

Release Notes

/ Autonomous Identity 2020.6.4

Latest update: 2020.6.4

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Abstract

Notes covering new features, prerequisites for installation, known issues to the software, and other important information for ForgeRock Autonomous Identity.



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About Autonomous Identity Software

ForgeRock® Autonomous Identity is an entitlements analytics system that lets you fully manage your company's access to your data.

An entitlement refers to the rights or privileges assigned to a user or thing for access to specific resources. A company can have millions of entitlements without a clear picture of what they are, what they do, and who they are assigned to. Autonomous Identity solves this problem by using advanced artificial intelligence (AI) and automation technology to determine the full entitlements landscape for your company. The system also detects potential risks arising from incorrect or over-provisioned entitlements that lead to policy violations. Autonomous Identity eliminates the manual re-certification of entitlements and provides a centralized, transparent, and contextual view of all access points within your company.

Together with the ForgeRock® Identity Management (IDM) and the ForgeRock® Identity Governance and Administration (IGA) products, ForgeRock now offers a comprehensive and powerful solution for your Identity Management infrastructure.

These release notes are written for anyone using the Autonomous Identity 2020.6.4 release. Read these notes before you install Autonomous Identity software, especially for production deployments.

Quick Start

	O ₀	0
What's New	Before You Start	Key Fixes
Learn about what's new in this version.	Learn about the requirements for running Autonomous Identity software in production.	Learn about the Key Fixes in this release.
•		
Known Issues	Check Doc Updates	Get Support
Learn about any known issues in this release.	Track important changes to the documentation.	Find out where to get professional support and training.



Chapter 1 What's New in 2020.6.4

Important

As of December 2021, ForgeRock has issued a new patch update to fix a security vulnerability in a third-party component.

Customers who use a custom role management accelerator must apply a new patch to fix the vulnerability. See "Upgrading Autonomous Identity" in the Installation Guide.

Autonomous Identity 2020.6.4 is the latest patch bundle release that contains a collection of fixes and minor RFEs for 2020.6.x deployments. These fixes have been grouped together and released as part of our commitment to support our customers. To view the list of fixes in this release, see "Key Fixes". For general information on ForgeRock's maintenance and patch releases, see Maintenance and Patch Availability Policy.

You can deploy Autonomous Identity 2020.6.4 as an initial deployment, or update from an existing 2020.6.x deployment.

The following new improvements are introduced in this release:

• Improvements in Processing:

- Analytics. Autonomous Identity 2020.6.4 has updated Spark to version 3.0.1 for better performance and security. Spark authentication has also been updated for improved performance and reliability.
- **New Upgrader**. Autonomous Identity 2020.6.4 has a new upgrader to update versions 2020.6.x (2020.6.0, 2020.6.1, 2020.6.2, and 2020.6.3) to this latest release. For more information, see "*Upgrading Autonomous Identity*" in the *Installation Guide*.



Chapter 2 Security Advisory

ForgeRock issues security advisories in collaboration with our customers and the open source community to address any security vulnerabilities transparently and rapidly. ForgeRock's security advisory policy governs the process on how security issues are submitted, received, and evaluated as well as the timeline for the issuance of security advisories and patches.

For details of all the security advisories across ForgeRock products, see Security Advisories Security Advisories in the Knowledge Base.



Chapter 3 Before You Install

Autonomous Identity server software requires the following hardware and software requirements to run in your production environment. Autonomous Identity's flexible architecture runs in a variety of network environments: on-prem, cloud, multi-cloud, and hybrid.

Files to Download

You deploy Autonomous Identity using a Docker image that pulls other dependent images from the ForgeRock Google Cloud Registry (gcr.io) repository and installs the components on a target node. ForgeRock Autonomous Identity customers must contact ForgeRock for a registry key to download the images. For specific instructions on obtaining the registry key, see How To Configure Service Credentials (Push Auth, Docker) in Backstage.

Autonomous Identity requires the following Docker image for installation.

Table 1: Autonomous Identity Software

Docker Image	Docker Image URL
gcr.io/forgerock-autoid/deployer:2020.6.4	Download the image file from the ForgeRock Google Cloud Repository at https://gcr.io/forgerock-autoid/deployer:2020.6.4.

Hardware and Memory Requirements

Autonomous Identity has a number of components that include application, data, and analytics servers, which are all included in the Docker images. The minimum hardware and memory requirements for a single-node target and a separate deployer machine are as follows:

Table 2: Hardware and Memory Requirements

Vendor	Versions
Deployer Node	8 CPU, 32 GB RAM
Analytics (Target) Node	16 CPU, 64 GB RAM



Storage Requirements

Autonomous Identity has a number of components that include application, data, and analytics servers, which are all included in the Docker images. The minimum hardware and memory requirements for a single-node target are as follows:

Table 3: Storage Requirements

Туре	Size
Data Storage	100 GB (minimum), 1 TB (production)

Operating Systems Requirements

Autonomous Identity is supported on the following operating system:

Table 4: Operating System Requirements

Vendor	Versions
CentOS	7.0
Redhat Enterprise Linux	7.0

Java Requirements

Autonomous Identity software supports the following Java environments:

Table 5: Java Requirements

Vendor	Versions
OpenJDK	8 and higher
Oracle Java	8 and higher

Third Party Software Requirements

Autonomous Identity deployments use the following third-party software:

Table 6: Third-Party Software Requirements

Component	Version	Usage
Python	2.6 and higher	Scripts



Component	Version	Usage
Docker CE	18.09.1	Container cluster management
Apache Cassandra	3.11.2 and higher	Database for all Autonomous Identity services
Apache Spark	2.4.4 and higher	Cluster to run Autonomous Identity analytics
HashiCorp Consul	1.7 and higher	Service discovery and configuration server
nginx	1.18 and higher	Reverse proxy for routing HTTPS traffic
OpenLDAP	2.4.50 and higher	An LDAP server backend.

Autonomous Identity Ports

The following ports are implemented in Autonomous Identity:

Table 7: Autonomous Identity Ports

Port	Protocol	Machine	Description
2376	TCP	Docker	Secure Docker client communication. This port is required for the Docker machine, which orchestrates the Docker hosts.
2377	TCP	Docker	Communication between the nodes of a Docker swarm cluster. Only needed on manager nodes.
7946	TCP/UDP	Docker	Communication among nodes for container network discovery.
4789	UDP	Docker	Overlay network traffic.
7001	TCP	Cassandra	Internode communication.
9042	TCP	Cassandra	CQL native transport.
7077	TCP	Spark	Spark master internode communication port.
40040-40045	TCP	Analytics	Spark driver ports for Spark workers to callback.
443	TCP	Autonomous Identity	Port to access the dashboard and API.



Chapter 4 Key Fixes

Key Fixes 2020.6.4

The following are key fixes in this release:

- AUTOID-2104: Upgrade 2020.6.3 analytics to use Spark 3.0.1
- AUTOID-2108: Spark AuthN
- AUTOID-2110: Fix SSO timeout issue in core and role UI
- AUTOID-2194: Modify 2020.6.4 deployer to deploy Spark 3.0.1, spark-cassandra connector, and mllib path
- AUTOID-2264: 2020.6.4: UI issues on fresh deployment
- AUTOID-2265: 2020.6.4: Upgrade script issues

Key Fixes 2020.6.3

The following are key fixes in this release:

- AUTOID-1560: Justifications are not getting updated in Database correctly
- AUTOID-1566: Enable JMX for Cassandra
- AUTOID-1568: API large dataset performance issues
- AUTOID-1569: UI large dataset performance issues
- AUTOID-1603: AutoID UI Nginx Tuning to read large cassandra recordset
- AUTOID-1612: Entitlements with / in name causing 404 errors in UI
- AUTOID-1631: Single user entitlement view- Sorting is disappeared
- AUTOID-1633: Entitlement owner:: Bulk action(approve) can not be processed

Key Fixes 2020.6.2

The following are key fixes in this release:



- AUTOID-1197: Justification-Content overlapping
- AUTOID-1201: Chunk 'range max' value outside of cassandra limit

Key Fixes 2020.6.1

The following are key fixes in this release:

- AUTOID-1134: Running 'analytics run-pipeline' fails with 'Couldn't find zoran_base.features or any similarly named keyspace and table pairs'
- AUTOID-1173: Entitlement Owner page showing wrong overview
- AUTOID-1183: Switch to non-root user for running docker containers

Key Fixes 2020.6.0

The following are key fixes in this release:

- AUTOID-404: Finalize SSO login workflow UI
- AUTOID-406: Finalize SSO login workflow API
- AUTOID-407: Attribute API integration for UI
- AUTOID-408: Replace fixed group names with permissions in UI
- AUTOID-409: Replace fixed group names with permissions in API
- AUTOID-410: Rebrand product as Autonomous Identity GA
- AUTOID-607: Automated Data Validation Prior to Data Load
- AUTOID-633: UI user attribute filters
- AUTOID-676: Update search bar in UI
- AUTOID-677: Re-arrange company view page to match FR specs
- AUTOID-678: Implement rebranding color theme changes in UI
- AUTOID-679: Implement OIDC SSO in the application
- AUTOID-684: API work for SSO
- AUTOID-685: UI work for SSO
- AUTOID-795: Remove disclaimer text from UI
- AUTOID-798: Type ahead changes



- AUTOID-799: Close button hidden due to icon color & background
- AUTOID-802: Adjust Profile dropdown color for background and font
- AUTOID-803: Adjust tool tip colors
- AUTOID-805: Access request changes
- AUTOID-806: User selection dropdown and tooltip
- AUTOID-807: Changes for row selection
- AUTOID-823: Automating configuration changes for SSO OpenID Connect
- AUTOID-824: High and low confidence assignments in bubble view has different data as compared to historical data
- AUTOID-914: Fix existing user attribute filters



Chapter 5 Known Issues

2020.6.4

• There are no new known issues other than those presented in previous releases.

2020.6.3

• AUTOID-2209: vault.yml passwords cannot contain special chars & or \$.

2020.6.2

• There are no new known issues other than those presented in previous releases.

2020.6.1

• ForgeRock has found one issue with certificates with certain multi-node configurations. Please ensure that the analytics server is on the same node as the Spark master.

2020.6.0

The following known issues existed at the time of release 2020.6.0 and remain as known issues in this release:

- AUTOID-413: Employee associated table does not show search option and sorting not working
- AUTOID-512: Batch revoke access is disabled
- AUTOID-650: Confidence score driving factor, if the factors are more page looks messy.
- AUTOID-1070: Auto-Id doesn't handle token expiration in 'SSO' configuration
- AUTOID-1111: Entitlements table has it stored with trailing space which causes data not showing in UI for some of the entitlements.



Chapter 6

Documentation Updates

The following table tracks changes to the documentation set following the release of Autonomous Identity 2020.6.4:

Documentation Change Log

Date	Description	
2021-12-20	Added important instructions to apply an update patch to those who use a custom role management accelerator. See "" in the <i>Installation Guide</i> .	
2021-08-16	Initial release of Autonomous Identity 2020.6.4.	
	The following documentation updates were made:	
	• Added an install prerequisite that bash must be the default shell for user autoid. For more information, see "Install a Single Node Target" in the Installation Guide.	
2021-06-14	Added a known issue about vault passwords not containing special characters, & and \$. For more information, see "Known Issues".	
2020-11-18	Initial release of Autonomous Identity 2020.6.3.	
	The following documentation updates were made:	
	• Added a section on configuring JMX authentication for Cassandra. See "Accessing Log Files" in the Admin Guide.	
	• Updated the instructions on stopping and starting Cassandra and Spark. See "Stopping and Starting" in the Admin Guide.	
2020-07-31	Initial release of Autonomous Identity 2020.6.2.	
2020-07-17	Initial release of Autonomous Identity 2020.6.1.	
	The following documentation updates were made in this release:	
	• Updated the Getting Started guide with additional architecture information. See "Architecture in Brief" in the Getting Started.	
	• Updated the Installation Guide to clarify how to set the <code>JWT_EXPIRY</code> property, which sets the session duration. See "Setting the Session Duration" in the Admin Guide.	



Date	Description
	 Updated the Installation Guide to clarify that only ForgeRock customers can obtain a registry key. See "Install a Single Node Target" in the Installation Guide.
	• Updated the Installation Guide to include that SSO-only configurations do not deploy the openIdap, phpIdapadmin, and self-service microservices. See "Set Up Single Sign-On" in the Admin Guide.
2020-06-26	Initial release of Autonomous Identity 2020.6.0.
	The following documentation guides were included in this release:
	Autonomous Identity Getting Started Guide
	Autonomous Identity Installation Guide
	Autonomous Identity Administration Guide
	Autonomous Identity Users Guide
	Autonomous Identity API Guide
	Autonomous Identity Release Notes



Appendix A. Release Levels and Interface Stability

ForgeRock defines Major, Minor, and Patch product release levels. The release level is reflected in the version number. The release level tells you what sort of compatibility changes to expect.

Important

Autonomous Identity uses a different version numbering system from other ForgeRock products. The version number use the following format: Major.Minor.Patch, where Major is the year of the release, Minor is the month of the release, Patch is the number beginning with 0, and increases for each patch release.

Thus, for this release of Autonomous Identity, the version number is 2020.6.4.

Release Level Definitions

Release Label	Version Numbers	Characteristics
Major	Version: x[.0.0]	Bring major new features, minor features, and bug fixes
		Can include changes even to Stable interfaces
		Major indicates the year of the release, for example, 2020
Minor	Version: x.y[.0]	Bring minor features, and bug fixes
		Can include backwards- compatibile changes to Stable



Release Label	Version Numbers	Characteristics
		interfaces in the same Major release, and incompatible changes to Evolving interfaces • Minor indicates the month of the release, for example, 6 for June
Patch	Version: x.y.z	 Bring bug fixes Are intended to be fully compatible with previous versions from the same Minor release Patch starts with 0 and increases for each bug fix release

Upgrade and Patching

ForgeRock plans to introduce quarterly upgrades and patches for Autonomous Identity as a service to our customers. Autonomous Identity's architecture supports seamless rolling upgrades to simplify the process.

The following are some general points about upgrades and patches:

- Upgrades and patches are implemented using a simple swap of the underlying container. The operation is zero down-time as long as the cluster has a redundant instance of the microservice.
- Patching does not require schema changes.
- Schema and data migration is achieved automatically using the cassandra-migrate tool.

Autonomous Identity schema changes are additive and backward-compatible. This means that during a zero-downtime upgrade, older versions of the container can still write to the new version of the schema. Also, newer versions of the container may alter the tables in a way that preserves the semantics of the previous columns.

• If an upgrade requires a downgrade due to some issue, the downgrade will not restore the previous schema.

More information about upgrading and patching will be presented in a future release.

ForgeRock Product Stability Labels

ForgeRock products support many features, protocols, APIs, GUIs, and command-line interfaces. Some of these are standard and very stable. Others offer new functionality that is continuing to evolve.



ForgeRock acknowledges that you invest in these features and interfaces, and therefore must know when and how ForgeRock expects them to change. For that reason, ForgeRock defines stability labels and uses these definitions in ForgeRock products.

ForgeRock Stability Label Definitions

Stability Label	Definition
Stable	This documented feature or interface is expected to undergo backwards-compatible changes only for major releases. Changes may be announced at least one minor release before they take effect.
Evolving	This documented feature or interface is continuing to evolve and so is expected to change, potentially in backwards-incompatible ways even in a minor release. Changes are documented at the time of product release.
	While new protocols and APIs are still in the process of standardization, they are Evolving. This applies for example to recent Internet-Draft implementations, and also to newly developed functionality.
Legacy	This feature or interface has been replaced with an improved version, and is no longer receiving development effort from ForgeRock.
	You should migrate to the newer version, however the existing functionality will remain.
	Legacy features or interfaces will be marked as <i>Deprecated</i> if they are scheduled to be removed from the product.
Deprecated	This feature or interface is deprecated and likely to be removed in a future release. For previously stable features or interfaces, the change was likely announced in a previous release. Deprecated features or interfaces will be removed from ForgeRock products.
Removed	This feature or interface was deprecated in a previous release and has now been removed from the product.
Technology Preview	Technology previews provide access to new features that are considered as new technology that is not yet supported. Technology preview features may be functionally incomplete and the function as implemented is subject to change without notice. DO NOT DEPLOY A TECHNOLOGY PREVIEW INTO A PRODUCTION ENVIRONMENT.
	Customers are encouraged to test drive the technology preview features in a non-production environment and are welcome to make comments and suggestions about the features in the associated forums.
	ForgeRock does not guarantee that a technology preview feature will be present in future releases, the final complete version of the feature is liable to change between preview and the final version. Once a technology preview moves into the completed version, said feature will become part of the ForgeRock platform. Technology previews are provided on an "AS-IS" basis for evaluation purposes only and ForgeRock accepts no liability or obligations for the use thereof.



Stability Label	Definition
Internal/Undocumented	Internal and undocumented features or interfaces can change without notice. If you depend on one of these features or interfaces, contact ForgeRock support or email info@forgerock.com to discuss your needs.



Appendix B. Getting Support

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 on ForgeRock's support offering, including support plans and service level agreements (SLAs), visit https://www.forgerock.com/support.

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.