

# Fudo Enterprise 5.5

## Release Note

*Date: September 2024*

**This is a major Fudo release, introducing a range of improvements and new fixes.**

### IMPROVEMENTS

- Added a new 'Session Viewer' role, allowing users to view sessions but restricting access to other tabs and functions. Dashboard information for this role is also limited to session-related widgets like 'New Sessions', 'Concurrent Sessions', and 'Suspicious Sessions'.
- All tabs systematically updated to the new GUI now offer comprehensive API coverage, meaning users can perform configuration, search, and filter tasks programmatically via the API. This enhancement streamlines workflows, increases efficiency, and allows for better integration with other systems and automation tools.
- Optimized the interface for easier and faster configuring, searching, and filtering across multiple tabs, including:
  - **Accounts tab** - refined display referring to the new interface style. The new clear filtering menu shows all possible filter options.
  - **Safes tab** - six new tabs helps to easier manage general Safe's settings and functionality, but also assign Policies, Users, Accounts or permissions and notifications. New clear filtering menu shows all possible filters options.
  - **Password Changers tab** - refined display referring to the new interface style. The new clear filtering menu shows all possible filter options.
  - **Policies tab** - refined display referring to the new interface style.
  - **Artificial Intelligence tab** - refined display referring to the new interface style.
  - **Authentication tab** - three new rearranged subtabs containing:
    - External authentication methods like Active Directory, LDAP, Cerb and Radius.
    - OpenID Connect tab to configure support for identity providers like EntraID or Okta.
    - Global tab for OATH, SMS, DUO, SSO, and Kerberos configuration.
  - **External Password Repositories tab** - refined display referring to the new interface style.

- Added the ability to obtain a server certificate when configuring an External Password Repository.
- **Resources tab** - refined display referring to the new interface style.
- **Backups and Retention tab** - refined display referring to the new interface style.
- **Events Log tab** - easier to manage and improved filtering features.
  - Introduced functionality to sort logs by time, enhancing the previous date-based sorting capability.
  - You can quickly select one of the commonly used date range filters, like *'Today'*, *'Last 24 hours'*, *'This Week'*, *'Last 1 hour'*, *'Last 1 year'*, etc.
  - Filters *'From date'* and *'To date'* are now always visible and accessible directly from the tab.
  - The new clear filtering menu shows all possible filter options.
  - Individual columns can now be toggled for visibility. The available columns are: *'Timestamp'*, *'Log Level'*, *'Log Type'*, *'Message'*, and *'Node'*.
- The **default session recording type** for new accounts has been **changed** from *'all'* to *'noraw'*. This means that Fudo Enterprise will now, by default, record session data in a non-raw format, allowing it to be played back using the built-in session player.
- Upgraded Access Gateway to Angular v.16 for improved performance and functionality.
- Now Users receive information about the reason for the rejected Access Request in mail notifications.
- PostgreSQL has been updated to version 16.2.
- Updated RDP file naming to reflect connection details. Files created in Access Gateway for native client RDP connections are now named appropriately.
- Implemented event logging for AI-detected threats.

## API CHANGES

- The transition to APIv2 continues, bringing numerous new endpoints designed to enhance functionality and streamline the process of rewriting tabs to the new API. Consequently, this update aims to significantly improve performance and expand overall capabilities.
- We have added numerous new attributes for the Account object and Session object. From now on, the configuration of all base objects, including Users, Servers, Accounts, Safes, and Listeners, is handled using the new API.
- We've added numerous new object specifications and endpoints, so you can now utilize APIv2 to manage:
  - password changers,
  - password changer policies,
  - policies and regular expressions,

- assigning policies to safes,
  - OpenID Connect authentication,
  - logs,
  - session files,
  - account notes,
  - reports,
  - notification filters,
  - diagnostics,
  - backup targets.
- All attributes related to the **Mobile Token** authentication method were removed from the `user\_authentication\_method` object specification.

## DISCONTINUED FEATURES

- Fudo Enterprise 5.5 **no longer supports the Fudo Officer 1.0** mobile application. Users relying on this integration must **hold off on upgrading** to version 5.5 until the new version of the app is released. The redesigned and enhanced **Fudo Officer 2.0**, supporting the **Just In Time** feature, will be available shortly in your respective app stores for **Android** and **iOS**. Stay tuned for its release.
- Fudo Enterprise 5.5 no longer supports the **Mobile Token** authentication method used to bind the Fudo Officer mobile application to a User. You must **unlink all Fudo Officer bindings** from Users configuration before the upgrade. For more details, please refer to the 'Before You Upgrade' section below.
- Fudo Enterprise 5.5 no longer supports the **CyberArk Enterprise Password Vault** external password repository. Users using this integration need to migrate to CyberArk Credential Provider external repository.
- Fudo Enterprise 5.5 no longer supports the **Ticketing systems**.
- The option to add **unencrypted connections** when configuring an external password repository has been **disabled**. All password repositories with url HTTP/LDAP have to be reconfigured to HTTPS/LDAPS before the upgrade. For more details, please refer to the 'Before You Upgrade' section below.

## ANNOUNCEMENTS

- Fudo Enterprise 5.5 is the **last version supporting transparent and gateway modes in the listeners configuration**. Listeners using these modes **must be reconfigured to use proxy and bastion modes before upgrading to the next release**.

- Fudo Enterprise 5.5 is the **last version supporting** the **Application to Application Password Manager**. The AAPM will be replaced by the functionality of APIv2 in the **next release**.
- Fudo Enterprise 5.5 is the **last version supporting** the **APIv1**. The support will be **removed** in the **next release**. All scripts using APIv1 should be rewritten to use APIv2.
- Fudo Enterprise 5.5 is the **final version to support DHCP**, which will be removed in the next release.

## BUG FIXES

- Fixed the inability to configure *'transport\_bind\_ip'* for the password changer to *'Any'* bind address.
- Resolved issue preventing IP address input and selection for native client mode on Access Gateway.
- Fixed login issues for MGM and UAG with OATH enabled and 'Different password than current' setting active.
- Fixed issue where inactivity limit did not terminate sessions for rendered HTTP protocol due to noVNC client behavior.
- Fixed issue with AD Domain being incorrectly mapped and displayed during LDAP user synchronization.
- Fixed issue where group mapping in LDAP synchronization was saved in an incorrect format.
- Resolved issue with LDAP synchronization where users in the built-in AD group were not correctly mapped.
- Fixed login failure issue when connecting to MS SQL (TDS) using domain in the login field and listener *'proxy'* type.
- Fixed issue where LDAP synchronization failed when adding external authentication to group mapping.
- Fixed problem with SSH Key authentication failing and prompting for a password when Fudo Domain was included in the connection string.
- Fixed issue causing crashes when running .rdp files for deleted remote apps.
- Re-fix: Fixed an issue causing double OTP prompts for redirected RDP connections in RDS, impacting users configured with the OATH authentication method.
- API: Resolved problem where attributes requiring another attribute with a default value were not automatically added during PATCH modifications.
- Resolved issue with the list being unsearchable and unsorted when choosing a password from 'Other account' during account creation.

- Resolved problem with Fudo requiring a passphrase for passwordless keyfiles, resulting in an error or incorrect acceptance of any string.

## KNOWN ISSUES

- For a regular account with a password from another account via a URL, the HTTP connection cannot be established.
- There is no list for users who use a specific external authentication method.
- The domain is not forwarded correctly when credentials are left blank in the account.
- Admin-type users cannot open the 'Downloads' tab.
- Missing '*Password changer*' filter for '*Accounts*' tab.
- Non-rendered HTTP sessions cannot be established.
- FudoPV (Application to Application Password Manager) is not functional.
- Some translations may be missing in redesigned tabs.
- Following the upgrade, the Artificial Intelligence tab may initially appear blank, with no visible model training, until the system fully loads after a brief period.

## BEFORE YOU UPGRADE

It is highly recommended to perform the ['Upgrade check'](#) before the proper upgrade. The result of the failed check may contain information about configuration changes that needs to be done by a Fudo administrator to successfully upgrade Fudo.

There are a few things that need to be verified before this upgrade can be applied:

- Make sure your Fudo instance isn't undergoing any system-wide process, such as storage rebuild, or the system isn't under full-load.
- In a cluster configuration, make sure all nodes are synchronized and upgrade the slave node first.
- Make sure you have an active Premium or Standard Support maintenance contract.

### Mobile Token

**Note:** Fudo Enterprise 5.5 no longer supports the **Mobile token** authentication method used to bind Fudo Officer mobile application to a User. Please ensure that the mobile application is unlinked from any User configuration. Otherwise, the upgrade will fail, and the script UPG000685 will return a list of users who have the mobile application linked.

To unlink the Fudo Officer mobile application, please edit the user configuration, then:

1. Go to the 'More' tab, and in the 'Fudo Officer' section, unlink the application using the 'Cancel binding' button.
2. Alternatively, go to the 'Settings' tab, in the 'Authentication' section find the 'Mobile token' method and remove it using the 'Delete' button.

## Single Sign On Configuration

**Note:** After upgrading to version 5.5, it is necessary to reload the `.keytab` file to ensure proper functionality of **SSO authentication**.

The first authentication attempt using SSO after the upgrade may result in the error: "Failed to authenticate using the given method." To resolve this, you must log in using an alternative method configured for the *superadmin* account and reload the `.keytab` file.

Steps to resolve:

1. Navigate to '*Settings > Authentication*'.
2. Go to the '*Global*' tab.
3. In the 'SSO' section, click the '*Upload*' button next to the appropriate field—either '*Management SSO settings*' or '*User access SSO settings*'—depending on your configuration.
4. Select the appropriate `.keytab` file and click 'Save'.

## Reconfiguring External Password Repository to HTTPS/LDAPS

As Fudo Enterprise 5.5 no longer supports unencrypted connections for external password repositories, all repositories using HTTP/LDAP URLs must be reconfigured to HTTPS/LDAPS prior to the upgrade.

Steps to resolve:

1. Navigate to '*Settings > External passwords repositories*'.
2. Edit every configured external password repositories URL to use HTTPS/LDAPS.

## RECOMMENDED UPGRADE PATH

Before proceeding with the upgrade, please verify the version number of your Fudo Enterprise instance. Depending on the version number, you will need to follow a specific upgrade path. To learn more, please refer to the [Fudo Enterprise Product Upgrade Path](#) article.

**Note:** Fudo Enterprise 5.4.11 introduces a new upgrade barrier in the Product Upgrade Path. If you are upgrading from any version of Fudo 5.4, please ensure you upgrade to at least version 5.4.11 before proceeding to version 5.5.

## HOW TO UPGRADE YOUR FUDO

1. Login to your Fudo Admin Panel.
2. Select '*Settings > System*' from the main menu on the left-hand side and go to the '*Upgrade*' tab.

**Note:** If your Fudo is running in a cluster, start the upgrade on the Slave node, and only when the upgrade finishes successfully start upgrading the Master node. When both systems are running the same Fudo version cluster communication will be restored.

3. Select 'Upload' from the top right side and upload the previously downloaded and unzipped upgrade package file.
4. Select '*Run Check*' to determine if your upgrade file is correct and can be applied to the existing Fudo configuration. Refresh your browser window to see '*Upgrade check*' current progress.
5. Upon a successful '*Run Check*' result, upgrade your Fudo by using the '*Upgrade*' button. Upon system restart, all active sessions will be terminated.

**Note:** In case of an unsuccessful check do not upgrade your system, double check your upgrade file checksum. If you encounter any problems, get in touch with us and we will assist you.

## HOW TO IMPORT SYSTEM CONFIGURATION

**Note:** Importing a configuration file and initiating system with imported data will delete all existing session data.

1. Login to your Fudo Admin Panel.
2. Select '*Settings > System*' from the main menu on the left-hand side, then go to the user menu in the upper right corner.
3. Select '*Import configuration*' from the user menu.
4. Upload the '*Master key*' file and '*Configuration file*' exported from another Fudo instance and click '*Confirm*' to proceed with the import.

**Note:** For more details, please refer to the ['Exporting/Importing System Configuration'](#) section of the Fudo Enterprise documentation.

## THE ROLLBACK PROCEDURE

If you are experiencing issues with the newly installed version, you have an option to roll back to the previous version of Fudo running on this machine. To do so, click the user menu on the top right, select *'Restart'*, and select previous system revision from the drop-down list.

**Note:** Please keep in mind any session recordings performed on a newer version will be lost upon upgrade rollback execution.

## CONTACT US

If you have questions or concerns, please get in touch at [support@fudosecurity.com](mailto:support@fudosecurity.com) or by phone: +48 22 100 67 09.

Sincerely,

*Fudo Security Team*