Name create-cluster – creates a GlassFish Server cluster

Synopsis

```
create-cluster [--help] [--config config-name]
[--systemproperties (name=value)[:name=value]*]
[--properties (name=value)[:name=value]*]
[--gmsenabled={true|false}]
[--multicastport multicast-port]
[--multicastaddress multicast-address]
[--bindaddress bind-address]
[--hosts hadb-host-list]
[--haagentport port-number]
[--haadminpassword password]
[--haadminpasswordfile file-name] [--devicesize devicesize ]
[--haproperty (name=value)[:name=value]*]
[--autohadb=false] [--portbase port-number]
cluster-name
```

Description The `create-cluster` subcommand creates a GlassFish Server cluster. Initially the cluster contains no GlassFish Server instances, applications, or resources.

A cluster requires a reference to the named configuration that defines the configuration of all instances that are added to the cluster. The configuration can be specified in the command to create the cluster, but is not required. If no configuration is specified, the subcommand creates a configuration that is named *cluster-name*`-config` for the cluster. The cluster that is created is a standalone cluster because the cluster's configuration is not shared with any other clusters or standalone instances.

To add instances to the cluster, set the `--cluster` option to the name of the cluster when using either of the following subcommands:

- `create-instance(1)`
- `create-local-instance(1)`

To delete server instances from the cluster at any time, use one of the following subcommands:

- `delete-instance(1)`
- `delete-local-instance(1)`

To associate applications and resources with all instances in the cluster, set the `--target` option to the name of the cluster when performing the following operations:

- Deploying applications by using the `deploy(1)` subcommand
- Creating resources by using subcommands such as `create-jdbc-resource(1)`
- Creating references to applications that are already deployed in other targets by using the `create-application-ref(1)` subcommand
- Creating references to resources that are already created in other targets by using the `create-resource-ref(1)` subcommand

This subcommand is supported in remote mode only.

Options

`--help`
`-?`
Displays the help text for the subcommand.

`--config`
Specifies the named configuration that the cluster references. The configuration must exist and must not be named `default-config` or `server-config`. If the configuration name specifies a standalone configuration, an error occurs. Specifying the `--config` option creates a shared cluster. If this option is omitted, a standalone cluster is created.

`--systemproperties`
Defines system properties for the configuration that is created for the cluster. These properties override the property values in the `default-config` configuration. The following properties are available:

`HTTP_LISTENER_PORT`
This property specifies the port number of the port that is used to listen for HTTP requests. Valid values are 1–65535. On UNIX, creating sockets that listen on ports 1–1024 requires superuser privileges.

`HTTP_SSL_LISTENER_PORT`
This property specifies the port number of the port that is used to listen for HTTPS requests. Valid values are 1–65535. On UNIX, creating sockets that listen on ports 1–1024 requires superuser privileges.

`IIOP_LISTENER_PORT`
This property specifies the port number of the port that is used for IIOP connections. Valid values are 1–65535. On UNIX, creating sockets that listen on ports 1–1024 requires superuser privileges.

`IIOP_SSL_LISTENER_PORT`
This property specifies the port number of the port that is used for secure IIOP connections. Valid values are 1–65535. On UNIX, creating sockets that listen on ports 1–1024 requires superuser privileges.

`IIOP_SSL_MUTUALAUTH_PORT`
This property specifies the port number of the port that is used for secure IIOP connections with client authentication.

`JMX_SYSTEM_CONNECTOR_PORT`
This property specifies the port number on which the JMX connector listens. Valid values are 1–65535. On UNIX, creating sockets that listen on ports 1–1024 requires superuser privileges.

`--properties`
Defines properties for the cluster. The following properties are available:

`gms-member-type`
Specifies to the Group Management Service (GMS) the member type of each instance in the cluster.

Possible values are as follows:

`CORE`
The instance is available to provide high availability services to the cluster, such as replication of session state data, failover, and load balancing (default).

`SPECTATOR`
The instance can be administered through centralized administration of the cluster but does not assist computation for the cluster.

These values are case insensitive.

For the domain administration server (DAS), the value of this property is set to `SPECTATOR` and cannot be changed.

If this property is set directly to `SPECTATOR`, no instance can provide high availability services to the cluster. If you require some instances in the cluster to be of type `SPECTATOR`, use a system property to set the type individually for each instance.

For example, use the `create-system-properties(1)` subcommand to create the system property `GMS-MEMBER-TYPE-`*cluster-name*. Then set the `gms-member-type` property of the cluster to `${GMS-MEMBER-TYPE-`*cluster-name*`}` to specify the system property. Finally, for each instance in the cluster, set the `GMS-MEMBER-TYPE-`*cluster-name* system property to the required type.

`--gmsenabled`
Specifies whether GMS is enabled for the cluster.

Possible values are as follows:

`true`
GMS is enabled for the cluster (default).

When GMS is enabled for a cluster, GMS is started in each server instance in the cluster and in the DAS. The DAS participates in each cluster for which this option is set to `true`.

`false`
GMS is disabled for the cluster.

`--multicastaddress`
The address on which GMS listens for group events. This option must specify a multicast address in the range 224.0.0.0 through 239.255.255.255. The default is 228.9.*XX*.*YY*, where *XX* and *YY* are automatically generated independent values between 0 and 255.

`--multicastport`
The port number of communication port on which GMS listens for group events. This option must specify a valid port number in the range 2048–32000. The default is an automatically generated value in this range.

`--bindaddress`
The Internet Protocol (IP) address of the network interface to which GMS binds. This option must specify the IP address of a local network interface. The default is all public network interface addresses.

On a multihome machine, this option configures the network interface that used for the GMS. A multihome machine possesses two or more network interfaces.

To specify an address that is valid for all GlassFish Server instances in the cluster, use a system property to set the address individually for each instance.

For example, use the `create-system-properties` subcommand to create the system property `GMS-BIND-INTERFACE-ADDRESS-`*cluster-name*. Then set the `--bindaddress` option of this subcommand to `${GMS-BIND-INTERFACE-ADDRESS-`*cluster-name*`}` to specify the system property. Finally, for each instance in the cluster, set the `GMS-BIND-INTERFACE-ADDRESS-`*cluster-name* system property to the required network interface address on the instance's machine.

`--hosts`
Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--haagentport`
Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--haadminpassword`
Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--haadminpasswordfile`
Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--devicesize`
Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--haproperty`
: Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--autohadb`
: Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

`--portbase`
: Do not specify this option. This option is retained for compatibility with other releases. If you specify this option, a syntax error does not occur. Instead, the subcommand runs successfully and the option is ignored.

Operands

cluster-name — A unique identifier for the cluster to be created.

Examples

EXAMPLE 1 Creating a Cluster

This example creates a cluster that is named `ltscluster` for which port 1169 is to be used for secure IIOP connections. Because the `--config` option is not specified, the cluster references a copy of the named configuration `default-config` that is named `ltscluster-config`.

```
asadmin> create-cluster
--systemproperties IIOP_SSL_LISTENER_PORT=1169
ltscluster
Command create-cluster executed successfully.
```

Exit Status

0 — command executed successfully

1 — error in executing the command

See Also

`create-application-ref`(1), `create-instance`(1), `create-jdbc-resource`(1), `create-local-instance`(1), `create-resource-ref`(1), `delete-cluster`(1), `delete-instance`(1), `delete-local-instance`(1), `deploy`(1), `list-clusters`(1), `start-cluster`(1), `stop-cluster`(1)

`asadmin`(1M)