IceWarp Unified Communications

IceWarp Server GUI Reference

Version 11.4



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Reference Manual

This reference manual covers topics that are common for all modules of IceWarp Server (e.g. Main Menu) as well as those that are shared between more IceWarp Server's modules. E.g. Database Settings, Access Mode, etc.

Legend

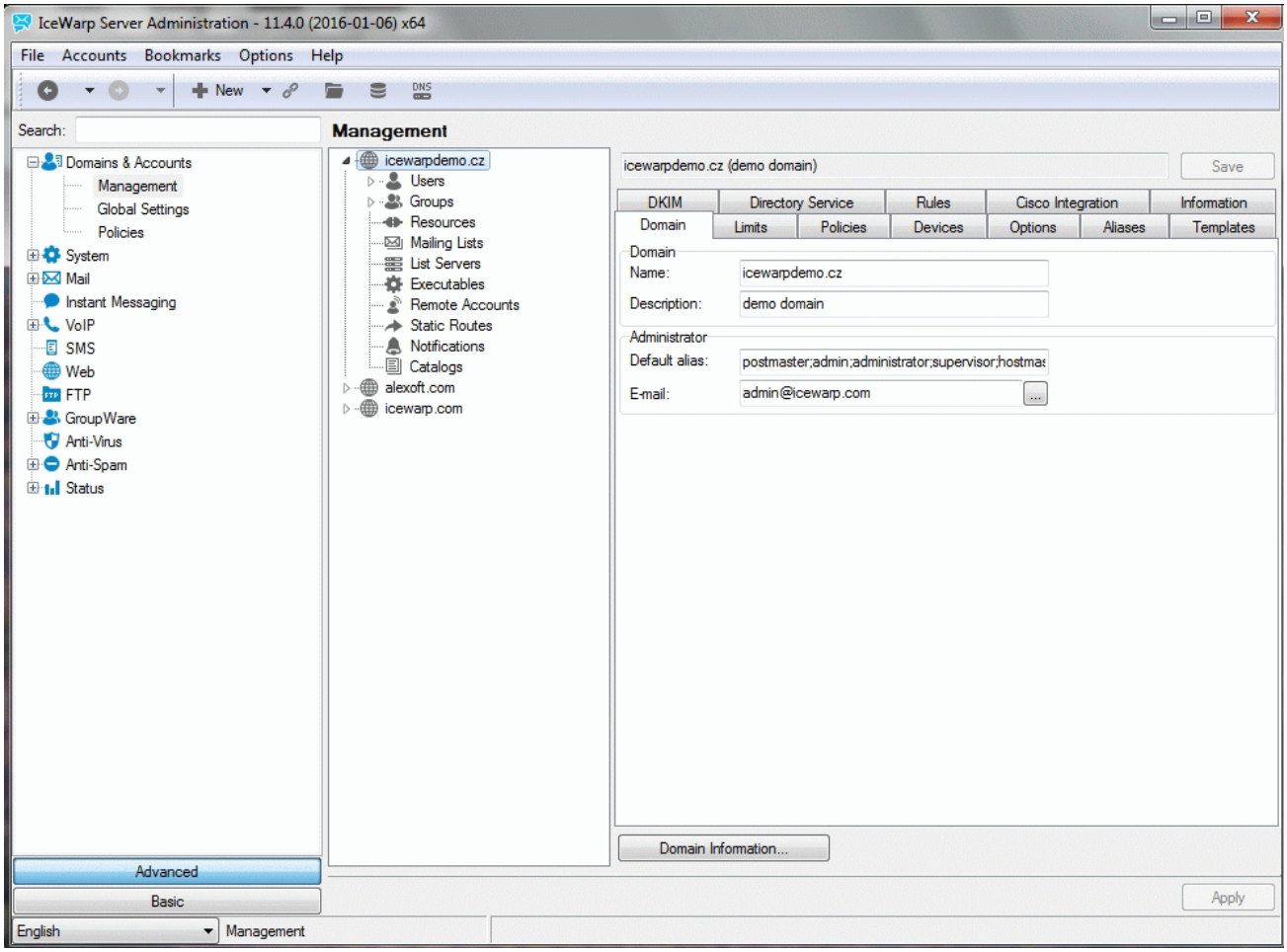
Icon	Description
	Warning – very important!
	*Note or tip – good to know.*
NOTE: Areas ...	*Note within a table.*
Figure 4	Figure link – click the link to reveal the figure. Click it again to close it. (Works only in the ***CHM*** format.)

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Administrative Console

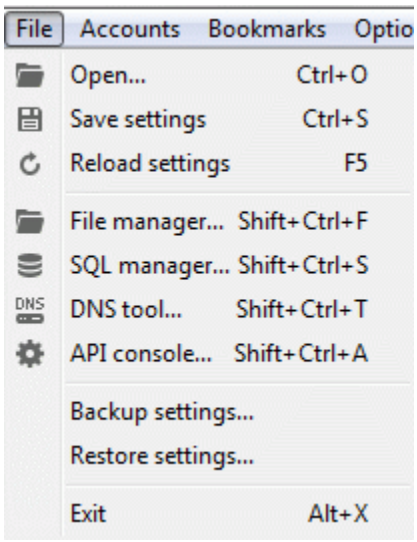
Administrative console is the place where you can administer all IceWarp Server's functionalities. (Except for those managed via APIs.)



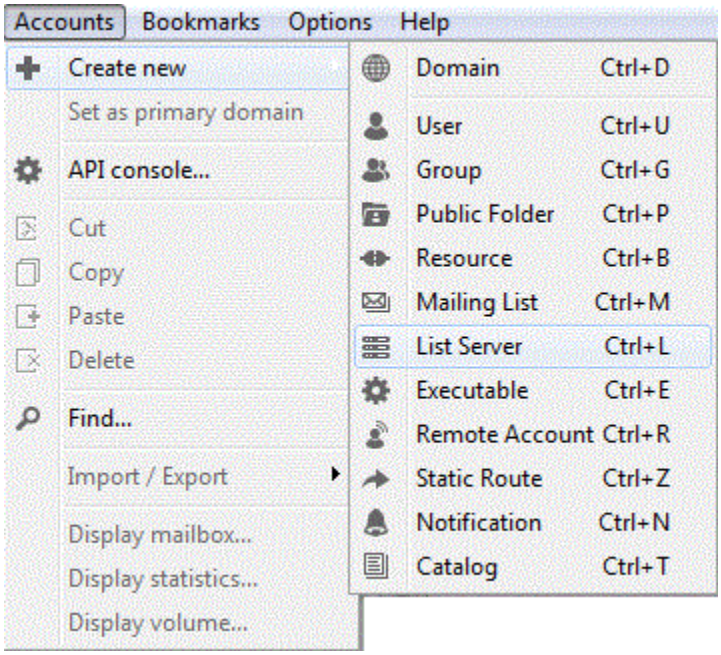
The main console features are described in the following chapters.

Main Menu

The main menu contains several sections which let you control some of the basic functions of the administration interface.

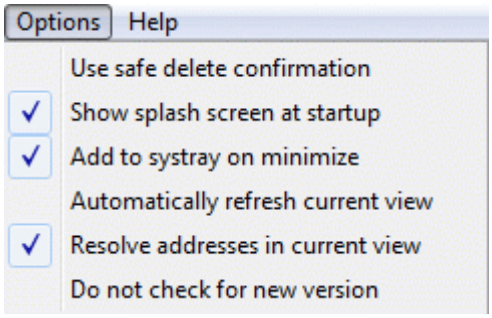


Field	**Description**
Open	Allows you to open any text file with the IceWarp Server text editor. Useful for viewing or editing plain text files.
Save settings	Saves any changes that have been made in the administration console.
Reload settings	Reloads the administration console. Any changes that have been made (e.g. via the API or Web administration console) will be reflected after the reload. Shortcut F5 can be used.
File Manager	Opens **File Manager** to work with files. *NOTE: Besides of usual shortcuts etc. you can use a command for changing directories.* *E.g.* ***CD D:***
SQL Manager	Opens SQL Manager. For more information, refer to the **System – Tools – SQL Manager** chapter.
DNS Tool	Opens DNS Tool. For more information, refer to the **System – Tools – DND Tool** chapter.
API console	Opens the **API console** window. Here you can manage API values. For more information, refer to the **API Console** (on page 29) chapter.
Backup settings	Allows you to backup your current configuration to a ***.ZIP*** file. This file contains all your system settings, domains and users. This will also backup the spam and groupware databases if using the default SQLite databases meaning all contacts, calendars, and white & blacklists are backed up. *NOTE: If your accounts are set to use a database instead of a file system, this database is NOT backed up, requiring you to backup the database manually and/or using the option in the* ***System – Tools – System Backup – Database*** *section to synchronize your databases to another database server.*
Restore settings	Allows you to restore your system settings, databases, and users/domains from the backed up ***.ZIP*** file. Before restoring we recommend renaming the **/IceWarp/Config** folder in the event the restore fails and you need to fall back to default settings. This is possible if applying a backup from a much older version or from a different server where the paths were different. For more information, refer to the **Configuration Backup and Restore** chapter.
Exit	Exit the IceWarp Server administration console.

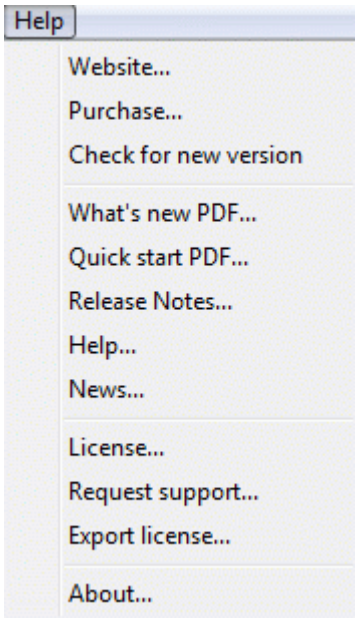


Field	Description
Add	Allows you to add domains, accounts and public folders to IceWarp Server. The menu expands to let you select the appropriate type.
Set as primary domain	Makes the domain you currently have selected primary. Primary domains are used to specify the system postmaster, which receives emails destined to aliases such as admin, postmaster, abuse and others on the respective domain. The primary domain is always shown first in the list of domains. The admin account of the primary domain receives important messages such as those related to licensing (modules that are about to expire, activation issues, etc).
Cut, Copy, Paste	Usual functions with usual use.
Find	Allows you to search all domains. You can search for user names, aliases or email addresses. IceWarp Server uses basic search criteria with limited output. See more details in the **Miscellaneous – Find Dialog** section.
Import Accounts From File/Export Accounts To File	Please see **Import/Export Users from/to File**.
Import users from Windows	Please see **How to Import Users from Windows**.
Display mailbox	Opens the **Message Queue** window showing the mailbox for the selected user account.
Display statistics	Opens the **User Statistics** window for the selected user account.
Display volume	Opens the **Volume** window for the selected user account or domain.

For information about the **Bookmarks** menu item, refer to the **Remote Server Administration – Bookmarks – Bookmarks Manager** chapter.



Field	Description
Use safe delete confirmation	A confirmation dialog will appear before any deletion is performed.
Show splash screen at startup	If checked, the welcome splash screen will be displayed when IceWarp Server console starts.
Add to systray on minimize	If checked and you minimize IceWarp Server console, an icon is shown in your System Tray (the panel to the right of your Windows Taskbar). If not checked then IceWarp Server will be shown in the Taskbar instead.
Automatically refresh current view	Causes data in current view to refresh every 30 seconds. Traffic Charts, Sessions, Statistics and ActiveSync devices are refreshed.
Resolve addresses in current view	If checked, IceWarp Server matches (checks) shown IP addresses with domain names using a DNS server.
Do not check for new version	By default, IceWarp Server checks for a new version each time it starts. Select this option to stop IceWarp Server making this check.



The **Help** menu contains common items such as links to the IceWarp ***website***, Release notes and Quick Start Guide.

The most important is the **Help...** menu item, which opens context sensitive help, and the **License...** item, which opens the ***License*** dialog where you can manage the product's license.

The **Purchase...** item will bring you to **IceWarp Purchase Processing** where you can obtain a license if you are evaluating the product.

The **Check for new version** option will query the official site to see if there is a newer version of IceWarp Server available.

The **Export license...** option serves the purpose of exporting your current license into an XML formatted file, which can be required when upgrading, or it can be saved for license backup.

Clicking the **Request support...** item will open the browser on **IceWarp Support Center** web page, where you can submit technical and sales support inquiries. You need to have a login to the system in order to use it, but the registration is free, as part of your IceWarp Server license.

Remote Server Administration

The Remote Administration Console offers another option for customers to administer their IceWarp Server. The same administration console seen after installation is used for remote console so working from the remote console is extremely easy for administrators.



NOTE: You must use the same version of the remote console as the IceWarp Server version you are connecting to, for example, if running server version 10.0.0 then use the remote console version 10.0.0.

The connection to the server can be **encrypted** using SSL and is **compressed** for better performance. Connection settings can be saved and assigned a keyboard shortcut to connect to the machine in matter of seconds. You can run multiple instances of **config.exe** allowing you to compare settings on different servers. The context sensitive Help is accessible as usual by hitting the F1 key.

You can download and run the remote console from any PC or server. Simply unzip it to any directory and you can access a remote IceWarp Server by launching the **config.exe** program. Upon start, the usual Administration Console is shown. To access a remote server, choose **Bookmarks** from the main menu or click the ***Connect*** button within the toolbar (computer icon to the left) to invoke the Bookmark Manager.

Information about a remote connection is shown within the remote console title bar. The information syntax is as follows:

description (target_server:ip) target_version_string

where ***description*** corresponds with the *Description* field of the **Remote Server** dialog – **Connection** tab (bookmark definition).

Remote Console as an Installer

Starting with 11.1.1, the Remote Administration Console is distributed as executable installer – **remoteconfig.exe** (***<install_dir>\install***) together with IceWarp Server.

The installer is very simple:

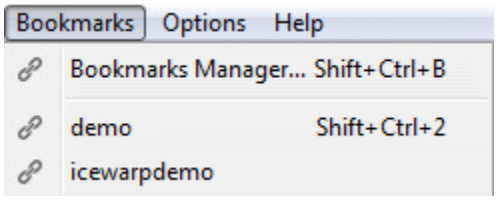
- Allows only to choose install path (default is ***ProgramFiles\ IceWarp Remote Console \<version>***).
- Automatically creates a desktop icon in the form of *IceWarp Remote Console <version>*.
- Automatically creates a Start menu icon in the form of *IceWarp Remote Console/<version>*.
- Allows to have multiple versions installed.

Config.exe within the remote console is now build separately and implements one special feature that is not included in the server console. When you connect to the server with an incompatible console, it allows you to open a web browser and download the console directly from the server you are connecting

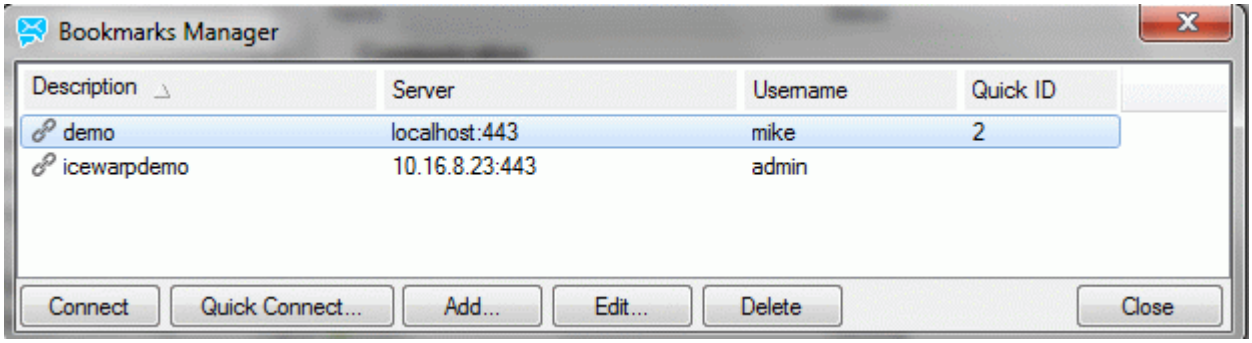
to. (Of course, 11.1.1 or later must be installed on the remote server).

Bookmarks – Bookmarks Manager

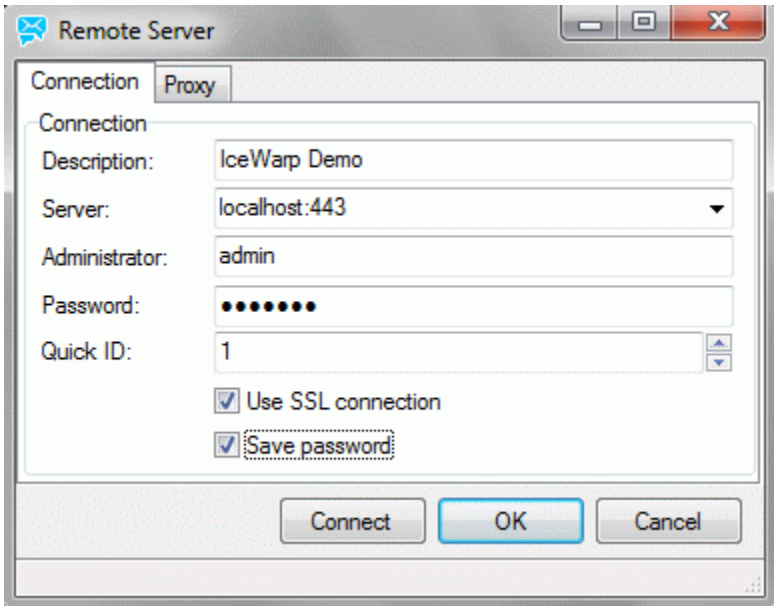
You can use the ***Bookmarks*** main menu item to connect to remote servers.



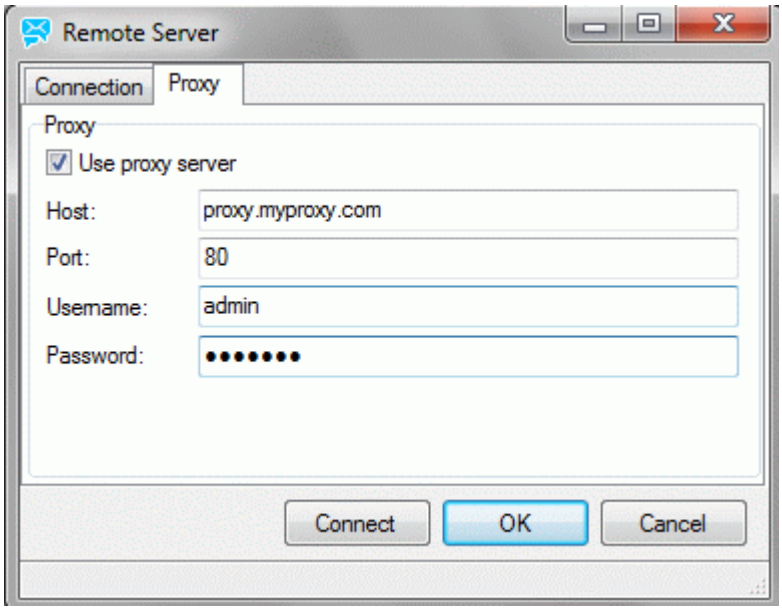
The **Bookmarks Manager** allows you to pre-define any connections you require so you can quickly connect to a pre-configured server.



Field	Description
Connect	Select a server and click the button to connect to this server.
Quick Connect	Click the button to open the last used connection.
Add	Click the button to add a new connection. The **Remote Server** dialog opens.
Edit	Click the button to perform changes in the selected connection. The **Remote Server** dialog opens.
Delete	Select a server and click the button to remove this connection from the list.
Close	Click the button to close the dialog.



Field	Description
Description	Enter some descriptive text.
Server	The hostname or IP address with the appropriate port for the server you wish to connect to. *NOTE: The connection is made over the **Web – Control** port and by default this is port 80 in all version 10.x.x servers and prior to these versions the default port was 32000. If you are using any other port than 80 please ensure you specify the **<server:port>**,* *e. g.: **demo.icewarp.com:32000***
Administrator	An administrator account for the remote server.
Password	The password for the administrator account.
Quick ID	Optionally specify a QuickID for this connection, just digits are allowed. Connection Manager allows to sort connections according to this field. QuickID also works as a keyboard shortcut – pressing Ctrl+Shift+QuickID will bring up the **Connect** dialog for this server. *NOTE: If you click the **Connect** icon (within the toolbar), the connection with the lowest **Quick ID** defined is opened.*
Use SSL Connection	If checked, all data transfer will be SSL encoded.
Save password	If checked, your password will be saved so you do not have to enter it each time you connect. USE WITH CARE – not recommended on public machines!
Connect	Click the button to connect to the selected remote server.
OK	Click the button to save performed changes.



Field	Description
Use proxy server	Check this if you need to access your server via a proxy server.
Host	The hostname or IP address of the proxy server.
Port	The port which you need to use to contact the proxy server (depends on your proxy server setup).
Username	Fill in credentials to the proxy server – if required.
Password	

Configuration Backup and Restore

The IceWarp Server configuration data is stored in these folders:

<InstallDirectory>/config/

<InstallDirectory>/spam/

<InstallDirectory>/calendar/

<InstallDirectory>/_webmail/config/

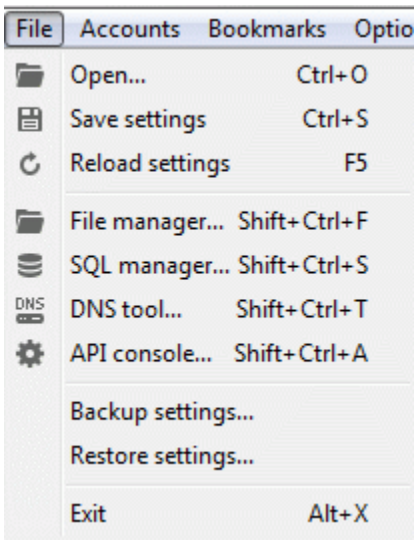
These folders contain the following information:

- All system settings
- Users, domains, and all settings associated with each
- The **Calendar** and **Spam** folders contain the default SQLite databases for groupware and anti-spam. These hold the data for **Contacts**, **Calendars**, and **White** and **Blacklists**.)

You can easily backup your configuration by using the **File – Backup settings** menu option. You can also automate the backup by using the **Tools – System Backup** feature.



*NOTE: If using external databases (MySQL, MSSQL, etc.) for accounts, groupware or anti-spam, you will need to backup the database manually or by using the option in the **System – Tools – System Backup– Database** section to synchronize your databases to another database server.*



It is recommended to perform a backup after your final configuration. In the case of a hardware failure, you will be able to restore your configuration.

It is also recommended to backup regularly and the backup file is kept somewhere safe such as written to a removable media and taken off site.

Configuration Restore

Choosing the ***Restore*** option will prompt you for a file containing backed up data. Once a file is chosen and opened, the configuration will be restored. Use this option carefully in order to prevent overwriting your active configuration with an older version. You should previously rename the **/config** directory so the restore is completely fresh.

Should a server have to be rebuilt and all software freshly installed, this restore provides an excellent way of retrieving all the users' account information without retyping.

NOTES:

*If you restore a backup to a different machine, then your **Server Reference ID** will change and your license*

*will be invalid. See the **Licenses** (on page 20) section for information on how to retrieve a new license.*

Also you should be aware that the restore will restore data to the same paths they were backed up from, so if you have:

*Modified your IceWarp Server configuration paths (see **System – Storage – Directories**)*

Changed the installation path for IceWarp Server

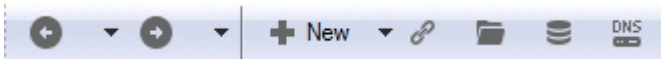
Installed IceWarp Server on a new server with a different hard drive configuration

*If seeing problems with or the restore fails, you can view the **Error** log to see if any path errors are seen.*

When restoring a backup file (.ZIP), if it refers to paths witch do not exist in the server where restore is being done, be them paths defined here or paths to centralized configuration/emails, the restore may fail. One work-around in the case of servers that have centralized configurations whose paths do not exist in the server where backup is being restored, is to manually extract and copy the backup file. Note that the internal Windows archiver is NOT able to see all the paths in a backup, so it is recommended to use another archiver such as 7zip or WinRAR.

Toolbar

Toolbar allows you to access the most used functions quickly. All icons are default ones and cannot be changed.

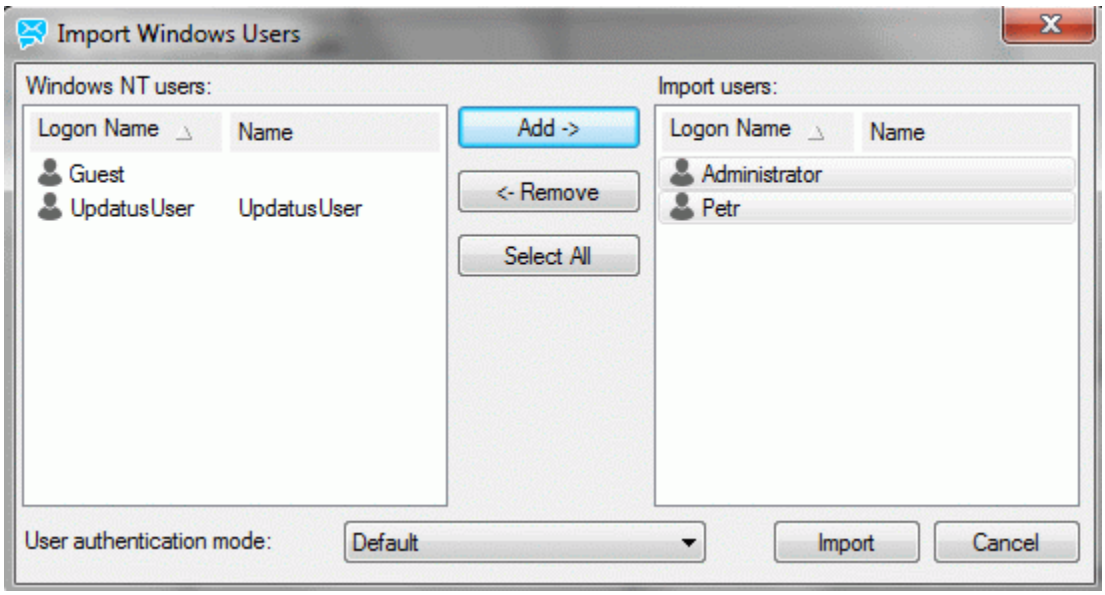


Icon	Function
Left arrow	Back to the previously visited tab.
Right arrow	Forward to the next tab. (After the ***Back*** arrow use.)
+ New	Click the icon and select from the list what type of account you want to create. Console will be switched into the appropriate tab.
	Click the icon to open the **Bookmark Manager** dialog to work with bookmarks. You can use the *CTRL+SHIFT+B* shortcut. For more details, refer to the **Bookmarks – Bookmark Manager** chapter.
	Click the icon to open the **File Manager** dialog to work with files. You can use the ***CTRL+SHIFT+F*** shortcut.
	Click the icon to open the **SQL Manager** dialog. You can use the *CTRL+SHIFT+S* shortcut. For more details, refer to the **System – Tools – SQL Manager** chapter.
	Click the icon to open the DNS Tool dialog. You can use the *CTRL+SHIFT+T* shortcut. For more details, refer to the **System – Connection – General** chapter.

How to Import Users from Windows or AD Servers

If you have user accounts already set up in a Windows or Active Directory user database, you can import these into IceWarp Server to save you re-typing them manually.

To import users, select **Accounts – Import / Export – Import Users from Windows**... the following dialog will be displayed:



A list of discovered users will be displayed in the left pane.

Select the users you wish to import and click the ***Add*** button.

When your list of users is ready, click the ***Import*** button to import the users into IceWarp Server.

NOTE: Passwords cannot be retrieved from any Windows system so these will have to be entered manually.

AD users must have AD authorization.

The ***User authentication mode*** lets you specify the mode for all imported users. See the user account authentication mode description in the **Domains and Accounts – Management – User Accounts – User** chapter.

How to Import Users from LDAP / Active Directory

Instead of regular synchronization with a directory server, you may want to import users from LDAP or Active Directory only once. The procedure is similar to synchronization, only after the first manual synchronization, you make a bulk modification to the imported accounts to cancel the synchronization.

1. For the domain you want to import users to, temporarily set up **Directory Service**.

   *NOTE: It is necessary to set all entries including those in the **Advanced** section.*

   For more details, refer to the **Domains and Accounts – Management – Domains – Domain – Directory Service** section.

2. Click the ***Synchronize Now*** button. This action imports all accounts to the domain.

3. Imported users have the LDAP (AD respectively) authentication mode set.

   To change it, you can:

   - use command line **tool** to make bulk ***Authentication*** mode settings modification

   - **or** multi-select all imported users in the **Management** – **<domain> – Users** node, change their ***Authentication*** mode to ***Standard*** and click ***Save***

   - **or** create a new group account, insert the whole domain as a member, under the **<domain> – Options** tab, create a new template with the ***Standard*** authentication mode (use the ***Template*** button) and click the ***Apply Template*** button.

   NOTE: This way changes authentication mode of all domain accounts – if you have accounts with different authentication modes, you have to change them back manually or to use the method mentioned earlier.

4. Disable **Directory Services** for the domain and clear all fields here.

   For more advanced options to import users from Active Directory or LDAP Server, please refer to the **Domain – Directory Services – Synchronizing Users with LDAP / Active Directory** chapter.

Import/Export Users from/to File



The primary use of this function is to export and import user accounts between two IceWarp Servers.

For transferring users to another IceWarp Server, we recommend to use the command line TOOL.EXE.

This powerful feature lets you export accounts from the selected domain to a specially formatted text file (***.MAE*** for version 9.x or ***.EXP*** for version 10.x).

The file includes all account types and account properties including its email address, account name, account type (as an integer value), password and properties (as an encoded string).

This file can be edited using a standard text editor.

The import feature lets you import accounts from the export file.

There are some important points you should be aware of:

- If a domain listed in the file is missing in IceWarp Server it will be automatically created.
- If any property values are not available, then account defaults will be used.



BE AWARE: It is highly recommended that you experiment with this facility before you use it on any large number of accounts on a production server.



NOTE: When exporting/importing accounts, only account structures are exported/imported. Account data is not exported/imported.

*If you want to backup all account data, do it manually in the **IceWarp/mail/[domain]/[user]** directory.*

*To move accounts from one domain to another one, you can use the **cut ant paste** method. To move all domain accounts, you can just rename this domain – it keeps all data intact. (When renaming a domain, all services – e.g. GroupWare, AntiSpam, etc. – MUST be running!)*

File Structure

<address>,<properties>

Example

fred@<demo.com>,eJxjYGBg4AsuScxLSSxKUQgtTi2yhlAMIwYwspSOKP9igAH3PyOEctj5yGEgrB9w/w8wEM5NLUrMTknNzddLzs+NAYVGzEC7aWBAAwN
DcW6xLigEHGDhMdBuoi9gtB5oF4yCUTAKRsHgAADS/h28

Tool.exe Commands

Tool.exe is a command line interface to the IceWarp Server API from Windows. On a Linux server this will be ***tool.sh***. To use it, navigate to the IceWarp Server installation root where it is located (usually you would type ***cd "/Program Files/IceWarp/"*** or applicable location in Linux).

To export accounts, you can use this command (syntax followed by an example):

tool export account "@<domain_name>" u_backup > <file_name>*

tool export account "@icewarp.com" u_backup > icewarp_com.csv*

To import accounts, you can use this command (syntax followed by an example):

tool import account "<file_name>" u_name u_password u_comment

tool import account "domain_com.csv" u_name u_password u_comment

To reveal more commands, use this command (or refer to the **Command Line Tool** (on page 38) chapter):

tool --tutorial



*NOTE: The backup/migration file suffix is **.EXP** but in previous versions before 10.0.0 it was **.MAE**. If you are exporting from an older version into **.MAE** you can simply rename this file to **.EXP** and it will be importable into the latest versions of IceWarp Server.*

Import/Export of Accounts Via Console

To export accounts, do the following:

1. In the **Console**, right-click name of the selected domain (**Domains and Accounts – Management**) and from the pop-up menu, select the ***Import/Export*** – ***Export domain and account to file*** items.

   The standard **Save As** dialog opens.

2. Save the file e.g. as **<domain_com>.EXP**.

To import accounts, do the following:

1. In the **Console**, right-click name of the selected domain (**Domains and Accounts – Management**) you want to import accounts to and from the pop-up menu, select the ***Import/Export*** – ***Import domain and account from file*** items.

   The standard **Open** dialog opens.

2. Select the appropriate file to import accounts.



NOTES:

The domain you want to import accounts to has to have the same name as the domain that you exported accounts from.

Imported accounts are added – if there are any other accounts in the domain, these accounts are not deleted.

It is recommended to export/import accounts only between same versions of IceWarp Server.

Export of Phone Numbers

You may want to export phone numbers of users of some domain. These numbers are exported into a ***.csv*** file in the following structure:

Name, Email address, Phone number

To do it, follow these steps:

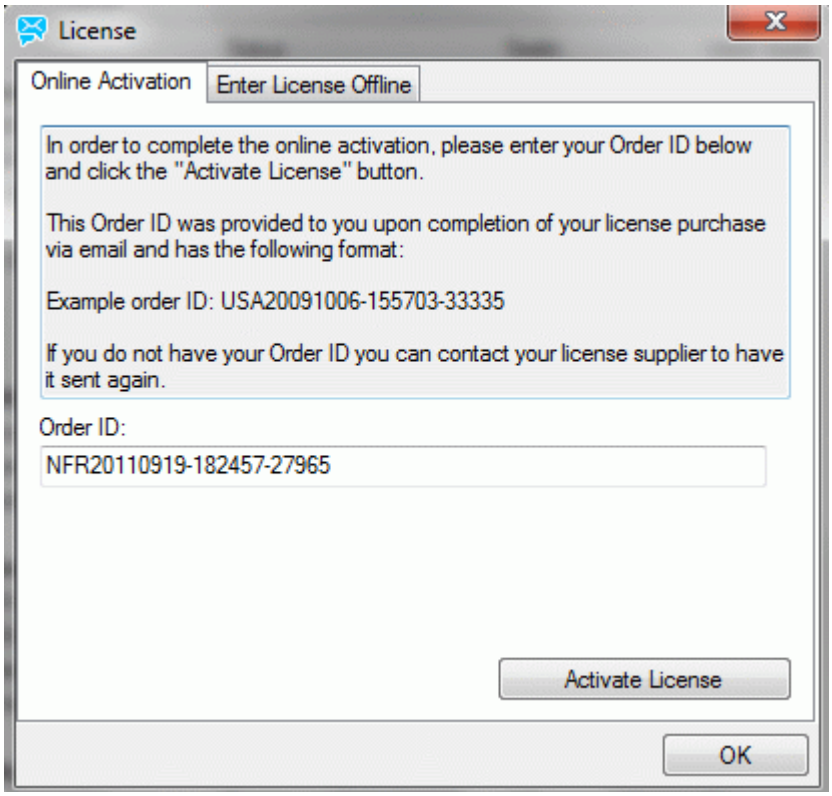
1. Right-click the appropriate domain name and select the ***Export/Import – Export Phone # to CSV*** items.
2. In the standard **Save As** dialog, select the wished location and save the file.

Licenses

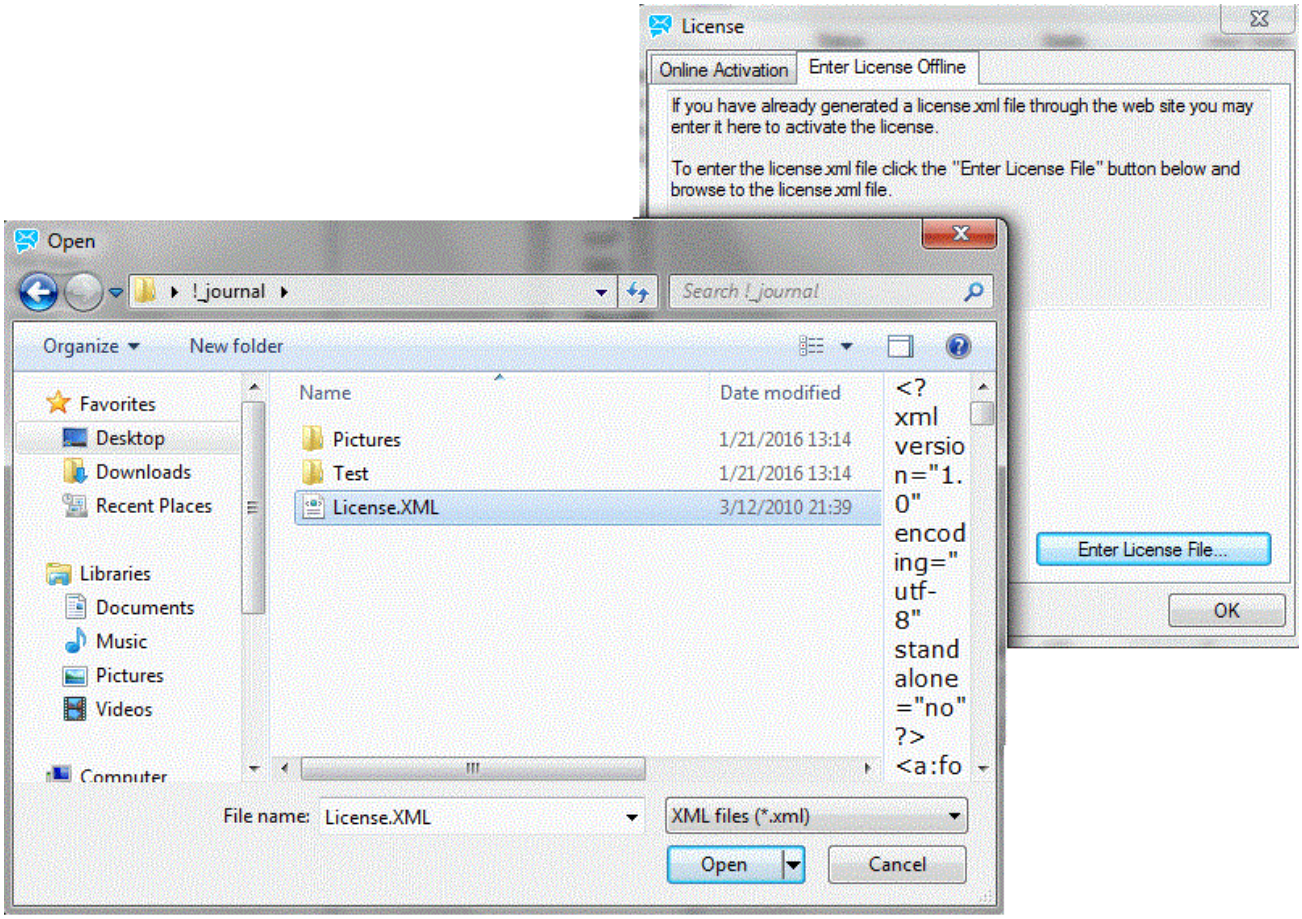
The **License** dialog (accessible from the main menu – ***Help***) informs about the current product registration status, allows to register a new or updated license (the ***Activate License*** button) and provides shortcuts to web interfaces where you can make license modifications (purchase renewal, add trial, add users, add modules, purchase another license, observe client activations, ***Manage License*** button) or contact sales or technical support department (***Request Support*** button).

License Registration

- On-line: the **Activate License – Online Activation** tab – you will need an ***Order ID*** of your license (trial or full) at hand – enter the ***Order ID*** where indicated – click the ***Activate License*** button.



- Off-line: the **Activate License – Enter License Offline** tab – you will need to obtain the new license from ***http://shop.icewarp.com/*** purchase system, **Manage License – License Activation**, using your ***Order ID*** and the ***Reference ID*** displayed in the **License** dialog – download the **license.xml** file from the web page or save the email confirmation attachment to disk – click **Enter License** to browse for the **license.xml** file – click ***Open*** – click ***OK***.

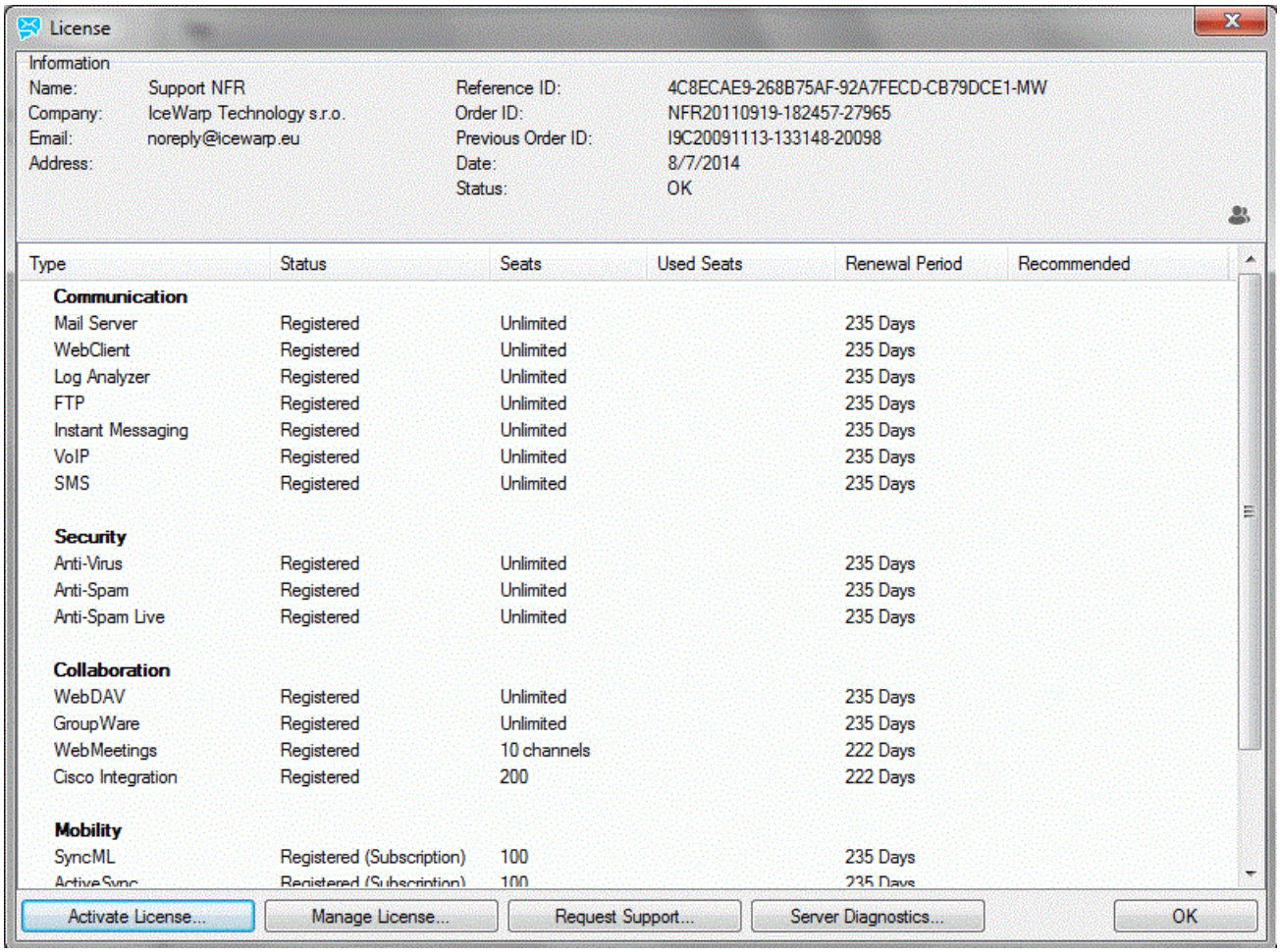


License activation may fail for the following reasons:

- The computer is blocked from accessing the Internet or the ***licenseprocessor.icewarp.com*** server is temporarily unavailable. Enable port 80 HTTP access on your firewall for ***config.exe*** or try again later.
- The ***Order ID*** is not valid (the order has not been authorized yet) or it is misspelled. Verify the number, check your order status through **Manage License** and try again later.
- The **license.xml** file entered is issued for another computer. Retrieve a new one using the **Activate License – Retrieve License** option.
- The number of license activations has been exceeded, due to registering the same license on multiple computers (there are 3 attempts to register a license during its lifespan for the purpose of server migration only, provided they do not run in parallel for more than 1 month). Use ***Request Support*** to contact Sales.
- The license revalidation process could not be completed neither automatically nor manually after notices sent to the system administrator and the license has been blocked and flagged for abuse.

License Information

The **Information** section shows license registration details to the left: ***Name***, ***Company***, ***Email and Street Address***. To the right it shows the ***Reference ID*** (unique hardware fingerprint), the ***Order ID*** (identification of your license in the order database), the ***Previous Order ID*** (means that this license is an update/extension of an older license and can only be activated on top of it) and the ***Status*** of the license.



The ***Reference ID*** shown is specific to the machine where IceWarp Server is installed. It is generated using machine hardware and software information and as such is never the same on two machines. If you migrate IceWarp Server to a new machine, your license will no longer work and you should retrieve a new license (see **License Registration**).

The license ***Status*** can be one of three states:

- **OK** – the license is fully registered.
- **Evaluation** – you are running an evaluation license or the revalidation of your full license has failed and the IceWarp Server has entered Emergency Mode (see **License Revalidation**); the IceWarp Server will eventually expire and stop working.
- **Reference ID Mismatch** – this occurs when the license is being used on a machine that it was not issued for; in this case you should retrieve a new license (see **License Registration**) otherwise the services will be stopped after 7 days.

The ***Read used seats*** button – 

Click the button to refresh the ***Used seats*** counter. If you are connecting by a remote console, you need to click the button to count used license seats, while on a local server, the values are loaded immediately when you open the **License** dialog.



NOTE: The operation can take very long time, freeze the console or timeout, depending on connectivity to the remote server, and the total number of established accounts.

The ***Type*** column shows the name and category of the IceWarp IceWarp Server license. There are two categories of licenses: ***Server*** and ***Client***.

- Server licenses activate the IceWarp Server (within Administration, see **License Registration**) and they are ***Communication/Security/Collaboration*** features.
- Client licenses activate IceWarp ***Desktop*** products (Desktop Client, IceWarp Outlook Sync, etc. from within their respective **About** dialogs, or automatically using SmartDiscover).

- Client licenses can also activate ***Mobile*** features which are managed from IceWarp Server Administration (SyncML, ActiveSync).



*NOTE: The simplified license structure (by server and client categories) is only available in the Administration Console. In WebAdmin and in **tool.exe** text output, you will see the license by individual modules. Licenses can be listed by module also if the license was originally obtained for an earlier version.*

The ***Seats*** column shows the number of accounts that this license covers at the moment. You can add new system users or activate the corresponding service for additional users up to the amount shown here.

The ***Renewal Expires*** column shows the number of days remaining to the expiration of the renewal period (Maintenance).

- If ***Renewal*** is positive, it means you can freely install any new version upgrades, update your Anti-Spam and Anti-Virus definitions and request technical support.
- If ***Renewal*** is negative, the product will continue to run in the same version for a lifetime, but with limited support and no security updates.
- A service would stop working (each midnight) only if there was a negative number of days for one module AND at the same time, the number would be different for other licensed modules (one service was not upgraded with the rest on purpose and is stopped, not affecting the others).

The ***Used Seats*** column shows the number of accounts that have this service active. Only the ***User*** type accounts are counted, as only they are licensed. To list the activated accounts, double-click the service in the list of licenses. You can temporarily activate more users and exceed the amount of available ***Seats*** for a limited 14 day evaluation period. Refer to the **Automatic Trial Access** section (bellow) for more details.



NOTE: For information about names of accounts using the service, double-click the service name. You are presented with a list of accounts.

*For information about client licenses, click the the **Help – License** main menu items – **Manage License** button. This brings you to the IceWarp shop page (**http://shop.icewarp.com/license/manage_license.php**) where you can obtain the information needed.*

Red Exclamation Mark is shown next to each license which is exceeding the number of available ***Seats***. Access to the services for users over the limit would be disabled based on this error after a 14-day trial period. Refer to the **Automatic Trial Access** section for details, and see the **Adjusting Used Seats** chapter for how to manually adjust the system configuration to the license size.

The ***Recommended*** column displays ***Add Users*** tip if the number of ***Used Seats*** is approaching the number of ***Seats*** currently available on the license, or displays ***Renew License*** tip if the ***Renewal Expiration*** is approaching (the system will also send an informative email to postmaster 14 and 7 days in advance).

Automatic Trial Access

Beside the master Mail Server/Communication license, IceWarp lets you obtain various add-ons licensed for a lower number of users, e.g. for an initial testing before a global roll-out. By default, all services are activated for all system users which can result in the number of ***Used Seats*** exceeding the number of ***Seats available***. Refer to the **Adjusting Used Seats** section to for details.

If a service is enabled for a user on the **Policies** tab, the licenses are assigned to users who are connecting to the service from the available pool of fully licensed seats, and when no more seats are available, in a time-limited trial, which still makes them able to use that service. This way, administrators can estimate the needed size of the license before it is actually purchased.

Each midnight the system compares the number of trial seats with the number of licensed seats and sends a notification to system administrator, including the list of accounts which are over the limit (using the service in trial mode). Trial period is counted from the date of first access to the service and expires 14 days after, ultimately restricting the user from access to the service. At this point you must either purchase additional seats (the ***Manage License*** button) for those users, or adjust the number of active users to the current license size, as follows.

Adjusting Used Seats

- In the **Management** node, select users/domains from the middle account management tree for which you wish to deactivate this service.
- You can (un)select multiple users/domains using Shift+click and Ctrl+click mouse operations.

- Navigate to the **Policies** tab and within the ***Services pane,*** untick the service you are adjusting.
- A yellow background will appear on the ***Services*** options, reminding you that you are performing a bulk modification using the template feature.
- Click ***Save*** to apply the new settings (or click elsewhere to cancel).
- Verify that the changes took effect in the **License** dialog.

Alternatively, you can use the tool command line utility to make bulk modifications, for example the following command will disable Instant Messaging service on all system accounts, so you can then activate it only for selected accounts as outlined above:

tool modify account *@* U_IM 0

See the **IceWarp API – Command Line Tool** chapter for more details on the tool usage.

License Backup

You can keep backups or snapshots of your license (applicable only to the same machine)

- using ***Help – Export License*** and saving the **license.xml** file that you can later restore using ***Activate License – Enter License Off-line***
- the license is also saved along with the configuration using the ***File – Backup Settings*** menu and restored using ***File – Restore Settings***
- optionally, you can manage license backup using the ***c_system_tools_excludelicense*** API variable – when this variable is set to ***true***, your license is involved into the system backup

License Revalidation

Revalidation is managed by the Control service and occurs periodically in time, starting from the Issue date of the license. After a defined *revalidation period* (approx. 1 month), the service opens a port 80 HTTP connection to ***http://shop.icewarp.com/license/*** and posts the current license identification. It is processed by the licensing server and a new license key is returned and transparently applied.

If the revalidation is unsuccessful, the server *retries* the on-line revalidation each 1 hour after the previously failed revalidation attempt, and regularly sends an informative email to postmaster account and license holder e-mail address (during standard retry period of 48 hours, administrator will receive the notice after 12, 24, 36 hours).

The responsible person can immediately take action to either allow the outgoing connections and let the license revalidate automatically (takes no more than 1 hour), or use the *Activate License – Enter License Off-line* option to re-enter a license previously retrieved from the website, using an XML file (*Help - Export License...*) or their Order ID for the same purpose.

There is a 2 to 7 day (depending on type of license) grace period which defines the maximum allowed time after a failed revalidation during which the server will retry the revalidation. If it is not successful within these 2 – 7 days, the license status is changed to *Emergency Mode*. This is similar to an expired trial – services continue to work, but no settings can be changed.

After 7 more days the *Emergency Mode* expires, the event is logged into Error log, informative emails are sent to postmaster, license holder and to the product's copyright holder e-mail addresses and ultimately on the next midnight, all services are stopped (and would be stopped each midnight if restarted manually).

Failed revalidation: *Due to a problem with connectivity, your hostname [IP] cannot connect to our license server. Please resolve the issue or validate the license via Activate License.*

Failed retry: *Your hostname [IP] could not revalidate the license with our license server. As a result, your license has been forced into Emergency Mode. Please fix any existing connectivity issue or validate the license manually via Activate License.*

If the license is not validated, the services will be discontinued after a short grace period.

Expired Emergency Mode: *All attempts to validate the license failed. As a result, the services will be stopped.*

SYSTEM [A000] 22:32:07 All attempts to validate the license failed. As a result, the services will be stopped.

SMTP Traffic Limits

SMTP outgoing queue processing is delayed for low user licenses and high traffic, receiving works normally. The mechanism considers amount of incoming and outgoing emails to non-local accounts per day with relation to the number of licensed users. If the number of outgoing connections exceeds a threshold, sending out will be postponed for some time, until the levels balance or 12 AM. The limitation never occurs for 50+ user license, so it typically only occurs for less than 50 user licenses. This prevents using low user licenses as filtering gateways and for large mailing lists.

An event is logged into SMTP log whenever a session is delayed.

SYSTEM [05D4] 19:05:27 Client session Traffic delay applied

WebAdmin

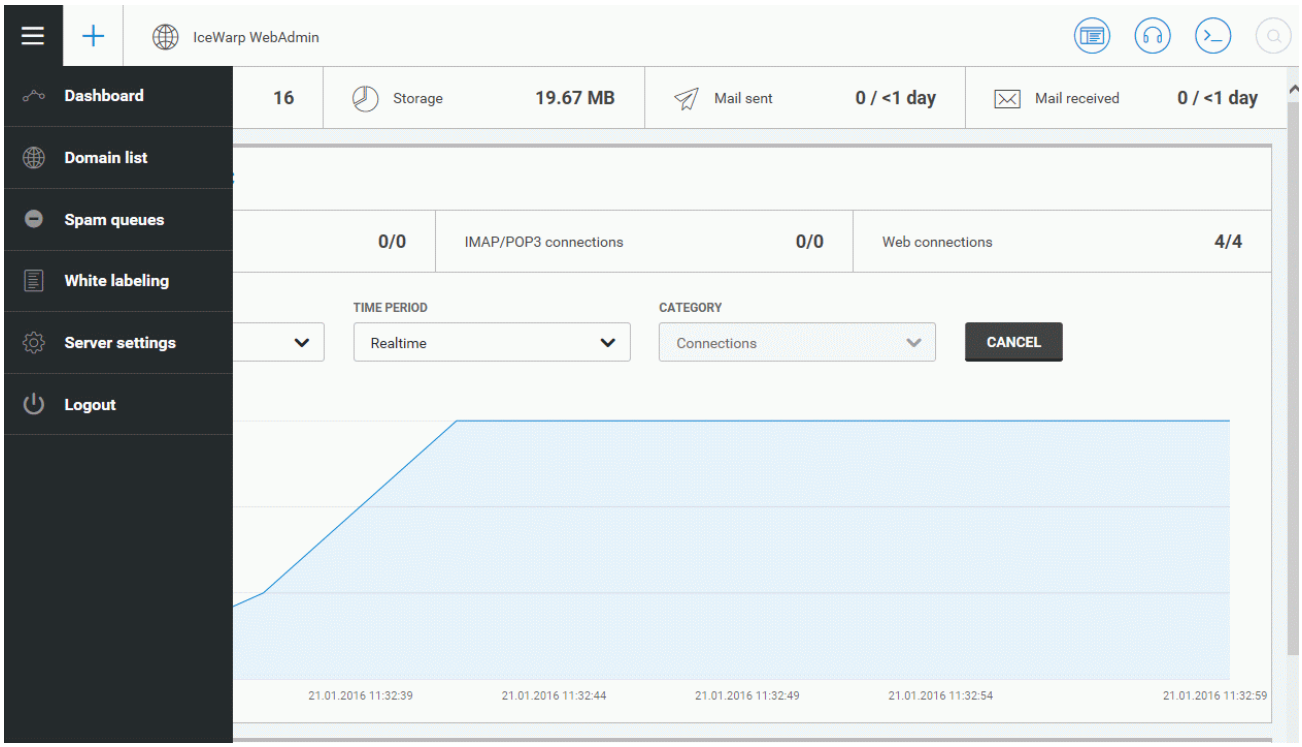
IceWarp WebAdmin is the web-based interface for IceWarp Server administration.

Please be aware of its limitations compared to other administrative tools:

- WebAdmin cannot execute programs, stop Web/Control service without disconnecting you, it provides only basic charting/statistics and some advanced setup options are not implemented.

For comprehensive remote server management, consider the following tools:

- Remote Connection from Administration GUI application, more details in the **Remote Server Administration** chapter.
- Administration GUI including Remote Console also runs in Wine on Linux. More details can be found in the **Linux Quick Guide** and in **Support Knowledge Base** (http://esupport.icewarp.com/index.php?/default_import/Knowledgebase/List).
- The command line interpreter **tool.exe** or **tool.sh** for direct API access, more details in the IceWarp Server API chapter.
- Linux wizard script **./wizard.sh** which provides basic operations on account, storage and license management. More details in **Installation and Control in Linux** guide.



Working with WebAdmin is very comfort because the design of the options was developed to be easy to use for novices and professionals as well.



You can access WebAdmin at:

http://yourIP/admin/

or, if not using the default port:

http://yourIP[:ControlServicePort]/admin/

or

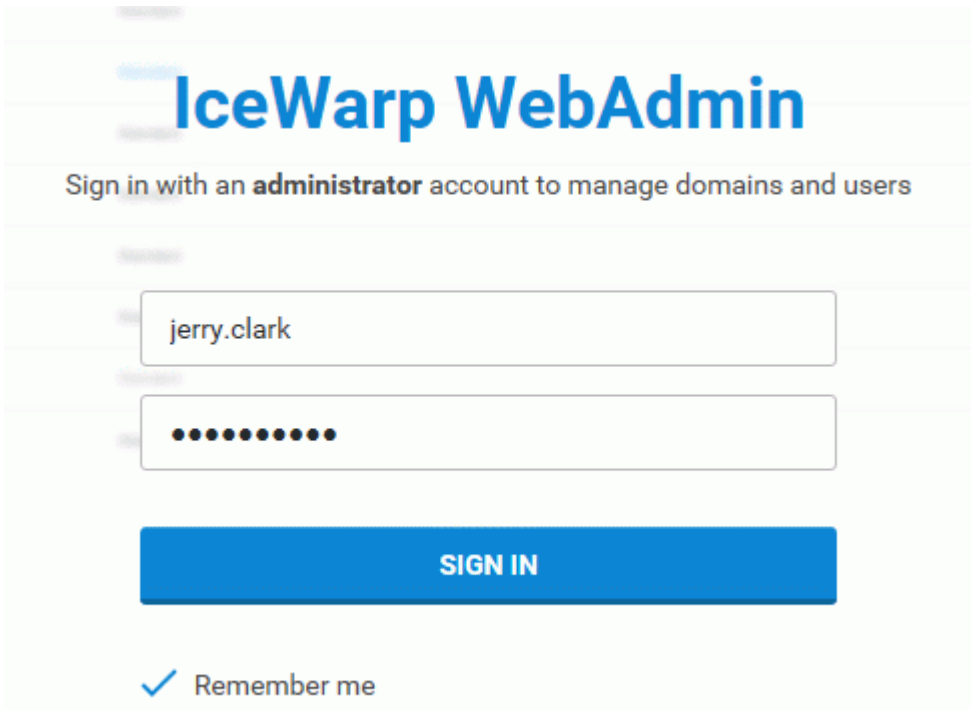
http://hostname/admin/

or

http://hostname[:ControlServicePort]/admin/ – respectively.

Example

If you are running the Control service on the default port 80 and you have your server installed on a computer with IP address 83.21.14.51 you can access WebAdmin at http://83.21.14.51/admin/



Additionally, you can set a new web service host on your IceWarp Server to access the WebAdmin at a defined URL, e.g. *http://webadmin.yourdomain.com*. You should create such a host also in your DNS pointing to your IceWarp Server's IP and in the website definition, in the **Web** node of the console, set the home directory to *html\admin*.

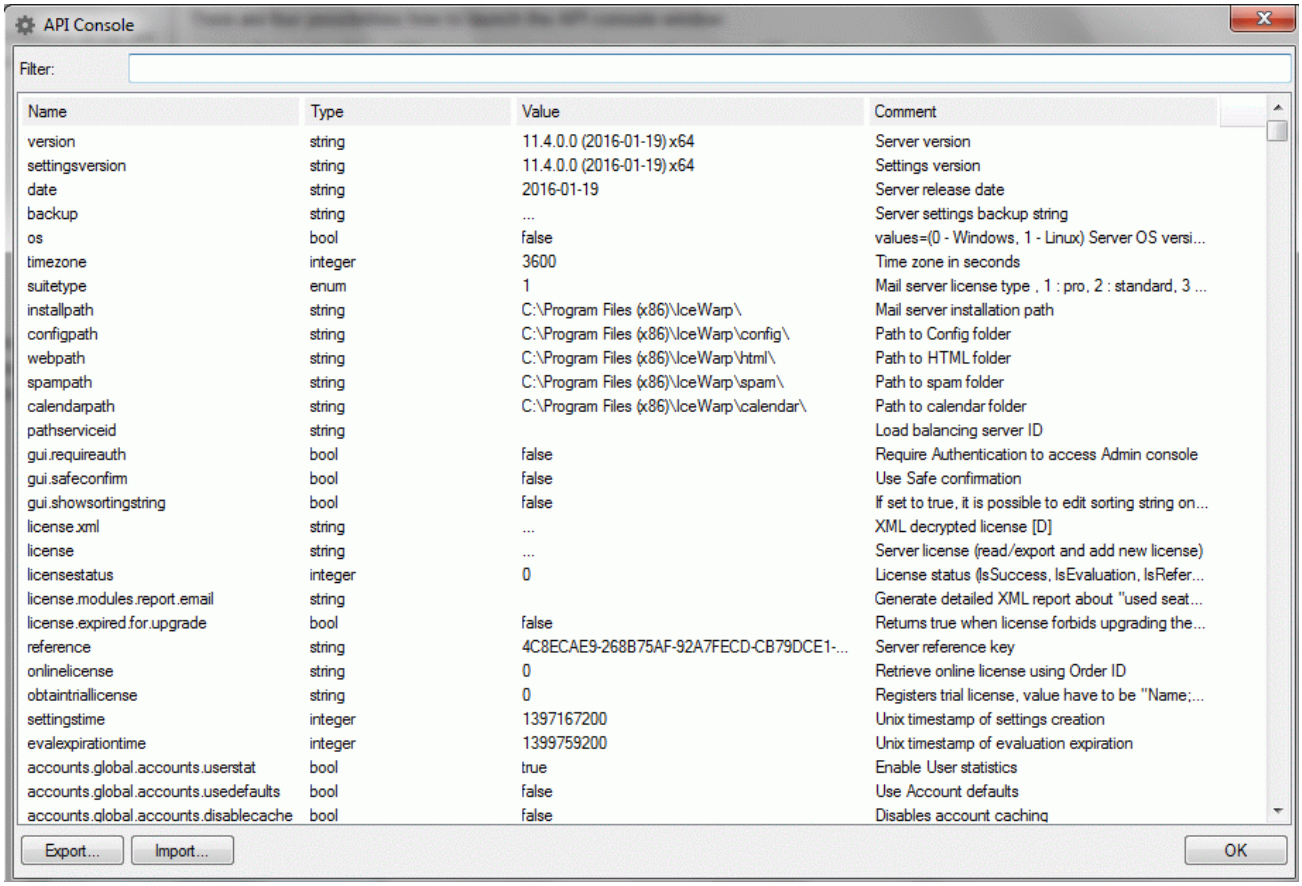
WebAdmin respects the extended access rights that you can specify in **Management – User – Permissions – Rights – Advanced**. This way you can limit access of domain administrators to only specified domains, set which particular account types the administrator can modify and hide administrative options they should not be able to access.

API Console

This tool lets you manage values of API variables.

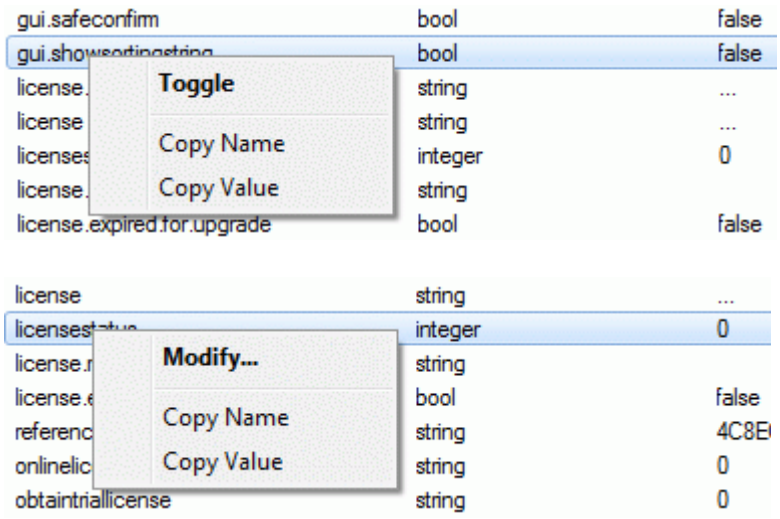
There are four possibilities how to launch the API console window:

- Select the ***File – API console*** main menu item – only system API variables are shown.
- Select the ***Accounts – API*** console main menu item – API variables of the selected domain/account are shown.
- Right-click a domain name and select the ***API console*** item – domain API variables are shown.
- Right-click a single account (specific user, group, mailing list, etc.) and select the ***API console*** item – account API variables are shown.



Field	**Description**
Filter	Write an expression (or a part of it) you want to search for. You can search for values from all three columns. To reveal all variables, clear the field and hit ***Enter***.
Export	Click the button to export (import respectively) API variables values. Usual **Save As** (**Open** respectively) dialog is shown. Recommended file formats are .cvs and .txt, but other ones are also possible. *NOTE: When filtering performed, only shown variables are exported.*
Import	

Right-click the selected variable to manage it.



Item	Description
Toggle	Applies to boolean values. Toggles them – true/false.
Modify	Applies to string values and integer ones. Dialog for change performance is shown.
Copy Name/Value	Click the item to copy the name of the selected variable (value respectively) into your clipboard.

*NOTE: Some values are not changeable – Modify/Toggle items are not enabled. These values are set within installation (**version**, **timezone**, ...) or determined from the current state (**mailboxsize**) etc.*

NOTE: When seeing boolean values, they represent either a 1 or 0. If set to 1, it means the option is enabled and 0 means disabled.

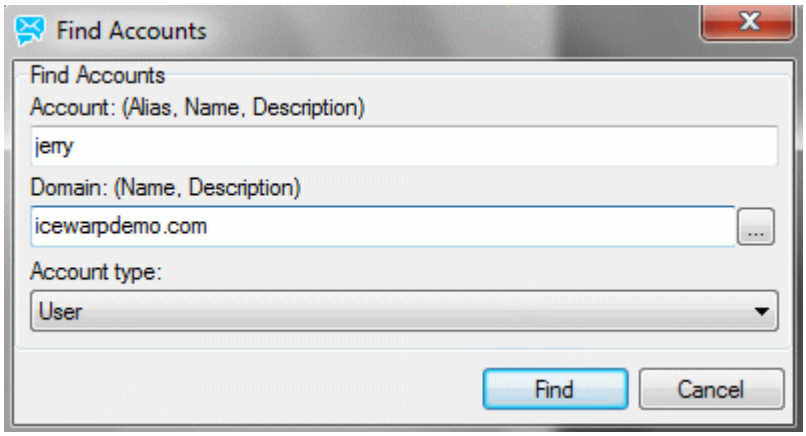
*NOTE: The API console does show exact variable names. To obtain its exact name, right-click a variable within the console and select the Copy Name item (or search for this variable within the **apiconst.pas** file (**<install_dir>/api/delphi/**)).*

Miscellaneous

Find Dialog

The **Find** dialog can be used to locate accounts within your IceWarp Server.

Select **Accounts – Find** (or just hit the **Ctrl + F** keys) **–** the following dialog opens.

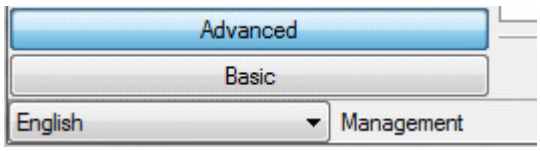


Field	Description
Account: (Alias, Name, Description)	Specify a string you wish to locate in the account name, alias or account description. AND/OR –>
Domain: (Name, Description)	Specify part of the domain name or the entire name to find it. Domain description can be searched for as well. *NOTE: You can search also for strings within the **Description** fields of all server domains. However, this feature cannot be used for the **Description** fields of any account types.*
Account type	Select an ***Account type*** if you wish to limit your search to a particular account type. E.g.: In the above screenshot we are looking for ***User*** accounts with the string of "alison" in the account name AND the string of "icewarpdemo.com" in the domain name.
Find	Click the ***Find*** button and your criteria are used as a filter. Selecting the **Management** node shows a tree only with accounts which comply with the filter.

*NOTE: If you want to view all domains (users, groups, ...) again, you have to press the **F5** key. (Another way is to repeat search with searching criteria cleared.)*

Status Bar

The **Status Bar** is located at the bottom of the GUI.



Field	Description
Advanced	Interface mode switch. Click this button if you want to have all nodes of the server tree shown.
Basic	Interface mode switch. Click the button if you want to have the server tree simplified. Only the first level nodes are shown. Some sub-nodes (e.g. Global Settings) are not accessible.
<Language>	Select the GUI language here. English is currently selected.
Navigation bar	This bar shows what tree node is currently selected. The **SMS Service** node here.



*NOTE: Information about a server version is placed above the **Main Menu** bar.*

Languages

IceWarp Server is in English by default but it can be localized to other languages by loading a language xml file.

Various language files are available but you can also write your own if you wish.

The language file to be used at startup can be specified in file info.xml or you can switch between languages using the language list (see above). It will expand to show all available language files. Select one and the interface will immediately start to use that language.

The language XML files have to be located in the **<install_dir>/xml/lang/<language_abbreviation>** folder and each XML file should have a language identification tag as the first line.

For example: the Portuguese language file is called **data.xml,** is placed in the **<install_dir>/xml/lang/pt** directory, contains the console translation and should look like this:

<?lang caption="Portuguese" abbr="PT" translator="Pele" contact="pele@somedomain.br" langversion="1.5" version="8.2.2" date="2005-07-20"?>

<?xml version="1.0" encoding="UTF-8"?>

<APPLICATION><FORMS><FORM ID='TConfigForm' CAPTION='Administração do IceWarp Server'><ITEM ID='AccountsSheet' CLASS='ttabsheet' CAPTION='Contas'/>

<ITEM ID='AccountsDomainSheet' CLASS='ttabsheet' CAPTION='Contas de domínios'/>

<ITEM ID='UserGroupsSheet' CLASS='ttabsheet' CAPTION='Grupos de Usuários'/>

<ITEM ID='AccountGlobalSheet' CLASS='ttabsheet' CAPTION='Configurações Globais'/>

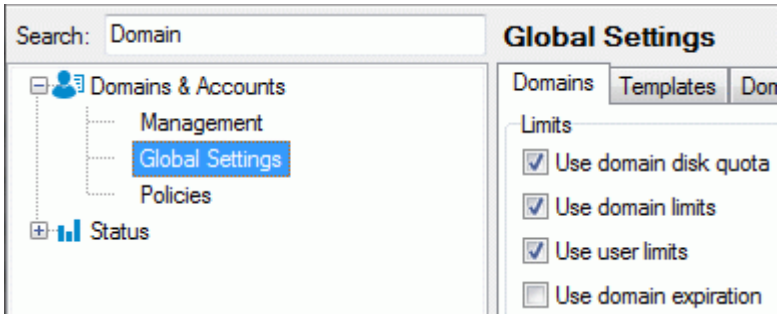
<ITEM ID='AccountDefaultsSheet' CLASS='ttabsheet' CAPTION='Contas'/>

<ITEM ID='AccountDefaultsGroupBox' CLASS='tgroupbox' CAPTION='Padrões de contas'/>

....

Node Tree Search

This search feature allows you to filter administrative console nodes and subnodes.



Write the desired term or its part into the ***Search*** field (at the top of the tree pane). Nodes and subnodes are filtered immediately. To reveal all nodes, just clear the ***Search*** field.

NOTES:

Search keywords are used for each node/tab. I.e. it is not necessary the appropriate tab (in GUI) includes exact expression you have searched.

If some node is found, all its subnodes are shown too.

Copy Button

On the various places in GUI, you can find the ***Copy*** button. It is used on places where you add multiple items (together with the ***Add***, ***Edit*** and ***Delete*** buttons).

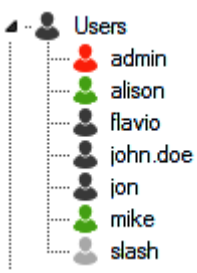
It copies the currently selected item and presents the **Add** dialog with the items values. This lets you easily duplicate and alter any item in the GUI, no matter if it is a SIP gateway rule, Web service or a simple SSL tunnel item. You do not need to use the copy & paste feature anymore.



Account Colors

User account are distinguished by icon colors:

Permissions	**Color**
Administrator	Red
Domain administrator	Green
Standard user	Grey
Disabled/expired account	Dimmed



Shared Topics

This chapter contains topics that are common to more chapters. So there are links to appropriate sections instead and such sections are stored in this chapter to decrease the greater size which could be caused by reusing them on more places.

DNS Records Configuration

A Records

Active Sync

For smooth functioning of Auto/SmartDiscover mechanism, it is necessary to configure A DNS record. There are two ways how to do it:

- You can either set this record directly:

  autodiscover.<domain.com> – <IP_address>

  where IP_address is the address of the "main" server.

- Or – better – you can set A record only for this "main" server + set a CNAME record (alias):

  autodiscover.<domain.com> – <server.domain.com>

  This way saves a lot of work in the case IP address of the "main" server is changed and you have set many aliases instead of many A records.

SRV Records

WebDAV

For Apple CalDAV/CardDAV clients you need to configure DNS records otherwise they will not be able to connect. Also if the hostname is different to the domain name, then a DNS SRV record should be configured to point to the actual hostname.



NOTE: If the hostname is different to the domain, then a DNS SRV record should be set up by the domain owner.

The syntax of SRV records for standard HTTP (port 80) and HTTPS (port 443) access:

_caldav._tcp.<Domain>. 86400 IN 0 5 80 <Host>

_caldavs._tcp.<Domain>. 86400 IN 0 5 443 <Host>

Where ***Domain*** is the domain to be contacted and ***Host*** is the actual host, so if you are the owner of domain icewarpdemo.com and you are running your IM server as im.icewarpdemo.com you should create a DNS SRV record as follows:

_caldav._tcp.icewarpdemo.com. 86400 IN SRV 0 5 80 im.icewarpdemo.com



*NOTE: This full record form is to be used when you want to edit a **zone file** directly. When using any interface, just fill in the appropriate fields.*

The same applies for CardDAV:

_carddav._tcp.<Domain>. 86400 IN 0 5 80 <Host>

_carddavs._tcp.<Domain>. 86400 IN 0 5 443 <Host>

i.e.:

_carddav._tcp.icewarpdemo.com. 86400 IN SRV 0 5 80 im.icewarpdemo.com



These records are necessary for Apple clients (iCal and Address Book in Mac OS X 10.6 and later). Without these records, the client applications will be unable to find location of the WebDAV service. (Searching algorithm prefers this SRV record information, if available. If not, the client tries to connect to the specified server using the following ports: 8800 (CardDAV), 8843 (CardDAV + SSL), 8008 (CalDav) or 8443 (CalDAV+SSL)).

It is probable that other clients will follow this trend.

SIP

Syntax for SIP is as follows:

_sip._tcp.<domain.com>
_sip._udp.<domain.com>
_sip._tls.<domain.com>

Other parts are same.

XMPP

Syntax for XMPP is as follows:

_xmpp-server._tcp.<domain.com>
_xmpp-client._tcp.<domain.com>

Other parts are same.

Simple RegEx Tutorial

Regular expressions can be used in content filter conditions.

Regular expressions can be extremely complex but they are very flexible and powerful and can be used to perform comparisons that cannot be done using the other checks available.

Some very basic examples of regular expression usage follow. For a complete description, please visit

http://www.regular-expressions.info/.

^' and '$'

First of all, let's take a look at two special symbols: '^' and '$'. These symbols indicate the start and the end of a string, respectively:

"^The"	matches any string that starts with "The".
"of despair$"	matches a string that ends in with "of despair".
"^abc$"	a string that starts and ends with "abc" – effectively an exact match comparison.
"notice"	a string that has the text "notice" in it.

You can see that if you do not use either of these two characters, you are saying that the pattern may occur anywhere inside the string – you are not "hooking" it to any of the edges.

'*', '+', and '?'

In addition, the symbols '*', '+', and '?', denote the number of times a character or a sequence of characters may occur. What they mean is: "zero or more", "one or more", and "zero or one." Here are some examples:

"ab*"	matches a string that has an 'a' followed by zero or more b's ("ac", "abc", "abbc", etc.)
"ab+"	same, but there is at least one b ("abc", "abbc", etc., but not "ac")
"ab?"	there might be a single b or not ("ac", "abc" but not "abbc").
"a?b+$"	a possible 'a' followed by one or more 'b's at the end of the string: Matches any string ending with "ab", "abb", "abbb" etc. or "b", "bb", etc. but not "aab", "aabb", etc.

Braces { }

You can also use bounds, which appear inside braces and indicate ranges in the number of occurrences:

"ab{2}"	matches a string that has an a followed by exactly two b's ("abb")
"ab{2,}"	there are at least two b's ("abb", "abbbb", etc.)
"ab{3,5}"	from three to five b's ("abbb", "abbbb", or "abbbbb")

Note – you must always specify the first number of a range (i.e., "{0,2}", not "{,2}"). Also, as you might have noticed, the symbols '*', '+', and '?' have the same effect as using the bounds "{0,}", "{1,}", and "{0,1}", respectively.

Now, to quantify a sequence of characters, put them inside parentheses:

"a(bc)*"	matches a string that has an 'a' followed by zero or more copies of the sequence "bc"
"a(bc){1,5}"	one through five copies of "bc."

'|' OR operator

There is also the '|' symbol, which works as an OR operator:

"hi|hello"	matches a string that has either "hi" or "hello" in it
"(b|cd)ef"	a string that has either "bef" or "cdef"
"(a|b)*c"	a string that has a sequence of alternating 'a's and 'b's ending in a 'c'

('.')

A period ('.') stands for any single character:

"a.[0-9]"	matches a string that has an 'a' followed by one character and a digit
"^.{3}$"	a string with exactly 3 characters

Bracket expressions

Specify which characters are allowed in a single position of a string:

"[ab]"	matches a string that has either an 'a' or a 'b' (that is the same as "a|b")
"[a-d]"	a string that has lower case letters 'a' through 'd' (that is equal to "a|b|c|d" and even "[abcd]")
"^[a-zA-Z]"	a string that starts with a letter
"[0-9]%"	a string that has a single digit before a percent sign
",[a-zA-Z0-9]$"	a string that ends in a comma followed by an alphanumeric character

You can also list which characters you DO NOT want – just use a '^' as the first symbol in a bracket expression (i.e., "%[^a- zA-Z]%" matches a string with a character that is not a letter between two percent signs).

In order to be taken literally, you must escape the characters "^.[$()|*+?{\" with a backslash ('\'), as they have special meaning. On top of that, you must escape the backslash character itself in PHP3 strings, so, for instance, the regular expression "(\$|A)[0-9]+" would have the function call: ereg("(\\$|A)[0-9]+", $str) (what string does that validate?)

Just do not forget that bracket expressions are an exception to that rule -- inside them, all special characters, including the backslash ('\'), lose their special powers (i.e., "[*\+?{}.]" matches exactly any of the characters inside the brackets). And, as the regex manual pages tell us: "To include a literal ']' in the list, make it the first character (following a possible '^'). To include a literal '-', make it the first or last character, or the second end point of a range."

Command Line Tool

There is a completely new command line tool which you can use to administer domains and accounts as well as all system variables. This tool is called **tool.exe** and you can find it directly in the **<InstallDirectory>** folder. For Linux, this is called **tool.sh**. It is easy to use and you only have to know the API constants. Complete list of API constants is in the **APIconst.pas** file in the **<InstallDirectory>\API\Delphi** folder.



*NOTE: Using **tool.exe** for performing large operation can cause temporary service unavailability because the service needs to be restarted for some changes in configuration. For servers with many domains and many users with high load, restarting can take some time. Therefore, we recommend performing large batches of changes in low-load periods.*



NOTE: Command line tool does not support multi-line – you can encounter this e.g. using the autoresponder variable.

Command	Description
CREATE	Creates a new object. It is followed by a type (domain or account) and a list of variables and values you want to assign to these variables.
DELETE	Deletes an object. It is followed by a type (domain or account) and a unique name of object you want to delete.
MODIFY	Modifies any variable (property) of an object. It is followed by a type of object and a list of variables and values you want to assign to these variables.
DISPLAY	Displays any variable (property) of an object. It is followed by a type of object (domain, account or system) and a list of variables you want to show. Result is generated with double line feeds.
EXPORT	Does the same as DISPLAY command but this command shows on the screen everything separated by comma (CSV format). Result is generated without double line feeds.
FILE	Calls file functions. It is followed by USERSTATISTICS and all its parameters (see below).

Parameter	Description
ACCOUNT [variables]	Address any account on the server.
DOMAIN [variables]	Address any domain on the server.
SYSTEM [variables]	Address any system variable such as c_version, c_name, etc. List is also in APIConst.pas
BATCH batchfile	Allows you to run a batch file with a set of commands included. See examples below. Batchfile is just a common text file with commands. Each on a separate line. These commands must not include "tool" at the beginning. Just the commands and parameters.
USERSTATISTICS fromdate todate filterstring outputfile	Saves user statistics between fromdate and todate to specified output file for all users that fulfill the condition of filterstring. fromdate, todate have yyyy/mm/dd format filterstring supports also asterisks and question marks to specify more accounts. If it does not contain @ symbol it is considered as domain name. outputfile – if you do not specify absolute path, it will be saved to the **<InstallDirectory>** folder.

How to create other types of accounts

To do this, you have to use the ***u_type*** property. Its values are also written in the **APIConst.pas** file. For example mailing list has 1 as a value of this property. So if I want to create mailing list, I will have to use this:

tool create account mailing@icewarpdemo.com u_type 1 m_owneraddress "admin@icewarpdemo.com"

Usage

tool create account new@icewarpdemo.com u_name "New Account" u_password "pass" u_accounttype 2

- It creates an account with New Account in ***Full Name*** field and pass as password.

tool display account new@icewarpdemo.com u_mailbox u_accounttype

- It shows you values of both variables of ***u_mailbox*** and ***u_accounttype*** of the ***new@icewarpdemo.com*** account.

tool delete domain oldone.net

- It deletes the ***oldone.net*** domain from your server.

*tool modify account *@icewarpdemo.com u_accounttype 2*

- It changes all accounts in ***icewarpdemo.com*** to IMAP accounts.

tool file userstatistics 2004/12/25 2004/12/31 icewarpdemo.com statistics.txt

- It saves user statistics between dates 2004/12/25 and 2004/12/31 for all accounts in ***icewarpdemo.com*** domain to the **statistics.txt** file. This file can be found in the ***<install_dir>*** folder.

*tool export domain * d_description d_postmaster*

- It shows on the screen the ***d_description*** and ***d_postmaster*** variables for all domains in CSV format – each value is separated by comma.

*tool export account *@* u_mailbox u_name u_password > accounts.txt*

- Besides exporting the three above fields, it also puts user's full email address into the first column.

tool import account contas.txt u_name u_password

- Imports three fields from CSV.



NOTE: The first field imported from this CSV file is an email address – it is imported automatically and is not to be written in the import command. It has to be specified in CSV in the first place.

tool display system c_config_services_pop3_port

- It shows the system variable that contains a POP3 service port.

tool file batch create_mailing.txt

- where ***create_mailing.txt*** looks like:

create account mailing1@icewarpdemo.com u_type 1 m_owneraddress "admin@icewarpdemo.com"

create account mailing2@icewarpdemo.com u_type 1 m_owneraddress "admin@icewarpdemo.com"

create account mailing3@icewarpdemo.com u_type 1 m_owneraddress "admin@icewarpdemo.com"

- It creates three mailing lists defined in the **create_mailing.txt** file.

*tool check account *@* passpolicy*

- It verifies which accounts do not comply with the new password policy.

*tool check account *@* passpolicy > <filename>*

- It redirects to a file.

  Example:

  tool check account *@* passpolicy>outofpolicy.txt

tool display account @@ > accounts.txt*

- Gets a listing of accounts with double line feeds.

*tool export account *@* > accounts.txt*

- Gets listing with single line feeds.



NOTE: Passwords can contain special chars. All quotes are prefixed with backslashes. If there is a comma in a password, this password is quoted.

php.user.ini Advantages

IceWarp Server uses the **php.ini** file. This file is used to store php settings.

After every server upgrade, this file is overwritten. It means that any changes performed before upgrade are lost. It can be annoying to do these changes again and again. To ease your work, you may want to use the **php.user.ini** file.

When placed in the same folder as the **php.ini** file, content of the **php.user.ini** file is attached automatically to the **php.ini** one during server upgrade. The later occurrence of the same setting is used.

This means that you can insert all changes performed against the original **php.ini** file into the **php.user.ini** one that is not overwritten during upgrade and the server will use these changed settings.

Example

Part of the original **php.ini** file:

...

extension=php_pdo_odbc.dll

;extension=php_pdo_mysql.dll

;extension=php_mysql.dll

;zend_extension_ts = "ext\php_xdebug.dll"

;extension=php_bz2.dll

;extension=php_ctype.dll

;extension=php_cpdf.dll

;extension=php_curl.dll

...

Part of the **php.user.ini** file:

...

extension=php_pdo_mysql.dll

extension=php_bz2.dll

...

Part of the **php.ini** file after upgrade:

...

extension=php_pdo_odbc.dll

;extension=php_pdo_mysql.dll

;extension=php_mysql.dll

;zend_extension_ts = "ext\php_xdebug.dll"

;extension=php_bz2.dll

;extension=php_ctype.dll

;extension=php_cpdf.dll

;extension=php_curl.dll

...

extension=php_pdo_mysql.dll

extension=php_bz2.dll

...

The uncommented ***extension=php_bz2.dll*** setting is used because of its later occurrence.php



BE AWARE: Do not copy the whole **php.ini** to the **php.user.ini** file!

From the **php.ini** file, copy ***only*** lines you want to have uncommented, paste them to a new file and uncomment them. Otherwise, you can encounter problems with PHP (and, consequently, webmail).

snmp-mib.txt File

snmp-mib.txt File

This file includes several sections of variables. Some of them are defined in SNMP and/or MIB. For more information, refer for example to ***http://en.wikipedia.org/wiki/Simple_Network_Management_Protocol/***. The current version of this file is available in **<install_dir>\doc\snmp-mib.txt**.

In the **SvcID** section, there are variables defined by IceWarp:

Variable	Statistic Item	Description
1 - svcName	Service	Service name
2 - svcRunning		0 – not running 1 - running
3 - svcUpTime	Running Time	Service running time
4 - svcServerOutData	Server Data Out	Amount of data sent out during server sessions (In kB)
5 - svcServerInData	Server Data In	Amount of data received during server sessions (In kB)
6 – svcClientOutData	Client Data Out	Amount of data sent out during client sessions (In kB)
7 - svcClientInData	Client Data In	Amount of data received during client sessions (In kB)
8 - svcServer	Server Connections (Count)	Actual number of concurrent server sessions
9 - svcServerPeak	Server Connections (Peak)	Maximal number of concurrent server sessions
10 - svcClient	Client Connections (Count)	Actual number of concurrent client sessions
11 - svcClientPeak	Client Connections (Peak)	Maximal number of concurrent client sessions
12 - svcServerConns	Connections Total	Number of all historical sessions (client + server)
13 - svcPeakWorkingSetSize	Working Set Size Peak	Maximal amount of memory used by the service
14 - svcPageFileUsage		Number of page file used by the process (process statistic – Windows tells us this)
15 - svcWorkingSetSize	Working Set Size	Current amount of memory used by the service
16 - svcSMTPMessageOut	Sent	*All following variables are related to SMTP service.* Number of messages send out from the server
17 - svcSMTPMessageIn	Received	Number of messages received by the server
18 - svcSMTPMessageFailed	Failed	Number of failed messages during sending
20 - svcSMTPFailedVirus	Virus	*All following variables are related to incoming messages.* Number of failed messages with a virus recognized
21 - svcSMTPFailedCF	Content Filter	Number of failed messages filtered by content filters
22 - svcSMTPFailedStaticFilter	External Filter	Number of failed messages filtered by external filters
23 - svcSMTPFailedBWFilter	Rules	Number of failed messages filtered by rules
24 - svcSMTPFailedDNSBL	DNS	Number of sessions filtered by features within the Mail Service – Security – DNS – General section
25 - svcSMTPFailedTarpit	Intrusion Prevention	Number of failed messages braking intrusion prevention rules

26 – svcSMTPFailedSpam	Spam Marked	Number of messages evaluated as SPAM and accepted (does not include rejected SPAM)

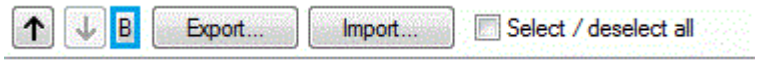
Access Mode – Policies

Access mode for individual services is set on both domain and user levels:

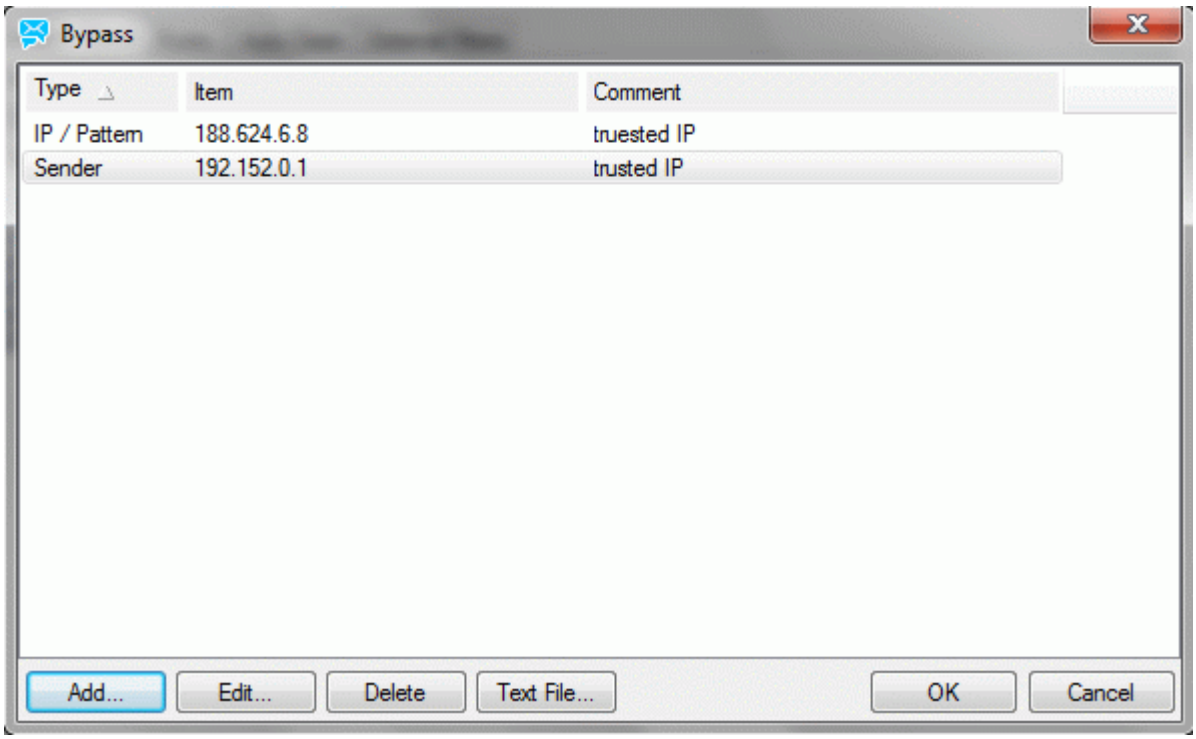
- Upon the **[domain] – Policies** tab (**Domains and Accounts – Management**) for domains.
- Upon the **[user] – Policies** tab (**Domains and Accounts – Management – [domain]**) for users.

Bypassing Rules/Filters

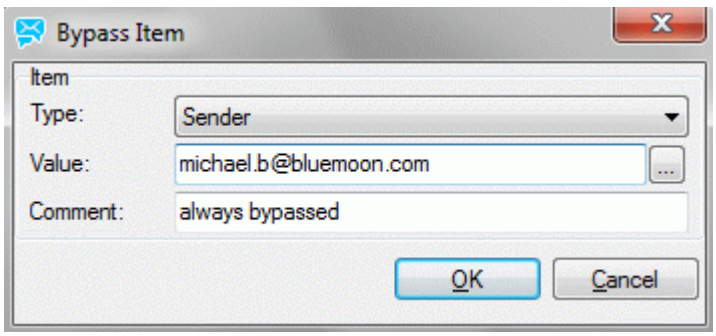
To enhance capabilities of IceWarp Server, increase its performance and ease administration, it offers possibility to use bypassing. You can find it on many places – e.g. within Anti-Spam, Anti-Virus, Content Filters, etc. It allows you to bypass rules/filters processing for certain senders, recipients, domains, email addresses, etc.



Click the "***B***" button to specify a bypass list. In the **Bypass** dialog, you can specify the bypass items.



Use the ***Add*** and ***Edit*** buttons to create/edit a record. The **Bypass Item** dialog opens:



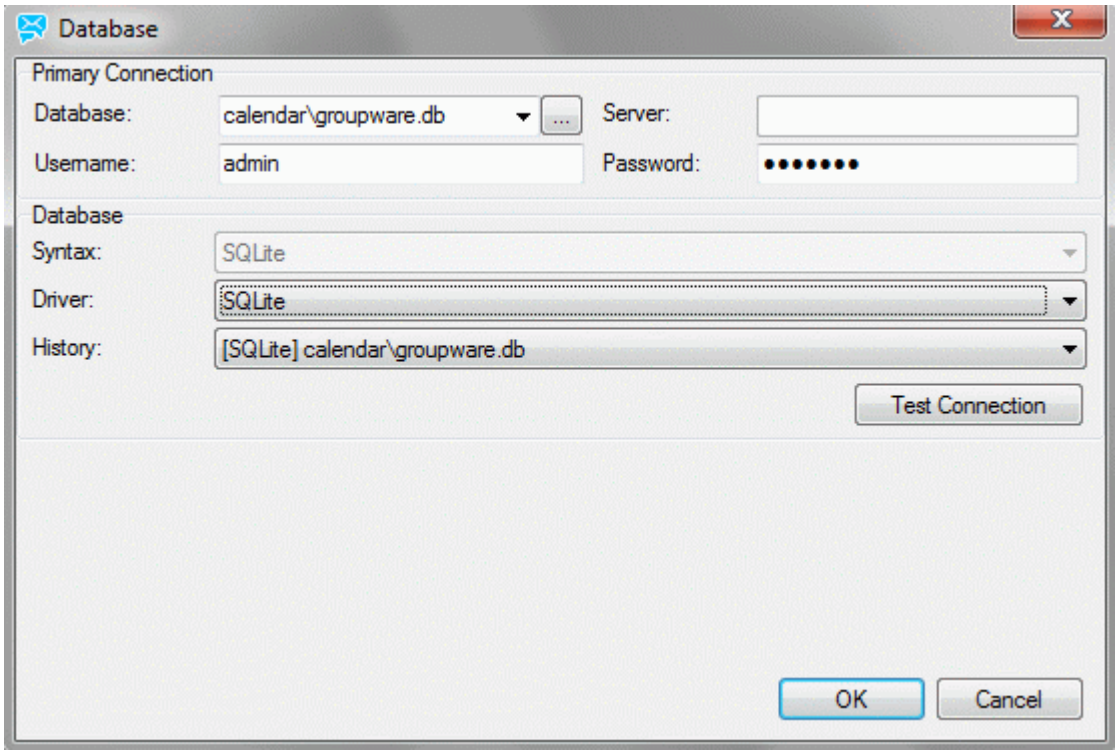
Field	Description
Type	Select the bypass item type. For the list, see the ***Value*** feature description.

<table>
<tr><td>Value</td><td>Fill in or select the appropriate value for bypass item types:
<table>
<tr><th>Type</th><th>Value (Explanation)</th></tr>
<tr><td>All (= Sender, Recipient, IP Address)</td><td>email address, domain, IP address</td></tr>
<tr><td>Sender</td><td>email address or domain</td></tr>
<tr><td>Recipient</td><td>email address or domain</td></tr>
<tr><td>Local Sender</td><td>leave the Value field blank (emails of all local senders will bypass rules/filters processing)</td></tr>
<tr><td>Trusted Session</td><td>leave the Value field blank (emails of all authenticated users or users connected from trusted IP will bypass rules/filters processing)</td></tr>
<tr><td>DNS A</td><td>sever hostname</td></tr>
<tr><td>IP/Pattern</td><td>IP address that you can find in the SMTP log of the senders connection. You can use wild cards and bitmasks. E.g. 192.168.*.* or 172.16.10.0/24</td></tr>
<tr><td>DNSWL</td><td>a name of the DNSWL server that you trust/use, for more DNSWL servers create more bypass records</td></tr>
<tr><td>File</td><td>path to the bypass file with defined bypass items; e.g. c:\data\bypass\allbypass.dat</td></tr>
</table></td></tr>
<tr><td>Comment</td><td>Enter bypass description.</td></tr>
</table>

Use the ***Delete*** button to remove the selected record. Click the ***Text File*** button to reveal the editable text file with current records. To reveal syntax rules, click the ***Comment*** button here.

Database Settings

The **Database** dialog lets you specify the database, connection details, create and drop tables and perform a connection test.



Field	Description
Primary Connection	This field specifies the complete connection string to the database source. Enter the database name, server name, username and password for your database (your DB administrator should be able to provide these). The file browser button to the right of the ***Database*** field is only active if SQLite or Firebird are chosen. SQLite is a file based database, and you can use the file browser to select explicitly the file containing your database. When using **Firebird**, there are two possibilities: • The database is placed on the same (local) machine – fill in the *Database* field and leave blank the *Server* one. • The database is placed on a remote machine – fill in both *Database* and *Server* fields. For the *Server* field, use the usual syntax – ***server(:port)***.
Database Syntax	Choose the database type that corresponds to your database from the drop-down list. Supported database types are: ▪ MySQL ▪ SQLite ▪ Microsoft SQL ▪ Oracle ▪ Firebird ▪ InterBase ▪ Microsoft Access

Database Driver	Choose the DB driver that corresponds to your database. ODBC – will work with all databases except for: ▪ MySQL – select MySQL ▪ SQLite – select SQLite ▪ Firebird – select Firebird *NOTE: When configuring Oracle database driver, do not tick the **Enable Statement Caching** option. Caching on the Oracle server is powerful enough.*
Database History	Select a DB connection string from the list of previously used ones.

Buttons

Field	**Description**
Create Tables	This button creates the required tables in the ODBC source. You have to create the right tables for every ODBC source.
Drop Tables	Click this button to delete created tables from the ODBC source.
Test Connection	Always perform the ODBC connection tests. If the test is successful, you have set all the information properly. If not, you have to make changes.

Step by Step

1. Create a **System DSN** in the Control Panel – Administrator Settings – ODBC Data Sources to connect to your DB. Make sure it is a System DSN and not a User DSN.
2. Fill in the proper connection string. Specify a backup connection if required. Test connection – use the ***Test Connection*** button.
3. Create tables using the ***Create Tables*** button.
4. Click the ***OK*** button.



REMEMBER that IceWarp Server is a 32bit application, therefore it will not work with default x64 ODBC driver on 64bit OS. Run the 32bit Data Sources (ODBC) **odbcad32.exe** application located in **WINDOWS\Syswow64** to set DSNs of IceWarp Server on 64bit system. 32bit and 64bit ODBC DSNs are being stored separately.

If you use 64bit IceWarp Server, it is necessary to add the 32bit version of **libmysql.dll** to **WINDOWS\Syswow64.**

Supported Databases

IceWarp Server always supports only official/stable releases of database engines:

- ships with SQLite3 3.7.9 native support
- supports MySQL versions up 5.1 and 5.5 via native driver
- supports Firebird 2.1 via native driver
- supports MS Access 2008, MS SQL 2005/2008, Oracle 11, InterBase, using ODBC or unixODBC (check version support with ODBC driver vendor).



IceWarp recommends using MySQL, Microsoft SQL or Oracle for large installations as these are more robust and capable of handling the increased traffic.

Database Charset

All databases, i.e.

- AntiSpam
- GroupWare
- WebClient PDO
- Accounts

should use the **UTF8** character set. IceWarp Server uses UTF8, if any its database is set to use other character set (usually by default they use **LATIN1**) it causes issues.



*NOTE: If you have used a database (created in MySQL as **latin1**) from an old IceWarp Server installation to a fresh installation (set to use UTF-8 for driver connections), you may experience problems with viewing data in the console, WebClient, etc. – diacritics shown incorrectly.*

*If this happens, migrate your data to UTF-8 (check MySQL manual) or, an easier way to get around, use API to change connection to use **latin1**.*

So:

tool modify system C_System_MySQLDefaultCharset latin1

*makes it to use **latin1** instead of UTF-8.*

Path Variables for MySQL and FireBird

When using either MySQL or FireBird databases, you have to take into account that these databases use own libraries installed into specific folders:

- **C:\Program Files\MySQL\bin** for MySQL
- **C:\Program Files\FireBird\bin** for FireBird

You have to use these folders and add the appropriate path to the system ***Path*** variable (**Control Panel – System – Advanced system settings – Advanced – Environment Variables – System Variables**) – use semicolons to separate single paths.

BE AWARE: Do not use different folders for these libraries as you could forget to upgrade them after database server upgrade!



NOTES:

*You may need to reboot the server after the **Path** variable change – this depends on the OS you use.*

The WebClient and GroupWare databases have to be case INSENSITIVE! Otherwise, WebClient will not work properly.

Database Security Basics

A short word on DB security. What you should be aware of:

1. Always run the DB engine under a user with limited system rights (do not use the system user).
2. Always use different databases for different engines (accounts, Anti-Spam, GroupWare – they all should use different databases).
3. Use up-to-date server version with SQL injection protection (9.4.2 and higher).
4. Pay special attention when running MySQL – it supports a special clausule which allows the query to be saved to a file (SELECT ... INTO FILE file.txt).

This means that when a hacker can inject the SQL statement they can save anything to a file which then can be accessed via HTTP (do the maths, insert PHP script and you are in). But if you follow 1) and 2), you do not need to be worried ever.

The most important part is to run MySQL (or other) under a user which has write access rights only to the directory of the database. It is a common sense on Linux but Windows users often do not realize this.

IceWarp Server Databases

Database Types

A. Accounts – used for accounts information, critical for an administrator to be able to log into a console.
B. Directory cache – keeps records of the folder structures of the mail storage.
C. GroupWare – used to store all events, tasks, notes, contacts, etc. – basically all user data except mails.
D. ActiveSync (EAS) – used by EAS server as metadata storage, essential for synchronization to work. When lost, all devices will go for a full re-synchronization.
E. AntiSpam – used to store users' blacklists and whitelist.
F. AntiSpam reports – used by challenge script which generates qurantine/antispam reports for users.
G. WebClient – serves as cache for WC, keeps records of folders and mails (basically metadata) together with flags (colored ones). When lost, colored flags are gone (IMAP flag will remain). Server will have to generate new cache for each user, can be very resource demanding at early stages after loss.

What Happens when DB Is Unreachable (or Lost)

A. Accounts – server will not recognize accounts so neither mail acceptance nor login will work. Domains/accounts will not be present in the administration console. This is a serious problem on Linux machines where *remoteconfig* has to be used. In such a case, administrators have to enable remote login using the ***tool.sh*** or wizard.

   Example on tool.sh

   [root@durotar icewarp]# sh tool.sh create account iwadmin@durotar.icewarp.in

   Account iwadmin@durotar.icewarp.in created.

   [root@durotar icewarp]# sh tool.sh set account iwadmin@durotar.icewarp.in u_password Secret1 u_admin 1

   Account iwadmin@durotar.icewarp.in updated.

   Account-save problem most probably indicates that password does not meet password policy set on server.

   Mail storage is unaffected by loss of this DB, therefore if account with same primary alias is created mails are again available to that account.

B. Directory cache – when lost, server performance will be dramatically lowered, which will cause terrible user experience. The same will happen when mail storage path (*u_mailboxpath*) is set outside of the scope of default mail storage path defined in storage section of admin console (this must be fixed using thge **externaldirs.dat** file). When lost, re-index should be scheduled immediately, however admin should be aware that the process can take a lot of time to complete (depends on # of accounts and directories on storage). When the cache is not available, IMAP will not return all directories (in IMAP terminology mailboxes) when the *xlist* command is issued.
C. GroupWare – when lost, GW data will not be present – no calendar events, notes, tasks, etc. (mails are not affected). GroupWare service indicates this state in logs.

D. ActiveSync – as stated before, this DB holds synchronization metadata as well as devices and their settings, ABQ mechanism uses this DB as well = when lost, all EAS setting will be doomed, all clients (mobile devices mostly) will go for full resynchronization as record of synchronization keys will not match. Users will hate admin, because full synchronization can take hours (especially for users who have a lot of GW data and/or emails (as managers usually do)).

E. AntiSpam – when lost, user Black List/White List will not be accessible/applied.

F. AntiSpam reports – challenge script will not work therefore reports will not be sent, this can be easily discovered in logs.

G. WebClient – when lost, the server will generate a new DB on user login to WebClient. If there are hundreds of accounts logging at same time (e. g. when users start to work), server storage performance can be significantly decreased. There are two types of flags – IMAP flags (red flags) and WC flags (colored ones). When this DB is lost, colored WC flags are lost, this is not a big deal, but it can have destructive effect on somebody's workflow. IMAP flags are handled by IMAP so unaffected by loss of this DB.

Best Practices

- Always use adequate DB engine (not SQLite) for GroupWare.
- It is better to keep databases split – do not use one for everything. Accounts are essential especially on Linux with remote config so better keep them separate, GroupWare and WebClient should be separate too, dircache + EAS, AntiSpam + reports can go together.

Supported DB Engines

- Reports and EAS are limited to SQLite and MySQL only.
- WebClient is limited to MSSQL, MySQL, Oracle and SQLite (per user or per server).
- The rest can use all we support.
- Best functionality offered at current product state is with MySQL.

Migration – What Do You Need to Know?

- There can be issues when migrating from SQLite to any other Db engine. SQLite does not respect column type definitions (it can store more characters than allowed, null is empty string).
- Most issues can be overcome by altering table definition in *calendar.xml*.
- Sometimes few records have to be located using query and updated in the same way – IceWarp Server's SQL manager can help with this.

Migration of WebClient DB

- Migration should be made without client sessions opened, in order to force that, stop control service, delete session data from **php/temp**, disable access to webmail (you can use firewall to block access temporarily) and then start the migration.
- When migrating this DB, loss of entries with colored flags can occur. This is not a problem on servers where these are not used as missing entries in cache will be automatically added by webmail when users log into WebClient.
- Cache size and number of colored flags used can be measured by attached script – compare results before migration and after it. Extract the ***cache_meter.zip*** file under the **html/** folder and access it via a web browser. No need to configure anything as the script reads DB settings in similar way as WebClient does. There is more information in the ***readme.txt*** file.

Tips and Tricks

- MySQL is not configured when installed, every admin should check server workload and adjust settings accordingly.
- MSSQL works fine, but sorting/searching can cause problems with national characters.
- Firebird is more experimental and will be abandoned as well as SQLite in upcoming versions, most probably since 11.2.
- Oracle suffers from lack of support of national characters in current implementation of our product (English is fine).

WebClient Tips and Tricks

- Do not use database engine for the cache unless you have server with sufficient resources (especially RAM) to hold the database. Be aware that cache is growing steadily. Also, the DB engine will need a proper configuration (this is usually problem with MySQL).
- Moving to DB server can lower load put on mail server's storage or can free a considerable space on storage.
- If you use a single DB for all users, deleted account data will persist in cache after deletion. This problem can be solved either by the attached tool (***wccm-2_3.zip***) and its functionality called *Cache Cleaner* or running a following queries:

- DELETE FROM item WHERE folder_id IN (SELECT folder_id FROM folder WHERE account_id LIKE :accountID;
- DELETE FROM folder WHERE account_id LIKE :accountID;

Where *:accountID* is a placeholder for full account email which you must know. WCCM tool will find all orphaned cache entries for you.

Server Variables

The following table describes the server variables you can use at certain places within the system.

Please be aware that not all variables are applicable or available for all areas of the server.

Variable	Returns
%%From%%	whole From header of the message
%%From_Email%%	first email address from the From header
%%From_Alias%%	alias part of the first email address from the From header
%%From_Domain%%	domain part of the first email address from the From header
%%From_Name%%	name taken from the From header; (performed as string before the first **<** character)
%%To%%	whole To header of the message
%%To_Email%%	first email address from the To header
%%To_Alias%%	alias part of the first email address from the To header
%%To_Domain%%	domain part of the first email address from the To header
%%To_Name%%	name taken from the To header; (performed as string before the first **<** character)
%%Sender%%	sender of the message (whole content of MAIL FROM: command, even with < and >)
%%Sender_Email%%	email address of the sender (without < and >)
%%Sender_Alias%%	alias part of senders email address
%%Sender_Domain%%	domain part of senders email address
%%Recipient%%	list of all recipients delimited with semicolon ((whole content of RCPT TO: commands, even with < and >)
%%Current_Recipient%%	email address of the current recipient - the address of the account being processed
%%Recipient_Email%%	email address of first recipient of the message
%%Recipient_Alias%%	alias part of email address of first recipient of the message
%%Recipient_Domain%%	domain part of email address of first recipient of the message. If empty, primary domain is returned.
%%Extension%%	Extension of the recipient email address containing the extension separator
%%ExtensionNoSep%%	Extension of the recipient email address without separator
%%Subject%%	Subject of the message
%%Message-ID%%	Message-ID of the message (even with < and >)
%%Date%%	current date
%%Time%%	current time
%%Header%%	all headers of the message
%%Body%%	body of the message in plain text
%%Body MaxSize%%	body of the message in plain text limited to MaxSize
%%Body_HTML%%	body of the message in HTML (if any)
%%Body_HTML MaxSize%%	body of the message in HTML limited to MaxSize (if any)
%%Size%%	size of the message in kB
%%IP%%	IP address of the sender

%%UniqueID%%	Unique ID string (md5 random hash)
%%RFC822_Date%%	date and time of message arrival in RFC822 format, based on server time and GMT offset
%%AttachmentNames%%	names of the attachments delimited with semicolon Use rarely. Requires a high CPU usage and processing time.
%%Header HeaderItem%%	particular message header. Eg: %%Header X-Mailer%%
%%Include FileName%%	includes content of the filename. See the example at the end of the **<install_dir>/examples/variables.dat** file. The file itself can contain server variables.
%%Include_Base64 FileName%%	includes filename in Base64 encoding. See the example at the end of the **<install_dir>/examples/variables.dat** file.
%%MessageFile%%	filename (.tmp or .imap file) storing actual content of the message
%%Copy HeaderItem Position Length%%	copy Length characters of HeaderItem from Position (Position is zero based)
%%Delete HeaderItem Position Length%%	delete Length characters of HeaderItem from Position (Position is zero based)
%%FormatDateTime Format%%	formated date of the message Eg: Today is %%FormatDateTime yyyy-mm-dd hh:nn:ss%%
%%VirusName%%	names of the viruses (within the message) delimited with semicolon
%%VirusDBDate%%	last update date of the database for IceWarp Anti-Virus engine
%%SpamScore%%	result of antispam filters
%%SpamReason%%	reason why message has been marked as spam
%%MailboxPath%% %%Mailbox%% %%Alias%%	Account variables used only in certain places
%%Forward_recipients Host#port%%	list of all recipients prepared for relay to the given Host, delimited with semicolons Eg: *%%Forward_recipients mail.domain.com%%* –> @mail.domain.com:r1@xx.com;@mail.domain.com:r2@xy.com; NOTE: This variable (and the two following ones) are valid in every place, where *%%Recipient%%* is valid.
%%Forward_local_recipients Host#port%%	similar to *%%Forward_recipients%%* , but only local accounts are added to the output
%%Forward_domain_recipients Host#port;domain1;domain2%%	similar to *%%Forward_recipients%%* , but only recipients from given domains are added to the output
%%Auth_Emai%%	email address of the authenticated user (without < and >), or empty if nobody authenticated
%%Auth_Username%%	username of the authenticated user (without < and >), or empty if nobody authenticated
%%Secure_Connection%%	"1" or "0" – indicates if connection is secured (either via direct SSL, or using STARTTLS)
%%BCC_Recipient%%	list of recipients not present in TO: or Cc: headers, delimited with semicolon(s) (even with < and >). If this variable is used in content filter during "copy incoming/outgoing mail" operation (using the "apply content filter" option), original email recipients are used, not the recipients where the message is being copied to.
%%PORT%%	port of the sender
%%Local_IP%%	active local IP address
%%Local_PORT%%	active local port
%%RFC822_Date Num%%	date and time Num seconds in the future in RFC822 format, based on server time and GMT offset Eg: %%RFC822_Date 60%%

%%SpamProbability%%	SPAM probability returned from Bayesian filter
%%SpamPercentage%%	SPAM probability returned from Bayesian filter in percent units
%%SpamHits%%	total message SPAM score
%%PhoneAlias%%	phone alias of user
%%InstallPath%%	path to server installation directory
%%Temp%%	contains last fetched line from client, suitable for Milter filters
%%Exec CommandPath%%	variable is replaced by string returned by executable at CommandPath

Server Functions

The following table describes the server functions you can use at certain places within the system. These functions are similar to server variables but are more complex than simple variables.

Please be aware that not all functions are applicable or available for all areas of the server.

Function	Returns
%%StrReplace VarName OldString NewString CaseSensitivity%%	This function replaces an old string with a new one in a value of the variable specified within the *VarName*paramenter. Parameters: • ***VarName*** – name of the variable (without the %% signs) – within its value the *OldString* will be searched for • ***OldString*** – string which you want to search for (within the *VarName* variable value) • ***NewString*** – string – replacement for *OldString* • ***CaseSensitivity*** – number – 0 means that search for *OldString* is case insensitive, 1 means that search is case sensitive Example: You have this content filter rule: *%%StrReplace subject pub bar 1%%* and message with *Subject: Good pub* – the variable will be replaced with the following string: *Good bar– pub* within the *Subject* variable is replaced with *bar*.
%%CharEscape VarName EscapeSeq ListOfChars%%	This function adds an escape sequence before any of characters within the *ListOfChars* string. Parameters: • ***VarName*** – name of the variable (without the %% signs) that will be examined for characters defined within *ListOfChars* • ***EscapeSeq*** – escape sequence which will be added before any character from *ListOfChars* – typically something like "\" • ***ListOfChars*** – case sensitive list of characters that need to be escaped Example: You have this content filter rule: *%%CharEscape from \ @& 1%%* and message from *info@marks&spencer.com* – the variable will be replaced with *info\@marks\&spencer.com*

Server Commands

These special extended variable commands work only for Auto Responders and Content Filter message actions.

Command	Sets
$$SetSender Sender$$	sender of the message to some value.
$$SetRecipient Recipient$$	recipient of the message to some value.
$$SetActualTo To$$	To header to some value
$$SetActualFrom From$$	From header to some value
$$SetSubject Subject$$	Subject to some value
$$SetReplyTo ReplyTo$$	ReplyTo header to some value
$$SetMessageID MessageID$$	MessageID to some value
$$SetPartBoundary PartBoundary$$	Boundary (used for messages with attachment, see the example at the end of this file)
$$SetContentType ContentType$$	Content Type of particular Boundary (see the example at the end of this file)
$$SetHeader Header$$	some header to some value
$$Exec CommandPath$$	application at CommandPath is executed (not available in auto responder)

Example #1 (Simple Auto Responder):

Hello, I received your your message at *%%Time%%* on the *%%Date%%* and the size was *%%Size%%* kB.

Example #2 Advanced Auto Responder With an Attachment:

Works only for Content Filters with "Send message" or "Reply with message" actions (not for normal AutoResponders, because of security).

$$SetSubject Message Subject: %%Subject%%$$

$$SetPartBoundary --BoundaryXX$$

----BoundaryXX

Content-Type: text/plain

This is the text part of the message. The following part contains an attachment image.

----BoundaryXX

Content-Type: application/octet-stream; name="image.gif"

Content-Transfer-Encoding: base64

%%Include_Base64 c:\temp\image.gif%%

----BoundaryXX

Example #3 (Message Containing only Attachment):

Works for Content filters only

$$SetHeader Content-Type: application/octet-stream; name="filename.ext"$$$$SetHeader Content-Transfer-Encoding: base64$$

%%Include_Base64 d:\daily.txt%%

Example #4 (Virus Warning):

Warning: Virus '*%%VirusName%%*' detected. Message was rejected.

Message's header:

%%Header%%

Example #5 Advanced Auto Responder With an Embedded Image:

Works only for Content Filters with "Send message" or "Reply with message" actions (not for normal AutoResponders, because of security).

$$SetSubject Message Subject: %%Subject%%$$

$$SetPartBoundary --BoundaryXX$$

----BoundaryXX

Content-Type: text/html; charset=UTF-8

Content-Transfer-Encoding: quoted-printable

<body>This is the text part of the message. The following part contains an attachment image.
<img src="cid:1426452f24b5a097155.71010193"></body>

----BoundaryXX

Content-Type: image/gif; name="image.gif"; charset="UTF-8";

Content-Transfer-Encoding: base64

Content-ID: <1426452f24b5a097155.71010193>

Content-Disposition: inline; filename="image.gif"

%%Include_Base64 <path_to_image>%%

----BoundaryXX

Server Upgrade

Best Practices

Planning Upgrade

- search the context help and knowledge base for relevant up-to-date articles
- schedule downtime for server services
- optionally, have someone skilled available to handle possible issues or negotiate a managed upgrade with the IceWarp Support team
- upgrades from versions older than 9.4.2 should be performed in two phases – upgrade to 9.4.2 first and make sure your system is stable and working fine (let it run for few days), upgrade to the current (wished) version after

Prior Upgrade

- make a backup of all user settings via IceWarp Administration Console
- optionally, you can copy the whole installation directory without mails and logs
- dump or copy (SQLite) all databases (skip WebClient cache – its backup is optional)
- the goal is to be able to create the same server state as there is at the moment of backup
- delete session data from the ***<install_dir>/php/temp/*** directory; this step is optional, but should be done when upgrading between major versions
- if you are synchronizing accounts from LDAP/AD, set *c_system_adsyncmaxdeletethreshold* to ***1*** to prevent any losses of account data
- increase logging levels of SMTP, GroupWare, Control services to extended, make sure you log at least failed SQL queries and API
- any customizations made in the **php.ini** file should be noted, it is ***strongly recommended*** to create the **php.user.ini** file (read the **php.user.ini Advantages** chapter (***manual.chm – Shared Topics***) to learn more)

Upgrade

- on Linux, download and *untar* the installer tarball, stop all running IceWarp Server services, check that all services are really stopped and kill any running and then run **install.sh** located in the installer root folder
- on Windows, close the admin console (**config.exe**), execute the installer wizard (it must be executed with elevated privileges, the installer attempts to elevate itself), do not stop IceWarp Server services
- wait for the upgrade finish, do not terminate the process unless it is stuck. Upgrade process can take long time depending on data amount on server as well as on the server performance. Please, be patient as prematurely terminated upgrade leads to unpredictable behavior and serious issues.
- on Windows, it may be worthwhile to have task manager launched while running installation to see that all services are really stopped during the process

After Upgrade

- check error logs frequently
- check SQL logs for errors
- previously made customization to definition of tables in databases (enlarged column) can (in a very rare cases) lead to a problem with data being too long to fit the column. Alter problematic columns back as they were prior the upgrade – the installer is never shortening columns, but it may enlarge a column to a smaller size than the customization was.
- if applicable, set the *c_system_adsyncmaxdeletethreshold* property back to its original value
- try to create new event, send a test email

- ask users for feedback
- let the system run for few days with increased logging level for troubleshooting if required
- if suspecting a problem, but not sure, consult it with the IceWarp Support team – damaged or inconsistent database usually leads to rollback and data loss, the sooner such an issue is identified the better

Upgrade to Version 11.3

There are some changes regarding our integrated OpenLDAP server and client:

Client

Untill now, 64-bit Windows IceWarp Server used the Windows LDAP library, but on 32-bit administrators could set the C_Accounts_Global_LDAP_UseWindowsDLL variable to false and then the OpenLDAP client library was used.

Since version 11.3, the C_Accounts_Global_LDAP_UseWindowsDLL variable has no effect. Windows LDAP library is always used on Windows (and OpenLDAP on Linux).

Server

New V 11.3 installations:

• OpenLDAP 2.4.38 will be installed

• When LDAP server logs are enabled, they will go to the IceWarp Server log directory (the slapd.conf file). It is not rotated/marked with timestamp as of now.

Servers that were upgraded to V 11.3 from older versions:

• Ancient OpenLDAP server 2.2.29 will be left there

• LDAP tools that crashed will be replaced with newer versions

It is not possible to perform a simple upgrade, because the LDAP database changed its binary format between these two versions (there is a 10 year gap). It would be dangerous to upgrade user's LDAP servers automatically – there can be some peculiar configuration.

Find details of needed upgrade steps further:

1. It is a good idea to stop all IceWarp Server services and config before performing the migration. As the absolute minimum, stop the LDAP server and check that Windows LDAP dll is used – not OpenLDAP.

2. Export the database content to ldif running this command in the ldap directory

slapcat.exe -l backup.ldif -f slapd.conf

3. Then copy the backup.ldif file to some safe place.

4. If you did some modifications in the slapd.conf file, copy it to the some safe place.

5. Delete the ldap subdirectory from IceWarp Server installation directory.

6. Run the IceWarp Server installer. It need not to be an upgrade one, the same version like the already installed will suffice. Note that this will stop IceWarp Server services temporarily.

7. After installation, copy backup.ldif to the newly created ldap subdirectory.

8. If you backed up also the slapd.conf file, merge it with the current slapd.conf. The merge would not be difficult, there were not so many changes, most of them are just comments.

9. Delete the ldap\ directory data.

10. Run the following command:

slapadd.exe -l backup.ldif -f slapd.conf

11. Start the LDAP server.

SQLite Database

When server upgrade from version 10 to version 11 is performed (in the case you use a database as an account storage), the ***D_IP*** database column is converted from VARCHAR(16) to VARCHAR(46).

If you use the SQLite database, this conversion is not done (because of SQLite "liteness"). To workaround this, after server upgrade convert your account database into some other storage – other database or file system – and back to SQLite.



NOTE: Before converting back, delete tables within the original SQLite database.

If you want to convert from SQLite to SQLite, the back conversion is not necessary.

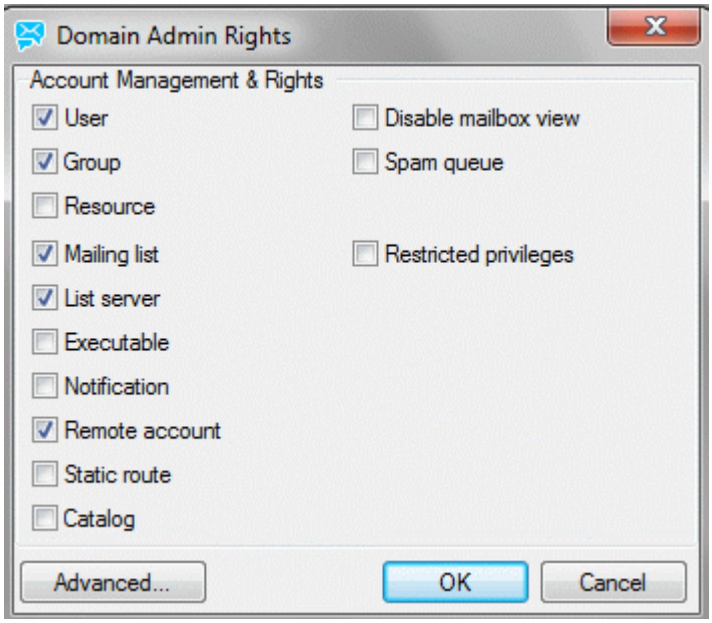


NOTE: If your server license is expired, it is not possible to upgrade the server.



NOTE: SQL logs are ON during all install/upgrade tasks.

Domain Admin Rights



Here you can define the rights for domain administrators. The most options are self-explanatory. (The *Restricted privileges* option – if ticked, the appropriate domain administrator has only rights to change passwords within the administered domain.)

By default, you can assign the rights to manage particular type of accounts. If you check it only in the dialog, it means this domain administrator will have rights to manage such accounts only in the domain it belongs to. If you want to assign this domain administrator also rights for different domains, you have to use the **domain.dat** file – click the ***Advanced*** button to edit the file.

In that file, you can assign rights not only for type of accounts and additional domains but you can also exactly define which domain options can the domain administrator edit/change/see. See the example file for the exact syntax.

This domain administrator is also prevented from accessing users mailboxes and read their messages, but can access spam queues.

domain.dat File

Location

This file can be placed:

- within the **<install_dir>/config/** folder – in this case, it specifies rights and other settings for all domain administrators on the server
- within the **<install_dir>/mail/<domain>/<user>/** folder – in this case, it specifies rights and other settings for this specific user – domain administrator.

Other Settings

You, as a server administrator, may want to restrict domain administrators from changing their domains types, verification ways or other settings. It is possible to do it via the **domain.dat** file:

- *OPTION=domain_type:0* – disables domain ***Type*** option within domain WebAdmin
- *OPTION=domain_domatypevalue:0* – disables domain type ***Value*** option within domain WebAdmin
- *OPTION=domain_value:0* – disables domain ***Verification*** type within domain WebAdmin

Insert the appropriate *OPTION* to the **domain.dat** file (either on global level or user one) to disable it. By default these options are enabled.

To determine the right option, refer to the **domain.xml** file (**<install_dir>/html/admin/xml/accounts/**), use the option ***name*** attribute and syntax as above.

It is possible to disable all options at one go (not to disable them one by one) plus enable only some specific ones. Use the *OPTION=ALL:0* syntax. To enable some options, set them to *1* (true). E.g.: *OPTION=user_password:1*.

You may want to allow domain administrators to set (some) users from their domains as domain administrators. It can be done within the **user.xml** file (**<install_dir>/html/admin/xml/accounts/**).

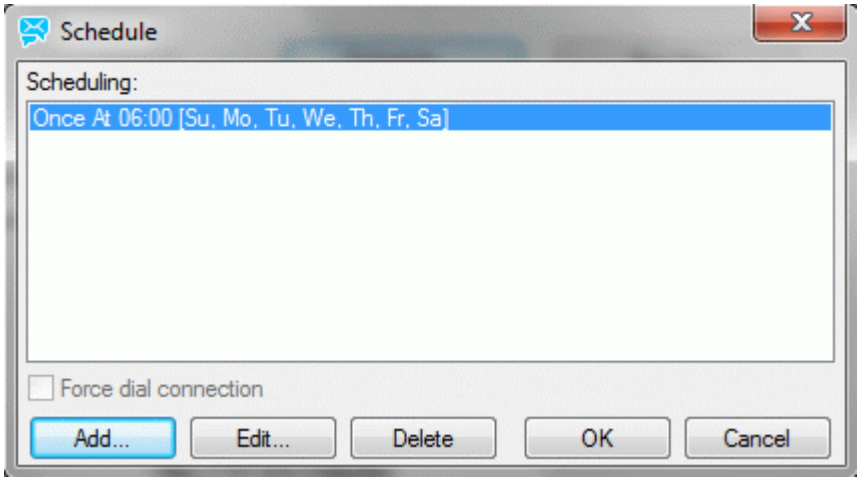
Within the following tag change *disable="admin|domainadmin"* to *disable="admin"*.

<OPTION type="listbox" name="user_permissions" function="user_permissions" label="TFrameAccounts_UserTypeLabel" labels="function:user_permissions_labels" value="0|1" disable="admin|domainadmin"/>

Schedule

The **Schedule** dialog allows you to define one or more schedules for a task. This dialog is used in various places within IceWarp Server.

Clicking the ***Schedule*** button opens the **Schedule** dialog:

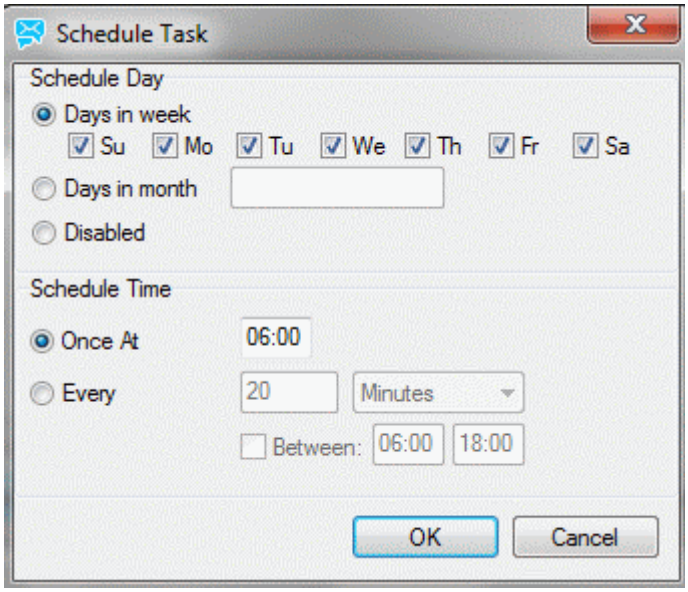


As you can see from the automatically generated schedules descriptions in the screenshot above you can define quite complex schedules – once a day, specific days in a month, at timed intervals, specific days, specific time periods, and so forth.

Multiple schedules can be defined for the same task giving you great flexibility and control over your automated tasks.

The ***Force dial connection*** box is only active if you have IceWarp Server set to use a dial-up connection. Checking the box will cause IceWarp Server to connect each time the schedule is triggered.

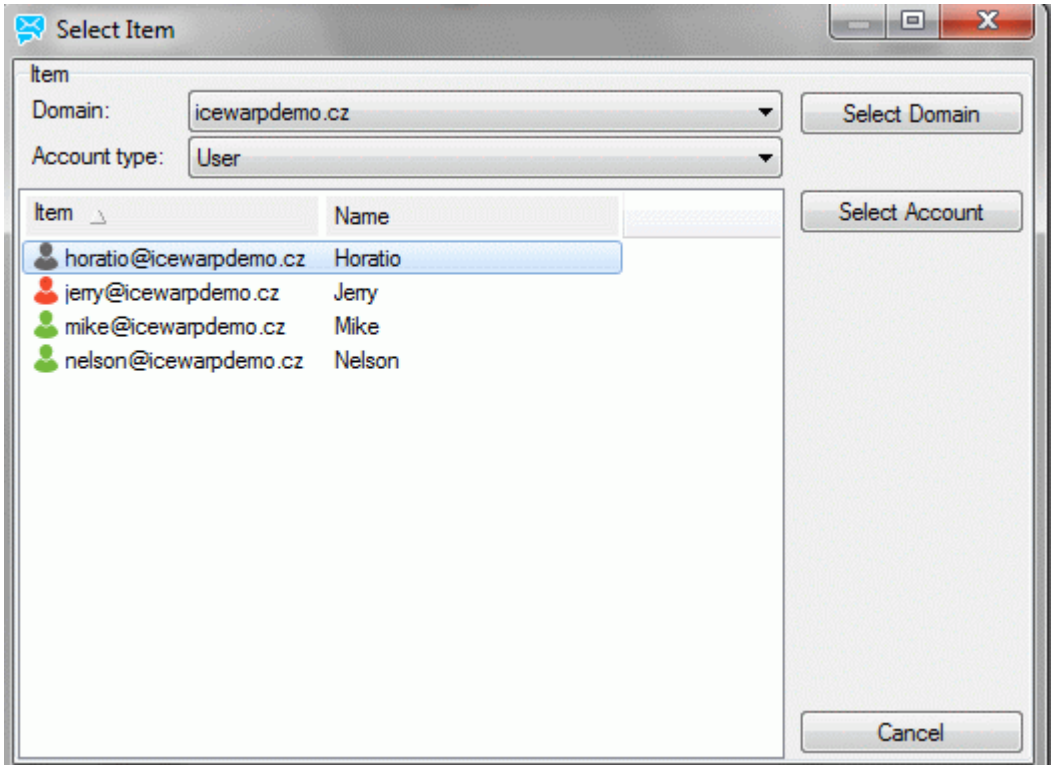
The buttons allow you to ***Add***, ***Edit*** and ***Delete*** schedules, clicking the appropriate button opens the **Schedule Task** dialog, where you can choose when to run this task.



Field	Description
Days in Week	Select this option to specify days in the week. Check the box(es) for each day that you wish the task to be performed. In the screenshot above the task is set to run every day.

Days in Month	Select this option to specify a specific date (or dates) in the month that you wish the task to be run. Multiple dates are specified by separating them with a semi-colon, e.g. 7;14;28
Disabled	Select this option to disable the current schedule without removing it from the schedule list. This is useful if you wish to stop a schedule running for a while.
Once At	Choose this option to specify a time that the task will be run on the selected day(s). Enter the time in the format hh:mm
Every	Choose this option to have the task run at timed intervals. Enter a number and select Minutes or Hours from the dropdown. In the screenshot above the task would run every 20 minutes.
Between	Here you can set a time interval during which a timed task will be performed. Check the box and enter the start and end times. In the screenshot above the task would only run between 06:00 and 18:00 on the scheduled days.

Select Accounts



This dialogue allows you to pick accounts, domains or groups for the certain object container. Wherever any account, domain or group need to be selected, it is done through this straight forward and simple select dialogue.

Field	Description
Domain	Use the list to choose any domain locally hosted.
Account type	Combo that is allowing you to pre-filter the accounts or groups in the selected domain.
Select Domain	Click the button to select all users of the domain chosen in the ***Domain*** field.
Select Account	Once you selected the account you want to add to the container (group, mailing list, remote watchdog, quarantine, ...), click this button to confirm the selection.

Hitting the ***Cancel*** button cancels the current selection process and returns to the previous screen.

Server Security

Weak Ciphers, PSI Compliance

To comply with the PCI standard, IceWarp Server V 11 by default disables weak ciphers and addresses the BEAST attack by prioritization of RC4 ciphers. A new installation of the server will now pass the Qualys SSL Labs test with honors (A ranking). In existing installations, in order to achieve Forward secrecy, but still not vulnerability against BEAST attack, setting the API *sslcipherlist* value to HIGH is not enough as we need to allow GCM and ECDHE (elliptic) cipher suites explicitly. On installations which were previously set to HIGH, issue the following command and then verify on www.ssllabs.com/ssltest/.

tool set system c_system_adv_ext_sslcipherlist AES256-GCM-SHA384:AES128-GCM-SHA256:ECDHE-RSA-AES128-SHA256:ECDHE-RSA-RC4-SHA:ECDHE-RSA-AES128-SHA:RC4-MD5:RC4-SHA