

8k Web check runs 736 fewer than last month

Slowest geolocation Frankfurt

Slowest day Tuesday 14th

0 Performance violations No change

Outages by geolocation

Outages and instances of slow performance by location

dynatrace Perform Confidential 23 6

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

97.49% Availability 26.93s Performance

Once every 15 minutes 3 Locations

February 2017 Full month ...

February 2017
January 2017
December 2016
November 2016

Outages by geolocation

35 Outages monitored
4 fewer than last month

Total downtime
23 h 11 min

8k Web check runs
736 fewer than last month

Slowest geolocation
Frankfurt

Slowest day
Tuesday 14th

0 Performance violations
No change

javascript:

Examining availability reports

≡ Search your environment...

Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

Once every 15 minutes 3 Locations

97.49% Availability

26.93s Performance

February 2017 Full month ...

Full month

- Feb 19 - Feb 25, 2017
- Feb 12 - Feb 18, 2017
- Feb 5 - Feb 11, 2017
- Jan 29 - Feb 4, 2017

35 Outages monitored
4 fewer than last month

Total downtime
23 h 11 min

8k Web check runs
736 fewer than last month

Slowest geolocation
Frankfurt

Slowest day
Tuesday 14th

0 Performance violations
No change

Outages by geolocation

javascript:

Dynatrace
Perform

Confidential

23

8

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

97.49% Availability 26.93s Performance

Once every 15 minutes 3 Locations

February 20

Subscribe weekly Subscribe monthly Share

35 Outages monitored
4 fewer than last month

Total downtime
23 h 11 min

8k Web check runs
736 fewer than last month

Slowest geolocation
Frankfurt

Slowest day
Tuesday 14th

0 Performance violations
No change

Outages by geolocation

javascript:

Examining availability reports

Reports Availability: easyTravel demo booking December 2019

Availability report easyTravel demo booking

December 2019

...

Subscribe weekly

Subscribe monthly

Share



Once every 5 minutes

2 Locations

98.73% Availability

29.66s Performance

65 Outages monitored
64 more than last month

Total downtime
14 h 30 min

12k Synthetic monitor runs
12k more than last month

Slowest geolocation
Gdańsk

Slowest day
Wednesday 18th

20 Performance violations
20 more than last month

Examining availability reports

≡ Search your environment... Reports Availability: easyTravel demo booking February 2017

Availability report easyTravel demo booking

97.49% Availability
26.93s Performance

Once every 15 minutes 3 Locations

Anyone with this link can view this report.
<https://demo.live.ruxit.com...> ✓

35 Outages monitored
4 fewer than last month

Total downtime
23 h 11 min

8k Web check runs
736 fewer than last month

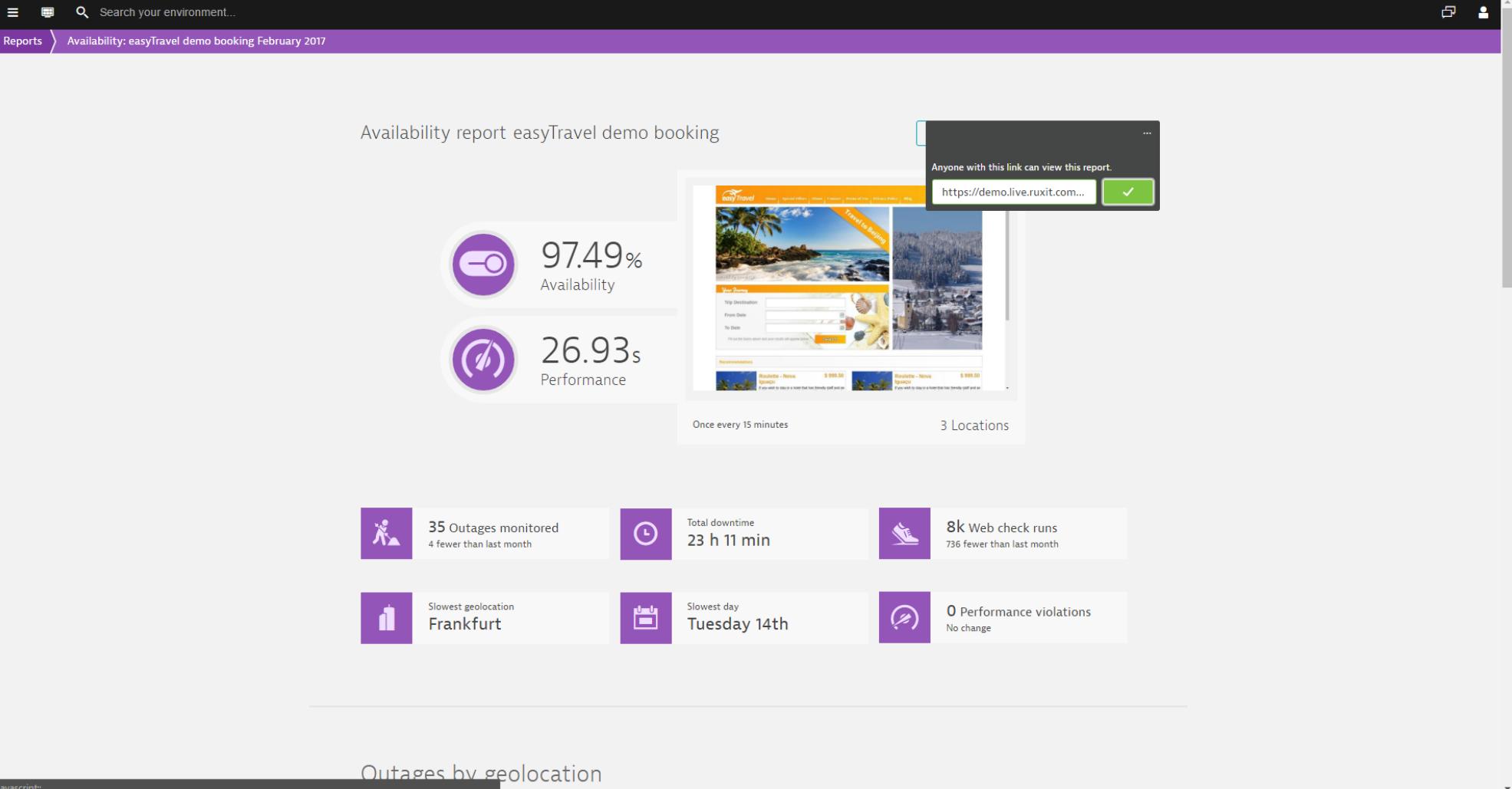
Slowest geolocation
Frankfurt

Slowest day
Tuesday 14th

0 Performance violations
No change

Outages by geolocation

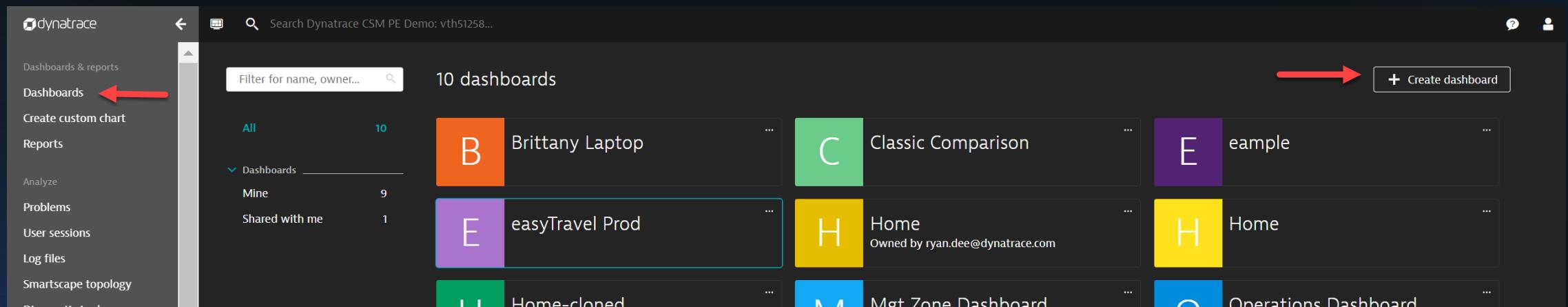
javascript:



Dashboards

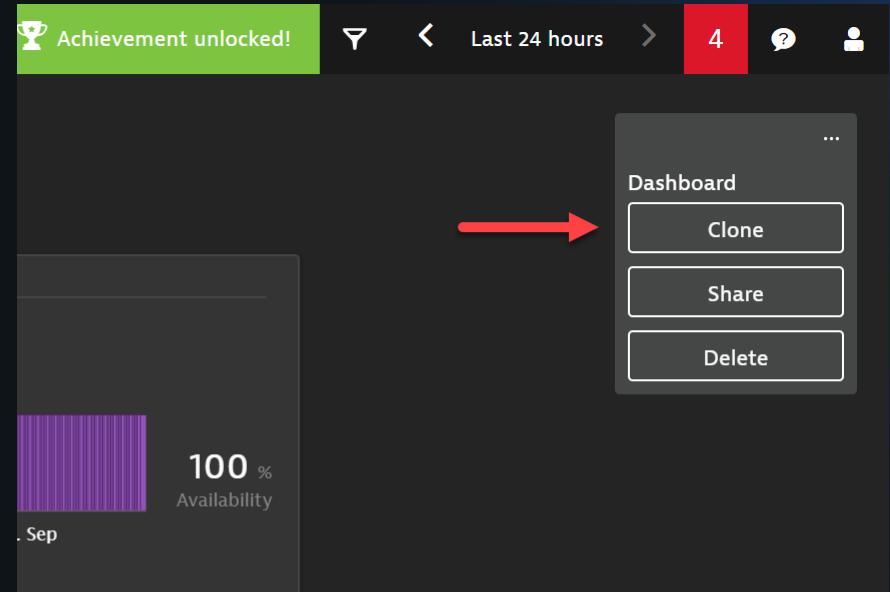
Creating a dashboard

- Dashboards are created from the menu > Dashboards > Create Dashboard
 - On the Dashboards page, you'll have all dashboards you've created and that have been shared with you
 - Dashboards can be organized by 'Mine' and 'Shared with me'



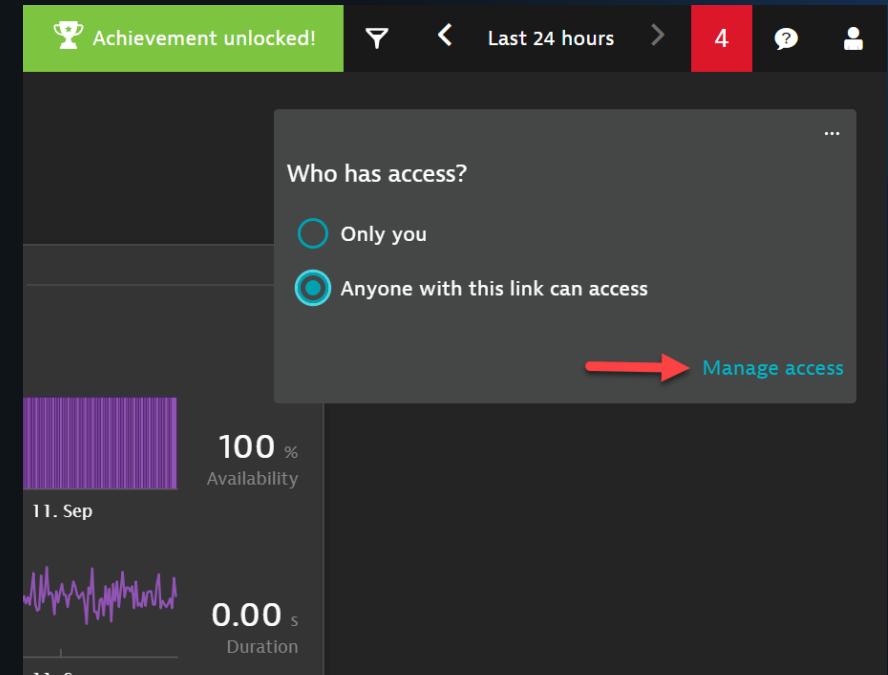
Cloning a dashboard

- If you want to make edits to a dashboard that has been shared with you, clone the dashboard
- A cloned dashboard will show up under your dashboards view



Sharing a dashboard

- If you'd like to share your dashboard with someone else, select **share** from browse icons
- For fine-grained access and edit permissions, click **manage access**



Managing dashboard access

Who can view dashboard?

- Only you
- Shareable Link
- Who can access the link
- Publish to anyone in environment

Who can edit dashboard?

- Only you
- Specific users
 - Use this to share edit privileges of a single dashboard with multiple users

Manage access

Who has access?

- Only me
 Shareable link

View access via link

- Shareable link
 Authenticated users with the link can view
 Anyone with the link can view. No sign in required

<https://uwj61579.sprint.dynatrelabs.com/#dashboard;id=cda219c1-5220-4464-a56b-e5e617780be8;gtf=defa...>

Copy

Publish environment-wide

- Publish to anyone on this environment. It will appear on their dashboard overview.

Manage edit or view access for specific users

Assigned users will see this dashboard appear on their dashboard overview.

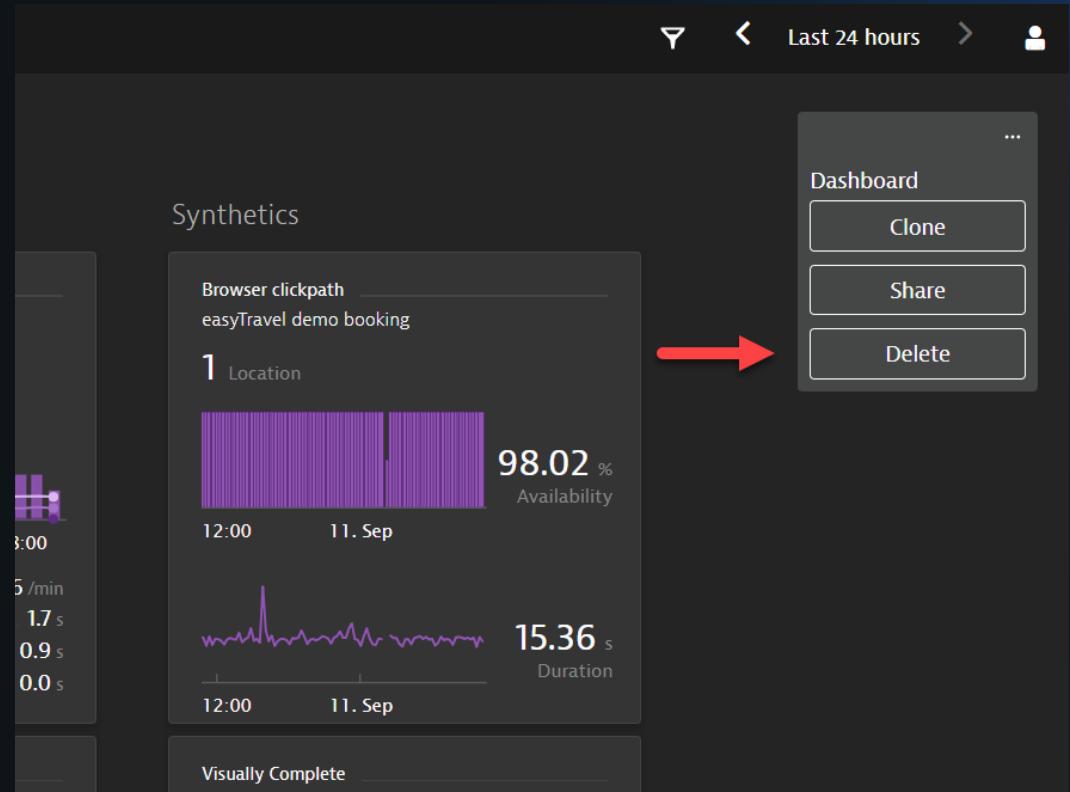
Username	Permission
<input type="text" value="Enter username"/>	<input checked="" type="radio"/> View <input type="radio"/> View <input type="radio"/> Edit

Cancel

Add user

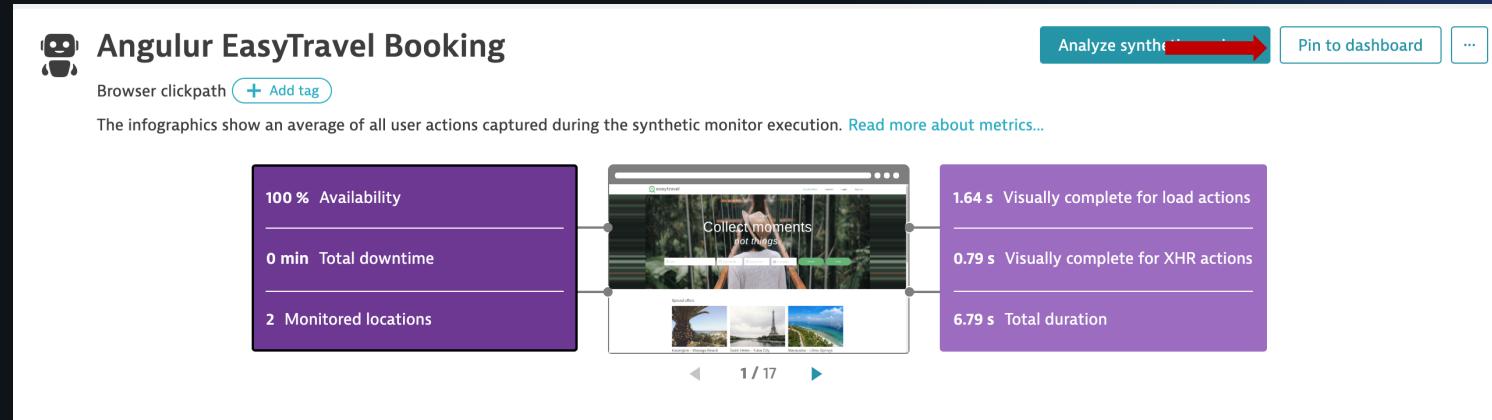
Deleting a dashboard

- You cannot delete a dashboard owned by someone else
 - If someone gave you edit privileges, you can edit, share, and clone, but not delete
 - Only the original creator can delete it



Adding tiles to dashboards

- Tiles can be added from the tile selector when editing a dashboard
- Tiles can be added by pinning views to a dashboard
 - Ex: Pinning a synthetic monitor to a dashboard from Synthetic Details
 - Ex: Pinning a custom chart to a dashboard through chart interface

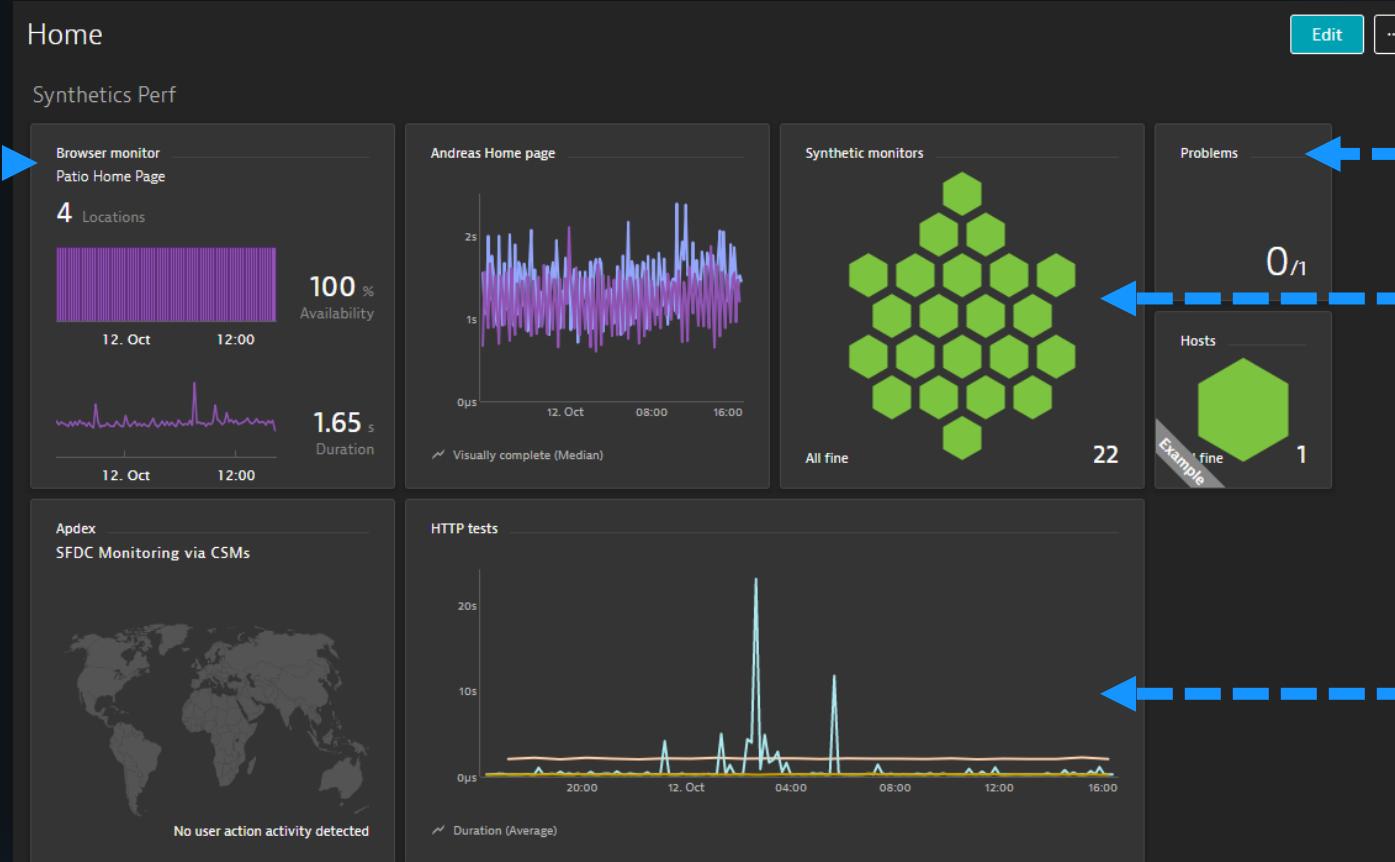


Synthetic-related tile options

Synthetic

monitor tile:

Added from dashboard
or by pinning from
monitor details page



Problems tile

Honeycomb tile: Added from editing a dashboard or directly pinning a tagged grouping of tests from synthetic monitors page

Custom chart: Added from editing a dashboard or custom chart page

Note

Dashboards FAQ

- Dashboards are on a 60-second refresh rate
- You can have multiple dashboards open at once in different browser tabs without problems
- There is no tile limit, however you will get a warning about potential performance impacts after 20 tiles
- **Tip:**

If you are having trouble making tiles fit together, make sure your browser zoom is set to 100%

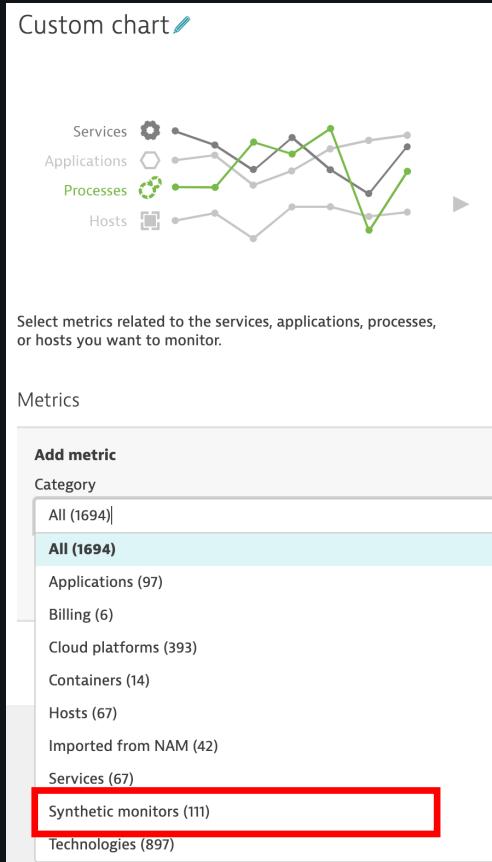
Custom charts - synthetic

Create custom chart

The screenshot shows the Dynatrace Home dashboard. On the left, a sidebar menu is open with various options like Dashboards & reports, Dashboards, Create custom chart (which is highlighted with a red box), Reports, Analyze, Problems, User sessions, Log files, Smartscape topology, Diagnostic tools, Monitor, Applications, Synthetic, Transactions & services, Databases, and Hosts. The main area displays several performance metrics: Synthetics Perf (Browser clickpath BBR Login, 4 Locations, 100% Availability, 7.07 s Duration), Andreas & Patio (Ops over time, Visualy complete (Median)), Ryan monitors (green hexagonal icon), Apdex (SFDC Monitoring via CSMs), and HTTP tests (20s duration). A search bar at the top right says "Search Dynatrace CSM PE Demo: vth51258...".

Available metrics – Synthetic Monitors

- Choose Synthetic Monitors
This includes Browser and HTTP monitors



Availability
Synthetic monitors > Browser

Error details
Synthetic monitors > Browser

Failed executions
Synthetic monitors > Browser

Successful executions
Synthetic monitors > Browser

Total duration
Synthetic monitors > Browser

Action duration (XHR action)
Synthetic monitors > Browser > Action duration

Action duration (custom action)
Select metric

Available chart types

Chart types

- Line chart
- Stacked area chart
- Stacked bar chart

Aggregation

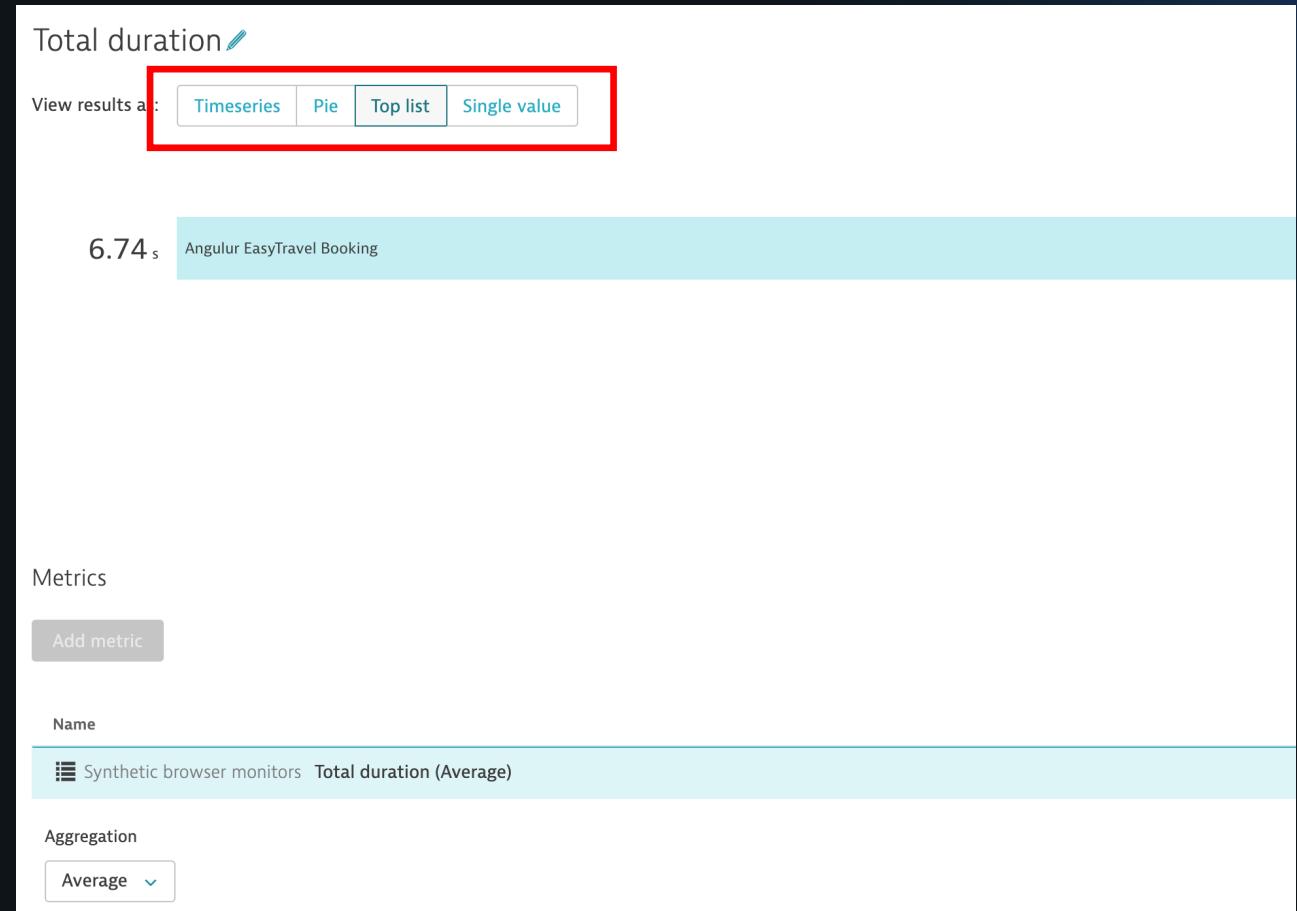
There are different aggregations depending on metric selected, for example:

- Duration has Avg, Max, Min, Sum, Count, Percentile
- Error Details has Total, Per Hour, Per Minute, Per Second

The screenshot shows the Dynatrace CSM PE Demo interface with a 'Custom chart' configuration screen. At the top, there's a search bar with the placeholder 'Search Dynatrace CSM PE Demo: vth51258...'. Below it, the title 'Custom chart' is displayed. Under the 'Metrics' section, there's a button 'Add metric' and a 'Name' input field. A specific metric is selected: 'Synthetic browser monitors Duration (Average)'. In the 'Chart type' and 'Aggregation' dropdowns, 'Line' is selected under both categories. These two dropdowns are highlighted with a red box. Below this, other chart types are listed: 'Stacked area' (disabled), 'Stacked bar' (disabled), and 'Bar monitor (default entity)' (disabled). The 'Chart results' section shows a list of entities with their names and corresponding color-coded squares: Nordstrom Product Search - Comparison (brown), easyTravel Search (orange), BBR Login (blue), and Best Buy Home Page - Comparison (orange).

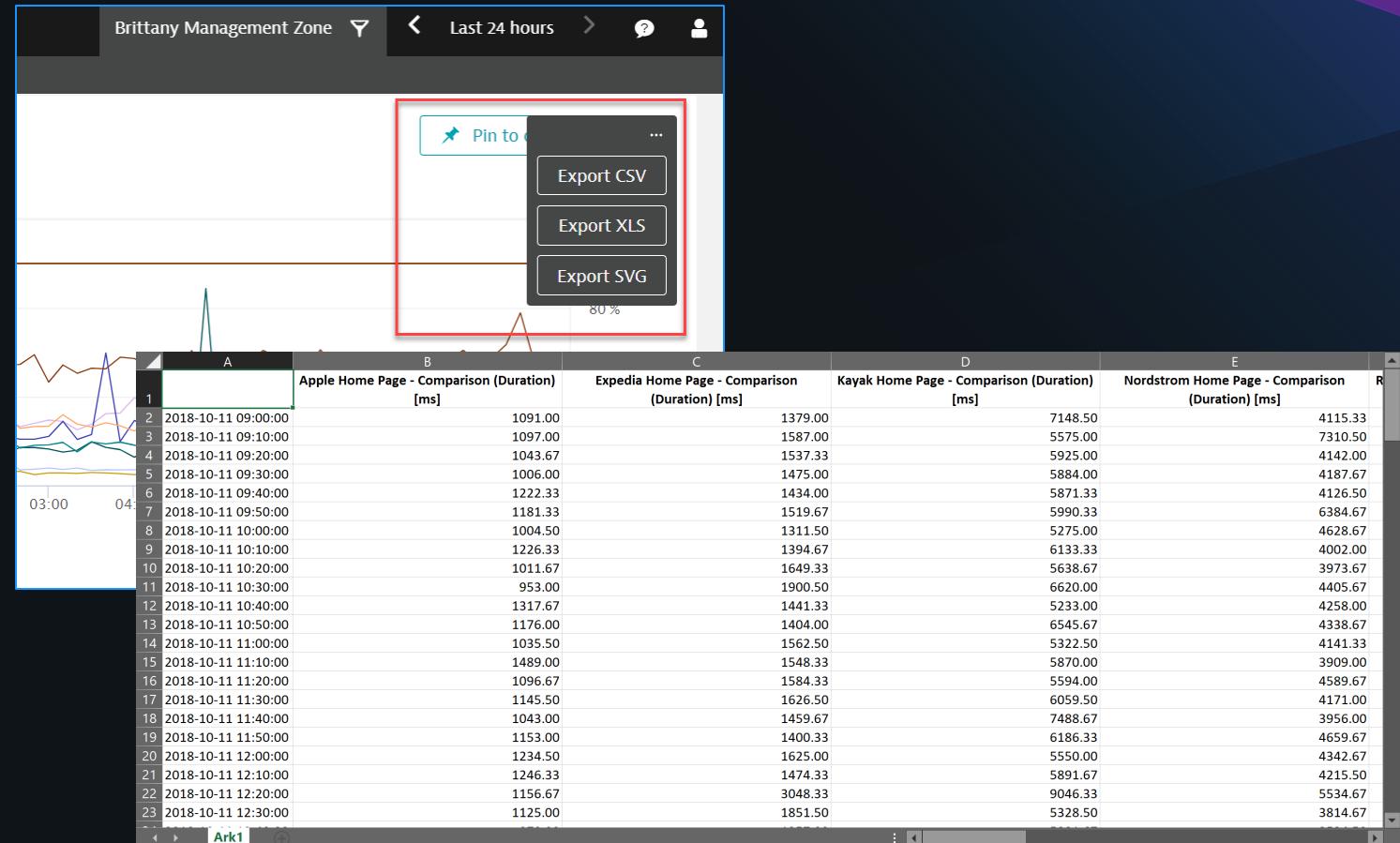
Viewing results

- Results can be viewed as:
 - Timeseries
 - Pie chart
 - Top list
 - Single Value



Export to CSV, XLS, SVG

- Export any chart to CSV, XLS, SVG
- Helpful for custom charting and reporting needs
- Faster than using APIs to call data



Custom colors

Custom chart

Metrics

Add metric

Name _____

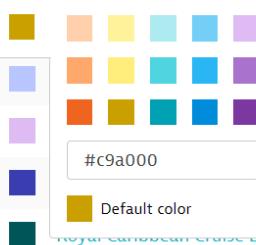
- ✓ Synthetic browser monitors Duration (Average)
- ✓ Synthetic browser monitors Availability

Chart results

Start typing to filter

Showing 8 results.

Name _____



#c9a000

Default color

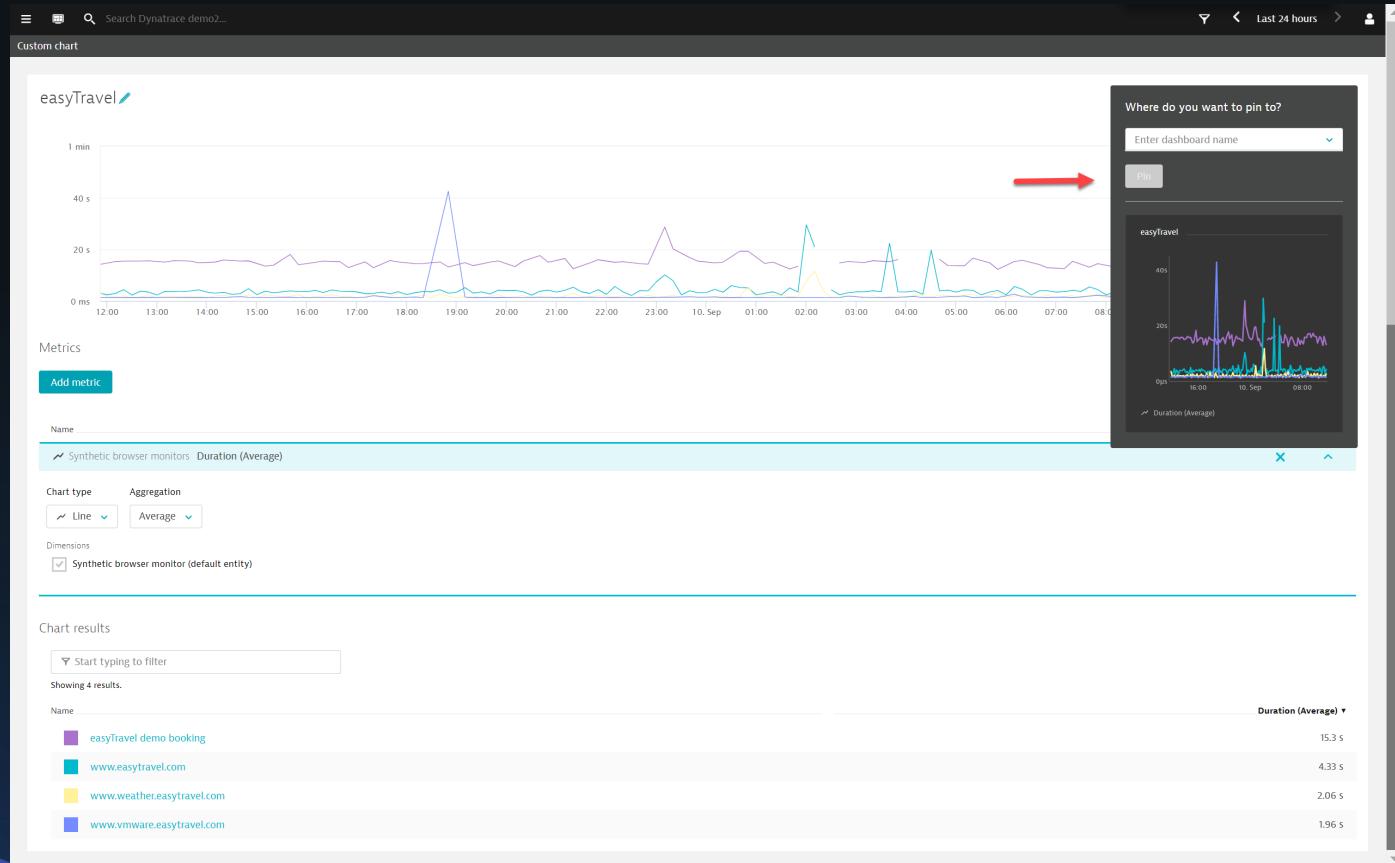
Target Home Page - Comparison

Best Buy Home Page - Comparison

The screenshot shows a 'Custom chart' interface. In the 'Metrics' section, there are two items listed under 'Synthetic browser monitors'. The 'Chart results' section displays a list of eight items, each with a small colored square icon and a label. A red arrow points to the color palette in the 'Chart results' list, highlighting the '#c9a000' entry. The color palette itself is a grid of various colors, with the selected color (#c9a000) highlighted.

Select a custom color for each monitor
in your chart

Adding a custom chart to a dashboard

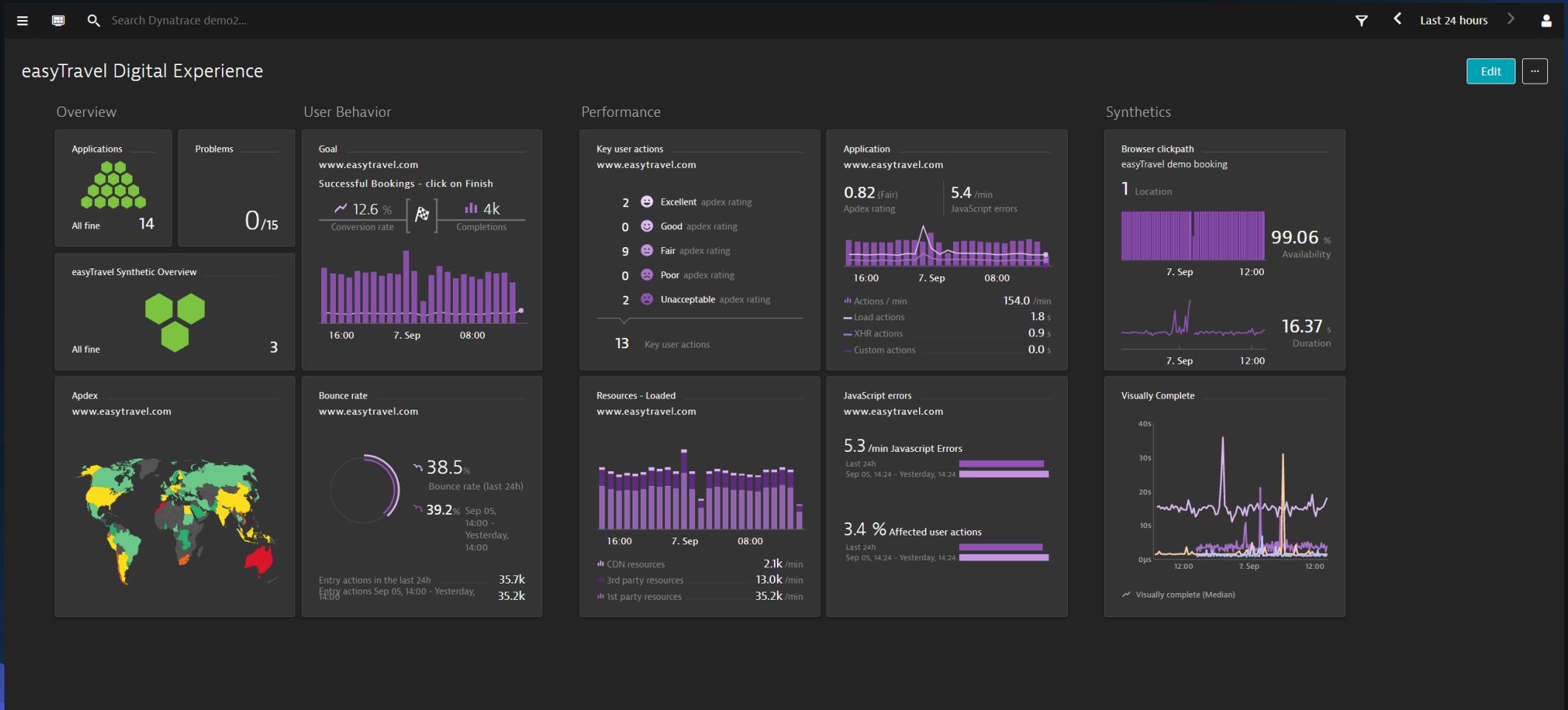


Select Pin to dashboard, then select the dashboard you'd like to pin to

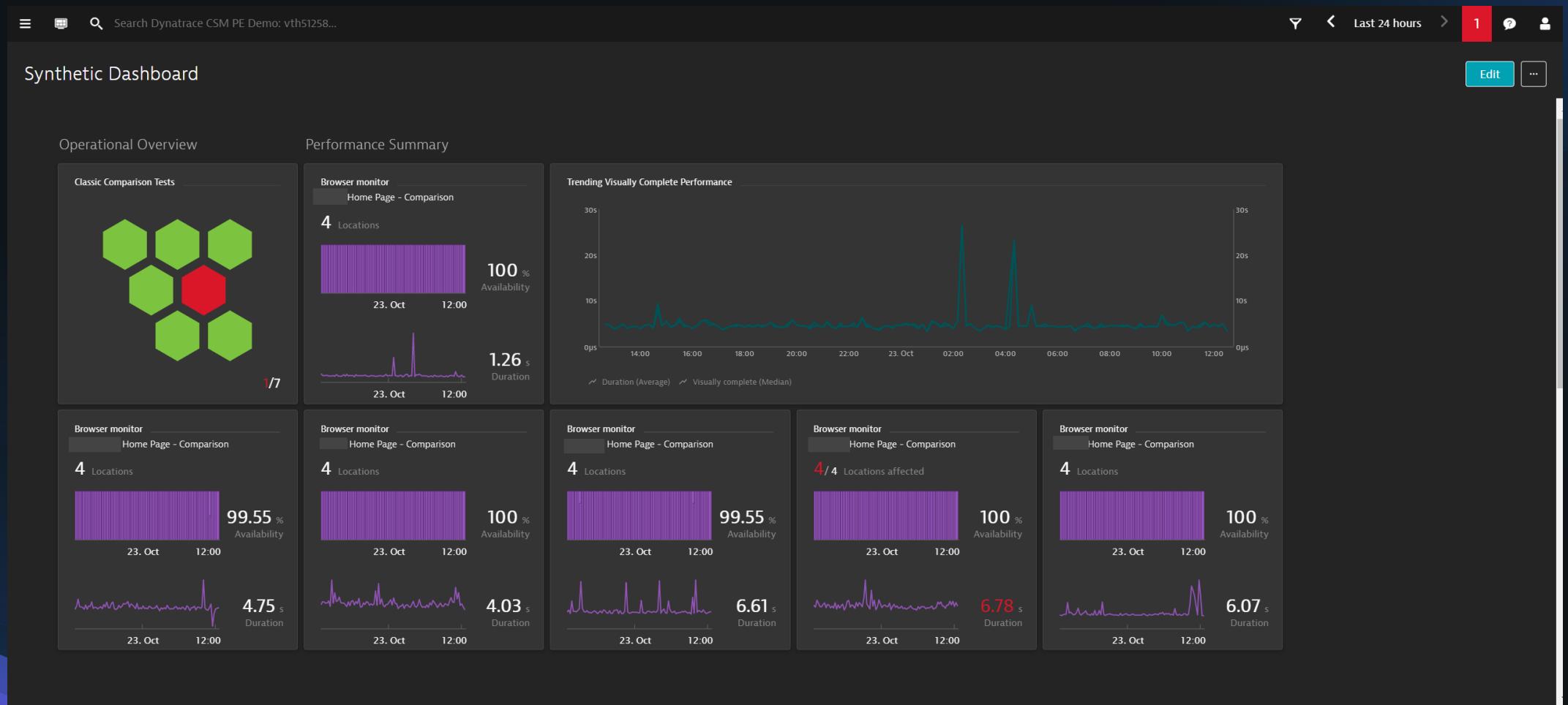
Custom charts FAQ

- You can have up to five metrics per chart
- You can have up to 15 series per chart
- Chart resolution automatically adjusts with the timeframe
- Custom charts are only saved to dashboards - they can be accessed, modified, and exported at any time from that dashboard tile

Example: digital experience dashboard



Example: synthetic performance overview dashboard



Exercise 7 - Hands on

Create a dashboard

View and Customize your Dashboard

- Open Dashboards off the main menu
- Click Create Dashboard and give it a name
- Select from the Synthetic tiles the Browser Monitor and drop it in the main window
- Create tile from custom chart and pin to dashboard
- Select the monitor you created previously
- Repeat the same steps for the HTTP Monitor

Dynatrace API

API Overview

- You can use our API to export Dynatrace monitoring data into your 3rd party reporting and analysis tools.
- API communication ensures safety by using secured communication via the HTTPS protocol.
- Multiple API tokens can be created for different purposes
- Use the Dynatrace API Explorer or Read the API documentation for use-cases and examples.

Response Codes:

Unless otherwise specified, the following response codes are used:

Code	Description
200	OK. The request is successful.
400	Bad request. The request has failed. The body of the response provides additional details.
401	Unauthorized. The token authentication has failed. Check to see if your token has the required permissions .
404	Not found. The requested resource is not found in your environment. Check if your input is correct.

Example: Get Monitors

GET /synthetic/monitors Lists all synthetic monitors in your Dynatrace environment A This operation is beta 🔒

The full list can be lengthy, but you can narrow it down by specifying filter parameters such as tags.

Parameters Cancel

Name	Description
managementZone integer (query)	Filters the resulting set of monitors to those which are part of the specified management zone. managementZone - Filters the resulting set of mon
tag array [string] (query)	Filters the resulting set of monitors by specified tags. You can specify several tags in the following format: tags=tag1&tags=tag2. The monitor has to match <i>all</i> the specified tags. In case of key-value tags, such as imported AWS or CloudFoundry tags use following format: [context]key:value. Add item

Execute Clear

Example: Get Monitors Response

Responses Response content type application/json ✓

Curl

```
curl -X GET "https://yhw33366.sprint.dynatracelabs.com/api/v1/synthetic/monitors?Api-Token=yN1yY3BWRs-tBjVpbV6IC" -H "accept: application/json"
```

Request URL

```
https://yhw33366.sprint.dynatracelabs.com/api/v1/synthetic/monitors?Api-Token=yN1yY3BWRs-tBjVpbV6IC
```

Server response

Code	Details
200	<p>Response body</p> <pre>{ "monitors": [{ "name": "EasyTravel Homepage", "entityId": "SYNTHETIC_TEST-0000000000097FB", "type": "BROWSER" }] }</pre> <p>Response headers</p> <pre>content-encoding: gzip content-length: 113 content-type: application/json; charset=utf-8 date: Thu, 24 Jan 2019 16:16:43 GMT server: ruxit server strict-transport-security: max-age=31536000; includeSubDomains vary: Accept-Encoding x-oneagent-js-injection: true x-ratelimit-limit: 1000 x-ratelimit-remaining: 999 x-ratelimit-reset: 1548346663773000 x-robots-tag: noindex</pre>

Exercise 8 - Hands on

Explore the Dynatrace API

Dynatrace API: Generate and Authorize a Token

- Under settings and Integration click Dynatrace API
- Click Generate Token
- Ensure the top 5 options are selected including Create and configure monitors as well as Read
- Save
- Click Edit and copy the Generated token
- Click on the Dynatrace API Explorer
- Click authorize and authorize the token in both sections

Open the API under Settings and Generate a Token

The screenshot shows the Dynatrace interface with the following navigation path: Settings > Integration > Dynatrace API. The main content area is titled "Dynatrace API" and contains a sub-section "My Dynatrace API tokens". This section includes a button "Generate token" and a table listing existing tokens. One token, "HotDayToken", is listed with the owner "student0911@trial.dynatracelabs.com". The table has columns for "Token name", "Owner", and actions "Disable/enable", "Delete", and "Edit". A red box highlights the "Generate token" button. Another red box highlights the "Integration" section in the left sidebar, which contains "Dynatrace API" and other integration-related options like "Problem notifications" and "Platform as a Service".

My Dynatrace API tokens

Token name	Owner	Action
HotDayToken	student0911@trial.dynatracelabs.com	Disable/enable Delete Edit

Add the Synthetic monitoring privileges as well as Read/Write configuration access.

Authorize your token

Synthetic - Monitors Manage synthetic monitors

GET	/synthetic/monitors	Lists all synthetic monitors in your Dynatrace environment	⚠	Early adopter	🔒
POST	/synthetic/monitors	Creates a new synthetic monitor	⚠	Early adopter	🔒
GET	/synthetic/monitors/{monitorId}	Gets parameters of the specified synthetic monitor	⚠	Early adopter	🔒
PUT	/synthetic/monitors/{monitorId}	Updates parameters of the specified synthetic monitor	⚠	Early adopter	🔒
DELETE	/synthetic/monitors/{monitorId}	Deletes the specified synthetic monitor	⚠	Early adopter	🔒

Explore the Dynatrace API

- Execute API for GET /synthetic/monitors
 - Click on your user person icon in top right corner of the Dynatrace page.
 - Click on Environment API
 - Use Environment API v1 and scroll to the Synthetic – Monitors API and expand
 - Click the lock icon on GET /synthetic/monitors and copy in your API token.
 - Click “Try It Out” to get an API form to execute.
 - Click “Execute” on the bar.
 - A curl command is provided of the executed command which works from any system with CURL.
 - A JSON list is provided.
 - Review the JSON list and copied the “Entity ID” of the HTTP monitor we want to use as a template.

Explore the Dynatrace API

- Execute API for GET /synthetic/monitors/{monitorID}
 - Click on GET /synthetic/monitors/{monitorID}
 - Click “Try It Out” to get an API form to execute
 - Paste in the ID for the monitorID field
 - Click “Execute” to execute the new API call
 - Click “Download” on the JSON response to save a TEXT file of the current monitor
- Execute API for POST /synthetic/monitors
 - Click on POST /synthetic/monitors
 - Click “Try It Out” to get an API form to execute
 - Modify the JSON downloaded in a text editor to remove the lines referencing the entityId as this will be generated as part of the creation of the new HTTP Monitor
 - Modify the Name / Description to the correct Name desired as well as the URL to the full URL to monitor:
 - Paste the copied JSON into the JSON section of the API overwriting the current template value.
 - Scroll to the top of the pasted JSON and remove the extra {} inserted by the editor.
 - Click “Execute” to execute the new API call creating a new HTTP monitor.

Copy the CURL command to leverage for command line scripting of future monitors using a replacement loop for desired values or save the JSON and leverage it to post via API REST calls if desired.

Explore the Dynatrace API

Step 1:

- Under the Synthetic section in the API explorer click GET /timeseries
- Select BUILTIN as the source and input **Synthetic** for detailed source
- Click Execute
- Look for the results and find “availability percentage”
- Copy the timeseriesID between the quotes:

com.dynatrace.builtin:syntheticmonitor.availability.percent

Explore the Dynatrace API

Step 2:

- Under the Synthetic section in the API explorer click GET /timeseries/{timeseriesIdentifier}
- Paste the identifier: com.dynatrace.builtin:syntheticmonitor.availability.percent
- includeData = True
- relativeTime = 6hours
- queryMode= TOTAL
- Entity = Synthetic
- Click Execute

Account settings

Monitor actions

- A synthetic monitor consumes **one “action” for every event that triggers web requests** (including a page load, navigation event or action that triggers an XHR request) - any events that do not trigger web requests are not billable
- **Events** are the total count of instructions in your script, while **actions** are a subset of the events that triggered requests and are therefore billable
- Help docs for synthetic consumption:
<https://www.dynatrace.com/support/help/monitor/synthetic/how-many-synthetic-actions-does-a-browser-monitor-consume/>
- Dynatrace does not allow for ‘combining’ actions, so there may be cases where a single Classic step yields more than one billable actions

Monitor consumption calculations

- DEM unit = Digital Experience Management Unit
- Each synthetic ‘action’ consumes 1 DEM unit
- The formula to determine DEM consumption on Dynatrace:
$$(Actions * frequency * locations) * monitor type [1.0 for full browser, 0.1 for HTTP monitor]$$
- Example: 3 actions in your browser script * 4 runs per hour (15-min frequency) * 4 locations * 24 hours * a month (365/12) = **35,040** DEM units
- This calculation is shown for any given monitor at the bottom of the “frequency and locations” tab in monitor settings
- 4 RUM sessions consumes 1 DEM unit

* An XF is an old unit of consumption from the legacy Dynatrace UEM and Synthetic solutions

Account settings

The screenshot shows the Dynatrace web interface with a red box highlighting the 'Account settings' option in the user profile dropdown menu.

Left sidebar:

- Dashboards & reports
- Dashboards
- Create custom chart
- Reports**
 - Analyze
 - Problems
 - User sessions
 - Log files
 - Smartscape topology
 - Diagnostic tools
 - Monitor
 - Applications
 - Synthetic
 - Transactions & services
 - Databases
 - Hosts
 - Network
 - Technologies
 - VMware
 - AWS
 - Azure
 - Docker
 - Manage
 - Deploy Dynatrace
 - Deployment status
 - Settings

Home dashboard:

- Synthetics Perf
 - Browser clickpath BBR Login: 4 Locations, 100% Availability, 7.01 s Duration
 - Andreas & Patio: Visualized data over time
 - Ryan monitors: 14 All fine
 - Problems: 0/45 Hosts, 1 Example fine
- Apdex SFDC Monitoring via CSMs: Map visualization
- HTTP tests: Visualized data over time
- BC Home compare: Visualized data over time

User profile (top right):

- Ryan Dee, ryan.dee@dynatrace.com
- Last 7 days
- Profile icon (highlighted with a red box)
- Account settings (highlighted with a red box)
- Deployment achievements
- Community
- What's new?
- Dynatrace blog
- Help
- Answers
- Dynatrace API
- Environment API
- Mobile apps
- Receive alerts via mobile app
- Sign out

Bottom left:

dynatrace Perform

Bottom right:

Confidential 0 28

Dynatrace SaaS - consumption

The screenshot shows the Dynatrace SaaS consumption dashboard for the account "Dynatrace CSM PE". The left sidebar contains navigation links for "Accounts", "License details", "Contact information", "Billing", "User management", "Group management", and "Help and Support". The main area displays "License details" with a "Contract anniversary date" of Dec 20, 2017 and a "Contract end date" of Dec 31, 2099. It features five circular progress indicators for different resource types, each with a quota amount consumed (blue), quota amount remaining (light gray), overage amount consumed (yellow), and overage amount exceeded (red). The indicators are: Concurrent host units (0 / 10, No overage limit), Monthly sessions (76 / 100,000, No overage limit), Monthly synthetic actions (63,016.6 / 100,000, No overage limit), Log analytics storage (0 / 0 GB, No overage limit), and Custom metrics (0 / 0). A legend at the bottom defines the colors: blue for Quota amount consumed, light gray for Quota amount remaining, yellow for Overage amount consumed, and red for Overage amount exceeded. A note states that overages are billed in arrears, and a warning notes that license consumption occurring during the past few hours may not be included. Below this, a "Consumption by environment" section shows data for environment "vth51258" across various metrics: Concurrent host units (0), Host unit hours (1,855.7), Sessions (76), Synthetic actions (63,016.6), Log Analytics (0 GB), and Custom metrics (0).

License details
View license quotas & consumption details

Contract anniversary date: Dec 20, 2017
Contract end date: Dec 31, 2099

License details

View consumption

Concurrent host units: 0 / 10
Monthly sessions: 76 / 100,000
Monthly synthetic actions: 63,016.6 / 100,000
Log analytics storage: 0 / 0 GB
Custom metrics: 0 / 0

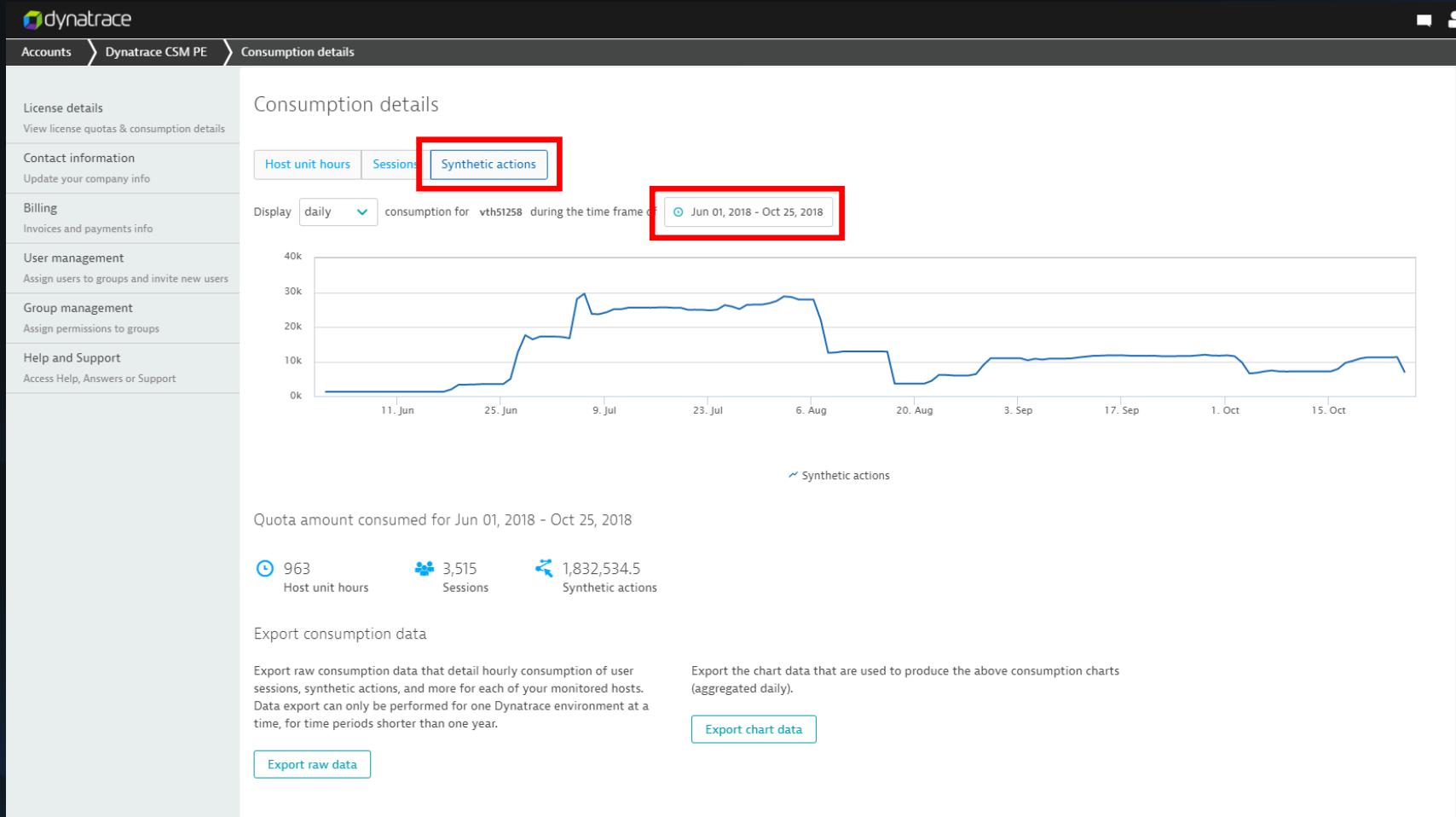
Legend:
■ Quota amount consumed
■ Quota amount remaining
■ Overage amount consumed
■ Overage amount exceeded

Note that overages are billed in arrears.
License consumption occurring during the past few hours may not be included.

Consumption by environment

Environment	Concurrent host units	Host unit hours	Sessions	Synthetic actions	Log Analytics	Custom metrics	Details
vth51258	0	1,855.7	76	63,016.6	0 GB	0	

Dynatrace SaaS - consumption



Dynatrace SaaS - consumption

The screenshot shows a Microsoft Excel spreadsheet titled "72361-73985-01Jun2018-26Oct2018ChartData.csv - Excel". The data is presented in two main sections: a table and a chart.

Table Data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Start Date	End Date	Host Unit	Sessions	Sessions v Synthetic	Log Analy	Infrastruct	PaaS Host	Custom Metrics	Usage				
2	6/1/2018 0:00	6/2/2018 0:00		8	0	0	1248	0	0	0				
3	6/2/2018 0:00	6/3/2018 0:00		1	0	0	1247	0	0	0				
4	6/3/2018 0:00	6/4/2018 0:00		0	0	0	1248	0	0	0				
5	6/4/2018 0:00	6/5/2018 0:00		15	0	0	1248	0	0	0				
6	6/5/2018 0:00	6/6/2018 0:00		23	0	0	1251	0	0	0				
7	6/6/2018 0:00	6/7/2018 0:00		15	0	0	1265	0	0	0				
8	6/7/2018 0:00	6/8/2018 0:00		16	0	0	1250	0	0	0				
9	6/8/2018 0:00	6/9/2018 0:00		10	0	0	1248	0	0	0				
10	6/9/2018 0:00	6/10/2018 0:00		24	0	0	1248	0	0	0				
11	6/10/2018 0:00	6/11/2018 0:00		24	0	0	1248	0	0	0				
12	6/11/2018 0:00	6/12/2018 0:00		26	0	0	1248	0	0	0				
13	6/12/2018 0:00	6/13/2018 0:00		21	0	0	1248	0	0	0				
14	6/13/2018 0:00	6/14/2018 0:00		20	0	0	1247	0	0	0				
15	6/14/2018 0:00	6/15/2018 0:00		24	0	0	1249	0	0	0				
16	6/15/2018 0:00	6/16/2018 0:00		18	16	0	1252	0	0	0				
17	6/16/2018 0:00	6/17/2018 0:00		1	0	0	1296	0	0	0				
18	6/17/2018 0:00	6/18/2018 0:00		0	0	0	1296	0	0	0				
19	6/18/2018 0:00	6/19/2018 0:00		21	0	0	1964	0	0	0				
20	6/19/2018 0:00	6/20/2018 0:00		23	0	41	0	3321	0	0	0			

Chart Data:

The chart displays a line graph showing consumption over time. The x-axis represents dates from approximately June 1, 2018, to October 20, 2018. The y-axis represents consumption values. The line starts at ~1248, remains relatively flat until late June, then rises to ~1250 by July 10th. It fluctuates slightly between 1248 and 1252 until early September, then drops sharply to ~1296 on September 17th. It stays around 1296 until October 1st, then rises again to ~1964 by October 20th.

Export Options:

At the bottom of the screen, there are two export buttons:

- Export raw data**: A button for exporting raw consumption data.
- Export chart data**: A button for exporting chart data, which is highlighted with a red box.

Dynatrace SaaS - user management

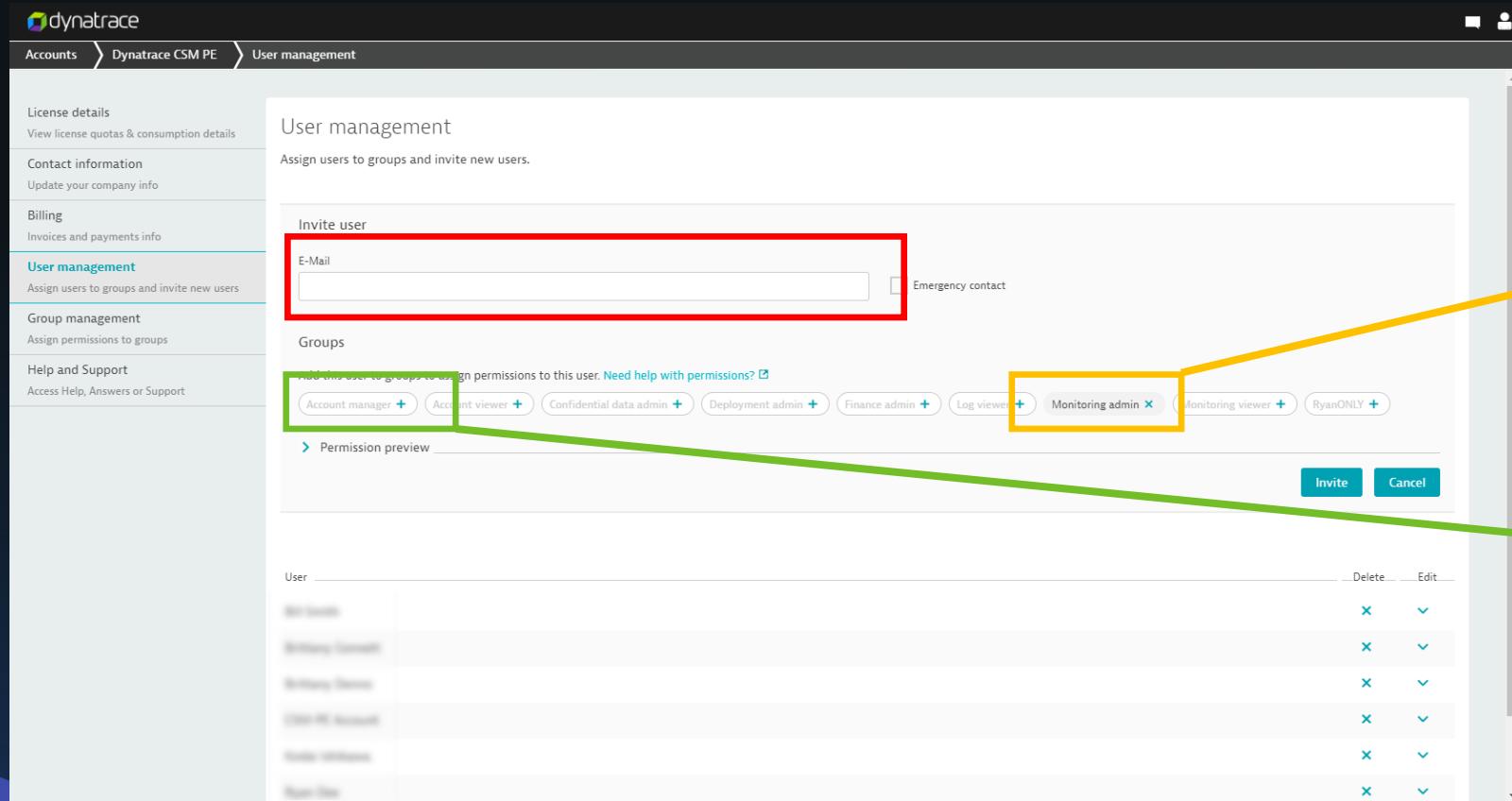
The screenshot displays the Dynatrace SaaS User management interface. The left sidebar contains the following navigation links:

- Accounts
- Dynatrace CSM PE
- User management (highlighted with a red box)
- License details
- Contact information
- Billing
- User management (highlighted with a red box)
- Group management
- Help and Support

The main content area is titled "User management" and includes the sub-instruction "Assign users to groups and invite new users." It features a large blue "Invite user" button. Below this, a table lists users with the following columns:

User	Delete	Edit
John Doe	X	V
Emily Johnson	X	V
Michael Smith	X	V
David Wilson	X	V
Karen Miller	X	V
Sarah Lee	X	V

Dynatrace SaaS - user management



Monitoring admin group
for creating
applications,
hosts

Account manager

Dynatrace managed - consumption

The screenshot shows the Dynatrace Licensing page. The left sidebar has a red box around the 'Licensing' option. The main area displays license details and consumption metrics.

Licensing Details:

- Account: internal
- Contact email address: [redacted]@Dynatrace.com
- Cluster identifier: [redacted] 700
- License name: License 01
- License type: Full license
- Expires: March 31, 2020 UTC
- Server version: 1.154.142.20181008-130619
- License status: Active

License key: [redacted]

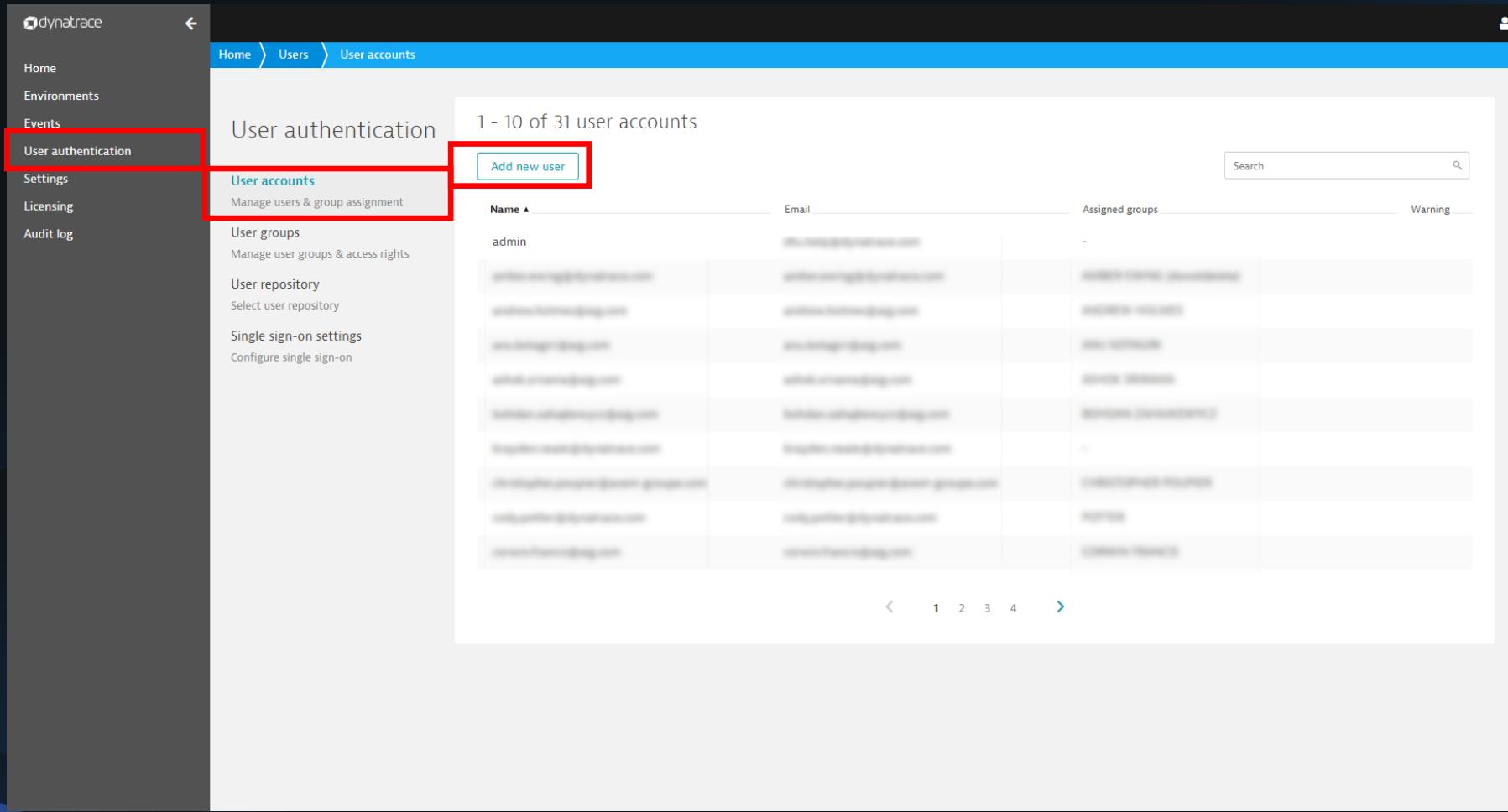
Overall license consumption:

Category	Used	Total Quota	Overage
Host units	0 / 10	75.97 K	0 / 10 K overage
User sessions	6,23 mil / 2 mil	135.6k	0 / 10 mil overage
Synthetic monitors	6640681 / 100k	5424192	0 / 100k overage
PaaS connections	0 / 10	847	0 / 10 host unit hours used
Infrastructure monitors	0 / 10	Unlimited	0 / 10 overage allowed
Avg. daily log volume	0 / 0 MB	No	0 / 200 MB overage allowed
Custom metrics	0 / 200	No	0 / 200 overage allowed

Legend:

- Your used quota (blue)
- Your total quota (light gray)
- You consume overage. It is billed in arrears. (yellow)

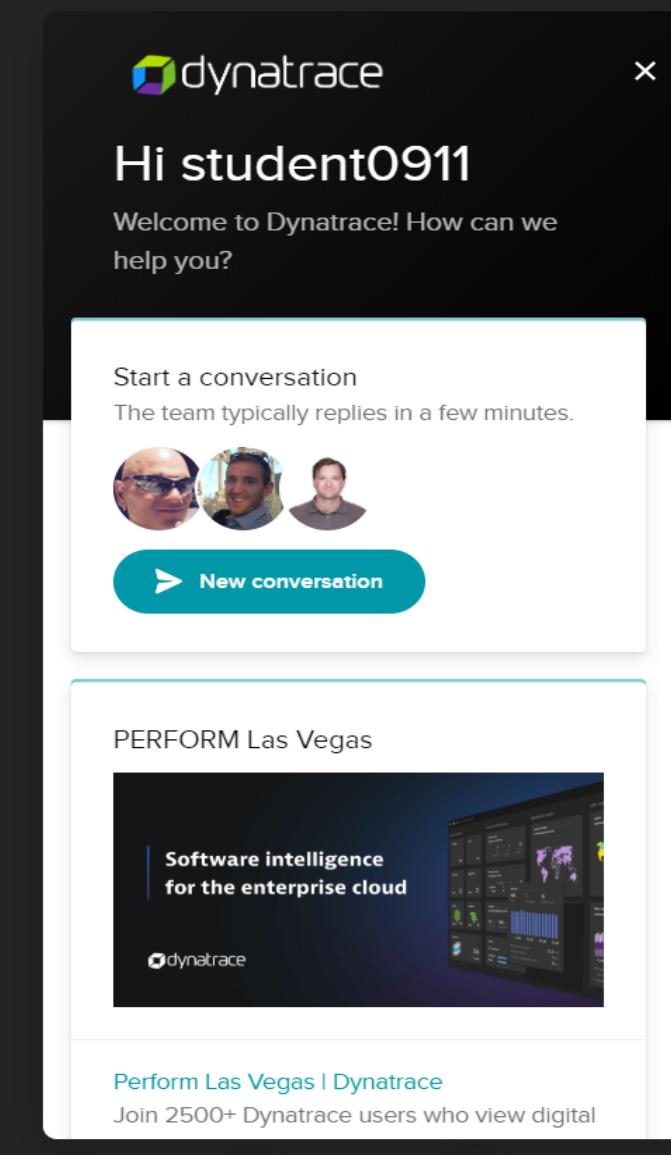
Dynatrace managed - user management



Need Help?

In Product Chat

- Click on the Chat icon in the upper right corner
- Questions are responded to within a few minutes during regular business hours.
- Ideal for general “How do I ...?” type questions



Getting help from Dynatrace Support

For assistance, you can always open a support ticket with questions or issues:

1. Navigate to the support page:
<https://www.dynatrace.com/support/contact-support/>
2. Click **Open support ticket** button
3. Under Open a Support ticket, choose **Dynatrace “create ticket”** - this automatically selects your Product of Dynatrace
4. Specify if the ticket is related to Synthetic in the details of the ticket.
5. Choose **Upgrade** as your Ticket Type and fill out the form

Explore Dynatrace

- Dynatrace help and documentation page
<https://www.dynatrace.com/support/help/>
- Dynatrace University
<https://university.dynatrace.com/>
- Dynatrace One
<https://www.dynatrace.com/services-support/dynatrace-one/>

Q&A



Thank you

