



Release Notes

/ Amster 6.5.5

Latest update: 6.5.5

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Abstract

Notes covering new features, fixes and known issues for the ForgeRock® Access Management command-line interface, Amster.



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Preface

Amster is a lightweight command-line interface, ideal for use in DevOps processes, such as continuous integration and deployment.

Read these release notes before you install Amster. The information contained in these release notes cover prerequisites for installation, known issues and improvements to the software, changes and deprecated functionality, and other important information.

About ForgeRock Identity Platform™ Software

ForgeRock Identity Platform™ serves as the basis for our simple and comprehensive Identity and Access Management solution. We help our customers deepen their relationships with their customers, and improve the productivity and connectivity of their employees and partners. For more information about ForgeRock and about the platform, see <https://www.forgerock.com>.

Chapter 1

What's New

This chapter covers new features and improvements in Amster.

1.1. Maintenance Releases

ForgeRock maintenance releases contain a collection of fixes and minor RFEs that have been grouped together and released as part of our commitment to support our customers. For general information on ForgeRock's maintenance and patch releases, see [Maintenance and Patch Availability Policy](#).

Amster 6.5.5

- Amster 6.5.5 is the latest release targeted for Amster 6.5.x deployments and can be downloaded from the *ForgeRock Backstage* website. To view the list of fixes in this release, see [Key Fixes in Amster 6.5.5](#).

1.2. New Features

Amster 6.5.5

- There are no new features in Amster 6.5.5, other than those identified in Amster 6.5.

Amster 6.5.4

- There are no new features in Amster 6.5.4, other than those identified in Amster 6.5.

Amster 6.5.3

- There are no new features in Amster 6.5.3, other than those identified in Amster 6.5.

Amster 6.5.2.3

- There are no new features in Amster 6.5.2.3, other than those identified in Amster 6.5.

Amster 6.5.2.2

- There are no new features in Amster 6.5.2.2, other than those identified in Amster 6.5.

Amster 6.5.2.1

- There are no new features in Amster 6.5.2.1, other than those identified in Amster 6.5.

Amster 6.5.2

- There are no new features in Amster 6.5.2, other than those identified in Amster 6.5.

Amster 6.5.1

- There are no new features in Amster 6.5.1, other than those identified in Amster 6.5.

Amster 6.5.0.1

- There are no new features in Amster 6.5.0.1, other than those identified in Amster 6.5.

Amster 6.5

- **Support for AM 6.5.5 or Newer Only**

Amster 6.5.5 supports exporting and importing configuration from AM 6.5.5 or newer.

- Support for Multi-Server Deployment Installations

Amster 6.5 can now configure deployed AM instances as part of a multi-server deployment.

To support these deployments, the following options have been added to the **install-openam** command:

- dsEmbReplReplPort1
- dsEmbReplReplPort2
- dsEmbReplFlag
- dsEmbReplHost2
- dsEmbReplAdminPort2
- existingServerId

For more information about the options, see "Command-Line Reference" in the *User Guide*. For examples, see "Installing Access Management with Amster" in the *User Guide*.

Chapter 2

Before You Install

This section covers software and hardware prerequisites for installing and running Amster.

ForgeRock supports customers using the versions specified here. Other versions and alternative environments might work as well. When opening a support ticket for an issue, however, make sure you can also reproduce the problem on a combination covered here.

2.1. Operating System Requirements

ForgeRock supports customers using ForgeRock Access Management server software on the following operating system versions:

Supported Operating Systems

Operating System	Versions
Red Hat Enterprise Linux, Centos	6, 7
Amazon Linux	Amazon Linux 2 Amazon Linux 2017.09 Amazon Linux 2018.03
SuSE	12
Ubuntu	14.04 LTS 16.04 LTS 18.04 LTS
Solaris x64	10, 11
Solaris Sparc	10, 11
Windows Server	2012 R2 2016

2.2. Java Requirements

The following table lists supported Java versions:

JDK Requirements

Vendor	Versions
Oracle JDK	8, 11 ^a
IBM SDK, Java Technology Edition (WebSphere only)	8
OpenJDK	8, 11 ^a

^aFederation-related pages do not display when using Java 11. For more information, see the Knowledge Base.

2.3. Special Requests

If you have a special request regarding support for a combination not listed here, contact ForgeRock at info@forgerock.com.

Chapter 3

Changes and Deprecated Functionality

This chapter covers both major changes to existing functionality, and also deprecated and removed functionality.

3.1. Important Changes to Existing Functionality

This section lists changes made to existing functionality in Amster.

Amster 6.5.3

- There are no important changes in Amster 6.5.3, other than those identified in Amster 6.5.

Amster 6.5.2.3

- There are no important changes in Amster 6.5.2.3, other than those identified in Amster 6.5.

Amster 6.5.2.2

- There are no important changes in Amster 6.5.2.2, other than those identified in Amster 6.5.

Amster 6.5.2.1

- There are no important changes in Amster 6.5.2.1, other than those identified in Amster 6.5.

Amster 6.5.2

- There are no important changes in Amster 6.5.2, other than those identified in Amster 6.5.

Amster 6.5.1

- There are no important changes in Amster 6.5.1, other than those identified in Amster 6.5.

Amster 6.5.0.1

- There are no important changes in Amster 6.5.0.1, other than those identified in Amster 6.5.

Amster 6.5

- The Amster Configuration Upgrader Utility is not Included in the AM 6.5 Release

The tool could be used to upgrade configuration files exported by Amster for use in later versions.

Follow the procedures in the [AM Upgrade Guide](#) to upgrade from previous versions to AM 6.5. Then, use Amster to export configuration files that are compatible with AM 6.5.

3.2. Removed Functionality

AM 6.5.3

- No features or functionality have been removed in this release.

AM 6.5.2.3

- No features or functionality have been removed in this release.

AM 6.5.2.2

- No features or functionality have been removed in this release.

AM 6.5.2.1

- No features or functionality have been removed in this release.

Amster 6.5.2

- No features or functionality have been removed in this release.

Amster 6.5.1

- No features or functionality have been removed in this release.

Amster 6.5.0.1

- No features or functionality have been removed in this release.

Amster 6.5

- No features or functionality have been removed in this release.

Chapter 4

Key Fixes, Limitations, and Known Issues

4.1. Key Fixes

The following issues are fixed in this release. For details, see the [OpenAM issue tracker](#).

Key Fixes in Amster 6.5.5

- OPENAM-13510: Amster does not allow to connect to load balancer URL
- OPENAM-14818: Amster clean import removes current server when AM is deployed to root context

Key Fixes in Amster 6.5.4

- OPENAM-17020: Amster import fails after removing identity store and setting User Profile to ignore
- OPENAM-17072: eval(String) function in amster shell results in MissingMethodException
- OPENAM-17977: Amster connect command ignores connection-timeout
- OPENAM-18027: Amster import clean fails intermittently with 500 - authentication instance x does not exist

Key Fixes in Amster 6.5.3

- OPENAM-11159: OpenAM Amster export/import for Site have import errors
- OPENAM-14265: Amster Import with --clean doesn't delete the secrets store and mappings
- OPENAM-15510: Generic amster error message "No Base Entity dc=config,dc=forgerock,dc=com found" needs to detail the actual ldap error - during install-openam
- OPENAM-15574: Amster Import - updating com.iplanet.am.lbcookie.value to a different value to server ID
- OPENAM-15687: Session endpoint is searching for a long value in CTS that is stored as a string
- OPENAM-15880: Lack of documentation of what kind of amster variable substitution is supported

Amster 6.5.2.3

- No fixes were made in this release. Only the version number was updated to match the AM version.

Amster 6.5.2.2

- No fixes were made in this release. Only the version number was updated to match the AM version.

Amster 6.5.2.1

- No fixes were made in this release. Only the version number was updated to match the AM version.

Amster 6.5.2

- OPENAM-10958: Amster cannot import configuration with containing sub realms with --clean if the instance already contains sub realms

Amster 6.5.1

- OPENAM-13896: Comparison method violates its general contract! seen during amster import
- OPENAM-14049: Amster export failure
- OPENAM-14172: Amster Export - Persistent cookie Keystore Mapping inconsistency after upgrade to 6.5.0
- OPENAM-14222: Amster fails exporting Secret Store Mappings in sub-realms

Amster 6.5.0.1

- OPENAM-14049: Amster export failure

Amster 6.5

- OPENAM-13590: Document or Improve Amster for org.forgerock.amster.com.iplanet.am.lbcookie.value
- OPENAM-12912: Upgrade 5.5.x --> 6.x fails if Amster has been used at some point to export/import
- OPENAM-10667: Amster should be able to add second instance of AM to existing one

4.2. Limitations

The following important issues remained open at the time release 6.5.5 became available:

Amster 6.5

- **No Support for Load Balanced Deployments**

Amster cannot connect to a load balancer URL. You must connect Amster directly to a single AM instance. Using a load balancer could send sequential commands to different AM instances, and could result in concurrency issues when writing to the underlying configuration store.

- **Private Key Connections to Access Management Can Fail**

Installing or upgrading AM appends the contents of the `/path/to/openam/amster_rsa.pub` file to the `/path/to/openam/authorized_keys` file. The contents of the `authorized_keys` file resemble the following:

```
from="127.0.0.0/24,::1" ssh-rsa AAAAB3NzaC1y...
```

The `from` attribute restricts the communication between AM and Amster clients that communicate using the `127.0.0.0/24` network. If your AM server is not configured in the loopback interface, Amster connections may fail with an error resembling the following:

```
am> connect --private-key /home/fr/openam/amster_rsa https://openam.example.com:8443/openam
Unexpected response from OpenAM
[code:401, reason:Unauthorized, message:Authentication Failed]
```

To work around this problem, remove or update the `from` attribute to suit your environment as follows:

- Remove the `from` attribute, leaving only the key. For example:

```
ssh-rsa AAAAB3NzaC1y...
```

In this example, the Amster client holding the appropriate private key can communicate with AM regardless of their IP address or DNS domain.

- Update the loopback network specified in the `from` attribute with the DNS domain configured for AM. For example:

```
$ cat /etc/hosts | grep -i openam
192.168.1.94 openam.example.com

$ vi /path/to/openam/authorized_keys
from="*.example.com" ssh-rsa AAAAB3NzaC1y...
```

In this example, the Amster client holding the appropriate private key can communicate with AM if they are part of the `.example.com` DNS domain.

Refer to the Linux documentation for more information about patterns supported by the `from` attribute.

- **Importing Resources Containing Slash Characters Can Fail**

Some Access Management resources have names that can contain slash characters (/), for example policy names, application names, and SAML v2.0 entities. These slash characters can cause unexpected behavior and failures in Amster when importing into Access Management instances running on Apache Tomcat.

To workaroud this issue, configure Apache Tomcat to allow encoded slash characters by updating the `CATALINA_OPTS` environment variable. For example:

On Unix/Linux systems:

```
$ export CATALINA_OPTS= \
"-Dorg.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH=true"
$ startup.sh
```

On Windows systems:

```
C:\> set CATALINA_OPTS= ^
"-Dorg.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH=true"
C:\> startup.bat
```

Warning

It is strongly recommended that you do *not* enable `org.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH` when running AM in production as it introduces a security risk on Apache Tomcat.

For more information, see [How do I safely enable the org.apache.tomcat.util.buf.UDecoder.ALLOW_ENCODED_SLASH setting in AM/OpenAM \(All Versions\)?](#) in the *ForgeRock Knowledge Base*.

• [INFO] Messages Showing On SuSE On Amster Start Up

Running Amster on SuSE may produce `[INFO]` messages, for example:

```
# ./amster
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
OpenAM Shell (${amster.software.vers} build c9ca9450a9, JVM: 1.8.0_65)
Type ':help' or ':h' for help
.
-----
am>
```

These messages are caused by the keyboard mappings configured in the `/etc/inputrc` file and can safely be ignored, as they do not affect functionality.

4.3. Known Issues

Amster 6.5.5

- There are no known issues in Amster 6.5.5, other than those identified in Amster 6.5.

Amster 6.5.4

- OPENAM-19529: amster does not export non-global service schema defaults

Amster 6.5.3

- There are no known issues in Amster 6.5.3, other than those identified in Amster 6.5.

Amster 6.5.2.3

- There are no known issues in Amster 6.5.2.3, other than those identified in Amster 6.5.

Amster 6.5.2.2

- There are no known issues in Amster 6.5.2.2, other than those identified in Amster 6.5.

Amster 6.5.2.1

- There are no known issues in Amster 6.5.2.1, other than those identified in Amster 6.5.

Amster 6.5.2

- There are no known issues in Amster 6.5.2, other than those identified in Amster 6.5.

Amster 6.5.1

- There are no known issues in Amster 6.5.1, other than those identified in Amster 6.5.

Amster 6.5.0.1

- There are no known issues in Amster 6.5.0.1, other than those identified in Amster 6.5.

Amster 6.5

- OPENAM-13896: Comparison method violates its general contract! seen during amster import

Chapter 5

Documentation Updates

The following table tracks changes to the documentation set following the release of Amster 6.5.5:

Documentation Change Log

Date	Description
2022-01-20	Highlighted the limitation regarding load balanced deployments.
2020-09-14	Initial release of 6.5.3.
2020-02-17	Initial release of 6.5.2.3.
2019-10-31	Initial release of 6.5.2.2.
2019-08-27	Initial release of 6.5.2.1. The Following documentation changes were made: Added missing --connection-timeout option.
2019-06-14	Initial release of 6.5.2.
2019-04-11	Initial release of 6.5.1.
2019-01-17	Initial release of 6.5.0.1.
2018-11-13	Initial release of 6.5.

Appendix A. Getting Support

For more information or resources about OpenAM and ForgeRock Support, see the following sections:

A.1. Accessing Documentation Online

ForgeRock publishes comprehensive documentation online:

- The ForgeRock Knowledge Base offers a large and increasing number of up-to-date, practical articles that help you deploy and manage ForgeRock software.

While many articles are visible to community members, ForgeRock customers have access to much more, including advanced information for customers using ForgeRock software in a mission-critical capacity.

- ForgeRock product documentation, such as this document, aims to be technically accurate and complete with respect to the software documented. It is visible to everyone and covers all product features and examples of how to use them.

A.2. Using the ForgeRock.org Site

The [ForgeRock.org](https://www.forgerock.org) site has links to source code for ForgeRock open source software, as well as links to the ForgeRock forums and technical blogs.

If you are a *ForgeRock customer*, raise a support ticket instead of using the forums. ForgeRock support professionals will get in touch to help you.

A.3. Getting Support and Contacting ForgeRock

ForgeRock provides support services, professional services, training through ForgeRock University, and partner services to assist you in setting up and maintaining your deployments. For a general overview of these services, see <https://www.forgerock.com>.

ForgeRock has staff members around the globe who support our international customers and partners. For details, visit <https://www.forgerock.com>, or send an email to ForgeRock at info@forgerock.com.