IPFX Directory Sync

Product version 4.3 SP4



About This Guide

The purpose of this document is to provide the user with information on how to use this IPFX product.

Typographical Conventions

Before you start using this guide, it is important to understand the terms and typographical conventions used in the documentation.

The following kinds of formatting in the text identify special information.

Formatting convention	Type of Information
Triangular Bullet(Ø)	Step-by-step procedures. You can follow these instructions to complete a specific task.
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.
Emphasis	Use to emphasize the importance of a point or for variable expressions such as parameters.
CAPITALS	Names of keys on the keyboard. for example, SHIFT, CTRL, or ALT.
KEY+KEY	Key combinations for which the user must press and hold down one key and then press another, for example, CTRL+P, or ALT+F4.
	Information that applies to the IPFX Director platform only.
CCM	Information that applies to the IPFX for CallManager platform only.
(NEC	Information that applies to the IPFX for NEC platform only.

See Also About This Guide

What is IPFX Directory Sync?

IPFX Directory Sync is designed to be a go-between with the IPFX CTServer and other disparate addressing systems allowing usercontrolled synchronization to happen between them.

IPFX Directory Sync can have multiple synchronizing tasks with all of them being controlled by the same interface. Ie Multiple IPFX CTServers + multiple LDAP/database systems can all be controlled using the one interface. Each synchronizing process runs as a separate task with the DS (IPFX Directory Sync) program.

The way the synchronizing task runs is the task will read the specified data from the LDAP system, do the same read from the IPFX CTServer, compare the data and then do it's IPFX CTServer admin tasks according to what discrepancies it finds between the two systems.



Initial Configuration Process

Start the application: Start/Run/Performance Solutions/IPFX Directory Sync

The following screen will load.

💣 IPFX Di	ectory Sync						6	
<u>Eile E</u> dit	View Options	Help						
New	🗙 Delete 📲 Pr	operties 🕨 Ru	m 🕜 Help <u>T</u> opics	s				
Name	Туре	Schedule	Next Run Time	Status	Last Result	Last Run Time	Duration	
I								
04/05/06 14	17:07 ======							
04/05/06 14	17:08 IPFX Director 17:08 ======		.1190					
04/05/06 14	18:10 Purging log fil	BS						
04/05/06 14	18:10 Log files purg	edi						
Log Wa	nings Errors							
Ready								
								//

Note As IPFX Directory Sync is an application it needs to be running in order for the processing to take place.

The Logging section at the bottom of the screen shows current activity for that session of IPFX Directory Sync.

Tip! Click on the **Options > Email Options** menu item to set up email notifications. Email notifications enable IPFX Directory Sync to send messages to a specified e-mail address when an error or warning is logged, or when a task completes:

mail Optic	ons 🗙
Erom:	directorysync@example.com
<u>T</u> o:	fayloa.lawal@example.com
	 ✓ Send Email when Error is Logged ✓ Send Email when Warning is Logged ✓ Send Email when Task Completes
Te <u>s</u> t	OK Cancel

Create a New Task

To create a new task click on the 'New' button on the toolbar. You will then be prompted to choose a task type.

Task Type	×
Please select the type of task you would	like to create.
Data Synchronisation	•
OK	Cancel

Currently only Data Synchronization is allowed but more options will be available in the future.

Click on **OK**.

You will now be shown the IPFX Directory Sync Task Configuration screens. The first screen (shown below) allows you to give this task a name and a description.



The second tab allows you to configure the schedule for the current task. If the 'enabled' checkbox is not ticked the task will need to be run manually (from main screen, highlight the task and click on 'run')

General Schedu	onisation 🚽	ield Linking	∄ 	<u>×</u>
O Sche	duled times			
Enabled:				
Schedule At	Hourly	▼ 	iutes past the	ə haur
☐ <u>S</u> tart Date: ☐ End Date:	30/12/1899.00:00 30/12/1899.00:00			
		0	<	Cancel

Otherwise the task will run at the selected time as long as the IPFX Directory Sync program is running.

The third tab (shown below) is where the links to the two systems is configured.

Task Data Sync	hronisation		\mathbf{X}					
General Schedu	ule Data Provid	ers Field Linking	Advanced					
Data	Data Provider Setup							
Source:	LDAP		.					
	Configure	Fields	Preview Data					
Destination:	IPFX Server		•					
	Configure	Fields	Preview Data					
Туре:	S	nchronisation	_					
Supported Act	Supported Actions: Action Maximum Records							
			5					
		Update Move	20 20					
	V	Delete	5					
When Maximum	When Maximum Records are Exceeded:							
Cancel the curr	Cancel the current scheduled run and disable the task							
			OK Cancel					

You can see here that an LDAP source, IPFX CTServer destination and supported actions are already chosen.

Currently only LDAP and Database are enabled to be set up as a data source and IPFX CTServer as the destination.

The 'Supported Actions' area allows you to specify what actions the IPFX Directory Sync task is allowed to perform ie uncheck the 'Delete' and the IPFX Directory Sync task will never delete mismatched mailboxes from the IPFX CTServer.

- Each Supported Action is associated with a Maximum number of Records. If the number of changes to be made exceeds an action's Maximum Records value, instead of proceeding with the transaction IPFX Directory Sync will take the action described in the combo box. This action may be one of:
- Cancel the current scheduled run and disable the task
- Cancel the current scheduled run and continue future schedules
- Display the preview screen and wait for user input

See Also

Initial Configuration Process

Configuring the LDAP Source

Configure Tab

Click on Configure the screen shown below will be displayed.

LDAP Data Provide	• 		Ŧ	÷	к
Connection Data	1				
	onnection Inform	atian			
Address:	demokit.com				
Port:	369				
Base DN:	DC-demokit,DC	i-com			
	demokit\Admini:				
User Name:		soacor			
Pass <u>w</u> ord:	*****				
				1	
			ОК	Cancel	

The Address, Port and Base DN fields are filled in automatically from what the VS task discovers about the machine it's currently running on.

Base DN specifies where in the LDAP structure the VS Task will start it's searching process. This value can be changed to limit the VS task to a certain OU if need be. Eg Default Base DN set to DC=demokit,DC=com will start at the top-level. CN=users,DC=demokit,DC=com will start the searching from the users container.

The User Name and Password fields need to be filled in with a username that has access to read the LDAP structure.

Note Data is not sent or written to the LDAP system.

Username can be in full LDAP format eg CN=Administrator,CN=Users,DC=demokit,DC=com or in domain\username format (as shown in screenshot)

Data Tab

Once the base connection details have been set up filters on the data returned need to be set up this is on the Data tab and is shown below.

LDAP Data Provide		. =		Ħ	ĸ
Connection Data	1				
	bject Selection				
					-
Object Class:	Use	-			
Custom Filter:	Г				
Eilter:	(objectClass=user))			
Search Sub Con	tainers: 🗖				
					_
		0	к	Cancel	

Object Class is by default always going to be user.

This screen allows custom filters to be configured by checking the 'Custom Filter' and placing filter syntax in the box below it.

An example of a filter is shown in the box but anything in the LDAP schema that's accessible by the user selected can be used as a filter. Filters listed here MUST use LDAP filtering/logic syntax.

Eg (telephoneNumber=*) will pick up all users that have data in their telephoneNumber field.

Note Available LDAP fields can be shown in the Object Class list box this will give a listing of what fields are available.

Object Class:	usar 💌
Custom Filter:	A
Search Sub Con	

Enabling the option to 'Search sub containers' means that the user search process will start at the current OU (as listed in the connection tab) and look at all containers below it.

Once the LDAP connection and filters have been set up click on OK. You will then be back at the task configuration area.

Preview Records from LDAP

At this stage click on the LDAP preview button. This will return the records found from LDAP according to the connection and filters that were chosen. If no records are returned check the connection settings and filters.

Task Data Synch	ronisation			H
General Sched	ule Data Provider:	S Field Linking		
Data	a Provider Setup			
Saurce:	LC AF			-
	Configure	Fields	Preview	Data
Destination:	Vision Server			-
Description.	Configure	Fields	Preview	1
Supported Acti	pns:			
🔽 Greate				
I Update I Delete				
Move				
			ж	Cancel
				2.3.1001

Once records are returned this confirms that the IPFX Directory Sync task can read the LDAP data.



Configuring the LDAP Source

Configuring LDAP Fields

LDAP fields need to be chosen now to select what data is used to send to the IPFX CTServer.

To do this click on the LDAP Fields button the following screen will be shown.

Field Setup				×
Configured fields: AlisPath	General Transla	ations		
R1955E01	Source field: Display na <u>m</u> e: Default <u>V</u> alue:	ADsPath		•
	Format Mas <u>k</u> : Ma <u>≼</u> Length:	0	(0 far no limit)	
	Delimiter <u>S</u> tart: Pre fix:		End:	
New Delete				Close

AdsPath is the default but this should be replaced with ObjectGUID. This value is required for the system to work it is used to create a unique link or marker between the two systems.

At this stage the fields from LDAP that are required to be matched to the IPFX CTServer system are configured.

To add a field

Click on New, choose the source field eg givenname, give it a display name (optional) eg vFirstname

Keep repeating this until all the required LDAP fields are configured eg

Configured fields: objectGUID	General Transla	ations		
vEndot vEndi vFirstnane vMobile vPosition vSurrame vTelephonenumber	Source field: Display name: Default Value: Format Mask: Max Length: Delimiter Start: Prefix:	department vDept 0	(0 far no limit) End: Suffic:	
New Delete			d	ose

The Translations tab can be used to convert values the system finds in

the LDAP field into something else eg departments in LDAP are in text, departments in IPFX are by number. We need to translate LDAP departments to their matching numbers in IPFX.

ield Setup			к
Configured fields: objectGUID	General Translations		
MLeot	Value	Translation	
vEmail vFirstname	Engineering	1	
vMobile	IT	2	
vPosition	Admin	Э	
YSurname			
vTelephonenumber			
New Delete			Close

Note The translation numbers are dependent on how IPFX CTServer is configured.

Once all the fields are chosen click on Close.

Previewing Records from IPFX Directory Sync

Clicking on the IPFX Configure button will bring up the following screen

Vision Data Provider		T	H		x
Connection Data	Advanced				
	onnection Infor	mation			
Database Details -					
Pro <u>v</u> id er :	SQL Server			-	
Data Source:	VMWSERVER'	CTSERVER			
Initial Catalog:	CTSERVER				
User Name:	50				
Pass <u>w</u> ord:	***				
<u>V</u> M Dir:	C:\VM\				
- Network Connectio	on				
Na <u>m</u> e:	VMWSERVER				
Address:	127.0.0.1				
Port:	100				
			ак	Cancel	

All of the options listed will have been automatically filled in from the server's configuration data.

The Data tab currently only has one option (extension table) but this may change in the future.

The Advanced tab gives control on the speed of the jobs created by IPFX Directory Sync.

Vision Data Provider	Ŧ -	-	×
Connection Data Advanced			
Advanced Settings			
Send Greates in blocks of L	with a delay of	1000	milliseconds.
Send Updates in blocks of L	with a delay of	1000	milliseconds.
Send Deletes in blocks of	with a delay of	1000	milliseconds.
Send Moves in blocks of	with a delay of	1000	milliseconds.
	OK		Cancel

This can be adjusted according to speed of servers/networks etc.

Clicking on OK will go back to the IPFX Directory Sync Task configuration screen.

Clicking on IPFX Preview will show us what data the query is coming back with from the IPFX CTServer

ID	Tenant	Register	RegionID	Firstname	Lastnam
785	1	-1	1	Agent	Five
786	1	0	1	test	Liser
787	1	0	1	test	usert
788	1	0	1	test	user2
789	1	0	1	test	user3
790	1	0	1	test	user4
791	1	0	1	test	user5
792	2	0	2	test	user6
801	1	-1	1	Test Quaua	Test Qu
lr					

Usually the default settings for creating a voicemail box are fine but if default values do need to be changed at any stage clicking on the IPFX Fields button will allow changes to default settings. Eg changing the AutoLogon default value to -1 means that every time a mailbox is created the AutoLogon feature will be enabled.

Field Setup		Ħ .	H	<u>k</u>
AssociatePhone	General Transla	ations		
AssociatePhoneMonitor AutoAnsver	Source field:	AssociatePhone		•
AutoLogon BusyMsg	Display na <u>m</u> a:			
Calendar CallbackEnabled	Default <u>V</u> alue:			
CellPhone	Format Mask:		_	
ContPlay DeleteMsg	Ma <u>x</u> Length:	0	(0 far no limit)	
Department Email	Delimiter <u>S</u> tart:		End:	
Firstname ForeignKey	<u>Prefix:</u>		Suffix:	
New Delete				Close

Note Default Values are settings NOT picked up from the LDAP query. Any changes here will only affect new mailboxes created from this point in time. Global changes to mailboxes will have to be made in conjunction with our support staff.

See Also

Configuring LDAP Fields

Linking Fields

Once the two preview areas are set as required and are returning the correct data links between the fields from the two systems need to be set up. This is where the Field Linking tab comes in. Clicking on the tab (after configuring the source/destinations) will bring up this screen.

General Schedule Data Providers Field Linking	×		il)			ynchronisation	
ForeignKey L V V ID 2 V OfficePhone V V V Instance V V V Emeil V V V Emeil V V V Emeil V V V Emeil V V V CelPhone V V					ravid er s Field Linking		General) :
ID 2 • OfficePhone • • Firstname • • Lastname • • Lastname • • Email • • Position • • CelPhone •	-	Ŀ	okup Order	Lo	Destination Field	ource Field	S
OfficePhone OfficePhone Firstname V Lastname V Estimat Position V CelPhone V		Г	*	ι	Foreigntiey	Ψ.	
• Firstname • • Lastname • • Email • • Position • • CelPhone •		1	-	2	D	•	
Lastname Lastname Email Position CelPhone V		1-	-		OfficePhone	-	
Email Position CelPhone V]	-		Firstname	-	
Position CelPhone Topic and the second			-		Lastname	-	
▼ CelPhone ▼			-		Email	-	
			*		Position	-	
HomePhone N V V V V V V V V V V V V V V V V V V V V V V V V V V V			•		CelPhone	•	
			*		HomePhone	-	
]	•		•		
	8		*			-	
]	-		· · · · · · · · · · · · · · · · · · ·	-	
]	-		-	-	
]	-		-	-	
		1.	-		-	-	
		1.			-		
OK Cancel	_		1 (117		01		

The destination fields shown are default and are usually the minimum used for creating IPFX CTServer voicemail boxes.

Using the drop-down box in source field the LDAP fields set up in the configuration area can be chosen and matched with their corresponding IPFX Server fields.

E Field Unking	,			
Source Field		Destination Field	Lookup Order	
objectGLID	-	Foreignkey	L 🔻	Г
VTelephonenumber	*	D	2 🔻	
vTelephonenumber	-	OfficePhone	-	
vfirstname	-	Firstname	-	
v9umame	-	Lastname	-	
vEmai	-	Email	-	
Position	-	Position	-	
vMobile	•	CelPhone	•	
	-	HomePhone		
		•	-	
	•		T	
	-	· · · · · · · · · · · · · · · · · · ·	-	
	-	-	-	
	-	-	-	
	-	-	-	

Click on OK and the task is ready to run.