### **ClarusIPC**<sup>®</sup>

#### Training Guide

**Revision:** 2.5.0 **Date:** July 30, 2008



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#### ClarusIPC Training Guide



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#### Using ClarusIPC

This guide is designed as a supplement to formal training received from ClarusSystems. It is not meant to replace such training. Please refer to the ClarusIPC User's Guide, available from the Help option in ClarusIPC, for further details on any of these Lab sections.

This guide is organized into the following Labs:

- Lab 1: Creating a Cluster
- Lab 2: Monitoring Device Performance
- Lab 3: Synchronizing with CUCM
- Lab 4: Creating Phonebooks
- Lab 5: Creating Phone Groups
- Lab 6: Creating User Classes
- Lab 7: Using Resource Constraints
- Lab 8: Creating Test Plans
- Lab 9: Executing Test Plans
- Lab 10: Scheduling Tasks
- Lab 11: Generating Reports
- Lab 12: Troubleshooting Phones
- Lab 13: Using the Voice Monitor

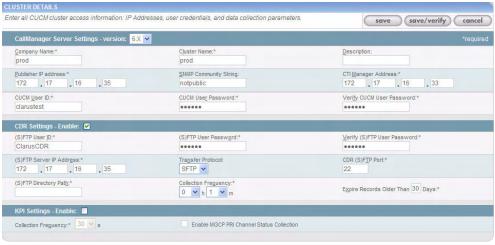
# ClarusIPC Training Guide (45 minutes) Notes:

#### Lab 1: Creating a Cluster

Clusters are used to access and segment your Cisco Unified Communications Manager System. Clusters allow you to access your CUCM Database, and to organize your workflow. Phone Groups and Test Plans are contained within Clusters, and may not span them.

The first step to using ClarusIPC is to create a Cluster Definition for your CUCM Cluster, and to verify connectivity between it and ClarusIPC.

- 1. Prepare your CUCM cluster for ClarusIPC access.
  - Open a console (terminal service, local) connection to your CUCM Publisher server.
  - Open the Windows Services control panel. Verify that SNMP is running and that you have a read-only community string set.
  - · Repeat for other CUCM servers in the cluster.
  - Open the CUCM Admin interface and create a new LDAP User.
    - Check the **Enable CTI Application Use** checkbox.
    - For CUCM 4.1, check Enable CTI Super Provider. For all other versions, see the ClarusIPC User Guide.
    - Check the Call Park Retrieval Allowed checkbox.
- 2. Log into ClarusIPC.
- 3. Each time you access ClarusIPC, the Cluster Details page will open automatically. (Or, select **setup > clusters** from the menu bar.)





	<ul> <li>CallManager Server Settings - Version: The version of CallManager for</li> </ul>
Notes:	the required cluster: CUCM version 4.X, 5.X, or 6.X.
	<ul> <li>Company name: Company where the cluster is installed.</li> </ul>
	<ul> <li>Cluster Name: User-defined name, unique within the company.</li> </ul>
	<ul> <li>Description: User-defined description.</li> </ul>
	<ul> <li>SNMP Community String: Read-only SNMP community string on all Call-</li> </ul>
	Manager servers.
	<ul> <li>CTI Manager Address: IP Address of CallManager server running CTI</li> </ul>
	Manager Service.
	CUCM User ID: LDAP username.
	CUCM User Password: LDAP user password.
	• CUCM Admin ID: CallManager Administrator username. (Your Administra-
	tor login for accessing the CUCM Admin page. This user account can be
	the same as the CUCM User if using MLA.)
	CUCM Admin Password: CallManager Administrator password.
	CDR Settings: Enable: if you have licensed the Help Desk, Voice Monitor,
	or Dashboard application, be certain to enable and complete these settings
	to view call history. For more information, see Managing Clusters in the
	User's Guide.
	KPI Settings: Enable: if you wish to use the Dashboard, KPI collection
	must be enabled.
	Save: Saves the cluster without cluster configuration authentication.
	Save/Verify: Saves with cluster configuration authentication.
-	
	5. Click <b>Save / Verify</b> .
	<b>Save / Verify</b> confirms that the Cluster Definition parameters are correct by attempting to connect to the CUCM. For more information on Managing Clusters, see the
	ClarusIPC User's Guide.
	6. Make sure that all access returns with Success. If you receive any failures, go
	back to the Cluster Definition and/or CUCM, make changes, and rerun Save/
	Verify.
-	
-	
-	

4. Enter the following information:

	Data Entry Notes:
Madaa	Call Manager Server Settings
Notes:	CallManager Server Version
	Company Name
	Cluster Name
	Description
	Publisher IP Address
	SNMP Community String
	CTI Manager IP Address
	CUCM User ID
	CUCM User Password
	CUCM Admin ID
-	CUCM Admin Password
	CDR Settings
	Database User ID (4.X)
	Database Password (4.X)
	- CDR IP Address (4.X)
	(S)FTP User ID (5.X)
	_ (S)FTP User Password (5.X)
	(S)FTP (Billing) Server IP Address (5.X)
	CDR (S)FTP (TCP) Port (5.X)
	Transfer Protocol (5.X)
	KPI Settings
	Collection Frequency
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	<del>-</del>
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-	_
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#### (10 minutes)

#### Lab 2: Monitoring Device Performance

Notes:	Collectors allow you to monitor to visualize the results in a grated to help focus on certain Cluster settings, and archive	raphic user interface. Multip locations or Clusters. Data i	le Collectors may be cre- s polled in accordance with		
	The Dashboard automatically updates to display the status of all devices included in the selected Cluster(s), based on the KPI collection schedule defined in the Cluster Details page. The Dashboard can be especially useful during deployment to help determine whether all expected devices have been installed, and to pinpoint an appropriate time to initiate Sync and Testing.				
	To create a Collector, so create in the Collectors      Collector Define the Collector by selecting a Cluster and the associate whether KPI collection is enabled for the selected Clusters.				
	Setup Collector				
	Collector Name: DevReg	Status: Running Collector URL: http://172.17.10.113/dashbo	ard/launchDashboard.do?dashboardId=108		
	Select Device Pools selected clusters company cluster kpi Clarus Relocation Test disabled	available device pools name  ClarusLAXDP_AB  ClarusLAXDP_BA  ClarusSFODP_AB  ClarusSFODP_BA	selected device pools name  Clarus SJCDP_AB  Default  Clarus SFODP_BA  Clarus SJCDP_BA		
	<b>%</b> remove	Clarus SJCDP_AB	Clarus SFODP_AB		
	monitor. Close the <b>sele</b> 3. Click on the Cluster to	ers, click add, and select the ect elements window to save list all available Device Poothe add arrow to add it to the and start your Collector.	re your selection.  Is for that cluster. Click a		
	The Collectors window opens URL.	s, listing all available Collec	tors, their status, and their		
	Once configured and saved, dow. To open the Dashboard lector window. Note that this your Dashboard as well.	, simply click the link shown	in the URL field of the Col		
	Please note that <b>KPI Setting</b> dow, <i>only</i> if you wish your Da				

1. Click on the URL to launch a Dashboard window.

help | logout

1:44:30 PM

4/11/08 11:02:1<u>2</u> AM

#### Clarusico Plus+ Notes: PERFORMANCE SERVICE Device Registration Server Health STATS SERVICES Select Collector: ₩ ₩ Production4.2 **172.17.16.33** 172.17.16.35 72 72 60 60 48 48 36 24 (%) 12 1:42:30 PM 1:40:30 PM 1:42:30 PM 3000 F 48 1000 1:42:30 PM 1:44:30 PM 1:40:30 PM 1:40:30 PM Click through the tabs, selecting the appropriate objects as necessary from the Collectors pane, to evaluate your system. 3. Mouse over graphed data for more information on the highlighted node. The Dashboard also offers a Playback mode, which allows you to review Collector data for previous timeframes during which the Collector was running. While in playback mode, archived data (excluding device registration) will display across all tabbed windows of the Dashboard. Click on the **Playback** tab in the bottom of the window to open the **Playback** pane. 10:02:16 AM 10:06:16 AM 10:02:16 AM 10:04:16 AM ▼ PLAYBACK ON 10:02:12 AM 11:02:12 AM



#### (5 minutes)

#### Lab 3: Synchronizing with CUCM

Notes:					
	about the CUCM cluster for demonstrates how to popula data, and how to view your	generating Reports and ate the ClarusIPC datab configuration using the	gathers and stores information d creating Test Plans. This lab base with your CUCM specific Reports module. The Synchroni- t configure your Clusters, and		
	after any change to CUCM figuration dependent activiti		sts, Tasks, or other Cluster con-		
	In this lab, you will learn how to synchronize with the CUCM cluster, and examine your inventory using the Reports Module.				
	1. Select setup > cluste	ers > cluster name > s	ync from the menu bar.		
	SYNCHRONIZE  Synchronization is the process by which ClarusIPC ga	athers and stores information about the CUCM (	cluster for generating Reports and sync reset		
	creating Test Plans.  Last Sync Date: 04/03/2008 14:40 PM		▼ Track Changes		
	Sync Progress: 100%		Target Synchronize		
	Current State: Synchronize Successful (Complete)		✓ CallManager DB Elements ✓ Phone Details ✓ Device Status		
	Pending    Running    Success    Failed				
	Sync'd Element Sync'd Element Num	iber Found Status Sync'd Elemen	Route Plan t Number Found Status		
	<ul> <li>audit and reporting</li> <li>Target Synchroniz</li> <li>subset of your data</li> <li>the first Sync opera</li> </ul>	purposes.  re: Select from these ch . (The Target Synchroni tion.)	ack changes between Syncs for eckboxes to synchronize only a ze options are not available for		
·	<ol><li>Review the setup, the cess.</li></ol>	n, in the Synchronize p	age, click <b>sync</b> to begin the pro-		
	<ol><li>When Sync has compration.</li></ol>	oleted, generate a repor	t to confirm your cluster configu-		
	<ol> <li>Select reports &gt; Inverse.</li> </ol>	entory Summary > Clu	ster Summary, and click gener-		
		ort window that is open- esired, and click <b>genera</b>	ed, enter your customer's name ate.		
	6. Review the Cluster co	onfiguration in the Clust	er Summary report generated.		

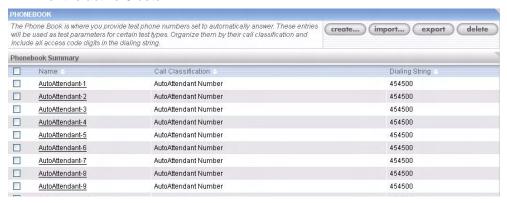
#### Lab 4: Creating Phonebooks

(25 minutes)		
Notes:		

Phone Book entries are used by ClarusIPC to define dialing strings to call to perform tests. Pre-defined, system call classifications are needed to provide information to tests such as Directory Handler, Voice Protocol OffNet, and Softkey Functions. User defined classifications may be used to create customer-specific Call Classifications.

This lab will demonstrate how to create Phone Book entries and custom call classifications.

Select **setup > phonebook** from the main menu to access the Phone Book for the active Cluster.



2. To create a new Phonebook, click create.



- In the Create Phonebook Entry window that appears, enter a name for the entry, a local dialing string, and select Call Classification: VP OffNet. (VP OffNet is a pre-defined system classification used to define the call destination for Voice Protocol OffNet tests.) The dialing string should match the numbers dialed by a user to reach this destination (i.e. 914155435223). To add a pause, use a comma (,) to represent a 1 second delay.
  - Name: Name of Phonebook entry.
  - Call Classification: Pull down menu of system- and user-defined Call Classifications.
  - Dialing String: The dialing string for the Phonebook Entry, as entered by a caller, including 0-9, "\*," "#," and commas (1 second delay per comma).
  - create: Adds the new entry to the Phonebook.

NOTE: ClarusIPC can be used to test specific instances of routing patterns defined



Notes:		in your CUCM. For instance, to test that all pay-per-call numbers starting with area code 976 are blocked, you need only define a single 976 number for testing purposes.
	4.	Click the <b>create</b> button again. In the Call Classification pulldown, select <b>New Classification</b> . In the <b>Call Classification</b> field this opens, type "Prohibited Number." In the <b>Name</b> field, enter "976 Numbers," and in the <b>Dialing String</b> field, type the numeric dialing string for a 976 number.
	5.	Create phone book entries for the remaining system classifications:
		<ul> <li>AutoAttendant: The external (or internal) dialing string to reach your AutoAttendant application (used in the Directory Handler test).</li> <li>CorporateDirectory Search Number: Any DN that should be accessible through the Corporate Directory (used in the Softkey Functions test).</li> </ul>
	6.	When you have finished creating phonebook entries, click the <b>export</b> button. When prompted, save the Phone Book xml file to your desktop and open with a browser or other xml viewer. Note the format of the entries.
	7.	To edit an existing Phonebook entry, click on the Phonebook in the list and edit the fields as desired.

#### (20 minutes)

#### **Creating Phone Groups** 1 oh 5:

20 minutes)	_ Lab 5. Creating Ph		
lotes:	Phone Groups have several uses w		
	<ul> <li>Dynamic groups automatically upon to CUCM, and a Sync operation is according to the group's stored queidentify their membership.</li> </ul>		
	<ul> <li>Static groups contain a defined, fire memberships due to Syncs. Static quality build a static list of phones.</li> </ul>		
	This lab will demonstrate how to creat groups created in this lab will be used		
	<ul> <li>1. To open the Phone Groups p main menu bar.</li> </ul>		
	PHONE GROUPS		
	Phone Groups contain the list of phones used in tests, users classes, not change as a result of a sync operation. Dynamic groups are defin operation.		
	Phone Group Summary		
	☐ Name Description		
	all word		
	<ul> <li><u>vmail</u></li> <li><u>DID-TARGET</u></li> </ul>		
	DID-ORIG-SFO		
	DID-ORIG-LAX DID-ORIG-SJC		
	2. Click <b>create</b> . In the Create Pl		
	Name: AllPhones, and selec		
	CREATE PHONE G		
	Phone Group		
	AllPhones		
	Phone Group		
_	includes All C		
	_		
	Phone Group		
	■ Oynamic		
_	*required		
	<ul> <li>Phone Group Name: User</li> </ul>		
	<ul> <li>Phone Group Description</li> </ul>		
	• Phone Group Type: Dyna		
	automatically with each Syl		
	• create: Saves the Phone G		

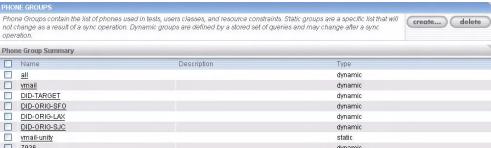
nin ClarusIPC.

te their memberships when changes are made rformed that would affect the membership Dynamic groups allow only two queries to

e list of members, and do not change their oups may use an infinite number of queries to

te both dynamic and static Phone Groups. The in follow-on labs.

e, select setup > phone groups from the



ne Groups window that is opened, enter Type: Dynamic.



- lefined name.
- Description of the Phone Group.
- c stores selected attributes and is updated Static stores specific phones.
- oup entry.



Notes:

Creating a Dynamic group named AllPhones will define a group which will always include all phones in your CUCM. Selecting a Static group type for the AllPhones group would create a snapshot group of all phones included in your CUCM at this moment in time.



Phone Group Name: User-defined name established at creation.

- Description: User-defined description established at creation.
- Find Phone Query: User-selectable phone search attributes.
- Search: Initiates phone search based on user-selected attributes.
- **Save:** Updates query for dynamic phone group, or selected phones for static phone groups.

**NOTE:** A Phone Group type, Static or Dynamic, may not be changed once the group has been created. While Static groups do not automatically update their membership on Sync, they may be manually updated, if desired.

- In the Phone Group Details page that is opened, click the **search** button without entering any search or filter criteria. All phones defined in the database will be returned. Click **save** to save this Dynamic Phone Group. (Note that Dynamic Phone Groups save queries.)
- 4. Select **setup > phone groups** from the menu bar to return to the Phone Groups page.
- Click create again. This time, enter Phone Group Name: OffNet Reaching Phones, and select Type: Static.
- 6. Using the search query, find phones which are able to dial OffNet (a local number is sufficient). (You might use your CSS-Phone and/or CSS-DN description fields to identify these phones.) Click the checkbox at the top of the list to select all listed phones, then click add to add all applicable search results to the chosen list. If you have multiple CSS entries with this calling privilege, continue performing additional queries to build your chosen list. When the list is complete, click save to save the Phone Group.
- Create a static Phone Group consisting of all Cisco 7960 model phones from your largest device pool. Go to setup > phone group and click create. Enter Phone Group Name: All7960Static, select Type: Static.
- Practice using the Search Results tab and search queries to create more complex Phone Groups that would identify phones deployed during a particu-

	lar day, at a certain office, or with a common functionality, In particular, try to create the following groups:
Notes:	<ul> <li>A Phone Group that is not permitted to call OffNet (such as lobby phones), Name: OnNetOnly.</li> <li>A Phone Group with unrestricted calling permissions, Name: Unrestricted</li> <li>A Phone Group whose primary line should be reachable from the AutoAttendant Directory Handler, Name: AutoAttendantReachable.</li> </ul>
	<b>NOTE:</b> Use the CUCM phone's Description field to add descriptive text for each phone, such as location or extension number.
	To edit an existing Phone Group entry, click on the Phone Group in the Phone Groups window, and edit the fields as desired



#### Lab 6: Creating User Classes

(30 minutes)
Notes:

User Classes are a means to group phones with the same calling permissions (i.e. a combination of Calling Search Space applied to either line or device), and then indicate the dialing strings (route/translation patterns) to which these phones may connect. In the case of several branch offices that contain users with equivalent calling permissions, you might create a more complex Phone Group which identifies all the variations of CSS (due to differing locations), and assign it to a single User Class.

This lab will demonstrate how to create User Classes, and indicate the intended call permissions using the Phone Groups created in *Creating Phone Groups*.

- 1. To access the User Classes page, select **setup > user classes** from the main menu bar.
- Under **User Classes**, click **create**. In the User Class Details pane that appears to the right, enter Name: Internal-Only Access.



- User Class Name: User-defined name.
- Description: Description of the User Class.
- Phone Group: The Phone Group selected as a basis for the User Class.
- Call Classifications: The call classifications to be tested. Allow indicates call should be processed; **Block** indicates call should not be processed; Ignore indicates call classification will not be used in the Call Classification test.
- · Save: Saves the User Class.
- Select the Phone Group created in *Creating Phone Groups* with internal-only calling privileges. (Name: OnNetOnly)
- Click **block** for all Call Classifications.
- Click save to create the User Class.
- Repeat using the Phone Group that is allowed unrestricted calling access. (Name: Unrestricted) Select allow for all Call Classifications.

	<ol><li>If you have several branch offices, create one Phone Group that will identify all users across branches that have equivalent calling permissions.</li></ol>
Notes:	<ul> <li>Select setup &gt; phone groups, and click create.</li> <li>Enter Name: AllBranchLocalOnly, Type: Dynamic, and click create.</li> <li>To create your Phone Group, select the appropriate definition. If devices are all the same model, use model; if descriptions all contain an identifying string, use the description field to define the group.</li> <li>Click search then save.</li> </ul>
	8. Select setup > user classes.
	<ol> <li>Click the AllBranchLocalOnly User Class, and assign the appropriate Call Classifications.</li> </ol>
	<ol> <li>To edit an existing User Class entry, click its name in the User Classes list, and edit the fields as desired.</li> </ol>



#### (30 minutes)

#### Lab 7: Using Resource Constraints

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Notes:	

For some tests, ClarusIPC requires supporting resources. For example, to test whether or not a phone properly handles incoming calls, ClarusIPC requires that a supporting resource phone place the originating call. Resource Pools allow you to define the set of phones that will serve as supporting resources for a test.

To prevent ClarusIPC from using *off limit* phones, do not include them in any Resource Pool.

This lab will demonstrate how to define your Resource Constraints, specifically the On and OffNet Resource Pools.

- To open the Resource Constraints page, select setup > resource constraints from the main menu bar.
- 2. The Phone Groups window lists all Phone Groups created in *Creating Phone Groups*. Select the **AllPhones** Phone Group, and click the arrow to add it to the OnNet Resource Pool.



- OnNet Resource Pool: Lists the Phone Groups selected for the OnNet Resource Pool.
- OffNet Resource Pool: Lists the Phone Groups selected for the OffNet Resource Pool.
- Phone Groups: Lists all available phone groups.
- Save: Updates the created/modified Resource Constraints.
- Select the Phone Group with unrestricted calling permissions created in Creating Phone Groups (Name: Unrestricted), and add it to the OffNet Resource Pool.
- 4. Click save to save your changes.

#### 100

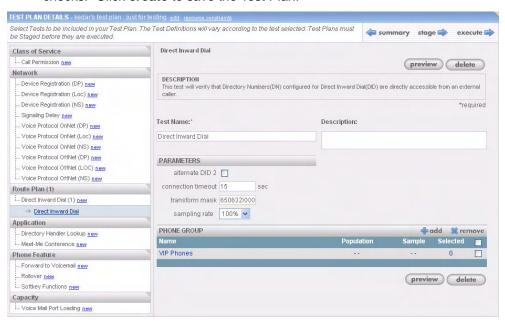
#### Lab 8: Creating Test Plans

(20 minutes)			
Notes:			
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Test Plans are used to combine tests for a single run, and to generate a single report.

This lab will demonstrate how to create a Test Plan, and how to select and configure tests. By this point, you have configured ClarusIPC enough to run most, but not all, available tests. Some tests described here may not be applicable to your current CUCM environment; perform the exercises described only if they apply.

- 1. Click the **test plans** tab to access the Test Plans page.
- Click the create button. Enter Name: Training-Network Verification TP, and **Description**: "This test plan will perform the baseline voice protocol network checks." Click create to save the Test Plan.



 Test Plan pane: Lists all available Test types. Click new next to the desired test type to add it to your Test Plan. (See the ClarusIPC User's Guide for more information on the requirements and abilities of each test type.)

#### Test Plan: Training-Network Verification

Use the Test Plan created above to design a Plan similar to one you might run immediately after initial phone deployments. The goal is to verify that all network components are operating, and to allow voice protocols to flow between phones over the network to other phones and to your CUCM cluster.

This Test Plan will include two ClarusIPC test types:

- Network: Voice Protocol OnNet by Device Pool, and
- Network: Device Registration By Device Pool



Notes: bet	s test verifies that you can set up a call, and send and receive voice traffic ween phones in different Device Pools. This test requires multiple device pools nataining registered phones.
1	. Click <b>new</b> beside <b>Network: Voice Protocol OnNet (DP)</b> on the left of the screen to add it to your Test Plan. The details for that test will open on the right side of the screen.
	In the <b>Network Path Endpoints</b> row, click <b>add</b> . In the <b>select elements</b> window that opens, choose the Device Pools that have registered phones. (Use the Shift or Ctrl keys to make multiple selections.) Click <b>close</b> to select the Pools, and close the window.
	Solution 2. You should see all of your selected Device Pool pairs displayed in the Network Path Endpoints list. Click <b>save</b> to verify that you have sufficient OnNet resources available to run this test. A "0" in the selected column, coupled with a warning icon, indicates that you must return to your Resource Constraints and verify that you have added the correct Phone Group, and that the Phone Group has a sufficient number of phones defined in your OnNet Resource Pool to run the test.
	Change the sampling rate using the parameters: sampling rate pulldown menu, and click save to see how it affects the number of resources available.
	i. Click <b>save</b> when done.
Ne	twork: Device Registration By Device Pool
	s test verifies that phones deployed in various Device Pools are registered to ir primary CUCM.
1	. Click <b>new</b> to the right of <b>Network: Device Registration (DP)</b> on the left of the screen to add it to your Test Plan. The details pane will open on the right.
	2. In the <b>Device Pool</b> selection window, click <b>add</b> . When the element selector pops up, choose the Device Pool that you wish to test. Click <b>close</b> to select the pool, and close the window.
3	3. The selected Device Pools are listed in the Device Pool pane. Click <b>save</b> to verify that you have sufficient OnNet resources available to run this test. If you see "0" in the selected column, go back to your Resource Constraints, and verify that you have added the correct Phone Group, and that the Phone Group has a sufficient number of supported phones defined in your OnNet Resource Pool.
	Click <b>save</b> when done.

**Network: Voice Protocol OnNet by Device Pool** 

## Test Plan: Training-Phone Features Notes: This Test Plan may be used as you rollout phones to verify that they can perform various Softkey Functions, and will contain only one test type: Phone Feature: Softkey Functions. 1. Create another Test Plan with Name: Training-Phone Features, and Description: "This test plan will verify that phones deployed can perform desired functions." **Phone Feature: Softkey Functions** 1. Select **Phone Feature: Softkey Functions** *new*, on the left of the screen to add it to your Test Plan. The details window will open on the right. 2. In the Phone Group selection window, click add. When the element selector opens, choose the **AllPhones** group created in *Creating Phone Groups*. 3. Select the checkboxes next to CallTransfer, CallHold, and Redial. 4. Select a Sampling Rate. Sampling Rate defines the percentage of phones available in the pool that will be tested. 5. Click save to save the Test Plan.



Notes:

# Test Plan: Training-Cutover (requires OffNet/PSTN access) This Test Plan may be used after you have live gateways running and are able to call OffNet to the PSTN. The goal is both to ensure that outbound (OffNet) call rout-

ing is working, and to enforce User Class calling permissions. This Plan contains

- · Network: Voice Protocol OffNet By Device Pool, and
- · Class of Service: Calling Permissions.

two test types:

Create a Test Plan with Name: Training-Cutover, and Description: "This
test plan will verify that cutover allows outbound calls, and will check calling
permissions for User Classes."

#### **Network: Voice Protocol OffNet By Device Pool**

To perform this test, you must have a gateway with OffNet access to the PSTN. This test will verify that phones from different Device Pools can set up a call and send and receive voice traffic through your primary/active gateway, and terminate on an OffNet PSTN endpoint.

- 1. Click **new** beside **Network: Voice Protocol OffNet (DP)** to add the test to your Test Plan. The details window will open on the right.
- 2. In the **Device Pool** selection window, click **add**. Choose the Device Pools with registered phones, and click **close**.
- 3. The selected Device Pools are listed in the Device Pool pane. Click save to verify that you have sufficient OffNet resources available to run this test. If "0" appears in the selected column, select setup > resource constraints and verify that you have added the correct Phone Group, and that the Phone Group has a sufficient number of supported phones defined in the OffNet Resource Pool.
- 4. Click **preview** when done.

#### **Class of Service: Calling Permissions**

This test will test the ability of various phones in your User Classes to call OffNet, and verify that the expected result (allow or block) is achieved.

- 1. Add the Class of Service: Calling Permissions test to your plan.
- Select the User Classes you created in Creating User Classes for Internal-Only (Name: OnNetOnly) and Unrestricted (Name: Unrestricted) calling permissions.
- 3. Click **save** when done.

#### (10 minutes)

#### Lab 9: Executing Test Plans

Notes:		

Staging is the process by which ClarusIPC assigns resources to execute each aspect of each test in the Test Plan. These resources may come from the test elements (Phone Groups, User Classes, Device Pool, Network Segment, Location) or, if supporting resources, from one of the Resource Pools. When staging completes successfully, you will be able to review the assigned resources before executing your Test Plan.

This lab will demonstrate how to stage and execute a Test Plan.

- 1. Select test plans from the main menu bar.
- 2. From the Test Plans page, select the "Training-Network Verification" Test Plan you created in *Creating Test Plans* by clicking on its name in the test plan column.



3. In the **Test Plan Details** window that is invoked, click **stage** to initiate the assignment of test resources, prepare the Test Plan to be executed, and reveal problems with tests (such as inadequate resource allocation), as indicated by an exclamation (!) mark next to a test.



4. In the **Test Plan Preview** page that is invoked, click **stage** to stage the tests and assign resources to be used.

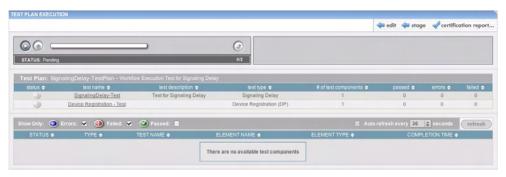


5. To view Resource Selection details for the tests, click **details** next to the desired Device Pool. You do not need to view details when executing a Test Plan, but they can provide information to help you understand exactly which phones will be involved in any of the tests you have configured.



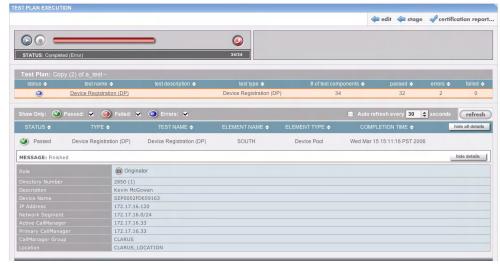
Notes:

- 6. Click the **details** link for each of the Device Pools in your test plan and view their assigned resources.
- 7. Once you've verified the Test Plan has staged correctly, click **execute**.
- 8. In the Test Plan Execution window that opens, click the arrow under the status bar to begin test execution.
- 9. The progress bar will update to show the status of your test, and you will hear the phones execute the required functions (if they are within earshot).



10. During execution, you can view results as they become available. If you have any failures or errors, the progress bar will turn red, and you can examine the test to view its failure message.

While tests are executing, the status of each test component will update as it completes to Passed, or Failed with Errors. Clicking on a specific test will invoke its detailed results.



- 11. If the test plan fails, make any changes necessary to your network, and run the plan again until it passes.
- 12. When you have successfully executed the Test Plan with no error or failures, stage and execute the other two Test Plans created in *Creating Test Plans*.

#### ClarusIPC Training Guide

	<ol> <li>When all of your tests have run successfully, click certification report to generate a report for each Test Plan.</li> </ol>
Notes:	14. Carefully review each section of the Certification Reports to verify:
	<ul><li>Tests run and the total passed/failed/errors per element.</li><li>Assigned resources for each element and their role in the test component.</li></ul>
	15. Review messages for any failed or error results, and try to ascertain the cause.



#### (15 minutes) Lab 10: Scheduling Tasks Notes: Scheduled tasks allow you to run tests and reports during off-peak hours. 1. Select tasks from the menu bar. Select create. 3. In the Task Details window that is opened, enter: • Task Name: Nightly Verification • Start Date: Today's Date • Start Time: 1:36am. To schedule a recurring task: Select the Repeat Every checkbox, and Select the Day radio button. 5. In the **selected cluster priority** pane, click **add**, and select your cluster. Click on the Cluster name in the **selected cluster priority** pane to populate the available operations pane. 7. In the available operations pane, click synchronization to highlight it, and use the arrow to move it into the **selected operations priority** pane. 8. Click test in the available operations pane, and use the arrow to move it into the selected operations priority pane as well. NOTE: Scheduled Tasks allow you to define custom resource constraints for individual Test Plans. For more information on customizing resource constraints, see the ClarusIPC User's Guide. 9. To select reports, click report in the available operations pane, and use the arrow to move it to into the **selected operations priority** pane. 10. When you have finished, click update to add the selected items to your Task, and return to the main Tasks window. 11. To receive email notification when the test completes, select **Enable Email** Notification, and complete the listed fields. 12. To receive mail when the Task begins, select Send email notification when task begins. 13. Click save to save your Task.

**NOTE:** Tasks may be disabled by deselecting the **Enable Task** checkbox. They will be saved, and may be re-enabled at a later date.

Notes:	TASK DETAILS  Define the Task by select	cting a Schedule; Clusters and th	heir as	ssociated operation	ons;	and a Notification p	rocess. List the	e selec	ted 👉 summary (	save c	ancel
		in the order in which you wish th	nem to	o be processed.							
	Select Schedule										
	Enable Task					4000					
	* Task Name: Relo	ocation Review	* Sta	art date: 06/05/20	80	H		Repea	t Every:   Hour (s)	O Day O Week	Month
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	Send SNMP trap when	task begins.									
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#### Lab 11: Generating Reports (10 minutes) Notes: Reports are broken down by categories, and may either be summary in nature, for producing As-Built documentation, or detailed for troubleshooting purposes. Most reports maybe generated as HTML, PDF, XLS, CSV, and DOC files. ClarusIPC Reports fall into two categories: those that require some configuration; and those that are generated without configuration. Those that require configuration show a setup button in the Reports page; those that do not show a generate button. Select reports > Inventory Summary > Cluster Summary. **Generate Report** X **Customer Name** Deployment Name Deployment Engineer Name Integrator Name Select Output Format PDF generate • Enter the customer and engineer information requested. This will appear in the header of the report. Select Output Format: HTML, and click generate. 2. Select reports > Tabular Data Exports > Detailed Phone Inventory. · Click on the phone groups for which you wish to generate a report, and use the arrow to move them to the **selected phone groups** column. • (Phone Groups from Creating Phone Groups: OnNetOnly, AllPhones, and OffNet Reaching Phones.) • Click generate when you're done. Enter the header information, as prompted. Select Output Format: XLS, and click generate. Select reports > Test Results > Certification Summary. Select the test plans for which you wish to generate summary information, and click generate. (Test Plans from Creating Test Plans: Training-Network Verification TP, Training-Phone Features, and Training-Cutover.) Enter the header information, as prompted. • Select Output Format: PDF, and click generate.

#### (15 minutes)

#### Lab 12: Troubleshooting Phones

The ClarusIPC Help Desk may be used to troubleshoot Tier 1 phone issues reported by end users.

**NOTE:** Help Desk is available only with ClarusIPC Plus<sup>+</sup>. For more information, please see your Clarus Systems representative.

This lab will demonstrate how to troubleshoot a reported phone issue by comparing the current state of the phone with a previous state, and by comparing the trouble phone with a functioning phone of similar properties.

- 1. Click the Help Desk link in the main menu bar.
- 2. Enter the directory number (internal extension or dialing string) of the reported phone, and click **search**.
- 3. Select a phone to troubleshoot from the returned list, and click select.



After choosing a phone, Help Desk retrieves the phone's information, including phone and line configuration and current status, and opens the main Help Desk window:



4. Click through the menu tabs to evaluate the trouble phone's settings:

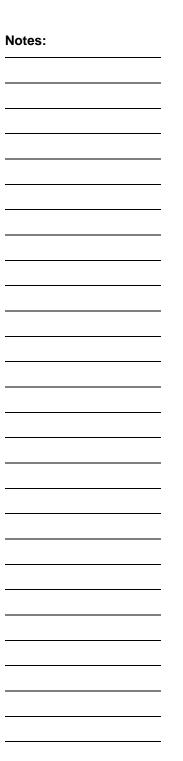


Notes:	Phone Statu     selected pho     Line Setting     Call History	<ul> <li>Phone Settings lists configuration settings assigned to the trouble phone.</li> <li>Phone Status lists the real-time status and transitory settings used by the selected phone.</li> <li>Line Settings lists configuration settings assigned to the selected line.</li> <li>Call History lists recent inbound and outbound calls made to/from the selected line.</li> </ul>					
		hone to use as a basis for trouble may be another device with sim ious state.					
	5. In the Reference	ce Phone tab of the main Help D	esk screen, click <b>Assign</b> .				
	6. Enter the direct phone, and click	tory number of a similar phone took <b>search</b> .	o compare with the trouble				
	7. Click the radio	button of one of the returned ph	ones, and click <b>select</b> .				
	To compare the troub generate the Phone (	ole phone with the reference pho Comparison Report.	ne, click <b>Compare Phones</b> to				
	Phone Compariso	n Report					
	PHONE	TROUBLE PHONE DN: 2852	REFERENCE PHONE DN: 2866				
		Device Name: SEP000DBDBEF9F7  Description: David Roberts  As of: Tue Mar 21 10/32/22 PST 2006	Device Name: SEP0002B9AFC651  Description:Eugene Shaposhnikov  As of: Tue Mar 21 10:32:22 PST 2006				
	Lines	2852 (1,SL) CLARUS_INTERNAL 3852 (2,SL) CLARUS_INTERNAL 3001 (3,SL) CLARUS_INTERNAL 3002 (4,SL) CLARUS_INTERNAL	2866 (1) CLARUS_INTERNAL 3866 (2) CLARUS_INTERNAL				
	Speed Dials	"Home" (1) 913105349571 "Danielle-Cell" (2) 35154154					
	<u> </u>	the trouble phone remotely using the Hands, you must have a Javas:	•				
	1. Click the <b>Remo</b>	ote Hands icon from any screen					
		LDAP Remote Hands account the					
	·	one by using your mouse to click Remote Hands display mimics th	-				

#### Lab 13: Using the Voice Monitor (15 minutes) Notes: The Voice Monitor allows you to monitor Call Detail Records, Call Media Records, Key Performance Indicators, and Device Registration status for any condition of interest, including poor voice quality; call setup failures; suspicious or fraudulent calls; and calls of long duration or to specific destinations. By creating a set of Rules and grouping them into Policies, you may be alerted and notified when exceptions are discovered. Please note that the Voice Monitor requires that CDR/CMR and KPI collection be enabled for Clusters against which Policies are to be run. To enable these collections, check the CDR Settings and KPI Settings Enable boxes on the Cluster Definition page, and enter the required information. This lab will demonstrate how to configure and use the Voice Monitor. **NOTE:** Voice Monitor is available only with ClarusIPC Plus<sup>+</sup>. For more information, please see your Clarus Systems representative. 1. Click the Voice Monitor link to launch the application. To create or edit an Alert Rule, click the alert rules tab. Alert Rules are used to identify conditions under which alerts will be generated. Multiple Alert Rule clauses may be joined to form a single Alert Rule. copy delete ■ Name Description 911 Calls 911 Calls Emergency Services (911) Calls Blocked Calls Suspicious Off-Hours Calling CDR cdr always Service Unavailable Dest Service Unavailable Dest Service Unavailable Ex-Employee Call Watch Ex-Employee Call Watch Alert Rules describe the matching conditions applied to collected CDR/CMR records to trigger Alerts. Review and edit the default 911 Calls Alert Rule by clicking its link in the Name column. • In the Alert Rule Details window that opens, notice that both CDR and CMR data records offer a list of fields from which a rule may be created. Alert Rules are combined using the Boolean operator OR or AND. Only one operator may be used within a single Alert Rule.



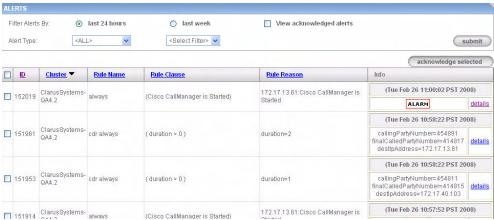
4. To create a Policy, click the **policies** tab.





**Policies** allow you to enforce groups of Alert Rules for a given collection period, across a set of Clusters, for calls made during specific call windows.

- Review and edit the default Bandwidth Utilization Policy by clicking its link in the Name column.
- Enter a name and description in the given fields.
- Select a Schedule during which the Policy will be enforced.
- 5. Click the **preview** button to insure that the desired alerts are issued, check the **Enable** box to activate the Policy, then click **save**.
- To review Alerts, click the alerts tab.



The Alerts page lists all alerts generated by enabled Policies. This page lists the Cluster which generated the alert, and the Rule Name, Clause, and Reason responsible for the alert's generation.

- 7. Click the **details** link to review data for the event triggering the alert.
- 8. To define Notification Rules, click the **notifications** tab.



	<b>Notifications</b> define the method of notification (email and/or SNMP), the list of recipient(s), and the Aggregation type and level for Policy Alerts.
Notes:	<ul> <li>Click create.</li> <li>Enter a Name and select an Aggregation Type.</li> <li>Select the Policies for which this notification will be generated. Note that clicking the All Policies checkbox will generate the Notifications defined for all existing Policies at all times.</li> <li>Click the Email Notification checkbox, and enter the appropriate information to generate Email.</li> <li>Click the test button to test email notification routing, then click save to save the defined Notification.</li> </ul>