



Cisco Finesse

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New Features

Improvements to Finesse Failover

This release optimizes the Desktop failover and Unified CCX Engine failover performances.

- **Desktop Failover**—The maximum time taken for the desktop failover with the default desktop layout, varies from 35 seconds to 75 seconds over LAN for 400 agents, once an active Finesse server is found.
- **Unified CCX Engine Failover**—If Unified CCX Engine failover is involved, then the time taken is longer as it includes the time taken for the Cisco Finesse Server failover.

The failover time varies depending on the WAN bandwidth, the number of signed-in users, network latency, and the number of gadgets configured on the Finesse desktop.

For more information on deployment practices and guidelines to ensure optimal failover performance, see *Guidelines for Optimal Desktop Failover* and *Failover Planning* sections in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

For more information on ensuring how the custom gadgets improve failover performance, see *Best Practices for Gadget Development* section in *Cisco Finesse Web Services Developer Guide* at <https://developer.cisco.com/docs/finesse/#!rest-api-dev-guide>.

Desktop Performance Improvements

This release optimizes the Finesse desktop performance in the following areas:

- Uses HTTP/2 by default for loading resources. This provides significant improvement when starting up the desktop compared to the older HTTP 1.1.

- Consumes significantly lesser desktop bandwidth when reloading the Finesse desktop (without gadgets) from the cache.
- Uses fewer requests for loading resources.
- Serves static resources much faster using client-side resource caching.
- Provides cached REST responses at a team-level for configuration data to improve the desktop loading.
- Improves gadget loading by caching the gadget definitions.

Finesse Server Performance Improvements

This release optimizes the Finesse server performance in the following areas.

- Significantly reduces the average CPU consumption while the server is under load.
- Optimizes the server performance by avoiding dynamic server pages, using SSL termination, faster CTI message parsing, and cached static resources.
- Provides access to more memory and reduces GC latencies as the Cisco Finesse server uses 64-bit Java 8.
- Optimizes CTI request processing to reduce the latencies in sending requests to the server.
- Reduces overall latencies for CTI communication.

Keyboard Shortcuts

This release provides keyboard shortcuts for easy access to the Finesse desktop features. The keyboard shortcuts define an alternate way to perform a specific action on the Finesse agent and supervisor desktop. The administrator can set the **utils finesse set_property desktop enableShortCutKeys** to *true* to enable this feature.

For more information, see *Access Keyboard Shortcuts* section in *Cisco Finesse Agent and Supervisor Desktop User Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-user-guide-list.html>.

Edit Call Variables

This release allows agents and supervisors to edit the call variable values from the Finesse desktop. The administrator can configure any of the callVariable values, including ECC variables as editable. The agent and the supervisor can edit the call variable values during an active call or in the wrap-up state.



Note Call variables edit operation updates the values of the variables within the particular call. All entities listening to dialog events receive the updated call variables through the Cisco Finesse notifications. If any CTI clients are connected to the same CTI server, they also receive notifications of the changed call data through CTI call events. However, application scripts or databases that are used to populate the call variables are not directly affected by this edit.

For more information, see *Edit Call Variables* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html> and *Cisco Finesse Agent and Supervisor Desktop User Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-user-guide-list.html>.

Drag-and-Drop and Resize Gadget or Component

This release allows agents and supervisors to drag-and-drop or resize the gadgets or components in the Finesse desktop. The administrator can customize the desktop property value of these features through the desktop layout:

- Default layout (**Desktop Layout**)
- Team-specific layouts (**Manage Team Resources > Desktop Layout**)

Alternatively, the administrator can also set the **utils finesse set_property desktop enableDragDropAndResizeGadget** to *true* to enable these features.

For more information, see *Drag-and-Drop and Resize Gadget or Component* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Gadget Expand and Collapse

This release supports to expand and collapse of gadgets dynamically in the Finesse desktop to optimize available screen space.

For more information, see *Container Services* section in JavaScript Library at <https://developer.cisco.com/docs/finesse/#!javascript-library>.

Desktop Layout Editors

This release provides two types of editors in the **Desktop Layout** and **Team Resources** of the Cisco Finesse administration console.

- **Text Editor**—A plain text editor. It is the default editor. Use the **Expand All** option to see all the code details and **Search** box to refine results.
- **XML Editor**—An XML editor. The administrator cannot add or edit comments (`<!-- -->`) in this editor.

For more information, see *Default Layout XML* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Customize Desktop Properties

This release allows the administrator to customize the desktop properties for individual Teams through the desktop layout using the following layouts:

- Default layout (**Desktop Layout**)
- Team-specific layouts (**Manage Team Resources > Desktop Layout**)

For more information, see *Customize Desktop Properties* and *Customize Desktop Properties at Team Level* sections in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Configuration for Cloud Connect

This release allows the administrator to configure the Cloud Connect server settings in the Finesse administration console to contact the Cisco Cloud Services, such as Cisco Webex Experience Management.

For more information, see *Cloud Connect Server Settings* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Security Banner Message

This release provides custom banner messages in the administrator and desktop Sign In pages. The administrator can use the following CLIs to define the custom security banner message.

- **utils finesse set_property desktop desktopSecurityBannerMessage** <value>
- **utils finesse set_property admin adminSecurityBannerMessage** <value>

For more information, see *Desktop Properties* and *Service Properties* sections in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Automatic Desktop Login Retries

This release supports automatic desktop login retries when the desktop login fails due to device-related errors. The administrator can use the following CLIs to enable, define the number of attempts and intervals in seconds for the retry login mechanism. By default, the value of this property is set to true.

- **utils finesse set_property desktop enableRetryLoginFeature** {true/false}
- **utils finesse set_property desktop loginFailureRetryAttempts** <value>
- **utils finesse set_property desktop loginFailureRetryInterval** <value>

For more information, see *Desktop Properties* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Finesse IP Phone Agent Certificate Management

This release requires HTTPS for Finesse IP Phone Agent (IPPA) to address the security vulnerabilities across the solutions. The administrator must ensure to import the following certificates and configuration changes to use the FIPPA functionality.

- Import the Cisco Unified Communications Manager (CUCM) certificate to the trust store as **tomcat-trust**.
- Import the Unified CCX host certificate to the CUCM trust store as **Phone-trust**.

For more information, see *Finesse IP Phone Agent Certificate Management* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Supported Content Security Policy Directives

This release allows the administrator to use the following CLI commands to view, add, or delete the frame-access sources in the response header of Cisco Finesse. This ensures that only the configured sources can embed the Cisco Finesse in an iFrame within their HTML pages.

- **utils finesse frame_access_whitelist add**[source1,source2]
- **utils finesse frame_access_whitelist delete**
- **utils finesse frame_access_whitelist list**

For more information, see *Supported Content Security Policy Directives* in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.



Note This feature is available from Unified CCX Release 12.5(1) ES02.

Enhanced Log Collection

3rdpartygadget Log Directory

This release provides the 3rdpartygadget log directory, which contains information, error, startup, and shutdown-related logs for the Finesse 3rdpartygadget server.

WebProxy Service Logs

The administrator can use the **file get activelog webproxy recurs compress** CLI to obtain logs for the WebProxy Service.

For more information, see *Log Collection* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Automatic Log Collection for Desktop Users

The administrator can use the following CLI to create, list, and delete automatic desktop log collection schedules for agents and supervisors.

utils finesse desktop_auto_log_collection {create|list|delete}

For more information, see *Log Collection Schedule* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Set Commands

The following CLIs have been introduced in this release:

Call Variables Logging

The administrator can use the following CLIs to enable or disable the call variables logging.

- **utils finesse set_property webservices logCallVariables** {true/false}
- **utils finesse set_property fippa logCallVariables** {true/false}

Enforcement of X.509 Certificate Trust Validation

The administrator can set the **utils finesse set_property webservices trustAllCertificates** to *false* to enable the validation of the X.509 CA or the self-signed certificate.

Preloading of the Secondary Resources

The administrator can set the **utils finesse set_property desktop preLoadSecondaryResources** to *true* to enable the preloading of static resources from the secondary server to ensure faster failover.

XMPP Socket and BOSH/WebSocket (HTTP)

The administrator can set the **utils finesse set_property webservices enableInsecureOpenfirePort** to *true* to enable the Cisco Finesse Notification Service unsecure XMPP port (5222) and HTTP-BOSH/WebSocket port (7071).

WebProxy Service

The administrator can use the following CLIs to clear, set access log-level and log-severity for the logs that are generated by the WebProxy Service.

- **utils webproxy cache clear**
- **set webproxy access-log-level**
- **set webproxy log-severity**
- **show webproxy access-log-level**
- **show webproxy log-severity**

For more information, see *Cisco Finesse CLI* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

REST APIs

The following APIs have been introduced in this release:

- CompressedClientLog—Post Compressed Log to Finesse
- TeamResource—Get Reason Codes
- TeamResource—Get Wrap-Up Reasons
- TeamResource—Get Media Properties Layouts
- TeamResource—Get Phone Books
- TeamResource—Get Workflows

REST API Response Caching

In order to improve login performance, the Finesse webproxy caches the following REST API responses:

- ChatConfig
- TeamResource APIs include Reason Codes, Wrap-Up Reasons, Media Properties Layouts, Phone Books, and Workflows. The responses of the TeamResource API are cached at the team-level.

For more information, see *REST API Developer Guide* at <https://developer.cisco.com/docs/finesse/#!rest-api-dev-guide>.

JavaScript APIs

The following APIs have been introduced in this release:

- `finesse.shortcutkey.ShortcutKeyService`
- `finesse.utilities.DesktopCache`

For more information, see *JavaScript Library* at <https://developer.cisco.com/docs/finesse/#!javascript-library>.

Updated Features

None.

Security Enhancements

This release implements the following security changes:

- By default, Cisco Finesse Notification Service unsecure XMPP port 5222 and BOSH/WebSocket (HTTP) port 7071 are disabled.

For more information on enabling the ports, see *Service Properties* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

For more information, see *Security Enhancements* section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Failure Message for Login

This release displays detailed error messages corresponding to login failures on the Finesse desktop. This allows the administrator to respond to client login failures without referring to the logs.

The error messages are updated for both UI and API.

- The Finesse desktop UI is updated to include the 2nd Level Text error messages provided by CTI operations for sign-in scenarios.

Peripheral error codes 12004 and 12005 are replaced with desktop sign-in retries. When the sign-in retry fails, it displays the 2nd Level Text error messages provided by CTI operations.

- The Cisco Finesse API payloads are updated to include the peripheral error codes and 2nd Level Text error messages provided by CTI operations. The newly added parameters are:
 - peripheralErrorCode
 - peripheralErrorMsg
 - peripheralErrorText

For more information, see *Cisco Finesse API Errors* section in *REST API Developer Guide* at <https://developer.cisco.com/docs/finesse/#!/rest-api-dev-guide>.

Example

```
13036 PERERR_GW_E_JTAPIOBJ_PERFORMANSWERCALL_NO_TERMINAL_CONNECTION
1st Level Text = 'JTAPI Gateway - Error on ANSWER operation'
2nd Level Text = 'The routine performAnswerCall in class JTapiObj got a null connection
from a call to 'findTerminalConnection'
```

Team Performance Gadget

In the Team Performance gadget, supervisors can use the **Search** box to refine any agent details by using the search criteria such as Agent Name, State, or Extension.

Phone Book Contact Limit

The maximum number of contacts per agent across all phone books is increased from 1500 to 6000.

Changes in REST APIs

The following payloads are updated:

- MediaPropertiesLayout APIs—The `uiEditable` payload indicates if the call variable values can be edited in the Finesse desktop (agent and supervisor).

Phone Book Contact Limit

The maximum number of contacts per agent is increased from 1500 to 6000 in the Phone Book and Contact APIs.

For more information, see *REST API Developer Guide* at <https://developer.cisco.com/docs/finesse/#!/rest-api-dev-guide>.

Changes in JavaScript APIs

The following functions are updated:

- ContainerServices—The `collapseMyGadget` and `expandMyGadget` functions, that hide and display the gadget contents respectively.
- DialogBase—The `updateCallVariables` function updates the dialog's call variables.

For more information, see *JavaScript Library* at <https://developer.cisco.com/docs/finesse/#!javascript-library>.

Important Notes

- Finesse desktop now connects to the Notification service using WebSocket or BOSH with HTTPS port 8445 instead of 7443. The advantage is that it reduces the number of certificates that needs to be accepted by the desktop during log in.
- Third-party client software can connect to the Notification service using WebSocket or BOSH with either 7443 or 8445 HTTPS port.

Deprecated Features

Notifications over BOSH (Long Polling)

In this release, support for notifications over BOSH (long polling) is deprecated. Notifications over direct XMPP (over TCP) and Websocket-based transports are the replacements.

Removed and Unsupported Features

Cisco Finesse Trace Logging

In this release, the following CLIs are removed:

- `utils finesse trace enable`
- `utils finesse trace disable`

The replacement is the **utils finesse log** commands that are used to add, delete, update, or view a custom log configuration in the Cisco Finesse system.

Third Party Software Impacts

None.

