

# Configure SSH Algorithms

## OPERATING INSTRUCTIONS

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# 1 Introduction

This document describes how to configure a system-wide Secure Shell (SSH) algorithm setting.

## 1.1 Prerequisites

This section describes the prerequisites, which must be fulfilled before using the procedure.

### 1.1.1 Conditions

The following conditions must apply:

- The user has the System Security Administrator role.
- The list of wanted set of algorithms is known.
- The user has basic knowledge of cryptography.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.





## 2 Procedure

To configure `selectedCiphers`, `selectedKeyExchanges` or `selectedMacs` for updating a system-wide SSH algorithm setting:

1. Navigate to `Ssh` Managed Object (MO), for example:

```
>dn ManagedElement=N0DE06ST, SystemFunctions=1, SecM=1, Ssh=1
```

2. Enter Config mode:

```
(Ssh=1)>configure
```

3. Is it required to change `selectedCiphers`?

Yes: Continue with next step.

No: Proceed with Step 5.

**Note:** Strongest SSH ciphers are selected by default.

4. Set attribute `selectedCiphers` to configure ciphers, for example:

```
(config-Ssh=1)>selectedCiphers=[aes256-ctr,aes192-ctr,aes128-ctr]
```

The string list must follow the constraints stated in datatype `SshAlgorithm` under `Ssh`.

5. Is it required to change `selectedKeyExchanges`?

Yes: Continue with next step.

No: Proceed with Step 7.

**Note:** Strongest key exchanges are selected by default.

6. Set attribute `selectedKeyExchanges` to configure key exchanges, for example:

```
(config-Ssh=1)>selectedKeyExchanges=[diffie-hellman-group-exchange-sha1, diffie-hellman-group14-sha1]
```

The string list must follow the constraints stated in datatype `SshAlgorithm` under `Ssh`.

7. Is it required to change `selectedMacs`?

Yes: Continue with next step.

No: Proceed with Step 9.



**Note:** Strongest message authentication codes are selected by default.

8. Set attribute `selectedMacs` to configure message authentication codes, for example:

```
(config-Ssh=1)>selectedMacs=[hmac-ripemd160@openssh.com,hmac-ripemd160,hmac-sha1-96]
```

The string list must follow the constraints stated in datatype `SshAlgorithm` under `Ssh`.

9. Commit the settings:

```
(config-Ssh=1)>commit
```

10. Verify the settings:

```
(Ssh=1)>show -v
```

The following is an example output:

```
selectedCiphers
  "aes256-ctr"
  "aes192-ctr"
  "aes128-ctr"
selectedKeyExchanges
  "diffie-hellman-group-exchange-sha1"
  "diffie-hellman-group14-sha1"
selectedMacs
  "hmac-ripemd160@openssh.com"
  "hmac-ripemd160"
  "hmac-sha1-96"
[...]
```