GWAVA Inc.

Migration Toolkit

For GroupWise to Exchange

Version 1.0

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Overview

Migrating users and data from one mail system to another is a tedious and difficult process which usually is not accomplished. The Migration Toolkit automates the process, removing the difficulties and tedium in creating users and moving mail and system data from GroupWise to Exchange. The Migration Toolkit not only migrates users from GroupWise to Exchange, but creates them in steps, allowing for a smooth setup of the Active Directory system. The steps available are Active Directory user, to mail user, to active mailbox, and also a merge for eDirectory users with Active Directory. This graduated approach provides options for either a measured setup or rapid deployment.

The Migration Toolkit functions from exported CSV files which the toolkit creates. Creation of the CSV file is the sole reason the Toolkit connects to the GroupWise system. Logging into eDirectory, the toolkit grabs all pertinent objects and exports them to the CSV file. After the CSV file has been created, the toolkit only needs to have an active connection to Active Directory to migrate users into Exchange.

System Requirements

- Windows 7 SP1, Windows Server 2008 R2 SP1
- ➢ .NET 4.5
- Windows Management Framework 3.0 (WMF) for all Windows
- Remote Server Administration Tool (RSAT)* for Windows 7 SP1
- > Specific Windows features must be enabled
 - o Active Directory Module for Windows PowerShell
 - o Active Directory Administrative Center
 - o AD DS Snap-ins and Command-line Tools

* Windows Server 2008 R2 includes RSAT by default.

The Windows Features required on the workstation are enabled through the Control Panel. Without the Windows features enabled, the Toolkit will fail to function.

Control Panel | Programs and Features | Turn Windows Features On or Off



The Migration of users from eDirectory to Active Directory is limited to users found in eDirectory. External GroupWise users with no entry in eDirectory cannot be migrated.

Technical Support

If you have a technical support question, please consult the GWAVA Technical Support section of our website at www.gwava.com.

Sales

To contact a GWAVA sales team member, please e-mail info@gwava.com or call Tel: 866-GO-GWAVA (866-464-9282) in North America or +1 514 639 4850. 100 Alexis Nihon Blvd. suite 500 Montreal, Quebec Canada. H4M 2P1

Install

The install for the Migration Toolkit is very simple; run the Migration Toolkit 'Setup.exe' file and follow the prompts.

The beginning screen informs the admin exactly what is going to be installed.

Select 'Next' to continue.

Read and accept the terms of the License Agreement then select 'Next' to continue.

)诗 Migration Toolkit - InstallShi	eld Wizard
2	Welcome to the InstallShield Wizard for Migration Toolkit
0	The InstallShield(R) Wizard wil install Migration Tookit on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel
闄 Migration Toolkit - InstallShi	ield Wizard
License Agreement Please read the following licen	ise agreement carefully.
GWAVA Inc.	A

ky myster feelalt interest	
License Agreement Please read the following license agreement carefully.	5
GWAVA Inc. Software License Agreement	Â
THE FOLLOWING CONSTITUTES THE USER AND SOFTWARE LICENSE AGREEMENT THAT IS ATTACHED TO THE SOFTWARE THAT YOU ARE ABOUT TO DOWNLOAD. BEFORE CLICKING THE "ACCEPT" BUTTON OR USING THE SOFTWARE, PLEASE READ THE FOREGOING TERMS AND CONDITIONS CAREFULLY. BY CLICKING ACCEPT, YOU WILL BE DEEMED, FOR ALL LEGAL PURPOSES, TO HAVE READ, UNDERSTOOD AND	-
I accept the terms in the license agreement Print I do not accept the terms in the license agreement	
InstalShield < Back Next > Cance	

The Customer Information is simply for	
purposes of the installation alone. This will not	
impact the function of the Toolkit, nor will it be	
imprinted or displayed on any of the users or	
data migrated to Active Directory.	
5 /	

🗒 Migration Toolkit - InstallShield Wiza	rd		— ×
Customer Information			
Please enter your information.			
User Name:			
nick			
Organization:			
gwava			
InstallShield			
	< Back	Next >	Cancel

The destination folder is default and all other information gathered is displayed. If any of the data is incorrect, select 'Back' and correct the information.

To begin the installation, select 'Install'.

Once initiated, the install will complete.



Gwava Migration Toolkit Uninstall Migration Toolkit

On completion, the Toolkit installs with a shortcut

on the desktop and an entry in the start menu.

To start the Toolkit, select either the start menu item or the shortcut on the desktop.



Ky wigration rookit - Inst		
2	InstallShield Wizard Completed The InstallShield Wizard has successfully inst Toolkit. Click Finish to exit the wizard.	alled Migration
	a Daniel Platele	Count

User Migration Tool interface

The Toolkit user interface contains three menus for use: Configuration, Directory Service, and Exchange. Each item will change or highlight when the mouse hovers over them.

The Configuration menu is located at the top right of the interface.

The Directory Service menu is the default menu shown on startup and is found in the middle left of the interface and is grayed-out when not in use.

The Exchange menu option is located in the middle of the interface, and is grayed-out when not in use. When accessing the different options under either the 'Directory Service' and 'Exchange' menu's, the icons of the different options must be selected to utilize any specific option.

Each time an action item or submenu item is selected a new window will be spawned which appropriately contains the options or work to be completed. All settings will be locked until a proper working license is applied.

Configuration

Before any options or work can be accomplished by the Migration Toolkit, the toolkit must have the configuration completely filled-

out. Every item under configuration contains important connection information for the host mai systems. All fields are mandatory.

License

Before any work can be completed, a valid license file must be provided to the Migration Toolkit. If a license file is lacking or needs to be acquired, please contact the sales representative. To apply a license file, open the configuration menu by clicking on 'Configuration' and select 'License'.

In the License window, select the 'import'

icon and browse to the location of the

license file. Select the license file and click 'Open'. The license information will be added to the License window. Select 'OK' to save the license to the system and close the License window.

 eDirectory Settings 	Ctrl+G
Sa Active Directory/Exchange Settings	Ctrl+E
🏟 Other Settings	Ctrl+S
🕒 License	Ctrl+L
About	Ctrl+A

5551	
Directory Service	Exchange
Export eDirectory U	lsers to CSV File
Create Users in Act	ve Directory from CSV File
Merge eDirectory U	lsers with Active Directory Users

User Migrator

Configuration



eDirectory Settings

The Toolkit connects to the eDirectory system to create a CSV file containing the users found on the eDirectory system.

To connect to the eDirectory system the Toolkit must have connection information provided. Provide the connection Diver IP address to the eDirectory server and the username and password of a user with administrator rights.

The login information may also be saved for use at a later time. To save the login information select the 'Save to file' option. 'Load from file' allows the loading of previously saved login information. To use the current configuration and close the

eDirectory Co	nfiguration		
eDirectory			
IP address			
Port	0		
Username			
Password			
SSL			
Save Load fre	om File Save to File	Cancel	

eDirectory Configuration window, select the 'Save' button. The Toolkit will not attempt to use the login information or connect to the specified system until a user export is selected.

Active Directory/Exchange Settings

The Toolkit connects to the Active Directory to import users and to activate nonactivated mailboxes. This interface has two menus: Active Directory, and Exchange. The different menus are selected by clicking on the specific name along the top of the window.

To connect, the Toolkit requires login and address information for the Active Directory or Exchange server. All fields are mandatory.

For Active Directory, the login requires the LDAP connection information for an administrator level user.

Server		
Server	e.g. mydomain.com	
Domain		
	e.g. mydomain	
Username		
	e.g. Administrator	
Password		
Default Context		
Default Context	e.q. CN=users, DC=mydomain, DC=com	

Though the configuration for Exchange is slightly different from the Active Directory user, both require a user with administrative rights and all fields are mandatory.

The login information may also be saved for use at a later time. To save the login information select the 'Save to file' option. It is recommended to use clear save names to differentiate between the Active Directory and Exchange configuration files.

'Load from file' allows the loading of previously saved login information. To use the current configuration and close the Configuration window, select the 'Save' button. The Toolkit will not attempt to use the login information or connect to the specified system until a user export is selected.

Other Settings

The 'Other Settings' option contains the default Password Options. When users are migrated, a password is created for them in their profile. This password may either be randomly generated or may be a standard password set as default for all.

Cther Settings		
✓ User must change passw	ord at next logon	
D		
Password Policy	Use a default password for all	users 👻
Default password	a31d#[J5ImML	GENERATE
The password must be at lea	st 7 characters long and must contain at	t least a lower case letter,
an uppercase letter, a digit,	and one of the following characters: !@#	#\$%^&*()-+=[{]};:<> ,/?
	ок	CANCEL

If the passwords are to be random, a new

migration is completed.

Active Directory	Exchange
Server	
Domain Nama	e.g. exchange-server.mydomain.com
Domain Name	e.g. mydomain.com
Username	e.g. Administrator@mydomain.com
Password	
Mailbox Database	
Save Load from File	Save to File Cancel
Save Load from File	Save to File Cancel
Save Load from File	sword at next logon
Save Load from File Other Settings	sword at next logon
Save Load from File Other Settings User must change pass Password Policy	sword at next logon Generate a random password for each user
Save Load from File Other Settings Image: User must change pass Password Policy	sword at next logon Generate a random password for each user Use a default password for all users Generate a random password for each user

password is generated for each user migrated. If the password is to be a standard password set as default for all users migrated, then the password may either be specified by the administrator, or it may be randomly generated by the Toolkit.

In addition, users may be required to change their passwords on the next login. By default, users will be required to change their password on first login. Created passwords are displayed in a .CSV file created and saved after the

About

The About option displays the version information for the Migration Toolkit.

GWAVA Migration Toolkit	
User Migrator	
Version 1.0.0.788	

Export eDirectory Users

To automatically create the CSV file, migrate the users from the eDirectory system into Active Directory or Exchange, the users must first be exported from the eDirectory system and saved in a .CSV file. From the main interface, select the 'Export eDirectory Users to CSV File' function by selecting the icon.

😸 GWAVA	- Migration Toolkit					-		×
F			_					
Expo	ort eDirecto	ory Users	S					
Name	Distinguished Name	Email	Delegate Rule	Status				
-4								
-							÷	
					LOAD USERS EXPORT	CAI	NCEL	

If configuration is correct, the Toolkit will allow the new system to connect to eDirectory without any errors. If there are connection errors, check the configuration for errors or clear up any network issues which would cause the Toolkit to experience problems seeking to connect with the eDirectory system.

To begin the export, the Toolkit must first create a list of users from eDirectory. Select the 'Load Users' button at the bottom right of the window. User information should populate the screen. These are the users which will be used to create the CSV file.

🗧 GWAVA	GWAVA - Migration Toolkit						
Ехро	rt eDirectory Users						
Name	Distinguished Name	Email	Delegate Rule	Status			
	cn=UTF8,ou=Rickys System,o=test	UTF8@qa.gwava.com					
	cn=NGWlist,ou=Rickys System,o=test	NGWlist@qa.gwava.com					
	cn=zzz,ou=Rickys System,o=test	zzz@qa.gwava.com					1
	cn=WebPublisher,ou=Rickys System,o=test	WebPublisher@qa.gwava.com					
	cn=User10,ou=Rickys System,o=test	User10@qa.gwava.com					1
1			•			Þ	
DEBUG - LDA DEBUG - LDA DEBUG - LDA DEBUG - Fetc INFO - fetche	DEBUG - LDAP entry cn=sles10sp264admin.o=test doesn't have attribute Language DEBUG - LDAP entry cn=sles10sp264admin.o=test doesn't have attribute workforceID DEBUG - LDAP entry cn=sles10sp264admin.o=test doesn't have attribute manager DEBUG - Fetched 100 users from E Directory INFO - fetched 100 migrate users: 00:00:00-2392578 sec						
				LOAD USERS EXPORT	CAN	CEL	

Once the users have been loaded, select the 'Export' button to export the users to a CSV file.

The export dialog opens a save window. Select the desired location and name for the CSV file and select 'Save' to complete the operation.

To close the export window select the close window button on the top right of the window.

Once the users have been exported to the CSV file, the work with eDirectory is complete. Note: the Toolkit will not migrate any GroupWise user or external entity which does not have an eDirectory object.

Save As							
MlgT	K_configFiles > • • •	Search MIgTK_configFiles	Q				
Organize 👻 New	older		0				
🔶 Favorites	Name	Date modified Type					
💻 Desktop 🚺 Downloads 📆 Recent Places	test GWUsers-test.csv GWUsers-test2.csv UserDataExport.csv	9/10/2013 7:31 AM File fol 8/26/2013 6:33 AM CSV Fil 8/26/2013 6:47 AM CSV Fil 8/26/2013 6:38 AM CSV Fil	lder le le				
 ➢ Libraries ➢ Documents ℳ Music ➢ Pictures ➢ Subversion ☑ Videos 							
Computer	▼ f [•				
File name: G Save as type: T	WUsers.csv ext documents (.csv) (*.csv)		•				
Hide Folders	(Save Cancel					

Additional notes on the CSV file can be found in the Appendix.

Create Users in Active Directory

Once the users have been migration from eDirectory to a CSV file, or the CSV file has been created, the users may now be migrated into the Active Directory system. When the migration of the exported users

is desired, from the main menu, select the "Create users in Active Directory from CSV File" option.

Once the option has been selected, a new window will open for the migration process.



GWAVA - M	igration Toolkit							-		×
Create	Users in	Active D	irectory							
SELECT ALL	SELECT NONE	BROWSE CSV FILE	Please open a file		BROWS	E CSV.DATA FILE	Please open a file			
Name	Context		Logon name	Status		Message				
										~
										Ŧ
									Þ	
EXPORT DATA							START	CAN	CEL	

When the new window opens, nothing can be completed before the CSV file is selected. To display the CSV file and browse the data without migrating, click on the 'Browse CSV File' button from the top of the

window and browse to the desired .CSV file.

😸 GWAVA - Migration Toolkit						- 1	= ×
Create Users in Act SELECT ALL SELECT NONE BROW	SE CSV FILE BriceMessing	Dry gAroundGWUsers-docume	BROWSE CS	V.DATA FILE	Please open a file		
Name Context	Lo	gon name Status		Message			
FirstName1999 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1999 No	tStarted				-
FirstName1996 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1996 No	tStarted				
FirstName1993 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1993 No	tStarted				
FirstName1990 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1990 No	tStarted				
FirstName1987 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1987 No	tStarted				
FirstName1966 LastName1: CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1966 No	tStarted				
FirstName1963 LastName1' CN=Users, DC=dev	ads, DC=gwava, DC=cc Ne	wUser1963 No	tStarted				*
							Ŧ
							+
EVPORT DATA					TANT	CANCEL	
EXPORT DATA				5	TAKI	CANCEL	

To load the users for creation, select the 'Browse CSV.Data File' button and select the desired .CSV file.

GWAVA - Migration	1 Toolkit					
Create Use		tory	ers-docume BROWSE	: CSV.DATA FILE	BriceMessingAroundGWUsers-c	docume
Name	Context	Logon name	Status	Message		
FirstName1999 LastName	CN=Users DC=devads DC=gwava DC=cc	NewUser1999	NotStarted			-
FirstName1996 LastName	1 CN=Users. DC=devads. DC=gwava. DC=cc	NewUser1996	NotStarted			
FirstName1993 LastName	1 CN=Users, DC=devads, DC=gwava, DC=cc	NewUser1993	NotStarted			
FirstName1966 LastName	CN=Users DC=devads DC=gwava DC=cc	NewUser1966	NotStarted			
FirstName1963 LastName	L CN=Users, DC=devads, DC=gwava, DC=cc	NewUser1963	NotStarted			
4						v F
EXPORT DATA					START	CANCEL

Once the users have been loaded from the .CSV file, the 'Start' button becomes active and user creation may be started. To begin creation of all users, select the desired users, either specifically or through the 'Select All' buttons, then select the Start' button. During migration, the result of each user's attempted creation is displayed. The Toolkit will not create any user which already exists in the system, checked by first and last name.

Once the users have been created, the Toolkit creates one more .CSV file. This file is nearly identical to the .CSV file used for initial migration, except this file now contains each migrated user's GUID number and generated password. If the password was randomly generated, this is where the admin will be able to locate and send the password to the newly migrated users. Because this file contains he GU it is required to enable the mailboxes of created users in Active Directory and for future reference and use. Save this file.

Merge eDirectory Users with Active Directory Users

The merge option is tailored for use by Administrators with partially migrated systems, or systems with duplicate users existing on both systems. The user merge option in the Toolkit does not actually manipulate user data between the two systems; however, it does create three .CSV files which contain very different information on the users in both systems, and only in one system. To utilize this feature, both eDirectory and Active Directory login settings must be configured and connected correctly.

The merge function tells the Toolkit to connect to both systems and compare the users in each. The Toolkit then created three .CSV files: one which displays users only in Active Directory, another which displays users only in eDirectory, and the last file displays users which exist in both systems. For this to work correctly, the users must have the same first name and last name in both systems. The comparison is case sensitive.

To use the merge function, select the 'Merge eDirectory Users with Active Directory Users' icon from the main window.

关 GWAVA - Migr	ation Toolkit		-		×
Merge U	sers				
BROWSE FILE	BriceMessingAroundGWUsers-documenting.csv				
INFO - Fetching user INFO - Fetched 11 us INFO - AD users load	s from Active Directory iers from Active Directory led			÷	*
		START MERGING	CAN	CEL	

Once the Merge Users tool has finished discovering and comparing the users in both systems, it will create three different .CSV files: Users found only in GroupWise, Users only found in Active Directory, and users in both. The files and names are shown.

Save all these files for future reference and use. The Merge_NotMergedEDUsers.csv is the file which should be

Merge_NotMergedADUsers.csv Merge_NotMergedEDUsers.csv Merged.csv

used to create users in Active Directory which have not yet been created in the Active Directory system, but which exist in eDirectory. While this may be accomplished by running a full migration on a .CSV file containing the entire user list from eDirectory, it is best to use a merge CSV file as it only contains the users which need to be migrated, and will result in much better performance.

To complete the merge, return to the 'Create Users in Active Directory' menu and use the merged CSV file. The process is the same.

Mail Enable Active Directory Users

Once the users have been created in Active Directory, they are not yet mail enabled. To enable the users which have been created, the .CSV file saved after creation is required. The .CSV file saved when the create users option is complete contains the GUID for each user, which is required for user activation.



To enable the users, select the 'Exchange' tab from the main Toolkit window to expose the 'Mail Enable Active Directory Users' option. Select the option icon to open the Mail Enable window.

Once the window has opened, click the 'Browse File' button and select the .CSV file containing the GUIDs.

ELECT ALL	SELECT NONE BROW	GWUsers.csv		
me	Email	Database Status	Message	
	Jessy@retaintesting.gwava.com	Mailbox Datat NotStarted		
	Fei@retaintesting.gwava.com	Mailbox Datat NotStarted		
	Matt@retaintesting.gwava.com	Mailbox Datat NotStarted		
	Michael@retaintesting.gwava.com	Mailbox Datat NotStarted		
	Yolanda@retaintesting.gwava.com	Mailbox Datat NotStarted		
	ValerieS@retaintesting.gwava.com	Mailbox Datat NotStarted		
	Mike/@retaintesting.gwava.com	Mailbox Datat NotStarted		

The users to be enabled must be selected. Choose to select all or to manually determine which users to enable, and then select the 'Start' button to begin the enabling process. The interface will display the success as well as any errors for each selected user.

Log File

The log file for the Toolkit is stored under the following path: C:\users\{user}\AppData\Roaming\Gwava\MigrationToolkit\User_migrator_trace.log

Appendix

CSV File Notes

There are several .CSV files created by the Toolkit, and it is important to know the difference between them. The CSV file stores the information which not only dictates where the users came from and what their information is, but also contains the information which dictates where and how the users are to be handled. The original CSV file may be modified, or even created manually, to dictate the users and information. For instance, the 'Default Context' column in the .CSV file dictates the final context where each user will be created in Active Directory and Exchange. If the CSV is going to be modified or created, there are some things to keep in mind:

- Column names are case sensitive
- The separator character is ';'
- > Abbreviations DN: Distinguished Name. M / R / O: Mandatory, Recommended, Optional

Section	Attribute Name	Importance	Notes
Creating Users in Active Directory	dn	Μ	DN in eDirectory
	firstName, lastName, displayName	Μ	At least one of them is required
	destinationContext	R	this is the AD directory path for the user if not specified the default value in Exchange connection settings will be used
	samAccountNameLogon	R	User SamAccountName Logon
Mail Enable Active Directory Users			
	firstName, lastName, displayName	Μ	At least one of them is required
	destinationEmail	М	User's email address in Exchange This will be set as user's External Email Address and Primary SMTP Address. The email prefix will be set as user's alias in Exchange.
	uuid	0	uuid in GroupWise
	destinationGUID	R	User's object GUID in Active Directory
	destinationDN	R	User's DN in Active Directory
	mailboxDB	R	User's mailbox database in Exchange If not specified the default value in Exchange connection settings will be used
	upnLogon	R	User Principal Name logon this is in form of an email address.
	nicknames	0	This is the nicknames/aliases/proxy addresses of a user. The nickname values are separated with pipe character (). e.g. prefix@domain only prefix should be entered in csv file (without @domain)