



## Configuring Server-Related Pools

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## Server Pool Configuration

### Server Pools

A server pool contains a set of servers. These servers typically share the same characteristics. Those characteristics can be their location in the chassis, or an attribute such as server type, amount of memory, local storage, type of CPU, or local drive configuration. You can manually assign a server to a server pool, or use server pool policies and server pool policy qualifications to automate the assignment.

If your system implements multi-tenancy through organizations, you can designate one or more server pools to be used by a specific organization. For example, a pool that includes all servers with two CPUs could be assigned to the Marketing organization, while all servers with 64 GB memory could be assigned to the Finance organization.

A server pool can include servers from any chassis in the system. A given server can belong to multiple server pools.

### Configuring a Server Pool

#### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org</b> <i>org-name</i>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>create server-pool</b> <i>server-pool-name</i>	Creates a server pool with the specified name, and enters organization server pool mode.

	Command or Action	Purpose
<b>Step 3</b>	UCS-A /org/server-pool # <b>create server chassis-num / slot-num</b>	Creates a server for the server pool.  <b>Note</b> A server pool can contain more than one server. To create multiple servers for the pool, you must enter multiple <b>create server</b> commands from organization server pool mode.
<b>Step 4</b>	UCS-A /org/server-pool # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example creates a server pool named ServPool2, creates two servers for the server pool, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # create server-pool ServPool2
UCS-A /org/server-pool* # create server 1/1
UCS-A /org/server-pool* # create server 1/4
UCS-A /org/server-pool* # commit-buffer
UCS-A /org/server-pool #
```

## Deleting a Server Pool

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org org-name</b>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>delete server-pool server-pool-name</b>	Deletes the specified server pool.
<b>Step 3</b>	UCS-A /org # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example deletes the server pool named ServPool2 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # delete server-pool ServPool2
UCS-A /org* # commit-buffer
UCS-A /org #
```

## UUID Suffix Pool Configuration

### UUID Suffix Pools

A UUID suffix pool is a collection of SMBIOS UUIDs that are available to be assigned to servers. The first number of digits that constitute the prefix of the UUID are fixed. The remaining digits, the UUID suffix, is variable. A UUID suffix pool ensures that these variable values are unique for each server associated with a service profile which uses that particular pool to avoid conflicts.

If you use UUID suffix pools in service profiles, you do not have to manually configure the UUID of the server associated with the service profile.

## Configuring a UUID Suffix Pool

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org</b> <i>org-name</i>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>create uuid-suffix-pool</b> <i>pool-name</i>	Creates a UUID suffix pool with the specified pool name and enters organization UUID suffix pool mode.
<b>Step 3</b>	UCS-A /org/uuid-suffix-pool # <b>set descr</b> <i>description</i>	(Optional) Provides a description for the UUID suffix pool.  <b>Note</b> If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks will not appear in the description field of any <b>show</b> command output.
<b>Step 4</b>	UCS-A /org/uuid-suffix-pool # <b>create block</b> <i>first-uuid last-uuid</i>	Creates a block (range) of UUID suffixes, and enters organization UUID suffix pool block mode. You must specify the first and last UUID suffixes in the block using the form <i>nnnn-nnnnnnnnnnnnn</i> , with the UUID suffixes separated by a space.  <b>Note</b> A UUID suffix pool can contain more than one UUID suffix block. To create multiple blocks, you must enter multiple <b>create block</b> commands from organization UUID suffix pool mode.
<b>Step 5</b>	UCS-A /org/uuid-suffix-pool/block # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example creates a UUID suffix pool named pool4, provides a description for the pool, and specifies a block of UUID suffixes to be used for the pool:

```
UCS-A# scope org /
UCS-A /org* # create uuid-suffix-pool pool4
UCS-A /org/uuid-suffix-pool* # set descr "This is UUID suffix pool 4"
UCS-A /org/uuid-suffix-pool* # create block 1000-000000000001 1000-000000000010
UCS-A /org/uuid-suffix-pool/block* # commit-buffer
UCS-A /org/uuid-suffix-pool/block #
```

### What to Do Next

Include the UUID suffix pool in a service profile and/or template.

## Deleting a UUID Suffix Pool

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org</b> <i>org-name</i>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>delete uuid-suffix-pool</b> <i>pool-name</i>	Deletes the specified UUID suffix pool.
<b>Step 3</b>	UCS-A /org # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example deletes the UUID suffix pool named pool4 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # delete uuid-suffix-pool pool4
UCS-A /org* # commit-buffer
```

## Management IP Pool Configuration

### Management IP Pool

The management IP pool is a collection of external IP addresses. Cisco UCS Manager reserves each block of IP addresses in the management IP pool for external access that terminates in the server controller (BMC) in a server.

Cisco UCS Manager uses the IP addresses in a management IP pool for external access to a server through the following:

- KVM console
- Serial over LAN
- IPMI

### Configuring an IP Address Block for the Management IP Pool

#### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org</b> <i>org-name</i>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>scope ip-pool</b> <b>ext-mgmt</b>	Enters organization IP pool mode.

	Command or Action	Purpose
		<b>Note</b> You cannot create (or delete) a management IP pool. You can only enter (scope to) the existing default pool.
<b>Step 3</b>	UCS-A /org/mac-pool # <b>set descr</b> <i>description</i>	(Optional) Provides a description for the management IP pool.  <b>Note</b> If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks will not appear in the description field of any <b>show</b> command output.
<b>Step 4</b>	UCS-A /org/ip-pool # <b>create block</b> <i>first-ip-addr last-ip-addr gateway-ip-addr subnet-mask</i>	Creates a block (range) of IP addresses, and enters organization IP pool block mode. You must specify the first and last IP addresses in the address range, the gateway IP address, and subnet mask.  <b>Note</b> A IP pool can contain more than one IP address block. To create multiple IP address blocks, you must enter multiple <b>create block</b> commands from organization IP pool mode.
<b>Step 5</b>	UCS-A /org/ip-pool/block # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example configures an IP address block for the management IP pool:

```
UCS-A# scope org /
UCS-A /org # scope ip-pool ext-mgmt
UCS-A /org/ip-pool* # set descr "This is a management IP pool example."
UCS-A /org/ip-pool* # create block 192.168.100.1 192.168.200.1 192.168.100.10 255.255.248.0
UCS-A /org/ip-pool/block* # commit-buffer
UCS-A /org/ip-pool/block #
```

## Deleting an IP Address Block from the Management IP Pool

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	UCS-A# <b>scope org</b> <i>org-name</i>	Enters organization mode for the specified organization. To enter the root organization mode, type / as the <i>org-name</i> .
<b>Step 2</b>	UCS-A /org # <b>scope ip-pool ext-mgmt</b>	Enters the management IP pool.
<b>Step 3</b>	UCS-A /org/ip-pool # <b>delete block</b> <i>first-ip-addr last-ip-addr</i>	Deletes the specified block (range) of IP addresses.
<b>Step 4</b>	UCS-A /org/ip-pool # <b>commit-buffer</b>	Commits the transaction to the system configuration.

The following example configures an IP address block for the management IP pool:

```
UCS-A# scope org /
UCS-A /org # scope ip-pool ext-mgmt
UCS-A /org/ip-pool* # delete block 192.168.100.1 192.168.200.1
UCS-A /org/ip-pool* # commit-buffer
UCS-A /org/ip-pool #
```