



# Server Tagging

**On this page:**

- [Viewing Servers by Tag in the Controller UI](#)
- [Defining and Viewing Tags for a Server](#)
- [Importing Tags from Amazon Web Services](#)
- [Configuration Options for Server Tagging](#)
- [Configuration Options for Docker Tags](#)
- [Configuration Options for AWS Tags](#)
- [Configuration Options for Kubernetes and OpenShift Tags](#)



Server tagging makes it easy 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 might want to specify deployment-version tags to the servers in a specific cluster; then you can use these 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 following tags automatically.

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

## Viewing Servers by Tag in the Controller UI

View filter servers by tag in the Servers list, click the Filters button 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). In the following example, the tag criteria filters 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	<div style="width: 100%;"></div>	4.0	<div style="width: 4%;"></div>	47.0	<div style="width: 47%;"></div>
	ECommerce_MA	ECommerce	!	29.0	<div style="width: 29%;"></div>	23.0	<div style="width: 23%;"></div>	48.0	<div style="width: 48%;"></div>

## Defining and Viewing 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.

**i** Note the following good practices for defining 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, it is good practice to review the current set of tags: go to the Server Dashboard and view the Tags pane at the bottom of the page.*

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	PPID
java	23	27.0	63.0	MULTIPLE	MULTIPLE
appd-netagent	19	0.0	16.0	MULTIPLE	MULTIPLE
node	18	3.0	8.0	MULTIPLE	MULTIPLE
mongod	3	9.0	3.0	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

  

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-511f332
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>

## Importing Tags from Amazon Web Services

 Detailed information about Amazon Web Services is outside the scope of AppDynamics documentation. The following links are provided as a convenience and might not work if Amazon reorganizes its website or 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 that has 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 two steps, search for "To create an IAM role using the IAM console" and "Attaching an IAM Role to an Instance" in the following page:  
<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html>
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
sim.machines.tags.enabled	Enable/disable server tags for all servers.	True
sim.machines.tags.aws.enabled	Enable/disable the collection of AWS tags for all servers.	True
sim.machines.tags.aws.pollingInterval	Length of time in milliseconds between each polling of AWS tags	21600000 (6 hours)
sim.machines.tags.maxPerMachine	Maximum number of unique tags per account.	50
sim.machines.tags.maxPerAccount	Maximum number of unique tags per account.	500

## Configuration Options for Docker Tags

The machine agent can be configured to collect different types of tags. By default, all tags are collected. To turn off tag collection, set `dockerTagEnabled` 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

The machine agent can be configured 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

The machine agent can be configured 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
...
```