

SCOPSERV
INTERNATIONAL INC.

ScopTEL™ IP PBX Software
Fixed Mobile Convergence and Follow Me



Description: Fixed Mobile Convergence

- ScopTEL Fixed Mobile Convergence allows a supported SIP Desk phone to hand a call off to a mobile device
- ScopTEL Fixed Mobile Convergence also allows a mobile device to hand a call off to a ScopTEL extension or external number using PBX resources
- Supported SIP desk phones are:
 - Aastra 9000i release 3.3.1 firmware or higher
 - Polycom Sound Point IP release 3.2.x firmware or higher
 - Yealink release 70 firmware or higher
- Supported Mobile Android/iOS soft clients are:
 - CounterPath Bria
 - Media5-fone
 - Zoiper
- Mobile devices do not require the installation of a soft client but the soft client can greatly reduce cellular charges
 - Mobile device PBX integration is supported by ScopTEL CoS configurations and DTMF codes
- Minimum ScopTEL Telephony release 5.8.5.1.20141109





Description: Follow Me

- “Twinning” aka “One Number” requires the extension to have ScopTEL’s “Follow Me” configured and Immediate Call Forward to Follow Me enabled on a per extension basis.
- Follow Me is used to ring one or more extensions and or external numbers either in sequence (serialized) or in parallel (forked).
- Follow Me is used in conjunction with Fixed Mobile Convergence handoffs to provide a single point of contact for any configured extension





Before you begin

- Decide where the Fixed Mobile Conference feature will handoff an active call when used.
- Decide whether to FMC Conference or FMC transfer the call when the Fixed Mobile Convergence Feature is used. FMC Conference is recommended as this will invoke an attended conference to the pre-configured destination.
- Provision the Yealink phone in the ScopTEL Automatic Provisioning System.
- Decide whether to use Follow Me for Mobile Twinning or just use the FMC handoff capabilities. The Walkthrough will break down FMC features Vs. Follow Me/One Number features.



Walkthrough Yealink FMC Conference

- You can set up as many FMC destinations as there are unused DSS Keys.
- Navigate to Telephony>Provisioning>Yealink>DSS Keys and edit a Line or Memory Key as follows.
- Enter a custom label and in the Destination /Value field enter the phone number or extension you wish to use.

The screenshot displays the ScopTEL IP PBX web interface for Phone Provisioning. The left sidebar shows the navigation tree with 'Provisioning' highlighted. The main content area is titled 'Phone Provisioning' and includes a navigation bar with tabs for General, Provisioning, Server, Network, Date and Time, Phone Options, PBX Services, DSS Keys (highlighted with a red box), Programmable Keys, Audio/Volume, and LCD Display. Below the navigation bar, the 'Deal Type' is set to 'Blind Transfer'. The 'Line Keys' section is visible, showing five keys. Key 4 is highlighted with a red box and configured as follows: Key 4: KeyEvent, Label: FMC-Cell, Mode: FMC Conference, and Extension/Value: 9055551212.



Walkthrough Polycom FMC Conference

- You can set up as many FMC destinations as Polycom EFK buttons.
- Navigate to Telephony>Provisioning>Polycom and enable EFK support as follows.

The screenshot displays the ScopServ web interface. On the left is a navigation tree with 'Provisioning' highlighted. The main content area is titled 'Auto Provisioning System (APS): Phone Provisioning'. Under the 'Phone Provisioning' tab, the 'Soft Key' sub-tab is selected. A checkbox labeled 'Enable Enhanced Function Key (EFK) support?' is checked. Below this, five EFK keys are configured:

Key	Feature	Label	First Name	Last Name	Destination	Buddy Watch
Key 2	Speed Dial		PAGE		*830	<input type="checkbox"/>
Key 3	Feature	Login			Agent Login (*900)	<input type="checkbox"/>
Key 4	Feature	Pause			Agent Pause (*901)	<input type="checkbox"/>
Key 5	Speed Dial		213		213	<input type="checkbox"/>



Walkthrough Polycom FMC Conference

- Choose the FMC Conference function from the Features drop list.
- Edit the Destination/Value field enter the phone number of extension you wish to use.

Logged as: admin

Auto Provisioning System (APS): Phone Provisioning Network Auto-Discovery (Scan)

Phone Provisioning Gateway Provisioning Firmware

Phone Provisioning

General Provisioning Lines Soft Key **EFK** Servers Network Options Date and Time User Preferences Audio/RingTone LDAP

Security

Custom Key Definition: **EFK Custom Key configuration is detailed in Polycom admin guide 3.1 or higher.**
Example 1: If you want to send DTMF=1234 on active line use syntax '1234\$Tdtmf*' omitting quotes.
Example 2: If you want to dial digits=1234 on a new line and place current call on hold use syntax '1234\$TreferS*' omitting quotes.

Key 1	Feature	
* Feature	One Touch Park	
Key 2	Feature	
* Feature	Transfer To Voicemail	
Key 3	Feature	
* Feature	Conference Group	
Key 4	Feature	
* Feature	Direct Intercom	
Key 5	Feature	
* Feature	FMC Conference	
Destination/Value:	9055551212	
Key 6	Feature	

Walkthrough Aastra FMC Conference

- Edit a Soft Key button and select FMC Conference From the drop list.
- Edit the Label as necessary and in the Destination/Value field enter the phone number of extension you wish to use.

Logged as: admin

Configuration tree:

- ScopServ
- Configuration
 - Server
 - Network
 - Telephony
 - General
 - Configuration
 - Manager
 - Extensions
 - Lines
 - Interfaces
 - Virtual Fax
 - Queues and Agents
 - Applications
 - Provisioning
 - Audio
 - Miscellaneous
 - Import/Export
- ScopSTATS
- Third Party Reports
- Tools
- Organizing
- Administration
- Options

Auto Provisioning System (APS): Phone Provisioning

Phone Provisioning tabs: Phone Provisioning, Gateway Provisioning, Firmware

Phone Provisioning sub-tabs: General, Provisioning, Soft Key, Servers, Network, Options, Audio/Ring Tone

Key 1 configuration (highlighted):

- Key 1: FMC Conference (Default: none)
- * Label: FMC-Cell
- * Value / Destination: 905551212

Other keys (Key 2-7): None (Default: none)



Defining Class of Service for the Outgoing Line(s)

The Destination/Value you entered into the FMC Conference button will do a Class of Service lookup based on the extension's Class of Service assignment. If the configured CoS does not include a matching Outgoing Line the call will fail. This is a security enhancement, so you must use a CoS that allows the call to complete based on Local Vs. National LD, Vs International Calling Patterns.

Logged as: admin

ScopServ
Configuration
Server
Network
Telephony
General
Configuration
Manager
Extensions
Lines
Interfaces
Virtual Fax
Queues and Agents
Applications
Provisioning
Audio
Miscellaneous
Import/Export
ScopSTATS
Tools
Organizing
Administration
Options
Configuration Wizard
Log out

Extensions Manager: Phones Add

Phones Extension Groups Pickup Groups Speed Dial Directory Security (ACL) Hints (Subscribe)

Templates: [1 to 1 of 1] (License Maximum: 11 of 25)

Search: Search

Name	Type	Description
yealinkh264	SIP (UDP,TCP)	

Action: - select an action -

Phones: [1 to 11 of 11] (License Maximum: 11 of 25)

Search: Search

Extension	Name	Description	Template	Type	Class of Service	Language
8000	8000			SIP (UDP)	default	English (De)
8001	8001			SIP (UDP)	default	English (De)
8002	8002			SIP (UDP)	default	English (De)
8003	8003			SIP (UDP)	default	English (De)
8005	Extension 8005			SIP (UDP)	default	English (De)
8006	Extension 8006			SIP (UDP)	default	English (De)
8007	Extension 8007			SIP (UDP)	default	English (De)
8008	Extension 8008			SIP (UDP)	default	English (De)
8009	Extension 8009			SIP (UDP)	default	English (De)
8010	Extension 8010			SIP (UDP,TCP)	default	English (De)
8011	Extension 8011		yealinkh264	SIP (UDP,TCP)	default	English (De)



Editing Class of Service

- Edit the assigned Class of Service if necessary to set the security policy for the extension by choosing which Outgoing Lines the Class of Service will have access to.
- Also ensure that Blind and Attended transfer Feature Codes are allowed in the Services tab.
- NOTE: Any other 'Live' Feature code included in this CoS will also be allowed (recording etc.).

Logged as: admin

ScopServ

- Configuration
 - Server
 - Network
 - Telephony
 - General
 - Configuration
 - Manager
 - Extensions
 - Lines
 - Interfaces
 - Virtual Fax
 - Queues and Agents
 - Applications
 - Provisioning
 - Audio

Telephony Manager: Class of Service

Multi Tenants | Class of Service | Scheduler | Holidays

Class of Service: [1 to 3 of 3] Add a

Search: Search

Name	Description	Services	Applications	Outgoing Lines	Schedule	Tenant
default	default	All Services	All Applications	All Outgoing Lines	default	default
incoming				All Incoming Lines	default	default
outgoing				All Outgoing Lines	default	default

Action: - select an action - Columns to display: Select



Verifying the Feature Codes used for Remote transfers

The Blind and Attended transfer feature codes are used to transfer a call back to the ScopTEL server once it is answered by a remote cell phone or land line. By dialing either code from a cell phone or land line phone keypad, the server will do another Class of Service lookup and allow the cell phone or land line to transfer the active call to another extension or external number for handoff. When either code is successful you will hear a prompt to enter additional digits.

The screenshot displays the ScopTEL IP PBX configuration interface. On the left is a navigation tree with 'Configuration' expanded and 'Manager' selected. The main panel shows the 'Features Code' configuration page. The 'General' section includes settings for digit waiting times and timeouts. The 'Incoming Call Access Codes' section lists various codes like Do Not Disturb, Out of Office, and Call Forward. The 'Calls Transfer' section at the bottom lists the feature codes: Blind Transfer (*1), Attended Transfer (*2), and Transfer/Ring Back (Disable).

Section	Setting	Value	Default
General	Number of seconds to wait between digits when transferring a call	3	Default: 3
	Maximum time between digits for feature activation (in ms)	500	Default: 500
	Timeout for answer on Attended Transfer	15	Default: 15
Incoming Call Access Codes	Do Not Disturb	*78 / *79	
	Out of Office (DND)	Disable	
	Call Forward - Always	*72 / *73	
	Call Forward - Busy	Disable	
	Call Forward - No Answer	Disable	
	Express Messaging / Send Voicemail	*980	
	Call Pickup	*8	
Calls Transfer	Blind Transfer	*1	
	Attended Transfer	*2	
	Transfer/Ring Back	Disable	



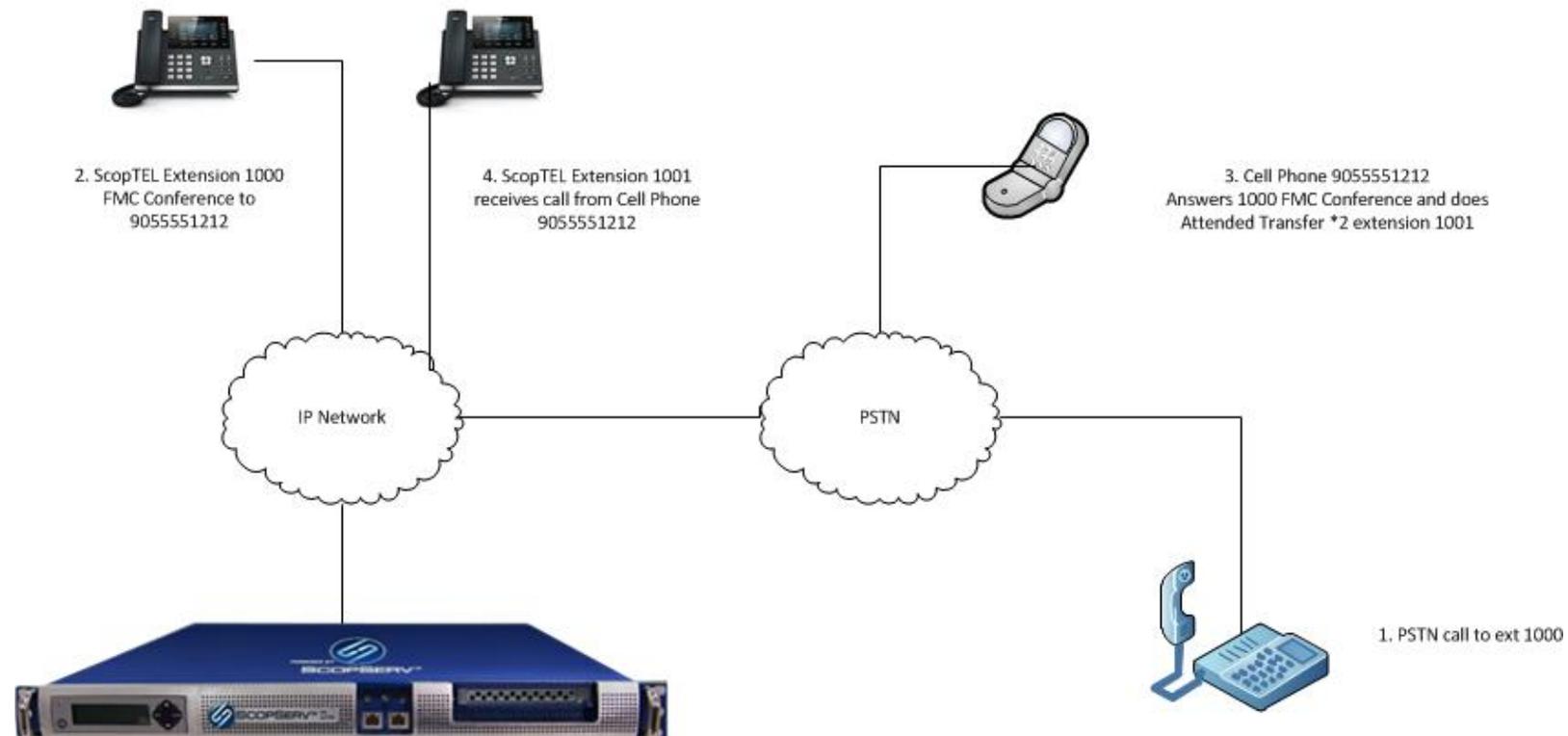


FMC Conference Usage

- Once the phone is provisioned with the new buttons you can press the FMC Conference button(s) on a live call to invite the pre-programmed destination to the call.
- If the destination is a cell phone for example your cell phone will ring and you can answer. Once you have answered with the cell phone you can hang up your desk phone without disconnecting your party.
- To transfer the active call from either a cell phone or land line phone using the default DTMF Transfer codes.
 - Dial *1 to execute a blind transfer to a local extension or another phone number.
 - Dial *2 to execute an attended transfer to a local extension or another phone number.



FMC Conference Usage

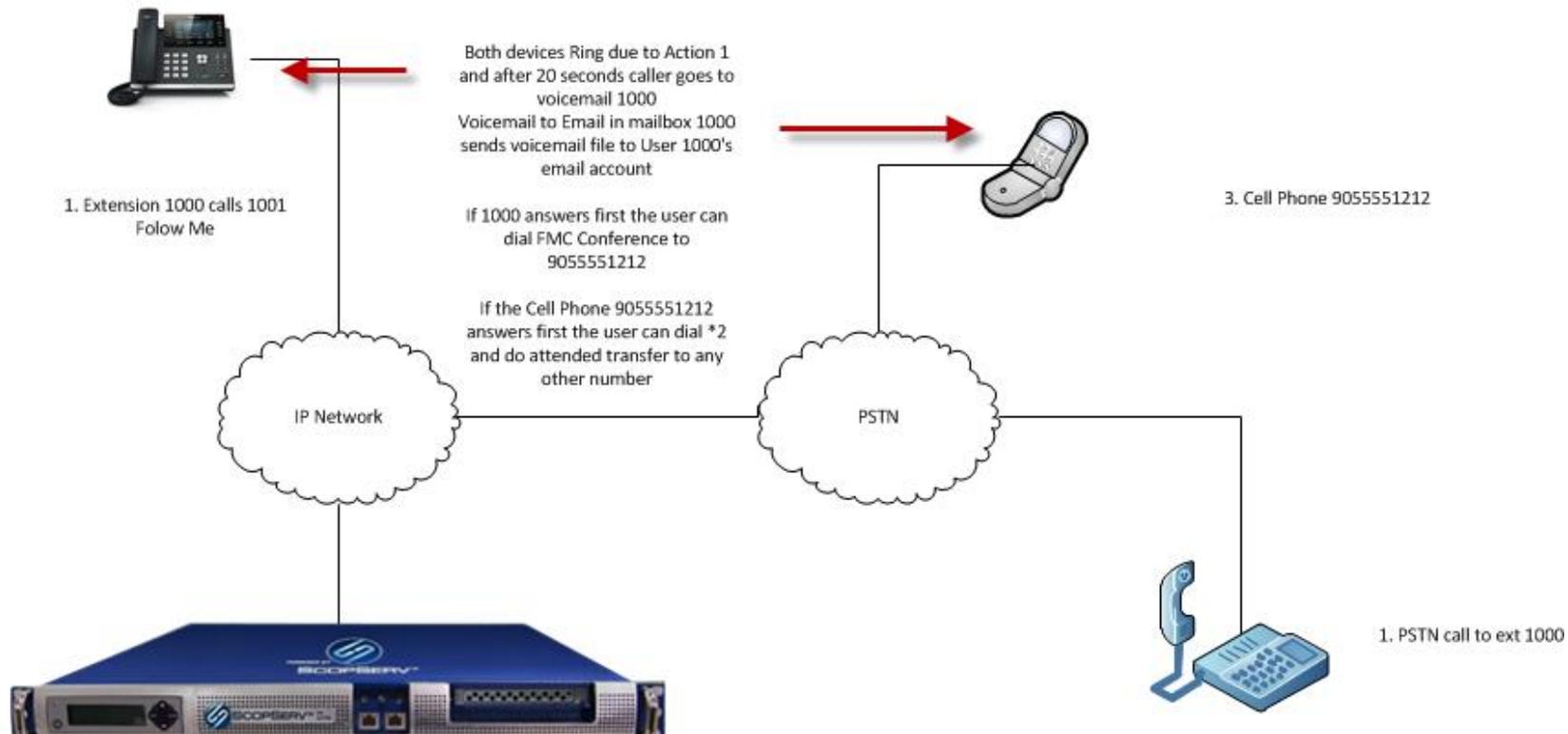


Follow Me/Find Me aka 'One Number' Overview

- If you set an extension's User Options to allow Follow Me permissions and set the Immediate Call Forward destination to Follow Me then whatever dials that extension will execute the rules defined on the Follow Me tab.
- A Follow Me tab consists of 10 possible Actions.
- Each Action can dial multiple destinations in parallel (call forking) and you can set a maximum ring time before executing the next Action.
- After each Action executes it moves on to execute the next defined Action in the list, unless the last Action executed does a hang-up or sends a caller to a voicemail box(es) or rings busy etc. If another Action is not possible then the list will not display a following Action.
- This makes it possible to ring a desk phone, soft phone, cell phone, land line simultaneously or in sequence until one device answers and if unanswered a final destination must be defined.
- If a desk phone answers the call first the user can execute a FMC Conference to send the caller to a pre-configured destination. Once an external number answers the call the user can blind or attended transfer the call elsewhere. If a soft phone answers the call first the user can execute a conference call to another number and the soft phone still has access to any 'Live' feature code.



Follow Me/Find Me aka 'One Number' Example with FMC



Follow Me/Find Me aka 'One Number' Walkthrough

- Edit an extension and click on the User Options tab to Enable Follow Me.
- Change the Immediate Call Forward Destination to Follow Me (later on the user can execute the Call Forward Always feature code (from the Features Code section) to enable or disable this feature).

The screenshot displays the 'Extensions Manager: Phones' interface. On the left is a navigation tree with 'Extensions' highlighted. The main panel shows the 'User Options' tab for a phone. The 'Enable 'Follow Me'' checkbox is checked and highlighted with a red box. Below it, the 'Immediate Call Forward' dropdown menu is set to 'Follow Me' and also highlighted with a red box. Other options include 'Enable 'Personal IVR'', 'Enable 'Personal ACD'', 'Enable 'Camp-On'', and 'Enable 'Calendar' integration?'. The 'Call Forwarding' section includes 'Play Busy Tone on Call Forward?', 'Call Forward on Busy', 'Call Forward on In Use', and 'Call Forward on No Answer', all currently set to 'None'.



Follow Me/Find Me aka 'One Number' Walkthrough

- Set Action 1 destinations using the Action 1 Select button.
- Allow Call Transfers in one ore more directions.
- Set the CoS to define which CoS will be used for the Outgoing Call.
- Set the Maximum Ring Time to 20 Seconds.
- Set Action 2 to Voicemail 1000 using the Action 2 Select button.

The screenshot displays the configuration page for a 'Follow Me' extension in the ScopTEL IP PBX system. The interface is divided into several sections, with the 'Follow Me' tab selected. The left sidebar shows the navigation tree, with 'Extensions' highlighted. The main content area contains the following settings:

- Action 1:** A dropdown menu set to 'Extension(s) and/or External Number'. Below it, the extension number '905551212' and phone number '1000:1000 (SIP)' are listed. A 'Select' button is visible to the right.
- Use User-defined CallForward?** A checkbox that is unchecked.
- Call Rotation Schedule:** A dropdown menu set to 'Disabled'.
- Allow Call Transfer:** A dropdown menu set to 'Callee'.
- Continue execution if the destination channel hangs up?** A checkbox that is unchecked.
- Maximum ring time:** A dropdown menu set to '20 seconds'.
- Volume Gain (RX/TX):** Two dropdown menus, both set to '0'.
- Provide Music on Hold until answer:** A checkbox that is unchecked.
- Music On Hold:** A dropdown menu set to 'default (default)'.
- Class of Service (Outgoing Calls):** A dropdown menu set to 'default'.
- Enable Call Screening?** A checkbox that is unchecked.
- Customize CallerID?** A checkbox that is unchecked.
- Action 2:** A dropdown menu set to 'Voicemail'. Below it, the voicemail number '1000:1000' is listed. A 'Select' button is visible to the right.

The default value for the voicemail number is noted as 'Default: voicemail:1000/1000'.



Incoming Line Configuration

- If you have an Incoming Line set up to ring 1000 directly then you must ensure that the Use User-defined CallForward ?:[x] option is checked.
- Also make sure you select an Outgoing Class of Service for this line.

The screenshot displays the ScopTEL IP PBX configuration interface. The left sidebar shows a tree view of configuration options, with 'Lines' highlighted under 'Telephony'. The main content area is titled 'Lines Manager: Incoming Lines' and features several tabs: 'Incoming Lines', 'Outgoing Lines', 'Special Lines', 'Banned Prefix', and 'Ringing Services'. The 'Incoming Lines' tab is active, showing a configuration form for 'Destination #1'. The form includes a 'Destination' dropdown set to 'Extension(s)', a 'Default' field set to 'none', and an 'Extension' field containing 'Phone: 1000: 1000 (SIP)'. A 'Select' button is located to the right of the extension field. Below the extension field, the 'Use User-defined CallForward ?' checkbox is checked. Other fields include 'Call Rotation Schedule' set to 'Disabled' and 'Class of Service (Outgoing Calls)' set to 'default'. At the bottom of the form are 'Save', 'Copy', and 'Cancel' buttons. A yellow warning banner at the top of the main area reads: 'You must click on Commit button in order to apply Change.'



Auto Attendant Configuration

- If you have an Auto Attendant Key Assignment set up to ring 1000 directly then you must ensure that the Use User-defined CallForward ?:[x] option is checked.
- Also make sure you select an Outgoing Class of Service for this Key Assignment.

The screenshot displays the 'Application Manager: Auto Attendants' configuration page. The left sidebar shows the navigation tree with 'Applications' highlighted. The main content area has tabs for 'Applications', 'Auto Attendants', 'Conferences', 'Custom Scripts', and 'Scheduled Tasks'. Under 'Auto Attendants', there are sub-tabs for 'General', 'Options', 'Keys Assignment', and 'Custom Keys'. The 'Keys Assignment' sub-tab is active, showing a configuration for a key with the value '1'. The 'Destination #1' is set to 'Extension(s)' with a value of '1000:1000 (SIP)'. The 'Use User-defined CallForward ?' checkbox is checked. The 'Class of Service (Outgoing Calls)' is set to 'default'. Other options include 'Call Rotation Schedule' (Disabled), 'Volume Gain (RX/TX)' (0/0), 'Customize CallerID ?' (unchecked), 'Destination #2' (None), 'Authentication (PIN) ?' (None), and 'Prefix CallerID ?' (unchecked). A yellow banner at the top states: 'You must click on Commit button in order to apply Change.'

