Administrators Guide IPS Manager Assistant



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1 Product description

1.1 Overview

IPS Manager Assistant permits managing, in a simple way, Manager / Assistant call filtering via the IP Phone of the Manager or of the Assistants. Day to day call filtering is facilitated by the use of shortcut buttons.

It is possible to define white lists and a bypass prefix. IPS Manager Assistant also permits the management of redirects toward a personal number, and to filter then consult the Manager on a personal number.

One assistant may manage several managers, and several assistants may manage a manager, with a notion of priority. The assistant may place himself in unavailable in order to redirect the filtering toward other assistants. A number of sharing solutions among assistants are also available (busy, multiple calls, no answer, interception).

IPS Manager Assistant may be completed operated from the IP Phone or a Webex Desk.

An optional Web interface is also available, in particular to be called from a Jabber tab. It permits the same configuration functions as the IP Phone interface.

The objective of this solution is also to simplify the work of the administrator, by permitting a centralized administration, the definition of managers and assistants may be modified in real time during production. IPS Manager Assistant is compatible with Extension Mobility mode.

1.2 Architecture

Filtering is based upon the forwarding of the Manager's line toward at CTI port. A CTI treatment is triggered when the call rings on the CTI port in order to redirect the call to the Assistant or transfer it to the Manager, while at the same time triggering possible notices for interception.

Starting with CUCM 10, IPS Manager Assistant uses an External Call Control Profile associated to the Manager's line, which queries the application to know of the call should be redirected to the Assistant or to the Manager. This solution makes it unnecessary to program the forwarding.

IPS Manager Assistant also effects a dynamic filtering, which permits the definition of numbers which are excluded from filtering. It also permits the Manager to intercept a filtered call.

IPS Manager Assistant assigns an illuminated button (BLF) to supervise the Manager and Assistant line, as well as the status of filtering.

1.3 Assistant IP Phone user interface

An Assistant associated to a Manager or several Managers can activate or disable filtering of Managers calls by pressing a filter button or via the XML menus. Depending on the administration's configuration, the Assistant can also set call forward of Manager's line: to a personal phone number (configured from the IP Phone interface), to voice mail or to any number.

When calling the filtering service directly from a button (Service URL button), the application displays a contextual menu, indicating the actions 'Activate Filter' or 'Cancel Filter' with the name of the manager. Depending upon the configuration, the assistant may also define the forwarding of the Manager's line toward his personal number, voicemail, or another number.

The Assistant can also set the 'Not available' status when he/she is not available. If the Assistant selects 'Not Available', the filtered Manager lines are forwarded to the assistant defined (via administration) as priority n+1. If no Assistant associated to the Manager is available, filtering is



terminated or the line forwarded to Voicemail. When the Assistant becomes available again, the filterings related to the Managers are reactivated, and they are forwarded to the Assistant's line



A screen banner displays the status of the transferred lines. An icon indicates that the line is filtered (forwarded to this line) or forwarded to the defined personal number (generally the mobile) or forwarded to voicemail. The label for the Manager may be defined via administration. On the models 7940/7960 (with extension), up to six managers may be displayed. On models 7941 to 7975, 8851, 8861, 8961, 9951, 9971 up to 9 managers may be displayed (with extension). The width of the banner is dynamic in order to minimize the obscuring of line labels.

The Manager may be filtered, then forwarded to a personal number when the assistant transfers the call to him. The manager may also select the 'Do Not Disturb' status. In this case, an icon alerts the Assistant. The calls are filtered, but the assistant may no longer transfer calls.

The buttons (on the right of the screen here below) may be used for:

- Activating the IPS Manager Assistant service (SURL)
- Supervise and call the Manager's line (BLF)
- Supervise/Change the filtering status of a Manager (BLF).

The applications administration can automatically change the buttons (BLF) for one or more Managers.



In this example, an Assistant is associated to two Managers: Verney is not filtered, but Guibert is filtered, which is visible via the banner but also via the Filter button which is illuminated. Pressing the extinguished filter button activates the filtering and the button illuminates.

On this 8961 screen copy, the Assistant is associated with three Managers: Dupond is filtered, Gebhardt not filtered and Smith forwarded to his mobile. The BLF associated with the other Managers are displayed on the IP Phone extension.





Ease of Use

To facilitate the management of filtering, the Assistant may perform the standard tasks of filtering by pushing a single button.



Finir





Cooperation among assistants

When the Assistant is in available status but is unable to handle properly the filtering request, for Assistants associated to the same Manager, several cooperation or work-sharing solutions are available:

- Interception screen on the IP phones of the other Assistants,
- Forwarding on busy to the first available assistant,
- Redirection on multiple call to the first available assistant,
- Redirection on no answer to the first available assistant.



1.4 Manager IP Phone user interface

The Manager can activate or disable filtering from the IP Phone, by pressing a filter button or using the XML user interface. The Manager may forward the calls to a personal number (generally the mobile number), forward to voicemail, or supervise the status of forwards.

When activating the filtering service via the Services menu or directly via a Service URL button, the application displays a contextual menu.

With the option transfer to personal number, the Manager may define and safe a mobile number and activate/cancel the forwarding. It is also possible to activate filtering and transfer the Assistant's calls toward this personal number.



The application's administration may define automatically a button to activate the application (SURL), a button (BLF) to supervise the Assistant's line, and a button (BLF) to indicate the filtering status. When pressing this last button, the filtering status is also changed: if extinguished, it activates filtering and is illuminated; if illuminated, filtering is stopped and it extinguishes.

Filtering status is displayed in a background banner.



With a 9971 IP Phone, the Manager's user interface is as follow:

	07/03/2012 14:48	8617	
\sim		Renvoyé vers 86105	
	🗢 Gebhardt 🛛 🔀		\sim
	Menu filtrage Consult-Transfert		÷ 28
	C Kate		
	N Filtré		
		100	
		→ Kate	$\overline{}$
	NvAppel E	3is Rappel	

Filter Override



Another Assistant associated with a Manager may intercept a call directed to a filtering Assistant, if, for example, this Assistant is already on a call. The intercepting Attendant may handle the call and transfer to the Manager.

The Manager and even Assistants may define personal numbers which are not filtered. These are added to numbers which are defined globally via administration and to those which are associated to the additional assistants associated with the Manager. Optionally, it is also possible to define external numbers.



via the Manager or Assistant IP Phone

It is also possible to define filtering override prefixes, which permit other Managers and Assistants directly to call a Manager by preceding the Manager's number with this prefix.



The manager may also optionally receive a 'Popup' screen on the IP Phone when a filtered call rings on the Assistant's extension. Via this screen, the Manager may optionally intercept the call.

12/03/2012 11:44 8617		
- Pier	^	0
G Filte Cor	↓ (+	
Appel filtré de 0146450512		
Q Filt		
-		
Intropt	Quit	

Otherwise, if a call arrives on the Manager's extension when his line is not filtered, the Manager may directly redirect the call to the attendant's line.



1.5 Interface for Webex Desk

Below are screenshots of this feature via an assistant phone and a managers phone.

Assistant



Manager





IS Forwarding all calls to 0123657849 >



1.6 Interface Web for Jabber

An optional Web interface is also available. It offers the same features as the IP Phone interface. This interface may function within a Jabber tab.

Authentication may be managed via Windows (Kerberos) where a login is required the first time, and then subsequent recognition is by cookie.

It is possible to check the filtering status which appears as a tooltip (n) on the IPSMA icon tab. With n being the number of filtered Managers on the Assistant side.

NB: This feature is only available on Windows Server 2012 or 2016.



1.1 Rich IPSMA client

IPSMA Web option also contains a rich (thick) client application that can be installed on Windows PC of the Manager and Assistant. The application is by default iconized in Windows taskbar, a tooltip displays the filtering status. When opened the user interface displays the same layout as IPSMA Web.

IPSMAClient		
Re	direct / Consult / Transfe	i
	Set Not Available	
	Mgr1 -> Mobile	
	Mgr2 -> Florence	
	Logout	

1.2 Administration

Configuration is centralized in a telisca administration. Two levels of administration are available, Administrator and Operation.

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IPS Man	IPS Manager Assistant - Assistants Config telisca									
MENU	Global Paran	neters	BLF Parameters	Assistan	ts Manager	s Batch	Trace			
>>>	<u>Close</u>									
Search by: Line number Begin with I Search Nb. Managers: Assistants = 1:2									lanagers:Assistants = 1:2/4	
Operati	on Type	User	name				Line number	Manager/Assistant	User ID	Alerting name
Edit	IP phon	e IP P	hone ID or device p	orofil			1037	Assistant		,
Subscrib	e Device	prof List	ource description				118008			Duc_Test
Subscrib	e Device	profile	7965 Mobility Pr	ofile			1999			
Subscrib	e Device	orofile	DP_7960				111111		4060	
Subscrib	e Device	orofile	DP_7970_1070				1070		1070	Verney
Subscrib	e Device	orofile	DucTest_IPC_Pr	ofile	Profile for Cli	ckNDial	118009			Duc_Test_ClickNDial
Subscrib	e Device	orofile	Mgr. 7975				1115		4045	
Subscrib	e IP phon	e	SEP0004F2E1F5	59	Auto 1024		1024			
Subscrib	e IP phon	e	SEP000DBD9058	386	Auto 1020		1020			
Subscrib	e IP phon	е	SEP0013C412C5	578	Auto 1042		1042			
Subscrib	e IP phon	e	SEP0016C76B2B	304	Auto 1003		1003		3001	
Subscrib	e IP phon	e	SEP001B54CA0D	D1D	Auto 1041		1041			
Subscrib	e IP phon	е	SEP001E4A9223	5B	Auto 1045		1045		Dmitry	
Subscrib	e IP phon	e	SEP001E4AF355	jA7	Auto 1036		1036		jmlacoste	
Subscrib	e IP phon	e	SEP002414B37A	58	Auto 1033		1033		rdurand	
Subscrib	e IP phon	e	SEP0024C4FE38	80F	Auto 1044		1044		jeanne	

The definition of Managers / Assistants is effected in a centralized manner via the Web interface of IPS Administration. The interface permits the definition of Managers and Assistants, to associate Managers to one or more assistants with an order of decreasing priority and to define the utilization parameters of each Manager. The interface subscribes to service by IP Phone or Device Profile, defines the Service URL buttons, the Manager SoftKey Template of the Manager, the Phone Button Templates, the Speed Dial BLF (for supervising the Manager line and the filtering status).

Via the IPSMA administration interface, it is also possible to define the Speed Dials and BLF's not used by IPSMA, to avoid having to use CUCM administration.

Loading of Manager and Assistant configurations may also be effected via batch using a text file. This is particularly useful for migrations of Cisco IPMA toward telisca IPSMA.

1.3 Features

User interface
Up to 9 Assistants per Manager
Up to 9 Managers per Assistant
Full filtering control and configuration via the IP Phone interface
Activate/cancel filtering via button, with illuminated status lamp
Button for dialing, supervision, and interception for Manager and associated Assistants
Forwarding, consultation, transfer, interception via a single button
Optional Web interface (may be integrated in Jabber).
Optional Rich client interface
Screen banner Manager – status and filtering destination
Screen banner Assistant – status of forwarding, filtering of associated Managers
Screen banner on white and black backgrounds, transparent background 89/99XX
Managers and Assistants may be associated with IP Phones or Extension Mobility profiles
Possible to control filtering from two different IP Phones with line shared Manager or Assistant.
User interface available in English, French, German, Spanish, Russian.
Telephone Control
The Assistants associated with the Manager are not filtered
Option for not filtering of external calls
Up to 99 non-filtered numbers may be defined via the IP Phone interface
Forwarding of the Manager toward a personal number
Filtering of Manager calls and transfer of the Assistant toward a personal number
Forwarding of Manager line toward voicemail
Forwarding of Manager line toward another number

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Do Not Disturb mode (absolute filtering)
When the Assistant selects unavailable, filterings in effect are reprogrammed toward
the other available Assistants
When the Assistant again becomes available, the defined filterings are re-established
Manager may intercept a filtered call
Manager may redirect a non-filtered call via a single button
Assistant may redirect a filtered call to the Manager via a single button
Assistant may consult the Manager via a single button
Assistant may transfer to the Manager via a single button
Assistant may transfer to the Manager by hang-up (with CUCM function)
Filtered calls not answered by the Assistant may be transferred to either the voicemail
of the Manager or of the Assistant.
An interception group is defined among the Assistants and optionally the Manager.
While a filtered call rings on the line of the Assistant, a Popup is displayed on
the IP Phones of the other available Assistants, allowing them to intercept the call.
During a direct or non-filtered call to the Manager rings on the Manager's line, a popup is displayed on the IP Phones of the available Assistants, allowing them to intercept the call.
When the redirection of a filtered call toward the Assistant fails (busy, logged off, not signed-in), the call is redirected toward an available Assistant. If none is available, the call is redirected toward the voicemail or transferred to the Manager, depending upon parameters.
Depending upon parameters, a filtered call transferred to an Assistant with Multiple Calls may be redirected to another available Assistant.
Depending upon parameters, a filtered call transferred to an Assistant who does not answer may be redirected to another available Assistant.
Depending upon parameters, when the Manager is an Do Not Disturb status calling numbers from his private white list may be filtered or not.
Administration
Administration of IPS Manager allows the automatic configuration of the IP Phone or the profile of Managers and Assistants: (Phone Button Template, Softkey Template, Service URL Buttons, Speed Dial BLF)
The configuration of a Manager and an Assistant may be accomplished in 2 minutes
Two levels of administration : Operation & System/Application configuration
Administration interface is available in English and French
Configuration change is possible via batch mode
Configuration conversion according to filtering mode
SOAP provisioning API
Fault tolerance
Supports primary and backup CTI manager
Supports primary publisher and backup subscriber (read only)
Fault tolerance with Windows Network Load Balancer or external Load Balancer
Host Standby fault tolerance (automatic switchover),
Functions even in the event of Publisher failure (on CUCM 10).
Supports CUCM multi-clusters on a single server

1.4 Requirements

Supported Cisco CUCM:

• CUCM version 10.5, 11.5, 12, 12.5, 14

Available on private cloud company.telisca.cloud



On premise installation:

Windows servers supported:

- Windows Server 2012 R2 Essentials or Standard
- Windows Server 2016 Essentials or Standard
- Windows Server 2019 Essentials or Standard
- Windows Server 2022 Standard
- Minimum configuration: 1 vCPU, 4GB RAM, 70GB disk
- Virtual Machine VMware vSphere, Hyper-V or Cisco UCS, Cisco UCS-E

Supported IP Phones are: 6941^(*), 6945^(*), 7811^(*), 7821^(*), 7841^(*), 7861^(*), 7925^(*), 7926^(*), 7940^(sccp), 7941, 7942, 7945, 7960^(sccp), 7961, 7962, 7965, 7970, 7971, 7975, 8811, 8821, 8841, 8845, 8851, 8861, 8941, 8945, 8961, 9951, 9971. The DX 650, DX 70, DX 80 uses Android client. (*): Without background banner.

With Web option: Jabber

The IP Phone and Web client interface is available in English, French, German, Spanish, Russian and Turkish.

1.5 CUCM settings

- The Service Parameter Call Forward Override must be set to true.

- A Softkey template or Features Control Keys template with the 'CFwdALL' SoftKey disabled, must be defined to avoid a mismatch between the information displayed on the banner and the programmed filtering.

1.6 Fault tolerant operation

IPS Manager Assistant supports an optional fault tolerant operation in Hot Standby. Two servers are synchronized. The backup server, in standby mode, monitors the primary server and may become active for the CTI Server module.

Queries originating from IP Phones are sent to a virtual IP address. The solution operates by activating the function Network Load Balancing of Windows 2008/2012 (Standard or Enterprise) or by deploying an external Load Balancer or intelligent DNS.

1.7 CUCM APIs used by IPSMA

1.7.1.1 <u>AXL SOAP</u>

AXL SOAP is an interface to CUCM Publisher that enables read/update in the CUCM configuration database.

In the administration, IPSMA uses AXL SOAP to list IP Phones or device profiles and get information on IP Phones, device profiles, lines, and associated users.

During the administration process, IPSMA updates the IP Phone and device profile to create a Service URL button used to call the application and Speed Dial BLFs to call/monitor Manager/Assistant as well as filtering CTI ports and setting some other parameters.

When the Manager or the Assistant uses IPSMA to set or cancel filtering, IPSMA reads and updates the line "Forward All" destination. The Manager line is forwarded to the Assistant line or, if CTI filtering mode has been enabled, to the filter CTI port created for all Manager/Assistant association.

In filter mode with forwarding to an Assistant with assistant pickup option, when several Assistants are associated to a Manager, a translation pattern is used to change the calling party with the currently filtering Assistant DN to enable all Assistants to call or transfer to the Manager.

1.7.1.2 Extension Mobility SOAP

This is a web service interface to Extension Mobility Service, which provides information on the user Extension mobility status.

It is used by IPSMA to find the IP Phone on which a defined device profile is logged. This is necessary for the administration to be able to restart the IP Phone to take into account the configuration changes. It is also used by IPSMA to push http requests to the IP Phone used by the Manager or Assistant in order to update the background status.

1.7.1.3 <u>JTAPI</u>

JTAPI is the CTI socket-based interface to CUCM CTI Manager Service.

IPSMA uses JTAPI to:

- Register CTI filtering ports (one per Manager/Assistant association)
- Register a CTI route point (called by CTI ports)
- Connect/Hang up CTI port (to light filter BLF)
- Monitor CTI port (to detect filter status change action when user press the filter BLF)
- Monitor CTI port (if CTI filtering mode is enabled, to exclude non filtered numbers)

1.7.1.4 Flow requirements

The following network flows must be opened for IPSMA:

Source	Destination	Protocole
IPSMA server	CUCM server	https 8443 (AXL SOAP, mobility) TCP 2748 (JTAPI)
Administration PC	IPSMA server	http (80) or https (443) Web interface
IP Phone	IPSMA server	http get (80) XML interface
CUCM server	IP Phone	http post (80) to Push status

1.7.1.5 <u>Failure mode</u>

When the IPSMA server is not running, the function's statuses are as follows:

- No calls are lost
- It is not possible to change filter status
- Filter status banners on IP Phones are cleared
- Filter BLFs are not lighted and the presence icon is cleared
- When calling application from the Service URL Button, the application is unavailable.
- If Manager's calls were filtered before the server went down:

• In forward mode or forward + pickup mode: calls are always filtered by assistant. The Manager can see it is filtered on the IP Phone (arrow in the top/right corner).

• In CTI filtering mode: calls are not filtered. The calls are still forwarded to the CTI port. As it is no longer registered, the call is forwarded again to the Manager (as defined by the Administration by CTI line forward condition).



1.8 Sizing rules

1.8.1.1 <u>Server sizing</u>

Server configuration for up to 2500 Managers and Assistants requires the following:

- 1 vCPU
- RAM 4GB
- Disk 70GB

Server configuration for up to 5000 Managers and Assistants requires the following:

- 2 vCPU
- RAM 6GB
- Disk 100GB
- **Note**: The number of devices that can be monitored by CTI per CUCM depends on the CallManager version. Please check with the official Cisco documentation. Examples: 2500 max for 6.0 and 7.1, 3200 for 7.1.3, 5000 for 8.6.

1.8.1.2 <u>CTI load</u>

A CTI port is registered and monitored for each Manager/Assistant association.

To evaluate the workload on the CTI Manager, it must be considered that when CTI filtering is not enabled, the call state changes on the CTI port are limited to the filter status changes (four to six times a day), so BHCA on the CTI port is less than one.

When CTI filtering is enabled and the Manager is filtered, all calls to the Manager are forwarded to the CTI port, so the CTI port BHCA is then the same as the Manager's BHCA.

1.8.1.3 XML data flow

Here is a calculation of the data flow throughput between the IP Phone and IPSMA server.

Displaying an XML screen on the IP Phone creates a flow of 800 bytes to 1200 bytes, including http overhead. For a push request, an additional 800 bytes are transferred.

By default, a push to refresh status is sent every five minutes to the IP Phone. Changing status (four to six times a day, less than one per hour) will also generate 1 to 3 XML screens and 1 to 2 pushes.

The maximum data flow for one hour will then be approximately $12 \times 2000 + 2 \times 1000 + 2 \times 2000$ bytes = 20 KB/hour.

1.8.1.4 <u>Security</u>

The Web-based administration interface is protected by a login/password. Authentication is Windows based (NTLM). Users can be defined in the domain or on the local server.

The user must be part of the "Administrators" group or the "teliscaAdmin" group on the local server.

An SSL certificate is installed on the server to offer https connection to administration.

The administration saves CUCM configuration information in an XML file, including Application User login/password. Passwords are saved in AES encrypted (with private key) format.



The application internal architecture is SOA based. Exposed Web Services are limited to be accessed only by a local IP address and/or protected by an AES encrypted key generated with a private key from the method's parameters.

The IPSMA server IP address cannot be viewed from the IP Phone user interface or configuration nor from CUCM User interface.

1.8.1.5 <u>telisca applications monitoring</u>

Telisca IPS Framework and CTI server can be monitored via centralized monitor application as well as Windows system and Microsoft IIS.

An http URL is provided that can be polled periodically. It returns a simple text response that can be easily parsed to check that the application is running correctly.

The internal architecture is described hereafter:



The monitoring URL is <u>http://host/IPSCFG/admin/monitor.aspx</u>.

It returns health information on different components (IPS Framework, CTI Server, IPS Lines Supervisor).

It is possible to select one component by adding the 'mod=' query parameter as follows: <u>http://host/IPSCFG/admin/monitor.aspx?mod=CTI</u> in order to monitor the CTI server only.

Different modules are identified by the following IDs:

- IPSWS: IPS Framework
- IPSLSUP: IPS Lines Supervisor
- CTI: CTI Server

The result sent by the URL is in text format:

ID=result|ID=result|... (Result can be 'OK' or 'ERROR:description), '|' character separate the answers for the different modules.

Example, without error, for three modules:

IPSWS=OK | IPSLSUP=OK | CTI=OK |



Example, if CTI server is not running:

IPSWS=OK|CTI=ERROR:Aucune connexion n'a pu être établie car l'ordinateur cible l'a expressément refusée|IPSLSUP=OK|

Note: As the method is executed synchronously, an important timeout (i.e., 12 seconds) should be allowed to get the full description of timeout error as above.

Example, CTI server cannot connect to CTI Manager:

CTI=ERROR:INIT=OK;CNX_JTAPI=STARTING;TERMS_OBSERVED=;CTI_ROUTE_POINT=N/A;CTI_PORTS =N/A;AUDIO=N/A;REC_DN=N/A|

Example, IPS Framework cannot connect to publisher by AXL SOAP: IPSWS=ERROR:AXL SOAP CONNECTION|

When applications are restarted (at night) or during the maintenance process, the monitor URL may return an error.



2 Administration

2.1 Overview

Administration is Web-based and secured by an administrator's login/password.

Administration is used to define the system configuration in order to be able to interface with CUCM using AXL SOAP, Extension Mobility, and JTAPI APIs.

An Application User must be defined as part of the following groups:

- CCM Super User
- CTI Enabled
- CTI Allow control of all devices
- Standard CTI Allow control of phone supporting Connected Xfer or Conf

The Administration is also used to define the default configuration parameters of the IP Phones and device profiles used by the Managers and Assistants: Phone Button templates, Softkey template, and Subscribe CSS.

The Administration is used to define the global IPSMA parameters.

The Administration is used to associate an IP Phone or a device profile with a Manager or an Assistant with several parameters as well as to associate Managers with Assistants. When validating the configuration, the Administration updates the IP Phone or the device profile to create a Service URL button and Speed Dial BLF, and to set global parameters. It also creates the CTI ports used for filtering.

2.2 Login

Administration URL is http://xxx.xxx.xxx/IPSCFG/admin or https://xxx.xxx.xxx/IPSCFG/admin.

IPS Administration requires a local administrator login/password that must be part of the "Administrators" or "teliscaAdmin" group. If user is part of the group "teliscaProd," he/she can only access the Assistant's and manager's subscriptions.



Accessible tabs using a telisca production user

Note: The administration has been designed to be used by one administrator at a time. Concurrent updates are not supported.

2.3 System configuration

From the IPS Administration Global/Config CUCM screen, the following values must be set:

- CUCM's publisher IP Address or DNS
- Application User login and password
- CUCM version
- Maximum number of AXL Write/mn which has been set via CUCM Administration in CUCM System Parameters (Advanced section). This value must accept sufficient configuration setting + filter status changes. The configuration of a Manager with one associated Assistant executes 4 AXL writes + 2 by additional Assistant. Each time a Manager's filter status is updated, one AXL write is executed.

≡ telisc	ca			telisca	Ľ	Q	🐣 admir	nistrator -
Dashboard		Home / Global configuration / Configuration					⊘ Cancel	✓ Save
Global configuration	۶.	AXI SOAP interface						
CUCM Config		CUCM Publisher host *	172.16.5.10	0				
Parameters		Backup CUCM host for AXL (read)		0				
Install Services		CUCM Application User *	telisca	0				
CTI control		Password	*****					
Phone push config			Test	10.5.1.10000(7)				
Email config		Current CUCM version saved in config	10.5.1.10000(7)					
AD/LDAP config		CUCM Extension Mobility host *	172.16.5.10	0				
♀ Support	Þ	Backup CUCM Extension Mobility host						
EMCC Auto Logout	Þ	TFTP server address	172.16.5.10	0				
IPS Global Directory	Þ	Unity Connection host		0				
PS Manager Assistant)	Þ	Use different credentials for Unity Connection	0					
📽 IPS Phone Config 🔹 🕴	Þ	IP Phone address list						
🎤 Phone Robot 🔹 🕠	Þ	Device List load mode	Loaded at defined t	ime from CUCM			, ?	
O Morning Check)	Þ	Reloaded a following times hh:mm	06:30 08:30	09:30 13:	30	18:30)	
Recording Notification)	•	Phone name's prefix loaded in cache (separated by ,)	SEP				0	
2 TSSO	Þ	Reload IP Phone list Display advanced parameters	Load	View IP Phone List	Cle	ear all lis	it	

Note: To avoid delays due to SSL in AXL SOAP https request, it is better to use a DNS for the CUCM's publisher host and install the CUCM SSL certificate on the IPSMA server. This can be done by calling CUCM Administration from the server Web browser and clicking on the red URL header, then installing the certificate as seen below.



Informations	sur le certificat
Ce certificat est con •Garantit l'identité d'ur	çu pour les rôles suivants : nordinateur distant
Délivré à :	CUCM6
Délivré par :	CUCM6
Valide à partir (du 30/11/2007 jusqu'au 28/11/2012

2.4 Create the IPSMA IP Phone Service

From screen IPS Administration Global/"Install Service," create the IPS Manager Assistant service on CUCM. Choose the label you want to see in the IP Phone Service menu. If possible, choose the same label as the one defined for the Service URL Button.

≡ telisca	1			telisca	b	administrator -
Dashboard	Home / Global configuration / Ins	stall Services		✓ Close	✓ View alr	eady installed services
📽 Global configuration 🕨						
CUCM Config	Select a service	IPS Manager Assistant	Ŧ			
Parameters	Service Name	IPS Manager Assistant				
Install Services	XML application host	172.16.5.7				
11301 J. 140.3	Enterprise Subscription	• •				
CTI config	Directory Service	0				
CTI control	Use HTTPS					
Phone push config	Description language	English •				
Email config		Create service				

2.5 Define CTI configuration

From IPS Administration Global/Config CTI screen, define the CTI configuration of telisca CTI Server.

≡ telisca		telisca 💾 💭 📥 administra	ator -
Dashboard	Home / Global configuration / CTI Configuration	Ø Cancel	✓ Save
📽 Global configuration 🕨			
CUCM Config	Primary CTI Manager H	host * 172.16.5.10	
Parameters	Backup CTI Manager	r host Test	
Install Services	Use same Application User as in CUCM Config 🖉	2	
CTI config	Use a secured JTAPI CTI link	0	
CTI control	IP Phones monitored by CTI	Automatic CTI monitoring	Ŧ
Phone push config	9	-	
Email config			
AD/LDAP config	Internal/external calls	Detects external party by number's length	Ŧ
Support			
S ruce has been	Minimum Internal numbers length	3	
P EMICE Auto Logout	Maximum internal directory numbers length	9	
IPS Global Directory	Display advanced parameters		

The same Application User is used to connect to the JTAPI provider.

A CTI server primary and backup address should be defined. You can have IPSMA working with the additional IPS Fault Tolerance module.

The "IP Phone monitored by CTI" selection should be set to "Automatic and dynamic monitoring." In this mode, the CTI ports required to be monitored by IPSMA will be created automatically. The IP phone will be created temporarily in the CTI provider just to push the status banner to the IP Phone and then removed.

If Cisco JTAPI client is not yet installed on IPSMA server, a red button is visible on the top left corner. By clicking on it, you can download and execute JTAPI installation from CUCM's server. It should install a JTAPI.jar library in directory %WINDIR%\java\lib (on Windows 2003, c:\windows\java\lib).

CTI Server will be restarted at night at the specified time. This time must after the IPS Framework restart time.

2.6 Functional parameters

Here is a list of global functional parameters defined in IPS Administration.

Name	Description
Use Speed Dial BLFs	BLFs are used to monitor Manager's or Assistant's line and filter status. By pressing filter BLF, filtering status is toggled. (1)
Filtering Mode	Forward to Assistant
	 Forward to Assistant + call pickup: when several
	assistants are associated with a Manager, set a
	translation pattern that changes the calling party to be
	able to dial the Manager. Manager's line BLF monitors this translation pattern.
	• CTI filtering: Allows to define a list of unfiltered numbers,
	associated assistants are not filtered, "Do not Disturb"
	mode. (2)
	• ECCP filtering: same possibilities as CTI filtering.
List of global unfiltered	Use to avoid accidentally filtering voicemail.
phone numbers prefixes	
Inverse video banner	Filtering information is written in white on a black
status (default value)	background.
Filter status banner on Manager's phone (default value)	May be also set at Manager's level.
Filter status banner on Assistant's phone (default value)	May be also set at the Assistant's level.
Enable Service URL	May be also set at Manager's level. (1)
button on Manager's IP	
Phone (default value)	
Label for Service URL	Used to call IPSMA Service; may be the same as the IP
button	shorter. (1)
Label for personal	Ex: "mobile" or "perso"
forward number	
Label for monitor BLF	Default: "*," replaced by Manager or Assistant name. (1)
Label for filter BLF	Default: "filter" (1)

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"Not Available" menu item	Used to inform that the Assistant is not available and change filtering destination to another available Assistant. Values available are "Never," "always," and "only if several Managers are associated with the Assistant."
Forward to other number (default value)	Enable setting forward (from Manager's or Assistant's IP Phone) for a temporary destination number entered when forwarded. This function is linked to user's option Forward personal number when enabled.
Authorize Assistant to view and change unfiltered numbers (default value)	In CTI filtering mode, the Assistant may or may not be able to read or update the unfiltered numbers using XML interface.
Assistant's Line BLF on Manager's IP Phone	Can be disabled, or monitors Line or Line + Call pickup. (1) May be also set at Manager's level.
Manager's Softkey template	Softkey template to apply on Manager's IP Phone. Must have "FwdAll" Softkey removed. (1)
Manager's and Assistant's Phone Button Template	Phone button template to apply depending on IP Phone model, protocol, and extensions. (1)
Authorizes the Manager to pick up filtered calls (default value)	When a filtered call rings on the Assistant's Phone, a Popup screen appears on the Manager's phone, from which he/she can pick up the call.
Audio notification on filtered calls (default value)	An audio notification is played while displaying the Popup screen.
Authorizes the Manager to divert unfiltered calls (default value)	When an unfiltered call rings on the Manager's Phone, the Manager can divert it to the Assistant by pressing the filter BLF.
Save unanswered filtered calls in Assistant's voicemail (default value)	When a filtered call is redirected to the voicemail because the Assistant did not answer, the Original Called DN is changed to the Assistant's DN so that the voicemail is stored in the Assistant's voicemail.

Warning: All the parameters marked with a "1" require the Manager's or Assistant's definition to be created or updated. Parameters marked "2" (i.e. filtering mode) require the user to click on the batch update button in Batch screen in order to take previously configured Managers and Assistants into account.

Here is a list of user level functional parameters defined in IPS Administration:

Name	Description
Alternate IP Phone	The Manager or Assistant can use IPSMA XML interface from a secondary IP Phone sharing the line with the main IP Phone.
Manager has a Service URL button to call XML application	Can be disabled if Manager uses only BLF to set/unset filters and does not set Forward to personal number or voicemail. (1)
Assistant's Line BLF on Manager's IP Phone	Can be disabled, or monitors Line or Line + Call pickup. (1)
Assistant or Manager status banner on IP Phone	Can use default value or can be force enabled or disabled. (1)
Assistant can set forward to personal number, enter personal number, and forward to voicemail.	If global option "Forward to other number" is set, can then also forward to another number depending on the user's options at the Manager's level.
Forward to personal number menu item	Can define a personal number and forward to it. IIS global forward other number options and can also forward to another set number.



Forward to voicemail menu item	Manager or Assistant can forward Manager's line to voicemail.
Forward to voicemail when no Assistant available	If the Manager is filtered and no Assistant is available, Manager's calls are forwarded to voicemail or no longer filtered.
Do not disturb menu item	Manager or Assistant can set/unset "Do not Disturb" mode.
Enter list of unfiltered numbers	From "Config" Softkey, the Manager can enter a list of five numbers that will not be filtered (except if "Do not Disturb" is set).
Specific phone template for Assistant	It is possible to define a specific phone template for an Assistant.

Warning: All the parameters marked with a "1" require the Manager's or Assistant definition to be created or updated.

2.7 IPSMA filter mode

From the Filter mode's tab, you must first activate IPSMA CTI services.

Then you will choose the filter process. This choice should be done before the application is used in production as changing the process mode afterward, while possible, is difficult.

≡	telis	ca				t	telisca	Q	admini 🗠	istrator -
🚯 Das	shboard		Home / IPS Manager Assistant / Filter mode						⊘ Cancel	✓ Save
🐝 Glo	bal configuration	Þ	Enable IPSMA and use BLF button filter status							
ᄋ Sup	pport	Þ	Filter process	CTI filteri	ing		, 7			
🔑 em	ICC Auto Logout	Þ	Prefix to add to external DN, not filtered		0					
🗐 IPS	Global Directory	Þ	Translation Pattern Prefix	*	0					
PS ips		۶.	Filter override by prefix mode	Disabled			• ?			
Fil			Filter override prefix	*21						
BL			Calling Search Space used to redirect filter call to Assistant	CTI Port	CSS		, 7			
Gl			CUCM Voice mail directory number		0					

2.7.1.1 Use BLF button filter status

Enables activation/deactivation of the managers' line filtering from the BLF on assistants' phones. When the BLF is lit up in Red it means the filter is activated.

2.7.2 Choose the Filter mode

Then you will choose the filter mode. This choice should be done before the application is used in production as changing the mode afterward, while possible, is difficult because you need to run batch process to update phone settings.

The two modes are:

"**CTI filtering**" corresponds to the strategy that consists in forwarding calls to an Assistant over the control of the Telisca CTI server. In such situation, Manager's line is forwarded to a CTI Port (one CTI Port per Manager/Assistant association). When a call rings on the CTI Port, it may be redirected either to the Assistant or to the Manager. In order to authorize redirection of the call to the Manager, **CFA Destination Override** must be set to "true".



"ECCP filtering" corresponds to the strategy consisting in associating the Manager's line to an External Call Control Profile. This mode is available with CUCM version 10 or more. With this mode filtering status can be changed even if CUCM Publisher is down because it is not requiring Forward setting changes using AXL SOAP.

2.7.3 CTI Filter mode

When the Manager is filtered his line is forwarded to the IPSMA CTI Port that has been created by IPSMA Administration for each Manager/Assistant association. This CTI Port is also used to create a dumb communicatio with IPSMA CTI Route Point in order to light the filter BLF.

When ringing on the CTI Port an IPSMA CTI process is executed.

If the call needs to be filtered it is redirected to the assistant (using CTI Port Calling Search Space or calling party Calling Search Space, depending of the setting).



If the calling party is an associated assistant or is in the global or personal not filtered numbers list, the call is answered by the CTI Port and transfered to the Manager. The CTI Port is allowed to transfer to the Manager because it is the destination of the forward and the CFA Destination Override has been set to true in CUCM System Parameters.

If IPSMA server is down the CTI Port is not registered then the call is forwarded (Forward on not registered and no answer destination) to a Translation Pattern (by default, * + Manager's number) created by IPSMA Administration, that changes the calling party to the CTI Port number and redirect the call to the Manager's Line. In this case the calls are not filtered but not lost.

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2.7.4 ECCP filter mode

This mode is available only for CUCM 10 or more. An External Call Control Profile must be defined in CUCM administration to call IPSMA application on primary and backup telisca server. The URL will be by default http://host:8081/ECCIIPSMA/.name=IPSMA or https://host:8081/ECCIIPSMA/.name=IPSMA or https://host:8081/ECCIIPSMA/.name=IPSMA or https://host:8444/ECCIIPSMA/?name=IPSMA (need to install CUCM certificate on telisca server, see IPSCFG_ADMIN_EN.pdf).

External Call Control Profile Configuration						
🕞 Save 🗶 Delete 🗈 Copy 🕂	Add New					
- Status-						
External Call Control Information —						
Name*	IPSMA-srv3					
Primary Web Service*	http://10.1.1.220:8081/ECCIIPSMA/?name=IPSMA					
Secondary Web Service	http://10.1.1.221:8081/ECCIIPSMA/?name=IPSMA					
Enable Load Balancing						
Routing Request Timer	2000					
Diversion Rerouting Calling Search Space	CSS_ALL T					
Call Treatment on Failures*	Allow Calls					
Save Delete Copy Add New						

The Calling Search space needs to allow calling the manager's and assistant' line. The timeout needs to be set to 2 seconds.

On timeout the call should continue and ring the Manager.

When provisioning a Manager, IPSMA associates the ECCP to the Manager's line

In this mode, the CTI port is only used to lighten the IPSMA BLF by creating a dumb call with IPSMA CTI Route Point.

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If IPSMA' server is down, the ECCP does not answer and on timeout (after 2 seconds) the call rings on the Manager's line.

Before a call rings on the Manager's line the ECCP send a request to IPSMA which answers either to redirect the call to the assistant's line or just continue and ring on the Manager's line when the Manager is not filtered or the calling party is in the Manager's White list.

For these two filtering modes, following features are available:

- Internal numbers may not be filtered (option at Manager level).
- Not to filter a global list of numbers; numbers may be specified as complete number or prefix.
- Automatically avoid filtering all Assistants associated to a Manager. This is required to allow another Assistant to pick up the call ringing on filtering Assistant's line or to allow the call to be transferred to the Manager.
- Define (from the Manager's IP Phone) a list of 99 phone numbers that will not be filtered.
- Manager's Mode "Do Not Disturb." In this mode, all calls are filtered, and even the Assistant cannot call the Manager.
- Define a call forward override prefix allowing to directly call the Manager.
- **Warning**: after changing of filtering mode, you must go to the Batch screen to change the configuration and forwards of existing Assistants and Managers. You must also restart the CTI Server. This operation should not be done while in production.

In CTI filtering mode, when the Manager receives a call, it is forwarded to the CTI port. The CTI application detects that the original called number was the Manager's number. In this case the CTI application checks if the caller number is in the list of unfiltered numbers. If this is not the case, the call is redirected to the Assistant. Otherwise, it checks if the manager mode is set to "Do Not Disturb." If so, the call is redirected to the Assistant. If not, the call is transferred again to the Manager.

In case of incoming external call, the application may add a prefix to the calling number before comparing it to the list of numbers not to be filtered.

Note: In CTI filter mode, if the Manager is busy (all lines are busy, according to busy trigger parameter), the Assistant currently filtering will not be able to call the Manager and will be put on hold by the CTI port instead of getting a "busy" tone.



2.7.4.1 <u>Translation pattern prefix</u>

If the CTI port is not registered (i.e., the IPS Manager Assistant is not running) or the filter process cannot be executed within two seconds, the call is forwarded to a translation pattern, as defined in CTI port's line forward settings. This translation pattern is built by adding the defined prefix to the CTI port directory number. The translation pattern redirect the call to the Manager changing the calling number to the CTI port number so that the call is not forwarded again. (When Call Forward All Override is enabled, the destination of the forward is authorized to call the forwarded number.)

Note: If the prefix used for the Translation Pattern is modified, then a "batch" update is required to create corresponding Translation Patterns to be used by IPS Manager Assistant.

2.7.4.2 Force CTI monitoring of Mar/Ass phones

If some features are enabled, the Manager's and/or Assistant's IP Phone will be automatically CTI Monitored. When pushing IPSMA's banner status on the phone, it is also temporary CTI monitored. It may be necessary to force the CTI monitoring to accelerate the banner's push or to avoid the banner to disappear in some case.

2.7.4.3 <u>Filter override by prefix</u>

In CTI filtering mode and with CUCM version 8.5 or higher, it is possible to authorize a number to call directly a filtered Manager by adding a prefix before the Manager's number. To make it possible, the Administrator has to create a translation pattern with the selected prefix that will be removed in the transformed called party. The translation pattern must call an External Call Control with the URL http://host:8081/ECCIIPSMA/.

Warning: On CUCM 8.5 and 8.6, it is necessary to restart CUCM service after creating the External Call Control Profile".

2.7.4.4 <u>Calling Search Space used to redirect filtered call to Assistant</u>

When a Manager is filtered (in CTI Filter mode), the Manager's line is forwarded to a CTI Port. When the call rings on the CTI Port, if the calling party is not excluded, the call is then redirected to the Assistant's line. The Calling Search Space used may be the calling CSS or the CTI Port CSS. By default the calling CSS is used, but if a Translation Pattern has updated the CSS, the change is lost and the original CSS is used.

2.7.4.5 <u>Voice mail directory number</u>

When the redirection of a filtered call to the assistant fails (busy, not logged, unregistered, ...) the call is redirected to another available assistant. If none is available, the call is either redirected to the Voice Mail or transferred to the Manager depending on the default and Manager by Manager setting 'Forward to voicemail when no assistant is available'.

2.8 Global parameters

IPSMA global parameters can be set from IPS Administration: Manager Assistant/Global Parameters tab.

Warning: Most of the parameters changed in this screen will be taken into account only when creating or updating the Assistant's or Manager's definition. See online help for more information.

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🕐 D.	ashboard		Home / IPS Manager Assistant / Manager assistant	: glob	al pa	arameters				⊘ Cancel	✓ Save
📽 G	lobal configuration	×	IP Phone session timeout(mn)	2							
₽ su	upport	•	IP Phone status/BLF refresh period (mn)	10	0						
۶. Ε			External forward numbers prefix		0						
<i>•</i>			Internal number minimum length	3							
🗐 IP.	S Global Directory	•	Internal number maximum length	8							
e 19	S Manager Assistant	•	IP Phone application trace level	Meth	ods	Ŧ					
	iltar mada		IP Phone default language	Engli	sh	Ŧ					
'					Engl	lish	Frend	ch		German	n
E			Personal / mobile forward label	Mobil	е		Mobile		٨	Nobiltelefon	
c			Service URL Button application label	Filter /	App.	Consult-Tran	Menu filtrage	Consult	FTI F	ilterung Men	ü Transfer
C			Line monitoring BLF label mask	*			*		*		
ļ	Assistants		Filter BLF label mask	Filter			Filtre		g	gefiltert	

The session duration for the IP Phones is the time after which the XML screens are automatically closed.

It is possible to set a period to refresh the status banner on the IP Phone. Refresh is just a security measure in case the banner has been deleted (for instance, after a restart of the IP Phone). If you do not want to set a refresh mechanism, you can enter a value of 1440 (mn), which corresponds to a full day (applications are reset once every night).

It is possible to define a prefix that will be added automatically to external numbers (more than eight digits long) set as personal numbers (mobile phone).

If the application is called from a Service URL Button, the language of the associated user (Local User) is detected and the IPS Manager Assistant will appear in French or English. If the application is invoked from the Services menu (using the Services button), it does not transmit the User Locale setting and the default language defined here will be used.

We recommend leaving the trace level default level set to "Methods."

The administrator can set different labels in English and French. For the texts of the BLF, the wildcard "*" will be replaced by the label of the Assistant or the Manager respectively, as defined in the administration of IPS Manager Assistant.



2.8.1.1 Parameters globals

Global parameters

Filter banner colors Black on white (79XX) or transparent (89XX)	Ŧ	
Use Mgr's device/line CSS as forward CSS 📄 🔞		
Assistant's Not Available feature If at least two managers or at least two assist	Ŧ	0
Assistant Not Available on user logout 📋 🙆		
Assistant Not Available when IP Phone unregisters 📄 🔞		
IPSMA Web/Jabber authentication CUCM userId by PIN/PASSWORD	Ŧ	0
IPSMA Web/Jabber style sheet default.css		
Filtered calls audio notification for Mgr (none)	Ŧ	
Divert ringing calls by pressing filter BLF 🖉 🥝		
Delay to redirect filtered call on no answer 15		
Check Manager's line is not forwarded		
Identify called Manager on Assistant's phone disabled	Ŧ	0
Reject calls to Manager's unregistered IP phone 🔤 🔞		

A status banner is normally activated on the IP Phone and displayed in a background graphic banner. You can disable this feature, especially if the user relies on information supplied by BLF filtering. We specify here the default value for this parameter. It is possible to modify it afterwards Assistant by Assistant or Manager by Manager.

The Manager can also have a smaller banner.

The Assistants can use the function "NOT AVAILABLE," accessible from the application menu on the XML IP Phone. This feature can be disabled, always enabled, or enabled only when the Assistant is associated with several Managers. Indeed, if the Assistant has only one Manager, this function holds less interest, and it is more useful to directly access the menu to set the Manager's status and configuration.

The operation mode "NOT AVAILABLE" works as defined below:

- When the assistant wishes to be absent or is at the end of the working day, he/she selects the option "NOT AVAILABLE" in the application menu on the XML IP Phone.
- If at this moment, he/she is filtering one or more Managers, the filter will be redirected to another available Assistant who is also associated with this Manager, starting from the highest priority (1 to n).
- If no other Assistant is available at this time, filtering is canceled or the Manager's calls are forwarded to his/her voicemail, depending on the option chosen for the Manager in the administration.
- If the Manager then tries to activate the filter from the application menu on the XML IP Phone or by pressing the BLF filtering, a warning message appears on the screen indicating that "no Assistant" or, respectively, "this" Assistant is not available.
- When the Assistant becomes available, he/she chooses the option "SET TO AVAILABLE" in the application menu on the XML IP Phone.
- The Assistant then filters the Manager's previously filtered calls if the Assistant's priority for this Manager is higher than the one who is currently filtering.



2.9 Default Parameters

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Dashboard	Home / IPS Manager Assistant / Default parameters	
Global configuration	Default parameters	
Support	Enable Assistant banner	✓ ?
🏓 EMCC Auto Logout	► Enable Manager banner	✓ ?
IPS Global Directory	Enable Manager IPSMA Phone Service	✓ ?
DS Mananer Assista	Enable Assistant IPSMA Phone Service	✓ ?
	Set a BLF to monitor Assistant's line	Enable BLF + Pickup 🔻 😮
Filter mode BLF Parameters	Set Pickup Group	Manager+Assistant 🔹 😯
Global Parameters	Use BLF to change filtering	Manager+Assistant(s 🔻 🕄
Default Parameters	Do not filter internal calls	• •
Assistants	Define not filtered numbers' list	• •
Managers	Allow Assistants to define not filtered numbers	
Global white list	Enables Manager to pickup filtered calls	
Batch	Filtered calls audio notification	
Reports	No answered filtered calls in voicemail	Manager v
🗱 IPS Phone Config	Assistant redirect/consult/transfer to Mgr by IPSMA SURL	✓ ?
🎤 Phone Robot	Enable forward to personal / mobile	
O Morning Check	Enable filtered then forwarded to personal number/mobile	0
	Enable voice mail forward	
Recording Notification	Enable forward to other destination	
🔁 tsso	Enable 'Do Not Disturb' mode	✓ ?
🗘 Wake Up Call	Do not filter non-filtered numbers in DND mode	
	Allow Assistants to set Manager's forward	✓ ?
	Forward filter call to voice mail when there is no assistant available	•
	Popup to pickup filter call ringing on other assistant	✓
	Popup to pickup Manager's line ringing	√
	Redirect filtered call on assistant no-answer	
	Redirect filtered call when assistant is on line	• •
	No filtering on redirection failure	< 8
	Enable whisper for assistant when manager on line	• •

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Define not filtered numbers' list

The manager can enter a list of DNs that will not be filtered by an assistant this is the whitelist.

- **Note**: a prefix can automatically be added in front of the number entered by the user, otherwise the full number has to be entered as it appears on incoming call.
- **Note**: if numbers are presented with a plus sign (+) in front, users have to type in the hash (#) key on their phones.

Depending on the configuration, the Manager can save a personal number (ex: mobile phone). He/she then can forward this line easily from IPSMA menu. He /she can also enter a temporary forward number when setting "forward all." This replaces the action of the "CFwdAll" Softkey, which has been disabled in the Manager's SoftKey Template.

The Manager can monitor the Assistant's line using a BLF (with or without pickup option). It may be useful to disable this feature (as well as the SURL button) if the Manager's IP Phone is a 794x in order to use the second button for the filter BLF.

When not registered, the CTI ports are forwarded to the Manager's in CTI filter mode. This may require the usage of a Calling Search Space.

When a filter call rings on the Assistant's Phone, a Popup screen can appear on the Manager's phone, from which he/she can pick up the call.

When a filter call rings on the Assistant's Phone, a Popup screen can appear on other available assistants so that they can pick up the call.

When a direct call or not filtered (excluded calling number, except assistant's number) call rings on the Assistant's Phone, a Popup screen can appear on all available assistants so that they can pick up the call.

2.10 BLF Parameters

Warning: Most of the parameters changed in this screen will be taken into account only when creating or updating the Assistant's or Manager's definitions. See online help for more information.

If you want to use the BLF or CTI filtering, you need to check this option and fill the configuration in the "BLF settings" screen.

In addition to or instead of filtering the information displayed on the wallpaper, it is possible to use Speed Dial BLF Buttons on the IP Phone to view the status of the filter. These buttons are defined by the administrator when creating or updating a Manager associated with one or more Assistants. The Phone Button Template assigned to the IP Phone or Device Profile must be able to display the requisite number of Speed Dial BLF buttons. On the Manager's IP Phone, the IPS Administration assigns each Assistant line and filtering CTI ports to BLF. On the Assistant's IP Phone, IPS Administration assigns for each Manager a BLF to monitor his/her line as well as a BLF check and control filtering CTI ports.

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Dashboard	Home / IPS Manager Assistant / BLF Parameters			Ø Can
Global configuration	CTI Route Point and filter CTI Ports			
© Support →	CTI Route Point name	IPSMA	Ø	
	CTI ports name prefix	IPSMA	0	
P EMCC Auto Logout	CTI ports directory number range begin	1021		
IPS Global Directory +	CTI ports directory number range end	1025	-	
PS Manager Assistant 🕠	Device pool	Default	v O	
	Partition	<>	v 0	
Fliter mode	Calling Search Space	<>	v 0	
BLF Parameters	IP Phone Configuration			
Global Parameters	Manager Softkey template	<>	v O	
Default Parameters	Manager feature control keys		v	
Assistants	Subscribe Calling Search Space	<>	v O	
Managers	Phone Button template by IP Phone Type template Protocol Phone Model	Expansion	# expansions Phone Button Template	0
Global white list	Manager • SCCF • Cisco 8851	• <>	• 0 •	v
Batch	Assistant(e 🔻 SCCF 🔻 Cisco IP Communicato	or • <>	• 0 • Standard CIPC SCCP	v
Reports	Assistant(e v SCCF v Cisco 7841	• <>	v 0 v	Ŧ
	Ass/Mgr. v SCCF v Analog Phone	* <>	• 0 • Standard Analog	Ŧ
₩a IPS Phone Config	Ass/Mgr. • SCCF • Analog Phone	* <>	v 0 v Standard Analog	Ŧ
🎤 Phone Robot 🛛 🔸	Ass/Mgr. v SCCF v Analog Phone	▼ <>	v 0 v Standard Analog	Ŧ
O Morning Check	Do not create SURL nor BLF buttons	0		

2.10.1.1 CTI Route Point Name

It is necessary to create a Route Point on CallManager, please use capital letters only for the name.

2.10.1.2 <u>CTI Ports name prefix</u>

This is the prefix that will be added to the CTI ports created dynamically by IPSMA. It needs to be all capital letters.

The filtering BLF monitors the CTI port line created by IPS Administration. To turn on the BLF, the port calls a CTI route point (which must have been previously defined in CallManager). The CTI route point answers automatically to establish a dummy communication. IPS Administration creates a CTI port for each Manager-Assistant association. The name of the CTI port is built from the defined prefix and the line number. Line numbers are assigned in the range of numbers defined in the administration. The CTI port is created with the Device Pool and Calling Search Space defined. The CTI port's line is created with the Partition and Calling Search Space defined. Note that to take into account changes in the global settings on the CTI ports, the Manager's configuration will need to be validated again. Services URL and Speed Dial BLF are added to the IP Phones or device profiles during validation of the definition of a Manager. The IP Phones are then restarted to reflect these changes and the devices profile are logged out and logged in again.

2.10.1.3 <u>Manager Softkey template</u>

You must define a Softkey template to be used by the Manager's IP Phone. It must not have a "Call Forward All" SoftKey, in On Hook state.

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2.10.1.4 Manager feature control keys

The Manager's Feature Control Policy is used to define the SoftKeys on 89xx and 99x phone models. The Call Forward All Softkey should be disabled.

2.10.1.5 Subscribe Calling Search Space

You must set the SUBSCRIBE Calling Search Space for the BLF to have the right to monitor the status of Manager/Assistant (e) and of the filtering CTI port.

2.10.1.6 IPSMA Phone Button Templates

You must define Phone Button Templates for all the models of IP Phones that will be used by the Managers and Assistants. These Phone Button Templates should include (depending on configuration) a Service URL

Button and two Speed Dial BLFs by associated Managers or Assistants. The Phone Button template is assigned to the IP Phone by IPS Administration.

cisco	Cisco Unified CM Administration			Navigati	ion Cisco Unified CM A	Administr
	For Cisco Unified Communications Solutions		ad	ministrator S	earch Documentation	Abou
System 👻	Call Routing 👻 Media Resources 👻 Advanced Features 👻	Device 👻	Application +	User Management	→ Bulk Administration →	Help 🤜
Phone But	tton Template Configuration			Rel	ated Links: Back To	Find/Lis
Save	🗙 Delete 📄 Copy 🎦 Reset 🧷 Apply Config	🕂 Add N	ew			
– Status –						
Add :	successful					
— Phone Bu	itton Template Information —					
Button Te	mplate Name * IPSMA 7965 SCCP					
- Button In	nformation Feature				Label	
1	Line **		Line			
2	Service URL	-	Acco	ess to IPSMA Ap	p and Actions	_
3	Speed Dial BLF	-	Mgr/	Ast Line 1		_
4	Speed Dial BLF	-	Mgr/	Ast Filter 1		_
5	Speed Dial BLF	•	Mgr/	Ast Line 2		
6	Speed Dial BLF	•	Mgr/	Ast Filter 2		
7	None	•				

Example of a PBT with 2 Managers or Assistants

Note: if you want to let assistants work in pools (an assistant can intercept calls on another assistant if they are associated to the same manager), the phone button template will have to have more SD BLF buttons provisioned. Then in the Assistant definition tab, it will be possible to add new speed dial BLFs for the other assistants in the pool.

2.11 Manager and Assistants selection

The subscription of IPSMA service to IP Phone and the definition of the Assistant and Manager parameters is done centrally from IPS Administration.

You must first define the Assistant(s), then the Managers who are associated with the defined Assistants.

The administrator searches the IP Phone or Device Profile (Extension Mobility mode) to associate with the IPS Manager Assistant service. The search criteria can be the line number, the name of the IP Phone or Device Profile, the description, or CallManager UserID. The search can be of either "Starts with," "Ends with," "Contains," or "Exact" type.

≡	telisca								TELISCA LAB	b	administrateu
🙆 Dasl	Bashboard Home / IPS Manager Assistant / Assistant config										
Global configuration								Q Search			
🔎 Sup	port F		Search	y.	List all Assistants		Ψ.	Begin with	Ŧ		• Scarch
		Operation	Туре	Ident	ification	Line number	CTI Ports	User ID		Alerting name	User interface
🖵 Atte	endant Console 🛛 🕨	Edit	IP phone	sip:us	ser18@teliscatest.local			sip:user18@te	eliscatest.local		User interface
202		Edit	IP phone	sip:us	ser27@teliscatest.local			sip:user27@te	eliscatest.local		User interface

It is also possible to view all the Assistants or Managers already subscribed.



2.12 Assistant's definition

≡ telisca	1		TELIS	SCA LAB	Ľ	Q
Dashboard	Home / IPS Manager Assistant / Edit assis	tant parameters			⊘ Ca	ncel
Global configuration						
♀ Support →	IP Phone / Device Pro	ofile SEPDCA5F4865FCD				
Attendant Console	Secondary phone na	ame	0			
😤 Conference Center 🛛 🕨	Line num	105007				
	Label bar	AssLacoste				
Desktop Popup	Label BLF and Menu)	KML AssLacoste				
I Busy Alerter Callback ►		Edit BLF and Speeddial				
	Associated managers list				_	
	Manager	IP Phone/profile	Dir. number	Priority		
IPS Lock +	Mgr105010	SEP5C5015A8964A	105010	1		
PS Manager Assistant 🕨	Phone Button Temp	late <phone button="" d<="" template="" th=""><th>efault></th><th></th><th></th><th>Ŧ</th></phone>	efault>			Ŧ
Filter mode	IPSMA IP phone Ser	vice <service default<="" ipsma="" th="" url=""><th>Þ</th><th></th><th></th><th>Ŧ</th></service>	Þ			Ŧ
BLF Parameters						
Global Parameters	Enable display bar	ner Default 🔹 🕄 By def	fault : Enabled			
Default Parameters	Enable subscribe service via S	URL Default • By def	fault : Enabled			
Assistants						

When adding/updating an Assistant, the following screen is displayed:

Assistant definition tab (without any associated manager)

2.12.1.1 IP Phone / Device Profile

This parameter corresponds to the name of the IP Phone or the Device Profile the Assistant is associated to.

2.12.1.2 <u>Secondary phone name</u>

If the assistant has access to two lines, another line number can be entered here. When a call for a manager is filtered, the two lines will ring and the call can be picked up from one or the other. Useful for Wi-Fi Phones or IP Communicator with a shared line. The telisca Framework will subscribe the devices to the IPSMA Service. Example: SEP054660EA4

2.12.1.3 Line number

The line number (default is the first line)

2.12.1.4 Label banner

Description of the label on phone

2.12.1.5 Label BLF and Menu XML

The label that will appear on the BLF and in the application menu (default uses the Alerting Name).



2.12.1.6 IPSMA IP phone Service

Recommended to use the default, can be used to select another ip phone service URL.

2.12.1.7 Enable display banner

Choose whether or not to display a status banner or leave the default choice in global settings.

If the option "Personal Forward and voicemail" is checked, the Assistant can forward/un-forward the Manager's line to the personal number of the voicemail. In the case, the Assistant menu will be as follows:

- "Not Available" (if this option has been enabled in global settings)
- Manager1 <destination>
- Manager2 -- <destination>

<destination> can be the name of the Assistant, "Perso," "VoiceMail," or a specific number.

Otherwise, the Assistant menu will be

• "Not Available" (if this option has been enabled in global settings)

0

- "Enable filter Manager1" or "Remove filter Manager1."
- "Enable filter Manager2" or "Remove filter Manager2."

2.12.1.8 Transfer to Manager on hangup

2.12.1.9 Phone Button Template

If the Assistant uses a specific Phone Button Template, it is possible to specify it in this screen.

2.12.1.10 Edit BLF and Speeddial

Home / IPS Manager	Assistant	/ BLF (without IPSN	1A) & Speeddial	
	Sp	eed Dial BLF		
	Inc	lex Destination	Label	Call Pickup
	1	105860	Ready/Not Ready	

TELISCA LAB

Speed	peed Dial							
Index	Destination	Label						
1								
2								
3								
4								
5								

Edit Speed Dials and BLF with Call Pickup option



Allows the administrator to edit speed dials and BLFs on the Assistant's phone. In this popup are listed all the speed dials and BLFs slots of the phone that are not used by IPSMA. If the Assistant's line is in a Pickup Group, the Speed Dial can be Pickup enabled with a check box appearing at the right of the table.

Note: The pickup enable checkbox, is only visible for free SD BLF slots on the phone (not simple SD)

This screen is useful to configure speed dials for assistants working in teams in a pickup group.

The administration screen lists the Managers associated with this Assistant with the relevant priority (on the Manager's side).

After validation, the Service URL button is added/updated, as well as the Phone Button Template. As the IP Phone is restarted, the banner is cleared. It will be activated at the next periodical push or when changing status.

2.13 Manager's definition

On the Manager's screen it is possible to update the line number and the label.

Home / IPS Manager Assistant / Edit manager para	ameters									
IP Pho	one / Device	Profile	SEP5C5015A8964A							
Seco	Secondary phone name				0					
Line number			105010							
Manage	er's label for b	anner	Mgr105010							
Manager's label for Spe	eed Dial BLF b	outton	Mgr105010							
Associated assistants list			Edit BLF and Speeddial							Add
Edit	Delete		Assistan	t		hard a sector	_	IP Phone/profile	CTI port name	Priority
Edit	Delete	As	sLacoste-105007 ¥ 10	0500	J/-P	AssLacoste	Y	SEPDCA5F4865FC	D	1
Specific Parameters	A ID phone C	ondeo								
IP:SIV Dhar	e Button Ten	ervice	<service default="" ipsma="" url=""></service>					T		
Fnz	able display b	anner						Ŧ		
Enable subscri	be service via	SURL	Default V By defau	ilt : Ei	nat	bled				
Set a BLF to mor	nitor Assistan	t's line	Default V By defau	11C : E1	inat	ble BLE				
	Set Pickup	Group	Default	Ψ	8	By default	Manager			
Use BLF	to change fil	tering	Default	Ŧ	8	By default	: Manager+/	Assistant(s)		
	Call pickup	group	JML					₹		
Do no	Do not filter internal calls			ılt : D	Disa	bled				
Define not filtered numbers' list			Default v By defau	ılt : Ei	inat	bled				
Not filtered	calling num	bers (,)								
Allow Assistants to define n	ot filtered nu	mbers	Default 🔻 🕑 By defau	ılt : Er	inat	bled				
Enables Manager to	pickup filtere	d calls	Default 🔻 🚱 By defau	ılt : D	Disal	bled				
Filtered call	s audio notifi	cation	Default 🔻 🚱 By defau	ılt : D	Disal	bled				
No answered hitere	ed calls in void	cemail	Default 🔻 🔮 By defau	llt : M	Man	ager				
Enable filtered then forwarded to person	o personal / r	nobile	Default V By defau	ılt : D	Disal	bled				
Enable littered then forwarded to person	voice mail fo	nuone	Default V By defau	ılt : Ei	inat	bled				
Enable forward t	o other desti	nation	Default V By defau	ılt : Er	nat	bled				
Enable 'Do	Not Disturb'	mode	Default V By defau	ılt : D	Disa	bled				
Do not filter non-filtered num	bers in DND	mode	Default V By defau	llt : D	Disa	bled				
Allow Assistants to set	Manager's fo	rward	Default V O Ry defau	int : D	Jisa	bled				
Forward filter call to voice mail when there is no	o assistant ava	ailable	Default V Option	ilt : D	Disal	bled				
Pickup filter call	between Assi	stants	Default v OBy defau	ılt : D	Disa	bled				
Pickup call ringing	g on Manage	r's line	Default v 🛛 By defau	ılt : D	Disal	bled				
Redirect filtered call on a	assistant no-a	nswer	Default v 🕑 By defau	ılt : D	Disal	bled				

You can choose whether to display a status banner in the background or leave the default choice defined in global settings.

It is possible to choose to allow the Manager (and his/her Assistant) to define a personal number (for example, a mobile number).

Similarly, it may or may not forward the Manager's calls to voicemail depending on the configuration.

When the last Assistant associated with the Manager is no longer available, filtering is either canceled or the calls are forward to voicemail.

If CTI filtering mode is enabled, you may allow the Manager to use "Do Not Disturb" mode and allow the Manager to define a personal list of unfiltered numbers.

In CTI filtering mode, it is possible to display an option to set "Do not Disturb" mode in the XML menu. In this case, no one can call the Manager.

You can enable or disable the creation of a Service URL Button on the IP Phone to run IPSMA Service. However, the service is still available from the Services menu.

The Manager may or may not monitor the Assistant's Line using a BLF or can pick up using the BLF (in this case, the BLF blinks on ringing).

When a filter call rings on the Assistant's Phone, a Popup screen can appear on the Manager's phone, from which he/she can pick up the call.

When a filter call rings on the Assistant's Phone, a Popup screen can appear on other available assistants so that they can pick up the call.

When a direct call or not filtered (excluded calling number, except assistant's number) call rings on the Assistant's Phone, a Popup screen can appear on all available assistants so that they can pick up the call.

2.13.1.1 Associated Assistants list

Finally you have to associate one or several Assistants to the Manager, defining each one's priority (1 being the highest priority). The name of the CTI port is created by IPS Administration to enable the BLF filtering.

Priority concept: the priority number assigned to an assistant impacts two things:

• The order in which the Managers Line and Filter BLFs are displayed on the Assistant phone.

On the assistant's interface, Managers will be ordered by priority number affected to the Assistant: Managers for which the Assistant has priority level 1 will be listed first, other Managers will be listed by increasing with priority level value. It is however possible to rearrange the BLFs from the CallManager directly (but such update will be reset when updating the manager/assistant configuration from telisca administration interface).

• The order in which the filter is going to move between assistants when becoming unavailable.

When becoming unavailable, the filter will switch to the assistant who has the highest (lowest number) priority number in the list.

When becoming available, the filters will come back if the assistant currently filtering is of lower (higher number) priority, otherwise becoming available again will leave the filter to the other assistant.

After validation, the Service URL button is added/updated, as well as the Phone Button Template and Softkey Template. The BLF is set on the Manager's phone as well as on the associated Assistants' phones. As the IP Phones are restarted, the banners are cleared. They will be activated at the next periodical push or when changing status.



2.13.1.2 Manager/Assistants data

Managers and Assistants configuration is saved in a binary file (serialized dataset): DevServSub_YYMMDD_hhmmss.bin in C:\inetpub\wwwroot\IPSCFG\data.

Each time the user configuration is validated, a new file is created with date and time postfix. Older files are purged after 14 days.

The more recent file is loaded. If it is necessary to go back to a previous configuration, it is possible to erase the last file. However, to update the IP Phone and device profile configuration it will be necessary to validate from the administration the last modified Managers and Assistants.

2.13.1.3 <u>Status data</u>

Filtering status information is saved on CUCM itself by setting the Manager's line's Forward All destination.

However two statuses are also saved on the IPSMA Server:

- Assistant's "Not available" status is saved in DevServSubHT_YYMMDD_hhmmss.bin
- Manager's "Do not disturb" status is saved in DevServSubDND_YYMMDD_hhmmss.bin

Files are in C:\inetpub\wwwroot\IPSCFG\data. Older files are purged after 14 days.

2.14 Batch actions

From this screen the administrator can:

- Export current definition of Assistants and Managers in a text file.
- Import the definitions of Assistants and Managers from a text file.
- Update Assistant and Manager configuration in CallManager when changing filtering mode.

≡ telisca					
Dashboard	Home / IPS Manager Assistant / Import / Export da	ta SMA			
Global configuration	Event all Manager and Arristants config.				
Ø Support →	Import the Managers and Assistants config	Import	0		
Attendant Console	Trace data import			Ψ	View
Conference Center +	Update subscription / filter mode	Batch update	0		Mary
G Silent Monitoring	091029-012204 ···· Start Update ····				VIEW
Desktop Popup +	091029-012204 Update Manager : Genin 091029-012212 - Update Assistant : As	1003			
Busy Alerter Callback +	091029-012219 - Opace Assistant : Da 091029-012219 Update Manager : Genin 091029-012219 Update Manager : Mo7010	Jul Tol			
IPS Global Directory +	091029-012225 - Update Assistant : As: 091029-012225 **** Update completed **	7105			
PS Lock +					
PS Manager Assistant 🔸					

The **Export** button allows to back up the subscription parameters (Manager/Assistants associations) to the service associated to IPS Manager Assistant as a text file.



Note: Manager/Assistants configuration is automatically exported every evening at 11pm to "C:\inetpub\wwwroot\IPSCFG\data\IPSMA_SUBSCRIPTION.txt".

For each Manager and Assistant, the text file contains the following columns separated by semicolons:

DEVICE; DEVICE PROFILE; LINE; LABEL; END USER; MANAGER; FWD MOBILE; FWD VOICEMAIL; WHEN NO ASS FWD VOICEMAIL; SURL BUTTON; DO NOT DISTURB; EXCLUDE ENABLED; ASSOCIATED_ASS;ASS_PRIORITIES;CTI_PORTS_NAMES;CTI_PORTS_DN;PERSONAL_NUMBER; EXCLUDED_DN;BANNER;FILTER_BLF;SURL;ASST_PHONE_BUTTON_TEMPLATE;ASS1TRANS; FILTER PICKUP; FWD OTHER; ONE BLF FILTER; JSON STRING

Note1: the list of parameters detailed above appears at the very beginning of the exported file. Note2 : last field named "JSON STRING" includes several parameters as character string in JSON format ("<parameter name>" :<parameter value>).

Example of contents for the file "IPSMA_SUBSCRIPTION.txt":

DEVICE; PROFILE; LINE; LABEL; END_USER; MANAGER; FWD_MOBILE; FWD_VOICEMAIL; WHEN_NO_ASS_FWD_VOICEMAIL; SURL BUTTON; DO_NOT_DISTURB; EXCLUDE ENABL ED; ASSOCIATED_ASS; ASS_PRIORITIES; CTI_PORTS_NAMES; CTI_PORTS_DN; PERSONAL_NUMBER; EXCLUDED_DN; BANNER; FILTER_BLF; SURL; ASST_PHONE_BUTTON_TEMPLATE; A SSITRANS; FILTER_PICKUP; FWD_O_THER; ONE_BLF_FILTER; JSON_STRING

null,"futureUseS2":null,"fwd2Perso":0,"fwdVoiceMailWhenNoAssistant":2,"isFwd2MsgBox":2,"isFwdEnabled":2,"labelBLF":"Arielle","labelBanner":nu
ll,"secondaryPhone":"","setPickupGroup":0,"version":null,"whisper":0};

II, secondaryPhone: ", setFickupGroup":0, version :null, whisper :0; DP 7962;True;7014;Ostvald;4062;True;True;True;True;True;Filse;True;SEP001E4A92235B;1;IFSMA850000;555555;;0;0;0;;0;0;0;0;0;0;("DNDoptionEna bled":2,"canAssSetMgrNotFilteredCalls":0,"canSetMgrFwd":0,"dispSURL":0,"divertNotFilteredCalls":0,"doNotFilterInternalCalls":0,"excludedDnLis tEnabled":0,"filterCallsInAssVoiceMailWi:0,"filteredCallsAudioNotification":0,"futureUseB1":0,"futureUseB2":0,"futureUseB3":0,"futureUseB3":nu 1,"futureUseS2":null,"fw2dPerso":0,"fw1dviceMailWenNoAssistant":0,"isFwd2MsgBox":0,"isFwdEnabled":0,"labelBLF":"Ostvald","labelBanner":null ,"secondaryPhone":"","setPickupGroup":0,"version":null," whisper":0};

, "secondaryphone :--, setricupfoop :0, "version :null," milsper :0); SEP002424FE39D3; False; 8521; Kambers; 8521; True; True; True; True; True; True; SEPIPCJML, SEP000F8F28DAE9; 1, 2; IFSMA850003, IFSMA850005; 850003, 85000 5;;;0;0;0;0;0;0;0;0;0;("DNDoptionEnabled":0, "canAssSetMgrNotFilteredCalls":0, "canSetMgrFwd":0, "dispSURL":0, "divertNotFilteredCalls":0, "doNotFilt erInternalCalls":0, "excludedDnListEnabled":0, "filterCallsInAssVoiceMail":0, "filteredCallsAudioNotification":0, "futureUseB1":0, "futureUseB1":0, "filteredSesI":0, "divertNotFilteredSesI":0, "isFwdEnabled":0, "futureUseB2":0 ELF": "Kambers", "labelBanner":null, "secondaryPhone": "", "s etPickupGroup":0, "version":null, "whisper":0;

led":0,"filterCallsInAssVoiceMail":0,"filteredCallsAudioNotification":0,"futureUseB1":0,"futureUseB2":0,"futureUseB3":0,"futureUseB3":0,"futureUseB2":0,"futureUseB3":0,"isFwd2MsgBox":0,"isFwdEnabled":0,"labelBLF":"jmlacoste","labelBanner":null,"s
econdaryPhone":"","setPickupGroup":0,"version":null,"whi sper":0};

By using the **Import** button, it is possible to re-import in batch mode the configuration from a text file in same format as described above, which results in adding or modifying Assistants, and then Managers.

Note: treatment corresponding to Import is done by delaying each AXL SOAP request in order to take into account of the maximum number of updates per minute defined in *Globale configuration menu ⇒ CUCM* config tab.

Column	Values
DEVICE	IP Phone device name of device profile
DEVICE_PROFILE	True False
LINE	Line number
LABEL	Name of Manager or Assistant
END_USER	Associated CUCM UserID
MANAGER	True False
FWD_MOBILE	True False
FWD_VOICEMAIL	True False

The meaning of the different fields in exported file is the following:

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WHEN_NO_ASS_FWD_VOICEM AIL	True False
SURL_BUTTON	True False
DO_NOT_DISTURB	True False
EXCLUDE_ENABLED	True False
ASSOCIATED_ASS	List of Assistant's devices associated with Manager (separated by commas)
ASS_PRIORITIES	List of Assistant's priorities (from 1 to n) associated with Manager (separated by commas)
CTI_PORTS_NAMES	Name of CTI port reserved for filtering (will be created by IPS Administration)
CTI_PORTS_DN	CTI port line number
PERSONAL_NUMBER	Predefined personal/mobile phone number - optional
EXCLUDED_DN	Predefined list of unfiltered numbers (separated by commas) - optional
BANNER	Filter status banner: 0 (disabled) 1 (enabled) 2 (use global default value)
FILTER_BLF	Enable Assistant's Line BLF: 0 (disabled) 1 (enabled) 2 (use global default value)
SURL	Enable SURL button: 0 (disabled) 1 (enabled) 2 (use global default value)

The Batch Update changes the following items, depending on the CTI filter mode selected:

- Forward mode: if necessary,
 - Delete CTI Port's Translation Pattern
 - Delete CTI Port's forwards if not registered
 - Delete Manager's line Translation Pattern
 - Delete the ECCP IPS Manager Assistant configured at Manager's line level
 - Configure Manager monitoring BLF with Manager's line dn
 - Set Manager's forward to Assistant dn
- Forward mode + assistant pickup: if necessary,
 - Delete CTI Port's Translation Pattern
 - Delete CTI Port's forwards if not registered
 - Delete the ECCP IPS Manager Assistant configured at Manager's line level
 - Create Translation Pattern *+N°MGR (calling= filtering ASS dn, called=MGR dn) if several Assistants are associated with a single Manager
 - Configure Manager monitoring BLF with Manager's line *+N°MGR if several Assistants are associated with a single Manager, otherwise set it to Manager's line dn
 Set Manager's forward to assistant dn
- Set Manager's forward to assist
- CTI filtering mode: if necessary,
 - Delete Manager's line Translation Pattern *+MGR dn
 - Delete the ECCP IPS Manager Assistant configured at Manager's line level
 - Create CTI Port's Translation Pattern *+N°CTI Port (calling=CTI port dn, called=MGR dn)
 - Forward CTI Port lines on no answer and not registered to Translation Pattern.



- Configure Manager monitoring BLF with Manager's line dn
- Set Manager's forward to CTI port dn
- ECCP filtering mode: if necessary,
 - Delete CTI Port's forward if not registered
 - Delete CTI Port's Translation Pattern
 - Delete Manager's forward
 - Delete Manager's line Translation Pattern *+MGR dn
 - Configure the ECCP IPS Manager Assistant at Manager's line level
 - Configure Manager monitoring BLF with Manager's line dn
- **Warning**: when performing a Batch Update or when importing from a file, BLFs used by IPS Manager Assistant are added first and existing BLFs are moved just after.
- **Note**: the batch update only adds/updates Manager/Assistants, it doesn't delete the Users already configured in CallManager if they are missing from the script.

2.15 Reports

The Reports tab allows you to see:

The status of all the filtered managers, The status of all the assistants The IPSMA reports

Status of Managers and Assistant:

≡ telisc	а				
Dashboard	Home / IPS Ma	nager Assistant / Repo	rts & Status		
Global configuration >	Type of reports	Managers filtering statu	s	×	
O Support					
Attendant Console		SEP00077D64C6AE SEP00FFFD60E0BA	LABEL Mgr. 1 TestID DISPLAY 1	18600 18622	FILTERED BY 18658() FILTERED BY 18658()
Conference Center		BAT445757717236		189901	
G Silent Monitoring					
Desktop Popup					
Busy Alerter Callback +					
IPS Global Directory >					
A IPS Lock					
产 IPS Manager Assistant 🔸					

2.16 IPSMA configuration for Jabber

You need to configure a tab for Jabber to display IPSMA Web interface.

4.8.1 CUCM version < 12.5

4.8.1.1 <u>Global deployment</u>

Jabber client downloads it's configuration from CUCM TFTP Server, file « jabber-config.xml ».



In order to create a Tab for IPSMA, the file must include the following XML, in browser-plugin section:



Notes:

- TELISCA-SERVER is telisca's server IPv4 or FQDN.
- CUCM userId is appended by Jabber to the URL using parameter ?user=\${UserID}
- If you use instead the Windows authentication, the URL should call the page IPSMA/user/WindowsLogin.aspx instead.

Jabber-config.xml should be uploaded on the root of CUCM's TFTP server. The TFTP server should then be restarted to take into account the change.

4.8.1.2 Deploy on a single PC

If you want to test the settings on a single PC, you can define a specific configuration file, « jabberipsma.xml ». It should contain the same XML tags as for jabber-config.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<config version="1.0">
<Client>
<jabber-plugin-config>
<browser-plugin>
<page refresh="true" preload="true">
<tooltip>IPSMA</tooltip>
<icon>http://TELISCA-SERVER/IPSMA/user/icon/ipsma.png</icon>
<url>http://TELISCA-SERVER/IPSMA/user/web.aspx?user=${UserID}</url>
</page>
<page>
      Définition autre onglet Jabber
</page>
</browser-plugin>
</jabber-plugin-config>
</Client>
</config>
```

Notes:

- TELISCA-SERVER is telisca's server IPv4 or FQDN.
- CUCM userId is appended by Jabber to the URL using parameter ?user=\${UserID}
- If you use instead the Windows authentication, the URL should call the page IPSMA/user/WindowsLogin.aspx instead.



Jabber-ipsma.xml should be uploaded on the root of CUCM's TFTP server. The TFTP server should then be restarted to take into account the change.

Then configure Jabber, from CUCM administration, to load the specific configuration file:

	– Desktop Client Settings — — — — — — — — — — — — — — — — — — —		
	Automatically Start in Phone Control*	Disabled 🗸 🔻	
	Automatically Control Tethered Desk Phone st	Disabled 🛛 🗸 🔻	
	Extend and Connect Capability*	Enabled [👻	
	Display Contact Photos *	Enabled [🗸	
	Number Lookups on Directory *	Enabled [•	
	Jabber For Windows Software Update Server URL		
	Problem Report Server URL		
	Analytics Collection*	Disabled 🛛 🗸	
	Analytics Server URL		
	Cisco Support Field	configurationFile=jabber-ipsma.xml	
Ľ			

4.8.2 CUCM version >= 12.5

With CUCM version 12.5 and above, the configuration of Jabber can be done from CUCM, menu User Management -> User Settings -> UC Service.

vstem ▼ Call Routing ▼ Media Resources ▼ Advanced Features ▼ Device ▼ Application ▼	User Management 🔻	Bulk Administration 🔻	Help 🔻
	Application User End User User/Phone Add SIP Realm	•	
	User Settings	•	Credential Policy Default
	Self-Provisioning		Credential Policy
	Assign Presence	Users	Role
Cisco Unified CM Administration			Access Control Group
System version: 12.5.1.10000-22			Application User CAPF Profile
VMware Installation: 1 vCDU Intel/B) Yeon/B) CDU E5-2620 v4 @ 2 10CHz d	lick 1: SOChytos	1006Mbytes PAL	End User CAPF Profile
	ISK 1. 00009(CS, -	io son bytes ion	UC Service
			Service Profile
			User Profile
er administrator last logged in to this cluster on jeudi 14 janvier 2021 14 h 05 CET, to node	10.2.112.10, from 10	0.20.5.39 using HT	User Group

Create or update an UC Service, with type Jabber Client Configuration.

System 💌	Call Routing 🔻	Media Resources 💌	Advanced Features 💌	Device •					
UC Service Configuration									
Next									
Status -									
(i) Stat	us: Ready								
Add a U	C Service								
UC Servi	ce Type Jabbe	Client Configuratio	on (jabber-config.xml)	\sim					
Next									

Set the two parameters:

Icon = http://SERVEUR_TELISCA/IPSMA/user/icon/ipsma.png
URL =http://SERVEUR_TELISCA/IPSMA/user/web.aspx?user=\${UserID}



UC Service Confi	guration								Related Links: Ba	k To Find/List	√ Go
Save 🗙 De	lete 🗋 (Copy 🕂 Add New									
Status											
(i) Update succes	ssful										
UC Service Infor	mation										
UC Service Type	: Jabber	Client Configuration (jabber-config.xml)									
Product Type:	Jabber										
Description	Gadget-	IPSMA									
Description	IPS Mar	ager Assistant									
Jabber Configura	ation Para	meters									
Section		Parameter		Parameter Description			Value		Operations		
Options	~	AllowUserCustomTabs	V Allo	ws user create custom	embedded tab	bs	true		Delete		
Not Selected -	~	Not Selected	\sim						🗄 Add 🛨 Ad	d Custom	
Section		Multipart	Parameter			Par	ameter Description		Value	Operatio	
Client	~	jabber-plugin-config	(2 v] [pa(ne u	icon	Icon	anneter beachphon	http://	IP/IPSCEG/icon/telic	E Delete	
	÷	[Japper hught could of [notices hught	n v [pos		preload	Prelo	ad	true			
		internal				Internal true					
		refresh				internal due					
						Refre	esn	true			
				UTI URL		URL http:/		IP/IPSMA/user/web.			
				tooltip	Toolt	ip	Manag	er Assistant			
	1	Net Celested Net Celested	Not	Selected						E Delete	t Add

Save Delete Copy Add New

The UC Service is then associated to a Service Profile, that will be selected for the Jabber's users. The Service Profile is defined in the menu User Manager -> User Settings -> Service Profile

At the bottom of the Service Profile's page, select the new UC Service :

-Jabber C	lient Configuration (jabber-config.xml) Profile-
Common	<none> ~</none>
Desktop	Gadget-IPSMA 🗸
Mobile	<none> ~</none>
Save	Delete Copy Add New

On the user page, from User Management -> End User, in the Service Settings panel, select the new Service Profile.

Service Settings					
Home Cluster					
Enable User for Unifie	d CM IM and Presence (Configure IM and Presence in the associated UC Service Profile)				
Include meeting information in presence(Requires Exchange Presence Gateway to be configured on CUCM IM and Presence server)					
UC Service Profile	telisca_service_profile				

2.17 Manager and Assistant provisioning API

The Web Service IPS Framework exposes a SOAP interface allowing to list, create/modify or suppress Managers and Assistants.

The URL of this Web Servie is the following: https://host/IPSCFG/ws/DevServSub.asmx

Following methods are available :

- <u>IPSMAAddUpdAss</u> Add/Update Assistant information
- <u>IPSMAAddUpdMgr</u> Add/Update manager information in dataset and configure Manager's IP phone/device profile and associated Assistants
- <u>IPSMADelAss</u> Delete Assistant information
- IPSMADelMgr
 Delete manager information, update URL phones, update BLF
- <u>IPSMAGetAllAss</u> Get IPSMA information for all Assistants defined



 IPSMAGetAllMgr Get IPSMA information for all Managers defined

Classes describing Manager and Assistant entities gather all the parameters that can be defined through IPS Administration.



3 Operation

3.1 Backup of configuration data

System and user configuration data are stored in files with « .xml » or « .bin » extension located in subdirectories « data » of the different virtual directories associated to Telisca applications (by default : "C:\inetpub\wwwroot\IPSCFG\data\").

Note: the system configuration is saved in an XML file IPSCFG_cfg.xml, in

"C:\inetpub\wwwroot\IPSCFG\data". A copy of this file is saved each night with an YYMDD postfix. Older files are purged after 14 days.

In case of multi-cluster installation, following directries must be back up too:

directory "c:\inetpub\wwwroot\MCADMIN\data";

- directory "data" of each cluster, example "c:\inetpub\wwwroot\01\IPSCFG\data",

"c:\inetpub\wwwroot\02\IPSCFG\data".

Backup of all these directories do not require to stop the applications.

3.1.1 Restoring configuration data

Data can be restored by a simple copy to their original place.

Configuration data in « .xml » files are automatically reloaded on detection of a file update. Data of other configuration file types are reloaded at startup of ASP.Net applications (after a restart of the « World Wide Web publication Service »).

3.1.2 Application backup, reinstallation

All the applications are installed in IIS directory (default is c:\inetpub\wwwroot):

- C:\inetpub\wwwroot\IPSCFG
- C:\inetpub\wwwroot\IPSMA

To <u>back up</u> all the applications and their data, both directories listed here-above must be saved.

To ease <u>reinstallation</u>, it is recommended to also back up the Setup and license files used to install the application as well as any installed patch files.

In this case, a restore process on a fresh server would be as follows:

- Reinstall IIS
- Reinstall .Net 3.5 SP1
- Run SETUP, which will ask for the license files
- Copy patched DLL in the correct directories (search file in installed directories)
- Copy backup data in C:\inetpub\wwwroot\IPSCFG\data
- Start telisca IPS Startup Service and telisca CTI Server service

Another solution as an alternative to a complete re-installation is to perform a <u>disk image</u>. This image can be reinstalled on another machine without any limitation due to the license; indeed, the license is not bound to any hardware parameter of the machine, as the disk where the installation is performed or the network card.

The applications can run under a <u>virtual machine</u> VMWare ESX. In such case, it is possible to create a snapshot which can be restarted on another server.

3.1.3 Debugging, support

All application processes' descriptions are saved in log files.

The administration includes a Global/Support screen that eases the selection and compression of log files to be sent to telisca's support on http://support.telisca.com.



The main log files generated by IPSMA application (including IPS Framework and Administration) are

- C:\inetpub\wwwroot\IPSCFG\LOGS\IPSCFGWS_xxxx.log
- C:\inetpub\wwwroot\IPSCFG\LOGS\TACTI_xxxx.log
- C:\inetpub\wwwroot\IPSMA\LOGS\IPSMA_xxxx.log

4 Appendix

4.1 CFA Destination override

This parameter is essential for IPSMA to work correctly in CTI mode, call transfers to the manager will not work (voicemail usually and unexpected behaviour).

Activating the parameter

In System \Rightarrow Service Parameters \Rightarrow IP + Service: Cisco Call Manager \Rightarrow Clusterwide Parameters - CFA Destination Override \Rightarrow set to "true".

There are maden parameters in this group. Click of	Auvancea batton to see maach parameters	2,	
Clusterwide Parameters (Feature - Hold Reve	rsion)		
Hold Reversion Duration *	0		0
Hold Reversion Notification Interval *	30		30
CFA Destination Override *	True	\checkmark	False

Clusterwide Parameters (Feature - Call Pickup)—

Parameter description from CallManager

CFA Destination Override:

This parameter determines whether Cisco CallManager ignores call forward all (CFA) destinations when the CFA destination is the same as the calling party number. For example, John (on Phone A) has CFA set to Jane (on Phone B). With this parameter enabled, Jane has the ability to transfer a call to John's phone without having that same call sent back to Jane due to John's CFA setting. This capability proves useful when Jane receives a call forwarded from John's phone, but which must go back to John's phone so that the caller can leave a voice message for John. If this parameter is set to False, Jane cannot send any calls to John's phone and the caller will not be able to leave a voice message for John.

Note: This override capability only works when the calling party number matches precisely with the number specified in the call forward all destination. In cases where the calling party number has been transformed, the calling party number may not match the CFA destination and override will not be allowed. Valid values specify True (CFA overrides are permitted) or False (CFA overrides are not permitted).

This is a required field. Default: False