Red Hat JBoss A-MQ 6.0

Console Reference

Quick access to the commands used to manage the broker

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Abstract

The primary interface for managing a message broker is the command console. This reference provides an easy way to see the commands, their syntax, and options.

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CHAPTER 1. USING THE COMMAND CONSOLE

OVERVIEW

The Red Hat JBoss A-MQ command console is a tool for both managing the JBoss A-MQ environment and interacting with a fabric. When you start JBoss A-MQ you can launch into a mode that displays the command console. You can also use a remote command console to connect to a broker.

The console provides commands that you can use to perform basic management of your JBoss A-MQ environment, including managing destinations, connections and other administrative objects in the broker.

The console uses prefixes to group commands relating to the same functionality. For example commands related to configuration are prefixed **`config:`**, and logging-related commands are prefixed **`log:`**.

STARTING THE COMMAND CONSOLE

To start JBoss A-MQ open a console at the installation directory and enter:

Windows	**`bin\amq.bat`**
***NIX**	**`bin/amq.sh`**

JBoss A-MQ starts and the console is ready. You should see the prompt shown in Example 1.1, "The Red Hat JBoss A-MQ Console".

Example 1.1. The Red Hat JBoss A-MQ Console

```
 _ ____ __ __ ____ | | _ \ /\ | \/ |/ __ \ | | |_) | ___ ___ ___ / \
______| \ / | | | | _ | | _ < / _ \/ __/ __| / /\ \______| |\/| | | | | |
|__| | |_) | (_) \__ \__ \ \ / ____ \ | | | | |__| | \____/|____/
\___/|___/___/ /_/ \_\ |_| |_|\___\_\ JBoss A-MQ (6.0.0.redhat-012)
http://www.redhat.com/products/jbossenterprisemiddleware/amq/ Hit
'<tab>' for a list of available commands and '[cmd] --help' for help on
a specific command. Hit '<ctrl-d>' or 'osgi:shutdown' to shutdown JBoss
A-MQ. JBossA-MQ:karaf@root>
```

GETTING HELP

The console provides two levels of help:

- console help—list all of the commands along with a brief summary of the commands function
- command help—a detailed description of a command and its arguments

To access the console help you use the **`help`** command from the console prompt (or the equivalent **`man`** command alias). It will display a grouped list of all the commands available in the console. Each command in the list will be followed by a description of the command as shown in Example 1.2, "Console Help".

Example 1.2. Console Help

```
JBossA-MQ:karaf@root> help
COMMANDS activemq:browse activemq:bstat activemq:list activemq:purge
activemq:query admin:change-opts Changes the Java options of an existing
container instance. admin:change-rmi-registry-port Changes the RMI
registry port (used by management layer) of an existing container
instance.
    ...
JBossA-MQ:karaf@root>
```

The help for each command includes the definition, the syntax, and the arguments and any options. To display the help for a command, type the command with the **`--help`** option. As shown in Example 1.3, "Help for a Command", entering **`admin:start --help`** displays the help for that command.

Example 1.3. Help for a Command

```
JBossA-MQ:karaf@root> admin:start --help
DESCRIPTION admin:start Starts an existing container instance. SYNTAX
admin:start [options] name ARGUMENTS name The name of the container
instance OPTIONS --help Display this help message -o, --java-opts Java
options when launching the instance
JBossA-MQ:karaf@root>
```

COMMAND COMPLETION

Pressing **Tab** at anytime will provide you with a list of commands that can complete what you have already entered at the prompt. For example if you entered **`active`** followed by **Tab** a list similar to Example 1.4, "Console Commands" will be shown.

Example 1.4. Console Commands

```
activemq:browse activemq:bstat activemq:list activemq:purge
activemq:query JBossA-MQ:karaf@root>
```

If you press **Tab** without entering anything at the prompt, the console will list all of the possible commands.

COMMAND GROUPS

Commands are grouped under prefixes according to functionality. Table 1.1, "Red Hat JBoss A-MQ Command Groups" summarizes the command groups available in the console. Click on a command group name for more information.

Table 1.1. Red Hat JBoss A-MQ Command Groups

Command Group	Description
activemq	Views and manages brokers and messages.
admin	Creates, manages, and destroys containers.
config	Manages configuration.
dev	Utilities that are useful for a developer while testing bundles in the container.
fab	Manages the dependency resolution mechanism used by Fuse Application Bundles.
fabric	Performs provisioning and configuration using Fuse Fabric.
features	Performs provisioning based on Apache Karaf feature specs.
jaas	Manages the console's security settings.
log	Displays and configures logging.
osgi	Manages the OSGi bundle repository.
patch	Manages patches.
packages	Lists imported and exported packages.
shell	Performs basic console functions
ssh	Creates and connects to a remote SSH server
web	Lists the WARs deployed in the container.
zk	Accesses and modifies entries in the Zookeeper registry.

SHORT VERSION

Many of the console commands allow you to omit the group prefix.

If the command is only in one command groups, you can omit the group prefix. For example, you can enter **`bstat`** in place of **`activemq:bstat`** because it only exists in the activemq command group.

If the command exists in multiple command groups, you can still drop the prefix and the console will default to using the version of the command from one of the following command groups:

- shell
- osgi
- admin

For example, **info** is equivalent to **shell:info**. If you wanted to use **osgi:info**, you need to enter the full command.

PROPERTIES AND SYSTEM PROPERTIES

The console allows you to define custom properties, which can be useful when writing shell scripts for the console. Define properties using a simple assignment expression, ***PropertyName = Value***, and access the property value with the syntax **$*PropertyName*** or **${*PropertyName*}**. and For example, to define the **foo** property:

```
JBossA-MQ:karaf@root> foo = fooValue
fooValue
JBossA-MQ:karaf@root> echo $foo
fooValue
```

You can also use this syntax to access JVM System Properties. For example:

```
JBossA-MQ:karaf@root> echo ${karaf.name}
root
```

CHAPTER 2. SHELL CONSOLE COMMANDS

The shell command group provides a number of commands that provide basic console functions such as displaying system information and showing the contents of files.

Type **shell:** then press **Tab** at the prompt to view the commands in this group.

NAME

shell:cat, cat — displays the contents of a file or URL

SYNOPSIS

shell:cat [-n] [--help] {[*path*] | [*URL*]}

ARGUMENTS

Table 2.1, "**shell:cat** Arguments" describes the arguments for this command.

Table 2.1. shell:cat Arguments

Argument	Interpretation
-n	Display line numbers.
--help	Displays the online help for this command
path	The path(s) of the file to display, separated by whitespace (separated by **-** for STDIN)
URL	The URL(s) to display, separated by whitespace (separated by **-** for STDIN)

NAME

shell:clear, clear — clears the console buffer

SYNOPSIS

shell:clear [--help]

ARGUMENTS

Table 2.2, "**shell:clear** Arguments" describes the command's arguments.

Table 2.2. shell:clear Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME
shell:each, each — execute a closure on a list of arguments

SYNOPSIS
shell:each [--help] { *values* } { *function* }

ARGUMENTS
Table 2.3, "**shell:each** Arguments" describes the command's arguments.

Table 2.3. shell:each Arguments

Argument	Interpretation
--help	Displays the online help for this command
values	The collection of arguments to iterate over.
function	The function to execute.

NAME
shell:echo, echo — prints arguments to the standard output

SYNOPSIS
shell:echo [--help] [-n] { argument ...}

ARGUMENTS
Table 2.4, "**shell:echo** Arguments" describes the command's arguments.

Table 2.4. shell:echo Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-n	Do not print the trailing newline character.
argument	Specifies a space delimited list of arguments to print.

NAME
shell:exec, exec — executes system processes

SYNOPSIS
shell:exec [--help] { *command* }

ARGUMENTS

Table 2.5, "`shell:exec` Arguments" describes the command's arguments.

Table 2.5. `shell:exec` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
command	Specifies the command, with arguments, to execute.

NAME

shell:grep, grep – displays lines matching a regular expression

SYNOPSIS

`shell:grep` [--help] [[-i] | [--ignore-case]] [[-w] | [--word-regexp]] [[-n] | [--line-number]] [[-x] | [--line-regexp]] [[-v] | [--invert-match]] { *regex* }

ARGUMENTS

Table 2.6, "`shell:grep` Arguments" describes the command's arguments.

Table 2.6. `shell:grep` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
`-i, --ignore-case`	Ignore case distinctions in both the*regex* and the input files.
`-w, --word-regexp`	Select only lines containing matches that form whole words. A match qualifies if it meets one of the following conditions: • The matching string is at the beginning of the line. • The matching string is preceded by a non-word constituent character. • The matching string is at the end of the line. • The matching string is followed by a non-word constituent character.
`-n, --line-number`	Display the line number of the match within its input file.

Argument	Interpretation
-x, --line-regexp	Selects only those matches that exactly match the whole line.
-v, --invert-match	Select non-matching lines.
regex	Specifies the regular expression to match.

NAME
shell:head, head — displays the first lines of a file

SYNOPSIS
shell:head [--help] [-n *numLines*] {[*path*] | [*URL*]}

ARGUMENTS
Table 2.7, "**shell:head** Arguments" describes the command's arguments.

Table 2.7. shell:head Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-n	Specifies the number of lines to display. Default is 1.
path	The path(s) of the file to display, separated by whitespace (separated by **-** for STDIN)
URL	Specifies the URL(s) to display, separated by whitespace (separated by **-** for STDIN)

NAME
shell:history, history — prints the command history

SYNOPSIS
shell:history [--help]

ARGUMENTS
Table 2.8, "**shell:history** Arguments" describes the arguments for this command.

Table 2.8. shell:history Arguments

Argument	Interpretation
`--help`	Displays the online help for this command

NAME
shell:if, if – executes an if/then/else block

SYNOPSIS
`shell:if` [--help] { *condition* } { *ifTrue* } [*ifFalse*]

ARGUMENTS
Table 2.9, "**`shell:if`** Arguments" describes the command's arguments.

Table 2.9. `shell:if` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
condition	Boolean condition.
ifTrue	Function to evaluate, if condition is true.
ifFalse	Function to evaluate, if condition is false.

NAME
shell:info, info – displays system information and statistics about the container

SYNOPSIS
`shell:info` [--help]

ARGUMENTS
Table 2.10, "**`shell:info`** Arguments" describes the command's arguments.

Table 2.10. `shell:info` Arguments

Argument	Interpretation
`--help`	Displays the online help for this utility

NAME

shell:java, java — execute a Java application

SYNOPSIS

shell:java [--help] [[-m] | [--method] ***methodName***] { *className* } [*arguments*]

ARGUMENTS

Table 2.11, "**shell:java** Arguments" describes the command's arguments.

Table 2.11. shell:java Arguments

Argument	Interpretation
--help	Displays the online help for this command
-m, **--method**	Specifies the name of a method to invoke. The default is **main()**.
className	Specifies the name of the class to invoke.
arguments	Specifies the arguments to pass to the method of the given *className*.

NAME

shell:logout, logout — disconnects the shell from the current session

SYNOPSIS

shell:logout [--help]

ARGUMENTS

Table 2.12, "**shell:logout** Arguments" describes the command's arguments.

Table 2.12. shell:logout Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME

shell:more, more — displays output as pages of a specified length

SYNOPSIS

shell:more [--help] [--lines *numLines*]

ARGUMENTS

Table 2.13, "**shell:more** Arguments" describes the command's arguments.

Table 2.13. `shell:more` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`--lines`	Specifies the number of lines to display before pausing.

NAME
shell:new, new – creates a new Java object of the specified class

SYNOPSIS
`shell:new` [--help] { *class* } [*arg* ...]

ARGUMENTS
Table 2.14, "`shell:new` Arguments" describes the command's arguments.

Table 2.14. `shell:new` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
class	The class of the object to create.
args	The constructor arguments.

NAME
shell:printf, printf – formats and prints the specified output

SYNOPSIS
`shell:printf` [--help] { *format* } { *arguments* }

ARGUMENTS
Table 2.15, "`shell:printf` Arguments" describes the command's arguments.

Table 2.15. `shell:printf` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`format`	The output format pattern to use

Argument	Interpretation
arguments	The arguments for the given format pattern

NAME
shell:sleep, sleep — sleeps for a specified time, then wakes up

SYNOPSIS
shell:sleep [--help] [[-s] | [--second]] { *duration* }

ARGUMENTS
Table 2.16, "**shell:sleep** Arguments" describes the command's arguments.

Table 2.16. shell:sleep Arguments

Argument	Interpretation
--help	Displays the online help for this command
-s, --second	Specify the duration in seconds (instead of milliseconds).
duration	The time to sleep in milliseconds (default) or in seconds (with the **-s** option).

NAME
shell:sort, sort — writes a sorted concatenation of the specified files to standard output

SYNOPSIS
shell:sort [--help] [[-t] | [--field-separator] ***sep***] [[-b] | [--ignore-leading-blanks]] [[-f] | [--ignore-case]] [[-r] | [--reverse]] [[-k] | [--key] ***keys***] [[-n] | [--numeric-sort]] [[-u] | [--unique]] { *file* ...}

ARGUMENTS
Table 2.17, "**shell:sort** Arguments" describes the command's arguments.

Table 2.17. shell:sort Arguments

Argument	Interpretation
--help	Displays the online help for this command
-t, **--field-separator**	Specifies a character to use as a field separator. The default is whitespace.

Argument	Interpretation
-b, **--igonore-leading-blanks**	Igonores leading blanks.
-f, **--ignore-case**	Ignores case when sorting.
-r, **--reverse**	Reverses the result of the sort.
-k, **--key**	Specifies a space delimited list of fields to use for sorting.
-n, **--numeric-set**	Compares according to string numerical value.
-u, **--unique**	Outputs only the first of an equal run.
files	Specifies a space delimited list of files to sort.

NAME
shell:source, source — run a shell script

SYNOPSIS
shell:source [--help] { *script* } [*arguments*]

ARGUMENTS
Table 2.18, "**shell:source** Arguments" describes the command's arguments.

Table 2.18. shell:source Arguments

Argument	Interpretation
--help	Displays the online help for this command
script	A URI pointing to the script
arguments	Arguments to pass to the script

NAME
shell:tac, tac — captures the STDIN and returns it as a string and optionally writes the content to a file

SYNOPSIS
shell:tac [--help] [-f *fileName*]

ARGUMENTS

Table 2.19, "`shell:tac` Arguments" describes the command's arguments.

Table 2.19. `shell:tac` Arguments

Option	Interpretation
`--help`	Displays the online help for this command
`-f`	Specifies the name of the file into which the output is written.

NAME

shell:tail, tail — displays the last lines of a file

SYNOPSIS

`shell:head` [--help] [-n *lineNum*] [-s *seconds*] [-f] {[*path*] | [*URL*]...}

ARGUMENTS

Table 2.20, "`shell:tail` Arguments" describes the command's arguments.

Table 2.20. `shell:tail` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
`-n`	Specifies the number of lines to display. The default is 1.
`-s`	Specifies the interval, in seconds, to sleep before checking for changes to display.
`-f`	Follow file changes.
`path`	A space delimited list of file paths to display.
`URL`	A space delimited list of file URLs to display.

NAME

shell:watch, watch — watches and refreshes the output of a command

SYNOPSIS

`shell:watch` [--help] [[-n] | [--interval] ***seconds***] { *command* }

ARGUMENTS

Table 2.21, "`shell:watch` Arguments" describes the command's arguments.

Table 2.21. `shell:watch` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-n`,`--interval`	Specifies the interval, in seconds, between executions of the command. The default is 1.
command	Specifies the command to watch and refresh.

CHAPTER 3. ACTIVEMQ CONSOLE COMMANDS

The **activemq** commands allow you to view and manage the brokers and messages.

Type **activemq:** then press **Tab** at the prompt to view the available commands.

NAME

activemq:browse, browse — displays messages on a specified destination

SYNOPSIS

activemq:browse { --amqurl *brokerURL* } [--msgsel { msgsel ...}] [--factory *className*] [--passwordFactory *className*] [--user *username*] [--password *password*] [--view { *attr* ...}] [[-Vheader] | [-Vcustom] | [-Vbody]] [--version] [[--help] | [-h] | [-?]] *destName*

ARGUMENTS

Table 3.1, "**activemq:browse** Arguments" describes the command's arguments.

Table 3.1. activemq:browse Arguments

Argument	Interpretation
--amqurl *brokerURL*	Specifies the URL of the broker to which you are connecting.
--msgsel *msgsel1,msgsel2,...*	Displays messages matched by the message selector.
--factory *className*	Load className as the javax.jms.ConnectionFactory to use for creating connections.
--passwordFactory *className*	Load className as the **org.apache.activemq.console.command.PasswordFactory** for retrieving the password from a keystore.
--user *username*	Username to use for JMS connections.
--password *password*	Password to use for JMS connections.
-Vheader	Shows all the standard JMS message headers.
-Vcustom	Shows all the custom fields added to each JMS message.
-Vbody	Shows the body of the message.
--view *attr1,attr1,...*	Selects the specific attribute of the message to view.
--version	Displays the version information.

Argument	Interpretation
-h, -?, --help	Displays the online help for this command.

MESSAGE FILTERS

Message filters specified using the **--msgsel** option take the form ***header=value***. Table 3.2, "Message Headers for Filtering" lists the headers you can use to filter messages.

Table 3.2. Message Headers for Filtering

Name	Type
JMSCorrelationID	**String**
JMSDeliveryMode	**1**-Non-Persistent, **2**-Persistent
JMSDestination	**javax.jms.Destination**
JMSExpiration	**long**
JMSMessageID	**String**
JMSPriority	**int**
JMSRedelivered	**boolean**
JMSReplyTo	**javax.jms.Destination**
JMSTimestamp	**long**
JMSType	**String**

EXAMPLES

The following command prints the JMS message header, custom message header, and message body of all the messages in the queue **TEST.FOO** on a broker:

```
JBossA-MQ:karaf@root>activemq:browse --amqurl tcp://localhost:61616
TEST.FOO
```

The following command displays the attributes from the body of the messages in the **TEST.FOO** queue:

```
JBossA-MQ:karaf@root>activemq:browse --amqurl tcp://localhost:61616 -Vbody
TEST.FOO
```

The following command displays any messages with an ID ending in **10**:

```
JBossA-MQ:karaf@root>activemq:browse --amqurl tcp://localhost:61616 --
msgsel JMSMessageID='*:10' TEST.FOO
```

```
msgsel JMSMessaageID='*:10' TEST.FOO
```

The following command displays messages with a priority of **3**, enter:

```
JBossA-MQ:karaf@root>activemq:browse --amqurl tcp://localhost:61616 --
msgsel JMSPriority=3 TEST.FOO
```

The message selectors from the preceding two examples can be combined as follows:

```
JBossA-MQ:karaf@root>activemq:browse --amqurl tcp://localhost:61616 --
msgsel JMSMessaageID='*:10',JMSPriority=3 TEST.FOO
```

NAME

activemq:bstat, bstat — summarizes the statistics for a broker

SYNOPSIS

activemq:bstat [--jmxurl *JMXUrl*] [--pid *PID*] [-jmxuser *userName*] [-jmxpassword *password*] [-jmxlocal] [--version] [[--help] | [-h] | [-?]] { *brokerName* }

ARGUMENTS

Table 3.3, "**activemq:bstat** Arguments" describes the command's arguments.

Table 3.3. activemq:bstat Arguments

Argument	Description
--jmxurl *URL*	Sets the JMX URL used to locate brokers.
--pid *PID*	Set the pid to connect to (only on Sun JVM).
--jmxuser *user*	Sets the JMX user, used for authentication.
--jmxpassword *password*	Sets the JMX password, used for authentication.
--jmxlocal	Use the local JMX server instead of a remote server.
--version	Displays the version information.
-h, -?, --help	Displays the online help for this command.
brokerName	The name of the broker

NAME

activemq:list — lists all available brokers in the specified JMX context

SYNOPSIS

activemq:list [--jmxurl *JMXUrl*] [--pid *PID*] [-jmxuser *userName*] [-jmxpassword *password*] [-jmxlocal] [--version] [[--help] | [-h] | [-?]]

ARGUMENTS

Table 3.4, "**activemq:list** Arguments" describes the command's arguments.

Table 3.4. activemq:list Arguments

Argument	Interpretation
--jmxurl *URL*	Sets the JMX URL to connect to
--pid *PID*	Set the pid to connect to (only on Sun JVM).
--jmxuser *user*	Sets the JMX user, used for authentication
--jmxpassword *password*	Sets the JMX password, used for authentication
--jmxlocal	Specifies to use the local JMX server instead of a remote server
--version	Displays the version information
-h, -?, --help	Displays the online help for this command

NAME

activemq:purge, purge – purges messages from a destination

SYNOPSIS

activemq:purge [--msgsel { msgsel ...}] [--pid *PID*] [--jmxurl *JMXUrl*] [-jmxuser *userName*] [-jmxpassword *password*] [-jmxlocal] [--version] [[--help] | [-h] | [-?]] { *destName* }

ARGUMENTS

Table 3.5, "**activemq:purge** Arguments" describes the command's arguments.

Table 3.5. activemq:purge Arguments

Option	Interpretation
--msgsel *msgsel1,msgsel2,...*	Purges messages matched by the message selector. See the section called "Message filters".
--jmxurl *URL*	Sets the JMX URL used to locate the broker.
--pid *PID*	Set the pid to connect to (only on Sun JVM).

Option	Interpretation
--jmxuser *user*	Sets the JMX user, used for authentication.
--jmxpassword *password*	Sets the JMX password, used for authentication.
--jmxlocal	Specifies to use the local JMX server instead of a remote server
--version	Displays the version information
-h, -?, --help	Displays the online help for this command
destName	The specified message destination(s)

EXAMPLES

The following command purges all the messages in the queue **TEST.FOO** on a broker:

```
JBossA-MQ:karaf@root>activemq:purge TEST.FOO
```

The following command purges any messages with an ID ending in **10**:

```
JBossA-MQ:karaf@root>activemq:purge --msgsel JMSMessaageID='*:10' TEST.FOO
```

The following command purges messages with a priority of **3**, enter:

```
JBossA-MQ:karaf@root>activemq:purge --msgsel JMSPriority=3 TEST.FOO
```

The message selectors from the preceding two examples can be combined as follows:

```
JBossA-MQ:karaf@root>activemq:purge --msgsel
JMSMessaageID='*:10',JMSPriority=3 TEST.FOO
```

NAME

activemq:query, query — queries the for broker information on specific objects

SYNOPSIS

activemq:query [-Q*MBeanType=name*] [-xQ*MBeanType=name*] [--objname *query*] [--xobjname *query*] [--view { *attr* ...}] [--jmxurl *JMXUrl*] [--pid *PID*] [-jmxuser *userName*] [-jmxpassword *password*] [-jmxlocal] [--version] [[--help] | [-h] | [-?]]

ARGUMENTS

Table 3.6, "**activemq:query** Arguments" describes the command's arguments.

Table 3.6. activemq:query Arguments

Argument	Interpretation
-Q *type=name*	Adds to the search list the specific object type matched by the defined object identifier.
-xQ *type=name*	Removes from the search list the specific object type matched by the object identifier.
--objname *query*	Adds to the search list objects matched by the query similar.
--xobjname *query*	Removes from the search list objects matched by the query.
--view *attr1,attr2,...*	Selects the specific attribute of the object to view. By default, all attributes are displayed.
--jmxurl *URL*	Sets the JMX URL to connect to.
--pid *PID*	Set the pid to connect to (only on Sun JVM).
--jmxuser *user*	Sets the JMX user, used for authentication
--jmxpassword *password*	Sets the JMX password, used for authentication
--jmxlocal	Specifies to use the local JMX server instead of a remote server
--version	Displays the version information
-h, -?, --help	Displays the online help for this command

EXAMPLES

The following command displays all attributes and object name information for all registered MBeans in the default JMX context:

```
JBossA-MQ:karaf@root>activemq:query
```

The following command displays all attributes and object name information of the destination topic **TEST.FOO**:

```
JBossA-MQ:karaf@root>activemq:query -QTopic=TEST.FOO
```

The following command displays all the brokers in a context whose name ends in **host**:

```
JBossA-MQ:karaf@root>activemq:query -QBroker=*host
```

the Following command displays all attributes and object name information for all registered queues:

```
JBossA-MQ:karaf@root>activemq:query -QQueue=*
```

```
JBossA-MQ:karaf@root>activemq:query -QQueue=*
```

The following command displays all attributes and object name information for all topics ending with **.FOO** except those that also begin with **ActiveMQ.Advisory.**:

```
JBossA-MQ:karaf@root>activemq:query -QTopic=*.FOO -
xQTopic=ActiveMQ.Advisory.*
```

CHAPTER 4. ADMIN CONSOLE COMMANDS

The **admin** commands allow you to create, manage and destroy container instances.

Type **admin:** then press **Tab** at the **FuseMQkaraf:karaf@root>** prompt to view the available commands.

NAME

admin:change-opts, change-opts — changes the Java options of an existing container

SYNOPSIS

admin:change-opts [--help] { *name* } { *opts* }

ARGUMENTS

Table 4.1, "**admin:change-opts** Arguments" describes the command's arguments.

Table 4.1. admin:change-opts Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the container for which you want to change the Java options
opts	The Java options to change

NAME

admin:change-rmi-registry-port, change-rmi-registry-port — changes the RMI registry port used by the management layer of a container

SYNOPSIS

admin:change-rmi-registry-port [--help] { *name* } { *port* }

ARGUMENTS

Table 4.2, "**admin:change-rmi-registry-port** Arguments" describes the command's arguments.

Table 4.2. admin:change-rmi-registry-port Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the container instance for which you want to change the port
port	The new RMI registry port

NAME

admin:change-rmi-server-port, change-rmi-server-port — changes the RMI server port used by the management layer of a container

SYNOPSIS

admin:change-rmi-server-port [--help] { *name* } { *port* }

ARGUMENTS

Table 4.3, "**admin:change-rmi-server-port** Arguments" describes the command's arguments.

Table 4.3. admin:change-rmi-server-port Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the container instance for which you want to change the port
port	The new RMI server port

NAME

admin:change-ssh-port, changessh-port — changes the secure shell port of a container

SYNOPSIS

admin:change-ssh-port [--help] { *name* } { *port* }

ARGUMENTS

Table 4.4, "**admin:change-ssh-port** Arguments" describes the command's arguments.

Table 4.4. admin:change-ssh-port Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the container instance for which you want to change the port
port	The new secure shell port

NAME

admin:clone, clone — clones an existing container instance

SYNOPSIS

admin:clone [--help] [[-l] | [--location]***fileName***] [[-o] | [--java-opts]***JVMOpts***] [[-s] | [--ssh-port]***port***] [[-rs] | [--rmi-server-port]***port***] [[-r] | [-rr] | [--rmi-port] | [--rmi-registry-port]***port***] [[-v] | [--verbose]] { *name* } { *cloneName* }

ARGUMENTS

Table 4.5, "**admin:clone** Arguments" describes the command's arguments.

Table 4.5. admin:clone Arguments

Argument	Interpretation
--help	Displays the online help for this command
-l, --location	Location of the cloned container instance in the file system.
-o, --java-opts	JVM options to use when launching the cloned instance.
-s, --ssh-port	Port number for remote secure shell connection.
-rs, --rmi-server-port	Port number for RMI server connection.
-r, -rr, --rmi-port, --rmi-registry-port	Port number for RMI registry connection.
-v, --verbose	Display actions performed by the command (disabled by default).
name	Name of the original container instance.
cloneName	Name of the cloned container instance.

NAME

admin:connect, connect – connects to an existing container

SYNOPSIS

admin:connect [--help] [[-u] | [--username] ***userName***] [[-p] | [--password] ***password***] { *container* } [*command*]

ARGUMENTS

Table 4.6, "**admin:connect** Arguments" describes the command's arguments.

Table 4.6. admin:connect Arguments

Argument	Interpretation
--help	Displays the online help for this command
-u, --username	The remote user name; the default is **karaf**
-p, --password	The remote user password; the default is **karaf**
container	The container to connect to
command	Command to execute on connecting

NAME

admin:create, create – creates a new child container

SYNOPSIS

admin:create [--help] [[-l] | [--location] ***filePath***] [[-furl] | [--featureURL] ***URL***...] [[-f] | [--feature] ***feature***...] [[-s] | [--ssh-port] ***SSHPort***] [[-rs] | [--rmi-server-port] ***RMIServPort***] [[-r] | [-rr] | [--rmi-registry-port] | [--rmi-port] ***RMIRegPort***] [[-o] | [--java-opts] ***javaOpts***] { *name* }

ARGUMENTS

Table 4.7, "**admin:create** Arguments" describes the command's arguments.

Table 4.7. admin:create Arguments

Argument	Interpretation
--help	Displays the online help for this command
-l, --location	The location of the child's data folders on the file system. By default, the child's data is added to the ***InstallDir*/instances/*name*** directory
-furl, --featureURL	Registers additional feature URLs with the child.
-f, --feature	Specifies additional features loaded by the child.
-s, --ssh-port	The port number for remote secure shell connection
-rs, --rmi-server-port	The port number for RMI server connection
-r, -rr, --rmi-registry-port, --rmi-port	The port number for RMI registry connection
-o, --java-opts	JVM options to use when launching the child

Argument	Interpretation
name	The name of the child

NAME
admin:destroy, destroy – destroys a child container

SYNOPSIS
admin:destroy [--help] { *name* }

ARGUMENTS
Table 4.8, "**admin:destroy** Arguments" describes the command's arguments.

Table 4.8. admin:destroy Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the container to destroy

NAME
admin:list – list all of the child containers on the current host

SYNOPSIS
admin:list [--help] [[-l] | [--location] ***filePath***] [[-o] | [--java-opts] ***javaOpts***]

ARGUMENTS
Table 4.9, "**admin:list** Arguments" describes the command's arguments.

Table 4.9. admin:list Arguments

Argument	Interpretation
--help	Displays the online help for this command
-l, --location	Displays the location of the container instances
-o, --java-opts	Displays the options used when launching the container's JVM

NAME
admin:rename, rename – renames a child container

SYNOPSIS
admin:rename [--help] { name } { new-name }

ARGUMENTS
Table 4.10, "**admin:rename** Arguments" describes the command's arguments.

Table 4.10. admin:rename Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	Current name of the container
new-name	The new name for the container

NAME
admin:start – starts a child container

SYNOPSIS
admin:start [--help] [[-o] | [--java-opts] ***javaOpts***] { *name* }

ARGUMENTS
Table 4.11, "**admin:start** Arguments" describes the command's arguments.

Table 4.11. admin:start Arguments

Argument	Interpretation
--help	Displays the online help for this command
-o, --java-opts	The Java options used when launching the container
name	The name of the container to start

NAME
admin:stop – stops a child container

SYNOPSIS
admin:stop [--help] { *name* }

ARGUMENTS

Table 4.12, "`admin:stop` Arguments" describes the command's arguments.

Table 4.12. `admin:stop` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
name	The name of the container to start

CHAPTER 5. CONFIG CONSOLE COMMANDS

The config commands are used for managing container configuration. The configuration data is edited in two stages. First the changes are queued until they are dynamically loaded into the container by executing the **config:update** command. A copy of the configuration is persisted to the file system in the container's **etc** folder.

When editing a configuration the commands are used as follows:

1. Start the editing session for the specified configuration.

   config:edit

2. Edits, or creates, a configuration.

   - **config:proplist**

     Lists the properties in the configuration.

   - **config:propappend**

     Append a new property to the configuration.

   - **config:propset**

     Sets the value for a configuration property.

   - **config:propdel**

     Deletes a property from the configuration.

3. **config:update**

   Saves the changes and updates the containers using the configuration.

You can abandon an editing session using **config:cancel**.

Type **config:** then press **Tab** at the prompt to view the available commands.

NAME

config:cancel — cancels the changes to the configuration being edited

SYNOPSIS

config:cancel [--help]

DETAILS

When editing a configuration, the changes are buffered until the editing session is closed. The **config:cancel** command clears the buffer without saving the changes and closes the editing session.
You can see a list of the buffered changes using the **jaas:pending** command.

ARGUMENTS

Table 5.1, "**config:cancel** Arguments" describes the command's arguments.

Table 5.1. config:cancel Arguments

Option	Interpretation
--help	Displays the online help for this command

NAME
config:delete, delete — deletes a configuration from the container

SYNOPSIS
config:delte [--help] [[-f] | [--use-file]] [--no-delete-cfg-file] { *pid* }

DETAILS
When you delete a configuration, the change is made directly on the running container. Any properties set in the configuration are reverted to their default values and the behavior of the container will be immediate.
If you use the **--no-delete-cfg-file** argument, the original settings can be reloaded from the configuration file.

ARGUMENTS
Table 5.2, "**config:delete** Arguments" describes the command's arguments.

Table 5.2. config:delete Arguments

Option	Interpretation
--help	Displays the online help for this command.
-f, **--use-file**	Use a filename instead of the PID to locate the configuration.
--no-delete-cfg-file	Does not delete the associated configuration file from the container's **etc** folder.
pid	Specifies the configuration's persistent identifier.

NAME
config:edit, edit — begins an editing session for a configuration. If the configuration does not exist a new configuration is created.

SYNOPSIS
config:edit [--help] [--force] [[-f] | [--use-file]] { *pid* }

DETAILS
The **config:edit** command is the first step in editing a container configuration. It opens the configuration so that calls to the **config:*** editing commands will update the selected configuration. The edits made by the **config:*** editing commands are placed in a buffer associated with the

selected configuration and not propagated to the container, or the file system, until the editing session is ended by the **config:update** command.
If you use the **config:edit** command before saving the changes to a configuration that is open for editing, the changes to the previously open configuration are abandoned. The pending edits cleared without being saved.

ARGUMENTS

Table 5.3, "**config:edit** Arguments" describes the command's arguments.

Table 5.3. config:edit Arguments

Option	Interpretation
--help	Displays the online help for this command
--force	Forces the editing of this configuration, even if another configuration was being edited
-f, **--use-file**	Use a filename instead of the PID to locate the configuration
pid	The persistent identifier of the configuration

NAME

config:list — lists the existing configurations for the container

SYNOPSIS

config:list [--help] [*query*]

ARGUMENTS

Table 5.4, "**config:list** Arguments" describes the command's arguments.

Table 5.4. config:list Arguments

Argument	Interpretation
--help	Displays the online help for this command
query	An LDAP query

NAME

config:propappend, propappend — appends the given value to an existing property or creates the property with the specified name and value

SYNOPSIS

config:propappend [--help] [[-b] | [--bypass-storage]] [[-p *PID*] | [--pid *PID*]] { *name* } { *value* }

DETAILS

When you append a value to a property using the **config:propappend** command, the change is stored in the buffer and not propagated to the container until the editing session is closed.
If you use the **-p** argument to specify a PID, however, the change is made immediately.

ARGUMENTS

Table 5.5, "**config:propappend** Arguments" describes the command's arguments.

Table 5.5. config:propappend Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-b, **--bypass-storage**	Doe not write the change to the local file.
-p, **--pid**	Specifies the PID of the configuration in which to make the change. The default is to change the configuration currently open for editing.
name	Specifies the name of the property to change.
value	Specifies the value to append to the property.

NAME

config:propdel, propdel — deletes a property from the configuration being edited

SYNOPSIS

config:propdel [--help] [[-b] | [--bypass-storage]] [[-p *PID*] | [--pid *PID*]] { *name* }

DETAILS

When you delete a property using the **config:propdel** command, the change is stored in the buffer and not propagated to the container until the editing session is closed.
If you use the **-p** argument to specify a PID, however, the change is made immediately.

ARGUMENTS

Table 5.6, "**config:propdel** Arguments" describes the command's arguments.

Table 5.6. config:propdel Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-b, **--bypass-storage**	Does not write the change to the local file.
-p, **--pid**	Specifies the PID of the configuration in which to make the change. The default is to change the configuration currently open for editing.

Argument	Interpretation
name	Specifies the name of the property to delete.

NAME
config:proplist, proplist — lists the properties in the configuration being edited

SYNOPSIS
config:proplist [--help] [[-p *PID*] | [--pid *PID*]]

ARGUMENTS
Table 5.7, "**config:proplist** Arguments" describes the command's arguments.

Table 5.7. config:proplist Arguments

Argument	Interpretation
--help	Displays the online help for this command
-p, **--pid**	The PID of the configuration in which to make the change

---

NAME
config:propset, propset — sets a property in the configuration being edited

SYNOPSIS
config:propset [--help] [[-b] | [--bypass-storage]] [[-p *PID*] | [--pid *PID*]] { *name* } { *value* }

DETAILS
When you set a property using the **config:propset** command, the change is stored in the buffer and not propagated to the container until the editing session is closed.
If you use the **-p** argument to specify a PID, however, the change is made immediately.

ARGUMENTS
Table 5.8, "**config:propset** Arguments" describes the command's arguments.

Table 5.8. config:propset Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-b, **--bypass-storage**	Does not write the change to the local file.

Argument	Interpretation
-p, **--pid**	Specifies the PID of the configuration in which to make the change. The default is to change the configuration currently open for editing.
name	Specifies the name of the property to set.
value	Specifies the value to set for the property.

NAME

config:update — saves the changes made to the configuration being edited and propagates then to the container

SYNOPSIS

config:propset [--help] [[-b] | [--bypass-storage]]

ARGUMENTS

Table 5.9, "**config:update** Arguments" describes the command's arguments.

Table 5.9. config:update Arguments

Argument	Interpretation
--help	Displays the online help for this command
-b, **--bypass-storage**	Do not update the copy of the configuration on the file system

CHAPTER 6. DEV CONSOLE COMMANDS

The dev commands are a collection of utilities that are useful testing bundles in the container.

Type **dev:** then press **Tab** at the prompt to view the available commands.

NAME

dev:classloaders, classloaders — displays a list of leaking bundle classloaders

SYNOPSIS

dev:classloaders [--help]

ARGUMENTS

Table 6.1, "**dev:classloader** Arguments" describes the commands arguments.

Table 6.1. dev:classloader Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME

dev:create-dump, create-dump — creates a ZIP file containing diagnostic information

SYNOPSIS

dev:create-dump [--help] [[-d *dumpFolder*] | [--directory *dumpFolder*]] { *dumpName* }

ARGUMENTS

Table 6.2, "**dev:create-dump** Arguments" describes the commands arguments.

Table 6.2. dev:create-dump Arguments

Argument	Interpretation
--help	Displays the online help for this command
-d, **--directory**	Specifies the folder into which to store the dump
dumpName	Specifies the name for the dump file

NAME

dev:dynamic-import, dynamic-import — enables/disables dynamic imports for a bundle

SYNOPSIS

dev:dynamic-import [--help] { *bundleID* }

ARGUMENTS

Table 6.3, "**dev:dynamic-import** Arguments" describes the commands arguments.

Table 6.3. dev:dynamic-import Arguments

Argument	Interpretation
--help	Displays the online help for this command
bundleID	A bundle ID.

NAME

dev:framework, framework — enables/disables debugging for an OSGi framework

SYNOPSIS

dev:framework [--help] {[[-debug] | [--enable-debug]] [[-nodebug] | [--disable-debug]]} { *framework* }

ARGUMENTS

Table 6.4, "**dev:framework** Arguments" describes the commands arguments.

Table 6.4. dev:framework Arguments

Argument	Interpretation
--help	Displays the online help for this command
-nodebug, --disable-debug	Disable debugging for the OSGi framework.
-debug, --enable-debug	Enable debugging for the OSGi framework.
framework	Name of the OSGi framework

NAME

dev:print-stack-traces, print-stack-traces — enables/disables printing of full stack traces in the console when the execution of a command throws an exception

SYNOPSIS

dev:print-stack-traces [--help] [false]

ARGUMENTS

Table 6.5, "**dev:print-stack-traces** Arguments" describes the commands arguments.

Table 6.5. `dev:print-stack-traces` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`false`	Disables stack traces

NAME
dev:restart – restart the container

SYNOPSIS
`dev:restart` [--help] [[-c] | [--clean]]

ARGUMENTS
Table 6.6, "**`dev:restart` Arguments**" describes the commands arguments.

Table 6.6. `dev:restart` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-c, --clean`	Force a clean (cold) restart by deleting the container's `data` directory.

NAME
dev:show-tree, show-tree – shows the tree of bundles based on the wiring information

SYNOPSIS
`dev:show-tree` [--help] { *bundleID* }

ARGUMENTS
Table 6.7, "**`dev:show-tree` Arguments**" describes the commands arguments.

Table 6.7. `dev:show-tree` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
bundleID	A bundle ID.

NAME
dev:threads, threads — shows the threads in the JVM

SYNOPSIS
dev:threads [--help] [[-f] | [--flat]]

ARGUMENTS
Table 6.8, "**dev:threads** Arguments" describes the commands arguments.

Table 6.8. dev:threads Arguments

Argument	Interpretation
--help	Displays the online help for this command
-f, **--flat**	Do not show the threads in a tree

NAME
dev:wait-for-service, wait-for-service — wait for the specified OSGi service

SYNOPSIS
dev:wait-for-service [--help] [[-t] | [--timeout]***timeout***] [[-e] | [--exception]] { *serviceClassOrFilter* }

DESCRIPTION
This command is useful when you are developing a console script and you want to wait for a specific OSGi service to start up, before proceeding with the execution of the script.
For example, the various command sets installed in the console (**shell:***, **admin:***, **features:***, and so on) are represented by OSGi services of type, **org.apache.karaf.shell.console.SubShell**. If you want to check that a sub-shell service is available, you could enter the following console command:

```
karaf@root> dev:wait-for-service -t 1000
org.apache.karaf.shell.console.SubShell
true
```

This form of the command is not very useful in this case, because there are many different instances of the **SubShell** service installed in the container. To be more specific, you can define an LDAP filter, which specifies one or more service property values. For example, you can wait specifically for the **osgi** sub-shell service by entering a command like the following:

```
karaf@root> dev:wait-for-service -t 1000 &
(objectClass=org.apache.karaf.shell.console.SubShell)(name=osgi)
true
```

ARGUMENTS
Table 6.9, "**dev:wait-for-service** Arguments" describes the commands arguments.

Table 6.9. dev:wait-for-service Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-t, --timeout`	Timeout (specified in milliseconds: negative to not wait at all, zero to wait forever). Default is forever.
`-e, --exception`	Throw an exception if the wait command times out (the service is not found). Default is false.
`serviceClassOrFilter`	Specifies the OSGi service either by the service's class name or by an LDAP-style filter (which is applied to the OSGi service's properties).

NAME

dev:watch, watch — watches and automatically updates bundles

SYNOPSIS

`dev:watch` [--help] [[--start] | [--stop]] [-i *interval*] [--list] [--remove] { *bundles* ...}

ARGUMENTS

Table 6.10, "**`dev:watch`** Arguments" describes the commands arguments.

Table 6.10. `dev:watch` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`--stop`	Stop watching the specified bundles
`--start`	Start watching the specified bundles
`-i`	Specifies the interval, in milliseconds, to check the bundles.
`--list`	List the bundles being watched.
`--remove`	Remove the specified bundles from the watch list.
***`bundles`*`...`**	Specifies a whitespace delimited list of bundle URLs or bundle IDs.

IMPORTANT

Only Maven URLs and Maven snapshots will be updated automatically. So, if you run

```
JBossA-MQ:karaf@root> dev:watch *
```

You are monitoring all bundles that have a location matching mvn:* that have -SNAPSHOT in their URL.

CHAPTER 7. FUSE APPLICATION BUNDLE(FAB) CONSOLE COMMANDS

The **fab** commands are used for managing Fuse Application Bundle(FAB)s.

There is no dedicated install command for FABs. To install a FAB, use the **osgi:install** command combined with the **fab:** URL prefix. For example, to install the FAB **mvn:org.fusesource.example/camel-example/1.0** use the following console command:

```
JBossA-MQ:karaf@root> osgi:install fab:mvn:org.fusesource.example/camel-
example/1.0
```

NAME

fab:headers — displays the headers of a FAB

SYNOPSIS

fab:headers [--help] [--indent *style*] { *URL* }

DESCRIPTION

Displays the header entries from the **META-INF/MANIFEST.MF** file embedded in the FAB JAR file. This is *not* the same thing as the bundle headers returned by the **osgi:headers** command, because the **osgi:headers** command shows the effective headers *after* the FAB is converted into an OSGi bundle.
For example, a typical FAB might have headers like the following:

```
JBossA-MQ:karaf@root> fab:headers
mvn:org.fusesource.examples/cbr/7.0.0.fuse-beta-042

Manifest-Version = 1.0 Archiver-Version = Plexus Archiver Built-By =
username Build-Jdk = 1.6.0_29 Created-By = Apache Maven
```

After the FAB is deployed, the corresponding OSGi bundle could have headers like the following (given that the bundle ID of the deployed FAB is 228):

```
JBossA-MQ:karaf@root> osgi:headers 228

org.fusesource.examples.cbr (228) --------------------------------
Manifest-Version = 1 Bnd-LastModified = 1334306872960 Archiver-Version =
Plexus Archiver Tool = Bnd-1.43.0 Originally-Created-By = Apache Maven
FAB-URL = mvn:org.fusesource.examples/cbr/7.0.0.fuse-beta-042 Generated-
By-FAB-From = mvn:org.fusesource.examples/cbr/7.0.0.fuse-beta-042 Built-By
= username FAB-Id = org.fusesource.examples:cbr:7.0.0.fuse-beta-042:jar
Build-Jdk = 1.6.0_29 Created-By = 1.6.0_29 (Apple Inc.) Bundle-Name =
org.fusesource.examples.cbr Bundle-SymbolicName =
org.fusesource.examples.cbr Bundle-Version = 7.0.0.fuse-beta-042 Bundle-
ManifestVersion = 2 Export-Package = OSGI-INF.blueprint, OSGI-INF
```

ARGUMENTS

Table 7.1, "**fab:headers** Arguments" describes the commands arguments.

Table 7.1. fab:headers Arguments

Argument	Interpretation
--help	Displays the online help for this command
--indent	Specify the indent style. Valid values are **1**, **2**, or **3**. The default is **-1**.
URL	The URL of the FAB

NAME
fab:info — display information about a FAB, including the list of shared and unshared dependencies, and the list of features installed as part of the FAB resolution process

SYNOPSIS
fab:info [--help] { *bundleID* }

ARGUMENTS
Table 7.2, "**fab:info** Arguments" describes the commands arguments.

Table 7.2. fab:info Arguments

Argument	Interpretation
--help	Displays the online help for this command
bundleID	The bundle ID of the FAB (for deployed FABs) or the URL location of the FAB (for FABs that are not yet deployed).

NAME
fab:start — starts the specified FAB

SYNOPSIS
fab:start [--help] [--timeout *millis*] { *bundleID* }

DESCRIPTION
Depending on how a FAB is configured, it can be associated with multiple dependent bundles.
When a FAB is initially installed in the container, the transitive dependencies of the FAB are determined by scanning the embedded POM file, **META-INF/maven/*GroupID*/*ArtifactID*/pom.xml**. Any transitive dependencies that are shared (for example, by being marked as provided or because the dependency is already packaged as an OSGi bundle), are deployed as separate OSGi bundles in the container.
When you start the FAB using **fab:start**, the runtime attempts to start *all* of the corresponding bundles, starting with the leaves of the dependency tree and working its way up the tree to the FAB's bundle. In particular, this implies that any OSGi services, blueprint XML files, and Spring XML files in

the dependent OSGi bundles are activated in the appropriate order.

ARGUMENTS

Table 7.3, "`fab:start` Arguments" describes the commands arguments.

Table 7.3. `fab:start` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`--timeout`	Specifies, in milliseconds, how long to wait for the FAB bundle to start up. Default is `30000`.
`bundleID`	The bundle ID of the FAB.

NAME

fab:stop – stops the specified FAB bundle together with its shared transitive dependencies, except for those dependencies that are being used by other bundles.

SYNOPSIS

`fab:stop` [--help] { *bundleID* }

ARGUMENTS

Table 7.4, "`fab:stop` Arguments" describes the commands arguments.

Table 7.4. `fab:stop` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`bundleID`	The bundle ID of the FAB.

NAME

fab:tree, tree – displays the dependency tree of a FAB

SYNOPSIS

`fab:tree` [--help] { *bundleID* }

ARGUMENTS

Table 7.5, "`fab:tree` Arguments" describes the commands arguments.

Table 7.5. `fab:tree` Arguments

Argument	Interpretation
--help	Displays the online help for this command
bundleID	Specifies the bundle ID, URL, or filename of the FAB.

NAME
fab:uninstall — uninstall the specified FAB and all of its transitive dependencies, except for those dependencies that are being used by other bundles

SYNOPSIS
fab:uninstall [--help] { *bundleID* }

DESCRIPTION
Depending on how a FAB is configured, it can be associated with multiple dependent bundles. When a FAB is initially installed in the container, the transitive dependencies of the FAB are determined by scanning the embedded POM file, **META-INF/maven/*GroupID*/*ArtifactID*/pom.xml**. Any transitive dependencies that are shared (for example, by being marked as provided or because the dependency is already packaged as an OSGi bundle), are deployed as separate OSGi bundles in the container.
When you uninstall the FAB using **fab:uninstall**, the runtime attempts to uninstall all of the corresponding OSGi bundles, *except* for any bundles that are still being used by other applications in the container.

ARGUMENTS
Table 7.6, "**fab:uninstall** Arguments" describes the commands arguments.

Table 7.6. fab:uninstall Arguments

Argument	Interpretation
--help	Displays the online help for this command
bundleID	The bundle ID of the FAB.

CHAPTER 8. FABRIC CONSOLE COMMANDS

10/03/12

Removed container-change-profile and replaced it with container-add-profile and container-remove-profile

This chapter describes **fabric** console commands.

NAME

fabric:cluster-list, cluster-list — lists the members of a message broker cluster

SYNOPSIS

fabric:cluster-list [--help] [*Path*]

DESCRIPTION

This command lists all message brokers in the fabric. It allows you to see which brokers are grouped into clusters. The resulting list will enable you to see which brokers are participating in a particular cluster.

ARGUMENTS

Table 8.1, "**fabric:cluster-list** Arguments" describes the command's arguments.

Table 8.1. fabric:cluster-list Arguments

Argument	Interpretation
--help	Displays the online help for this command
Path	Specifies the path of the registry node to list. If not specified, all clusters will be listed.

RELATED TOPICS

fabric:mq-create

NAME

fabric:cloud-firewall-edit — manage a cloud container's firewall

SYNOPSIS

fabric:cloud-firewall-edit [--help] [--owner *owner*] [--option *key=value*]

ARGUMENTS

Table 8.2, "**fabric:cloud-firewall-edit** Arguments" describes the command's arguments.

Table 8.2. fabric:cloud-firewall-edit Arguments

Argument	Interpretation
--port	The target IP port.

Argument	Interpretation
--flush	Flush all rules.
--revoke	Revoke the rule for the specified port. This blocks access to the specified IP port.
--target-container	The target container name.
--source-container	The source container, which has access granted or revoked.
--target-node-id	The target node ID.
--source-cidr	The source CIDR, which has access granted or revoked.
--provider	The cloud provider name.
--help	Displays the online help for this command.

NAME

fabric:cloud-service-add — initialize a cloud provider (which can be used for provisioning containers in the cloud)

SYNOPSIS

fabric:cloud-service-add [--help] [--provider *providerName*] [--name *name*] [--api *APIName*] [--endpoint *URL*] [--identity *accessKeyID*] [--credential *secretAccessKey*] [--owner *owner*] [--option *key=value*] [--async-registration]

DESCRIPTION

This command runs asynchronously. That is, although the command returns immediately, it runs a thread in the background, which completes the initialization of the cloud provider. You can use **fabric:cloud-service-list** to discover when the initialization has completed.
There are two different styles of usage for this command:

- *Commercial cloud provider*—if you are using a commercial cloud provider, JClouds provides prepackaged modules that encapsulate the basic connection details for the provider. The prepackaged modules are available to install as Karaf features (named **jclouds-*ProviderName***) and encapsulate such details as the endpoint URI, cloud API, and so on.

  For example, to install an Amazon Web Services (AWS) EC2 cloud provider, you can perform the following steps (assuming you are working in a standalone container):

  1. Install the basic set of fabric cloud commands:

     ```
     karaf@root> features:install fabric-jclouds
     ```

2. Install the JClouds module specifically for AWS EC2:

```
karaf@root> features:install jclouds-aws-ec2
```

3. Add the AWS EC2 provider, specifying the login credentials for your EC2 account:

```
karaf@root> fabric:cloud-service-add --provider aws-ec2 --
identity AccessKeyID
--credential SecretAccessKey
```

4. You are now ready to start creating compute instances on the **aws-ec2** cloud service, using the **fabric:container-create-cloud** command.

- *Private cloud service*—if you are hosting your compute instances on a private cloud service, you must specify the connection details more explicitly, by supplying the **--api** and **--endpoint** options. In this case, you must also define a name for the cloud service, by supplying the **--name** option.

  For example, to define a connection to a private cloud service that uses the **openstack-nova** API through the endpoint, **http://172.16.0.1:4000/v2.0/**, you can perform the following steps (assuming you are working in a standalone container):

  1. Install the basic set of fabric cloud commands:

```
karaf@root> features:install fabric-jclouds
```

  2. Install the JClouds module for the **openstack-nova** API:

```
karaf@root> features:install jclouds-api-openstack-nova
```

  3. Add the private cloud service, specifying the login credentials, API, and endpoint URL:

```
karaf@root> fabric:cloud-service-add --name myOpenStack --api
openstack-nova
--endpoint http://172.16.0.1:4000/v2.0/ --identity AccessKeyID --
credential SecretAccessKey
```

NOTE

You can provide additional customisation of the connection by setting options through the **--option** flag (which can appear multiple times in the command).

  4. You are now ready to start creating compute instances on the **myOpenStack** cloud service, using the **fabric:container-create-cloud** command.

INSTALLING THE COMMAND IN A FABRIC

To access this command from a fabric container, you must have installed the **fabric-jclouds** feature. To install the **fabric-jclouds** feature, deploy the **cloud** profile into the current container, using the **fabric:container-change-profile** command.

For example, if the console is currently logged on to the **root** container of the Fabric, you could add the **cloud** profile as follows:

```
JBossA-MQ:karaf@root> fabric:container-list
[id]                           [version] [alive] [profiles]
[provision status]
root*                          1.0       true    fabric, fabric-
ensemble-0000-1 success
JBossA-MQ:karaf@root> fabric:container-change-profile root fabric fabric-
ensemble-0000-1 cloud
JBossA-MQ:karaf@root> fabric:container-list
[id]                           [version] [alive] [profiles]
[provision status]
root*                          1.0       true    fabric, fabric-
ensemble-0000-1, cloud success
```

ARGUMENTS

Table 8.3, "**fabric:cloud-service-add** Arguments" describes the command's arguments.

Table 8.3. fabric:cloud-service-add Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--provider	The name of a commercial cloud provider (for example, **aws-ec2** or **rackspace**).
--name	The JClouds service context name, which identifies the cloud service uniquely. Defaults to the provider name (as specified by the **--provider** option).
--api	Specifies the cloud API (for example, **ec2**, **openstack-nova**, or **cloudstack**).
--endpoint	Specifies the cloud service's endpoint URL.
--identity	The identity used to access the cloud service.
--credential	The credential used to access the cloud service.
--owner	Specifies the EC2 AMI owner, which enables you to use private images (AWS EC2 only).
--option	Provider-specific properties. For example: **--option jclouds.regions=us-east-1**. If you want to specify more than one option, specify this option multiple times.
--async-registration	Do not wait for the provider registration (that is, complete the registration in a background thread).

NAME
fabric:cloud-service-list — list the configured cloud providers

SYNOPSIS
fabric:cloud-service-list [--help]

DESCRIPTION
For each configured cloud provider, displays the provider name, type (**compute** or **blobstore**), and registration (**local**, for a standalone container, or **fabric**, for a Fabric Container).
To access this command, the current container must belong to a Fabric and you must have installed the **fabric-jclouds** feature. To install the **fabric-jclouds** feature, deploy the **cloud** profile into the current container, using the **fabric:container-change-profile** command.
For example, if the console is currently logged on to the **root** container of the Fabric, you could add the **cloud** profile as follows:

```
JBossA-MQ:karaf@root> fabric:container-list
[id] [version] [alive] [profiles] [provision status] root* 1.0 true
fabric, fabric-ensemble-0000-1 success
JBossA-MQ:karaf@root> fabric:container-change-profile root fabric fabric-
ensemble-0000-1 cloud
JBossA-MQ:karaf@root> fabric:container-list
[id] [version] [alive] [profiles] [provision status] root* 1.0 true
fabric, fabric-ensemble-0000-1, cloud success
```

ARGUMENTS
Table 8.4, "**fabric:cloud-service-list** Arguments" describes the command's arguments.

Table 8.4. fabric:cloud-service-list Arguments

Argument	Interpretation
--help	Displays the online help for this command.

NAME
fabric:cloud-service-remove — removes the specified cloud provider

SYNOPSIS
fabric:cloud-service-remove [--help] { *Name* }

DESCRIPTION
To access this command, the current container must belong to a Fabric and you must have installed the **fabric-jclouds** feature. To install the **fabric-jclouds** feature, deploy the **cloud** profile into the current container, using the **fabric:container-change-profile** command.
For example, if the console is currently logged on to the **root** container of the Fabric, you could add the **cloud** profile as follows:

```
JBossA-MQ:karaf@root> fabric:container-list
```

```
[id]                            [version] [alive] [profiles]
[provision status]
root*                           1.0       true    fabric, fabric-
ensemble-0000-1 success
JBossA-MQ:karaf@root> fabric:container-change-profile root fabric fabric-
ensemble-0000-1 cloud
JBossA-MQ:karaf@root> fabric:container-list
[id]                            [version] [alive] [profiles]
[provision status]
root*                           1.0       true    fabric, fabric-
ensemble-0000-1, cloud success
```

ARGUMENTS

Table 8.5, "**fabric:cloud-service-remove** Arguments" describes the command's arguments.

Table 8.5. fabric:cloud-service-remove Arguments

Argument	Interpretation
--help	Displays the online help for this command.
Name	The JClouds service context name, which represents the cloud provider.

NAME

fabric:container-add-profile, container-add-profile — Adds the specified list of profiles to a container

SYNOPSIS

fabric:container-add-profile [--help] { *Name* } { *Profiles* }

ARGUMENTS

Table 8.6, "**fabric:container-add-profile** Arguments" describes the command's arguments.

Table 8.6. fabric:container-add-profile Arguments

Argument	Interpretation
--help	Displays the online help for this command
Name	Specifies the name of the container.
Profiles	Specifies the list of profiles to add to the container.

NAME

fabric:container-connect, container-connect — connects to a remote Fabric Container and execute the specified command

SYNOPSIS

fabric:container-connect [--help] [[-u] | [--username]*User*] [[-p] | [--password]*Password*] { *ContainerName* } [*Command*]

DESCRIPTION

This command allows you to connect to any container in the current fabric and execute a command. For example, to execute the **osgi:list** command on the **root2** container, you could enter a console command like Example 8.1, "Executing a Command in a Remote Container" .

Example 8.1. Executing a Command in a Remote Container

```
JBossA-MQ:karaf@root> fabric:container-connect -u YourName -p YourPass
root2 osgi:list
```

This command uses fabric JAAS security to log into the container, so the username and password are managed by the container's JAAS realm.

ARGUMENTS

Table 8.7, "**fabric:container-connect** Arguments" describes the command's arguments.

Table 8.7. fabric:container-connect Arguments

Argument	Interpretation
--help	Displays the online help for this command
-u, --username	Specifies the username for logging on to the remote container. The default is **admin**.
-p, --password	SPecifies the password for logging on to the remote container. The default is **admin**.
ContainerName	Specifies the name of the remote container.
Command	Specifies the console command to execute on the remote container.

RELATED TOPICS

Chapter 10, *JAAS Console Commands*

NAME

fabric:container-create, container-create — creates one or more Fabric Containers

SYNOPSIS

fabric:container-create [--help] {[--parent *ParentID*] | [--url *URL*]} [--proxy-uri *ProxyURI*] [--ensemble-server] [--profile *ProfileID*] [--resolver *policy*] [--version *Version*] [--jvm-opts *JvmOpts*] { *Name* } [*Number*]

EXAMPLES

This command is a generic container create command. It combines the functionality of the **fabric:container-create-child**, **fabric:container-create-cloud**, and **fabric:container-create-ssh** commands. The type of container that is created, depends on the specified URL.

Child container

To create a child container, specify a URL in the following format:

```
child://ParentName
```

Where *ParentName* is the name of the child's parent container.

Cloud container

To create a cloud container, specify a URL in the following format:

```
jclouds://ProviderId?
imageId=ImageID&locationId=LocationID&group=Group&user=User
```

For a detailed explanation of the options appearing in this URL, see fabric:container-create-cloud.

SSH container

To create an SSH container with username and password credentials, specify a URL in the following format:

```
ssh://User:Password@Host:Port
```

Where *User* and *Password* are the credentials for logging in to the machine at *Host:Port*, through the SSH protocol.

To create an SSH container with username and private key credentials, specify a URL in the following format:

```
ssh://User@Host:Port?privateKeyFile=KeyPath
```

Where *KeyPath* is the pathname of the private key file on the local filesystem.

ARGUMENTS

Table 8.8, "**fabric:container-create** Arguments" describes the command's arguments.

Table 8.8. fabric:container-create Arguments

Argument	Interpretation
--help	Displays the online help for this command
--parent	Specifies the parent container's ID.
--url	Specifies the URL of the new container.

Argument	Interpretation
--proxy-uri	Specifies the Maven proxy URI to use.
--ensemble-server	Specifies if the new container should be a Fabric Server.
--profile	Specifies a list of profiles to deploy into the new container.
--resolver	Specifies how the container will report its address to other containers. Valid values are **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. For more information see fabric:container-resolver-set.
--version	Specifies the version of the profiles used by the new container. Defaults to the current default version.
--jvm-opts	Specifies options to pass to the container's JVM.
Name	Specifies the name of the new container. When creating multiple containers, the name serves as a prefix.
Number	Specifies the number of containers that should be created.

RELATED TOPICS

fabric:container-create-child
fabric:container-create-cloud
fabric:container-create-ssh
fabric:container-resolver-list

NAME

fabric:container-create-child – create one or more child containers

SYNOPSIS

fabric:container-create-child [--help] [--ensemble-server] [--profile ***profileID***] [--version ***version***] [--jvm-opts ***jvmOpts***] [--resolver ***policy***] { *parent* } { *name* } [*number*]

DESCRIPTION

Child containers have the following characteristics:

- Each child container has a parent, so that the child containers form a hierarchy, with the root container as the ultimate ancestor.
- The child starts in a new JVM instance (JVM options can be passed to the new JVM through the **--jvm-opts** command option).
- A complete set of data directories are created for the child instance, under the ***ESBInstallDir*/instances/ChildName** directory. The ***ESBInstallDir*/system** directory is shared with the root container.

For example, if you have already created a new fabric (for example, by invoking **fabric:create**), you could add some child containers to the root container by entering the following command:

```
karaf@root> fabric:container-create-child root child 3
```

This command creates three new children under the **root** container. To check that the containers have been successfully created, invoke the **fabric:container-list** command, as follows:

```
karaf@root> fabric:container-list
[id]                           [version] [alive] [profiles]
[provision status]
root                           1.0       true    fabric, fabric-
ensemble-0000-1
  child1                       1.0       true    default
success
  child2                       1.0       true    default
success
  child3                       1.0       true    default
success
```

As you can see, the command creates three new child containers, **child1**, **child2**, and **child3**, with the **default** profile. This containers are ordinary (non-ensemble) containers, running fabric agents (ZooKeeper clients).
If you do not explicitly specify any profile (or profiles) for the new child containers, each of the child containers is created with the OSGi bundles required for a minimal Apache Karaf container and all of the profiles and bundles specified by the **default** profile.
To associate multiple profiles with a new child container, you can specify the **--profile** option multiple times. For example, if you want to deploy your own application profile, **myApp**, together with the **esb** profile, you would use a command like the following:

```
fabric:container-create-child --profile esb --profile myApp root
childMyApp
```

SHUTTING DOWN CHILD CONTAINERS

After you create new child containers, the children run as separate processes, independently of the parent. Consequently, when you shut down the parent container, *the child processes continue to run in the background*. If you want to shut down the children, you must explicitly invoke the **fabric:container-stop** command. For example, if a root container has three children— **child1**, **child2**, and **child3**—you can issue the following commands in the root container console to shut down all of the containers:

```
karaf@root> fabric:container-stop child1
```

```
karaf@root> fabric:container-stop child2
karaf@root> fabric:container-stop child3
karaf@root> shutdown -f
```

ARGUMENTS

Table 8.9, "**fabric:container-create-child** Arguments" describes the command's arguments.

Table 8.9. fabric:container-create-child Arguments

Argument	Interpretation
--help	Displays the online help for this command
--ensemble-server	Whether the new container should be a Fabric Server.
--profile	A profile ID to associate with the new container. To associate multiple profiles with the container, specify this flag multiple times on the command line —for example, **--profile foo --profile bar**. If no profile is specified, the container is associated with the **default** profile.
--version	Specifies the version of the new container (the version must be created in advance using **fabric:version-create**). Defaults to the current default version (use **version-list** to find the current default).
--jvm-opts	Specify options to pass to the container's JVM.
--resolver	Specifies how the container will report its address to other containers. Valid values are **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. For more information see fabric:container-resolver-set.
Parent	*(Required)* The parent container ID.
Name	*(Required)* The name of the container to create. When creating multiple containers, it serves as a prefix
Number	The number of containers that should be created.

RELATED TOPICS

For more details about resolver policies, see:

fabric:container-resolver-list

fabric:container-resolver-set

fabric:create

NAME

fabric:container-create-cloud — creates one or more new containers on the cloud

SYNOPSIS

`fabric:container-create-cloud` [--help] [--name ***`contextName`***] [--provider ***`cloudProvider`***] [--api ***`cloudAPI`***] [--identity ***`cloudIdentity`***] [--credential ***`loginCredential`***] [--imageId ***`imageID`***] [--os-family ***`osFamily`***] [--os-version ***`osVersion`***] [--hardwareId ***`hardwareID`***] [--instanceType ***`instanceType`***] [--locationId ***`location`***] [--user ***`userAcc`***] [--password ***`userPass`***] [--public-key-file ***`file`***] [--owner ***`owner`***] [--group ***`group`***] [--proxy-uri ***`URI`***] [--ensemble-server] [--new-user ***`jaasUser`***] [--new-user-password ***`jaasUserPass`***] [--new-user-role ***`jaasUserRole`***] [--zookeeper-password ***`zooPass`***] [--resolver ***`policy`***] [--min-port ***`minPort`***] [--max-port ***`maxPort`***] [--profile ***`profileID`***] [--version ***`version`***] [--jvm-opts ***`jvmOpts`***] [--add-option ***`key=value`***] [--no-admin-access] { *Name* } [*Number*]

DESCRIPTION

To access this command, you must have installed the **`fabric-jclouds`** feature. To install the **`fabric-jclouds`** feature, enter the following console command:

```
features:install fabric-jclouds
```

The **`fabric:container-create-cloud`** command provisions the container as follows:

1. Creates a new node on the cloud provider. The node is created using a JClouds compute service: either by lookup in the service registry (using the provider ID as a property) or by instantiating a new node, by specifying the identity and credential of the provider.

2. Connects to the created node, using the authentication metadata returned upon the node creation (this is usually a username and private key, where the username can be overridden by the **`--user`** option). After it connects to the node, it executes a script, which downloads the fabric distribution from the Maven proxy and untars the distribution.

   By default, the script uses the oldest Maven proxy server in the current ensemble (every ensemble server has a Maven proxy server deployed in it). You can optionally override the default Maven proxy by specifying the **`--proxy-uri`** option. The script would then use the specified Maven proxy server to download the container runtime.

   NOTE

   The ability to override the Maven proxy is important in certain cases (for example, in a cloud deployment) where the remote host might not be able to access the default Maven proxy server.

3. Starts up the newly installed container (or containers) and installs the specified fabric profile (or profiles).

4. When creating multiple containers using this command (by adding the ***Number*** argument), multiple nodes will be created and a root container will be installed on each node.

By default, the newly created cloud containers belong to the current fabric (that is, the same fabric as the container from which you invoked the command). It is possible, however, to create a container on the compute instance that acts as the seed for a completely new fabric, separate from the current one. To create a new fabric on the compute instance, invoke the **fabric:container-create-cloud** command with the **--ensemble-server** flag, which makes the newly created container (or containers) an ensemble server, with its own fabric registry agent. The newly created ensemble server on the cloud *does not join the current ensemble* it belongs to an independent ensemble (a new fabric).

ARGUMENTS

Table 8.10, "**fabric:container-create-cloud** Arguments" describes the command's arguments.

Table 8.10. fabric:container-create-cloud Arguments

Argument	Interpretation
--help	Displays the online help for this command
--name	*(Required)* JClouds service context name.
--provider	JClouds provider name.
--api	The cloud API name.
--identity	The identity used to access the cloud service.
--credential	The credential used to access the cloud service.
--imageId	The image ID to use for the new node(s). Alternatively, the image can be specified indirectly using the **--os-family** and **--os-version** options. Defaults to an instance of the latest version of Ubuntu.
--os-family	Specify the image by requesting a particular kind of operating system—for example, **ubuntu** or **redhat**. To see which O/S families are available, type Tab while entering this option. Defaults to **ubuntu**.
--os-version	Specifies the version of the O/S family. The version number need not be exact (it will be rounded up to the latest available patch version). Defaults to the latest version available.
--hardwareId	Kind of hardware to use.
--instanceType	Type of instance required.
--locationId	The location used to create the new node(s).

Argument	Interpretation
--user	Specifies the O/S user account to run on the new nodes. If the user account does not already exist on the new nodes, it will automatically be created. Defaults to the username that matches the current user.
--password	Specifies the password associated with the O/S user account defined by the **--user** option.
--public-key-file	An option to specify a public key file to copy to the created node. Copying a public key file to a node can be used for SSH access using public key authentication. If no key file is specified, Fabric attempts to auto-detect the user's public key and, if found, this key will be used by default.
--owner	Optional owner of images; only really used for EC2, and will be deprecated in future.
--group	Group tag to use on the new node(s). Defaults to **fabric**.
--proxy-uri	URL of the Maven proxy server used to download the container runtime.
--ensemble-server	Whether the new container should be a Fabric Server (effectively creates a new fabric).
--new-user	Used in combination with the **--ensemble-server** option to ensure that at least one user exists in the JAAS realm of the Zookeeper login module for the new fabric (otherwise it would be impossible to connect to the newly created Fabric Server). When using this option, you *must* also specify a password using the **--new-user-password** option.
--new-user-password	Used in combination with the **--new-user** option and the **--ensemble-server** option to specify the new user's password. No default value.
--new-user-role	Used in combination with the **--new-user** option and the **--ensemble-server** to specify the new user's role. Default is **admin**.

Argument	Interpretation
--zookeeper-password	Used in combination with the **--ensemble-server** option. Specifies the Zookeeper password, which is used to access the Zookeeper nodes under the **/fabric/** path. Defaults to the password of the current session user. If you subsequently try to join the current container to the newly-created Fabric Server (ensemble server) using the **fabric:join** command, you will be prompted to enter the Zookeeper password.
--resolver	Specifies how the container will report its address to other containers. Valid values are **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. For more information see fabric:container-resolver-set.
--min-port	Specifies the minimum port number of the allowed IP port range. Default is **0**.
--max-port	Specifies the maximum port number of the allowed IP port range. Default is **65535**.
--profile	A list of profile IDs to associate with the new container.
--version	Specifies the version of the new container (the version must be created in advance using **fabric:version-create**). Defaults to the current default version (use **version-list** to find the current default).
--jvm-opts	Specify options to pass to the container's JVM.
--add-option	Specifies generic JCloud properties or provider-specify properties. For example, when using Amazon with Amazon VPC to create a container inside a VPN, you can specify **--option subnetId=*yoursubnetId*** to define the VPC subnet where you want the node to be created. If you want to specify more than one option, specify this option multiple times.
--no-admin-access	Disables admin access, as it might not be feasible on all images.
Name	*(Required)* The name of the container to create. When creating multiple containers, it serves as a prefix.
Number	The number of containers that should be created.

RELATED TOPICS

See the other Fabric cloud commands:

- fabric:cloud-provider-add
- fabric:cloud-provider-list
- fabric:cloud-provider-remove

For more details about resolver policies, see:

- fabric:container-resolver-list
- fabric:container-resolver-set
- fabric:create

NAME

fabric:container-create-ssh — creates one or more new containers through SSH

SYNOPSIS

`fabric:container-create-ssh` [--help] [--host ***`host`***] [--path ***`path`***] [--user ***`user`***] [--password ***`password`***] [--private-key ***`keyPath`***] [--port ***`port`***] [--ssh-retries ***`retries`***] [--proxy-uri ***`URI`***] [--ensemble-server] [--profile ***`profileID`***] [--version ***`version`***] [--jvm-opts***`jvmOpts`***] [--resolver ***`policy`***] { *Name* } [*Number*]

DESCRIPTION

Specifically, this command provisions the container as follows:

1. Logs into the specified SSH host, using either the provided username and password *or* using the provided username and private key.
2. Runs a script on the remote host that that downloads the container runtime to the remote host. The runtime files are downloaded through a Maven proxy server. By default, the script uses the oldest Maven proxy server in the current ensemble (every Fabric Server has a Maven proxy server deployed in it). You can optionally override the default Maven proxy by specifying the **`--proxy-uri`** option. The script would then use the specified Maven proxy server to download the container runtime.

   NOTE

   The ability to override the Maven proxy is important in certain cases (for example, in a cloud deployment) where the remote host might not be able to access the default Maven proxy server.

3. Starts up the newly installed container (or containers) and installs the specified fabric profile (or profiles).

By default, the newly created containers belong to the current fabric (that is, the same fabric as the container from which you invoked the command). It is possible, however, to create a container on the remote host that acts as the seed for a completely new fabric, separate from the current one. To create a new fabric on the remote host, invoke the **`fabric:container-create-ssh`** command with the **`--`**

ensemble-server flag, which makes the newly created container (or containers) a Fuse Server. The newly created Fuse Server on the remote host *does not join the current ensemble* it belongs to an independent ensemble (a new fabric).

ARGUMENTS

Table 8.11, "**fabric:container-create-ssh** Arguments" describes the command's arguments.

Table 8.11. fabric:container-create-ssh Arguments

Argument	Interpretation
--help	Displays the online help for this command
--host	*(Required)* Host name to SSH into.
--path	Path on the remote filesystem where the container is to be installed.
--user	*(Required)* User name for login.
--password	Password for login. If the password is omitted, private key authentication is used instead.
--private-key	Specifies the path to the private key on the local file system. The default is **~/.ssh/id_rsa** on *NIX platforms or **C:\Documents and Settings*UserName*\.ssh\id_rsa** on Windows.
--port	The IP port number for the SSH connection.
--ssh-retries	Maximum number or times to retry SSH connection.
--proxy-uri	URL of the Maven proxy server used to download the container runtime.
--ensemble-server	Whether the new container should be a Fabric Server.
--profile	A list of profile IDs to associate with the new container.
--version	Specifies the version of the new container (the version must be created in advance using **fabric:version-create**). Defaults to the current default version (use **version-list** to find the current default).
--jvm-opts	Specify options to pass to the container's JVM.

Argument	Interpretation
--resolver	Specifies how the container will report its address to other containers. Valid values are **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. For more information see fabric:container-resolver-set.
Name	*(Required)* The name of the container to create. When creating multiple containers, it serves as a prefix.
Number	The number of containers that should be created.

RELATED TOPICS

For more details about resolver policies, see:

fabric:container-resolver-list
fabric:container-resolver-set
fabric:create

NAME

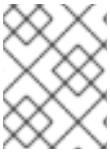
fabric:container-delete, container-delete — stops and deletes a Fuse Container

SYNOPSIS

fabric:container-delete [--help] [[-r] | [--recursive]] { *Name* }

DESCRIPTION

Deleting a Fuse Container deletes all of the files associated with the container from the host.
If the container has children, the default behavior of the command is to leave the children in place. You can force the deletion of the children using the **-r** option.



NOTE

If the container to be deleted is a Fabric Server, you must first remove it from the ensemble using **fabric:ensemble-remove**.

ARGUMENTS

Table 8.12, "**fabric:container-delete** Arguments" describes the command's arguments.

Table 8.12. fabric:container-delete Arguments

Argument	Interpretation

Argument	Interpretation
`--help`	Displays the online help for this command.
`-r, --recursive`	Recursively stops and deletes all child containers.
Name	Specifies the name of the container to delete.

NAME
fabric:container-domains, container-domains — lists a container's JMX domains

SYNOPSIS
`fabric:container-domains` [--help] { *Name* }

ARGUMENTS
Table 8.13, "**`fabric:container-domains` Arguments**" describes the command's arguments.

Table 8.13. `fabric:container-domains` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
Name	Specifies the name of the container.

NAME
fabric:container-info, container-info — displays information about the specified container

SYNOPSIS
`fabric:container-info` [--help] [*ContainerName*]

ARGUMENTS
Table 8.14, "**`fabric:container-info` Arguments**" describes the command's arguments.

Table 8.14. `fabric:container-info` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
ContainerName	Specifies the name of the container for which information is provided. If not specified, the container name defaults to **`root`**.

NAME
fabric:container-list, container-list — lists the containers in a fabric

SYNOPSIS
`fabric:container-list` [--help] [--version *Version*] [[-v] | [--verbose]] [[*ID*] | [*profile*]]

ARGUMENTS
Table 8.15, "**`fabric:container-list` Arguments**" describes the command's arguments.

Table 8.15. `fabric:container-list` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`--version`	Specifies a profile version to use as filter.
`-v, --verbose`	Display verbose output.
`ID`	Specifies a container ID to use in filtering the output.
`profile`	Specifies a profile to use in filtering the output. When a profile is specified only the containers with the profile are listed.

NAME
fabric:container-remove-profile, container-remove-profile — removes the specified list of profiles from the container

SYNOPSIS
`fabric:container-remove-profile` [--help] { *Name* } { *Profiles* }

ARGUMENTS
fabric:container-remove-profile, describes the command's arguments.

Table 8.16. `fabric:container-remove-profile` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`Name`	Specifies the name of the container.
`Profiles`	Specifies the list of profiles to remove from the container.

NAME
fabric:container-resolver-list — show the resolver policies for the specified containers

SYNOPSIS
fabric:container-resolver-list [--help] [*containers*]

DESCRIPTION
For all containers in the fabric, list the resolver policy and the following variants of the host address: local IP address, local hostname, public IP address, public hostname, and manually specified IP address. The host addresses are found by looking them up in the Fabric Registry for each container. This information is stored in the Fabric Registry at the time when the container is created. In most cases, only the local IP address and the local hostname are known. The public IP address and public hostname are generally available only for cloud containers.

ARGUMENTS
Table 8.17, "**fabric:container-resolver-list** Arguments" describes the command's arguments.

Table 8.17. fabric:container-resolver-list Arguments

Argument	Interpretation
--help	Displays the online help for this command
containers	List of containers for which the resolver policy is displayed. Shows all containers by default.

RELATED TOPICS
fabric:container-resolver-set

NAME
fabric:container-resolver-set — specifies how the container reports its address to other containers

SYNOPSIS
fabric:container-resolver-set [--help] [--container ***name***] [--all] { *Resolver* }

DESCRIPTION
Apply the specified resolver policy to the specified container or containers, where the resolver policy can take one of the following values:

```
localip
localhostname
publicip
publichostname
manualip
```

The **localip** and **localhostname** resolver policies are suitable for accessing a container in a LAN. The **publicip** and **publichostname** resolver policies are suitable for accessing a container in a WAN (Internet), but they are typically only available for cloud containers. In the case of a the cloud,

localip and **localhostname** can be used for container-to-container connections within the cloud, but for container-to-container connections from outside the cloud, you must use **publicip** or **publichostname**.
Fabric manages host addresses as follows:

- When you create a new container, fabric tries to discover as much as it can about the container's host address and stores this information in the following fields in the fabric registry: **localip** (local IP address); **localhostname** (local hostname); **publicip** (public IP address); **publichostname** (public hostname).

  For example, if you create a new container using the **fabric:container-create-ssh** command and specify the local IP address to the **--host** option, fabric attempts to perform a reverse lookup to obtain the corresponding local hostname and then stores both the local IP address *and* the local hostname in the Fabric Registry.

  If you create a new container in the cloud, the metadata sent by the cloud provider typically includes a complete set of host addresses: **localip**, **localhostname**, **publicip**, and **publichostname**.

- Every container in the fabric has its own *resolver policy*, which determines what kind of host address is returned to another container that wants to connect to it. The container's resolver policy is set in one of the following ways:

  - *(Default)* By inheriting the resolver policy from the global resolver policy (specified at the time the fabric is created)

  - By specifying the resolver policy explicitly at the time the container is created (through the **--resolver** option).

  - By invoking the **fabric:container-resolver-set** command.

- The container's resolver policy is applied whenever fabric looks up the container's host address, irrespective of what protocol is involved. In particular, the resolver policy determines the form of the host address used in the following URLs:

  - Fabric Ensemble URL,

  - SSH URL (console client port),

  - Maven proxy URL,

  - JMX URL.

For example, if your fabric includes a container called **SSH1** (originally created using the **fabric:container-create-ssh** command) and the **SSH1** container is configured with the **localip** resolver policy, any container that tries to connect to **SSH1** will automatically receive the local IP address of **SSH1** when it looks up the Fabric Registry.

NOTE

A container's resolver policy only affects the host address returned when *other* containers want to connect to it. The container's own policy has no effect on how the container resolves the host addresses of the other containers. In other words, if containers **X**, **Y**, and **Z** want to connect to container **SSH1**, the form of host address they get is determined by **SSH1**'s resolver policy. But if **SSH1** wants to connect to container **X**, it is container **X**'s resolver policy that is used.

MANUAL IP RESOLVER POLICY

The **manualip** resolver policy is a special case. If none of the standard resolver policies are suitable for your network set-up, you can manually specify a container's host address by setting the following key in the Fabric Registry:

```
/fabric/registry/containers/config/ContainerName/manualip
```

ARGUMENTS

Table 8.18, "**fabric:container-resolver-set** Arguments" describes the command's arguments.

Table 8.18. fabric:container-resolver-set Arguments

Argument	Interpretation
--help	Displays the online help for this command
--container	Apply the resolver policy to the specified container.
--all	Apply the resolver policy to all containers in the fabric.
Resolver	*(Required)* The resolver policy to set on the specified container(s). Possible values are: **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**.

NAME

fabric:container-rollback — roll back the specified containers to an older version

SYNOPSIS

fabric:container-rollback [--help] [--all] { *Version* } [*ContainerList*]

DESCRIPTION

For an example of how this command is used, see fabric:container-upgrade.

ARGUMENTS

Table 8.19, "**fabric:container-rollback** Arguments" describes the command's arguments.

Table 8.19. fabric:container-rollback Arguments

Argument	Interpretation
--help	Displays the online help for this command
--all	Roll back all containers.
Version	*(Required)* The version to roll back to.

Argument	Interpretation
ContainerList	The list of containers to roll back. An empty list implies the current container.

NAME
fabric:container-start, container-start — start the specified container

SYNOPSIS
`fabric:container-start` [--help] { *name* }

ARGUMENTS
Table 8.20, "**`fabric:container-start`** Arguments" describes the command's arguments.

Table 8.20. `fabric:container-start` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
Name	Specifies the name of the container.

NAME
fabric:container-stop, container-stop — shuts down the specified container

SYNOPSIS
`fabric:container-stop` [--help] { *Name* }

ARGUMENTS
Table 8.21, "**`fabric:container-stop`** Arguments" describes the command's arguments.

Table 8.21. `fabric:container-stop` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
Name	*(Required)* The name of the container.

NAME
fabric:container-upgrade — upgrade the specified containers to a new version

SYNOPSIS

fabric:container-upgrade [--help] [--all] { *Version* } [*ContainerList*]

DESCRIPTION

This command is typically used in combination with the **fabric:profile-edit** command to guarantee atomicity of profile modifications. That is, if multiple edits need to be made to a profile, you can use **fabric:container-upgrade** to roll out all of the changes in one step.

For example, consider the container, **child1**, which is currently assigned to version 1.0 and has the **sample** profile deployed inside it. If you need to make multiple changes to the **sample** profile, you can roll out these changes atomically, as follows:

1. Create a new version, 1.1, to hold the pending changes, as follows:

```
karaf@root> fabric:version-create
Created version: 1.1 as copy of: 1.0
```

2. Now start editing the new version of the sample profile, remembering to specify **1.1**, so that the modifications are applied to version 1.1 of **sample**. For example, to add the **camel-quartz** feature to the sample profile, enter the following command:

```
fabric:profile-edit --features camel-quartz sample 1.1
```

NOTE

Instead of adding the option **1.1** to every edit command, you could change the default version to 1.1 by entering the command, **fabric:version-set-default 1.1**.

3. When you have finished editing the **sample** profile and you are ready to let the changes take effect on the container, **child1**, you can roll out the changes by upgrading the **child1** container to version 1.1, as follows:

```
fabric:container-upgrade 1.1 child1
```

4. If you are not happy with the changes you made, you can easily roll back to the old version of the **sample** profile, using the **fabric:container-rollback** command, as follows:

```
fabric:container-rollback 1.0 child1
```

ARGUMENTS

Table 8.22, "**fabric:container-upgrade** Arguments" describes the command's arguments.

Table 8.22. fabric:container-upgrade Arguments

Argument	Interpretation
--help	Displays the online help for this command
--all	Upgrade all containers.

Argument	Interpretation
Version	*(Required)* The version to upgrade to.
ContainerList	The list of containers to upgrade. An empty list implies the current container.

NAME
fabric:create — creates a new fabric and imports fabric profiles

SYNOPSIS
fabric:create [--help] [--clean] [--no-import] [--import-dir ***dir***] [[-v] | [--verbose]] [[-t] | [--time]***millis***] [[-n] | [--non-managed]] [[-p] | [--profile]***profile***] [--new-user ***username***] [--new-user-password ***password***] [--new-user-role ***role***] [--zookeeper-password ***zooPassword***] [--generate-zookeeper-password] [[-g] | [--global-resolver]***policy***] [[-r] | [--resolver]***policy***] [[-m] | [--manual-ip]***ipAddress***] [--min-port ***port***] [--max-port ***port***] [*ContainerList*]

DESCRIPTION
This command is used to create a new fabric. It can also be used to change the Fabric Servers in an existing fabric. Converting the current container into a fabric has two important side effects:

- The contents of a container should now be managed using *fabric profiles*. Do not try to deploy bundles and features directly in a fabric container.
- The default JAAS realm is superseded by the Zookeeper login module, which stores user data in the Zookeeper registry. As the fabric is created it initializes the user data by importing all of the user data that it finds in the **etc/users.properties** file. If the **users.properties** file is empty, you can specify a new user explicitly using the **--new-user** and **--new-user-password** options (at least one user *must* be defined).

If you want to create your own import directory with custom profile data, it is recommended that you proceed as follows:

1. Create a fabric that imports the sample profiles (for example, using **fabric:create**).
2. Modify the sample profiles using the **fabric:profile-create**, **fabric:profile-delete**, and **fabric:edit** commands.
3. Export the modified profiles using the **fabric:export** command.

ARGUMENTS
Table 8.23, "**fabric:create** Arguments" describes the command's arguments.

Table 8.23. fabric:create Arguments

Argument	Interpretation
--help	Displays the online help for this command

Argument	Interpretation
--clean	Clean local zookeeper cluster and configurations.
--no-import	Disable the import of the sample registry data.
--import-dir	Directory of files to import into the newly created ensemble.
-v, --verbose	Flag to enable verbose output of files being imported.
-t, --time	How long to wait (milliseconds) for the ensemble to start up, before trying to import the default data.
-n, **--non-managed**	Specifies that the container remains unmanaged.
-p, --profile	Specifies the profile to use for the ensemble containers in the new fabric.
--new-user	Create a new user in the new fabric's JAAS realm. Because the **fabric:create** command automatically imports user data from the **etc/users.properties** file, you would only need to specify this option, if the **etc/users.properties** file contains no valid user entries. When using this option, you *must* also specify a password using the **--new-user-password** option.
--new-user-password	Used in combination with the **--new-user** option to specify the new user's password. No default value.
--new-user-role	Used in combination with the **--new-user** option to specify the new user's role. Default is **admin**.
--zookeeper-password	Specifies the Zookeeper password, which is used to access the Zookeeper nodes under the **/fabric/** path. Defaults to the password of the current session user. Subsequently, because the Zookeeper password is cached in the current session, you normally do not need to provide it when executing fabric commands. You can display the Zookeeper password at any time using the **fabric:ensemble-password** command.

Argument	Interpretation
--generate-zookeeper-password	Directs Fabric to generate a random Zookeeper password. Subsequently, you can display the Zookeeper password using the **fabric:ensemble-password** command.
-g, --global-resolver	Specifies the global resolver policy, which becomes the default resolver policy applied to all new containers created in this fabric. Possible values are: **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. The default is **localhostname**.
-r, --resolver	Specifies the local resolver policy. Possible values are: **localip**, **localhostname**, **publicip**, **publichostname**, **manualip**. The default is **localhostname**.
-m, --manual-ip	If you select the **manualip** resolver policy (using either the **--resolver** or **--global-resolver** options), specifies the IP address to use for the resolver.
--min-port	Specifies the minimum port number of the allowed IP port range. Default is **0**.
--max-port	Specifies the maximum port number of the allowed IP port range. Default is **65535**.
ContainerList	The list of containers to include in the ensemble. An empty list implies the current container.

EXAMPLES

Create a fabric and import sample profiles from the ***ESBInstallDir*/fabric/import** directory, as follows:

```
fabric:create --clean
```

Create a fabric *without* imported profiles, as follows:

```
fabric:create --clean --no-import
```

Create a fabric and import profiles from the custom import directory, *CustomImportDir*, as follows:

```
fabric:create --clean --import-dir CustomImportDir
```

Re-create a fabric such that the containers, **reg1**, **reg2**, and **reg3**, are now included in the registry ensemble (an ensemble must consist of an odd number of containers):

```
fabric:create reg1 reg2 reg3
```

In this case, the contents of the Zookeeper registry are preserved and the ensemble is expanded to include the specified containers.

RELATED TOPICS

For more details about resolver policies, see:

- fabric:container-resolver-list.
- fabric:container-resolver-set.

NAME

fabric:ensemble-add — extend the current Fabric Ensemble by converting the specified containers into Fuse Servers

SYNOPSIS

`fabric:ensemble-add` [--help] { *ContainerList* }

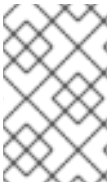
DESCRIPTION

Because the total number of containers in an ensemble must always be odd, you should add an even number of containers.

For example, consider a fabric consisting of three containers—**`root1`**, **`root2`**, and **`root3`**—where **`root1`** is an Fuse Server and **`root2`** and **`root3`** are ordinary Fabric Containers. You can now add **`root2`** and **`root3`** to the current ensemble by entering the following console command:

```
fabric:ensemble-add root2 root3
```

Normally, it makes sense to have at most one Fabric Server running on each host, so that the specified containers are actually running on remote hosts (hence, it usually does not make sense to add child containers to an ensemble). You do not need to provide any information about where the containers are running, however, because fabric already knows the location of the containers in the fabric.



NOTE

Because the Fabric Ensemble is the key component of Fuse Fabric, changing the ensemble is a critical operation. All data will be preserved and copied to the new Fuse Servers before switching.

ARGUMENTS

Table 8.24, "**`fabric:ensemble-add`** Arguments" describes the command's arguments.

Table 8.24. `fabric:ensemble-add` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`ContainerList`	The list of containers to add.

NAME
fabric:ensemble-list — lists the Fuse Servers in the current Fabric Ensemble

SYNOPSIS
fabric:ensemble-list [--help]

DESCRIPTION
For a complete listing of *all* the containers in the fabric, use **fabric:container-list** instead.

ARGUMENTS
Table 8.25, "**fabric:ensemble-list** Arguments" describes the command's arguments.

Table 8.25. fabric:ensemble-list Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME
fabric:ensemble-password — display the ensemble password

SYNOPSIS
fabric:ensemble-password [--help]

DESCRIPTION
The ensemble password protects access to the Zookeeper nodes under the **/fabric/** path, which contains critical configuration data for the fabric. To ensure integrity of the fabric configuration data, you should modify the fabric configuration exclusively using the **fabric:*** console commands.

ARGUMENTS
Table 8.26, "**fabric:ensemble-password** Arguments" describes the command's arguments.

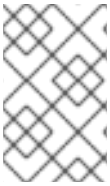
Table 8.26. fabric:ensemble-password Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME
fabric:ensemble-remove — remove the specified containers from the current ensemble

SYNOPSIS
fabric:ensemble-remove [--help] { *ContainerList* }

DESCRIPTION
Re-create the current ensemble, excluding the specified containers from the ensemble. All containers are switched to this new ensemble.



NOTE

Because the Fabric Ensemble is the key component of Fuse Fabric, changing the ensemble is a critical operation. All data will be preserved and copied to the new ensemble before switching.

ARGUMENTS

Table 8.27, "`fabric:ensemble-remove` Arguments" describes the command's arguments.

Table 8.27. `fabric:ensemble-remove` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`ContainerList`	The list of containers to remove. Must be an even number of containers.

NAME

fabric:export — export the contents of the Fabric Registry to the specified directory in the filesystem

SYNOPSIS

`fabric:export` [--help] [-d|--delete] [-p|--path *path*] [-f|--regex *regex*] [-rf|--reverse-regex *regex*] [-t|--trim] [--dry-run] { *target* }

DESCRIPTION

The output of this command is compatible with the import options of the other **`fabric`** commands. The regular expression options, **`-f`** and **`-rf`**, provide you with considerable flexibility at specifying which parts of the Fabric Registry to export. For example, to export every version of the **`default`** profile's data, you could use a command like the following:

```
fabric:export -f /fabric/configs/versions/[0-9\\.]*/profiles/default/.*
```

Where a double-backslash, `\\`, is required to escape the period, `.`, so that the period gets interpreted as a character literal.

ARGUMENTS

Table 8.28, "`fabric:export` Arguments" describes the commands arguments.

Table 8.28. `fabric:export` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-d,--delete`	Delete the existing contents of the target directory before exporting. **Caution:** Performs a recursive delete!

Argument	Interpretation
-p,--path	Top-level znode to export. Default is**/**.
-f,--regex	Specifies a regular expression that matches the znode paths you want to *include* in the export. For multiple include expressions, specify this option multiple times. The regular expression syntax is defined by the **java.util.regex** package.
-rf,--reverse-regex	Specifies a regular expression that matches the znode paths you want to *exclude* from the export. For multiple exclude expressions, specify this option multiple times. The regular expression syntax is defined by the **java.util.regex** package.
-t,--trim	Trims the first timestamp comment line in properties files starting with the # character.
--dry-run	Log the actions that would be performed during an export, but do not actually perform the export.
target	Path of the directory to export to. Default is **./export**.

NAME

fabric:import – import data either from a filesystem or from a properties file into the Fabric Registry

SYNOPSIS

fabric:import [--help] [-fs|--filesystem] [-props|--properties *URL*] [-t|--target *path*] [-d|--delete] [-f|--regex *regex*] [-rf|--reverse-regex *regex*] [-v|--verbose] [--dry-run] { *source* }

ARGUMENTS

Table 8.29, "**fab:start** Arguments" describes the commands arguments.

Table 8.29. fab:start Arguments

Argument	Interpretation
--help	Displays the online help for this command
-fs,--filesystem	Indicates that the *source* argument is a directory on the filesystem. Defaults to **true**.
-props,--properties	Indicates that the *source* argument is a properties file. Defaults to **false**.

Argument	Interpretation
-t,--target	Path of the znode that the data is imported into. Default is **/**.
-d,--delete	Delete any paths that are not in the tree being imported. Ignored when importing a properties file. **Caution:** Using this option could permanently delete all or part of the Fabric Registry.
-f,--regex	Specifies a regular expression that matches the znode paths you want to *include* in the import. For multiple include expressions, specify this option multiple times. The regular expression syntax is defined by the **java.util.regex** package.
-rf,--reverse-regex	Specifies a regular expression that matches the znode paths you want to *exclude* from the import. For multiple exclude expressions, specify this option multiple times. The regular expression syntax is defined by the **java.util.regex** package.
-v,--verbose	Verbose log of files being imported.
--dry-run	Log the actions that would be performed during an import, but do not actually perform the import.
source	Location of a filesystem (if **--filesystem** is specified) or a properties file (if **--properties** is specified). Defaults to **./import**.

NAME
fabric:join — join a container to an existing fabric

SYNOPSIS
fabric:join [--help] [[-f] | [--force]] [[-p] | [--profile]***Profile***] [[-n] | [--non-managed]] [--zookeeper-password *zooPassword*] [[-r] | [--resolver]***policy***] [[-m] | [--manual-ip]***ipAddress***] [--min-port *port*] [--max-port *port*] *URL* [*ContainerName*]

DESCRIPTION
The **fabric:join** command can be used in either of the following scenarios:

- You have an existing fabric, A, and you want to join a standalone container to fabric A.
- You have two separate fabrics, A and B, and you want to transfer a container from fabric B to fabric A.

ARGUMENTS
Table 8.30, "**fabric:join** Arguments" describes the command's arguments.

Table 8.30. `fabric:join` Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
`-f`, **`--force`**	Forces the provided container name to be used.
`-p`, **`--profile`**	Specifies the profile to associate with the container after it joins the fabric. The **`fabric`** profile, which installs the Fabric Agent, is automatically assigned to all managed containers.
`-n`, **`--non-managed`**	Registers the container with the fabric's ensemble, but does not install a Fabric Agent into the container. The container's configuration is not managed by the fabric and continues to behave like a standalone container except that it can be discovered through the fabric's ensemble.
`--zookeeper-password`	The ensemble password for the fabric that you are trying to join. If you do not specify this option, you will be prompted to enter the password.
`-r, --resolver`	Specifies the local resolver policy. Possible values are: **`localip`**, **`localhostname`**, **`publicip`**, **`publichostname`**, **`manualip`**. The default is **`localhostname`**.
`-m, --manual-ip`	If you select the **`manualip`** resolver policy (using the **`--resolver`** option), specifies the IP address to use for the resolver.
`--min-port`	Specifies the minimum port number of the allowed IP port range. Default is **`0`**.
`--max-port`	Specifies the maximum port number of the allowed IP port range. Default is **`65535`**.
`URL`	Specifies the URL of one of the Fabric Servers, specified in the format ***`Host`*****`[:`*****`Port`*****`]`**. The ***`Port`*** value defaults to **`2181`**.
`ContainerName`	Specifies a unique name for the container to use when joining the fabric. By default, the value of the **`karaf.name`** property from the **`etc/system.properties`** file is used.

EXAMPLES

The following command will add a standalone container to a fabric as a managed container:

```
fabric:join myhostA ishmael
```

Where **myhostA** is the hostname of a Fabric Server (you must connect to a Fabric Server, not an ordinary fabric container) and the container is assigned the name **ishmael**. You will be prompted to enter the fabric's Zookeeper password.

IMPORTANT

If the container being added to a fabric is assigned the same name as a container that is already a part of the fabric, the original container will be reset to have the same settings as the new container.

WARNING

If no container name is specified as part of the command, the command will use the value of the **karaf.name** property from the **etc/system.properties** file. The default setting for this property is **root**. To avoid conflicts, you should either specify a container name or change the value of the **karaf.name** property.

To make sure that the container starts up with a specific profile, you use the **-p** argument as follows:

```
fabric:join -p whaler myhostA ishmael
```

The container **ishmael** is assigned the profile, **whaler**, when it joins the fabric.
If you want to be able to configure the container manually, but take advantage of the fabric's discovery features, you can add the container as a non-managed container using the following command:

```
fabric:join -n myhostA ishmael
```

NAME

fabric:mq-create — create a new broker profile

SYNOPSIS

fabric:mq-create [--help] [--group *groupName*] [--networks *brokerGroup*, ...] [--networks-username *user*] [--networks-password *password*] [--create-container *containerID*, ...] [--assign-container *containerID*, ...] [--config *configFile*] [--data *dataDir*] [--jmx-user *jmxUser*] [--jmx-password *jmxPassword*] [--jvm-opts *jvmOpts*] [--version *version*] { *name* }

ARGUMENTS

Table 8.31, "**fabric:mq-create** Arguments" describes the command's arguments.

Table 8.31. fabric:mq-create Arguments

Argument	Description
--help	Displays the online help for this command.

Argument	Description
--group *groupName*	Specifies the name of the group to which brokers using this profile are assigned. By default brokers are assigned to the **default** group.
--networks *brokerGroup*,...	Specifies a comma separated list of broker groups to which brokers using this profile will establish network connections to form a network of brokers.
--networks-username	Specifies the username part of the credentials that are used to connect to the broker networks specified by the **--networks** option.
--networks-password	Specifies the password part of the credentials that are used to connect to the broker networks specified by the **--networks** option.
--create-container *containerID*,...	Specifies a comma separated list of child containers to create using the new profile. The new containers will be children of the container from which the command is executed.
--assign-container *containerID*,...	Specifies a comma separated list of containers to which the new profile will be deployed.
--config *configFile*	Specifies the ensemble path of the XML configuration template used by the profile. The path will have the syntax **/fabric/configs/versions/*version*/profiles/*profile*/*config*.xml**.
--data *dataDir*	Specifies the path, relative to the container, for storing the persistence data for a broker using the profile.
--jmx-user	The JMX username for logging on to the parent's JMX port.
--jmx-password	The JMX password for logging on to the parent's JMX port.
--jvm-opts	Specify options to pass to the container's JVM.
--version *version*	Specifies the version into which the profile is stored. Defaults to the current default version.
name	Specifies the name of the new broker profile.

EXAMPLES

To create a new broker profile with the name **myBrokerProfile** that uses the XML template file **myConfigTemplate.xml** use the command:

```
fabric:mq-create --config /fabric/configs/versions/1.0/profiles/mq-
base/myConfigTemplate.xml myBrokerProfile
```

To create a new broker profile and create a new container using the new profile use the command:

```
fabric:mq-create --config /fabric/configs/versions/1.0/profiles/mq-
base/myConfigTemplate.xml --create-container broker1 myBrokerProfile
```

To create a new broker profile and associate it with an existing container use the command:

```
fabric:mq-create --config /fabric/configs/versions/1.0/profiles/mq-
base/myConfigTemplate.xml --assign-container container1 myBrokerProfile
```

NAME

fabric:profile-change-parents — replace the profile's parents with the specified list of parents (where the parents are specified as a space-separated list)

SYNOPSIS

fabric:profile-change-parents [--help] [--version ***version***] { *Name* } { *ParentList* }

ARGUMENTS

Table 8.32, "**fabric:profile-change-parents** Arguments" describes the command's arguments.

Table 8.32. fabric:profile-change-parents Arguments

Argument	Interpretation
--help	Displays the online help for this command
--version	The profile version. Defaults to the current default version (use **version-list** to find the current default).
Name	*(Required)* Name of the profile.
ParentList	*(Required)* The list of new parent profiles.

NAME

fabric:profile-create — create a new profile with the specified name and version

SYNOPSIS

fabric:profile-create [--help] [--version ***version***] [--parents ***parentList***] { *Name* }

DESCRIPTION

The new profile is created *only for the version you specify* (or the current default version). If you want to create a profile for every version, you must invoke **fabric:profile-create** separately for each version (use **fabric:version-list** to list all versions).

The newly created profile is initially empty, apart from the settings inherited from the parent profiles. To add settings to the new profile, use the **fabric:profile-edit** command.

For example, to add the new profile, **test**, which has the current default version and inherits from the parent profiles, **mq** and **camel**, enter the following console command:

```
fabric:profile-create --parents mq --parents camel test
```

ARGUMENTS

Table 8.33, "**fabric:profile-create** Arguments" describes the command's arguments.

Table 8.33. fabric:profile-create Arguments

Argument	Interpretation
--help	Displays the online help for this command
--version	The profile version. Defaults to the current default version (use **version-list** to find the current default).
--parents	Optionally specifies one or multiple parent profiles. To specify multiple parent profiles, specify this flag multiple times on the command line—for example, **--parents foo --parents bar**.
Name	*(Required)* Name of the new profile.

NAME

fabric:profile-delete — delete the specified version of the specified profile (where the version defaults to the current default version)

SYNOPSIS

fabric:profile-delete [--help] [--version ***version***] { *Profile* }

ARGUMENTS

Table 8.34, "**fabric:profile-delete** Arguments" describes the command's arguments.

Table 8.34. fabric:profile-delete Arguments

Argument	Interpretation
--help	Displays the online help for this command

Argument	Interpretation
--version	The profile version to delete. Defaults to the current default version (use **version-list** to find the current default).
Profile	*(Required)* Name of the profile to delete.

NAME

fabric:profile-display — displays information about the specified version of the specified profile (where the version defaults to the current default version)

SYNOPSIS

fabric:profile-display [--help] [--version ***version***] [[-o] | [--overlay]] **{**
Profile
}

ARGUMENTS

Table 8.35, "fabric:profile-display Arguments" describes the command's arguments.

Table 8.35. fabric:profile-display Arguments

Argument	Interpretation
--help	Displays the online help for this command
--version	Select a specific profile version. Defaults to the current default version (use **version-list** to find the current default).
-o, --overlay	Enable overlay. Shows the effective profile settings, taking into account the settings inherited from parent profiles.
Profile	*(Required)* The name of the profile.

NAME

fabric:profile-edit — edits the specified version of the specified profile (where the version defaults to the current default version)

SYNOPSIS

```
fabric:profile-edit  [
     --help
    ] [[
      -p
     ] |  [
      --pid
     ]PID] [[
      -r
     ] |  [
      --repositories
     ] |  [
      -f
     ] |  [
      --features
     ] |  [
      -b
     ] |  [
      --bundles
     ] |  [
      --fabs
     ] |  [
      -c
     ] |  [
      --config
     ] |  [
      -s
     ] |  [
      --system
     ] |  [
      -o
     ] |  [
      --overrides
     ]] [[
      --set
     ] |  [
      --delete
     ]] [[
      --append
     ] |  [
      --remove
     ]] [
     --import-pid
    ] [[
      --delimiter
     ]delim] [[
      --resource
     ]ResourceName] {
     Profile
    } [
     Version
    ]
```

DESCRIPTION

In the specified profile, you can edit different kinds of settings, as follows:

- ***Feature repository locations*—to add a feature repository to the profile, enter a command in the following format:**

```
fabric:profile-edit --repositories RepoList Profile [Version]
```

For example, to add the fuse-fabric feature repository to the profile, enter a command like the following:

```
fabric:profile-edit --repositories mvn:org.fusesource.fabric/fuse-fabric/6.0.0.redhat-024/xml/features Profile [Version]
```

To delete repositories, enter a command of the following form:

```
fabric:profile-edit --delete --repositories RepoList Profile [Version]
```

To edit repository locations directly, using a visual text editor, enter the following command:

```
fabric:profile-edit Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's agent properties. To edit the repository settings, add, modify, or delete lines of the following form:

```
repository.ID=URL
```

Where *ID* is an arbitrary unique identifier and *URL* gives the location of a single feature repository. Only one repository URL can be specified on each line.

- ***Features to install*—to add features to the profile, enter a command in the following format:**

```
fabric:profile-edit --features FeatureList Profile [Version]
```

Where *FeatureList* is a comma-separated list of features. For example, to add the camel-jetty and the camel-quartz features to the default version of the sample profile, enter a command like the following:

```
fabric:profile-edit --features camel-jetty,camel-quartz sample
```

To delete features, enter a command of the following form:

```
fabric:profile-edit --delete --features FeatureList Profile
[Version]
```

To edit features directly, using the visual text editor, enter the following command:

```
fabric:profile-edit Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's agent properties. To edit the features, add, modify, or delete lines of the following form:

```
feature.ID=FeatureName
```

Where *ID* is an arbitrary unique identifier and *FeatureName* is the name of a feature.

- *Bundles to install*—to add bundles to the profile, enter a command in the following format:

```
fabric:profile-edit --bundles BundleList Profile [Version]
```

For example, to add camel-quartz bundle to the sample profile, enter a command like the following:

-

```
fabric:profile-edit --bundles mvn:org.apache.camel/camel-
quartz/2.10.0.redhat-60024 sample
```

To delete bundles, enter a command of the following form:

```
fabric:profile-edit --delete --bundles BundleList Profile [Version]
```

To edit bundles directly, using the visual text editor, enter the following command:

```
fabric:profile-edit Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's agent properties. To edit the bundles, add, modify, or delete lines of the following form:

```
bundle.ID=URL
```

Where *ID* is an arbitrary unique identifier and *URL* specifies the bundle's location.

- *Configuration settings for the OSGi Config Admin service*—to modify or create a configuration setting from the OSGi Config Admin service, enter a command in the following format:

```
fabric:profile-edit --pid PID/Property=Value Profile [Version]
```

Where *PID* is a persistent ID, which is used in the context of the OSGi Config Admin service to identify a collection of related properties. For example, to change the value of the secure HTTPS port used by the Jetty server in the sample profile, you could edit the org.osgi.service.http.port.secure property from the org.ops4j.pax.web PID using a command like the following:

```
fabric:profile-edit --pid
org.ops4j.pax.web/org.osgi.service.http.port.secure=8553 sample
```

To delete a property, enter a command of the following form:

```
fabric:profile-edit --delete --pid PID/Property Profile [Version]
```

To edit OSGi Config Admin settings directly, using the visual text editor, enter the following command:

```
fabric:profile-edit --pid PID Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's *PID*.properties file (which is actually stored in the ZooKeeper registry). To edit the properties, add, modify, or delete lines of the following form:

```
Property=Value
```

- *Property settings from etc/config.properties*—to modify or create a Java system property in the container's etc/config.properties file (which affects the container), enter a command in the following format:

```
fabric:profile-edit --config Property=Value Profile [Version]
```

For example, to change the value of the karaf.startlevel.bundle Java system property in config.properties, you would enter a command like the following:

```
fabric:profile-edit --config karaf.startlevel.bundle=80 Profile
[Version]
```

To delete a Java system property from config.properties, enter a command of the following form:

```
fabric:profile-edit --delete --config Property Profile [Version]
```

To edit the Java system properties directly, using the visual text editor, enter the following command:

```
fabric:profile-edit Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's agent properties. To edit the Java system properties (analogous to etc/config.properties), add, modify, or delete lines of the following form:

```
config.Property=Value
```

- *Property settings from etc/system.properties*—to modify or create a Java system property in the container's etc/system.properties file (which affects bundles deployed in the container), enter a command in the following format:

```
fabric:profile-edit --system Property=Value Profile [Version]
```

For example, to change the default port for the OSGi HTTP service, you would enter a command like the following:

```
fabric:profile-edit --system org.osgi.service.http.port=8181 Profile
[Version]
```

If the system property, *Property*, is already set at the JVM level (for example, through the --jvm-opts option to the fabric:container-create command), the preceding fabric:profile-edit command *will not override the JVM level setting*. If you want to override the JVM level setting, you must indicate this explicitly by adding the karaf.override prefix to the property name, *Property*—for example:

```
fabric:profile-edit --system karaf.override.Property=Value Profile
[Version]
```

To delete a Java system property from system.properties, enter a command of the following form:

```
fabric:profile-edit --delete --system Property Profile [Version]
```

To edit the Java system properties directly, using the visual text editor, enter the following command:

```
fabric:profile-edit Profile [Version]
```

The visual editor opens, showing the contents of the specified profile's agent properties. To edit the Java system properties (analogous to etc/system.properties), add, modify, or delete lines of the following form:

```
system.Property=Value
```

If you want to ensure that this setting overrides any JVM level setting, set the system property as follows:

```
system.karaf.override.Property=Value
```

IMPORTANT

Any modifications you make to a profile using fabric:profile-edit are *immediately* propagated to the containers that use that profile. This is not the recommended way to edit profiles, however: if you change multiple settings in the profile, you could potentially put the affected containers into an inconsistent state. To guarantee atomicity, it is better to use the fabric:profile-edit command in combination with the fabric:container-upgrade command—see fabric:container-upgrade.

ENCLOSING AN OPTION VALUE IN QUOTES

The Karaf shell strips double quotes from an option by default. Hence, to enclose an option value in double quotes, it is necessary to enclose the whole setting in double quotes and to escape the quotes around the option value. For example, to define the system property setting, http.nonProxyHosts="myserver1|myserver2", on the default profile, you would use the following command:

```
fabric:profile-edit --system
"karaf.override.http.nonProxyHosts=\"myserver1|myserver2\"" default
```

Where the karaf.override prefix is prepended to the property name, because http.nonProxyHosts is already set at the JVM level and needs to be

overridden.

ARGUMENTS

Table 8.36, “fabric:profile-edit Arguments” describes the command's arguments.

Table 8.36. fabric:profile-edit Arguments

Argument	Interpretation
--help	Displays the online help for this command
-p, --pid	Edit an OSGi configuration property, specified in the format *PID/Property*.
-r, --repositories	Edit the list of feature repositories.
-f, --features	Edit features, specifying a comma-separated list of features to add (or delete).
-b, --bundles	Edit bundles, specifying a comma-separated list of bundles to add (or delete).
-f, --fabs	Edit Fuse Application Bundles (FABs), specifying a comma-separated list of FABs to add (or delete).
-c, --config	Edit the Java system properties that affect the container (analogous to editing **etc/config.properties** in a root container).
-s, --system	Edit the Java system properties that affect installed bundles (analogous to editing **etc/system.properties** in a root container).
-o, --overrides	Edit the bundle overrides, specifying a comma-separated list of bundles to add (or delete). A bundle override can be used to override the bundle version installed by a feature. For example, if a feature installs version 1.0.0 of a particular bundle, you could use a bundle override to install version 1.0.1 of the bundle instead.
--set	Set or create values (selected by default).
--delete	Delete values.

Argument	Interpretation
--append	When editing list values, append the specified value to the list. Can only be used in combination with the **--config**, **--system**, and **--pid** options.
--remove	When editing list values, remove the specified value from the list. Can only be used in combination with the **--config**, **--system**, and **--pid** options.
--delimiter	Specifies the delimiter to use in combination with the **--append** and **--remove** options. Default is **,** (comma).
--resource	When editing with the visual text editor, specifies the name of the resource to edit.
-i, --import-pid	Imports the PIDs that are edited, from local OSGi Config Admin.
Profile	*(Required)* Name of the profile to edit.
Version	Version of the profile to edit. Defaults to the current default version (use **version-list** to find the current default).

NAME

fabric:profile-list – lists all profiles that belong to the specified version (where the version defaults to the current default version)

SYNOPSIS

```
fabric:profile-list  [
     --help
    ] [
     --version version
    ] [
     --hidden
    ]
```

DESCRIPTION

ARGUMENTS

Table 8.37, “fabric:profile-list Arguments” describes the command's arguments.

Table 8.37. fabric:profile-list Arguments

Argument	Interpretation
--help	Displays the online help for this command
--version	Specifies the version of the profiles to list. Defaults to the current default version (use **version-list** to find the current default).
--hidden	Shows hidden profiles.

NAME

fabric:require-profile-delete – deletes requirements on the specified profile

SYNOPSIS

```
fabric:require-profile-delete  [
     --help
    ] {
     Profile
    }
```

ARGUMENTS

Table 8.38, "fabric:require-profile-delete Arguments" describes the command's arguments.

Table 8.38. fabric:require-profile-delete Arguments

Argument	Interpretation
--help	Displays the online help for this command
Profile	A profile ID.

NAME

fabric:require-profile-list – lists all profile requirements in the current fabric

SYNOPSIS

```
fabric:require-profile-list  [
     --help
    ]
```

DESCRIPTION

For example, if both the example-camel profile and the example-cxf profile have requirements set, you could see output like the following:

```
karaf@root> fabric:require-profile-list
[profile]                                [# minimum]    [# maximum]
[depends on]
example-camel                            2              4
example-cxf                              2              4
```

ARGUMENTS

Table 8.39, “fabric:require-profile-list Arguments” describes the command's arguments.

Table 8.39. fabric:require-profile-list Arguments

Argument	Interpretation
`--help`	Displays the online help for this command

NAME

fabric:require-profile-set — associates requirements with the specified profile

SYNOPSIS

```
fabric:require-profile-set  [
     --help
    ] [
     --minimum MinInstance
    ] [
     --maximum MaxInstance
    ] [
     --dependsOn Dependency
    ] {
     Profile
    }
```

DESCRIPTION

Requirements associated with a profile are used to assess the health of

the current fabric. Profile requirements are entirely passive. For example, if the number of running instances of a profile is less than the minimum or greater than the maximum, monitoring tools can be configured to indicate a problem or to trigger an alert. Otherwise, the requirements have no effect on the fabric.

In Fuse IDE a green/red bar indicates what proportion of the required profile instances are currently running in the fabric.

For example, to require a range of 2 to 4 running instances of the example-camel profile, you would enter the following command:

```
karaf@root> require-profile-set --minimum 2 --maximum 4 example-camel
```

ARGUMENTS

Table 8.40, “fabric:require-profile-set Arguments” describes the command's arguments.

Table 8.40. fabric:require-profile-set Arguments

Argument	Interpretation
--help	Displays the online help for this command
--minimum	The minimum number of instances of this profile expected to be running in the fabric.
--maximum	The maximum number of instances of this profile expected to be running in the fabric.
--dependsOn	The profile IDs that must be provisioned before this profile.
Profile	A profile ID.

NAME

fabric:status – displays the current status of the fabric, based on the configured profile requirements

SYNOPSIS

```
fabric:status  [
     --help
    ]
```

DESCRIPTION

This command summarizes the health of the fabric, based on requirements previously configured by the fabric:require-profile-set command. For example, if you configured the example-camel profile to require a minimum of two instances and a maximum of four instances, and there is currently only one instance running, the example-camel profile would get a health rating of 50%.

The fabric:status command produces output like the following:

```
karaf@root> fabric:status
[profile]                                [instances]    [health]
cloud                                    1              100%
example-camel                            0              0%
example-cxf                              0              0%
fabric                                   1              100%
fabric-ensemble-0000-1                   1              100%
```

ARGUMENTS

Table 8.41, “fabric:status Arguments” describes the command's arguments.

Table 8.41. fabric:status Arguments

Argument	Interpretation
--help	Displays the online help for this command

RELATED TOPICS

For more details, see:

- fabric:require-profile-set
- fabric:require-profile-list
- fabric:require-profile-delete

NAME

fabric:version-create — create a new version

SYNOPSIS

```
fabric:version-create  [
     --help
    ] [
     --parent parentVersion
    ] {
     Version
    }
```

DESCRIPTION

Create a new version, by default copying all of the profiles *from the current latest version* into the new version. You can specify which version to copy the profiles from using the --parent option. If no version is specified, the command creates a new minor version by default. For example:

```
karaf@root> fabric:version-list
[version]       [default] [# containers]
1.0             true      1
karaf@root> fabric:version-create
Created version: 1.1 as copy of: 1.0
karaf@root> fabric:version-list
[version]       [default] [# containers]
1.0             true      1
1.1             false     0
```

ARGUMENTS

Table 8.42, “fabric:version-create Arguments” describes the command's arguments.

Table 8.42. fabric:version-create Arguments

Argument	Interpretation
--help	Displays the online help for this command
--default	Set the created version to be the new default version.
--parent	The parent version. By default, use the latest version as the parent.
Version	The new version to create. If not specified, defaults to the next minor version.

NAME

fabric:version-delete – delete the specified version

SYNOPSIS

```
fabric:version-delete  [
     --help
    ] {
     Version
    }
```

DESCRIPTION

Delete the specified version.

WARNING

This command also deletes all of the profile data associated with the deleted version.

ARGUMENTS

Table 8.43, “fabric:version-delete Arguments” describes the command's arguments.

Table 8.43. fabric:version-delete Arguments

Argument	Interpretation
--help	Displays the online help for this command
Version	*(Required)* The version to delete.

NAME

fabric:version-list – lists the existing versions

SYNOPSIS

```
fabric:version-list  [
     --help
    ]
```

DESCRIPTION

For example:

```
karaf@root> fabric:version-list
[version]       [default] [# containers]
1.0             true      1
1.1             false     0
```

ARGUMENTS

Table 8.44, “fabric:version-list Arguments” describes the command's arguments.

Table 8.44. fabric:version-list Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME

fabric:version-set-default – set the new default version (must be one of the existing versions)

SYNOPSIS

```
fabric:version-set-default  [
     --help
    ] {
     Version
    }
```

DESCRIPTION

Many of the fabric console commands work with a default version. For example, when you create a new profile with fabric:profile-create, the new profile is created in the default version by default. The fabric:version-set-default changes the default version that is used by these commands.

ARGUMENTS

Table 8.45, “fabric:version-set-default Arguments” describes the

command's arguments.

Table 8.45. fabric:version-set-default Arguments

Argument	Interpretation
--help	Displays the online help for this command
Version	*(Required)* Version number to use as the new default version.

CHAPTER 9. FEATURES CONSOLE COMMANDS

The features commands allow you to provision entire applications using the Apache Karaf features facility. Features allow you to provision a collection of bundles using a single name.

Type features: then press Tab at the karaf> prompt to view the available commands.

NAME

features:addurl, addurl — registers one or more URLs to feature repositories with the container

SYNOPSIS

```
features:addurl  [
     --help
    ] [[
      -i
     ] |  [
      --install-all
     ]] {
     urls
    }
```

DESCRIPTION

Each feature repository defines one or more features, and each feature is made up of a collection of bundles that work together to provide some functionality. When a feature is loaded, the container loads any required bundles that are not already present into the container and activates them.

ARGUMENTS

Table 9.1, “features:addurl Arguments” describes the command's arguments.

Table 9.1. features:addurl Arguments

Argument	Interpretation
--help	Displays the online help for this command
-i, --install-all	Install all of the features in the specified feature repository URLs.

Argument	Interpretation
urls	One or more repository URLs separated by whitespaces.

NAME

features:chooseurl, chooseurl – registers the feature repository URL for a well known project

SYNOPSIS

```
features:chooseurl  [
     --help
    ] {
     project
    } {
     version
    }
```

DESCRIPTION

uses a number of features implemented by well-known projects. To simplify the process of adding their feature repositories, the chooseurl command allows you to add a feature repository without knowing its Maven URL. The list of projects supported by chooseurl is configured by the org.apache.karaf.features.repos PID.

ARGUMENTS

Table 9.2, “features:chooseurl Arguments” describes the command's arguments.

Table 9.2. features:chooseurl Arguments

Argument	Interpretation
--help	Displays the online help for this command
feature	Specifies the project name for the feature repository to add.
version	Specifies the version of the project's feature repository to add.

NAME

features:info — show information about the specified feature with the optionally specified version

SYNOPSIS

```
features:info  [
     --help
    ] [[
      -c
     ] |  [
      --configuration
     ]] [[
      -b
     ] |  [
      --bundle
     ]] [[
      -t
     ] |  [
      --tree
     ]] [[
      -d
     ] |  [
      --dependency
     ]] {
     featureName
    } {
     version
    }
```

ARGUMENTS

Table 9.3, “features:info Arguments” describes the command's arguments.

Table 9.3. features:info Arguments

Argument	Interpretation
--help	Displays the online help for this command
-c, --configuration	Display configuration information.
-b, --bundle	Display bundle information.
-t, --tree	Display feature tree.
-d, --dependency	Display dependency information.
command	

NAME

features:install — installs a feature

SYNOPSIS

```
features:install  [
     --help
    ] {
     name
    } [
     version
    ]
```

ARGUMENTS

Table 9.4, “features:install Arguments” describes the command's arguments.

Table 9.4. features:install Arguments

Argument	Interpretation
--help	Displays the online help for this command
name	The name of the feature to install
version	The version of the feature

NAME

features:list — Lists all existing features available from the defined repositories

SYNOPSIS

```
features:list  [
     --help
    ] [[
      -i
     ] |  [
      --installed
     ]]
```

ARGUMENTS

Table 9.5, “features:list Arguments” describes the command's arguments.

Table 9.5. features:list Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-i, --installed`	Displays the list of all installed features

NAME

features:listurl – lists the features repository URLs

SYNOPSIS

```
features:listurl  [
     --help
    ] [[
      -v
     ] |  [
      --validate
     ]] [[
      -vo
     ] |  [
      --verbose
     ]]
```

ARGUMENTS

Table 9.6, “features:listurl Arguments” describes the command's arguments.

Table 9.6. features:listurl Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-v,--validate`	Validate current version of descriptors.
`-vo,--verbose`	Shows validation output.

NAME

features:listVersions, listVersions – lists all versions of a feature available from the current feature repositories

SYNOPSIS

```
features:listVersions  [
     --help
    ] {
     feature
    }
```

ARGUMENTS

Table 9.7, “features:listVersions Arguments” describes the command's arguments.

Table 9.7. features:listVersions Arguments

Argument	Interpretation
--help	Displays the online help for this command
feature	Name of a feature.

NAME

features:refreshUrl – reloads the list of available features from the repositories

SYNOPSIS

```
features:refreshUrl  [
     --help
    ] {
     urls
    }
```

ARGUMENTS

Table 9.8, “features:refreshUrl Arguments” describes the command's arguments.

Table 9.8. features:refreshUrl Arguments

Argument	Interpretation
--help	Displays the online help for this command
urls	The repository URLs to reload (leave empty for all).

NAME

features:removeUrl – removes the specified list of repository URLs from the features service

SYNOPSIS

```
features:removeUrl  [
     --help
    ] {
     urls
    }
```

ARGUMENTS

Table 9.9, "features:removeUrl Arguments" describes the command's arguments.

Table 9.9. features:removeUrl Arguments

Argument	Interpretation
--help	Displays the online help for this command
-n,--interval	
urls	One or more repository URLs separated by whitespace.

NAME

features:removeRepository – removes the specified repository from the features service

SYNOPSIS

```
features:removeRepository  [
     --help
    ] {
     repository
    }
```

ARGUMENTS

Table 9.10, "features:removeRepository Arguments" describes the command's arguments.

Table 9.10. features:removeRepository Arguments

Argument	Interpretation
--help	Displays the online help for this command
repository	The name of a features repository.

NAME

features:uninstall – uninstalls a feature with the specified name and version

SYNOPSIS

```
features:uninstall  [
     --help
    ] {
     features
    }
```

ARGUMENTS

Table 9.11, “features:uninstall Arguments” describes the command's arguments.

Table 9.11. features:uninstall Arguments

Argument	Interpretation
--help	Displays the online help for this command
features	A space-separated list of features to uninstall, where each feature is specified in the format ***feature*[*/version*]** (that is, the version is optional).

CHAPTER 10. JAAS CONSOLE COMMANDS

The jaas commands are used for editing JAAS realm and user data. Editing a JAAS realm is done in two stages. The changes are placed in a queue until they are applied by executing the jaas:update.

When editing JAAS settings the commands are used as follows:

1. Start the editing session.

   jaas:manage

2. Edit the realm's user data.

   - jass:users

     Lists all of the users.

   - jass:useradd

     Add a new user.

   - jass:userdel

Delete a user.

- jass:roleadd

  Add a new role to a user.

- jass:roledel

  Delete a role from a user.

- jass:pending

  Lists all of the pending changes that have been made to the realms, but have not been applied to the container.

3. Apply the changes to the JAAS realm and ends the editing session.

   jaas:update

You can abandon an editing session using jaas:cancel before the changes applied to the JAAS settings.

Type jaas: then press Tab at the prompt to view the available commands.

NAME

jass:cancel, cancel – cancels a JAAS editing session without applying the pending changes

SYNOPSIS

```
jaas:cancel  [
     --help
    ]
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. The jaas:cancel command clears the buffer without saving the changes and closes the editing session.

You can see a list of the buffered changes using the jaas:pending command.

ARGUMENTS

Table 10.1, “jaas:cancel Arguments” describes the command's arguments.

Table 10.1. jaas:cancel Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME

jaas:manage, manage – opens a JAAS realm for editing

SYNOPSIS

```
jaas:manage  [
     --help
    ] {[
      --realm realm
     ] |  [
      --index index
     ]} [
     --module module
```

```
    ] [
     --force
    ]
```

DETAILS

The jaas:manage command is the first step in editing a JAAS realm. It opens the realm so that calls to the jaas:* editing commands will update the selected realm. The edits made by the jaas:* editing commands are placed in a buffer associated with the selected realm and not written to the realm until the editing session is ended by the jaas:update command.

If you use the jaas:manage command before saving the changes to a realm that is open for editing, the changes to the previously open realm are abandoned. The pending edits for the previous realm are cleared without being saved.

While editing a realm you can get a list of the pending changes using the jaas:pending command.

ARGUMENTS

Table 10.2, “jaas:manage Arguments” describes the command's arguments.

Table 10.2. jaas:manage Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--realm	Select the realm to edit by specifying its realm name.
--index	Select the realm to edit by specifying its index.
--module	Specify which of the realm's login modules are to be edited.
--force	Force the switch to the specified realm. If a different realm was already opened for editing its changes are abandoned without being applied.

EXAMPLES

You can select the realm to manage *either* by specifying its realm name *or* by specifying its index.

If the installed realm names are all distinct (which you can check using jaas:realms), you can identify the realm to manage by specifying the --realm option. For example, if the container is a standalone instance (no fabric installed), you can start to edit the karaf realm as follows:

```
jaas:manage --realm karaf
```

If the container belongs to a fabric, however, the fabric-jaas feature automatically installs another realm named karaf at a higher priority, so that it overrides the default karaf realm. For example, in a fabric, the jaas:realms command returns a list similar to the following:

```
Index Realm Module Class 1 karaf
org.apache.karaf.jaas.modules.properties.PropertiesLoginModule 2 karaf
org.fusesource.fabric.jaas.ZookeeperLoginModule
```

In this case, you must identify the realm to manage using the --index option, specifying one of the index values from the list. The current active karaf realm is the ZookeeperLoginModule, which is selected by the index value, 2, as follows:

```
jaas:manage --index 2
```

NAME

jaas:pending, pending — lists the changes waiting to be applied to the realm being edited

SYNOPSIS

```
jaas:pending  [
     --help
    ]
```

DETAILS

When editing a JAAS realm, the changes are stored in a buffer until the editing session is closed. The jaas:pending command shows a list of the changes buffered during the currently open editing session.

The jaas:update command saves the changes and closes the editing session.

The jaas:cancel command clears the buffer without saving the changes and

closes the editing session.

ARGUMENTS

Table 10.3, “jaas:pending Arguments” describes the command's arguments.

Table 10.3. jaas:pending Arguments

Argument	Interpretation
--help	Displays the online help for this command.

NAME

jaas:realms, realms – lists the JAAS realms know to the container

SYNOPSIS

```
jaas:realms  [
     --help
    ]
```

ARGUMENTS

Table 10.4, “jaas:realms Arguments” describes the command's arguments.

Table 10.4. jaas:realms Arguments

Argument	Interpretation
--help	Displays the online help for this command.

NAME

jaas:roleadd, roleadd – adds a role to a user

SYNOPSIS

```
jaas:roleadd  [
     --help
    ] {
     username
    } {
     role
    }
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. When you add a new role using the jaas:roleadd command, the change is stored in the buffer and does not take effect until the editing session is closed.

The jaas:update command saves the changes and closes the editing session.

The jaas:cancel command clears the buffer without saving the changes and closes the editing session.

ARGUMENTS

Table 10.5, “jaas:roleadd Arguments” describes the command's arguments.

Table 10.5. jaas:roleadd Arguments

Argument	Interpretation
--help	Displays the online help for this command.
username	Specifies the name of the user to modify.
role	Specifies the role which is appended to the user data.

NAME

jaas:roledel, roledel – deletes a role from a user

SYNOPSIS

```
jaas:roledel  [
     --help
    ] {
     username
    } {
     role
    }
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. When you delete a role using the jaas:roledel command, the

change is stored in the buffer and does not take effect until the editing session is closed.

The jaas:update command saves the changes and closes the editing session.

The jaas:cancel command clears the buffer without saving the changes and closes the editing session.

ARGUMENTS

Table 10.6, “jaas:roledel Arguments” describes the command's arguments.

Table 10.6. jaas:roledel Arguments

Argument	Interpretation
--help	Displays the online help for this command.
username	Specifies the name of the user to modify.
role	Specifies the role which is removed from the user data.

NAME

jaas:update – applies all pending changes to the JAAS realm and closes the editing session

SYNOPSIS

```
jaas:update  [
     --help
    ]
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. The jaas:update command saves the buffered changes to the realm and closes the editing session.

You can see a list of the buffered changes using the jaas:pending command.

ARGUMENTS

Table 10.7, “jaas:update Arguments” describes the command's arguments.

Table 10.7. jaas:update Arguments

Argument	Interpretation
--help	Displays the online help for this command.

NAME

jaas:useradd, useradd — adds a user to the JAAS realm being edited

SYNOPSIS

```
jaas:useradd  [
     --help
    ] {
     username
    } {
     password
    }
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. When you add a new user using the jaas:useradd command, the change is stored in the buffer and does not take effect until the editing session is closed.

The jaas:update command saves the changes and closes the editing session.

The jaas:cancel command clears the buffer without saving the changes and closes the editing session.

ARGUMENTS

Table 10.8, “jaas:useradd Arguments” describes the command's arguments.

Table 10.8. jaas:useradd Arguments

Argument	Interpretation
--help	Displays the online help for this command.

Argument	Interpretation
username	Specifies the name of the user to add.
password	Specifies the password used to authenticate the user.

NAME

jaas:userdel, userdel – deletes a user from the JAAS realm being edited

SYNOPSIS

```
jaas:userdel  [
     --help
    ] {
     username
    }
```

DETAILS

When editing a JAAS realm, the changes are buffered until the editing session is closed. When you delete a user using the jaas:useradd command, the change is stored in the buffer and does not take effect until the editing session is closed.

The jaas:update command saves the changes and closes the editing session.

The jaas:cancel command clears the buffer without saving the changes and closes the editing session.

ARGUMENTS

Table 10.9, "jaas:userdel Arguments" describes the command's arguments.

Table 10.9. jaas:userdel Arguments

Argument	Interpretation
--help	Displays the online help for this command.
username	Specifies the name of the user to add.

NAME

jaas:users, users – lists the users in the JAAS realm being edited

SYNOPSIS

```
jaas:users  [
     --help
    ]
```

ARGUMENTS

Table 10.10, "jaas:users Arguments" describes the command's arguments.

Table 10.10. jaas:users Arguments

Argument	Interpretation
--help	Displays the online help for this command.

CHAPTER 11. LOG CONSOLE COMMANDS

The log commands allow you to display and change log levels.

Type log: then press Tab at the prompt to view the available commands.

NAME

log:clear — clears the log

SYNOPSIS

```
log:clear  [
     --help
    ]
```

ARGUMENTS

Table 11.1, “log:clear Arguments” describes the command's arguments.

Table 11.1. log:clear Arguments

Argument	Interpretation
--help	Displays the online help for this command

NAME

log:display, display, ld — displays log entries

SYNOPSIS

```
log:display  [
     --help
    ] [
     -p pattern
    ] [
     -n numLines
    ] [
     --no-color
    ]
```

ARGUMENTS

Table 11.2, “log:display Arguments” describes the command's arguments.

Table 11.2. log:display Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-p`	The pattern for formatting the output
`-n`	The number of entries to display
`--no-color`	Do not use syntax highlighting when displaying the log.

NAME

log:display-exception, display-exception, lde — displays the last thrown exception from the log

SYNOPSIS

```
log:display-exception  [
     --help
    ]
```

ARGUMENTS

Table 11.3, “log:display-exception Arguments” describes the command's arguments.

Table 11.3. log:display-exception Arguments

Argument	Interpretation
`--help`	Displays the online help for this command

NAME

log:get, get — shows the log level

SYNOPSIS

```
log:get  [
     --help
    ] {
     logger
    }
```

ARGUMENTS

Table 11.4, “log:get Arguments” describes the command's arguments.

Table 11.4. log:get Arguments

Argument	Interpretation
--help	Displays the online help for this command
logger	Specifies the logger name, **ALL**, or **ROOT**. The default is **ROOT**.

NAME

log:set, set — sets the log level

SYNOPSIS

```
log:set  [
     --help
    ] {[
      DEFAULT
     ] |  [
      TRACE
     ] |  [
      DEBUG
     ] |  [
      INFO
     ] |  [
      WARN
     ] |  [
      ERROR
     ]} {
     logger
    }
```

ARGUMENTS

Table 11.5, “log:set Arguments” describes the command's arguments.

Table 11.5. log:set Arguments

Argument	Interpretation
--help	Displays the online help for this command

Argument	Interpretation
level	Specifies the logging level.
logger	Specifies the logger name. The default is**ROOT**.

NAME

log:tail – continually displays log entries

SYNOPSIS

```
log:tail  [
     --help
    ] [
     -p pattern
    ] [
     -n numLines
    ] [
     --no-color
    ]
```

ARGUMENTS

Table 11.6, “log:tail Arguments” describes the command's arguments.

Table 11.6. log:tail Arguments

Argument	Interpretation
--help	Displays the online help for this command
-p	The pattern for formatting the output
-n	The number of entries to display
--no-color	Do not use syntax highlighting when displaying the log.

CHAPTER 12. OSGI CONSOLE COMMANDS

The osgi commands provide for managing the OSGi runtime. It includes commands for listing OSGi bundles and services and managing bundle lifecycles.

Type osgi: then press Tab at the prompt to view the available commands.

NAME

osgi:bundle-level, bundle-level — gets or sets the start level of a given bundle

SYNOPSIS

```
osgi:bundle-level  [
     --help
    ] [
     --force
    ] {
     id
    } [
     startLevel
    ]
```

ARGUMENTS

Table 12.1, “osgi:bundle-level Arguments” describes the command's arguments.

Table 12.1. osgi:bundle-level Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies the id for the bundle.
startLevel	Specifies the new start level for the bundle.

NAME

osgi:bundle-services, bundle-services — lists the OSGi services provided by a bundle

SYNOPSIS

```
osgi:bundle-level  [
     -u
    ] [
     -p
    ] [
     -a
    ] [
     --help
    ] [
     --force
    ] {
     id
    }
```

ARGUMENTS

Table 12.2, "osgi:bundle-services Arguments" describes the command's arguments.

Table 12.2. osgi:bundle-services Arguments

Argument	Interpretation
-u	Displays the services used by the bundle.
-p	Displays the properties for each service.
-a	Displays all of the services provided by the bundle including the Apache Karaf commands which are hidden by default.
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies the id for the bundle.

NAME

osgi:classes, classes — lists all of the classes in the specified bundle or bundles

SYNOPSIS

```
osgi:classes  [
     --help
    ] [
     --force
    ] [[
      -a
     ] |  [
      --display-all-files
     ]] {
     ids
    }
```

ARGUMENTS

Table 12.3, “osgi:classes Arguments” describes the command's arguments.

Table 12.3. osgi:classes Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
`--force`	Forces the command to execute.
`-a, --display-all-files`	Also lists the files contained in the bundles.
ids	Space-separated list of bundle IDs.

NAME

osgi:find-class, find-class — locates a specified class in any deployed bundle

SYNOPSIS

```
osgi:find-class  [
     --help
    ] {
     className
    }
```

ARGUMENTS

Table 12.4, “osgi:find-class Arguments” describes the command's arguments.

Table 12.4. osgi:find-class Arguments

Argument	Interpretation
--help	Displays the online help for this command.
className	Class name or partial class name to find.

NAME

osgi:headers, headers – displays the headers of a specified OSGi bundle

SYNOPSIS

```
osgi:headers  [
     --help
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.5, "osgi:headers Arguments" describes the command's arguments.

Table 12.5. osgi:headers Arguments

Argument	Interpretation
--help	Displays the online help for this command
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:info – displays detailed information about OSGi bundles

SYNOPSIS

```
osgi:info  [
     --help
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.6, "osgi:info Arguments" describes the command's arguments.

Table 12.6. osgi:info Arguments

Argument	Interpretation
--help	Displays the online help for this command
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:install, install — installs one or more OSGi bundles

SYNOPSIS

```
osgi:install  [
     --help
    ] [[
      -s
     ] |  [
      --start
     ]] {
     url
    ...}
```

ARGUMENTS

Table 12.7, "osgi:install Arguments" describes the command's arguments.

Table 12.7. osgi:install Arguments

Argument	Interpretation
--help	Displays the online help for this command
-s, **--start**	Starts the bundles after installation
url	Specifies a space delimited list of bundle URLs.

NAME

osgi:list, list — lists the installed bundles whose start level equals or exceeds the specified threshold

SYNOPSIS

```
osgi:list  [
     --help
```

```
    ] [
     -u
    ] [
     -t threshold
    ] [
     -l
    ] [
     -s
    ]
```

ARGUMENTS

Table 12.8, "osgi:list Arguments" describes the command's arguments.

Table 12.8. osgi:list Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-u`	Shows the update locations
`-t`	Specifies the start level threshold. The default is the value of the `karaf.systemBundlesStartLevel` property whose default value is 50.
`-l`	Shows the locations of the bundles
`-s`	Shows the symbolic names of the bundles

NAME

osgi:ls, ls – lists OSGi services

SYNOPSIS

```
osgi:ls  [
     --help
    ] [
     -a
    ] [
     -u
    ] [
     --force
    ] [
     id
    ...]
```

ARGUMENTS

Table 12.9, “osgi:ls Arguments” describes the command's arguments.

Table 12.9. osgi:ls Arguments

Argument	Interpretation
--help	Displays the online help for this command
-a	Lists all services
-u	Lists the services in use
--force	Forces the command to execute
id	Specifies a space separated list of bundle IDs.

NAME

osgi:refresh, refresh – refreshes an OSGi bundle

SYNOPSIS

```
osgi:refresh  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.10, “osgi:refresh Arguments” describes the command's arguments.

Table 12.10. osgi:refresh Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:resolve, resolve — resolves an OSGi bundle's dependencies

SYNOPSIS

```
osgi:resolve  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.11, "osgi:resolve Arguments" describes the command's arguments.

Table 12.11. osgi:resolve Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:restart, restart — stops and restarts an OSGi bundle

SYNOPSIS

```
osgi:restart  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.12, "osgi:restart Arguments" describes the command's arguments.

Table 12.12. osgi:restart Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:shutdown, shutdown – stops the OSGi framework

SYNOPSIS

```
osgi:shutdown  [
     --help
    ] [[
      -f
     ] |  [
      --force
     ]] [[
      hh:mm
     ] |  [
      +m
     ]]
```

ARGUMENTS

Table 12.13, "osgi:shutdown Arguments" describes the command's arguments.

Table 12.13. osgi:shutdown Arguments

Argument	Interpretation
--help	Displays the online help for this command.
-f, **--force**	Forces the command to execute.
hh:*mm*	Specifies the time to shut down the broker in hours and minutes. The time is specified in 24 hour time. For example, **13:30** specifies that the container will shutdown at 1:30pm.

Argument	Interpretation
+m	Specifies the time, in minutes, to pause before shutting down the OSGi framework. For example, **+30** specifies that the container will wait thirty minutes before shutting down the OSGi framework.

NAME

osgi:start, start — starts an OSGi bundle

SYNOPSIS

```
osgi:start  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.14, "osgi:start Arguments" describes the command's arguments.

Table 12.14. osgi:start Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:start-level, start-level — gets or sets the OSGi framework's active start level

SYNOPSIS

```
osgi:start  [
     --help
    ] [
     level
    ]
```

ARGUMENTS

Table 12.15, “osgi:start-level Arguments” describes the command's arguments.

Table 12.15. osgi:start-level Arguments

Argument	Interpretation
--help	Displays the online help for this command.
level	Specifies the new start level to set.

NAME

osgi:stop, stop — stops an OSGi bundle

SYNOPSIS

```
osgi:stop  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.16, “osgi:stop Arguments” describes the command's arguments.

Table 12.16. osgi:stop Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

NAME

osgi:uninstall, uninstall — uninstalls an OSGi bundle

```
SYNOPSIS
osgi:uninstall  [
     --help
    ] [
     --force
    ] {
     id
    ...}
```

ARGUMENTS

Table 12.17, “osgi:uninstall Arguments” describes the command's arguments.

Table 12.17. osgi:uninstall Arguments

Argument	Interpretation
`--help`	Displays the online help for this command.
`--force`	Forces the command to execute.
id	Specifies a space delimited list of bundle IDs.

```
NAME
osgi:update, update – updates an OSGi bundle

SYNOPSIS
osgi:update  [
     --help
    ] [
     --force
    ] {
     id
    } [
     location
    ]
```

ARGUMENTS

Table 12.18, “osgi:update Arguments” describes the command's arguments.

Table 12.18. osgi:update Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--force	Forces the command to execute.
id	Specifies ID of the bundle.
location	Specifies the location from which the update is loaded. If no location is specified the container will use either the bundle's Bundle-UpdateLocation property or the bundle's original location.

CHAPTER 13. PACKAGES CONSOLE COMMANDS

The packages commands are used for showing all packages imported and exported by the OSGi bundles currently installed.

Type packages: then press Tab at the prompt to view the available commands.

NAME

packages:exports, exports — displays the packages exported OSGi bundles

SYNOPSIS

```
packages:export  [
     --help
    ] [[
      -d
     ] |  [
      --details
     ]] [
     -s
    ] [[
      -i
     ] |  [
      --imports
     ]] [
     id
    ...]
```

ARGUMENTS

Table 13.1, “package:exports Arguments” describes the commands arguments.

Table 13.1. package:exports Arguments

Argument	Interpretation
--help	Displays the online help for this command
-d, --details	Reformat the output in master/detail layout, which makes it easier to see how related details are grouped together.

Argument	Interpretation
-s	Show the **Symbolic name** column, which shows the symbolic name of the bundle to which the exported package belongs.
-i, --imports	Show the **Imported by** column, which lists all of the bundles that import the exported package.
id	Specifies a whitespace separated list of bundle IDs to check.

NAME

packages:imports, imports — displays the packages imported by OSGi bundles

SYNOPSIS

```
packages:imports  [
     --help
    ] [[
      -i
     ] |  [
      --show-importer
     ]] [
     id
    ...]
```

ARGUMENTS

Table 13.2, "package:imports Arguments" describes the commands arguments.

Table 13.2. package:imports Arguments

Argument	Interpretation
--help	Displays the online help for this command
-i, --show-importer	Show the bundle(s) that import a package.
id	Specifies a whitespace separated list of bundle IDs to check.

CHAPTER 14. PATCH CONSOLE COMMANDS

The patch commands allow you to download, install, and manage patches.

Patches contain a discreet set of bundles intended to update a standalone container. Each patch includes the following metadata:

- the patch name
- a description of the patch
- the list of bundles included in the patch

The basic procedure applying a patch is:

1. You receive a notice from customer support that a patch is available.
2. Using the URL provided by customer support, you download the patch using the patch:add command.

   This command downloads an archive file, unzips the archive, and puts the relevant JAR files under the container's system/ directory. The patch does *not* overwrite any of the existing JAR files and the patch is not actually installed until you run the patch:install command.
3. You install the patch using the patch:install command.
4. If you notice that the patch is causing issues, you can remove it using the patch:rollback command.

IMPORTANT

These commands are *not* suitable for use with containers that are part of a fabric. They are *only* for use in applying patches to standalone containers.

Type patch: then press Tab at the prompt to view the available commands.

NAME

patch:add, download – download a patch file from a remote location and places the relevant JAR files in the container's system directory

SYNOPSIS

```
patch:add  [
     --help
    ] [
     --bundles
    ] {
     URL
    }
```

ARGUMENTS

Table 14.1, “patch:add Arguments” describes the command's arguments.

Table 14.1. patch:add Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--bundles	List the bundles included in the patch.
URL	Specifies the URL from which the patch is downloaded.

NAME

patch:install – installs a patch that was previously downloaded

SYNOPSIS

```
patch:install  [
     --help
```

```
    ] {
     patch
    }
```

ARGUMENTS

Table 14.2, “patch:install Arguments” describes the command's arguments.

Table 14.2. patch:install Arguments

Argument	Interpretation
--help	Displays the online help for this command.
patch	Specifies the name of the patch to install.

NAME

patch:list — lists all known patches, showing the patch name and status (installed or not)

SYNOPSIS

```
patch:list  [
     --help
    ] [
     --bundles
    ]
```

ARGUMENTS

Table 14.3, “patch:list Arguments” describes the command's arguments.

Table 14.3. patch:list Arguments

Argument	Interpretation
--help	Displays the online help for this command.
--bundles	List the bundles for each patch.

NAME

patch:rollback — reverses a patch installation

SYNOPSIS

```
patch:rollback  [
     --help
    ] {
     patch
    }
```

ARGUMENTS

Table 14.4, “patch:rollback Arguments” describes the command's arguments.

Table 14.4. patch:rollback Arguments

Argument	Interpretation
--help	Displays the online help for this command.
patch	Specifies the name of the patch to roll back.

NAME

patch:simulate, simulate – logs all of the actions that would be performed during a patch install, without actually performing the install

SYNOPSIS

```
patch:simulate  [
     --help
    ] {
     patch
    }
```

ARGUMENTS

Table 14.5, “patch:simulate Arguments” describes the command's arguments.

Table 14.5. patch:simulate Arguments

Argument	Interpretation
--help	Displays the online help for this command.
patch	Specifies the name of the patch to simulate installing.

CHAPTER 15. SSH CONSOLE COMMANDS

The ssh commands allow you to connect to or create a secure shell (SSH) server.

Type ssh: then press Tab at the prompt to view the available commands.

NAME

ssh:ssh, ssh — connects to a remote SSH server

SYNOPSIS

```
ssh:ssh  [
     --help
    ] [[
     -l username
     ] |  [
     --username username
     ]] [[
     -P password
     ] |  [
     --password password
     ]] [[
     -p port
     ] |  [
     --port port
     ]] {
     hostname
    } [
     command
    ]
```

ARGUMENTS

Table 15.1, “ssh:ssh Arguments” describes the commands arguments.

Table 15.1. ssh:ssh Arguments

Argument	Interpretation
--help	Displays the online help for this command
-l, --username	The username for remote login
-P, --password	The password for remote login

Argument	Interpretation
-p, --port	The port to use for the SSH connection
hostname	The hostname to connect to via SSH
command	Specifies a command to execute upon connecting.

NAME

ssh:sshd, sshd – creates an SSH server

SYNOPSIS

```
ssh:sshd  [
     --help
    ] [[
      -b
     ] |  [
      --background
     ]] [[
      -p port
     ] |  [
      --port port
     ]]
```

ARGUMENTS

Table 15.2, “ssh:sshd Arguments” describes the commands arguments.

Table 15.2. ssh:sshd Arguments

Argument	Interpretation
--help	Displays the online help for this command
-b, --background	Specifies that the service will run in the background.
-p, --port	Specifies the port to setup for the SSH server. The default is **8101**.

CHAPTER 16. WEB CONSOLE COMMANDS

The web command group is used to get information about WARs deployed in the container.

Type web: then press Tab at the prompt to view the commands in this group.

NAME

web:list – lists the WARs deployed in the container

SYNOPSIS

```
web:list  [
     --help
    ]
```

ARGUMENTS

Table 16.1, “web:list Arguments” describes the command's arguments.

Table 16.1. web:list Arguments

Argument	Interpretation
--help	Displays the online help for this command

CHAPTER 17. ZOOKEEPER CONSOLE COMMANDS

By default, the ZooKeeper commands are not installed in a Fabric Container. To make the ZooKeeper commands available, install the fabric-zookeeper-commands feature, as follows:

```
features:install fabric-zookeeper-commands
```

NAME

zk:create — create a znode

SYNOPSIS

```
zk:create  [
     --help
    ] [
     -r|--recursive
    ] [
     -i|--import
    ] [
     -e|--ephemeral
    ] [
     -s|--sequential
    ] [
     -a|--acl ListOfACLs
    ] [
     -o|--overwrite
    ] {
     path
    } {
     data
    }
```

DESCRIPTION

Using this command, you can create the following different types of znode:

Persistent

The new znode is permanently stored in the ZooKeeper registry. This is the default.

Persistent sequential

The new znode is permanently stored in the ZooKeeper registry and a 10-digit sequence number is appended to the specified znode name.

Selected by the --sequential option.

Ephemeral

The new znode exists only for the duration of the current client session. When the session is over, the znode is removed. Selected by the --ephemeral option.

Ephemeral sequential

The new znode exists only for the duration of the current client session and a 10-digit sequence number is appended to the specified znode name. When the session is over, the znode is removed. Selected by combining the --ephemeral option with the --sequential option.

You can optionally specify a list of ACLs to apply to the newly created znode. The ACL is specified as a comma-separated list, where each entry in the list has the following format:

```
Scheme:ID:Permissions
```

ZooKeeper supports the following built-in schemes:

world:anyone

The permissions apply to all users.

auth:

The permissions apply to all authenticated users, irrespective of their identity (the *ID* field is left empty).

digest:*MD5Hash*

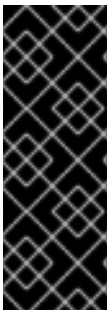
The permissions apply to the user whose username and password generate the specified MD5 hash value, *MD5Hash*.

ip:*IPAddress*

The permissions apply to the ZooKeeper client with the specified IP address.

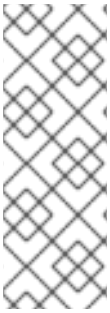
The *Permissions* string consists of one or more of the following characters: r (read), w (write), c (create), d (delete), and a (admin). For example, to create a new znode that explicitly grants all permissions to all users (which is, in fact, the default), you could use a command like the following:

```
karaf@root> zk:create --acl world:anyone:rwcda /path/to/the/new/znode
```



IMPORTANT

To avoid corruption of the fabric registry, you should *not* create any znodes under the /fabric/ path using the zk:create command. These registry nodes should only be created through the fabric console commands—see Chapter 8, *Fabric Console Commands*.



NOTE

Fuse Fabric does *not* use the ACL security features of ZooKeeper. Currently, all znodes in the fabric registry are created without any ACL restrictions (equivalent to the world:anyone:rwcda ACL setting).

ARGUMENTS

Table 17.1, “zk:create Arguments” describes the commands arguments.

Table 17.1. zk:create Arguments

Argument	Interpretation
--help	Displays the online help for this command
-r,--recursive	Automatically create any missing parent nodes in the specified path.
-i,--import	Interpret the data argument as a URL that locates a resource containing the initial data for the new znode.

Argument	Interpretation
-e,--ephemeral	Make the new znode epehemeral, so that it is automatically deleted after the current ZooKeeper client session closes.
-s,--sequential	Make the new znode sequential, which implies that a unique 10-digit suffix is appended to the znode name.
-a,--acl	Specifies the znode's ACL as a comma-separated list, where each entry in the list has the format, ***Scheme*:*ID*:*Permissions***. The ***Permissions*** string consists of the following characters, concatenated in any order: **r** (read), **w** (write), **c** (create), **d** (delete), and **a** (admin).
-o,--overwrite	Overwrite the existing znode at this location, if there is one.
path	*(Required)* Path of the znode to create.
data	Initial data for the node or, if **--import** is specified, a URL pointing at a location that contains the initial data.

NAME

zk:delete — delete the specified znode

SYNOPSIS

```
zk:delete  [
     --help
    ] [
     -v|--version version
    ] [
     -r|--recursive
    ] {
     path
    }
```

ARGUMENTS

Table 17.2, “zk:delete Arguments” describes the commands arguments.

Table 17.2. zk:delete Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-v,--version`	The ZooKeeper znode version to delete. Defaults to -1 (all versions).
`-r,--recursive`	Recursively delete children. Defaults to`false`.
`path`	Path of the znode to delete.

NAME

zk:get — get a znode's data

SYNOPSIS

```
zk:get  [
     --help
    ] {
     path
    }
```

ARGUMENTS

Table 17.3, “zk:get Arguments” describes the commands arguments.

Table 17.3. zk:get Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`path`	*(Required)* Path of the znode to get.

NAME

zk:list — list a znode's children

SYNOPSIS

```
zk:list  [
     --help
    ] [
     -r|--recursive
    ] [
```

```
     -d|--display
    ] {
     path
    }
```

ARGUMENTS

Table 17.4, “zk:list Arguments” describes the commands arguments.

Table 17.4. zk:list Arguments

Argument	Interpretation
`--help`	Displays the online help for this command
`-r, --recursive`	List children recursively.
`-d, --display`	Display a znode's value, if set.
path	Path of the znode to list. Defaults to/.

NAME

zk:set — set a znode's data

SYNOPSIS

```
zk:set  [
     --help
    ] [
     -i|--import
    ] {
     path
    } {
     data
    }
```

DESCRIPTION

The data stored in a znode should not be too large. ZooKeeper imposes an absolute limit of 1 MB, but in practice a data item should normally be much smaller than that.

IMPORTANT

To avoid corruption of the Fabric Registry, you should *not* modify any znodes under the /fabric/ path using the zk:set command. These registry values should only be changed through the fabric console commands—see Chapter 8, *Fabric Console Commands*.

ARGUMENTS

Table 17.5, "zk:set Arguments" describes the commands arguments.

Table 17.5. zk:set Arguments

Argument	Interpretation
--help	Displays the online help for this command
-i,--import	Import data from a URL.
path	*(Required)* Path of the znode to set.
data	*(Required)* The new data or URL to import.

APPENDIX A. COMMAND ALIASES

The command console shell uses a number of short cuts, or aliases for common commands. Table A.1, “Console Command Aliases” lists the command aliases available in the command console.

Table A.1. Console Command Aliases

Alias	Command
ld	log:display
lde	log:display-exception
la	osgi:list -t 0
cl	config:list "(service.pid=$args)"
man	help