

OneAgent

Dynatrace Training Module



Agenda

- OneAgent Overview
- Network Monitoring
- OneAgent Install
- Container Monitoring
- OneAgent Updates
- New OneAgent Features

OneAgent Overview

What is the OneAgent?

- OneAgent is responsible for collecting all monitoring data within your monitored environment.
- A single OneAgent per host is required to collect all relevant monitoring data on:
 - Physical or Virtual Hosts
 - Docker containers or container orchestration and management tools (e.g. Kubernetes, OpenShift, etc)
 - Microservices architectures
 - Cloud-based infrastructure.
- A single instance of OneAgent can handle monitoring for all types of entities, including servers, applications, services, databases, and more.
- OneAgent gives you all the operational and business performance metrics you need, from the front-end to the back-end and everything in between—cloud instances, hosts, network health, processes, and services.
- OneAgent discovers all the processes you have running on your hosts.
- Based on what it finds, OneAgent automatically activates instrumentation specifically for your unique application stack.



OneAgent

FULL STACK



Browser



Mobile

3rd parties



Application- & Webserver



Services



Containers, Processes,
Logs



OS, Disks



Cloud



Network



OneAgent

to monitor them all



OneAgent – What's Included?

OneAgent Capabilities

- Web Server Monitoring <
- Application Monitoring
- Host Monitoring
- Process Monitoring
- Network Monitoring
- Log File Monitoring
- Extension Execution
- Database Monitoring
- Real User Monitoring
- Third Party and CDN
- Container Monitoring

Web Server Monitoring



OneAgent Capabilities

Web Server Monitoring

Application Monitoring <

Host Monitoring

Process Monitoring

Network Monitoring

Log File Monitoring

Extension Execution

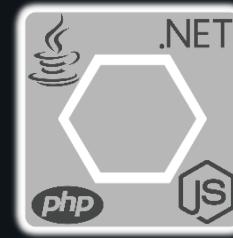
Database Monitoring

Real User Monitoring

Third Party and CDN

Container Monitoring

Application Monitoring



OneAgent Capabilities

Web Server Monitoring

Application Monitoring

Host Monitoring

Process Monitoring

Network Monitoring

Log File Monitoring

Extension Execution

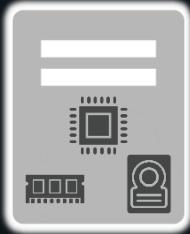
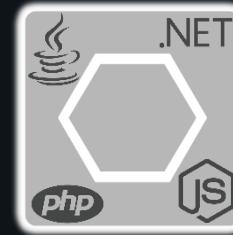
Database Monitoring

Real User Monitoring

Third Party and CDN

Container Monitoring

Host Monitoring



OneAgent Capabilities

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- Application Monitoring
- Host Monitoring
- Process Monitoring** <
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- Real User Monitoring
- Third Party and CDN
- Container Monitoring

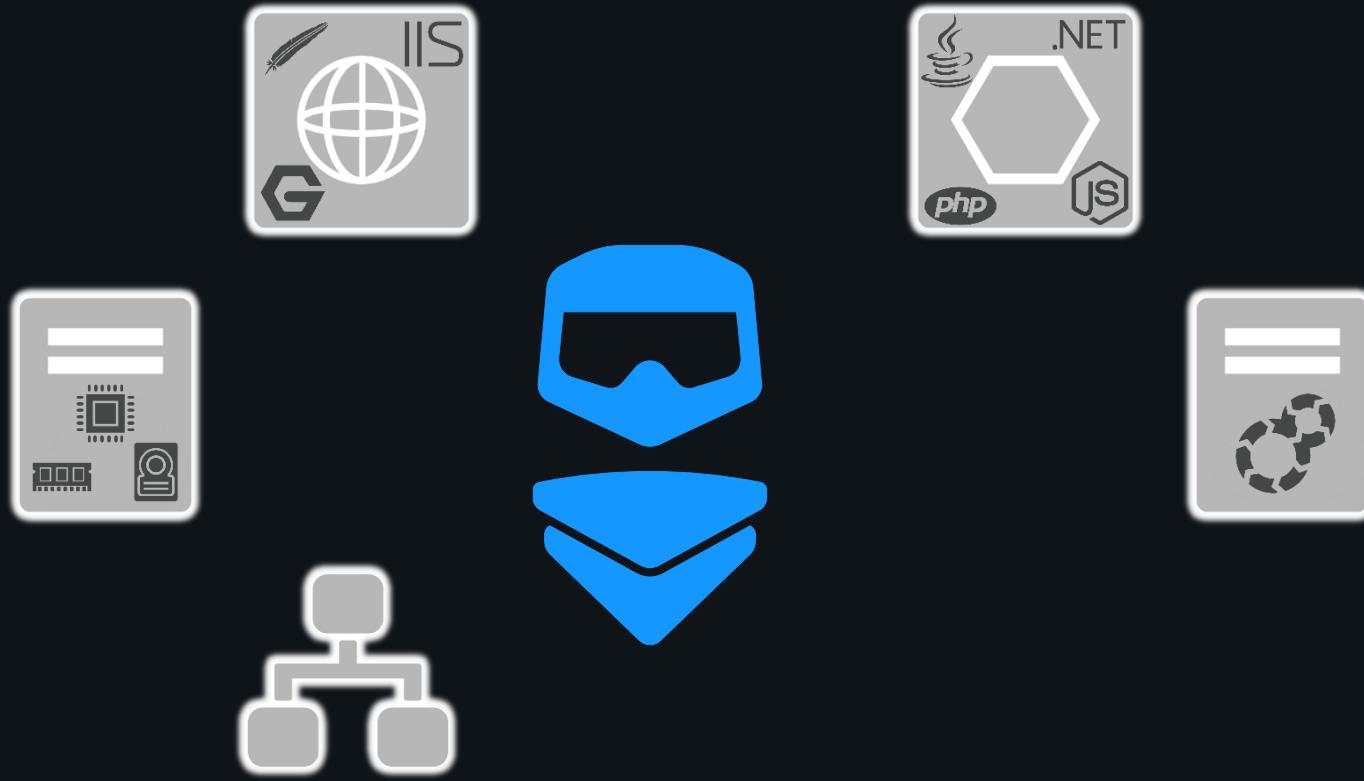
Process Monitoring



OneAgent Capabilities

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- Process Monitoring
- Network Monitoring** 
- Log File Monitoring
- Extension Execution
- Database Monitoring
- Real User Monitoring
- Third Party and CDN
- Container Monitoring

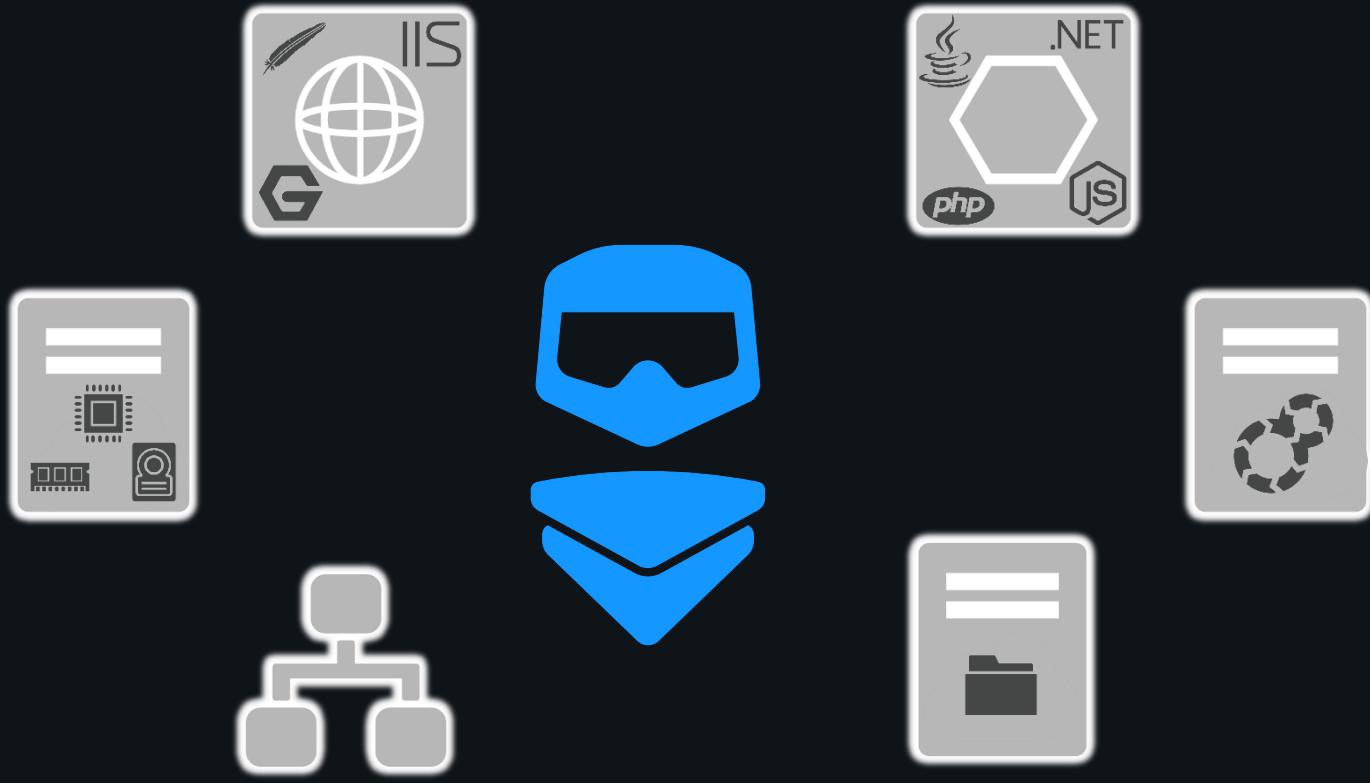
Network Monitoring



OneAgent Capabilities

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Log File Monitoring



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Extension Execution



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Database Monitoring



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Real User Monitoring



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Third Party and CDN



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Container Monitoring



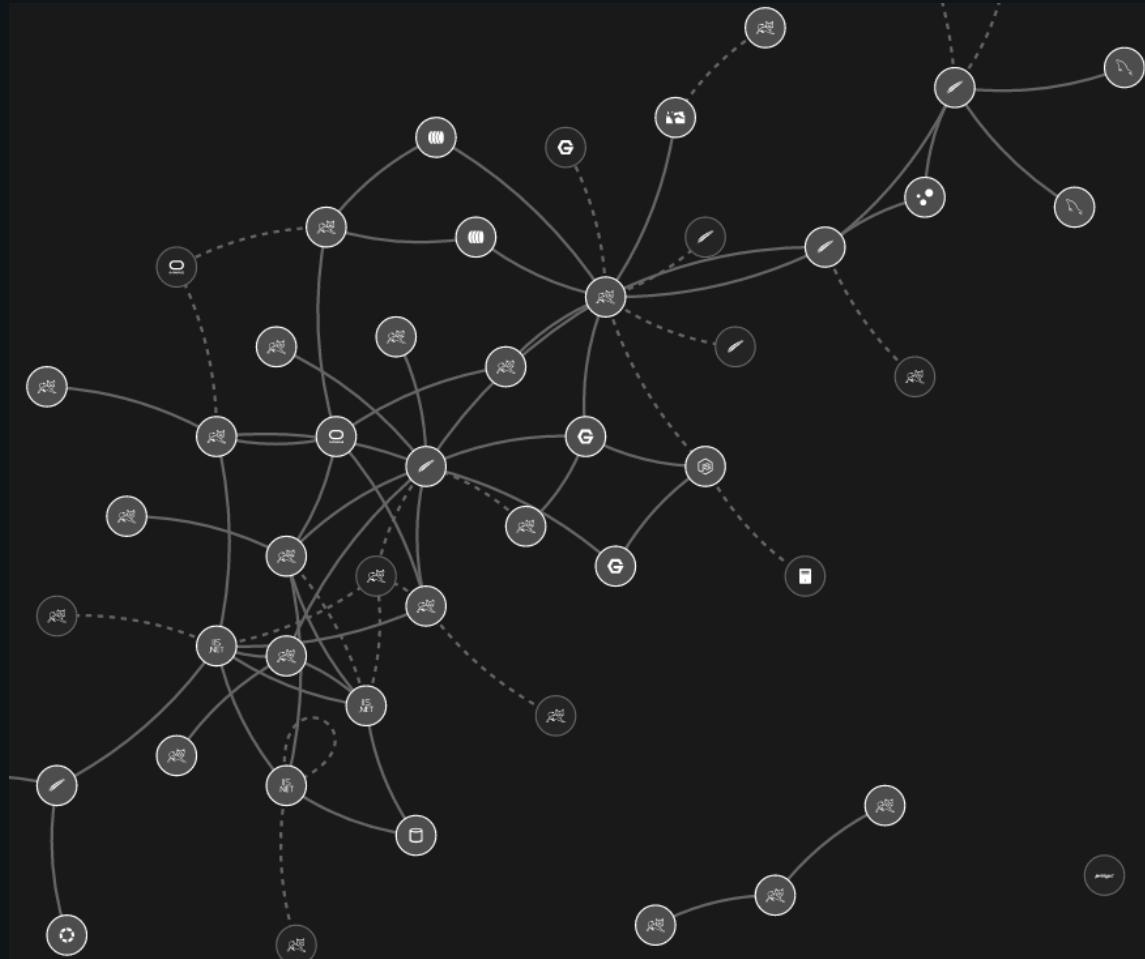
Network Monitoring

Why network monitoring?

- Part of the infrastructure, can be a root cause for an application problem
- Which processes consume most of my network resources?
 - Network utilization breakdown
- Which processes experience network degradation problems?
 - Network quality – retransmissions, RTT, throughput
- Can everyone talk and connect to their parties?
 - Process network connectivity
- Environment agnostic – any TCP/Ethernet communication can be monitored:
 - physical, virtual, cloud

Network helps build the SmartScape

- Network monitoring ensures that infrastructure components are connected in the SmartScape



OneAgent provides additional network capabilities

- Hosts NIC health (per interface) includes:
 - Traffic (throughput)
 - Packets
 - Quality (assessment of dropped packets and errors)
 - Connectivity
- Network services includes DNS monitoring:
 - Since OneAgent version 1.201 and later
 - DNS queries:
 - DNS query time
 - DNS query count
 - DNS orphan response count
 - DNS errors:
 - Percentage of errored queries, excluding orphaned and timed out
 - May include error RCODE (response code), if available

OneAgent Installation

Agent "Types"

Full-Stack Monitoring
(eg: Windows, Linux, AIX)

Java, .NET, PHP,
NodeJS, IIS,
GoLang,
Apache/IHS, Nginx

Host
Network
Processes
Extensions
Logs

Standalone[^]/PaaS
(eg: Solaris, Azure Web Apps)

Java, .NET, PHP, NodeJS,
IIS, GoLang,
Apache/IHS, Nginx.
Limited host metrics

Infrastructure Monitoring mode

Host
Network
Processes
Extensions
Logs

Platform Support: <https://www.dynatrace.com/support/help/shortlink/oneagent-support-matrix>
Technology Support: <https://www.dynatrace.com/support/help/shortlink/supported-technologies>

[^]Standalone is sometimes referred to as "PaaS" or "application-only" deployments of the OneAgent

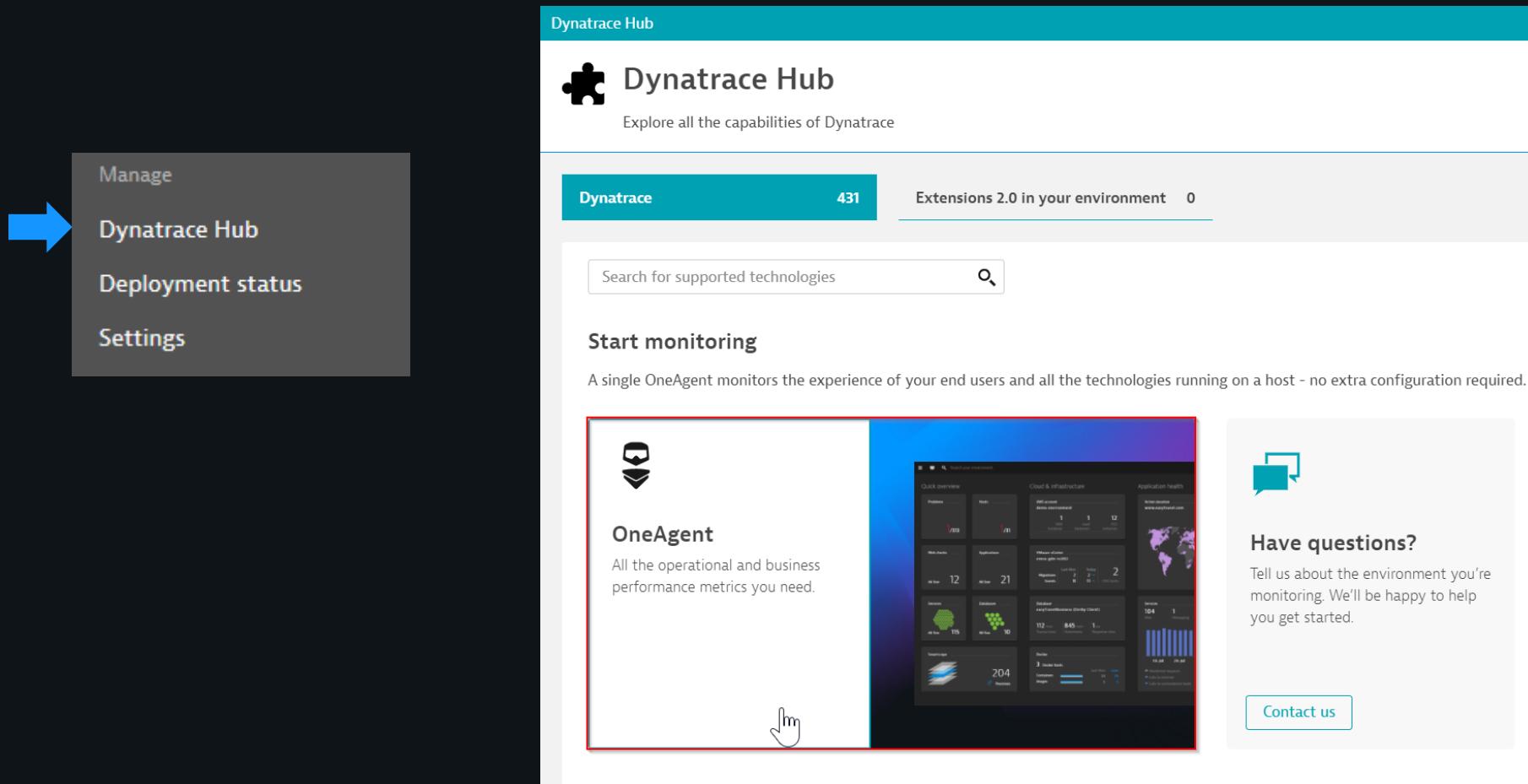
Agent Capability Matrix

Capability	Full Stack	AIX (full stack)	Z/Linux (full stack)	Solaris	Standalone / PaaS	Infrastructure Monitoring
Host Metrics	X	X	X	Limited	Limited	X
Log Monitoring	X					X
Extensions	X					X
JMX/PMI	X	X	X	X	X	X ²
Single Installation	X	X	X	Per Process	Per Process	X
Code Level Insights	X	X	X	X	X	
RUM	X	X	X	X	X	
Auto Update	X	X	X			X
Auto Agent Injection	X	X ¹	X		X	
Technology Support	See Dynatrace Help for full list	IBM Java, WebSphere, and IBM HTTP	Java, Apache/IHS, IIB/MQ	Java & Oracle/Apache HTTP	See Dynatrace Help for full list	See Dynatrace Help for full list

1. Requires feature "Allow AIX kernel extension" OneAgent v1.189+ 2. Requires OneAgent v1.195+

Deploy Dynatrace

- From the environment or tenant use the Dynatrace Hub to download the OneAgent



The screenshot shows the Dynatrace Hub interface. On the left, a sidebar menu is displayed with the following items: Manage, Dynatrace Hub (which is highlighted with a blue arrow), Deployment status, and Settings. The main content area is titled "Dynatrace Hub" and features a sub-header "Explore all the capabilities of Dynatrace". It includes a search bar labeled "Search for supported technologies" and a "Start monitoring" section. This section contains a sub-section titled "OneAgent" which describes it as "All the operational and business performance metrics you need." Below this is a large button with a hand cursor icon pointing towards it. To the right of the OneAgent section is a dashboard preview showing various monitoring metrics. Further to the right is a "Have questions?" section with a message: "Tell us about the environment you're monitoring. We'll be happy to help you get started." A "Contact us" button is located at the bottom of this section.

Deploy Dynatrace

- Select Download OneAgent

The screenshot shows the Dynatrace Hub interface for the OneAgent. At the top, there's a navigation bar with 'Dynatrace Hub' and 'OneAgent'. Below it, the 'OneAgent' section has a header with a robot icon and the text 'All the operational and business performance metrics you need.' A 'Share' button is also present.

About

OneAgent is responsible for collecting all monitoring data within your monitored environment. A single OneAgent per host is required to collect all relevant monitoring data — even if your hosts are deployed within Docker containers, microservices architectures, or cloud-based infrastructure. A single instance of OneAgent can handle monitoring for all types of entities, including servers, applications, services, databases, and more. OneAgent gives you all the operational and business performance metrics you need, from the front-end to the back-end and everything in between — cloud instances, hosts, network health, processes, and services.

[Show documentation](#)

Gallery

This section displays a dashboard for 'CPU1' with various monitoring metrics and a timeline showing '100% Availability' over the last 7 days. A red arrow points downwards from the top of this section towards the 'Download OneAgent' button.

[Download OneAgent](#)

Deploy Dynatrace

- Select the platform where the OneAgent will be installed

Download Dynatrace OneAgent

Select the platform that your applications run on. By continuing, you agree to our [Terms of Service](#).

 Windows  Linux  AIX  Solaris  z/OS  AWS Lambda

 Kubernetes  OpenShift  Azure Web Apps  Cloud Foundry

Or you can use an orchestration script to automate the deployment. See [instructions for verifying an orchestration script](#) in the Dynatrace Help.

 Ansible collection |  Signature

[I use another type of script.](#)

Not ready to install Dynatrace OneAgent?
No problem - we can [email the installation instructions](#) to you and you can download the installer later when you're ready.

Firewall troubles?

Dynatrace OneAgent uses secure socket communication (HTTPS port 443). If your network policy doesn't allow this, [install Dynatrace ActiveGate](#).

No web server access?

If you can't install Dynatrace OneAgent on your web server, try [agentless real user monitoring](#).

Deploy Dynatrace

- Enter a previously created PaaS Token or create a new one
 - Keep track of the token value for future installations
 - Previous token values will not be visible
 - PaaS Tokens can be managed from Settings -> Integration -> Platform as a Service

Platform as a Service tokens				
Token name	Owner	Disable/enable	Delete	Edit
Download Token (generated at [REDACTED])	[REDACTED]	[REDACTED]	X	[REDACTED]
Download Token (generated at [REDACTED])	[REDACTED]	[REDACTED]	X	[REDACTED]
InstallerDownload	[REDACTED]	[REDACTED]	X	[REDACTED]

- Download the installer with the provided link

Download Dynatrace OneAgent for Linux

Install Dynatrace OneAgent on each Linux machine that you want to monitor.

Please enter the PaaS token you have or generate a new one.

PaaS Token

 Create token

 Please copy and store your token in a password manager!
You see the newly generated token only once upon its creation.

Choose installer type: x86/64

1. Download the installer using this command on the target host.

```
wget -O Dynatrace-OneAgent-Linux-1.217.149.sh  
"https://[REDACTED].live.dynatrace.com/api/v1/deployment/installer/agent/  
unix/default/latest?arch=x86&flavor=default" --header="Authorization:  
Api-Token  
[REDACTED]"
```

Copy

2. Verify signature:

```
wget https://ca.dynatrace.com/dt-root.cert.pem ; ( echo 'Content-Type:  
multipart/signed; protocol="application/x-pkcs7-signature";  
micalg="sha-256"; boundary="--SIGNED-INSTALLER"'; echo ; echo ; echo '  
---SIGNED-INSTALLER' ; cat Dynatrace-OneAgent-Linux-1.217.149.sh ) |  
openssl cms -verify -CAfile dt-root.cert.pem > /dev/null
```

Copy

3. Set customized options (optional).

> Set Host Groups, Network Zones and tags.

4. Run the installer with root rights.

```
/bin/sh Dynatrace-OneAgent-Linux-1.217.149.sh
```

Copy

5. Restart the processes that you want to monitor.

Deploy Dynatrace

- Set options to customize the installation command-line
- Consider setting:
 - Network Zone
 - Host Group
 - Custom host properties
- Enable full-stack or infrastructure monitoring
- Enable application log-file access

3. Set customized options (optional).

Set Host Groups, Network Zones and tags.

Network zone	<input type="text" value="et.fl.vmware.linux"/>	What are network zones?
Host group	<input type="text" value="Prod_EasyTravel"/>	What are host groups?
Custom host name	<input type="text"/>	What are custom host names?
Tags	<input type="text"/>	What are tags?
Properties	<input type="text" value="lob= Travel X"/>	What are properties?

Enable full-stack monitoring of infrastructure, application performance and user experience data.

[What's included in full-stack monitoring?](#) If full-stack monitoring is disabled, OneAgent operates in infrastructure-only monitoring mode.

Enable access to application log-file content on this host for problem analysis.

[What insights can Log Monitoring provide?](#)

4. Run the installer with root rights.

```
/bin/sh Dynatrace-OneAgent-Linux-1.217.149.sh --set-network-zone=et.fl.vmware.linux --set-host-group=Prod_EasyTravel --set-host-property=lob=Travel
```

[Copy](#)

5. Restart the processes that you want to monitor.

Installer Options – Host Groups

- Consider defining a Host Group for the installation of hosts with the same role (i.e. Environment and Application)
- This feature should be set during install as changes or updates will require server access and application process restarts
- By default, similar processes and services are detected and grouped together. Host Groups serve as a method of automatically separating processes and services by the group name
 - An example is "Environment_AppName_Function"
 - Such as "Prod_easyTravel_Webservers" vs. "Dev_easyTravel_WebServers"
- This topic will be covered in full later in the training
- More information on Host Groups is available on Dynatrace Help:
<https://www.dynatrace.com/support/help/shortlink/host-groups>

Installer Options – Network Zones

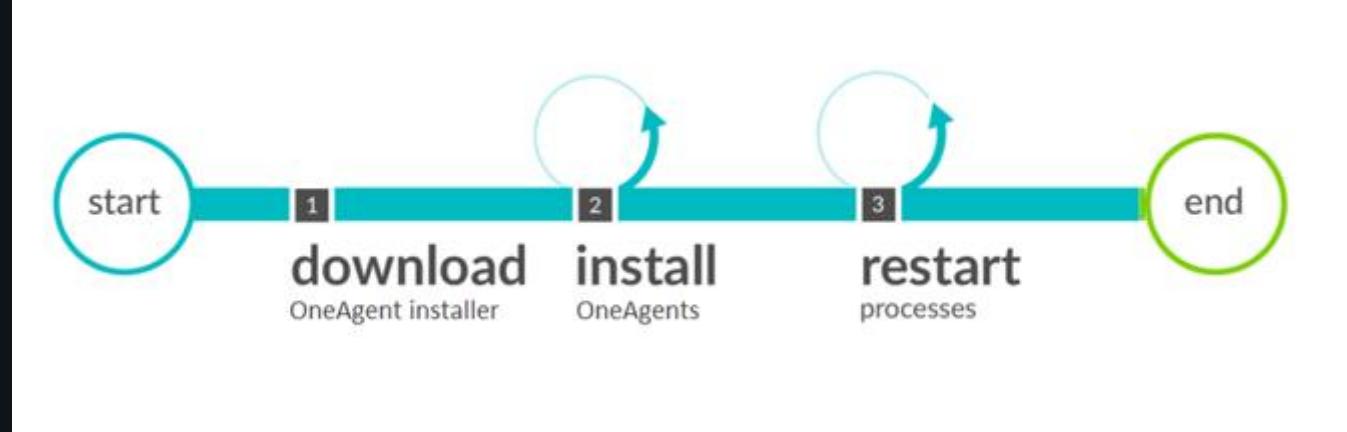
- Consider setting a Network Zone during deployment for the OneAgent
- **This feature should be set during install, changes or updates will require server access**
- Network Zones optimize traffic flow from OneAgents and improve system efficiency
- This topic will be covered in full later in the training
- More information on Network Zones is available on Dynatrace Help:

<https://www.dynatrace.com/support/help/shortlink/network-zones>

Installer Options

- For a full list of OneAgent installer options please see Dynatrace Help topics for the target platform such as:
 - Windows – <https://www.dynatrace.com/support/help/shortlink/windows-custom-installation>
 - Linux - <https://www.dynatrace.com/support/help/shortlink/linux-custom-installation>
 - AIX - <https://www.dynatrace.com/support/help/shortlink/aix-custom-installation>

Three Steps to Install the OneAgent



1. Select your Application Platform
2. Run the installer on a Host
3. Restart your Processes

Restart the Application Processes

- Full process visibility will require restarting the application processes.
- Processes requiring restarts will be indicated in several different screens.
 - Deployment Status Screen
 - Host View
 - Process View
- Limited process metrics will be reported until the process is restarted

Deployment status > OneAgents

OneAgent deployment

Manage your hosts and agents

Filter by

Show only recently connected hosts (last 72h)

Showing 1 host.

Host unit consumption: 0 (for 1 total host)

OS Host name

Prod_EasyTravel - ETSvr - Windows Server 2012 R2 Standard

Host units: 0.5 (currently not consuming) Host group: Prod_EasyTravel IP addresses: 192.168.192.76, 10.0.2.4

Version 1.217.149 Global monitoring Details

Host is monitored.

Your version of Dynatrace OneAgent (1.217.149) is outdated. The latest version is 1.219.130. See details.

Automatically detected processes that support Service insights:

- Prod_EasyTravel - easyTravel (x*)
Process isn't monitored
⚠ Restart this process to gain full visibility into critical process- and service-level metrics.
- Prod_EasyTravel - IIS app pool dotNetFrontend_easyTravel_x64
ASP.NET Process isn't monitored
⚠ Restart this process to gain full visibility into critical process- and service-level metrics.
- Prod_EasyTravel - IIS app pool dotNetBackend_easyTravel_x64
ASP.NET Process isn't monitored
⚠ Restart this process to gain full visibility into critical process- and service-level metrics.

Disable monitoring Detailed monitoring settings

Disable monitoring Detailed monitoring settings

Disable monitoring Detailed monitoring settings

Processes

ASP.NET ASP.NET

Prod_EasyTravel - IIS app pool dotNetBackend_easyTravel_x64

Prod_EasyTravel - IIS app pool dotNetFrontend_easyTravel_x64

Apache Tomcat

Prod_EasyTravel - easyTravel (x*)

IIS IIS

Prod_EasyTravel - IIS

Restart 3 processes to get full visibility

ASP .NET Prod_EasyTravel - IIS app pool do...

Properties and tags

Application: EasyTravel CPU Cores: 2 Environment: Prod HCPOwner: JWL

1 Process → - Traffic - Connectivity → 1 Service → 3 Processes

1 Service

ASP.NET

0.09 * CPU

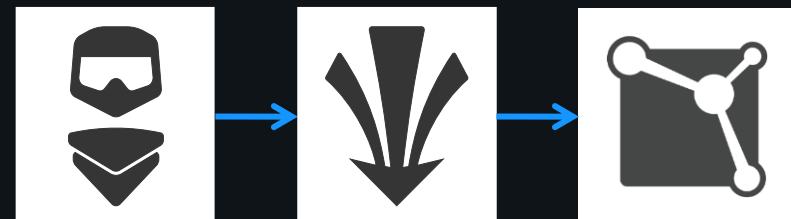
126 MB Memory

This process must be restarted

Dynatrace OneAgent has no access to this process. Restart the process with PID(s) 1804 to start its monitoring.

Additional important details

- Agents will connect to the environment from which it is downloaded
 - Don't modify the Agent configuration files – they will be reset by the OneAgent
 - Use the *oneagentctl* command-line interface on the host to modify the OneAgent after installation.
<https://www.dynatrace.com/support/help/shortlink/oneagentctl>
 - Changing some options will require restarting the OneAgent and/or Application processes
- OneAgent encrypts the data using HTTPS
- Compression is used on the ActiveGate
- Non-privileged mode is used by default on install (v1.193)
 - Fallback to privileged (root) on older Linux distributions



Why are Administrator rights required for Windows?

- During installation <https://www.dynatrace.com/support/help/shortlink/oneagent-security-windows#installation>
 - Creating the Dynatrace OneAgent service
 - Modifying certain registry keys
 - Installing WinPcap
 - Installing oneagentmon device
- During operation <https://www.dynatrace.com/support/help/shortlink/oneagent-security-windows#operation>
 - List all processes
 - Get memory statistics for all processes
 - Read each process command line and environment
 - View the descriptions of executable files
 - Read application configuration for Apache and IIS
 - View the list of libraries loaded for each process
 - Read Windows registry keys
 - Start monitoring network traffic
 - Parse executables for Go Discovery
 - Gather monitoring data related to Docker containers
- LocalSystem Recommended for full extension functionality

Linux non-privileged mode

- By default, superuser privileges are used once to initiate the installation process and then run in non-privileged mode.
- OneAgent is then run under an unprivileged user, retaining the complete set of functionalities.
<https://www.dynatrace.com/support/help/shortlink/non-privileged-mode>
- It creates an unprivileged user called 'dtuser'
- Auto-update still requires root user on some older distributions
 - Kernels without ambient capabilities, version 2.6.26 to 4.3
- Auto-update can be performed under unprivileged 'dtuser'
 - Kernel with ambient capabilities, version 4.3 and later
 - Requires *systemd* version 221 and later
- Installer message will print the outcome of success in enabling non-privileged mode
 - Non-privileged mode is enabled
 - Enabled non-privileged mode, but ambient capabilities are not supported by kernel
 - will fall-back to root user for some capabilities like automatic updates, unless installer is started with DISABLE_ROOT_FALLBACK parameter set (note: this will then mean manual updates are required = not recommended)

Why are root rights required for older Linux distributions?

- During installation:
 - Installing Dynatrace OneAgent components in system library directories
 - Setting up /etc/ld.so.preload to automatically monitor processes
 - Adapting SELinux policies to allow for the monitoring of processes
- During operation:
 - Access the list of open sockets for each process
 - Access the list of libraries loaded for each process
 - Access the name and path of the executable file for each process
 - Access command line parameters for each process
 - Monitor network traffic
 - Read application configuration files

Installation Instructions for other operating systems

- AIX

<https://www.dynatrace.com/support/help/shortlink/oneagent-aix-install>

- Solaris

<https://www.dynatrace.com/support/help/shortlink/oneagent-solaris-install>

- z/OS

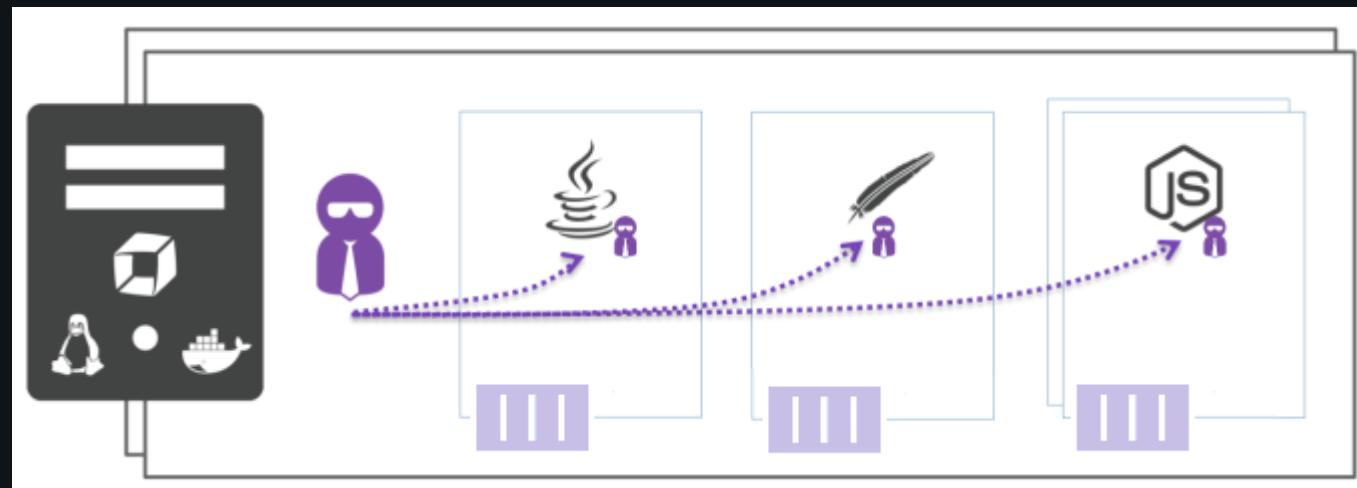
<https://www.dynatrace.com/support/help/shortlink/oneagent-install-zos>

Container Monitoring



Monitoring Docker containers

- OneAgent offers the same deep monitoring capabilities as for non-containerized processes
<https://www.dynatrace.com/support/help/shortlink/docker-basic-concepts>
- If you're using a container orchestration/management tool such as Kubernetes refer to the dedicated documentation or training material
- Monitoring is as simple as deploying OneAgent on the hosts where your containers will reside
- Dynatrace hooks into your containers without requiring image modification or other changes



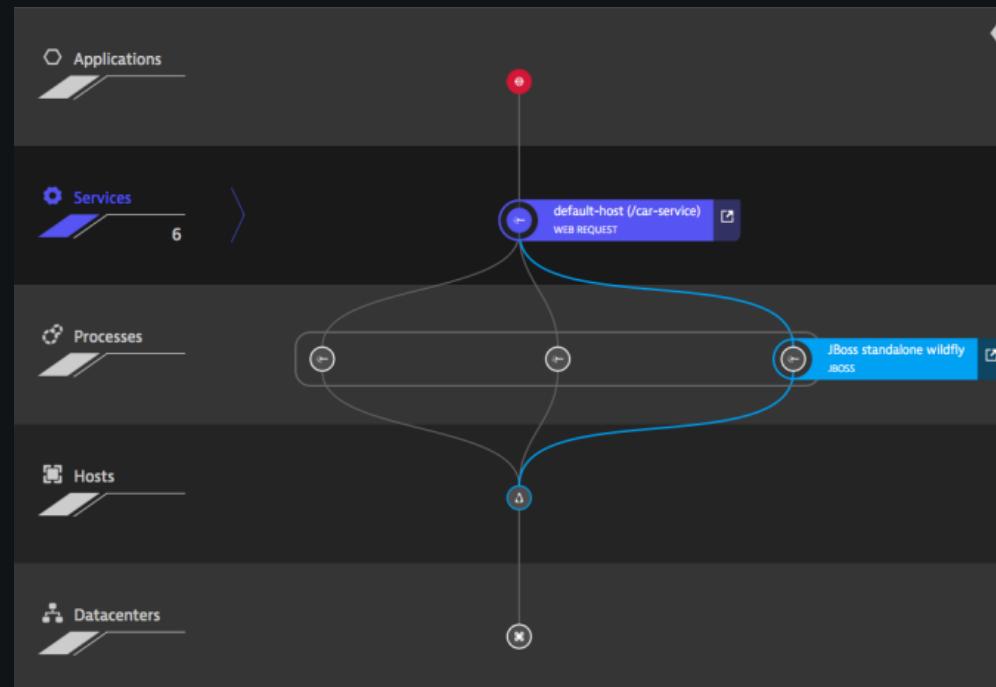
Deploy OneAgent as a Docker container

- In addition to the standard Linux Host installation, OneAgent can be deployed as a container
<https://www.dynatrace.com/support/help/shortlink/oneagent-docker>
- Supported for Linux hosts
- OneAgent container must be allowed to run in privileged mode
- Can be deployed via container orchestration tools
- OneAgent container must be started before the instrumented containers
- Limitations:
 - No deep monitoring of native (i.e. non-containerized) processes
 - No capturing of app crashes and core dumps
 - JMX extensions only work for the processes within the containers
 - Only metrics for disks within the container context are reported, and not disks of the underlying hosts

<https://www.dynatrace.com/support/help/shortlink/oneagent-docker#limitations>

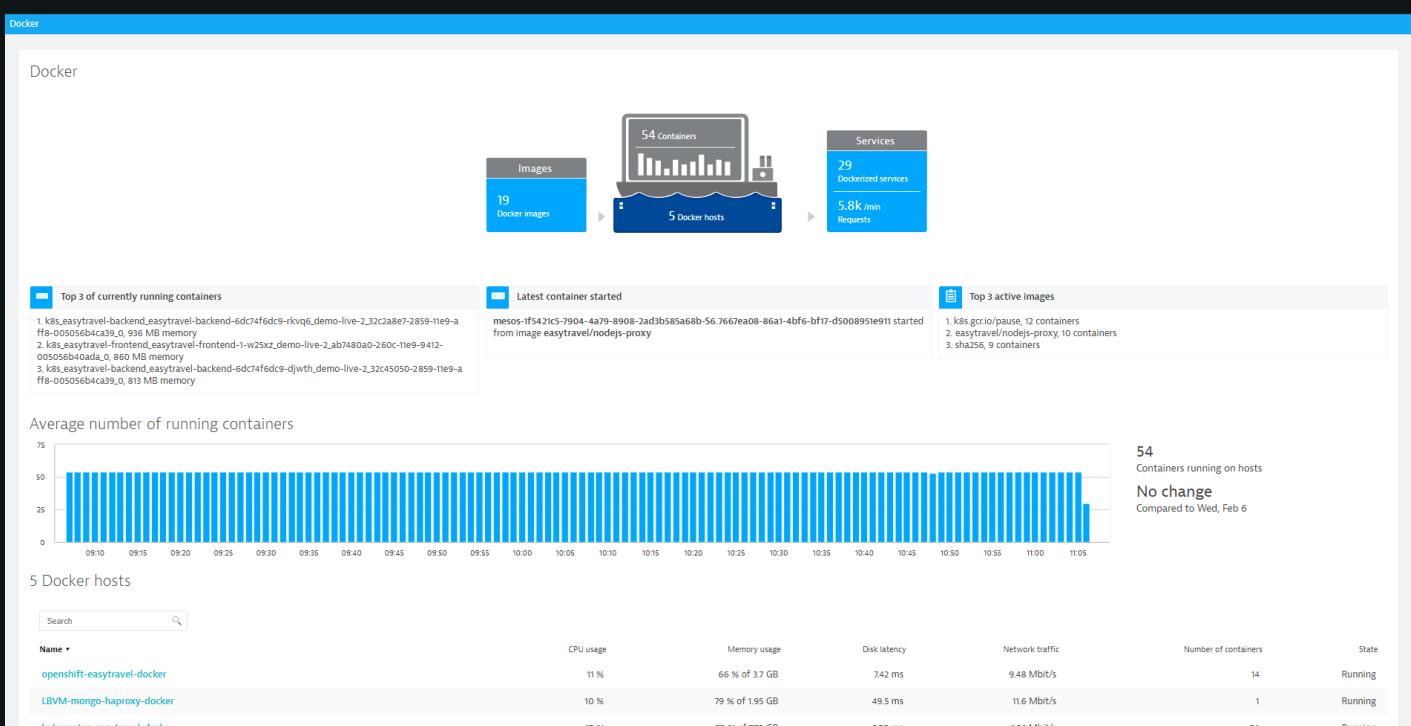
Benefits of container monitoring

- Tracking microservices deployments (often delivered via containers)
- See your containerized services in the context of your wider application (via SmartScape)
- Quick access to container metrics



Container monitoring

- Easily identify:
 - Number of running containers
 - Top 3 containers consuming the most memory
 - Most frequently started containers
 - Most frequently used images
- View container info per host which would normally require executing a 'docker stats' command
 - CPU
 - Memory
 - Traffic
 - Throttling



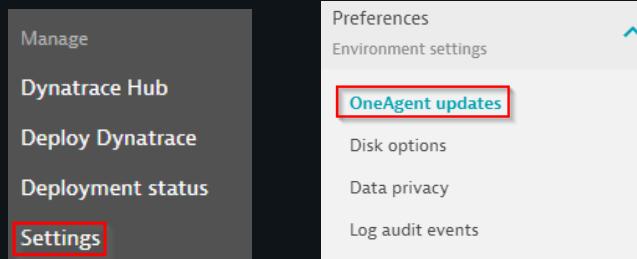
OneAgent Updates

OneAgent Updates

- OneAgent can auto-update, so you don't have to worry about manually updating the agents that are running in your environment
- You will always remain on the latest, most secure and most advanced version of the OneAgent without having to worry about manually installing anything
- By default, automatic updates are turned on
 - You can manage auto-updates globally, by host group or for individual hosts
 - OneAgent updates download all necessary binaries and libraries and installs them for you
 - No manual configuration required
- Some components of OneAgent, keep running in the processes that are monitored (for example, Java, .NET, Apache, IIS, etc.)
 - Those processes continue to be monitored with the previous version of OneAgent until they are restarted

OneAgent Updates

- Permissions are needed to modify the OneAgent update settings



- Specific versions can be selected for installation on new hosts
- Monitor the update status per operating system (Linux, AIX, and Windows)
- Outdated Agents can be updated via links in the view

The screenshot shows the 'OneAgent updates' configuration page. At the top, it says 'Learn what's new in the latest OneAgent update.' Below are three radio button options: 'Automatic updates at earliest convenience', 'Automatic updates during maintenance windows', and 'No automatic updates', with the third one selected. A note states: 'This setting can be overridden for individual hosts at [Settings > Monitoring overview > Hosts](#)'.

Under 'Standard version for all new hosts is:', the version '1.211' is selected, and the revision '144' is shown. A note below says: 'Note: The selected version is also used for P...'.

A dropdown menu titled 'Use the latest' shows the following options: 1.211 (selected), 1.209, 1.207, and 1.205.

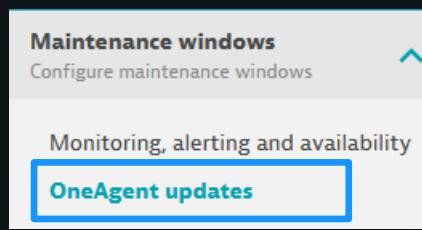
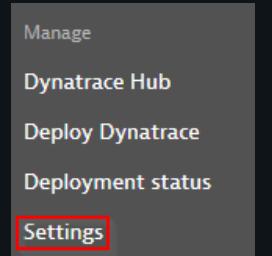
The 'Automatic updates status' section is divided into three sections: 'Linux x86/x64', 'Windows', and 'AIX'.

- Linux x86/x64:** Shows 33 OneAgent instances up-to-date on Version 1.211.144.20210305-115326, and 13 OneAgent instances suppressed.
- Windows:** Shows 19 OneAgent instances up-to-date on Version 1.211.144.20210305-115326.
- AIX:** Shows 1 OneAgent instance up-to-date on Version 1.211.144.20210305-115326.

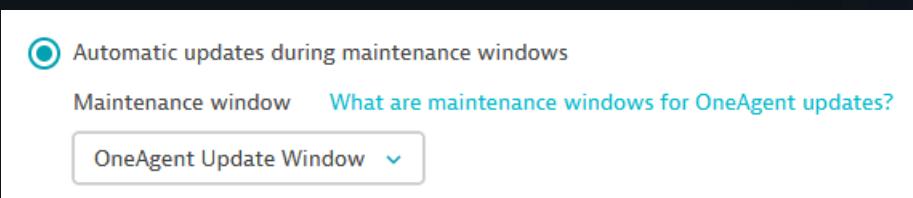
At the bottom, there's a toggle switch for 'Automatically update real user monitoring JavaScript library' and a note: '1 OneAgent instance is outdated (it's on version older than 1.219.130.20210622-110122) with the oldest version 1.217.149.20210528-111116. [Update to specific version](#)'.

OneAgent Maintenance Windows

- Limit OneAgent updates to a specific timeframe with a OneAgent Maintenance Window

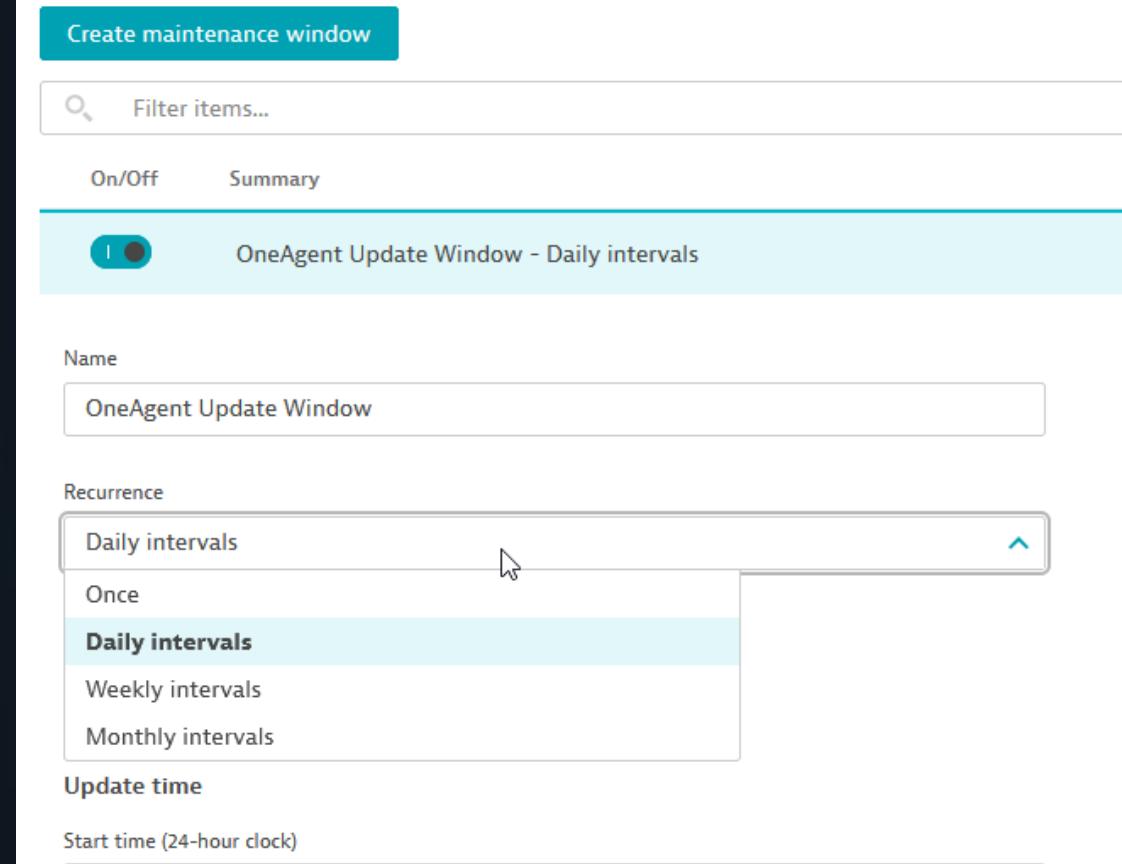


- Select the window with the “Automatic updates during maintenance windows” option.



Maintenance windows for OneAgent updates

Define maintenance windows for how often and when to update your OneAgent instances. You will be able to apply these windows to OneAgents, Host Groups or your whole Environment in Automatic Update settings screens.



Create maintenance window

Filter items...

On/Off Summary

OneAgent Update Window - Daily intervals

Name: OneAgent Update Window

Recurrence:

- Daily intervals
- Once
- Daily intervals**
- Weekly intervals
- Monthly intervals

Update time

Start time (24-hour clock)

New OneAgent Features

OneAgent deep monitoring features

- New features are introduced in an Early Adopter release phase on an opt-in basis.
 - Early Adopter release features are
 - Publicly available
 - Fully supported
 - Production-ready
 - Available as a user opt-in.
 - Early Adopters features can be enabled environment wide – or for specific process groups.
 - To access available OneAgent Early Adopter features:
 - Settings -> Server-side service monitoring -> Deep monitoring
 - Expand New OneAgent features
- <https://www.dynatrace.com/support/help/shortlink/preview-and-early-adopter-releases#early-adopter-release-features>

New OneAgent Features

- Expand the details to view release notes
- Enable Early adopter features as needed

▼ New OneAgent features

Enable OneAgent features that are new, or still in preview.

⚠ 7 Released features are awaiting confirmation [Confirm all](#)

Feature	Status	Technologies	Min. OneAgent version	Requires restart	Disable/Enable	Details
.NET Async Method Hotspots	Early adopter	.NET	1.201	no	<input checked="" type="radio"/> <input type="radio"/>	▲
Description: Enables Method Hotspots for async methods.						
Release notes: https://www.dynatrace.com/news/blog/oneagent-activegate-release-notes-version-1-201						
.NET gRPC	Early adopter	.NET, gRPC	1.195	yes	<input checked="" type="radio"/> <input type="radio"/>	▼
.NET Messaging Apache Kafka	Early adopter	.NET, Apache Kafka	1.209	yes	<input checked="" type="radio"/> <input type="radio"/>	▼
Disable SOAP-Header Tagging for .NET-WCF	Early adopter	.NET, WCF	1.207	no	<input checked="" type="radio"/> <input type="radio"/>	▼
Go SQL	Released	Go	1.187	yes	<input checked="" type="radio"/> <input type="radio"/>	▼

◀ 1 / 6 ▶

What happens once Dynatrace declares a feature GA?

- Once an Early Adopter feature goes GA in an existing environment, the feature isn't enabled by default.
- The status of the new feature changes to **Released**.
- To make newly GA'd features available across your environment they must be enabled
 - Individual features can be enabled
 - Select "Confirm all" to enable all of the released features
- Features are enabled on all OneAgents that fulfill the version requirement.
 - In some cases, you may select the option to activate OneAgents on minimum agent versions.
- The feature is removed from the New OneAgent features list and added to the troubleshooting section of deep monitoring.

The screenshot shows the Dynatrace web interface for managing OneAgent features. At the top, a message indicates there are 7 released features awaiting confirmation, with a red box highlighting the 'Confirm all' button. Below this, the 'Global' tab is selected, showing a list of features. The 'Go SQL' feature is highlighted, showing its status as 'Released', required restart as 'yes', and a 'Disable/Enable' toggle switch which is currently off (red box). The 'Details' link for this feature is also highlighted with a red box. A description for the Go SQL feature states it enables visibility into SQL DB statements in Go applications, with a link to release notes. Below the description, a section titled 'Confirm general availability of feature:' lists several bullet points, with the last one being 'Only OneAgents with version >= 1.201 will receive the feature'. A checkbox for activating the feature on OneAgents with minimum version 1.187 instead of GA version 1.201 is shown, also highlighted with a red box. A 'Confirm' button is at the bottom of this section. The main table below lists other features like IIS Module Insights, Java HTTP Client, Java internal HTTP server, and Node.js grpc-js, each with their own 'Disable/Enable' toggle switches (some are off, some are on, highlighted with red boxes) and dropdown arrows.

Hands On: OneAgent

Hands On: OneAgent

- *Goal:* Install a OneAgent
- *Steps*
 - Go to Dynatrace Hub → OneAgent → Download OneAgent
 - Select your operating system or platform
 - Provide the PaaS token
 - Run the command to download the installer
 - Run the command to verify the installer signature (optional)
 - Select customization options
 - Run the command on the target host to run the installer
 - For Kubernetes/OpenShift, this will instead be your client where `kubectl` or `oc` command is available.
 - Verify in the “Deployment Status” that your agent connected
 - Restart application processes

Hands On: OneAgent

Manage

Dynatrace Hub

Deployment status

Settings

→

Dynatrace Hub

 Dynatrace Hub

Explore all the capabilities of Dynatrace

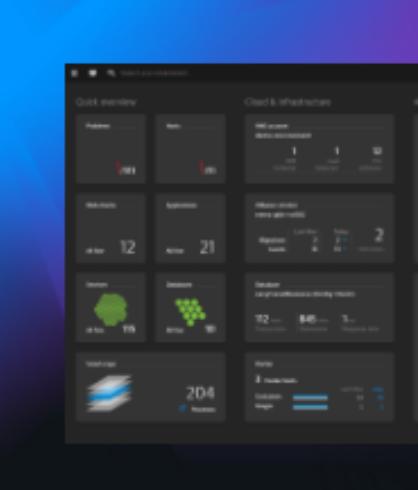
Start monitoring

A single OneAgent monitors the experience of your end users and all the technologies running on a host - no extra configuration required.



OneAgent

All the operational and business performance metrics you need.





Have questions?

Tell us about the environment you're monitoring. We'll be happy to help you get started.

Contact us

Hands On: OneAgent

The screenshot shows the Dynatrace Hub interface for the OneAgent product. At the top, there's a navigation bar with 'Dynatrace Hub' and 'OneAgent'. Below it, the main title 'OneAgent' is displayed with a gear icon, followed by the subtitle 'All the operational and business performance metrics you need.' A 'Share' button is also present.

About

OneAgent is responsible for collecting all monitoring data within your monitored environment. A single OneAgent per host is required to collect all relevant monitoring data — even if your hosts are deployed within Docker containers, microservices architectures, or cloud-based infrastructure. A single instance of OneAgent can handle monitoring for all types of entities, including servers, applications, services, databases, and more. OneAgent gives you all the operational and business performance metrics you need, from the front-end to the back-end and everything in between — cloud instances, hosts, network health, processes, and services.

[Show documentation](#)

Gallery

This section displays several monitoring dashboards:

- CPU**: Shows CPU usage (0.31%), Physical CPU (0.44%), System Load (0.003), and CPU ready time (0.03%). It includes a chart showing 100% Availability over the last 7 days with 0 min total downtime.
- No problems**: Shows system status from Today, 12:29 - 14:29, indicating 100% Availability and 0 min total downtime.
- Processes**: Shows a process named 'Apache Tomcat' with the identifier 'com.dynatrace.easytravel.cmdlauncher.jar easytravel-*-*'.

A large red arrow points downwards from the top of the dashboard area towards the bottom right corner, where a prominent blue button is labeled 'Download OneAgent'.

Hands On: OneAgent

Download Dynatrace OneAgent

Select the platform that your applications run on. By continuing, you agree to our [Terms of Service](#).



Windows



Linux



AIX



Solaris



z/OS



AWS Lambda



Kubernetes



OpenShift



Azure Web Apps



Cloud Foundry

Or you can use an orchestration script to automate the deployment. See [instructions for verifying an orchestration script](#) in the Dynatrace Help.

[Ansible collection](#) | [Signature](#)

[I use another type of script.](#)

Not ready to install Dynatrace OneAgent?

No problem - we can [email the installation instructions](#) to you and you can download the installer later when you're ready.

Firewall troubles?

Dynatrace OneAgent uses secure socket communication (HTTPS port 443). If your network policy doesn't allow this, [install Dynatrace ActiveGate](#).

No web server access?

If you can't install Dynatrace OneAgent on your web server, try [agentless real user monitoring](#).

Hands On: OneAgent

Download Dynatrace OneAgent for Linux

Install Dynatrace OneAgent on each Linux machine that you want to monitor.

Please enter the PaaS token you have or generate a new one.

PaaS Token: [Create token](#)

Choose installer type:

1. Download the installer using this command on the target host.

```
wget -O Dynatrace-OneAgent-Linux-1.217.149.sh  
"https://REDACTED.live.dynatrace.com/api/v1/deployment/installer/agent/  
unix/default/latest?arch=x86&flavor=default" --header="Authorization:  
Api-Token  
REDACTED  
REDACTED"
```

[Copy](#)

2. Verify signature:

```
wget https://ca.dynatrace.com/dt-root.cert.pem ; ( echo 'Content-Type:  
multipart/signed; protocol="application/x-pkcs7-signature";  
micalg="sha-256"; boundary="--SIGNED-INSTALLER"; echo ; echo ; echo '-  
---SIGNED-INSTALLER' ; cat Dynatrace-OneAgent-Linux-1.217.149.sh ) |  
openssl cms -verify -CAfile dt-root.cert.pem > /dev/null
```

[Copy](#)

Hands On: OneAgent

```
[root@... ~]# wget -O Dynatrace-OneAgent-Linux-1.217.149.sh "https://... .live.dynatrace.com/api/v1/deployment/installer/agent/unix/default/latest?arch=x86&flavor=default" --header="Authorization: Api-Token ..."  
--2021-06-25 07:15:41-- https://... .live.dynatrace.com/api/v1/deployment/installer/agent/unix/default/latest?arch=x86&flavor=default  
Resolving ... .live.dynatrace.com (... .live.dynatrace.com)... 18.211.118.34, 75.101.241.31, 34.228.119.66, ...  
Connecting to ... .live.dynatrace.com (... .live.dynatrace.com)|18.211.118.34|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 171935947 (164M) [application/octet-stream]  
Saving to: 'Dynatrace-OneAgent-Linux-1.217.149.sh'  
  
100%[=====]> 171,935,947 8.31MB/s in 17s  
  
2021-06-25 07:16:04 (9.58 MB/s) - 'Dynatrace-OneAgent-Linux-1.217.149.sh' saved [171935947/171935947]
```

```
[root@... ~]#
```

```
[root@... ~]# wget https://ca.dynatrace.com/dt-root.cert.pem ; ( echo 'Content-Type: multipart/signed; protocol="application/x-pkcs7-signature"; micalg="sha-256"; boundary="--SIGNED-INSTALLER"'; echo ; echo ; echo '----SIGNED-INSTALLER'; cat Dynatrace-OneAgent-Linux-1.217.149.sh ) | openssl cms -verify -CAfile dt-root.cert.pem > /dev/null  
--2021-06-25 07:22:09-- https://ca.dynatrace.com/dt-root.cert.pem  
Resolving ca.dynatrace.com (ca.dynatrace.com)... 65.8.248.79, 65.8.248.94, 65.8.248.99, ...  
Connecting to ca.dynatrace.com (ca.dynatrace.com)|65.8.248.79|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 2172 (2.1K) [application/x-pem-file]  
Saving to: 'dt-root.cert.pem.2'  
  
100%[=====]> 2,172 --.-K/s in 0s  
  
2021-06-25 07:22:10 (49.7 MB/s) - 'dt-root.cert.pem.2' saved [2172/2172]  
  
Verification successful  
[root@... ~]#
```

Hands On: OneAgent

3. Set customized options (optional).

Set Host Groups, Network Zones and tags.

Network zone	et.fl.vmware.linux	What are network zones?
Host group	Prod_EasyTravel	What are host groups?
Custom host name		What are custom host names?
Tags		What are tags?
Properties	lob= Travel X	What are properties?

Enable full-stack monitoring of infrastructure, application performance and user experience data.
[What's included in full-stack monitoring?](#) If full-stack monitoring is disabled, OneAgent operates in infrastructure-only monitoring mode.

Enable access to application log-file content on this host for problem analysis.
[What insights can Log Monitoring provide?](#)

4. Run the installer with root rights.

```
/bin/sh Dynatrace-OneAgent-Linux-1.217.149.sh --set-network-
zone=et.fl.vmware.linux --set-host-group=Prod_EasyTravel --set-host-
property=lob=Travel
```

[Copy](#)

5. Restart the processes that you want to monitor.

Hands On: OneAgent

```
[root@[REDACTED] ~]# /bin/sh Dynatrace-OneAgent-Linux-1.217.149.sh --set-network-zone=et.fl.vmware.linux --set-host-group=Prod_EasyTravel --set-host-property=lob=Travel
07:27:53 Checking root privileges...
07:27:53 OK
07:27:53 Logging to /var/log/dynatrace/oneagent/installer/installation_3564.log
07:27:53 Installation started, version 1.217.149.20210528-111116, build date: 28.05.2021, PID 3564.
07:27:53 Detected platform: LINUX arch: X86_64
07:27:53 Checking free space in /opt/dynatrace/oneagent
07:27:54 Extracting...
07:27:54 Unpacking. This may take a while...
07:28:07 Unpacking complete.
07:28:07 Moving new binaries into lib folders...
07:28:08 Applying agent configuration
07:28:10 We detected that SELinux is disabled in your system so we're skipping module installation.
07:28:10 Please note that if you enable SELinux later deep monitoring will stop working and you'll need to reinstall Dynatrace OneAgent.
07:28:12 Checking free space in /lib
07:28:12 Checking free space in /lib64
07:28:13 Verifying auto-injection compatibility...
07:28:14 OK
07:28:14 Refreshing dynamic linker run-time bindings using ldconfig
07:28:15 Red Hat ABRT service disabled
07:28:15 Writing new core_pattern with oneagentdumpproc to /proc/sys/kernel/core_pattern
07:28:15 Adding oneagentdumpproc entry to /etc/sysctl.conf
07:28:17 Starting agents...
07:28:17 oneagent service started
07:28:17 Checking if agent is connected to the server...
07:28:23 Dynatrace OneAgent has successfully connected to Dynatrace Cluster Node. You are all set. The Dynatrace OneAgent is fully operational.
[root@[REDACTED] ~]#
```

Hands On: OneAgent

Deployment status > OneAgents

Deployment status

OneAgent deployment

Add new host

Manage your hosts and agents

Filter by

Show only recently connected hosts (last 72h)

Showing 2 hosts.

Host unit consumption: 1 (for 2 total hosts)

OS	Host name	Version	Global monitoring	Details
	Prod_EasyTravel - - CentOS Linux 7	1.217.149		
Host units: 0.5 Host group: Prod_EasyTravel IP addresses: 10.0.2.11, 192.168.192.25				
Host is monitored.				
<p>ⓘ Your version of Dynatrace OneAgent (1.217.149) is outdated. The latest version is 1.219.130. See details.</p>				
Automatically detected processes that support Service insights:				
<p> Prod_EasyTravel - </p>				
<p>Process isn't monitored</p>				
<p>⚠ Restart this process to gain full visibility into critical process- and service-level metrics.</p>				
<p>Disable monitoring</p>				
<p>Detailed monitoring settings</p>				
	Prod_EasyTravel - ETSvr - Windows Server 2012 R2 Standard	1.217.149		
Host units: 0.5 Host group: Prod_EasyTravel IP addresses: 192.168.192.76, 10.0.2.4				

Questions?



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