



# Server Tagging

Use Server Tagging to query, filter, and compare related servers using custom metadata. You can tag related servers based on OS, location, tier, owner, or any other relevant criteria. Server tags provide additional context to server metrics.

For example, you may want to specify deployment-version tags to the servers in a specific cluster, and then use those tags to identify anomalies in server metrics during a new deployment.

Server Tagging requires a Server Visibility license. Server Tagging is currently available for Linux, Windows, and Solaris.

Server Visibility can import the tags (described in the table) automatically.

Source	Tags	Controller and Agent Requirements
Custom	Server Visibility can import: <ul style="list-style-type: none"> <li>• Custom tags defined in <code>ServerMonitoringConfig.yml</code>. See <a href="#">Defining and Viewing Tags for a Server</a></li> <li>• Custom tags defined in Amazon EC2 (See <a href="#">Tagging EC2 Resources</a> in the Amazon AWS documentation)</li> </ul>	<ul style="list-style-type: none"> <li>• Controller version 4.4 or higher</li> <li>• Standalone Machine Agent version 4.4 or higher</li> </ul>
Machine Agent	These tags display in the Server Dashboard under Tags: <ul style="list-style-type: none"> <li>• OS Architecture</li> <li>• OS Kernel</li> <li>• AppDynamics Agent Version</li> </ul>	<ul style="list-style-type: none"> <li>• Controller version 4.4 or higher</li> <li>• Standalone Machine Agent version 4.2 or higher</li> </ul>
Amazon Web Services	These tags display in the Server Dashboard under Tags as <code>AWS   &lt;tag&gt;</code> . See <a href="#">Importing Tags from Amazon Web Services</a> <ul style="list-style-type: none"> <li>• <code>resource-id</code></li> <li>• <code>availability-zone</code></li> <li>• <code>region</code></li> <li>• <code>ami-id</code></li> <li>• <code>instance-type</code></li> <li>• <code>security-group</code></li> </ul>	<ul style="list-style-type: none"> <li>• Controller version 4.4 or higher</li> <li>• Standalone Machine Agent version 4.4 or higher</li> </ul>
Docker	Server Visibility can import user-defined tags and system container-level tags. These display under <b>Container Details &gt; Tags</b> as <code>Docker   &lt;tag&gt;</code> .  The exact set of tags imported can vary depending on the system on which the container is running.	<ul style="list-style-type: none"> <li>• Controller version 4.4.3 or higher</li> <li>• Standalone Machine Agent version 4.4.3 or higher</li> </ul>
Kubernetes OpenShift	Server Visibility can import ReplicaSet and pod tags. These appear under <b>Container Details &gt; Tags</b> as <code>K8s   &lt;tag&gt;</code> .	<ul style="list-style-type: none"> <li>• Controller version 4.4.3 or higher</li> <li>• Standalone Machine Agent version 4.4.3 or higher</li> </ul>

## View Servers by Tag in the Controller UI

To view filter servers by tag in the Servers list, select **Filters** and add the criteria you want for the tag filter. If you specify multiple criteria, the filter performs an AND search (for criteria with different keys) and an OR search (for criteria with the same key). This example shows the tag criteria filters for all servers with:

1. A **Tier** tag that equals **ECommWeb** OR **ECommInventory**, AND
2. An **OS Architecture** tag that equals **x86\_64**.

## Servers

OS	Name ↑	Hierarchy	He...	Disk Usage (%)	Disk Usage (%) Trend	CPU (%)	CPU (%) Trend	Memory (%)	Memory (%) Trend
	AD-Travel_MA	AD-Travel		100.0		4.0		47.0	
	ECommerce_MA	ECommerce		29.0		23.0		48.0	

## Define and View Tags for a Server

You can specify custom tags as a set of key-value strings in the Agent config directory. Each Agent can support up to 50 tags by default.

 Follow these suggested best practices to define server tags:

If an Agent is deployed in Amazon Web Services, the Agent can auto-detect and import tags defined in AWS. The Controller also auto-assigns a set of default tags to each server.

*The primary use case for custom tags is to specify information that is not already specified in AWS and auto-assigned tags.* Before you specify custom tags in the Agent config directory, you should review the current set of tags. Access the Server Dashboard and view the Tags pane at the bottom of the page:

Home Applications User Experience Databases **Servers** Analytics Dashboards & Reports Alert & Respond

AD-Financial\_MA Baseline... last 1 hour

Dashboard Processes Volumes Network Containers

Class	Cur...	CPU (%)	Memory (%)	PID	PPID
▶ java	23	27.0	63.0	MULTIPLE	MULTIPLE
▶ mongod	3	9.0	3.0	MULTIPLE	MULTIPLE
▶ node	18	3.0	8.0	MULTIPLE	MULTIPLE
▶ appd-netmon	19	0.0	0.0	MULTIPLE	MULTIPLE
▶ agetty	2	0.0	0.0	MULTIPLE	1
▶ acpid	1	0.0	0.0	1205	1
▶ accounts-daemon	1	0.0	0.0	1192	1
▶ (sd-pam)	1	0.0	0.0	5484	5455
▶ docker-containe	35	0.0	0.0	MULTIPLE	MULTIPLE
▶ appd-netagent	19	0.0	16.0	MULTIPLE	MULTIPLE

Class	Cur...	CPU (%)	Memory (%)	PID
▶ java	23	27.0	63.0	MULTIPLE
▶ appd-netagent	19	0.0	16.0	MULTIPLE
▶ node	18	3.0	8.0	MULTIPLE
▶ mongod	3	9.0	3.0	MULTIPLE
▶ appd-netmon	19	0.0	0.0	MULTIPLE
▶ agetty	2	0.0	0.0	MULTIPLE
▶ acpid	1	0.0	0.0	1205
▶ accounts-daemon	1	0.0	0.0	1192
▶ (sd-pam)	1	0.0	0.0	5484
▶ docker-containe	35	0.0	0.0	MULTIPLE

Tags 7 Q

Tag Name	Tag Values
AWS instance-type	m5.4xlarge
AppDynamics Agent version	Machine Agent v4.5.0.1270 GA Build Date 2018-05-30 08:26:34
AWS region	us-west-1
AWS ami-id	ami-511ff332
AWS security-group	Demo_Apps
AWS availability-zone	us-west-1b
AWS Name	Financial Test

Be careful not to define duplicate tags in the YML file.

Configure the following option in `<machine_agent_home>/extensions/ServerMonitoring/ServerMonitoringConfig.yml`:

Setting	Description
tag	<p>A list of user-defined tags for the individual server. You can use these tags to query, filter, aggregate, and compare related servers.</p> <p>Each tag is specified by a key-value pair. You can define tag names up to 127 Unicode characters and tag values up to 255 Unicode characters. Define each key on a separate line. All key-value strings should be within single quotes. If a key has multiple values, delineate the list with commas:</p> <pre>&lt;key&gt;: [ &lt;value&gt; ] tags:   'Location': ['NYC', 'Data Center', 'Server Room 7']   'Environment': ['preProduction']</pre>

# Import Tags from Amazon Web Services

 Detailed information about Amazon Web Services is outside the scope of AppDynamics documentation.

Before Server Visibility can import tags from AWS, you must set up IAM roles:

1. Log in to the AWS console: <https://console.aws.amazon.com/iam/>
2. Create a role with read access to EC2 tags.  
Specifically, the role must have an AWS Managed Policy with the required permissions (such as, AmazonEC2ReadOnlyAccess) attached.
3. Add this role to your EC2 instance.  
For information about these steps, search for "To create an IAM role using the IAM console" and "Attaching an IAM Role to an Instance" in this [page](#).
4. Run the Machine Agent with Amazon Web Services enabled.

## Configuration Options for Server Tagging

To edit these settings, log in to the Controller administration console using the `root` user password. See [Access the Administration Console](#)

Server Visibility Property	Description	Default
<code>sim.machines.tags.enabled</code>	Enable or disable server tags for all servers	True
<code>sim.machines.tags.aws.enabled</code>	Enable or disable the collection of AWS tags for all servers	True
<code>sim.machines.tags.aws.pollingInterval</code>	Length of time in milliseconds between each polling of AWS tags	21600000 (6 hours)
<code>sim.machines.tags.maxPerMachine</code>	Maximum number of unique tags per account	50
<code>sim.machines.tags.maxPerAccount</code>	Maximum number of unique tags per account	500

## Configuration Options for Docker Tags

You can configure the Machine Agent to collect different types of tags. By default, all tags are collected. To turn off tag collection, set `dockerTagsEnabled` to "false".

1. Edit the `<machine_agent_home>/extensions/DockerMonitoring/DockerMonitoringConfig.yml` file.
2. Under the `containerMonitoringConfig` section, set `dockerTagsEnabled: "false"`

```

# WARNING: Before making any changes to this file read the following section carefully
#
# After editing the file, make sure the file follows the yml syntax. Common issues include
# - Using tabs instead of spaces
# - File encoding should be UTF-8
#
# The safest way to edit this file is to copy paste the examples provided and make the
# necessary changes using a plain text editor instead of a WYSIWYG editor.
#

# samplingInterval indicates how often to gather metric data. Units in milliseconds.
samplingInterval: 30000

containerMonitoringConfig:
  # containerProcessSelectorRegex defines regular expression to evaluate the processes in
  # each running container to be monitored by the machine agent. The regular expression is
  # compared against each process full command line within running
  # If the pattern matches, then the machine agent start monitoring it.
  containerProcessSelectorRegex: ".*[ ]-Dappdynamics.*"
  dockerTagsEnabled: "false"

```

## Configuration Options for AWS Tags

You can configure the Machine Agent to collect different types of tags. By default, all tags are collected. To turn off tag collection, set `awsTagsEnabled` to `"false"`.

1. Edit the `<machine_agent_home>/extensions/ServerMonitoring/conf/ServerMonitoring.yml` file.
2. Set `awsTagsEnabled: "false"`

```

//ServerMonitoring.yml
# WARNING: Before making any changes to this file read the following section carefully
#
# After editing the file, make sure the file follows the yml syntax. Common issues include
# - Using tabs instead of spaces
# - File encoding should be UTF-8
#
# The safest way to edit this file is to copy paste the examples provided and make the
# necessary changes using a plain text editor instead of a WYSIWYG editor.
#
awsTagsEnabled: "false"
# samplingInterval indicates how often to gather metric data. Units in milliseconds.
samplingInterval: 30000
...

```

## Configuration Options for Kubernetes and OpenShift Tags

You can configure the Machine Agent to collect different types of tags. By default, all tags are collected. To turn off tag collection, set `k8sTagsEnabled` to `"false"`.

1. Edit the `<machine_agent_home>/extensions/ServerMonitoring/conf/ServerMonitoring.yml` file.
2. Set `k8sTagsEnabled: "false"`

```
//ServerMonitoring.yml
# WARNING: Before making any changes to this file read the following section carefully
#
# After editing the file, make sure the file follows the yml syntax. Common issues include
# - Using tabs instead of spaces
# - File encoding should be UTF-8
#
# The safest way to edit this file is to copy paste the examples provided and make the
# necessary changes using a plain text editor instead of a WYSIWYG editor.
#
k8sTagsEnabled: "false"
# samplingInterval indicates how often to gather metric data. Units in milliseconds.
samplingInterval: 30000
...
```