User Guide for the Cisco Finesse Administration and Serviceability Consoles Release 9.0(1)

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Preface

This document explains the two interfaces that you use to configure and maintain Cisco Finesse. These interfaces are as follows:

- The Administration Console: (URL: http://hostname or IP address/cfadmin) A web-based interface that you use to configure system and team settings for Cisco Finesse
- The Serviceability Console: (CLI) Used to manage the Cisco Finesse services

Access to the Administration Console is limited to system administrators who use the credentials of the Application User account created during the installation.

The Administrator User credentials can be used to access the CLI.

This guide is prepared for system administrators who configure, administer, and monitor Cisco Finesse.

This guide is organized as follows:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Administration Console</td>
<td>Explains the Administration Console, including:</td>
</tr>
<tr>
<td></td>
<td>• Sign in to Cisco Finesse Administration Console.</td>
</tr>
<tr>
<td></td>
<td>• Configuring Contact Center Enterprise CTI server settings (adding and changing CTI Server settings)</td>
</tr>
<tr>
<td></td>
<td>• Configuring Cluster settings (adding a secondary Finesse server)</td>
</tr>
<tr>
<td></td>
<td>• Configuring Contact Center Enterprise Administration &amp; Data server settings</td>
</tr>
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<td>• Configuring Not Ready reason codes, Sign Out reason codes, and Wrap-Up reasons</td>
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<td>• Defining the Call variable layout</td>
</tr>
<tr>
<td></td>
<td>• Updating the Finesse Layout XML</td>
</tr>
</tbody>
</table>
## Conventions

This manual uses the following conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Description</th>
</tr>
</thead>
</table>
| **boldface** font | Boldface font is used to indicate commands, such as user entries, keys, buttons, and folder and submenu names. For example: 
  - Choose **Edit > Find**.  
  - Click **Finish**. |
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The Administration Console

The Administration Console is the interface for configuring system settings used in Cisco Finesse. An administrator must sign in to this tool and configure these settings after installing Cisco Finess. Agents cannot sign in to the Finess Agent Desktop until this configuration is complete.

After system configurations are defined and the Cisco Finess services are restarted, the Cisco Finess Agent Desktop is enabled. Agents who have a password configured in Cisco Unified Contact Center Enterprise (Unified CCE) and a phone device defined in Cisco Unified Communications Manager (Unified CM) can sign in.

Note: Password is an optional field when you create an agent in Unified CCE Configuration Manager, but it is mandatory for Cisco Finess. Agents who do not have passwords cannot sign in to Cisco Finess.

Note: Finess administration tasks can be performed on the primary Finess server only.

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- Contact Center Enterprise CTI server settings, page 2
- Contact Center Enterprise Administration & Data server settings, page 4
- Cluster settings, page 5
- Not Ready reason codes, page 5
- Sign Out reason codes, page 9
- Wrap-Up reasons, page 13
- Call variable layout, page 16
- Finess Layout XML, page 19

Sign in to Cisco Finess Administration Console

Perform the following procedure to access the Cisco Finess Administration Console:
Procedure

Step 1  Direct your browser to http://hostname or IP address/cfadmin, where hostname or IP address is the hostname or IP address of your primary Finesse server. This action opens a Sign In page for Cisco Finesse Administration.  
Note  Cisco Finesse supports Internet Explorer 8.0 or 9.0. Internet Explorer 9.0 is supported in Compatibility Mode only. However, Finesse does not support Compatibility View in Internet Explorer 8.0.

Step 2  For ID, enter the Application User ID established during the installation.

Step 3  For Password, enter the Application User password that was established during the installation.

Step 4  Click Sign In.
A successful sign-in launches an interface with defined administration gadgets and a Sign Out link.

Contact Center Enterprise CTI server settings

Use the Contact Center Enterprise CTI Server Settings gadget to configure the A Side and B Side CTI servers. All fields on this tab are populated with default system values or with values an administrator has previously entered. Change values to reflect your environment and preferences.

After changing and saving any value on the Contact Center Enterprise CTI Server Settings gadget, you must restart the Cisco Tomcat Service on both the primary and secondary Finesse servers, as described in Supported commands. Note that if you restart the Cisco Tomcat Service, agents must sign out and sign in again.

Note
If you must make changes to other settings (such as Contact Center Enterprise Administration & Data Server settings), you can make those changes and then restart Cisco Tomcat.

As a best practice, make changes to CTI server settings and restart the Cisco Tomcat Service during hours when agents are not signed in to the Cisco Finesse Agent Desktop.

Note
Although the B Side Host/IP Address and B Side Port fields are not shown as required, an A Side and B Side CTI server are mandatory for a production deployment of Unified CCE and Cisco Finesse.

The following table describes the fields on the Contact Center Enterprise CTI Server Settings gadget.
### Field | Explanation
--- | ---
A Side Host/IP Address | Either the hostname or IP address of the A Side CTI server. This field is required. This value is typically the IP address of the Peripheral Gateway (PG). The CTI server runs on the PG.

A Side Port | The port of the A Side CTI server. The value of this field must match the port configured during the setup of the A Side CTI server. This field is required and accepts values between 1 and 65535. You can find this value on the title bar of the CG ctisvr process window. The default value is 42027.

Peripheral ID | The ID of the PG Routing Client (PIM). The PG Peripheral ID should be configured to the same value for the A Side and B Side CTI server. This field is required and accepts values between 1 and 32767. The default value is 5000.

B Side Host/IP Address | Either the hostname or IP address of the B Side CTI server.

B Side Port | The port of the B Side CTI server. The value of this field must match the port configured during the setup of the B Side CTI server. This field accepts values between 1 and 65535.

**Actions on the Contact Center Enterprise CTI Server Settings gadget:**

- **Submit:** Saves your configuration changes

  ![Pen Icon] **Note**

  After changing and saving any value on this page, you must restart the Cisco Tomcat Service on the primary and secondary Finesse server, as described in Supported commands. Note that if you restart the Cisco Tomcat Service, agents must sign out and sign in again.

  ![Pen Icon] **Reset:** Retrieves the most recently saved server settings
Contact Center Enterprise Administration & Data server settings

Use the Contact Center Enterprise Administration & Data Server Settings gadget to configure the database settings. These settings are required to enable authentication for Finesse agents and supervisors.

Note

Finesse does not support SQL authentication for connecting to the Unified CCE administration database. Finesse requires that the administration database is configured to use Windows authentication.

After changing and saving any value on the Contact Center Enterprise Administration & Data Server Settings gadget, you must restart the Cisco Tomcat Service on the primary and secondary Finesse server, as described in Supported commands. Note that if you restart the Cisco Tomcat Service, agents must sign out and sign in again.

As a best practice, make Contact Center Enterprise Administration & Data Server settings changes and restart the Cisco Tomcat service during hours when agents are not signed in to the Cisco Finesse Agent Desktop.

The following table describes the fields on the Contact Center Enterprise Administration & Data Server Settings gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Host/IP Address</td>
<td>Either the hostname or IP address of the Unified CCE Administration &amp; Data Server.</td>
</tr>
<tr>
<td>Backup Host/IP Address</td>
<td>Either the hostname or IP address of the backup Unified CCE Administration &amp; Data Server.</td>
</tr>
<tr>
<td>Database Port</td>
<td>The port of the Unified CCE Administration &amp; Data Server. The default value is 1433.</td>
</tr>
<tr>
<td>AW Database Name</td>
<td>The name of the AW Database (AWDB) (for example, ucceinstance_awdb).</td>
</tr>
<tr>
<td>Domain</td>
<td>The domain of the AWDB.</td>
</tr>
<tr>
<td>Username</td>
<td>The username required to sign in to the AWDB.</td>
</tr>
</tbody>
</table>

Note: Because Finesse expects the primary and backup Administration & Data Server ports to be the same, the Finesse Administration Console exposes only one port field. You must ensure that the port is the same for the primary and backup Administration & Data Servers.

Note: This user refers to the Administrator Domain user that the AWDB uses to synchronize with the logger. The AWDB server must use Windows authentication and the configured username must be a domain user.
Password | The password required to sign in to the AWDB.

For more information about these settings, see the Administration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted and the Staging Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted.

**Cluster settings**

Use the Cluster Settings gadget to configure a secondary Finesse server. The purpose of a secondary Finesse server is to handle all agent requests if the primary server goes down.

You must complete this configuration before you install the secondary Finesse server. For more information about installing a secondary Finesse server, see the Cisco Finesse Installation and Getting Started Guide.

The following table describes the fields on the Cluster Settings gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host/IP Address</td>
<td>Either the hostname or IP address of the secondary Finesse server.</td>
</tr>
</tbody>
</table>

**Actions on the Cluster Settings gadget:**

- **Submit**: Saves your configuration changes
- **Reset**: Retrieves the most recently saved cluster settings

**Not Ready reason codes**

Not Ready reason codes represent reasons that agents can select when they change their state to Not Ready. Use the Not Ready Reason Code Management gadget to view, add, edit, or delete Not Ready reason codes. Click the Reason Label or Reason Code headers to sort the Not Ready reason codes by label or by reason code, in ascending or descending order.

All configured Not Ready reason codes are visible to all agents. You cannot make certain codes available to only certain agents. If you configure Not Ready reason codes, all agents will be required to provide them.
Finesse supports a maximum of 100 Not Ready reason codes.

The following table describes the fields on the Not Ready Reason Code Management gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason Label</td>
<td>The label for the Not Ready reason code.</td>
</tr>
<tr>
<td></td>
<td>The label has a maximum length of 40 characters and should be unique for each Not Ready reason code. Both alphanumeric and special characters are supported.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> The Not Ready Reason Code Management gadget does allow you to create different reason codes using the same label with a different code. However, if a label is not unique, multiple entries with the same label will appear on the Agent Desktop and agents may select the incorrect code.</td>
</tr>
<tr>
<td>Reason Code</td>
<td>A code for the Not Ready reason.</td>
</tr>
<tr>
<td></td>
<td>The code can be any value between 0 and 65535. This value should be unique for each Not Ready reason code.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> The Not Ready Reason Code Management gadget does allow you to create different reason codes using the same code with a different label. However, if a code is not unique, the Agent Desktop may not always show the correct label.</td>
</tr>
</tbody>
</table>

**Actions on the Not Ready Reason Code Management gadget:**

- **Add:** Add a new Not Ready reason code
- **Edit:** Edit an existing Not Ready reason code
- **Delete:** Delete a Not Ready reason code
- **Refresh:** Reload the list of Not Ready reason codes from the server

**Note**

When you add, edit, or delete a Not Ready reason code, the changes you make take effect on the Agent or Supervisor Desktop after three seconds. However, agents who are signed in when the changes are made must sign out and sign back in to see those changes reflected on their desktops.
When an agent signs in to the Finesse desktop, that agent's status is set to Not Ready by default. The agent can then choose to go to Ready status or choose from one of the configured Not Ready reason codes as shown in the following figure.

If an agent wants to change from Ready to Not Ready status, that agent can choose the appropriate Not Ready reason code from the list of configured codes.

An agent who is on a call can select a state to be applied when the call is complete. For example, if an agent wants to be in Not Ready state when the call ends, that agent can choose Not Ready from the drop-down list while still on the call. The Finesse desktop shows the agent (in this case, John Smith) in Talking state and a pending state of Not Ready.

If the agent also applies a Not Ready reason code, the desktop shows the pending state with the reason code (in this case, Not Ready - Lunch).

Pending state changes appear on the desktop while the agent's state is Talking (for example, on hold, in a consult call, conference, or silent monitor call).

### Add Not Ready reason code

Perform the following procedure to add a new Not Ready reason code:

**Procedure**

Step 2  In the Reason Label box, enter a label for the reason code.

Note  Not Ready reason code labels are limited to 40 characters.

Step 3  In the Reason Code box, enter a reason code.

Note  The code must be between 0 and 65535 and should be unique for each reason code.

Step 4  Click Save.

Note  The Finesse server removes leading or trailing spaces before saving the code in the database.

Edit Not Ready reason code

Perform the following procedure to edit the label or code for an existing Not Ready reason code:

Procedure

Step 1  In the Not Ready Reason Code Management gadget, select the reason code that you want to edit.

Step 2  Click Edit.

The Edit Reason Code area appears.

Step 3  If you want to change the label for the Not Ready reason code, in the Reason Label field, enter a new label for the reason code. If you want to change the code, in the Reason Code field, enter the new code.

Step 4  Click Save.
Delete Not Ready reason code

An error may occur if an agent selects a Not Ready reason code after it has been deleted. Agents who are signed in when you make changes to Not Ready reason codes must sign out and sign back in to see those changes reflected on their desktops.

Perform the following procedure to delete a Not Ready reason code:

**Procedure**

**Step 1**
In the Not Ready Reason Code Management gadget, select the Not Ready reason code that you want to delete.

**Step 2**
Click **Delete**.

A question appears asking you to confirm that you want to delete the selected reason code.

<table>
<thead>
<tr>
<th>Lunch Break</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting</td>
<td>1001</td>
</tr>
<tr>
<td>Meet with Supervisor</td>
<td>1002</td>
</tr>
<tr>
<td>Training</td>
<td>1003</td>
</tr>
</tbody>
</table>

⚠️ Are you sure you want to delete selected reason code? (Meeting)

**Step 3**
Click **Yes** to confirm the deletion of the selected reason code.

---

Sign Out reason codes

Sign Out reason codes represent reasons that agents can select when they sign out of the Agent Desktop.

Use the Sign Out Reason Code Management gadget to view, add, edit, or delete Sign Out reason codes. Click the Reason Label or Reason Code headers to sort the Sign Out reason codes by label or by reason code, in ascending or descending order.

All configured Sign Out reason codes are visible to all agents. You cannot make codes available to only certain agents. If you configure Sign Out reason codes, all agents will be required to provide them.

**Note**
Finesse supports a maximum of 100 Sign Out reason codes.
The following table describes the fields on the Sign Out Reason Code Management gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason Label</td>
<td>The label for the Sign Out reason code.</td>
</tr>
<tr>
<td></td>
<td>The label has a maximum length of 40 characters and should be unique for each Sign Out reason code. Both alphanumeric and special characters are supported.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> The Sign Out Reason Code Management gadget does allow you to create different reason codes using the same label with a different code. However, if a label is not unique, multiple entries with the same label will appear on the Agent Desktop and agents may select the incorrect code.</td>
</tr>
<tr>
<td>Reason Code</td>
<td>A code for the Sign Out reason.</td>
</tr>
<tr>
<td></td>
<td>The code can be any value between 0 and 65535. This value should be unique for each Sign Out reason code.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong> The Sign Out Reason Code Management gadget does allow you to create different reason codes using the same code with a different label. However, if a code is not unique, the Agent Desktop may not always show the correct label.</td>
</tr>
</tbody>
</table>

**Actions on the Sign Out Reason Code Management gadget:**

- **Add:** Add a new Sign Out reason code
- **Edit:** Edit an existing Sign Out reason code
- **Delete:** Delete a Sign Out reason code
- **Refresh:** Reload the list of Sign Out reason codes from the server

**Note**

When you add, edit, or delete a Sign Out reason code, the changes you make take effect on the Agent or Supervisor Desktop after three seconds. However, agents who are signed in when the changes are made must sign out and sign back in to see those changes reflected on their desktops.

When an agent clicks Sign Out on the desktop, any configured Sign Out codes appear in a drop-down list. The agent can then choose the code that represents why that agent is signing out.
Add Sign Out reason code

Perform the following procedure to add a new Sign Out reason code:

**Procedure**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>In the Sign Out Reason Code Management gadget, click <strong>Add</strong>. The Add Reason Code area appears.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Add Reason Code</strong></td>
</tr>
<tr>
<td>Reason Label</td>
<td>Leaving Early - Sick</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>In the Reason Label box, enter a label for the reason code.</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>Sign Out reason code labels are limited to 40 characters.</td>
</tr>
<tr>
<td>Step 3</td>
<td>In the Reason Code box, enter a reason code.</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>The code must be between 0 and 65535 and should be unique for each reason code.</td>
</tr>
<tr>
<td>Step 4</td>
<td>Click <strong>Save</strong>.</td>
</tr>
</tbody>
</table>

**Edit Sign Out reason code**

Perform the following procedure to edit the label or code for an existing Sign Out reason code:

**Procedure**

| Step 1 | In the Sign Out Reason Code Management gadget, select the reason code that you want to edit.     |
|        |                                                                                                   |
| Step 2 | Click **Edit**.                                                                                  |
|        | The Edit Reason Code area appears.                                                               |
Step 3 If you want to change the label of the Sign Out reason code, in the Reason Label field, enter a new label for the reason code. If you want to change the code, in the Reason Code field, enter the new code.

Step 4 Click Save.

Delete Sign Out reason code

Note An error may occur if an agent selects a Sign Out reason code after it has been deleted. Agents who are signed in when you make changes to Sign Out reason codes must sign out and sign back in to see those changes reflected on their desktops.

Perform the following procedure to delete a Sign Out reason code:

Procedure

Step 1 In the Sign Out Reason Code Management gadget, select the Sign Out reason code that you want to delete.
Step 2 Click Delete.
A question appears asking you to confirm that you want to delete the selected reason code.
Step 3  Click Yes to confirm the deletion of the selected Sign Out reason code.

Wrap-Up reasons

Wrap-Up reasons represent the reasons that agents can apply to calls. A Wrap-Up reason indicates why a customer called the contact center. For example, you may have one Wrap-Up reason for sales calls and another for support calls.

Use the Wrap-Up Reasons gadget to view, add, edit, or delete Wrap-Up reasons. Click the Reason Label header to sort the Wrap-Up reasons in ascending or descending order.

Finesse supports a maximum of 100 Wrap-Up reasons.

Finesse supports wrap-up only with the following configuration for Agent Desk Settings in Unified CCE:

- The Work mode on incoming attribute must be set to Required.
- The Work mode on outgoing attribute must be set to either Optional or Not Allowed.

For more information about configuring Agent Desktop Settings, see the Configuration Manager Online Help for Unified CCE.

Note

If an agent is configured for wrap-up and selects a pending state during a call, when the call finishes, that agent goes into wrap-up and not the pending state selected during the call. The agent can end wrap-up by either selecting a new state (Ready or Not Ready) or letting the wrap-up timer expire. If the agent selects a new state, the new state overrides the pending state selected during the call. If the wrap-up timer expires, the agent transitions to the pending state.
The following table describes the fields on the Wrap-Up Reason Management gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason Label</td>
<td>The label for the Wrap-Up reason. This label must be unique for each Wrap-Up reason and has a maximum length of 39 bytes (which equals 39 US English characters). Both alphanumeric and special characters are supported.</td>
</tr>
</tbody>
</table>

**Actions on the Wrap-Up Reason Code Management gadget:**

- **Add:** Add a new Wrap-Up reason
- **Edit:** Edit an existing Wrap-Up reason
- **Delete:** Delete a Wrap-Up reason
- **Refresh:** Reload the list of Wrap-Up reasons from the server

**Note**
When you add, edit, or delete a Wrap-Up reason, the changes you make take effect on the Agent or Supervisor Desktop after three seconds. However, agents who are signed in when the changes are made must sign out and sign back in to see those changes reflected on their desktops.

---

**Add Wrap-Up reason**

Perform the following procedure to add a new Wrap-Up reason:

**Procedure**

**Step 1**
In the Wrap-Up Reason Management gadget, click **Add**. The Add Wrap-Up Reason area appears.
Step 2 In the Reason Label field, add a label for the Wrap-Up reason.  
Note Wrap-Up reason labels are limited to 39 bytes.

Step 3 Click Save.

---

**Edit Wrap-Up reason**

Perform the following procedure to edit an existing Wrap-Up reason:

**Procedure**

**Step 1** In the Wrap-Up Reason Management gadget, select the Wrap-Up reason that you want to edit.

**Step 2** Click **Edit**. The Edit Wrap-Up Reason area appears.

**Step 3** In the Reason Label field, enter the new label for the Wrap-Up reason.

**Step 4** Click **Save**.

---

**Delete Wrap-Up reason**

Perform the following procedure to delete a Wrap-Up reason:
Procedure

Step 1  In the Wrap-Up Reason Management gadget, select the Wrap-Up reason that you want to delete.

Step 2  Click Delete.
A question appears asking you to confirm that you want to delete the selected Wrap-Up reason.

Step 3  Click Yes to confirm the deletion of the selected Wrap-Up reason.

Call variable layout

Use the Call Variable Layout Configuration gadget on the Call Variables tab of the Administration Console to define the way call variables appear on the Finesse Agent Desktop.

The Finesse Agent Desktop supports one variable in the header of the call control gadget and up to a total of 20 variables in two columns below the header (up to 10 in each column). You can use call variables, Extended Call Context (ECC) variables, or the following Outbound Option ECC variables.

- BACampaign
- BAAccountNumber
- BAResponse
- B>Status
- BADialedListID
- BATimeZone
- BABuddyName

Columns can be empty.
The following table describes the fields on the Call Variable Layout Configuration gadget.

<table>
<thead>
<tr>
<th>Field</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Name</td>
<td>A label that describes the variable for that entry (for example, Customer Name). The maximum length of this field is 50 characters.</td>
</tr>
<tr>
<td>Variable</td>
<td>The name of the call variable or ECC variable that is displayed to the agent. The maximum length of this field is 32 characters.</td>
</tr>
<tr>
<td>Delete?</td>
<td>Click the “X” to delete the specified row from the column.</td>
</tr>
</tbody>
</table>

Actions on the Call Variable Layout Configuration gadget:

- **Add New**: Adds a new row to the specified column

  __Note__

  The Add New button is disabled if 10 variables are already configured for the specified column.

- **Submit**: Saves your configuration changes

- **Reset**: Retrieves and reapplies the most recently saved call variable layout

__Note__

When you modify the call variable layout of the Agent Desktop, the changes you make take effect after three seconds. However, agents who are signed in when the changes are made must sign out and sign back in to see those changes reflected on their desktops.

## Configure call variable layout

Perform the following procedure to configure the call variable layout for the Finesse Agent Desktop.
Procedure

Step 1 In the Call Header Layout area, in the Display Name field, enter the text that you want to appear in the header of the Call Control gadget on the Finesse Agent Desktop (for example, Customer Name).

Step 2 From the Variable drop-down list, choose the call variable or Outbound Option ECC variable that you want to appear in the header (for example, callVariable3).

Step 3 In the Call Body Left-Hand Layout and Call Body Right-Hand Layout areas:
   a) Click the X beside any row that you want to delete.
   b) Click Add New if you want to add a new row.
   c) For each row, in the Display Name field, enter the text that you want to appear on the Agent Desktop, and then choose the corresponding call variable or Outbound Option ECC variable from the Variable drop-down list.

Step 4 Click Submit.

Add ECC variables to call variable layout

Perform the following procedure to add ECC variables to the call variable layout.

Note
Cisco Finesse only supports Latin1 characters for ECC variables. Other Unicode characters are not supported. For example, if you add an ECC variable that contains Chinese characters to the call variable layout, it may not appear correctly on the agent desktop.

Procedure

Step 1 In the header or the row where you want the ECC variable to appear, from the Variable drop-down list, choose Custom.
   The Custom/ECC Variable Entry area appears.

Step 2 In the Custom/ECC Variable Name field, enter the name of the ECC variable you want to appear on the Agent Desktop.

Step 3 Click Set.
   The ECC variable now appears in the Variable drop-down list for selection.
Finesse Layout XML

The Finesse Layout XML defines the layout of the Finesse Desktop, including the tab names and the gadgets that appear on each tab. Tab names can appear in any language, as long as they are HTML escaped in the XML.

Use the Layout Settings gadget on the Layout tab of the Administration Console to upload an XML layout file to define the layout of the Finesse Desktop for agents and supervisors.

Update default layout of Finesse desktop

Perform the following procedure to modify the layout of the Finesse desktop.

**Procedure**

**Step 1**  
In the Finesse Layout XML area, enter the new layout XML file.

**Step 2**  
Click *Submit*.  
Finesse validates the XML file to ensure that it is valid XML syntax and conforms to the Finesse schema.

The following is an example of a layout XML file.

```xml
<?xml version="1.0" encoding="UTF-8"?>  
<finesseLayout xmlns="http://www.cisco.com/vtg/finesse">  
<layout>  
  <role>Agent</role>  
  <page>
```
<gadget>http://localhost/desktop/gadgets/CallControl.xml</gadget>
</page>
<tabs>
	<tab>
		<id>home</id>
		<label>Home</label>
	</tab>
	<tab>
		<id>manageCall</id>
		<label>Manage Call</label>
	</tab>
</tabs>
</layout>
<layout>
	<role>Supervisor</role>
	<page>
		<gadget>http://localhost/desktop/gadgets/CallControl.xml</gadget>
	</page>
<tabs>
	<tab>
		<id>home</id>
		<label>Home</label>
		<gadgets>
			<gadget>http://localhost/desktop/gadgets/TeamPerformance.xml</gadget>
		</gadgets>
	</tab>
	<tab>
		<id>manageCall</id>
		<label>Manage Call</label>
	</tab>
</tabs>
</layout>
</finesseLayout>

You must ensure the XML you upload conforms to the XML schema definition for Finesse. For information about the schema definition, see XML schema definition.
Serviceability console

- Cisco Finesse service access, page 21
- CLI access, page 21

Cisco Finesse service access

You can access the following Finesse services from the CLI:

- **Cisco Finesse Notification Service**: This service is used for messaging and events. If this service is not started, you cannot view call events, agent state changes, or statistics, and the Finesse Desktop will not load after sign-in.

- **Cisco Tomcat Service**: This service contains all deployed Finesse applications. A restart of the Cisco Tomcat Service requires that all agents sign out and sign back in.

The deployed applications in the Cisco Tomcat Service include:

- **Finesse Desktop application**: This application provides the user interface for agents and supervisors.

- **Finesse Rest API application**: This application provides integration with the Cisco CTI Server for the Finesse Desktop application. It also provides a programming interface that can be used by third-party applications that are written to use the Finesse REST API.

- **Finesse Administration application**: This application provides the administrative operations for Finesse.

- **Finesse Admin Rest API application**: This application provides integration with the Cisco CTI Server for the Finesse Administration application. It also provides a programming interface that can be used by third-party applications that are written to use the Finesse REST API.

CLI access

The CLI provides a set of commands applicable to the operating system and to Cisco Finesse. These commands allow basic maintenance and failure recovery and also enable some system administration. Although Finesse provides access to all Cisco Unified Communications Manager CLIs, many commands are not applicable to Finesse and most have not been validated for Finesse.
You can access the CLI directly, using the monitor and keyboard at the server console or by using SSH:

1. Enter the ID for the Administrator User account (the one created during installation).
2. When prompted, enter the password for the administrator user.

**Supported commands**

Finesse supports the following CLI commands and has qualified their use. These commands prompt the user to specify a secure FTP (SFTP) server location to which the files will be downloaded.

**Log collection**

To obtain logs:

- **Install log:** file get install desktop-install.log
  
  Use this command to see the installation log after the system is installed.
  
  This log is written to the SFTP server and stored as a text file written to this path: `<IP Address>|<date time stamp>|install|desktop-install.log`

- **Desktop logs:** file get activelog desktop recurs compress
  
  Use this command to obtain logs for the Finesse web applications. This command uploads a zip file that contains the following directories:
  
  - **webservices:** This directory contains the logs for the Finesse backend that serves the Finesse APIs. The maximum size of an uncompressed desktop log file is 100 MB. This directory holds a maximum of 300 log files. After a log file reaches 100 MB, that file is compressed and a new log file is generated. Output to the last compressed desktop log file wraps to the log file created next. The log file wrap-up duration can vary, based on the number of users on the system. Timestamps are placed in the file name of each desktop log.

  - **finesseconfig:** This directory contains the logs for the Finesse Config backend that serves the Finesse Administration REST APIs. The maximum size of an uncompressed desktop log file is 100 MB. This directory holds a maximum of 300 log files. After a log file reaches 100 MB, that file is compressed and a new log file is generated. Output to the last compressed desktop log file wraps to the log file created next. The log file wrap-up duration can vary, based on the number of users on the system. Timestamps are placed in the file name of each desktop log.

  - **desktop:** This directory contains logs from the Finesse gadget container that holds the Finesse desktop gadgets. Any container-level errors with Finesse will appear in these log files.

  - **admin:** This directory contains logs from the Finesse Administration gadget container that holds the administration gadgets. Any container-level errors with the Finesse Administration Console will appear in these log files.

  - **clientlogs:** This directory contains the client-side logs submitted from the Finesse Agent Desktop to the Finesse server. Each log file is no larger than 1.5 MB and contains a timestamp and the agent ID of the agent who submitted the file. A new log file is created each time an agent submits client-side logs (the data is not appended to an existing log file). The maximum size of this directory is 100 MB. When the directory reaches 100 MB, the oldest files are deleted to keep the size below 100 MB.
openfireservice: This directory contains startup and shutdown-related information logs for the Cisco Finesse Notification Service.

openfire: This directory contains limited error and information logs for the Cisco Finesse Notification Service.

- Servm log: `file get activelog platform/log/servm*.`* compress
  Use this command to obtain logs generated by the platform service manager that manages the starting and stopping of the various Finesse services.
  Note that the desktop and servm logs are compressed to one set of files.
  Compressed logs are stored to the following path on the SFTP server: `<IP address>/<date time stamp>/active_nnn.tgz`, where nnn is timestamp in long format.

- Platform Tomcat logs: `file get activelog tomcat/logs recurs compress`

- VOS install log: `file get install install.log`

---

**Cisco Security Agent**

Run the following command to disable Cisco Security Agent (CSA) (mandatory): `utils csa disable`

You must run this command after installation is complete to disable Cisco Security Agent. CSA prevents some Finesse operations.

**Finesse services**

To view, start, or stop services:

- To retrieve the status of services: `utils service list`
  This command retrieves a list of all services and their status.
  Services are shown in one of the following states: STOPPED, STARTING, or STARTED.
  STOPPED means the service is not running. STARTING means the service is starting operation and performing any necessary initialization. STARTED means the service has successfully initialized and is operational.

- To start a service: `utils service start service name`
  This command starts the named service.

- To stop a service: `utils service stop service name`
  This command stops the named service.

- To start Cisco Tomcat: `utils service start Cisco Tomcat`
- To stop Cisco Tomcat: `utils service stop Cisco Tomcat`
• To restart Cisco Tomcat: `utils service restart Cisco Tomcat`

Note: If a Cisco Finesse service-related problem exists, we recommend a restart of a Finesse service as a last resort. Most service-related problems cannot be corrected by restarting a service. Restarting a Cisco DB is never recommended.

Upgrade

Run the following command to install upgrades: `utils system upgrade`

This command allows you to install upgrades and Cisco Option Package (COP) files from both local and remote directories.

Remote account management

Run the following command to enable, disable, create, and check the status of a remote access account: `utils remote_account`

A remote account generates a pass phrase that allows Cisco support personnel to access the system for the specified life of the account.

- `utils remote_account create account life`
  
  `account` is the account name. `life` indicates the life of the account in days.

- `utils remote_account disable`

- `utils remote_account enable`

- `utils remote_account status`

Replication status

To check replication status, run the following commands on the primary Finesse server:

- `utils dbreplication status`
  
  This command runs the replication status check in the background.

- `utils dbreplication runtimestate`
  
  This command returns the replication status on both the primary and secondary Finesse servers.

- Check the RTMT counter value for replication. If all nodes in the cluster show a replication status of 2, replication is functioning correctly.
- If the RTMT counter value for replication status is 3 or 4 for all nodes in the cluster, replication is set up, but an error occurred and replication is not functioning properly.
  - Run the command `utils dbreplication status` and check the output.
  - If mismatched rows appear in the output file, run the command `utils dbreplication repair all` from the primary Finesse server.

- If any node shows any replication value other than 1 or 2, replication is not set up correctly and you must reset replication for that node.

- If the majority of the nodes show a replication value of 0 or 1, run the command `utils dbreplication reset all` from the primary Finesse server.
Cisco Unified Communications OS Administration

The Cisco Unified Communications Solutions Unified OS Administration tool is available to you as follows:

1. Navigate to http://host or IP address/cmplatform where host or IP address is the hostname or IP address of your server.
2. Sign in, using the username and password for the Application User account established during the installation.

Note

After you sign in to OS Administration, you can access other Unified Communications Solutions tools from the OS Administration Navigation drop-down list.

Use Cisco Unified Operating System Administration to perform many common system-administration functions. The following are the Unified OS Administration menus:

- **Show:** View information on Cluster Nodes, Hardware Status, Network Configuration, Installed Software, System Status, and IP Preferences
- **Settings:** Display and change IP settings, host settings, and Network Time Protocol (NTP) settings

  **Warning:** Do not change IP settings without the guidance of Cisco.

- **Security:** Manage certificates and set up and manage IPSec policies
- **Software Upgrades:** Perform an upgrade and revert to a previous version
- **Services:** Use the Ping and Remote Support features
Cisco Finesse failover mechanisms

This section describes failover and redundancy mechanisms for Cisco Finesse.

- CTI failover, page 29
- AWDB failover, page 30
- Finesse client failover, page 30
- Desktop behavior, page 31

CTI failover

The prerequisites for CTI failover are as follows:

- Unified Contact Center Enterprise (Unified CCE) is configured in a duplex mode.
- The B Side CTI host and port are configured through the Finesse Administration Console (see Contact Center Enterprise CTI server settings).

If Finesse loses connection to the A Side CTI server, and the preceding prerequisites have been implemented, CTI failover occurs.

When Finesse is used in a duplex Unified CCE deployment, and it loses connection to the A Side CTI server, it tries to reconnect five times. If the number of connection attempts exceeds the retry threshold, Finesse then tries to connect to the B Side CTI server the same number of times. Finesse keeps repeating this process until it makes a successful connection to the CTI server.

A loss of connection to the CTI server can occur due to the following:

- Finesse misses three consecutive heartbeats from the connected CTI server.
- Finesse encounters a failure on the socket opened to the CTI server.

During failover, Finesse does not handle client requests. Any request made during this time receives a 503 “Service Unavailable” error message. In addition, Finesse does not send out events during this period. After Finesse reconnects to a CTI server, it starts responding to client requests and publishing events.

Any call control, call data, or agent state actions that occur during CTI failover are published as events to the Agent Desktop after failover is complete. This allows Finesse clients to reflect an accurate view of the call control, call data, and agent state.
If an agent makes or answers a call and ends that call during failover (that is, the entire call takes place during failover), the corresponding events are not published after failover is complete.

Note

An agent or supervisor who signs in after being on an active conference with other devices (which are not associated with another agent or supervisor) may experience unpredictable behavior with the Finesse Desktop due to incorrect call notifications from Unified CCE. These limitations also encompass failover scenarios where a failover occurs while the agent or supervisor is participating in a conference call. For example, an agent is in a conference call when the Finesse server fails. When the agent is redirected to the other Finesse server, that agent may see unpredictable behavior on the Finesse Desktop. Examples of unpredictable behavior include, but are not limited to, the following:

- The desktop does not reflect all participants in a conference call.
- The desktop does not reflect that the signed-in agent or supervisor is in an active call.
- Finesse receives inconsistent call notifications from Unified CCE.

Despite these caveats, the agent or supervisor can continue to perform normal operations on the phone. Desktop behavior returns to normal after the agent or supervisor drops off the conference call.

AWDB failover

The prerequisites for AWDB failover are as follows:

- The secondary Administrative Workstation Database (AWDB) is configured.
- The secondary AWDB host is configured through the Finesse Administration Console (see the Contact Center Enterprise Administration & Data server settings section).

Agents and supervisors are authenticated against the AWDB database. When an agent or supervisor makes a successful API request (such as a sign-request or call control request), the credentials are cached in Finesse for 30 minutes from the time of the request. After a user is authenticated, that user continues to be authenticated until 30 minutes pass, even if both AWDBs are down. Finesse attempts to reauthenticate the user against the AWDB only after the cache expires.

If Finesse loses connection to the primary Administration & Data server, and the preceding prerequisites have been implemented, AWDB failover occurs. After Finesse loses connection to the primary Administration & Data server, it tries to reconnect to the secondary server. If Finesse cannot connect to any of the Administration & Data servers and the cache has expired, the system returns a 401 “Unauthorized” HTTP error message. Finesse repeats this process for every API request until it can connect to one of the Administration & Data servers. During failover, Finesse does not process any requests, but clients can still receive events.

Finesse client failover

With a two-node Finesse setup (primary and secondary Finesse servers), if the primary server goes out of service, agents who are signed in to that server are redirected to the sign-in page of the secondary server. Client failover can occur for the following reasons:

- The Cisco Tomcat Service goes down.
- The Finesse Webapp Service goes down.
- The Cisco Notification Service goes down.
- Finesse loses connection to both CTI servers.

### Desktop behavior

Under certain conditions, Finesse sends a forced logout with a reason code of 255 to the CTI server. The actual behavior of the desktop under these conditions depends on the setting for Logout on Agent Disconnect (LOAD) in Unified CCE.

The following table lists the conditions under which Finesse sends a forced logout to the CTI server:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Desktop Behavior</th>
<th>Server Action</th>
<th>Race Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The client closes, the browser crashes, or the agent clicks the Back button on the browser.</td>
<td>When you close the browser or navigate away from the Finesse Desktop, the Finesse Desktop makes a best-effort attempt to notify the server.</td>
<td>Finesse receives a presence notification of <code>Unavailable</code> from the client. Finesse waits 10 seconds, and then sends a forced logout request to the CTI server.</td>
<td>1 The agent closes the browser window. Finesse receives a presence notification of <code>Unavailable</code> for the user. Finesse tries to sign the agent out; however, that agent is already signed out.</td>
</tr>
<tr>
<td>The client refreshes the browser</td>
<td>—</td>
<td>Finesse receives a presence notification of <code>Unavailable</code> from the client. Finesse waits 10 seconds before sending a forced logout request to the CTI server to</td>
<td>—</td>
</tr>
<tr>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

User Guide for the Cisco Finesse Administration and Serviceability Consoles Release 9.0(1)
| **The client encounters a network glitch (Finesse is in service)** | **Because the connection to the Finesse server temporarily goes down, the client fails over to the secondary Finesse server.** | **The primary Finesse server receives a presence notification of Unavailable from the client. Because Finesse is in service, it sends a forced logout request to the CTI server for the agent.** | **A situation can occur where the forced logout does not happen before the client signs in to the secondary Finesse server. If the agent is on a call, the primary Finesse server sends the forced logout request after the call ends. The agent will be signed out or put into Not Ready state when the call ends, even though the client is already signed in to the secondary Finesse server.** |

| allow the browser to reconnect after the refresh. |  |  |  |
Backup and restore

Cisco Finesse uses the backup and restore tools provided by the common Cisco Unified Communications platform services.

To access the Disaster Recovery System (DRS) application, direct your browser to the following URL: https://Finesse Server IP:8443/drf, where Finesse Server IP is the IP address of your Finesse server.

For more information about backup and restore, see the detailed online help provided with the DRS application.
XML schema definition

```xml
<?xml version="1.0" encoding="ISO-8859-1" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
    targetNamespace="http://www.cisco.com/vtg/finesse"
    xmlns="http://www.cisco.com/vtg/finesse"
    elementFormDefault="qualified">
    <!-- definition of role type -->
    <xs:simpleType name="role">
        <xs:restriction base="xs:string">
            <xs:enumeration value="Agent"/>
            <xs:enumeration value="Supervisor"/>
            <xs:enumeration value="Admin"/>
        </xs:restriction>
    </xs:simpleType>

    <!-- definition of simple elements -->
    <xs:element name="id">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:pattern value="[a-zA-Z](\[-_:.a-zA-Z0-9\])*"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>

    <xs:element name="label">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:minLength value="1" />
            </xs:restriction>
        </xs:simpleType>
    </xs:element>

    <xs:element name="gadget">
        <xs:simpleType>
            <xs:restriction base="xs:anyURI">
                <xs:minLength value="1" />
            </xs:restriction>
        </xs:simpleType>
    </xs:element>

    <xs:element name="role" type="role"/>

    <xs:element name="gadgets"> <!-- Grouping of a set of gadgets -->
        <xs:complexType>
            <xs:sequence maxOccurs="unbounded">
                <!-- No limit to number of gadget URIs for now -->
                <xs:element ref="gadget"/> <!-- URI of the gadget xml -->
            </xs:sequence>
        </xs:complexType>
    </xs:element>

    <xs:element name="page"> <!-- Grouping of a set of persistent gadgets -->
```
<xs:complexType>
  <xs:sequence maxOccurs="unbounded">
    <!-- No limit to number of gadget URIs for now -->
    <xs:element ref="gadget"/> <!-- URI of the gadget xml -->
  </xs:sequence>
</xs:complexType>
</xs:element>

<xs:element name="tab">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="id"/> <!-- Id of the tab selector in the desktop -->
      <xs:element ref="label"/> <!-- Label of the tab selector -->
      <xs:element ref="gadgets" minOccurs="0" maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="tabs"> <!-- Grouping of tabs -->
  <xs:complexType>
    <xs:sequence maxOccurs="unbounded">
      <!-- No limit to number of tabs for now -->
      <xs:element ref="tab"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="layout">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="role"/> <!-- Type of the role -->
      <xs:element ref="page"/> <!-- List of page gadgets -->
      <xs:element ref="tabs"/> <!-- Grouping of tabs for this particular role -->
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="finesseLayout"> <!-- Layout of the desktop -->
  <xs:complexType>
    <xs:sequence maxOccurs="3"> <!-- only support 3 roles for now -->
      <xs:element ref="layout"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:schema>
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