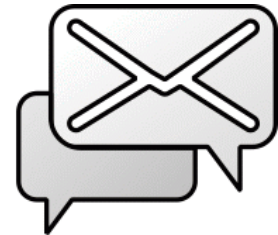

IceWarp Unified Communications

GroupWare Reference

Version 12.1

IceWarp[®]



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GroupWare

IceWarp Server includes a professional, high quality, secure GroupWare server.

Any user of the server can access and maintain their GroupWare records from anywhere in the world via an Internet connection.

IceWarp GroupWare is an advanced server-based solution designed to improve user communication, enable multi-user scheduling, contact management capabilities and allow sharing and synchronization of all types of information among users, applications and devices, with respect to privacy and security policies. Dedicated database storage with redundant backup database option allows regular backup of all user data for prompt recovery in the case of a machine failure. (This backup has to be set manually unless using more advanced solutions – e. g. paid versions of MySQL.)

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About

Whole Server Is GroupWare

GroupWare is any kind of collaboration and sharing including emails, VoIP, chat, calendaring, etc. The server also works as a data storage, backup facility and much more. All these things can come into sharing process and can be utilized for it.

IceWarp GroupWare Server allows users to access its shared features via numerous clients, cell phones, hand-helds, etc.

GroupWare Server Features

- Shared Address Books, Calendars, Tasks, Notes, Files, Journals
- Subscription to Public Folder, Group Account or Friend's User Account
- MS Outlook tight integration provided by IceWarp Outlook Sync
- Unified web interface for mailbox access, calendaring and groupware management
- WebDAV embedded in Web Server module is used for remote folder access
- SyncML Server and Microsoft Exchange ActiveSync provide synchronization to handhelds and cell phones
- CalDAV Server for synchronization to PIM applications and web based calendars
- Cooperation with external users using standardized formats vCard, vCal, vFreeBusy
- Robust database storage (upon your choice): MS SQL, MySQL, Interbase, Oracle, FireBird, SQLite
- LDAP synchronization to automatically publish updated organization-wide contacts
- Full Unicode (UTF-8) support

Reference

This chapter describes single features of the administration console GUI.

IceWarp GroupWare Server structure consists of following nodes and tabs:

- General
- Public Folders
 - General
 - LDAP
- WebClient
- ActiveSync
- SyncML
- WebDAV
- Outlook Sync

General

On-server Setup

General

Database settings and database maintenance:

Shared account prefix:

Keep deleted items for (Days):

| Field | Description |
|-------------------------------|--|
| DB settings | <p>Click the button to configure your database settings (see Database Settings section for more information).</p> <p><i>NOTE: Backup has to be set manually unless using more advanced solutions – e. g. paid versions of MySQL.</i></p> |
| Shared account prefix | <p>Specify a prefix for shared accounts.</p> <p>Folders of a shared account begin with this string. In the case this string does not include a slash, folder items are shown directly. Use a slash to create a directory structure.</p> <p>By default, this prefix is set to "~" (tilde). It is recommended to keep this setting.</p> <p><i>NOTE: When subscribing shared folders within IMAP email clients (except for IceWarp WebClient) it is necessary to fill in shared account names with this prefix. See the IMAP chapter – Subscribing Folders section.</i></p> <p><i>NOTE: You can keep all shared folders in one root folder. Use slashes to create the wished structure.</i></p> |
| Keep deleted items for (Days) | <p>Set number of days. Deleted groupware items can be recovered during this period. After this time, they are deleted permanently.</p> <p>When the value is set to 0 (zero), items never expire.</p> <p><i>NOTE: Any new installation has this mode by default active. It can be disabled only via the API (<code>c_gw_keepdeleteditems</code>).</i></p> |



*NOTE: Access mode to the service can be set on both domain and user levels. See the appropriate places (**[domain] – Policies**, **[user] – Policies**).*

This note applies only to sharing of groupware items. All users can work with their own contacts, calendars, etc. without restrictions.

Notification

Enabled

Notification sender:

Notification from:

| Field | Description |
|-------|-------------|
|-------|-------------|

| | |
|---------------------|--|
| Enabled | Tick the box to enable notification. If enabled, users are notified by email messages in the case they are granted access to shared folders, as well as in the case this access is removed. |
| Notification sender | Specify the email address to be used as the SMTP sender for GroupWare notification messages. |
| Notification from | Specify the SMTP From header of notification emails. |

GAL Synchronization

Synchronize all GAL folders now

| Field | Description |
|---------------------------------|--|
| Synchronize all GAL folders now | Click the button to synchronize all group address list folders manually. |



| Field | Description |
|--------------|--|
| Start | Click the button to start the GroupWare module. See the System Node – Services – General tab. |
| Stop | Click the button to stop the GroupWare module. See the System Node – Services – General tab. |
| Backup Data | Click this button to backup an account. The Select Item dialog (see the User Groups – Creating the Resource section) will open, here you can select the account or domain to be backed up. Choose the account and click the Select Account button. A standard file browser will open allowing you to choose the destination folder for the backup. |
| Restore Data | Click this button to restore an account. A standard file browser will open allowing you to select the appropriate backup file to be used for this restore. The restored account (or domain) is not selected as this information is included in the backup file. <i>NOTE: Restore errors can occur when trying to restore groupware data that already exist – e.g. groupware items within the Trash folder(s) of the appropriate account(s). See the following text to avoid/ deal with this situation.</i> There are two ways how to restore data: 1) Before data restore, perform the data deletion – see further the Data Delete section. Be aware of the fact that items created by the user(s) meanwhile will be lost. 2) Before data restore, perform SQL query (command respectively), within the SQL Manager, to reveal/delete items within the appropriate folders. To show event type items remaining in the Trash folder, you can use this query: <pre>SELECT Event.* FROM EventGroup, EventOwner, Event WHERE Own_Email = 'chi@test.com' AND OWN_ID = GRPOWN_ID AND EVNGRP_ID = GRP_ID and EvnFolder='@@trash@'</pre> Replace chi@test.com with the wished email. To show contact type items remaining in the Trash folder, you can use this query: <pre>SELECT ContactItem.* FROM EventGroup, EventOwner, ContactItem WHERE Own_Email = 'chi@test.com' AND OWN_ID = GRPOWN_ID AND ITMGRP_ID = GRP_ID and itmFolder='@@trash@'</pre> Replace chi@test.com with the wished email. |

| | |
|-----------------|---|
| | <p>To delete these groupware items from the Trash folder, replace SELECT with DELETE.</p> <p>WARNING! Before you delete anything from your database, backup it! Do not perform any irreversible commands unless you are sure what you are going to do!</p> <p>BE AWARE: The second way is recommended ONLY as an emergency solution. The query clears items only from master tables leaving many orphans in the database.</p> |
| Restore From DB | <p>This feature allows you to restore only one user, group or domain from your backed up database and leave the currently running database intact.</p> <p>Click the button to open the Database Settings dialog where you can select the appropriate user, group, domain.</p> <p>For detail description of this dialog, refer to the manual.chm – Shared Topics – Database Settings section.</p> <p><i>NOTE: The dialog opened here is slightly different – the Backup Connection section plus some buttons are missing.</i></p> |
| Delete Data | <p>Click this button to delete all data for a specific account. The Select Item dialog will open to allow you to choose the account or domain whose data is to be deleted.</p> |
| Rename Folders | <p>Click the button to rename default groupware folders for either single users or whole domains. The Rename Default Folders dialog opens.</p> <p>You may want to rename folders e. g. because of localization after upgrade from an older version where localizations were performed by WebClient.</p> <p><i>NOTE: You can rename also default WebClient folders here.</i></p> |

| Field | Description |
|----------|---|
| Accounts | Fill in accounts (email addresses) that you want to rename folders for. You can use the Select |

| | |
|---------------------------|---|
| | button to open the Select Item dialog. |
| Domains | Fill in domains that you want to rename folders for. You can use the Select button to open the Select Item dialog. |
| Language | Select the language you want to use for folder names. Names in this language are pre-filled into the <i>Events</i> , <i>Contacts</i> , etc. fields where they can be changed. |
| GW default folders | Rename groupware folders here. |
| WebClient default folders | Check and eventually rename WebClient folders here. |
| Rename Folders | Click the button to perform changes. The dialog stays open for other possible changes. |
| Close | Click the button to close the dialog. |

Public Folders

Public Folders consist of a shared folder structure that is accessible for all group members according to their access rights.

This chapter describes:

- **Public Folders** – created as parts of group accounts. These folders contain both mail and non-mail folder types.
- **LDAP** – allows synchronization of **GAL** items into LDAP.

Regardless of physical and "historical" separation of Public and IMAP Folders (e.g. MS Exchange), IceWarp Server uses different conception. Its Public Folders aggregate both Public and IMAP Folders. You define only one Public Folder and both IMAP and GroupWare resources are created. Also permissions are same for both folder types.

If only one of these folders exists, the second one is automatically created when the existing one is edited and changes are saved.

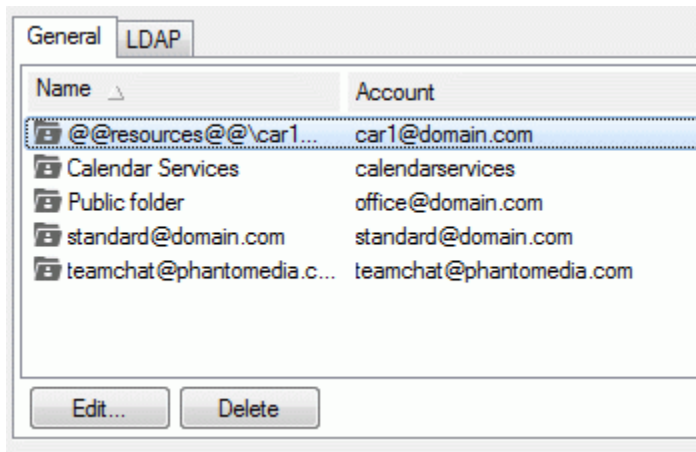
General

About

Public folders are created to collect, organize and share information with others. Typically, public folders are used by project teams or user groups to share information on a common area of interest. The owner of a public folder can set privileges so that only a selected group of users have access to the folder, or the folder can be made available to everyone on the network who uses the same mail server. Privileges can have different levels – users can view, read, modify, delete files, create new folders (or delete existing ones) within the public folder they have access granted to, etc.

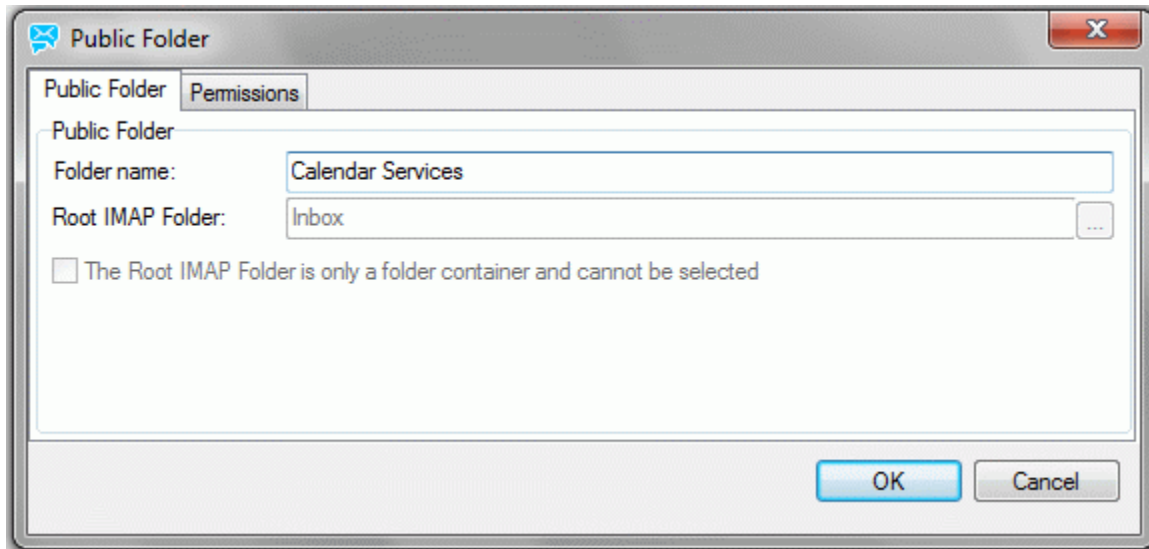
On-server Setup

Selecting the **Public Folders** node – **General** tab presents a list of defined public folders.



| Button | Description |
|--------|---|
| Edit | Select a public folder and click the button to edit settings of this public folder. The Public Folder dialog is shown. <i>NOTE: This option is kept only for backwards compatibility. It is recommended to edit public folder settings only within the appropriate group account.</i> |
| Delete | Select a public folder and click the button to remove this public folder. <i>NOTE: This option is kept only for backwards compatibility. It is recommended to delete a public folder only by un-ticking the Create a public folder box within the appropriate group account. (Refresh the console to remove this folder from the list.)</i> |

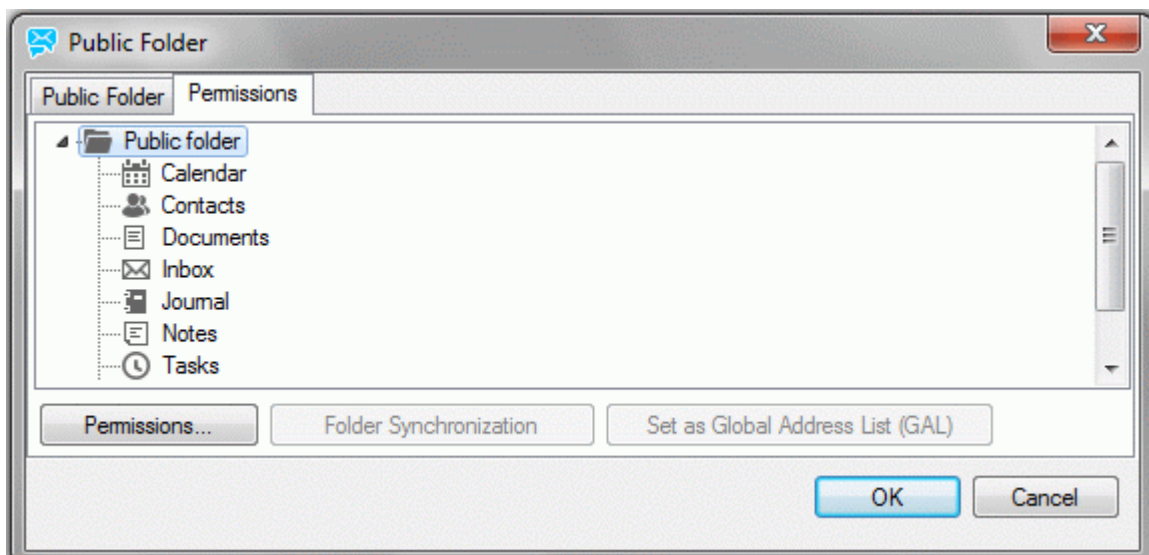
Public Folder Tab

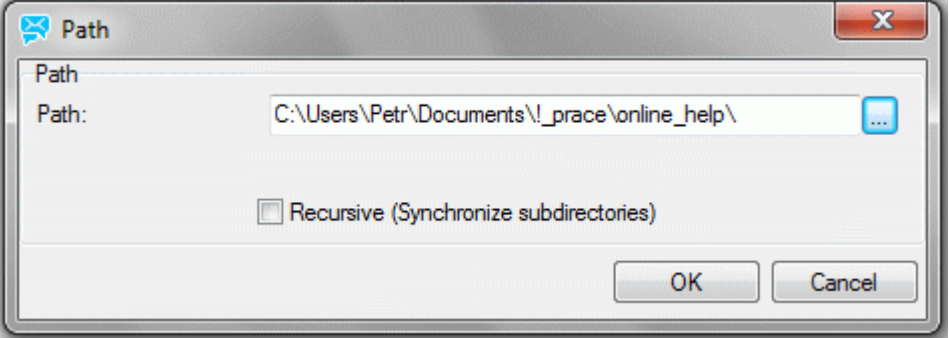


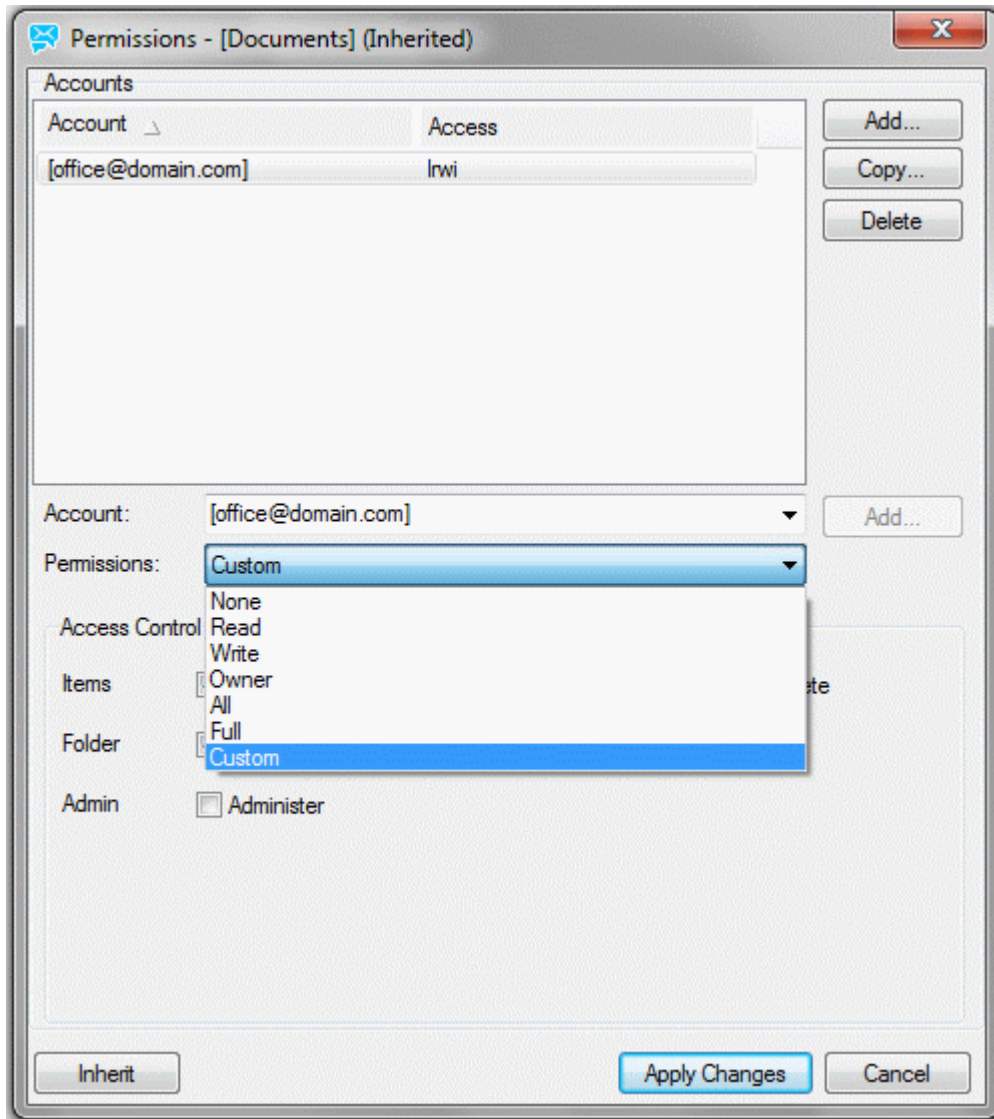
| Field | Description |
|--|--|
| Folder name | The shared folder name as it will appear in a mail folder structure. |
| Root IMAP Folder | Specify a folder name here. Only this folder and its subfolders will be shared to members. Use the '...' button to open the Select Folder dialog where you can select which folder you want to use from a folder tree view. (Only the mail type folders are shown here.) If this box is empty, the INBOX folder will be used as the shared folder by default. If the whole account should be shared, write the "." (dot) into this field. In this case, the next feature is disabled. <i>NOTE: This field may contain also a hierarchical delimiter.</i> <i>E.g.: "Inbox\New"</i> |
| The Root IMAP Folder is only a folder container and cannot be selected | Always ticked – only for backwards compatibility here. |

Permissions Tab

Selecting the **Permissions** tab presents a list of folders – both groupware and IMAP ones:



| Field | Description |
|------------------------|---|
| Permissions | Click the button to set access rights for folder subscribers. The Permissions dialog appears – see further. |
| Folder Synchronization | <p>The file type folders are integrated with real file directories. You can link a folder to a real directory and all files in this folder are accessible also using a file system.</p> <p>To define the appropriate directory, click this button (only in the case of selecting a file type folder, this button is enabled) and in the Path dialog, select the desired address.</p> <p>Unicode is fully supported so you can use any file names.</p>  <p>Recursive (Synchronize subdirectories) – tick this box if you want all subdirectories (plus included items) to be synchronized/shown too.</p> <p><i>NOTE: If using DropBox, you can easily link its folder (that is within your computer) to a file type folder in a folder tree.</i></p> <p><i>For SkyDrive, the situation is different: You have to find out the server that provides this service to you. Use the following URL:</i></p> <p><i>http://howto.cnet.com/8301-11310_39-57347395-285/how-to-map-your-skydrive-folder-in-windows-7/</i></p> <p><i>Once you have the URL, just map a new network drive. Type in the URL and choose your drive. It will prompt you for your username and password. After that use Folder Synchronization and you are done.</i></p> |
| Set as GAL | Select a contacts type folder and click this button to set the folder as Global Address List . Refer to the Sharing Concepts – Global Address List chapter for more details. |



| Field | Description |
|----------------|---|
| Account/Access | List of individual members with their access rights. |
| Account | You can fill in an account into this field and add it into the Accounts list by clicking the Add button. |
| Add | Click the button to open the Select Item dialog where you can select accounts (both individual and group ones). For more details about this dialog, refer to the User Groups section. You can also fill in an account that is not in the Select Item dialog list into the Account field and click this button to add it directly. The Select Item dialog is not opened in this case. |
| Copy | Select an account from the list and click the button to copy the selected account rights. The Select Item dialog opens – here select a user or group you want to grant the copied rights to. |
| Delete | Click the button to delete an account from the Account/Access list. |
| Account | The selected account is shown. Also use to select everyone . Click the Add button to add it into the list. |
| Permissions | Here you can select one of mostly used rights combinations. Optional. |
| Access Control | Select the appropriate access rights. For detailed description of access rights in this pane, refer to the Access Rights section. |
| Inherit | Click the button to inherit access rights from the folder's parent. |

| | |
|---------------|---|
| | <p><i>NOTE: If used for the root folder, no access is granted.</i></p> <p><i>NOTE: Changing of any access rights for a folder that has inherited its rights from its parent removes this inheritance.</i></p> |
| Apply Changes | Click the button to save the performed changes. |

Creating a Public Folder



*NOTE: The only way how to create a public folder is ticking the **Create a public shared folder** box when creating a group.*

LDAP Synchronization

There is following kind of LDAP synchronization in IceWarp Server:

- The **GroupWare – Public Folders – LDAP** tab is the place where GAL is synchronized to LDAP. This is used for email clients (Outlook, Thunderbird, ...) query about the Address Book.

LDAP

About

This feature allows synchronization of **GAL** items into LDAP.

When a public folder GAL is edited (adding members, changing access rights), all changes are sent into LDAP. This enables those who do not use MS Outlook or IceWarp WebClient to search within a company account structure.

On-server Setup

Public Folders

General | **LDAP**

LDAP Synchronization

Active

LDAP Host: localhost

Base DN: dc=root

User DN: cn=admin,dc=root

Password: ●●●●●

Synchronize Specific Groups to LDAP Now ...

| Field | Description |
|--|--|
| Active | Check this option to enable LDAP synchronization. |
| LDAP Host | <p>Enter the hostname of your LDAP server.</p> <p><i>NOTE: You can force secure communication with the LDAP server by specifying <code>ldaps://<your_ldap_server></code></i></p> <p><i>Example:</i></p> <p><code>ldaps://ldap.icewarp.com</code> or <code>ldaps://182.164.6.24</code></p> <p><i>Port is switched automatically to 636 when <code>ldaps://</code> is used. However, this port can be overridden, if it is specified.</i></p> |
| Base DN | Enter the Base DN of your LDAP server. |
| User DN | <p>Enter the User DN for your LDAP server.</p> <p>DN stands for Distinguished Name. Hence User DN is identifier of a user with sufficient rights to add exported data to LDAP directory.</p> |
| Password | Enter the password for the specified User DN . |
| Synchronize Specific Groups to LDAP Now... | Click this button to synchronize selected groups to LDAP. |

WebClient

The IceWarp Server's administration GUI offers the following WebClient configuration options:

General

The screenshot shows the 'General' configuration tab for the WebClient. It contains the following fields and options:

- SMTP Server:** 127.0.0.1
- Use SMTP authentication
- IMAP Server:** 127.0.0.1
- IM Server:** 127.0.0.1
- URL:** http://127.0.0.1/webmail/
- Allow SSO login only
- Login with email address
- Database:** DB Settings...

| Field | Description |
|-------------------------|--|
| Active | Check this box to activate IceWarp WebClient. |
| SMTP Server | <p>This field should usually be left blank to allow IceWarp Server to use the default SMTP server. Only change this information if instructed by support staff.</p> <p><i>NOTE: The default for WebClient's SMTP and POP/IMAP is 127.0.0.1. If you change the IP set for SMTP and/or POP/IMAP in the WebClient node, whatever IP you put there, it is the IP WebClient will connect to send (SMTP)/receive (IMAP/POP) emails and the services have to be bound to such an IP. (I. e. the web server has to be able to connect the SMTP server using this address.) So if you change SMTP and POP fields and put your server's NAT IP there, your SMTP and POP services (System – Services – double click the service) should be bound to <ALL Available> or, at least, you have to set binding to your NAT IP (<Service> dialog – Properties tab – Add button – IP Address dialog – IP Address field), so it responds and is accessible.</i></p> <p><i>NOTE: It is possible to enter another IP address (separated by semicolon). In the case you use load balancing, it is to be the slave host IP address for the master server (defined here) and contrary for the slave server. In the case connection with the first server is lost, IceWarp Server will use the second one defined in this field. For more details, refer to the WebClient Host subchapter lower.</i></p> |
| Use SMTP authentication | <p>Tick the box if you want WebClient (browser part), when sending emails, to use SMTP authentication against either the SMTP server specified above or a localhost.</p> <p>It is recommended to use SMTP authentication (do not turn this feature off, unless you know what you do); in this case, users limits are counted properly (even in the case, the users use the Personalities feature – see the WebClient User Guide – Tools Menu – Personalities section).</p> <p><i>NOTE: If SMTP authentication is not used, the web server IP address has to be set as one of SMTP server trusted IPs. (By default, it is 127.0.0.1 which is trusted, but should the setting be more complicated – servers reside on different machines – include web server real IP into SMTP server trusted IPs.)</i></p> |

| | |
|--------------------------|---|
| IMAP Server | <p>This field should usually be left blank to allow IceWarp Server to use the default IMAP server. Only change this information if instructed by support staff.</p> <p><i>NOTE: It is possible to enter another IP address (separated by semicolon). In the case you use load balancing, it is to be the slave host IP address for the master server (defined here) and contrary for the slave server. In the case connection with the first server is lost, IceWarp Server will use the second one defined in this field.</i></p> |
| IM Server | <p>This field should usually be left blank to allow IceWarp Server to use the default IM server. Only change this information if instructed by support staff.</p> <p><i>NOTE: SOCK server IP address has to be configured IM file transfer to work. This IP address is defined under the System – Services – SOCK service – SOCK tab.</i></p> <p><i>NOTE: It is possible to enter another IP address (separated by semicolon). In the case you use load balancing, it is to be the slave host IP address for the master server (defined here) and contrary for the slave server. In the case connection with the first server is lost, IceWarp Server will use the second one defined in this field.</i></p> |
| URL | <p>This URL is sent by SmartDiscover to clients that need access to IceWarp WebClient (typically IceWarp Notifier).</p> <p>If there are defined virtual hosts (under the Web Service node – Web Service tab), this assigns which virtual host is used by a client.</p> <p><i>NOTE: Default ports (80 for HTTP, 443 for HTTPS) are not specified. The use of different ports for control service is possible – they have to be defined on the System – Services – General tab in the Control service.</i></p> <p><i>After this change, delete the whole URL field here and refresh this tab.</i></p> |
| Allow SSO login only | <p>Tick this box if you want to enforce all users to use Single Sign-On.</p> <p>For more information on SSO settings, refer to the Domains and Accounts guide – Management – Domains – Directory Service chapter.</p> |
| Login with email address | <p>Check this option to enforce the use of a full email address to login to IceWarp WebClient. This is useful on multi-domain server installations as IceWarp Server will be able to locate the user information more quickly, and also caters for the same username being used in different domains.</p> <p><i>NOTE: This login policy has to correspond with the server login policy – if you use email address login for the server, you have to use it also here.</i></p> |
| Database | <p>Click the <i>Database Settings</i> button to set the WebClient database. The Database dialog opens.</p> |

Database Dialog

For detailed description of this dialog, refer to the **F1 help – Shared Topics – Database Settings** chapter. Find only settings specific for the WebClient database described lower.

| | |
|----------|---|
| Database | <p>Choose the connection string appropriate to the database system you are using.</p> <p>SQLite is the default.</p> <p>MySQL is supported. It requires the libmysql.dll file to be present in the Windows\System32 (for 32-bit OS) or Windows\SysWOW64 (for 64-bit OS) directories.</p> <p>You should also ensure that php_pdo_mysql.dll is not commented out in your php.ini file (it normally is).</p> <p><i>NOTE: After server upgrade, the php.ini file is overwritten and the php_pdo_mysql.dll command is commented again. You can either change it manually or ease your work using the php.user.ini file. For more information, refer to the Advantages of php.user.ini File section.</i></p> <p>ODBC – should only be used for MS SQL databases.</p> <p>Ensure that php_pdo_odbc.dll is not commented out in you php.ini file.</p> <p>The supported and tested databases are:</p> |
|----------|---|

| | |
|----------|---|
| | <ul style="list-style-type: none"> ▪ MySQL community server (recommended), versions 5.0.x and 5.5.x (To make collation support working (national characters sorting), GroupWare and WebClient must use the same DB engine – MySQL.) ▪ Microsoft SQL Server, version 2005, 2008 and 2012 ▪ SQLite ▪ Oracle – over a direct driver (only for WebClient) <p><i>NOTE: If you have POP3 accounts and start using a new database, users will lose all message statuses (read/unread) and all flags become red. To avoid this, convert accounts to IMAP first – use the pop_to_imap.html script (<install_dir>\html\admin\tools\) – then start a new PDO database.</i></p> <p><i>For information about this conversion, refer to the Domains and Accounts – Management – User Accounts – Options chapter – Type section.</i></p> <p><i>NOTE: It is useful to know how to delete a user's cache. This can help to solve some issues where WebClient causes red bars (inaccessible error) for a certain account. Check the phperror.log file (<install_dir>/logs/) for details. In case of using SQLite, simply rename or delete <install_dir>/mail/user/~webmail/cache.db. If you are using MySQL or SQL server for PDO, you can use a query such as this one:</i></p> <p>DELETE FROM item WHERE folder_id IN (SELECT folder_id FROM folder WHERE account_id = 'user@domain.com')</p> <p><i>Replace user@domain.com with account whose cache you want to clear.</i></p> <p><i>NOTE: When you want to use a different database, always migrate – do not begin with an empty database. Although it works, it brings big performance problems.</i></p> |
| Username | The username to be used to connect to the database. |
| Password | The password for the database. |

WebDocuments

WebDocuments Service

Enabled

WebDocuments server connection:

Install the WebDocuments server on external virtual/physical machine and enter its connection details. Leave blank if the server runs locally (not recommended).

Deployment instructions and software downloads are available on the info page.

| Field | Description |
|--------------------------------|---|
| Enabled | Tick the box to enable WebDocuments. |
| WebDocuments server connection | Enter IP address of the server where WebDocuments are installed. See the information under the <i>Test Connection</i> button. |
| Test Connection | Click the button to test connection to the server where WebDocuments are installed. |

| | |
|-----------|--|
| Info Page | Click the button to proceed to the page with detailed information on WebDocuments. |
|-----------|--|

WebClient Host

When using two load balanced servers, the SMTP Server field should be set like this:

127.0.0.1;localhost2

where *localhost2* is to be mapped on each of two front end servers – for server 1, *localhost2* is NAT IP of server 2 and vice versa.

In the load balanced scenario you might have to use the *hosts* file (`\windows\system32\drivers\etc\`) to have different settings for each front server, so each one uses the other one as redundancy.

Example

server 1 SMTP and POP = 127.0.0.1;localhost2

Then you map in that server's *hosts* file localhost to server 2's IP.

In server 2, SMTP/POP/IMAP fields = 127.0.0.1;localhost2

and same thing, in server 2's *hosts* file you put server 1's IP.

If you use a different port than the default one (for SMTP) in this scenario, you have to define this port (only) after the second host.

Example: **127.0.0.1;localhost2:587**

ActiveSync

About

For detailed information, refer to **ActiveSync Guide**.

On-server Setup

Setting up ActiveSync in IceWarp Server is easy since it does not have almost any administration controls.

1. In **Help – Licenses**, verify that you have at least one valid client license for **ActiveSync**. If expiration shows negative days, the license (full or trial) already expired and you need to obtain an updated license.
2. In **SyncML – Push**, verify that the **Push** service is **Active** and its default port is not blocked by another local service. You may want to change the port number.

If you do not intend to use **DirectPush** on the device which keeps the device always up-to-date, but also consumes considerable battery power, you may want to leave this service inactive.
3. In **System – Services**, verify that the **Web** service is running.
4. In the **ActiveSync** node, do not modify the port and URL end part. Change only the hostname if required by a special setup.
5. Under the **Management – <domain> – Policies** (or **Management – <user> – Policies**) tab set the appropriate access.
6. Check the **<domain> – Information** tab of the primary domain whether the *DNS* record for auto-discovery is set. (EAS should use any type of either *SRV* or *A* record.)
7. For **GAL** lookup, a user has to be able to read at least one *GAL* type folder. Search within *GAL* is performed by EAS itself on the server. To have *GAL* synchronized into a device, the *Public folders* check box (**ActiveSync Devices** dialog – **Manage Device – Device Settings** dialog – **Folders** tab) has to be ticked. See the **GAL Public Folder** section for details.
8. Enable **SSL** on the default port – HTTP (443) in **System – Services**. SSL ensures that mail and other data are securely encrypted during wireless transmission.

BE AWARE: If SSL is not used, all data (even passwords etc.) are sent in plain text!

9. For additional security protection and best SmartDiscover performance, install a digital certificate on the server from a trusted certificate authority such as **Verisign**.

Windows devices in general consider self-signed certificates (not signed by a CA) as invalid. It is possible to purchase a CA certificate from IceWarp – for detailed information about certification process, refer to **IceWarp SSL Certificate Process** – it is available from: <http://www.icewarp.com/downloads/documentation/server/>.

ActiveSync Tab

| Field | Description |
|-------|---|
| URL | <p>URL consists of:</p> <ul style="list-style-type: none"> ▪ The server address or alias: <mail.domain.com> <p>This address (alias) has to be set in a client exactly, otherwise synchronization will not work.</p> <p>NOTE: Default ports (80 for HTTP, 443 for HTTPS) are not specified. The use of other ports for control service is NOT recommended – the service could fail.</p> |

| | |
|-------------|--|
| | <ul style="list-style-type: none"> The path specified by Microsoft – Microsoft-Server-ActiveSync <p><i>NOTE: This part of URL cannot be changed.</i></p> |
| DB Settings | Click the button to reveal the Database dialog. Here you can define ActiveSync database properties. |



BE AWARE: Access mode to the service can be set on both domain and user levels. See the appropriate places (<domain> – Policies, <user> – Policies).

Rules

Global Rule: Quarantine New Device Settings...

| Characteristic | Value | Description | Settings |
|--|-----------|-------------------------|----------|
| <input checked="" type="checkbox"/> Operating System | android 4 | Android 4 OS rule | |
| <input checked="" type="checkbox"/> Operating System | Android | Android OSrule | Yes |
| <input checked="" type="checkbox"/> Device Model | Nexus 7 | Nexus device model rule | |
| <input checked="" type="checkbox"/> Device Type | iPhone | iPhone | Yes |

Add... Edit... Delete

| Field | Description |
|--------------------------|--|
| Global Rule | Select the default rule for devices that will not match any of ABQ rules set lower. The Quarantine item seems to be the most meaningful. |
| New Devices Settings | Click the button to open the Device Settings dialog. (For detailed description of this dialog, refer to the ActiveSync Guide – Device Management chapter.) These settings apply for devices that either do not match any rule or match a rule that has not set <i>New Device Settings</i> . |
| <i>icons in the list</i> | – allowed device – blocked device – quarantined device |
| Add | Click the button to add a new ABQ rule. The Rule dialog opens. See further. <i>For more information on ABQ Management follow the link.</i> |
| Edit | Select an existing rule and click the button to edit this rule. The Rule dialog opens. See further. |
| Delete | Select a rule and click the button to remove this rule. <i>NOTE: You may want to disable a rule but not to delete it. In this case, un-tick the box next to the appropriate rule.</i> |

Rule Dialog

| Field | Description |
|---------------------|--|
| Active | Tick the box to have this rule active. |
| Description | Enter a short descriptive text. |
| Characteristic | Select a rule "criteria". Rules are listed according to the following criteria priority: <i>Operating System, Device Model, Device Type</i> . |
| Value | Enter the appropriate value. <i>For more information on ABQ Management follow the link to this chapter.</i> |
| Action | Select the appropriate action that is to be done when the rule value is matching. <i>For more information on ABQ Management follow the link to this chapter.</i> |
| New Device Settings | Click the button to open the Device Settings dialog. (For detailed description of this dialog, refer to the ActiveSync Guide – Device Management chapter.) These settings apply for devices that match just this rule. |

Device Tab

| Account | Device Name | Device Type | Device Model | Device OS | Protocol Version | Registered | Last Sync | Rer |
|-------------------------|-------------------------|---------------|-------------------------|--------------------------|------------------|------------------|------------------|-----|
| betty.jeeland@lagnos... | HTC One mini | HTCOneMini | HTCOneMini | Android 4.4.2 | 14.0 | 2016-09-07 15:34 | 2016-09-07 15:34 | |
| mike.sparrow@lagnos... | Windows Phone 8S by ... | WP8 | Windows Phone 8S by ... | Windows Phone 8.0.105... | 14.0 | 2016-09-07 12:34 | 2016-09-07 13:28 | |
| mike.sparrow@lagnos... | White iPad | iPad | iPad3C3 | iOS 9.3.4 13G35 | 14.0 | 2016-09-07 12:36 | 2016-09-07 15:18 | |
| mike.sparrow@lagnos... | HTC One mini | HTCOneMini | HTCOneMini | Android 4.4.2 | 14.0 | 2016-09-07 12:44 | 2016-09-07 12:44 | |
| mike.sparrow@lagnos... | dreamtexas | SamsungDevice | SM-G950F | Android | 14.0 | 2018-04-30 09:38 | 2018-04-30 10:28 | |

| Field | Description |
|--------------------------|---|
| Global Policies | Click the button to open the Policies dialog. Policies set here will be applied for all devices, unless changed within the Device Settings dialog (double-click the device – <i>Device Policies</i> button) for an individual device. For details about the Policies dialog, refer to the ActiveSync Guide – Security Policies – Default Policies chapter. |
| Filters | Use self-explanatory filters to ease your work with extensive device lists. Set a filter and click the <i>Refresh</i> button. Click the <i>Clean</i> button to show all list items. |
| Manage Device | Select a device and click this button to manage the device settings. For detailed description of this dialog, refer to the ActiveSync Guide – Device Management chapter. |
| Allow Device | Select a device and click this button to enable synchronization for this device. |
| Block Device | Select a device and click this button to block synchronization for this device. |
| Delete Device | Select a device and click this button to remove this device from the list. <i>NOTE: This action does not prevent the device from synchronization when it contact the server next time. Use the Block Device button to set it.</i> |
| Rule for similar devices | Select a device and click this button to create a similar rule. See the ABQ Management chapter. |

DNS SRV Records Configuration

For information about this topic, refer to the **DNS Records Configuration** chapter ([manual.chm – Shared Topics](#)).

ABQ Management

Basic Terminology

- Basic means of ABQ management:
 - Device access rules (**ABQ Rules**)
 - Device information (**Characteristics**) sent by a client via the *Provision* or *Settings* commands
- **Standard ABQ Rule** is a triplet that consists of characteristic, its value and ABQ access state.
- Characteristic is one of the following: *Device Type, Device Model, Operating System*.
- **Value** is a case insensitive string.
- **ABQ access state** is one of the following: *Allow, Block, Quarantine*.
- Standard ABQ rule can have a description, rules can be disabled.

Types of ABQ Rules

- One mandatory simple ABQ rule without characteristic and its value (**Global ABQ Rule**)
- Optional standard ABQ rules will be supported on server level only (**Server ABQ Rules**)
- One optional simple (without characteristic and its value) ABQ rule for all domains and all users (**Domain ABQ Rules** and **User ABQ Rules**)

Determining Access State of NEW Devices

- Requirements:

- Current device is authenticated
- ActiveSync is enabled for the current user
- Policy enforcement criteria are met by the current mobile device
- Is there an explicit rule to allow, block or quarantine the device on the user level (**User ABQ Rule**)? If so, grant full access or block access or quarantine the device. Else, go to the next step.
- Is there an explicit rule to allow, block or quarantine the device on the domain level (**Domain ABQ Rule**)? If so, grant full access or block access or quarantine the device. Else, go to the next step.
- Is this mobile device allowed, blocked or quarantined on the server level (**Server ABQ Rule**) by an *Operating System* characteristic rule? If so, grant full access or block access or quarantine the device. Else, go to the next step.
- Is this mobile device allowed, blocked or quarantined on the server level (**Server ABQ Rule**) by a *Device Model* characteristic rule? If so, grant full access or block access or quarantine the device. Else, go to the next step.
- Is this mobile device allowed, blocked or quarantined on the server level (**Server ABQ Rule**) by a *Device Type* characteristic rule? If so, grant full access or block access or quarantine the device. Else, go to the next step.
- Is this mobile device allowed, blocked or quarantined on the server level by a global rule (**Global ABQ Rule**)? If so, grant full access or block access or quarantine the device.
- How to match characteristic sent by a device with a **Server Rule** query value:
 - Comparison is case insensitive
 - If a query value is e.g. 'Android', then the characteristic sent by a device is compared step-by-step with the following: 'android', 'androi', 'andro', 'andr', 'and', 'an' and 'a'.

ABQ Access States

- Allow:
 - All EAS features are enabled
 - Allowed devices can be blocked by administrator
- Block:
 - Returns an "access forbidden" error to the device
 - Blocked devices are not displayed in WebClient
 - Blocked devices can be allowed by administrator
 - Do not confuse with the *Blocked* status when either *Hard Wipe* (*Soft Wipe* respectively) is set.
- Quarantine:
 - Only default folders are synchronized
 - Only one-way sync (client to server) is enabled
 - User gets information mail about this state
 - Quarantined devices are not displayed in WebClient
 - Quarantined devices can be allowed or blocked by administrator

SyncML

About

SyncML (Synchronization Markup Language) is a platform-independent information synchronization standard.

For detailed information about SyncML, refer to the appropriate part of this manual – **SyncML Guide**.

On-server Setup

| | |
|----------------------|--------------------------|
| SyncML | |
| Authentication type: | Any (Basic Or MD5) ▼ |
| URL: | http://127.0.0.1/syncml/ |

| Field | Description |
|---------------------|--|
| Authentication type | <p>Select the appropriate type:</p> <p><i>Any (Basic Or MD5)</i></p> <p>IceWarp Server will accept authentication with either Basic or MD5 encryption.</p> <p><i>Require Basic</i></p> <p>Passwords are sent as plain text – without encrypting; some clients support only this authentication.</p> <p>This option forces clients to use basic authentication. If a client attempts to connect using MD5 authentication IceWarp Server will request that it try again with Basic authentication. If the second attempt is also made with MD5 authentication, then the connection is rejected.</p> <p><i>Require MD5</i></p> <p>This option forces clients to use MD5 authentication. If a client attempts to connect using Basic authentication IceWarp Server will request that it try again with MD5 authentication. If the second attempt is made with Basic authentication then the connection is rejected.</p> <p><i>NOTE: If IceWarp Server serves as a go-between for a client and another (authentication) server (e.g. Active Directory), it is not possible to use this authentication type.</i></p> <p><i>NOTE: Selecting either of the "Require" options may stop some clients from using IceWarp Server's SyncML server. This is because some older clients do not have MD5 capabilities and some newer clients do not have Basic capabilities.</i></p> |
| URL | <p>URL consists of:</p> <ul style="list-style-type: none"> ▪ The server address or alias: <mail.domain.com> <p>This address (alias) has to be set in a client exactly otherwise synchronization will not work.</p> <p><i>NOTE: Default ports (80 for HTTP, 443 for HTTPS) are not specified. The use of different ports for control service is possible – they have to be defined on the System – Services – General tab in the Control service.</i></p> <ul style="list-style-type: none"> ▪ The path specified by IceWarp Server – syncml <p><i>NOTE: This part of URL (folder) can be changed provided that its content is moved into the newly defined folder.</i></p> |



NOTE: Access mode to the service can be set on both domain and user levels. See the appropriate places (**[domain] – Policies, [user] – Policies**).

WebDAV

About

Web Distributed Authoring and Versioning – enhancements to the HTTP protocol that turn the Web into a document database that enables collaborative creation, editing and searching from remote locations.

IceWarp Server WebDAV service provides (combines) the following:

- CalDAV (RFC)
- CardDAV
- GroupDAV
- Web Folders

For detailed information about setting of desktop clients, refer to the **Desktop Clients** chapter.

For information about WebFolders, refer to the **WebFolders** section.

This module (WebDAV – WebFolders) is free – it is available even without a license for GroupWare.

On-server Setup

| | |
|--------|--|
| WebDAV | URL: <input style="width: 150px;" type="text" value="http://127.0.0.1/webdav/"/> |
|--------|--|

| Field | Description |
|-------|--|
| URL | <p>URL consists of:</p> <ul style="list-style-type: none"> ▪ The server address or alias: <mail.domain.com> This address (alias) has to be set in a client exactly otherwise synchronization will not work. <p><i>NOTE: Default ports (80 for HTTP, 443 for HTTPS) are not specified. The use of different ports for control service is possible – they have to be defined on the System – Services – General tab in the Control service (32000 here).</i></p> <ul style="list-style-type: none"> ▪ The path specified by IceWarp Server – webdav <p><i>NOTE: This part of URL (folder) can be changed provided that its content is moved into the newly defined folder.</i></p> |



NOTE: Access mode to the service can be set on both domain and user levels. See the appropriate places ([domain] – Policies, [user] – Policies).



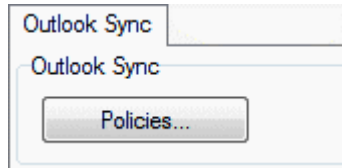
BE AWARE: If you want to use **SmartAttachor** document editing, WebDAV has to be running and **URL** has to be set properly.

DNS SRV Records Configuration

For information about this topic, refer to the **DNS Records Configuration** chapter (**manual.chm – Shared Topics**).

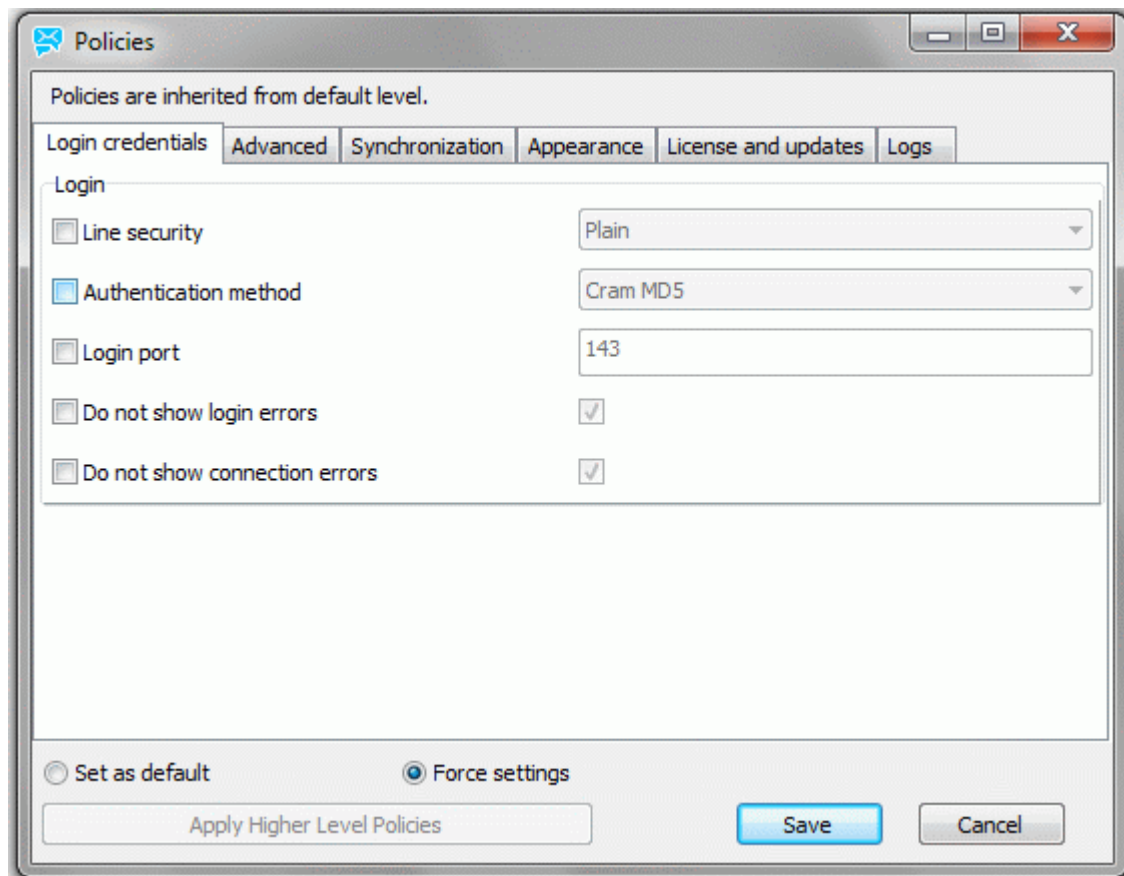
Outlook Sync

Use this tab to set policies for Outlook Sync. Within the **Policies** dialog select settings that you want either to enforce or set as default to Outlook Sync users. Users can change only settings that are set as default. (Plus those that are not set here at all.)



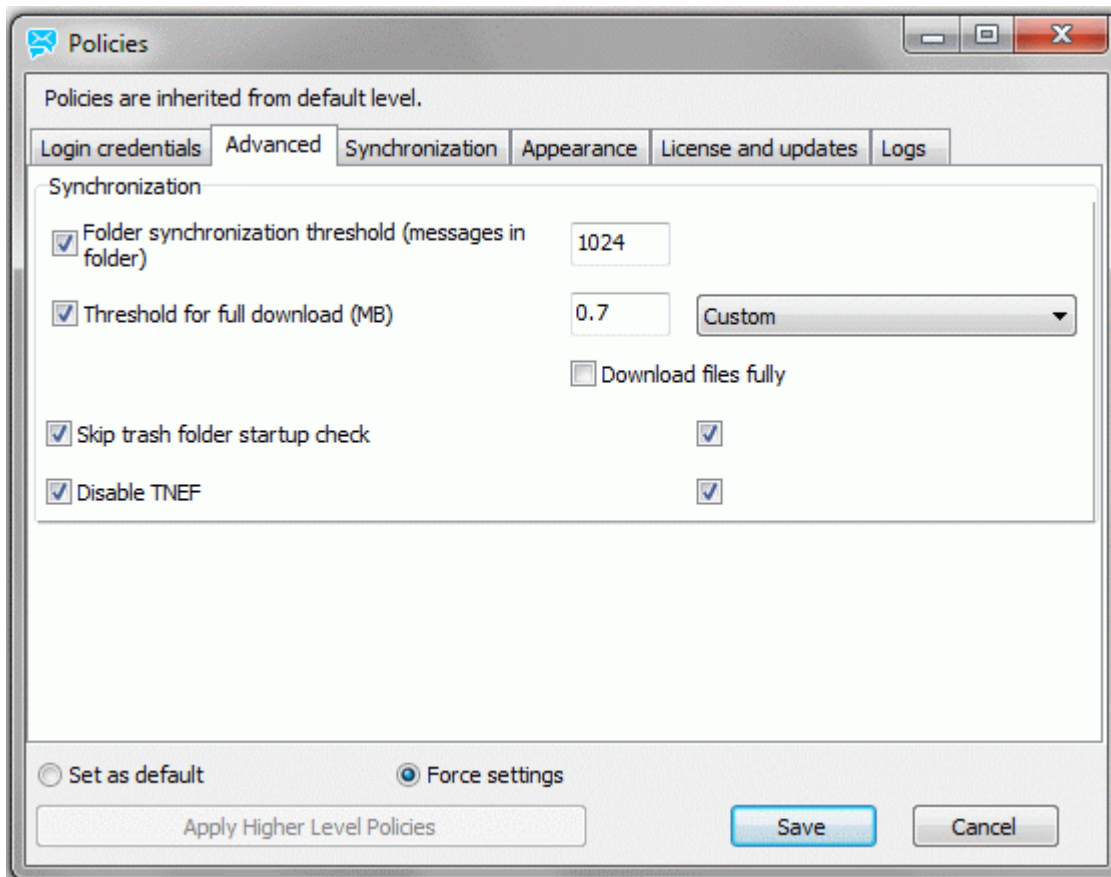
| Field | Description |
|----------|--|
| Policies | Click the button to open the Policies dialog. |

Policies Dialog



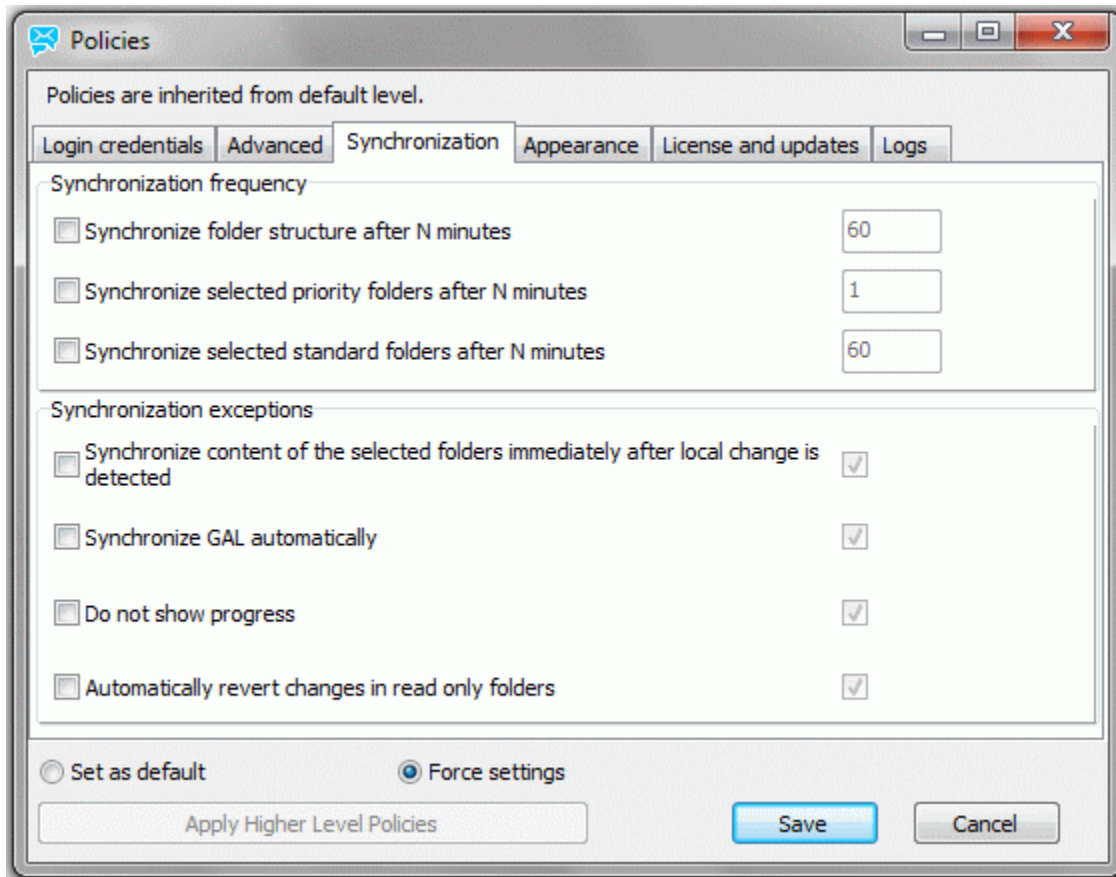
| Field | Description |
|---------------|--|
| Line security | <p>Select the appropriate connection type:</p> <ul style="list-style-type: none"> ▪ <i>Plain</i> (not recommended) – the connection is not encrypted at all. ▪ <i>Start TLS</i> (Transport Layer Security) – first attempt to establish connection is done by usual (non-encrypted) communication. After connection establishing, encrypted communication is used. ▪ <i>SSL</i> (Secure Socket Layer) – the connection is fully encrypted. By default, the SSL port of 993 is used. |

| | |
|-------------------------------|--|
| Authentication method | Select authentication type you want to use: <ul style="list-style-type: none"> ▪ <i>Cram MD5</i> – server sends a string, credentials to be encrypted with by a client. Encrypted credentials are sent to the server. It encrypts saved credentials with the same string and compares results. ▪ <i>Plain</i> – no encryption (or base64) is used. |
| Login port | The default port number for IMAP service is 143. |
| Do not show login errors | Check this box if you do not want to see login errors. |
| Do not show connection errors | Check this box if you do not want to see connection errors. |
| Force settings | Settings set here are sent as provisions and users are not able to change them. |
| Set as default | Settings set here are sent as provisions and users can change them. |
| Apply Higher Level Policies | This button is used for lower (domain, user) levels. On this (global) level you can use it to set default values. NOTE: The button is active only if any value is changed (and saved). |
| Save | Click the button to save any performed changes. NOTE: When the <i>Apply...</i> button is used, default values are saved automatically. |



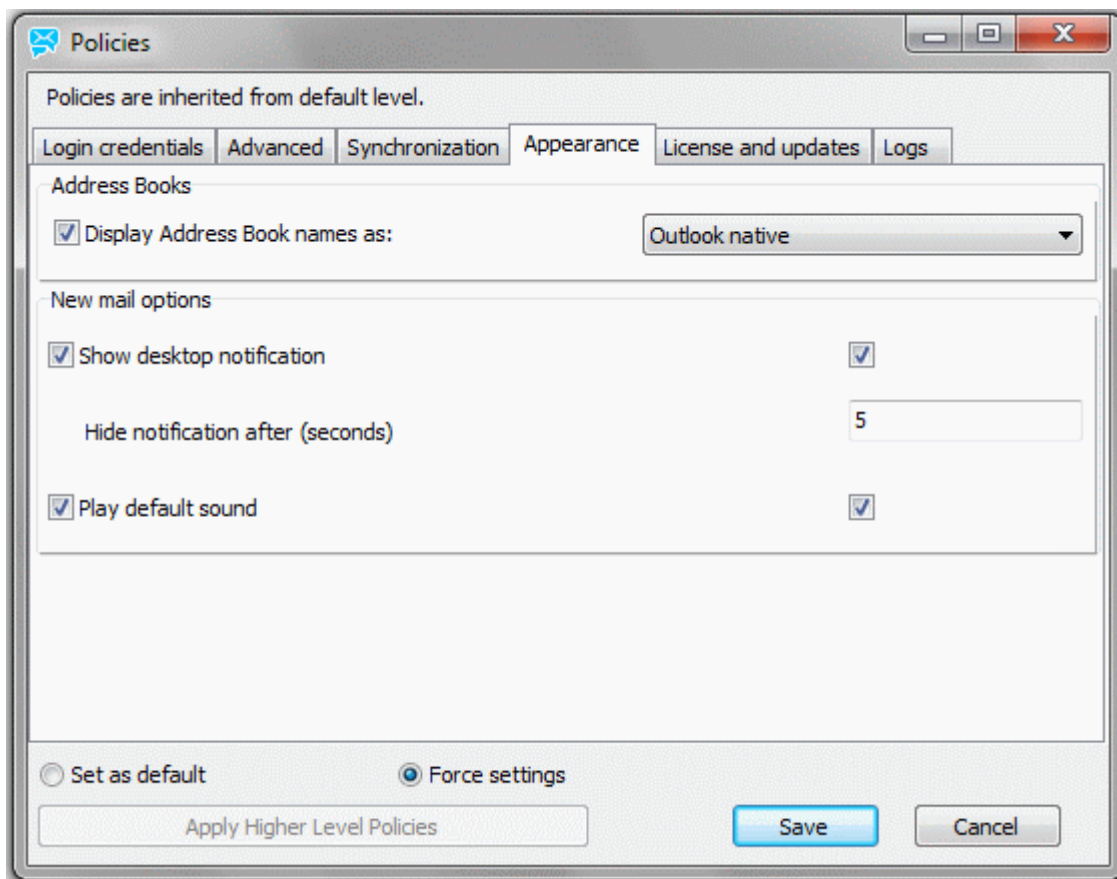
| Field | Description |
|------------------------|---|
| Folder synchronization | Up to this number of emails, these items are parsed and synchronized. When number of emails |

| | |
|--------------------------------------|--|
| threshold (messages in folder) | <p>exceeds this number, synchronization is based on Outlook information about items that need to be synchronized (i. e. have been changed). If there are many messages, Outlook Sync does not loop over all messages but deals with a change report provided by Outlook. Because Outlook sometimes does not inform about the changes, 100% functionality is guaranteed only if we loop over all emails.</p> <p>It is not recommended to set this value to much higher than 1024 because the processing is then very CPU consuming.</p> |
| Threshold for full download (MB) | <p>Up to this email size (in megabytes), whole emails are downloaded. When email size exceeds this number, only email headers are downloaded. Whole emails are downloaded in the moment they are clicked (to open them).</p> <p>This field is enabled only when the <i>Custom</i> option (see lower) is selected.</p> |
| Custom | <p>Select one of the following:</p> <ul style="list-style-type: none"> ▪ <i>Custom</i> – this option lets you to specify the <i>Threshold for full download</i> feature. ▪ <i>Headers</i> – only email headers will be fully downloaded. ▪ <i>Full</i> – all emails will be fully downloaded. |
| Download files fully | <p>This feature is related to file type folders only.</p> <p>If the box is ticked, files are downloaded fully regardless of the download threshold set above.</p> |
| Skip trash folder startup check | <p>Check this box if you want to skip checking trash folder during startup.</p> |
| Disable TNEF | <p>Check this box if you are experiencing issues with mail attachment arriving to users as winmail.dat / win.dat files.</p> |
| Force settings, Set as default, Save | <p>See the previous table.</p> |



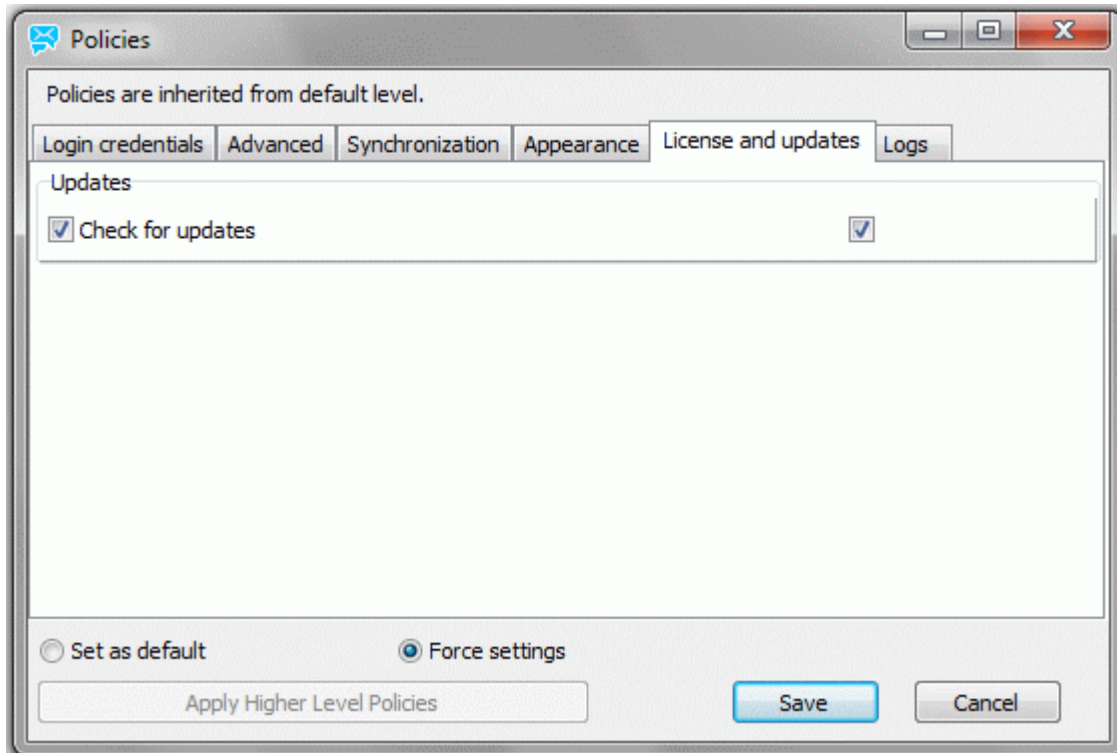
| Field | Description |
|--|--|
| Synchronize folder structure after N minutes | Tick the box and select time in minutes. Folder structure (added or deleted folders) will be synchronized in this interval. |
| Synchronize selected priority folders after N minutes | Tick the box and select time in minutes. Priority folders will be synchronized in this interval. By default, it is one minute. <i>NOTE: To set folders as priority ones, users use the Settings dialog within Outlook.</i> |
| Synchronize selected standard folders after N minutes | Tick the box and select time in minutes. Standard folders will be synchronized in this interval. |
| Synchronize content of the selected folders immediately after local change is detected | Tick the left hand box if you want to enforce/ set as default this feature. Selected folders are synchronized immediately after performing (and saving) any change – e. g. after creating a new contact, event, etc. Right hand box: <ul style="list-style-type: none"> ticked – selected folders are synchronized unticked – you set provisions that enforce (set as default, respectively) impossibility to synchronize selected folders immediately. |
| Synchronize GAL automatically | Tick the left hand box if you want to enforce/ set as default this feature. GAL is synchronized within standard folders interval. (Minimal interval is 60 minutes.) Right hand box: <ul style="list-style-type: none"> ticked – GAL is synchronized automatically unticked – you set provisions that enforce (set as default, respectively) impossibility to synchronize GAL automatically. <i>NOTE: Users know GAL as Global Address Book.</i> |

| | |
|---|--|
| Do not show progress | Check this box to hide progress bar. |
| Automatically revert changes in read only folders | Check this box to let revert changes in read only folders automatically. |
| Force settings | Settings set here are sent as provisions and users are not able to change them. |
| Set as default | Settings set here are sent as provisions and users can change them. |
| Apply Higher Level Policies | This button is used for lower (domain, user) levels. On this (global) level you can use it to set default values. NOTE: The button is active only if any value is changed (and saved). |
| Save | Click the button to save any performed changes. NOTE: When the <i>Apply...</i> button is used, default values are saved automatically. |

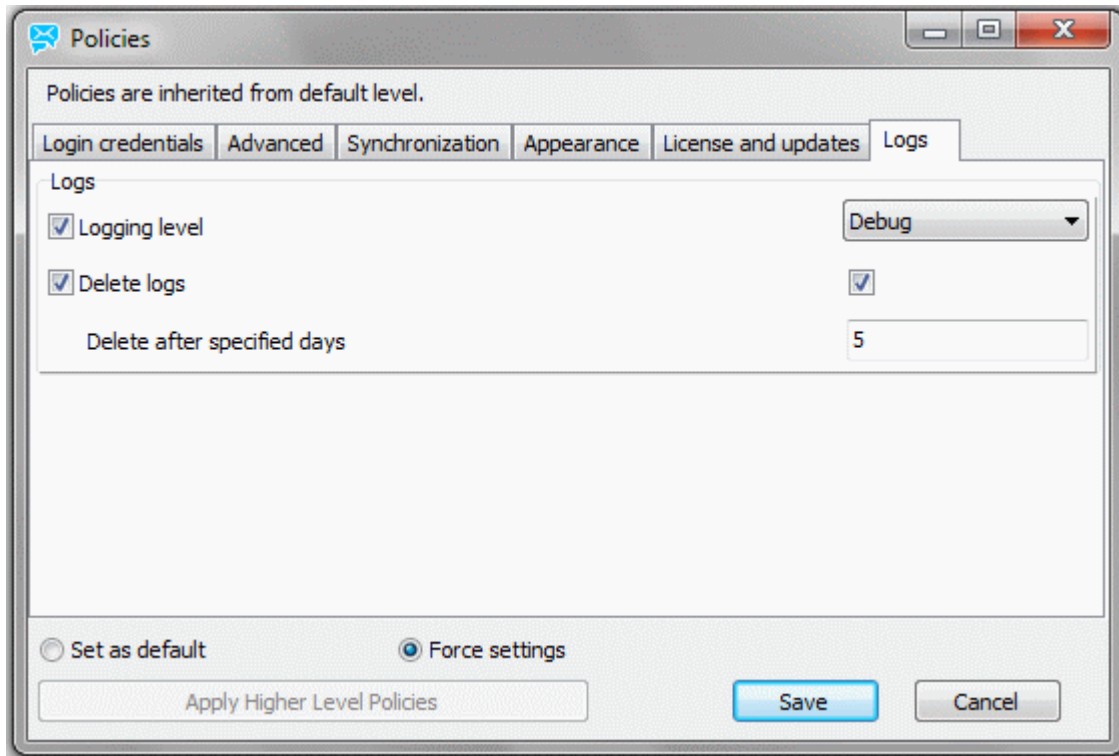


| Field | Description |
|-------------------------------|---|
| Display Address Book names as | Select from the list how you want to have Address Book names shown: <ul style="list-style-type: none"> • <i>Numbered structure</i> – reflect server folder structure • <i>Folder name only</i> – contact folders are shown in alphabetical order • <i>Full folder path</i> – folder names include parent folder (s) names (if applicable) • <i>Outlook native</i> – Address Book names structure is fully controlled by Outlook |
| Show desktop notification | Check this box to be informed about new email instantly as items arrive via desktop notification. |

| | |
|--------------------------------------|---|
| Hide notification after (seconds) | Specify in seconds how long the notification should be visible. |
| Play default sound | Check this box to let play default sound when item arrives. |
| Force settings, Set as default, Save | See the table for the <i>Synchronization</i> tab. |



| Field | Description |
|--------------------------------------|--|
| Check for updates | Tick the left hand box if you want to check for updates automatically. |
| Force settings, Set as default, Save | See the table for the <i>Synchronization</i> tab. |



| Field | Description |
|--------------------------------------|--|
| Logging level | Tick the box if you want to see the extension list of logs (Debug) or want to see errors only (Errors only). |
| Delete logs | Tick the box if you want to delete old log files by specifying a threshold in days. |
| Force settings, Set as default, Save | See the table for the <i>Synchronization</i> tab. |

Pre-requisites

Database

It is possible to use the following databases:

- SQLite
- MS SQL
- MySQL
- Oracle
- Firebird

By default, **SQLite** database is used. Immediately after IceWarp GroupWare Server is installed, the database is fully functional – ready to use.

Should more than 40 users be served, it is recommended to use **MySQL** database. It works very well, can use the **sqldump** backup, etc.

Supported clients

- **WebClient Pro**
Allows direct access to all groupware items, IMAP folders, shared folders, access to public folders.
- **MS Outlook 2010 – 2016**
After **IceWarp Outlook Sync** installation, it allows synchronization of Calendar, Tasks, Contacts and Notes. Emails can be synchronized via IMAP.
IceWarp Outlook Sync (in combination with MS Outlook 2010 or 2016) is needed to use all features in full entirety.
- **Mozilla Thunderbird**
Version 2 with **Lightning** (add-on that uses CalDAV) allows synchronization of the Calendar and Tasks folders.
Version 3 and later supports this synchronization without necessity of using the add-on mentioned above.
- **Fumambol Plugin for Mozilla (Thunderbird/Lightning*)**
Allows synchronization of contacts, *tasks and *calendars using SyncML protocol. The server URL and client configuration is similar to SyncML.
- **Mozilla Lightning, Sunbird**
Both of them synchronize Calendar and Tasks. Lightning mentioned above, Sunbird is a standalone desktop application. The latest version is 1.0.
- **Novell Evolution**
Linux e-mail client that synchronizes Calendar, Notes (called Memos here), Contacts and Tasks. Uses CalDAV. Version 3.x.
- **KDE Kontacts**
Linux PIM application; free cross-platform calendaring application. Version 5.x.
- **iCal 3**
Mac OS X native calendaring client. Synchronizes Calendar, Tasks and Notes using CalDAV. Current version is 10.0.



NOTE: Newer versions might be released since the last update of this manual. Their compatibility should be included in the latest version of IceWarp Server, but there is no guarantee.

Licenses

All IceWarp Server modules (i.e. GroupWare Server too) are fully functional during a 30-day trial period. After trial expiration, individual Calendars, Notes, etc. are still accessible but sharing is disabled. When the license is obtained, all shared items are accessible again (including those added meanwhile).

General Setup

GroupWare Server is installed within IceWarp Server installation. All features are fully functional immediately after installation (including the database). No further configuration is required.

For entering the license key, use the **License** dialog (**Help – License... – Activate License**) – select one of the following tabs:

- Online License Activation, to register using an Order ID
- Enter License Offline, to register using the **license.xml** file

Terminology, Abbreviations

| Term/Abbreviation | Description |
|-------------------|---|
| CalDAV | CalDAV is a standard protocol (RFC) that enables calendar access via WebDAV. |
| CardDAV | CardDAV is an address book client/server protocol designed to allow users to access and share contact data on a server. The CardDAV protocol is being developed by the IETF and is currently an internet draft. |
| EAS | Microsoft Exchange ActiveSync is a data synchronization protocol patented by Microsoft for synchronization of mobile devices with servers (or PCs). |
| GAL | Global Access List is a directory that contains entries for every user, group and contact within an organization. |
| handheld | Lightweight, hand-held computer, designed for use as a personal organizer with communications capabilities. |
| IMAP | Internet Message Access Protocol – a protocol allowing a client to access and manipulate electronic mail messages on a server. It permits manipulation of remote message folders (mailboxes), in a way that is functionally equivalent to local mailboxes. |
| iMIP | iCalendar Message-Based Interoperability Protocol specifies a binding from the iCalendar Transport-Independent Interoperability Protocol (iTIP) to Internet email-based transports. |
| iTIP | iCalendar Transport-Independent Interoperability Protocol |
| LDAP | Lightweight Directory Access Protocol – a protocol for accessing on-line directory services. |
| MAPI | Mail API – a programming interface from Microsoft that enables a client application to send to and receive mail from Exchange Server or a Microsoft Mail (MS Mail) messaging system. Microsoft applications such as Outlook, the Exchange client and Microsoft Schedule use MAPI. |
| MD5 | Message Digest 5 is a widely used cryptographic hash function with a 128-bit hash value. |
| Permissions | Set of data associated with a file, directory or other network resource that defines the permissions that users, groups, processes or devices have for accessing it. |
| PIM | Personal Information Management (Contacts, Calendar, Tasks, etc.) |
| SMTP | Simple Mail Transfer Protocol – a protocol defined in STD 10, RFC 821, used to transfer electronic mail between computers, usually over Ethernet. It is a server to server protocol, so other protocols are used to access the messages. |
| UDP | User Datagram Protocol – Internet standard network layer, transport layer and session layer protocols which provide simple but unreliable datagram services. |
| UDP port | port number for User Datagram Protocol |
| vCal | vCal is an open source calendar standard for Vision PIM. VCal can export itself to an RSS/RDF/WDP feed or publish itself to the internet using WebDAV and PHP. It can be exported to the iCalendar or vCalendar formats as well. VCal is not to be confused with the more known vCalendar format in that it is a completely different format. |
| vCard | Electronic business card that automates the exchange of personal information typically found on a traditional business card. The vCard is a file that contains the user's basic business or personal data (name, address, phone number, URLs, etc.) in a variety of formats such as text, graphics, video clips, and audio clips. |
| WebDAV | Web-based Distributed Authoring and Versioning – refers to the set of extensions to the Hypertext Transfer Protocol (HTTP) which allows users to collaboratively edit and manage files on remote World Wide Web servers. |
| VoIP | Voice Over IP – a digital telephone service that uses the public Internet as well as private backbones instead of the traditional telephone network. |

Sharing Concepts

There are two ways (concepts) how users can share their items:

- via public folders
- via individual sharing

Public folders are on-server created group accounts that are shared by group members. These members can have access rights set to different levels.

Individual sharing is used when single users want to share their private email folders, contacts, events, etc. with others. It is also possible to set different access right levels for individual persons (groups) for these shared folders.

Sharing is based on following things:

- **User groups** – groups of selected users defined by administrators. These groups are bases for "distribution" of shared items.
- **Shared items** – items that can be set as shared. E.g. mail, calendars, tasks, files, notes folders, etc.
- **Access rights** – levels of item and folders sharing. These levels can be set to read, write, modify, delete, etc.
- **Scheduling and resource planning** – planing of meetings, work, cooperation, etc. Sharing provides a powerful tool for effective resource planning at middle and big sized companies.

Further in this chapter, practical examples of groupware items sharing are given.

User Groups

About

User groups are sets of user accounts that have access to the same groupware items (folders, calendars, etc.) but can have set different security privileges. One user account can be a member of none, one or more user groups.

Group accounts contain lists of member accounts. These members can be users, mailing lists or even other groups. Groups can be given access to any shared folders defined on the system.

Individual users can share their calendar and contact information with domains, groups, as well as other individual users.

Emails can be sent to group accounts, they will be either routed to all group members or stored in a shared folder accessible to group members.

This functionality allows, for example, creating a group for a corporate department and defining a common data store (shared folder), common address book, common calendar, etc. Any changes in these common stores are immediately available to all members of that group.

There is the **Message** tab within group accounts. You can define your header/footer, subject and reply-to/from headers just like in a mailing list. This gives you the power to define group accounts in more details.

On-server Setup

See the **Domains and Accounts – Management – Groups** chapter.

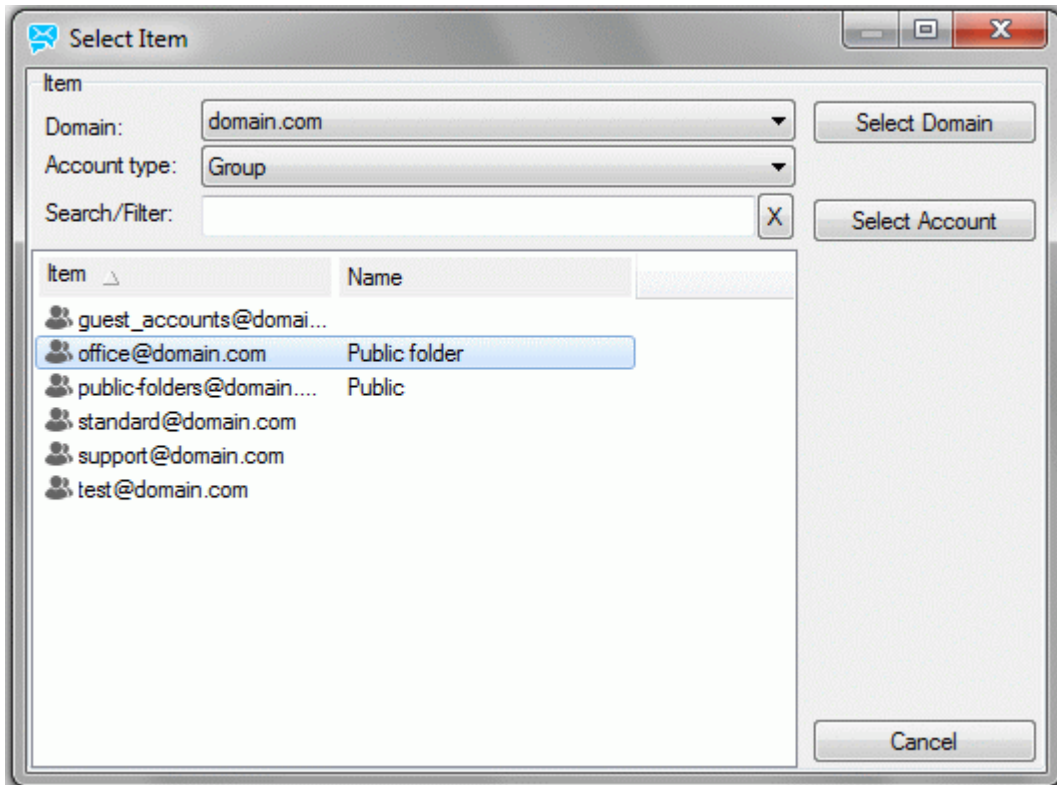
Creating User Group

1. Under **Domains and Accounts – Management – <domain>**, right-click **Groups** and click **Add... – Group**.
2. Fill in the **Alias**, **Description** and **Name** fields.

The screenshot shows a dialog box for creating a new group. It is organized into three main sections:

- Group:** Contains three text input fields:
 - Alias: support
 - Description: first level
 - Name: Support
- Public Folder:** Contains several options:
 - Create a public folder
 - Folder Name: support@domain.com
 - Deliver mail to shared folder (Mail is not sent to members)
 - Create TeamChat
 - Permissions... button
- Global Address List:** Contains several options:
 - Populate Global Address List (GAL) with all members
 - Allow GAL export for other servers within distributed domain
 - Organize GAL into hierarchical address book (HAB)
 - Add Group to GAL as: Distribution List (selected from a dropdown menu)

3. If desirable, tick the **Create a shared public folder** box, fill in the **Name** field, tick the **Deliver mail to shared folder**, **Populate Global Address List (GAL) with all members** and **Organize GAL into HAB** boxes. Set **Permissions** for default folders – Inbox, Events, Contacts, Notes, Journal – those are accessible for group members in their folder trees. To be **TeamChat** available for all members within the Group, check the **Create TeamChat** box.
4. On the **Members** tab, add the group members by clicking the **Add...** button, selecting the appropriate **Domain** and **Account type** and choosing members from the list. (It is possible to select **Group** as an **Account type** and choose some as a member of the created group; even the whole domain can be added as a group. It is also possible to add members from another domain of the same server.)



NOTE: The "closer" setting of access rights, the higher priority. I.e. access rights set for a user will override rights set for a domain. Example: For **domain.com**, access rights to some folder are set to **Read**, for the specific user (e.g. **john.doe@domain.com**), access rights are set to **None**. This means that John Doe has denied access to this folder regardless of the fact he is a local user of this domain.

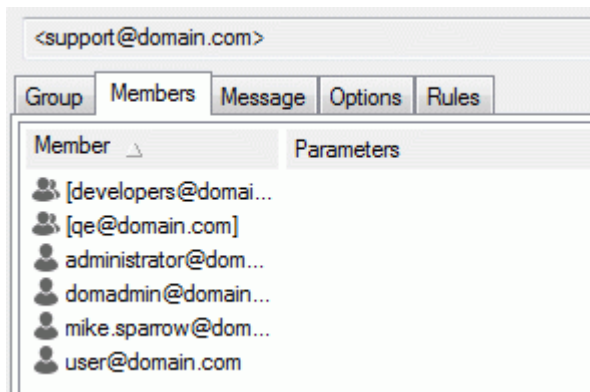
5. On the **Services**, **Options** and **Rules** tabs, set desired features – optional. (The services on the **Services** tab are accessible depending on what access mode is set for the appropriate service. For more information see the **Access Mode** chapter.)

Working with User Groups

Example:

You want to create a shared email folder, called "Support", to keep the appropriate employees informed about your customers response, group contacts, calendars, etc. You want to have one group of subscribers for this folder. Two groups (Developers and Quality Engineers) and three users should belong to this "feedback" group. Developers and QEs should have read, write, modify and delete access rights, three other people should be just informed about customers responses.

1. Create a new group (called support, for example) with a public shared folder called Support.
2. Set the **Default rights** to "Read, Write, Modify, Delete" and tick the **Deliver mail to shared folder** box.
3. Select the Developers and QEs groups and three single users mentioned above as members of this group.
4. For the individual members, set access rights to "Read" only.



The **Support** folder will appear in email folder structures of all group members.

Shared Items

Shared items are:

- **Email folders** – folders containing incoming or sent messages, drafts, etc.
- **Contacts, Calendars, Tasks, Notes, Journal folders** – non-mail folders of email boxes serving for storage of the specific information.
- **Files folder** – a non-mail folder used for file storage and transfer.

Subscription

- Public folders are automatically displayed (no need to subscribe any more). Once a user has rights for a public folder, it is displayed in his/her folder structure.
- Shared accounts still need to be subscribed as there can be hundreds or thousands of them. Once a user has rights to somebody's account, he/she can subscribe to it and then it will appear (only those folders the user has rights to).

In **IceWarp WebClient**, access rights granting/subscription is done via the folder structure. After right-clicking the user name, two menu items serve for sharing: **Folder access rights** and **Subscribe shared account**. (The later mentioned one reveals a list of people who share any items to the user.)

Files

These folders can be integrated with real file directories. You link a folder to a real directory and all the files are accessible also using a file system.

The directory is defined on the **Domain & Accounts – Management – <domain> – Users – <user> – User** tab by clicking the **Permissions...** button, selecting the **Files** folder, clicking the **Files Directory Mapping...** button (only in the case of selecting the file type folder this button is enabled) and selecting the appropriate address.

Unicode is fully supported so you can use any file names.

Sharing Folders



NOTE: You also need to have a groupware license to share IMAP folders.

For a detail description how to share a folder in the WebClient, refer to the **IceWarp WebClient User Guide – Getting Started – Context Menu – Sharing and Permissions** chapter.

Subscribing Folders

To subscribe shared folder(s), do the following:

- If you use **other client than WebClient**, you have to create the appropriate folder (i.e. the folder with the name of the shared account) in your client. E.g.: John Doe shares his account to you, you have to add a new folder into your email client folder tree and name it ~john.doe@domain.com. (To do this, perform the "create folder" action and write your email address.)

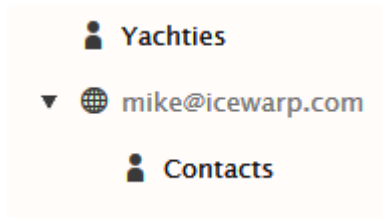
NOTE: For other IMAP clients than for WebClient you have to write this address with the shared account prefix defined on the **GroupWare – General** tab. By default, it is "~" (tilde).

Example:

- In the **WebClient** folder structure tree, right-click your user name and select the **Add Shared Account** item. In the **Select Contacts** dialog (see above), select the appropriate shared account from the left frame and move it to the right frame using arrow buttons or write the shared account name (email address) into the right lower field and click the **Add** button. Click **OK**.

NOTE: In **WebClient**, the **contacts** frame is pre-populated with accounts that share folder(s) to you.

The shared account with the shared folder(s) appears in the email client folder structure tree:



NOTE: You may want to subscribe only one folder from whole account shared to you. In this case, specify this folder as shown in the Select Contacts dialog figure – Selected field. Use the same syntax: [email_address]\[folder_name].

Working with Shared Folders

Shared folders usage is quite obvious but this feature combined with other ones can become a powerful tool for email correspondence managing.

For example, combination with email rules (both server and client defined) can be very efficient and save a lot of time when handling big amounts of email messages.

Another WebClient advanced feature allows you to organize events and send invitations on behalf of someone who shares his/her **Calendar (Events)** folder to you. You also can accept or decline invitations sent to this shared folder.

Access Rights

About

Access rights allow defining access levels for individual users, groups, domains, etc. These levels are:

| Access Right | Description |
|----------------|--|
| Lookup | basic right just to see folders (not to see items); this allows users to open subfolders they can be granted access to |
| Read | right only to read the items and entries |
| Keep Seen Flag | right to mark a message as read – only for non-groupware folders |
| Write | right to edit items completely – including setting or clearing flags other than seen and deleted |
| Insert | right to insert a new item |
| Post | included for compatibility with IMAP clients |
| Create | right to create a new folder |
| Delete | right to delete items from the public or shared folder (a folder owner has full rights) |
| Expunge | included for compatibility with IMAP clients |
| Delete Mailbox | right to delete a folder |
| Administer | full rights |

Permissions

It is a list of permissions attached to the object. This list specifies who or what is allowed to access the object and what operations are allowed to be performed on the object.

This dialog is used in the **User**, **Group** and **Public Folders** dialogs. It allows to define access rights to any folder (both GroupWare and IMAP) directly from the GUI and you can see the whole shared/public folder structure in a combined view.

For the **Permissions** dialog, refer to the **Public Folder – General** chapter – **Permissions Tab** section.

Permissions can be defined on each folder level and is automatically inherited from the parent if not defined. New "everyone" right has been introduced.

Permissions Inheritance

`Permissions inheritance` is a mechanism that lets container objects (e.g. mail type folders, file ones, etc.) pass access control information to their child objects. A container's child objects can be non-container objects (e.g. messages, contacts, files, etc.) as well as other container objects.

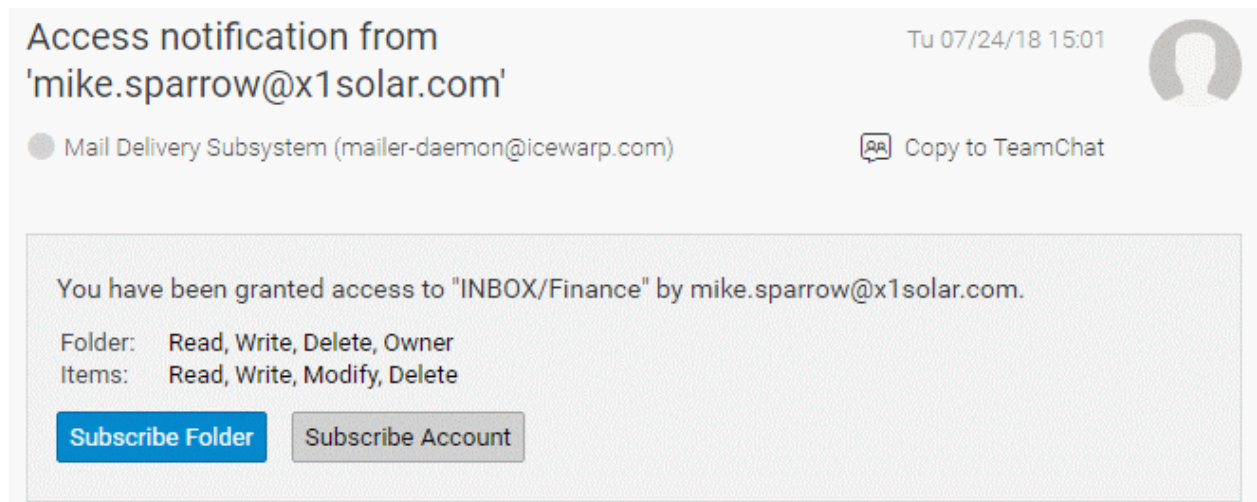
From administrator point of view, permissions inheritance simplifies access control management. An administrator can set the permissions on a parent object and does not need to set permissions on each child object.

Permissions Notification

IceWarp GroupWare Server sends notifications to users (after any permissions change) stating that they have been granted access rights.

These emails include information about:

- who has granted access
- to what folders
- what level of access rights the user has been granted



Similar type of notification is sent to resource managers and organizers when they are granted any roles related to these resources.

Folder Permissions Inheritance in IceWarp WebClient

When sharing folders in WebClient, any created child folder inherits access rights from its parent. These access rights can be changed (both increased and decreased) by the owner. In the case, you want to set access rights of this folder back to parent's ones, you can use the *Inherit* button of the **Folder Access Rights** dialog (see the **IMAP – Sharing Folders** section). This eliminates necessity to set them back manually.

Setting Permissions

Examples of setting permissions are shown in the **IMAP** chapter:

- For on-server permissions setting, refer to the **On-server Setup** section.
- For setting folder access rights using an email client (at best WebClient), refer to the **Creating the Resource – Sharing Folders** section.

Scheduling and Resource Management

About

IceWarp GroupWare Server provides possibility of smooth scheduling and resource planning using various email clients. Examples given below describe scheduling workflows for IceWarp WebClient and Microsoft Outlook 2010.

Scheduling – meeting organizing, invitation of attendees, invitation acceptance/declining.

Resource planning – finding of time availability of shared resources (cars, meeting rooms, projectors, etc.), reservation of these items, eventual reservation cancellation.

User Roles, Resource Types

There are following **Roles**:

- **Attendee** – a person that is invited to a meeting (or another event). Presence of this person can be either **required** or **optional**.
- **Organizer** – a person who sends an invitation. This person does not need to accept/decline his/her attendance.
- **Resource** – a thing needed for an event. E.g. a meeting room, projector, car, laptop, etc.

Attendees and resources can have set their **Statuses** to:

- Pending
- Accepted
- Denied

After acceptance/rejection, the meeting organizer can find this status next to the attendee name. See lower.

Scheduling a Meeting

To schedule a meeting in **IceWarp WebClient**, do the following:

1. In the **Calendar** pane, create or edit an appointment. The **Appointment** dialog appears:

Kick Off Meeting

Kick Off Meeting

General

- All day Collapse
- Starts 05/04/18 13:30
- Ends 05/04/18 14:00
- Duration 0 0:30
- Time zone (GMT+01:00) Amsterdam, Andorr...
- Repeat No Repeating
- Remind me None
- Calendar Calendar
- Show as Busy
- WebMeeting

Location

HQ

Attendees

- You
- Brad Thompson
- + Enter Attendee or Resource Name

Notes

Add Notes

Create Cancel

May 5

- In the **General** area , fill in all needed fields. Go to the **Location** area and select or type location.

Kick Off Meeting

Kick Off Meeting

General

- All day Collapse
- Starts 05/04/18 13:30
- Ends 05/04/18 14:00
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- Time zone (GMT+01:00) Amsterdam, Andorr...
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- Calendar Calendar
- Show as Busy
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Location

HQ

Attendees

- You
- Brad Thompson
- + Enter Attendee or Resource Name

Notes

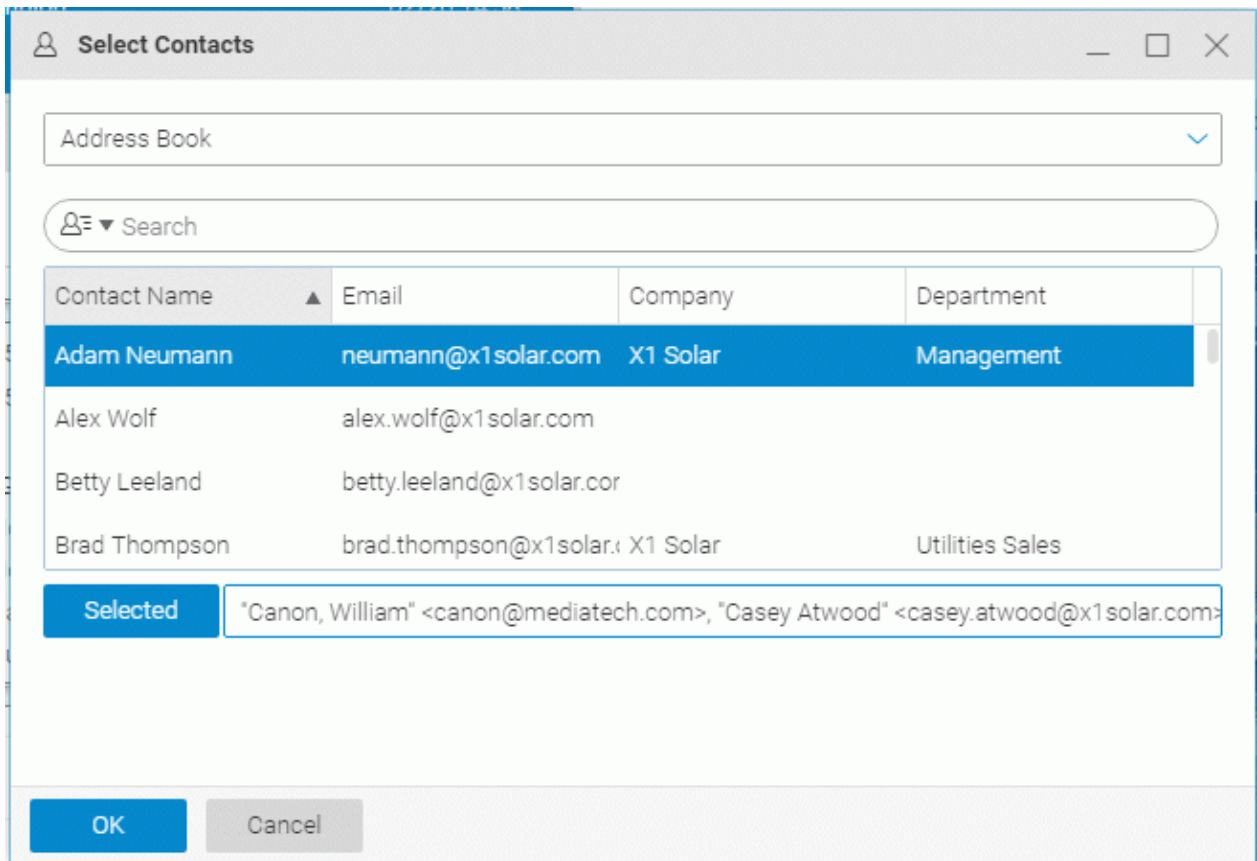
Add Notes

Create Cancel

May 5

- Select both attendees and resources from **Address Book** using either the **Plus** icon.

Clicking the **Plus** icon opens the **Select Contacts** dialog:



NOTE: You can let our algorithm find the best time for meeting by clicking the **Find the best time for meeting** button.

- In the **Select Contacts** dialog, select the appropriate attendees by highlighting them and clicking the **Selected** button. (You may want to use CTRL + click and/or SHIFT + click shortcuts to select multiple attendees.) Click **OK**. Additionally you can also add TeamChat room.
- Do the same for resources if applicable. See the **Planning a Resource** section further.
- You can find the current attendee status in the **All Attendees** pane:



Accepting/Declining Meeting Invitations – IceWarp WebClient

All attendees receive invitation emails.

- In the invitation email, click either the **Accept**, **Decline**, **Tentative** or **Propose new time** button.

Organizer "Mike Sparrow" has invited you to "Kick Off Meeting" Fr 05/04/18 12:48

Mike Sparrow (mike.sparrow@x1solar.com) Copy to TeamChat

To: Brad Thompson ● Casey Atwood ● Betty Leeland ● Paul Sauer

invite.ics (1.4 kB)

Kick Off Meeting

Friday, 05/04/18 13:30 - 14:00 (GMT+01:00)

With [Mike Sparrow](#), [Brad Thompson](#), [Casey Atwood](#), [Betty Leeland](#), [Paul Sauer](#)

Location HQ

The organizer is informed about your choice by an email message.

- After acceptance, the event is added into the attendee's calendar.

Accepting/Declining Meeting Invitations – MS Outlook 2016

- In the **MS Outlook**, you will receive an invitation email:

The screenshot displays the Microsoft Outlook 2016 interface for a meeting invitation. The ribbon is set to 'Meeting', and the 'Please respond.' pane is active. The meeting details are as follows:

| When | Location |
|--------------------------|---|
| Wednesday, July 25, 2018 | desk |
| 03:08 - 04:09 | Meeting: desk; mike.sparrow@x1solar.com |
| 04:09 - 05:10 | |

- In the **Respond** pane, click the appropriate icon to reply (*Accept, Tentative, Decline, Propose New Time*).

The **Propose New Time** icon gives you two possibilities:

- Tentative and Propose New Time
- Decline and Propose New Time

Both of them open the **Propose New Time** window that is similar to the **Schedule** tab (see above). Here you can suggest different time for the meeting.

The organizer will receive information about it and can deal with your proposal.

Planning a Resource

Server administrators can grant any of server users rights to view and/or manage individual resources. (Use the **Permissions** button on the appropriate resource tab.) These users can find resource calendars within the **Resources** folders of their email clients.

There are two ways how to plan a resource. (Provided that a user has at least write rights to this resource.)

- A user can insert a new event to this resource calendar and invite other possible attendees on the **Schedule** tab (see above).

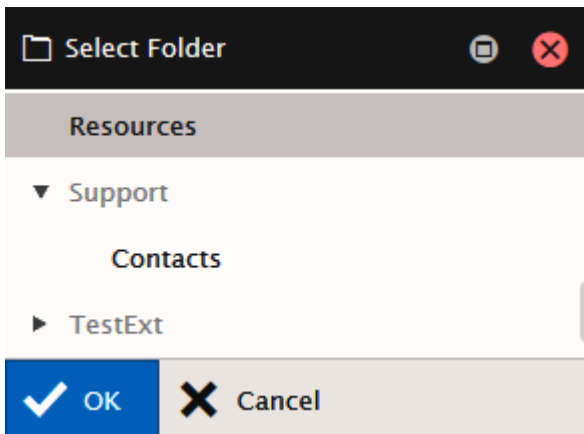
Using the resource calendar has an advantage of immediate knowing whether the resource is available or taken in the time you wish to use it.

- A user can add this resource to an attendee list on the **Schedule** tab when using a personal calendar.

To do it, follow these steps:

- Click the **Address Book** button.
- In the **Select Contacts** dialog, choose the **Select Folder** list item (see the figure).
- In the **Select Folder** dialog, select the **Resources** folder.
- In the **Contact Name** list, select the appropriate resource.

Your resource appears in the attendee list.



NOTE: In the case of resource request rejection, an information email is sent. This email explains the reason. E.g. time conflict (the resource taken), temporary unavailability, etc.

NOTE: You can add a resource from any email client provided that you know its email address.

Time Zones

Some email clients support handling different time zones. This is very useful when planning e.g. a teleconference with attendees from more locations.

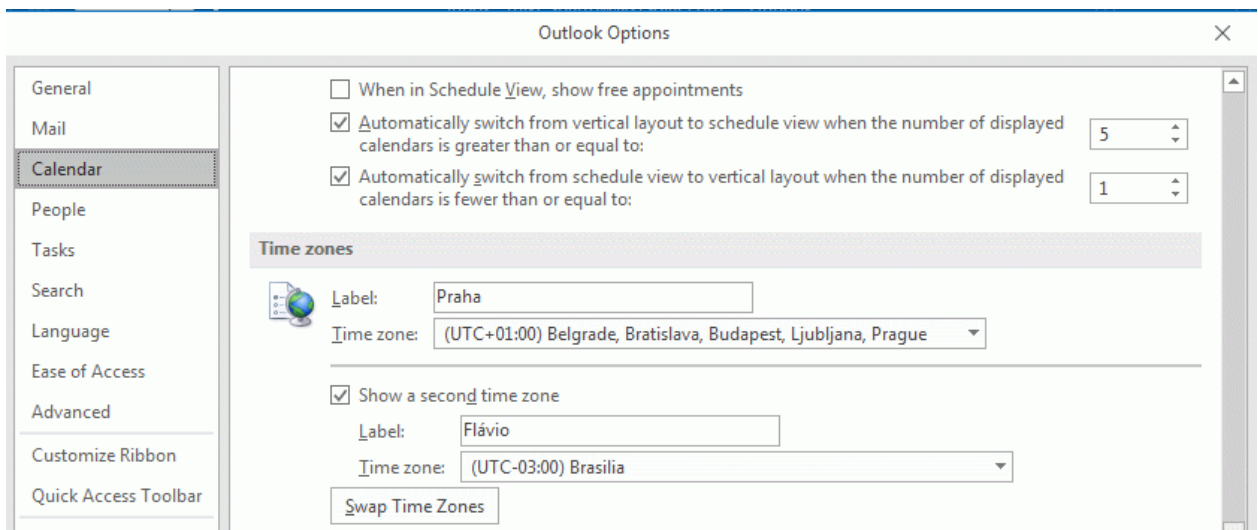
For information about IceWarp WebClient time zones handling, refer to the **IceWarp WebClient User Guide – Miscellaneous – Time Zones** chapter.

Revealing of another Time Zone

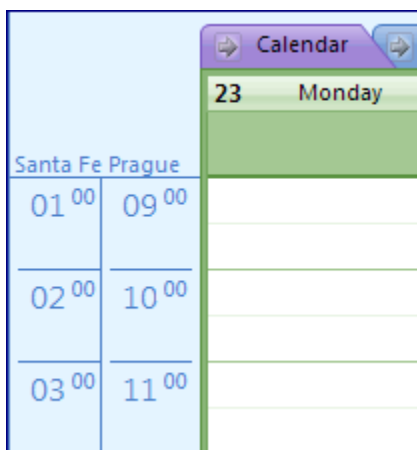
MS Outlook 2010 supports revealing of time of another time zone in its Calendar.

To reveal it, do the following:

1. In the **File** tab, select the **Options...** items.
2. In the **Options** dialogue – click the **Calendar** tab.
3. In the **Calendar** dialog, scroll down to the **Time Zones...** part. The **Time Zone** dialog is following:



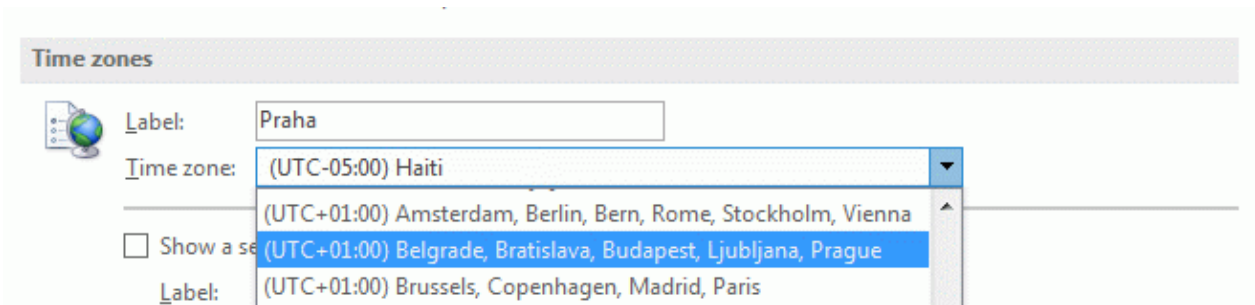
4. Fill in the **Label** fields and select the **Time zone** items from lists. Tick the **Show an additional time zone** box.
5. Click **OK** (three times). Time zones will appear in the **Calendar** pane:



Changing Time Zone

Another functionality supported by MS Outlook 2007 is changing a Calendar time zone:

1. Follow the previous procedure to the step 3 – revealing the **Time Zone** dialog.
2. Type a name for the current time zone in the **Label** box.



3. In the **Time zone** list , click the time zone that you want to use.

SmartAttach

This powerful feature lets you extract email attachments to groupware and replace them with URLs within email bodies. Pre-defined text with a link to the appropriate folder is added into an email body (its header or footer respectively). Pre-defined text files can be of either HTML or plain text formats. When the filter is active, this action is performed with both incoming and outgoing emails. So sending out large mailing lists with big attachments (up to 2GB – this limit applies to WebClient (php.ini) upload size)) is not an issue anymore.

Content Filters are used to define the conditions when **SmartAttach** is performed. These filters parse emails and perform various actions with their content, headers, footers, attachments, etc.

Why to Use SmartAttach Filter

There are these reasons for the filter use:

- To avoid email inbox overflowing.
- To improve (not to worsen, respectively) server connectivity – outgoing emails can be sent without large attachments, just with links to them. Only those recipients who want to download attachments deal with them.
- To prevent email rejection by a server because of attachment size.
- To have possibility to delete attachments even after the message has been sent.

Example

Users use mailing lists. These lists can be very extensive. Users do use them regardless of the fact that some recipients (servers) can use attachment rejection policy. The SmartAttach filter is the solution.

Files Folders

Attachments are stored in **Files** folders. The files folders are connected to defined accounts. It is possible to define any amount of file type folders. For information about IceWarp WebClient's File folders, refer to the **IceWarp WebClient** section.

Variables in Pre-defined Text

These variables can be used in the resulting email after the SmartAttach content filter has been applied for creation of links that refer to extracted files.

Supported variables are:

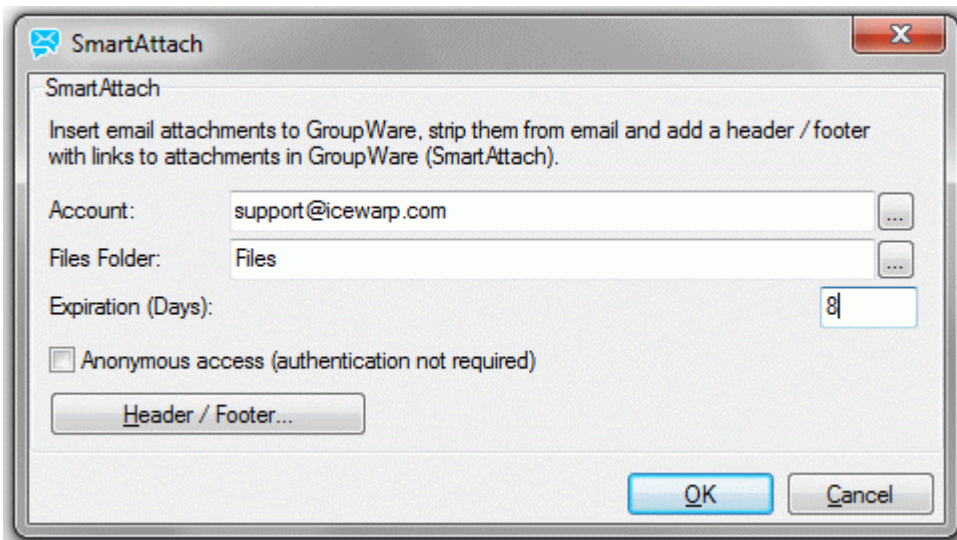
- %url%
- %file%
- %index%
- %expire%
- %size%
- %expiredate%


On-server Setup

To set this filter, do the following:

1. In the navigation pane, click the **Mail Service – Rules – Content Filters** nodes.
In the **Content Filters** tab click the **Add...** button.
The **Rule** dialog appears.
2. Do one of the following:
 - To apply SmartAttach globally for all system accounts, select the **All messages**, or **Where message contains attachment**, in the **Conditions** frame.
 - To apply SmartAttach for a domain or selected user(s), select **Where sender matches some words** and specify either the domain name or user names.
 - To apply SmartAttach based on attachment size, add the condition **Where message is size**, click size in the lower pane and define the size limit.

NOTE: If you enable SmartAttach for multiple recipients using multi-select condition within a single content filter, they will all share a common storage and other settings as defined further.



3. Select the account under which attachments will be saved, so that you can manage them in one place in case of groups and domains.
On the right side of the **Account** field, click the  button.
The **Select Item** dialog appears.
From the **Domain** combo box, select the appropriate domain. From the **Account type** combo box, select the appropriate type. In the frame, select the appropriate account and click the **Select Account** button.
The **SmartAttach** dialogue box appears again.
4. Use the "... " button next to the **Files Folder** field to select the appropriate folder of the above account where to store the attachments.
5. Into the **Expiration (Days)** field, write number of days attachments will be stored for. The attachments will be removed automatically after the specified time. Use **0** for unlimited expiration (never deletes attachments automatically).
6. If you want to enable anonymous access, select the **Anonymous access** check box, otherwise the recipient will need to authenticate with the credentials of the above selected account in order to download the attachment.

7. If you wish to customize the format of the resulting email by defining own headers and footers, click the **Header/Footer...** button and locate text (any extension) and HTML (html extension) parts of your customized header and footer.
8. In the **Rule** dialogue box, fill in the rule name into the **Title** field and click **OK**.
In the filter frame, the new rule name appears.



BE AWARE: If you want to use **SmartAttach**, WebDAV has to be active and its **URL** has to be set properly.

IceWarp WebClient

As a domain (or server) administrator, you can enforce domain (server respectively) users to use SmartAttach within the **Administrator Options** dialog – **Mail** – **Mail Compose** tab.

Select the appropriate value of an attachment size from the **Use SmartAttach** list. (**Yes** means that all attachments will be extracted. Do not forget to tick check boxes, if they are not.)

| Mail | IM | General | Calendar | Domains |
|---------------------|----|---|--------------------------|---|
| General | | | | |
| | | <input checked="" type="checkbox"/> Save sent messages to Sent folder | <input type="checkbox"/> | <input type="checkbox"/> |
| Mail Compose | | <input type="checkbox"/> Encrypt messages | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input checked="" type="checkbox"/> Digitally sign messages | <input type="checkbox"/> | <input type="checkbox"/> |
| Groups | | <input type="checkbox"/> Request read confirmation | <input type="checkbox"/> | <input type="checkbox"/> |
| Signature | | <input checked="" type="checkbox"/> Check for empty subject | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> Append My Details (vCard) | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> Add standard signature separator "-- " | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input checked="" type="checkbox"/> Signature at the top of the message | <input type="checkbox"/> | <input type="checkbox"/> |
| | | Use SmartAttach | > 1 MB | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |
| | | Message format | No | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| | | Response Message format | Yes | <input type="checkbox"/> <input type="checkbox"/> |
| | | Priority | > 1 MB | <input type="checkbox"/> <input type="checkbox"/> |
| | | Spell checker | > 5 MB | <input type="checkbox"/> <input type="checkbox"/> |
| | | Text direction (HTML) | > 10 MB | <input type="checkbox"/> <input type="checkbox"/> |
| | | Font | > 20 MB | <input type="checkbox"/> <input type="checkbox"/> |
| | | | > 50 MB | <input type="checkbox"/> <input type="checkbox"/> |

Users can set this function for themselves on the same tab of the **Options** dialog. The extracted attachment is saved into the user's **Files** folder.



NOTE: If both the server SmartAttach content filter and WebClient SmartAttach are applied, the extracted attachments are stored within individual user's **Files** folders. The appropriate path is similar: `IceWarp\mail\[domain]\[user]\~gw\attachments\`.

SmartAttach Customization

When using SmartAttach, an English text pre-defined in the server code with a link to the appropriate file is added to the email body (its header or footer respectively). Pre-defined text can be of either HTML or plain text formats.

SmartAttach supports a full range of customization/localization options:

- Global configuration file used to override the default template (**smartattach.dat**)
- Header/footer definition files for both HTML and plain text formats (files of arbitrary names located in arbitrary paths, referenced in **smartattach.dat**)
- Attachment variables that are replaced by actual values when the email is sent (e.g. **%url%**)
- SmartAttach templates that perpetually populate the header/footer with each attachment
- Constants that define the syntax of templates

1. The default global template can be overridden via **[Installation Directory]/config/smartattach.dat** file, for example if you wish the download links to appear at the beginning of the email.

See also **examples/smartattach.dat**

2. The first line contains **headerfile;htmlheaderfile** and the second one **footerfile;htmlfooterfile** strings with path references to the custom header/footer file names.

NOTE: These header/footer texts will be applied both to SmartAttach Content Filter and SmartAttach in IceWarp WebClient.

NOTE: The SmartAttach template syntax have to be used in all of these four files. If using custom header/footer, always define both HTML and plain text format, otherwise formatting issues can occur.

ALSO, use all supported variables (see lower) in your customized files, otherwise headers (footers respectively) will not be shown.

See examples:

examples/smartattachtextheader.dat

examples/smartattachtextfooter.dat

examples/smartattachhtmlfooter.html

examples/smartattachhtmlheader.html

3. Supported variables are:
 - **%url%**, attachment download link
 - **%file%**, attachment file name
 - **%index%**, numbered order of the attachment
 - **%count%**, total number of attachments
 - **%expire%**, number of days after which the attachment download link expires
 - **%size%**, attachment size
 - **%expiredate%**, date of the attachment link expiration
4. When creating a custom template, do not forget to enclose the attachment part into **<smartattach:template></smartattach:template>** tags. The content between these tags will be repeated as many times as many attachments the email has.

5. There are also special tags

<smartattach:expire>

</smartattach:expire>

which enclose part of the template that will be included only if the attachment expires after some days. In other words, emails with smart attachments sent through through **Content Filters** where **Expiration** is set to 0 (never expires) will not have this part.

To Customize SmartAttach Headers/Footers:

1. Define your own header/footer files, for simplicity leave them in **[Installation Root]/config** but they can be anywhere, of any name.
2. The easiest way is to copy over the files in **/examples/smartattach***, and localize the strings they contain with the exception of **<tags>** and **%variables%**.

NOTE: Do not forget to remove all commented lines from the example files!

3. You can make any other adjustments such as swapping the contents of header and footer if you wish the links to appear at the end of email rather than on its beginning (the default).
4. If necessary, create or edit the **[Installation root]\config\smartattach.dat** file so that it refers to the previously created header/footer files.

This is sufficient for WebClient SmartAttach localization.

5. To create an individual header/footer for a domain, create a custom SmartAttach Content filter and select the new header/footer file using the Header/Footer dialog while setting up the filter. For more details, refer to the **On-server Setup** section of the **GroupWare – Sharing Concepts – SmartAttach** chapter.

NOTE: Individual (such as per domain) header/footers will not work in IceWarp WebClient. WebClient will use only the global setting configured by smartattach.dat.

NOTE: If the header/footer does not contain the mandatory template tags, then the default one is appended.

WebFolders

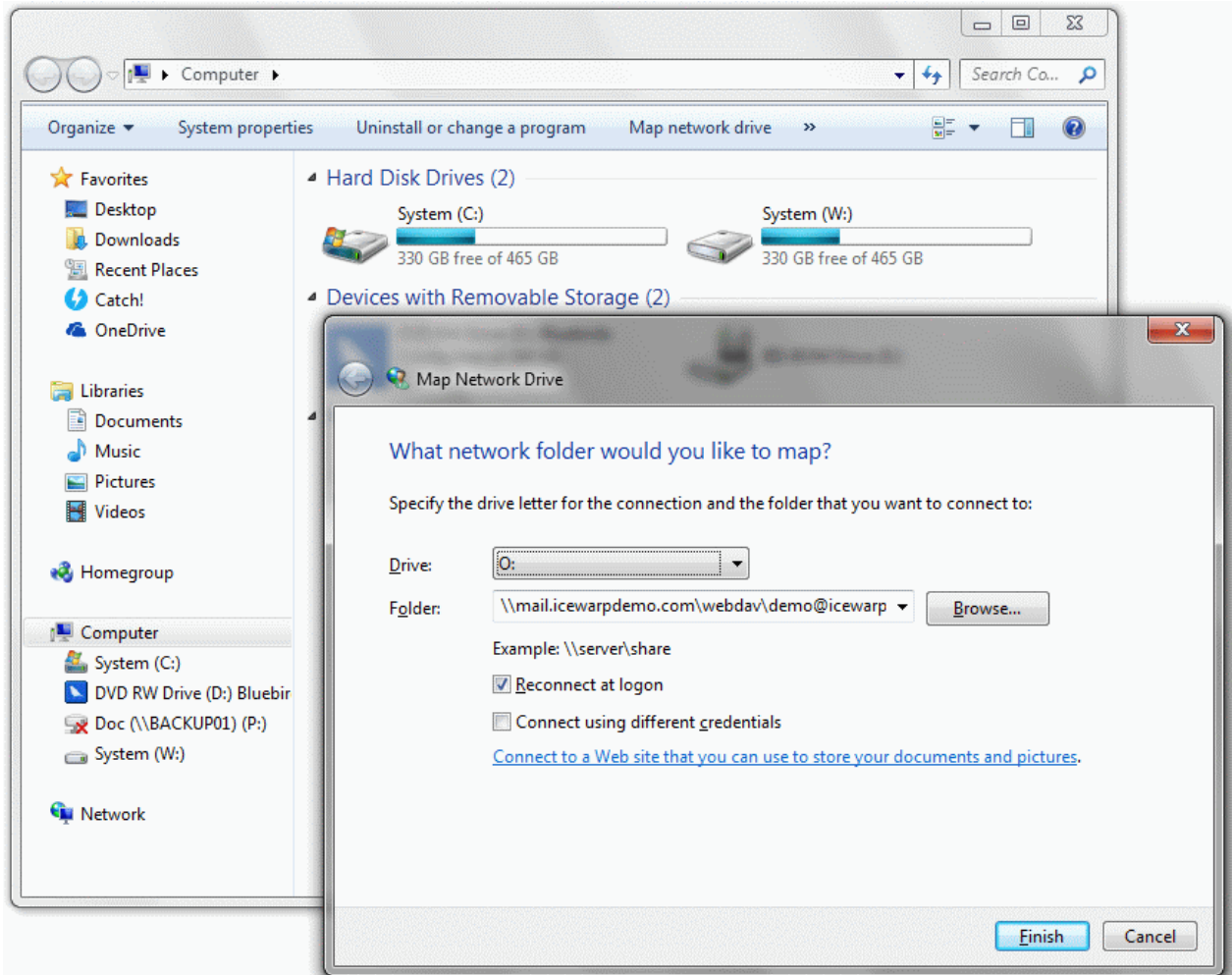
About

This feature allows you to store, transfer and backup files stored in remote servers over the Internet connection, directly from your desktop as a mapped network drive. It is recommended for corporate environments due to its firewall friendliness and full SSL support.

Setup in Windows 10

To connect to your server using **Windows 10**, do the following:

1. In the **Computer** directory, click the **Map network drive** button.
2. In the **Map Network Drive** dialog, select a drive and enter URL to the **Folder** field.



Click **Finish**.

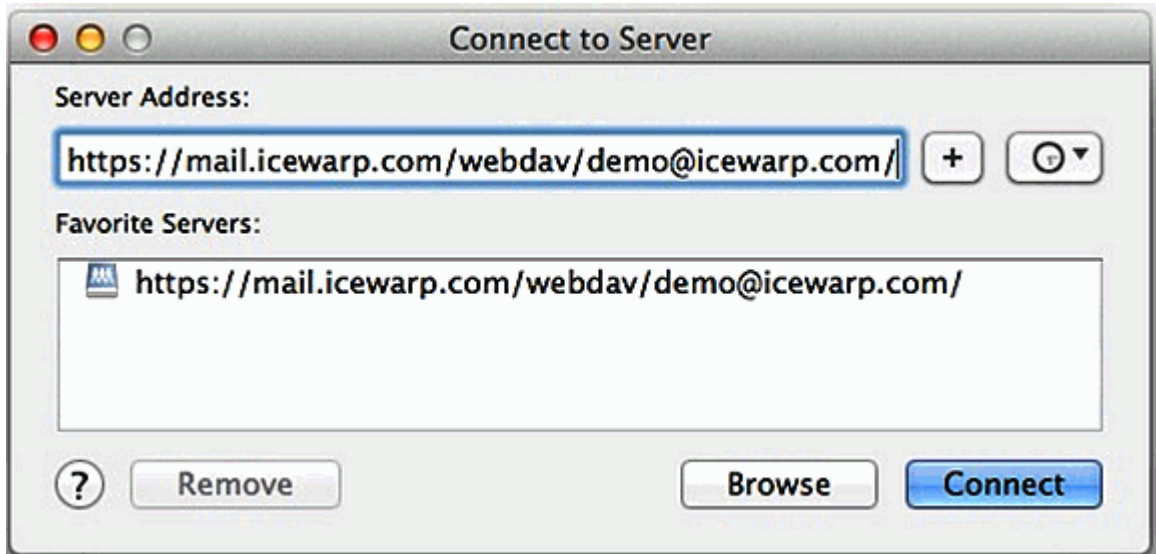
The **Connect to...** dialog appears.

3. Fill in your email address into the **User name** field and password into the appropriate field. Click **OK**.
A new window with this network drive appears.

Setup in Mac OS X (Finder)

To connect to your server in Finder, do the following:

1. From the Finder application menu, select **Go – Connect to Server** (or press **Command+K**).



2. In the **Connect to Server** dialog, enter URL to the **Server Address** field. Optionally, click + (plus) button to add it to your **Favorite Servers**. Click **Connect**. The **Connect as...** dialog appears.



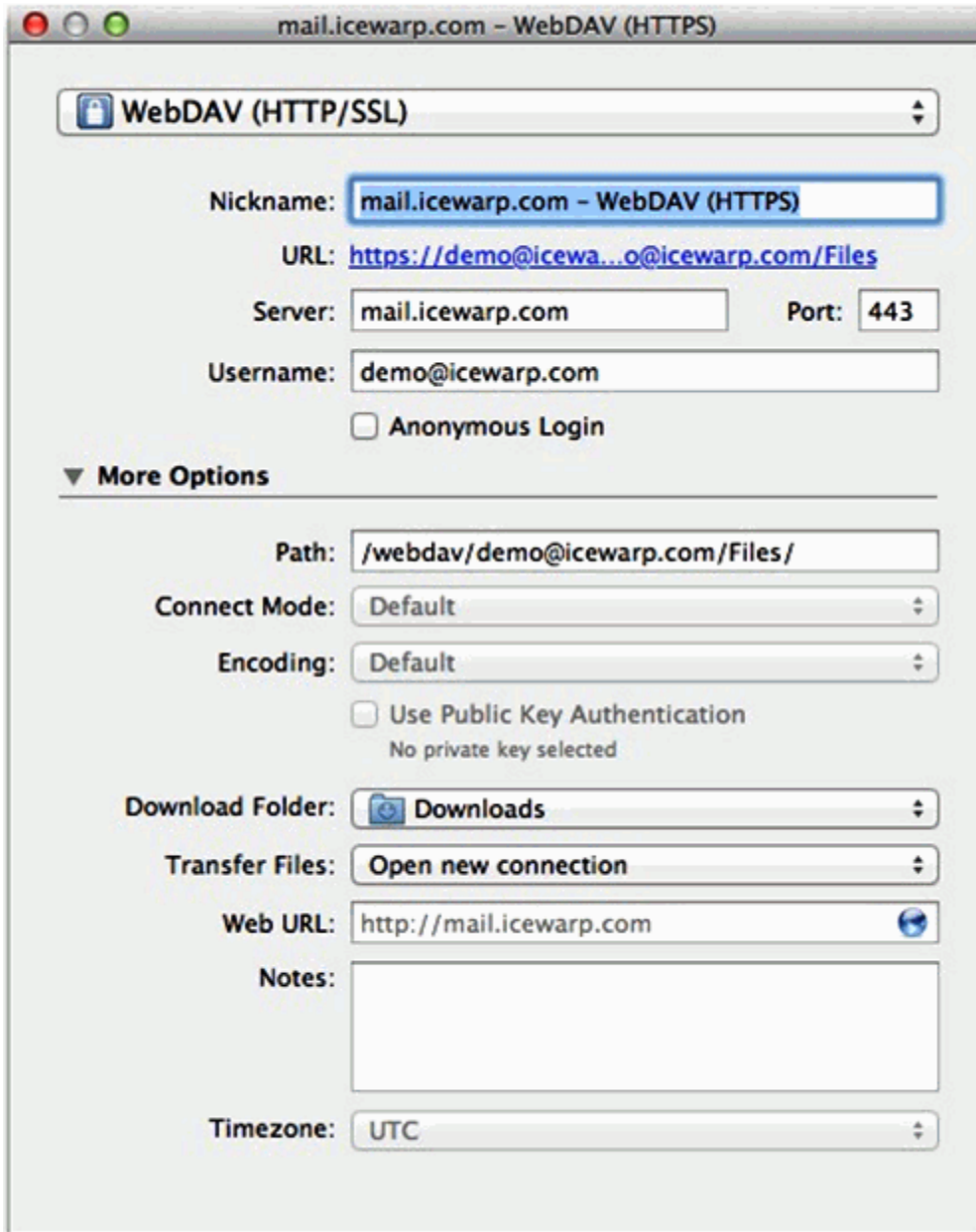
3. Fill in your email address into the **Name** field and password into the appropriate field. You can tick **Remember this password in my keychain** if you wish to save these credentials. Click **Connect**. A new window with this network volume appears.

4. You can drag the volume (labeled with your email address) to the Finder side bar to save it as a shortcut in Favorites.
5. To show the drive on your desktop, enable **Finder – Preferences... – Show these items on the desktop** – tick **Connected servers**. Or drag the volume to the desktop to create an alias.
6. To browse your **Files**, you need to select the **Files** folder from the drive folders. This is a limitation of the Finder. You can drag the **Files** folder as an alias to your desktop or Finder side bar favorites.

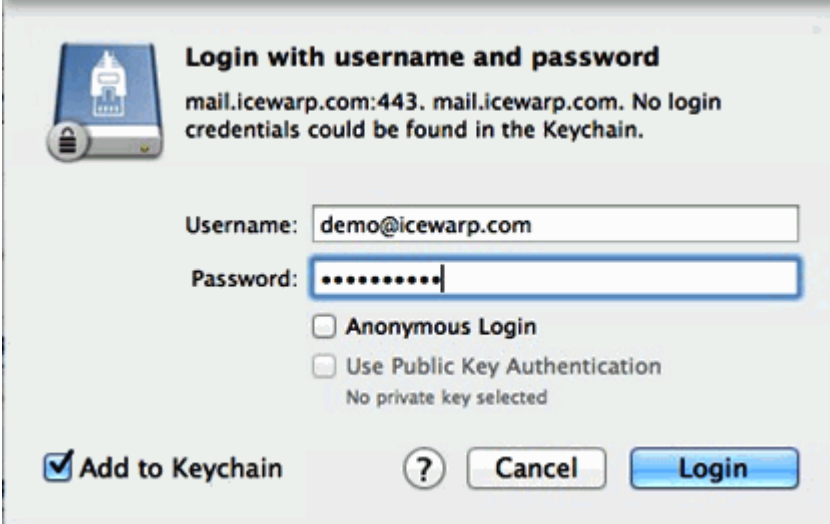
Setup in Cyberduck

To connect to your server using Cyberduck (Open source FTP, SFTP, WebDAV, Cloud Files, Google Docs & Amazon S3 Browser for Mac & Window), do the following:

1. From the Cyberduck application menu, select the **File – New Browser...** items (or press **Command+N**). Then select **File – Open Connection...** (or press **Command + O**). New connection window appears.
2. From the dropdown menu at the top, select **WebDAV (HTTP/SSL)** or **WebDAV (insecure, download only)**.



3. Into the **Server** field, type the server hostname (first part of URL).
4. Into the **Username** field, type your email address.
5. Into the **Path** field, type the path (second path of URL including your email address). You can also include the folder name, to directly open your **Files** folder, such as: **/webdav/demo@icewarp.com/Files/**
6. In the **Login with username and password** dialog, fill in your email address into the **Username** field and password into the appropriate field. You can tick **Add to Keychain** if you wish to save these credentials. Click **Login**.



Login with username and password
mail.icewarp.com:443. mail.icewarp.com. No login credentials could be found in the Keychain.

Username:

Password:

Anonymous Login

Use Public Key Authentication
No private key selected

Add to Keychain (?) Cancel Login

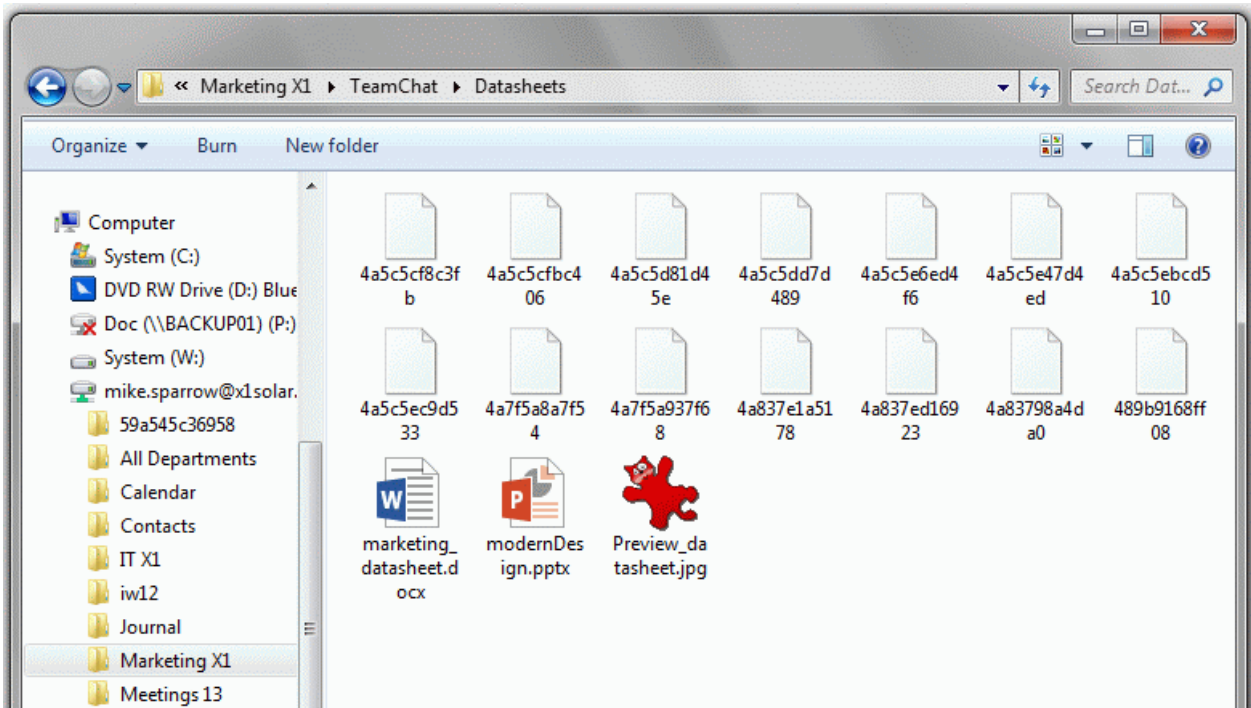
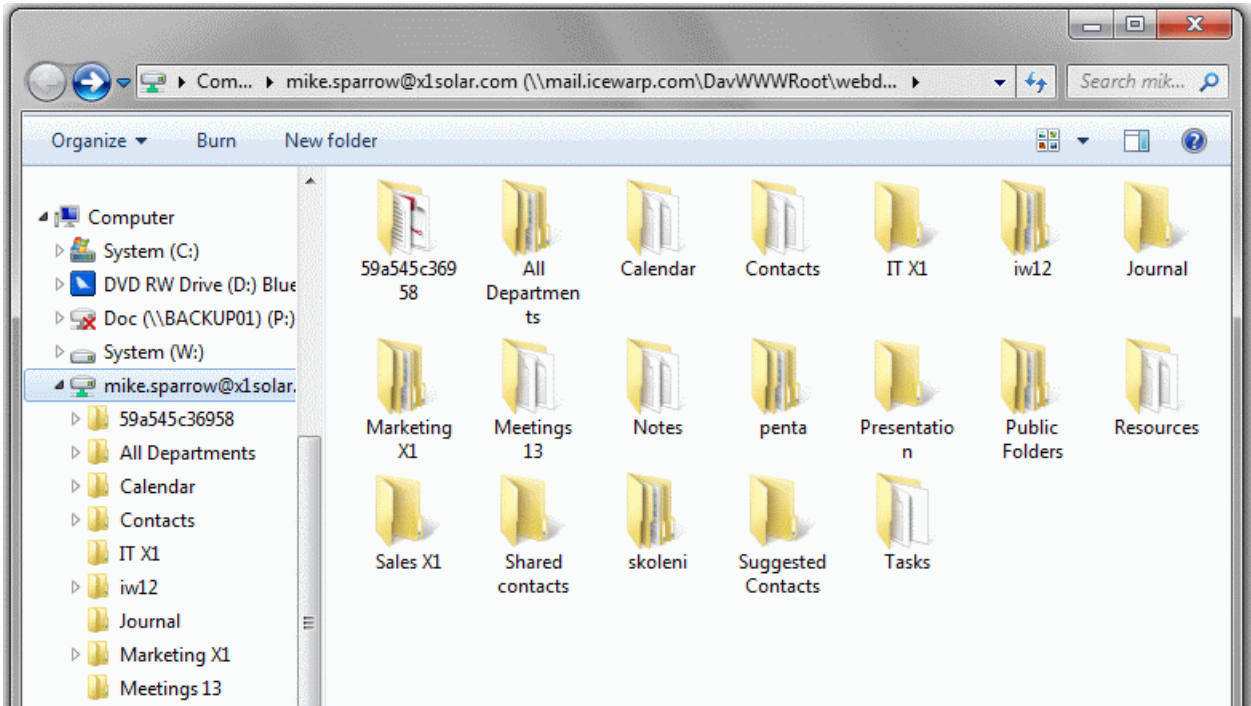
7. A new file browser window with this network volume appears and the connection is added to your bookmarks, which you can access from the **Cyberduck application menu – File – New browser...** (or **Command + N**) and double clicking the bookmark, or by choosing it from the **Bookmark** menu.

Working with WebFolders

It is possible to work with files that are placed in the **Files** folder. You can perform all usual operations (e.g. deleting, copying, moving, ...).

These files are also accessible via **IceWarp WebClient**.

As this feature is related only with files, entering of other folders is senseless – you can find files there, but you can not work with them.



SmartDiscover

About

For detailed information, refer to the **ActiveSync Guide – AutoDiscover** section.

Configuration

1. The administrator needs to ensure that either of these DNS records exist:
 - DNS A record: **autodiscover.icewarpdemo.com** (normally it does not exist)
 - DNS A record: **icewarpdemo.com** (where the domain is the exact hostname of the server where all services are running; normally it does not exist for a plain mail server, but can be already established for web, XMPP or SIP services)

Use the supplied **DNS Tool** found in **console – System – Connection** to check your A records (Host address) if the AutoDiscover fails for ActiveSync clients.

NOTE: For Notifier and other IceWarp native clients, the records do not have to be established in DNS – these clients will also check the hostname using the MX records, i.e. if the email is working, Notifier will configure itself without additional DNS changes. However for ActiveSync, one of the A records above must exist.

2. A non-expired, CA-issued SSL certificate has to be installed on the server for AutoDiscover to work with iPhone. Windows Mobile requires a non-expired, either self-signed or CA-issued SSL certificate public key to be installed on the device, corresponding to the certificate installed on the server. Otherwise the AutoDiscover will fail due to untrusted connection with the server (and therefore untrusted authentication).

Global Address List (GAL)

About

What is GAL in IceWarp Server?

- GAL is any public contact folder with a GAL flag (this folder can be located e. g. within an IMAP user or group account)
- GAL can be automatically populated from a group's member list
- there can be multiple GAL folders (one for each public folder) and user can browse through all of them on Windows Mobile, iPhone or Blackberry, taking advantage of a transparent multi-folder access
- having multiple GALs is also a great feature if the user is a member of more groups
- GAL can contain photos, certificates and other resources associated with a contact
- users with write rights can add new contacts to GAL – even external email addresses are accepted

For more information, refer to the **ActiveSync Guide – Global Address List** section.

For more information on contacts migration, refer to the **System Node – Tolls – Server Migration – Contacts Migration Script** chapter.

For more information on mass changes within vCard fields, refer to the **GroupWare – Sharing Concepts – Miscellaneous – GroupWare vCards** section.

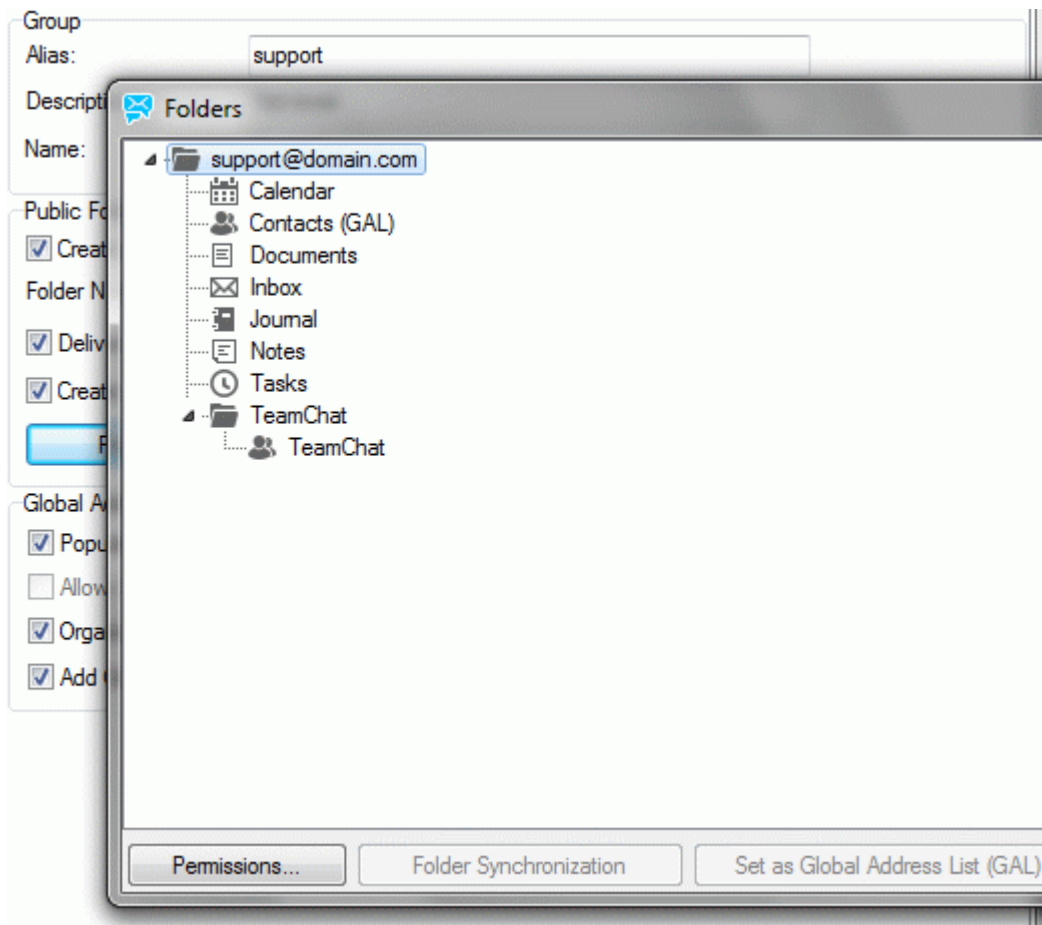
Creating GAL

1. Automatically:

Create a new group account (**Ctrl+G**), check the **Create a public shared folder** option, name the folder (e.g. Contacts) and check the **Populate GAL with group members** option. Switch to the **Members** tab, click **Add...** and select any accounts on the server, then confirm the selection by clicking the **Select Account** button. You can repeat this step until the GAL is populated with all members. READ access is enough for GAL.

2. Manually:

Assume you have a user account, a group account which contains a public **Contacts** folder that you want to publish as GAL. Go to **<group> – Group** tab, click the **Permissions** button, within the **Folders** dialog, select the **Contacts** folder (if there are multiple Contacts resources, select which of them will be your GAL), click **Set as Global Address List (GAL)**. The **(GAL)** tag will appear next to the selected folder.



*NOTE: You need at least one GroupWare license in order to create a public folder for GAL. If you do not have GroupWare license purchased for all the users to browse the GAL, GAL works with limited functionality. GAL contacts are still offered in autofill and when the **TO** button (email composer window – e.g. WebClient) is clicked, but the GAL contact folder does not appear in an email client folder tree.*

*NOTE: If you change the **Name** field (**Management – <domain> – <user> – User**) in GUI, this change will appear also in GAL as a new **Contact name**.*



Remote GAL

You may want to have a synchronized GAL for a distributed domain. In such a case, please set domain verification (**<domain> – Options tab – Verification**) to *Use Minger with password*. Enable Minger service on all participating servers, all servers must be able to communicate via Minger to each other. To create it, follow these steps:

1. For each domain part, create a public group on the local server.
2. Populate these groups with wished local users. (Typically all users of the local domain part – not necessarily.)
3. Add other created groups each to other(s). Use the *Add Remote Group* button (**<group> – Members tab – Add button – Select Item dialog – (Account type: Group)** – the button is visible only when working with a distributed domain). The **Add remote group** dialog opens – enter an email address of the remote group.
4. Do not forget to tick the **Populate GAL with all members** and **Allow GAL export for other servers within distributed domain** boxes (the **Domains and Accounts – Management – <domain> – Groups – <group> – Group tab**).



NOTE: Minger servers have to run on all servers with this distributed domain. You can use telnet on Minger TCP port (4070 by default) to check that communication is working fine.

Also, users with the appropriate rights can add (modify) GAL entries. These changes will be synchronized

to all domain users.



BE AWARE: These changes are not to be done in the case GAL is synchronized automatically.

Example:

You have a distributed domain on two servers – A and B.

The domain part on the server A has 24 users. On this server, you can create a group (**groupA@domain.com**) on this server and add all wished users as its members (e.g. all 24).

The domain part on the server B has 6 users. On this server you, can create a group (**groupB@domain.com**) and add all wished users (e.g. 4 of 6) as its members.

On the server A, add **groupB** as a member of **groupA**. On the server B, add **groupA** as a member of **groupB**.



NOTE: Each group includes users from a local distributed domain part twice, but GAL entries (users) will not duplicate.

For more details about Minger, refer to the **System Node** guide – **General – SOCKS and Minger Server** chapter.

For more details about distributed domains, refer to the **Domains and Accounts** guide – **Management – Domains – Options** chapter.

Miscellaneous

IceWarp Outlook Sync

IceWarp Outlook Sync for Microsoft Outlook is a plugin which implements MAPI Storage provider to utilize IceWarp GroupWare Server collaboration capabilities over the IMAP protocol, natively enabling the full scope of Outlook sharing, planning, resource management and email features:

- on-line connection to server over IMAP protocol for email and groupware
- server push: instant update of new or changed items
- advanced permissions (IMAP) management
- all groupware functions available within Outlook supported
- most of the features/functions of Outlook are supported (over 95%)
- shared contacts, calendars, tasks, notes, journals, files
- resource management, public folders sharing, public address books
- appointments/tasks scheduling, voting, grouping, sharing
- multiple accounts under one profile to access emails and shared resources
- auto-subscription to all public and shared accounts
- single sign-on feature

IceWarp Outlook Sync requires IceWarp Server 10 and higher, supports Outlook 20010 - 2016 versions.

GroupWare vCards

There are two ways how to edit vCards:

- Administrators can perform needed changes within the **Card** tab (**console – Domains and Accounts – <domain> – <user>**).
- Users can edit their vCards within the **My Details** dialog in WebClient.

*TIP: You may want to perform mass changes within existing vCards. For example to set/change the name of your company. The following SQL statement (for MySQL, MSSQL, etc.) sets a company name within a domain (use **Administrative Console – SQL Manager**):*

```
UPDATE ContactItem
```

```
SET
```

```
ItmCompany = 'Company'
```

```
WHERE
```

```
EXISTS (SELECT * FROM EventOwner WHERE ITMOWN_ID = OWN_ID AND OWN_Email LIKE '%@domain')
AND ItmFolder LIKE '@@mycard@@'
```

*Replace '**Company**' with your company name and '**%@domain**' with the wished domain.*



Nested Root Folders

Any **public folder** does not have to be a root folder but a folder hierarchy level. The same applies for shared accounts. You can put all shared accounts into a root folder such as **Shared Accounts** using the new groupware shared account prefix option. It applies to both IMAP and GroupWare.

As a result you can have multiple public folders but still make an impression of only one root folder (e.g. **Public\Division1, Public\Division2**).



BE AWARE: Defined paths must not be of parent/child relation:

For example, paths *Public\A* , *Public\B* are OK. But paths *Public\A*, *Public\A\B* are not OK.

It is also possible to use HAB feature – for more details, refer to the **Management – Group** chapter.

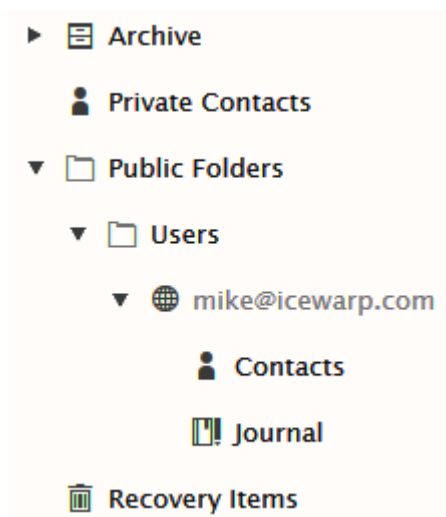
Users can also create wished folder structures within WebClient.

The same applies for **shared folders** (plus resources):

1. Create a group with a public folder called e.g. **Public Folders**. (This step is optional only.)
2. Under **GroupWare – General** tab, specify the **Shared account prefix** feature – e.g. **Public Folders/Users/**
3. Login to WebClient again.

All shared accounts will be listed under **Public Folders/Users/**

If you are an organizer of any resource, you will find these resources in this folder too.



Reminders

WebClient also allows users to set reminders for events and tasks. There are several possibilities how to be reminded:

- Email message – the user receives an email message – reminder in the determined time.
- Instant Messaging – the user receives an IM reminder similar to usual IM communication.
- Desktop pop-up – the user is reminded by a pop-up dialog in Outlook and other desktop clients.

Specific date/time reminders are supported within WebClient **Tasks**. You can set you want to be reminded e.g. on April 1st 2010 at 9:10.

Group Accounts Reminders

To set event and task reminders for group members, refer to the **IceWarp Server Administration Console – Domains and Accounts – Management – Groups**, right-click the appropriate group name and select the *API Console* item.

Filter variables – use the **gw** string. Two variables are shown: *gw.dailyagenda* and *gw.reminders* – set both to *true*.

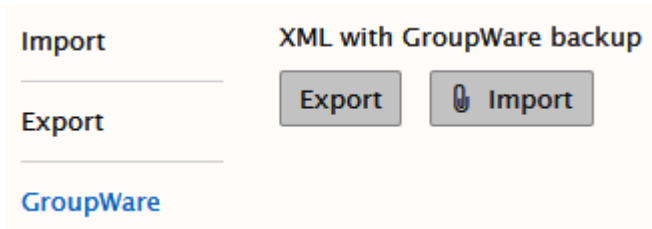
IceWarp WebClient Manual Backup

WebClient offers user a self-service backup of all groupware items. This means that it is possible to backup Contacts, Calendars, Journals, Notes, Tasks and Files. This backup does not include mail folders.

The backup file format is XML, its name is: *<user's email address>.xml*

To backup groupware items, do the following:

1. In the WebClient **Options** dialog, select the **Import/Export – GroupWare** tab.
2. Click the **Export** button.



3. In the **Opening...** dialog, select the **Save File** option.
4. In the **Save As** dialog, select a backup location and click **Save**.

To import a backup file, do the following:

1. In the WebClient **Options** dialog, select the **Import/Export – GroupWare** tab.
2. Click the **Import** button.
3. In the **File Upload** dialog, select the appropriate backup file and click **Open**. (Click **OK** to confirm successful import.)

This action recovers all groupware items but does not duplicate existing items. E. g. items moved to trash or sent to another user are not recovered as they exist in groupware database.

Sending GroupWare Items

You can send groupware items either as email attachments or via WebClient instant messaging.

It is easy to send groupware items as email attachments using WebClient or MS Outlook.

For description of sending via WebClient, refer to the **IceWarp WebClient User Guide – New Menu – Message** chapter. (You can download this document from <http://www.icewarp.com/downloads/documentation/client>.)

Sending via MS Outlook is very similar.

For description of sending groupware items via WebClient instant messaging, refer to the same chapter.



BE AWARE: (Server, domain, user) mailbox quotas are checked when users are attempting to send groupware items. In the case any of quotas is exceeded, senders are not allowed to send these emails.

In the same way, incoming emails with groupware items attached are rejected if they violate recipient's (IceWarp Server user's) mail box quotas.

Calendar Services

This feature represents a big shift from the previous **Holidays** solution. The **Holidays** system has been discontinued although the old files are still supported and converted to **iCalendar** files. Calendar service is a service that any user can subscribe to (is presented with a list of services or holidays) and these events are automatically merged to any calendar view.

Originally, the data was stored in flat files and was processed directly. The new functionality stores data in GroupWare just like any other calendar items.

There is an internal public folder called **calendarservicesuser** which you can update the permissions for, so anybody can browse that account. A new API function **ImportHolidays()** has been added. It imports all **iCalendar** files or old **.dat** files (they are converted to **.ics** files first) into GroupWare. Each holiday is a folder (e.g. **holiday/us**) containing all events in a single **.ics** (old **.dat** respectively) file with many vCalendar objects. This means that any groupware functionality can be utilized. Recurrences, exceptions, etc.

Holidays are automatically imported during each upgrade and database creation. You can also force the import via **tool upgrade <anyversion>**. It is recommended to use **iCalendar** instead of the old flat file format as this gives you more power and calendar details.

The groupware API function **AdvCalendar()** has been also updated so it supports unlimited number of events in one **iCalendar** object – multiple-event **iCalendar** object. So an import of one holiday is just a single **AdvCalendar()** call and it imports all holidays and other events to the selected folder.

It is extremely easy to create holiday calendar services or even company event services. All you need to do is to create a new folder in the **/holidays/** folder, create the **info.dat** (still required) and place the **.ics** file there and execute **tool upgrade 0**. Then select your desired calendar services in WebClient.

Private Attribute

If the **Private** checkbox is ticked (in WebClient or Outlook), the item can not be seen by other users to which the folder is shared via permissions. In other words, it overrides these permissions. Similar to the **Confidential** setting in Outlook.

The screenshot shows a contact form with the following fields and values:

| Phone(s) | Phone Number | Icon | Email | Email Address | Icon |
|----------|-------------------|-------|---------|--------------------------|------|
| Work 1 | +1 (800) 698 4573 | Phone | Email 1 | mike.sparrow@x1solar.com | Send |
| Home 1 | +1 (800) 642 7571 | Phone | Email 2 | mikes@gmail.com | Send |
| Fax Work | | Phone | Email 3 | | Send |
| Mobile | | Phone | IM | mike.s@im.com | |

Below the contact information, there is a "Tags" section with a yellow tag labeled "Business" and a plus sign to add more tags.

At the bottom of the form, there are "OK" and "Cancel" buttons, and a "Share" button with a dropdown arrow.

Deleted GroupWare Items Recovery

It is possible to recover deleted groupware items. These items are stored within the **WebClient – Recovery Items** folder. Under the server GUI – **GroupWare – General** tab, you can set a time these items are kept for. By default, it is 30 days. It is also possible to change this value using API Console – **c_gw_keeptodeleteditemsexpiration**.

If disabled and you want to enable it, you have to set the **c_gw_keeptodeleteditems** API value to **true** (use API Console).

Sharing Examples

This section provides you with some typical examples of groupware use. There are much more other possibilities; following are the most common ones.

Boss and Secretary

A boss and his/her secretary can use a shared calendar to be informed about their events, meetings, business trips, personal events, etc. There are various combinations of access rights setting beginning with (mutual) read only up to full access for both of them. This allows e.g. such a boss to let his/her secretary to organize meetings, business trips and so forth. If the boss uses also any kind of mobile devise (plus synchronization), he/she can be informed about new entries in a real time.

Scenario Example

A boss may want to let their secretary to accept/decline invitations sent to them. In this case, it is necessary to:

- set **Inbox** access rights (see the **Shared Items** chapter) for the secretary (at least) to **Read, Write, Modify** for **Items** plus **Read** for **Folder**.
- set **Events** access rights for the secretary (at least) to **Read, Write, Modify, Delete** for **Items** plus **Read** for **Folder**.

With folder access rights set according to this, the event is added to the boss' calendar and invitation sender is informed from the boss' email address.



NOTE: This kind of sharing works only in IceWarp WebClient.

Employee Takes Holiday

An employee taking a holiday can temporarily share folders (e.g. Inbox, Calendar, Contacts) with another one who can answer email messages, add events and notes, use contacts, etc.

After return from a holiday, the employee has all information necessary to continue in his/her work.

Changing Positions

IceWarp GroupWare Server enables you to remove users from groups, add them to another ones and set their privileges easily. This is very useful when new employees come, other promote, etc.

Company Address Book

Besides of contacts and distribution lists, the Global Address List can ease work. As it contains all company employees and groups, it is very easy to deal with.

Client Interfaces

This chapter provides you with brief introduction of some desktop and mobile clients and workflows of their setting.

Desktop Clients

This chapter describes setting of the most common desktop clients.

IceWarp Outlook Sync

IceWarp Outlook Sync for MS Outlook is a plug-in which utilizes IceWarp GroupWare Server collaboration capabilities over the IMAP protocol, natively enabling the full scope of Outlook sharing, planning, resource management and email features:

- on-line connection to a server over IMAP protocol for email and groupware
- server push: instant update of new or changed items
- permissions management
- all groupware functions available within Outlook are supported
- most of the features/functions of Outlook are supported (over 95%)
- shared contacts, calendars, tasks, notes, journals, files
- resource management, public folders sharing, public address books
- appointments/tasks scheduling, voting, grouping, sharing
- multiple accounts under one profile to access emails and shared resources
- auto-subscription to all public and shared accounts

IceWarp Outlook Sync requires IceWarp Server 10 or higher, supports Outlook 2010 – 2016.

IceWarp Outlook Sync Installation

To install IceWarp Outlook Sync, refer to the **IceWarp Outlook Sync User Guide – Installation** chapter for detailed description. Download from the IceWarp web pages: <https://www.icewarp.com/download-premise/guides/>

Mozilla Sunbird, Thunderbird "Lightning"

Mozilla Sunbird is a free, open source, cross-platform calendar application developed by the Mozilla Foundation and many volunteers.

It is currently developed as a standalone version of the Lightning extension for Mozilla Thunderbird that provides the calendaring functionality to the mail management application.

Lightning is an extension that adds calendar and scheduling functionality to the Mozilla Thunderbird mail and newsgroups client. Lightning is an **iCalendar** compatible calendar.

It is possible to synchronize Events and Tasks between Sunbird/Lightning and IceWarp Server.

To synchronize Contacts, you can use SOGo Connector Thunderbird extension (free, Win/Mac). Available at <https://sogo.nu/download.html#/frontends>.

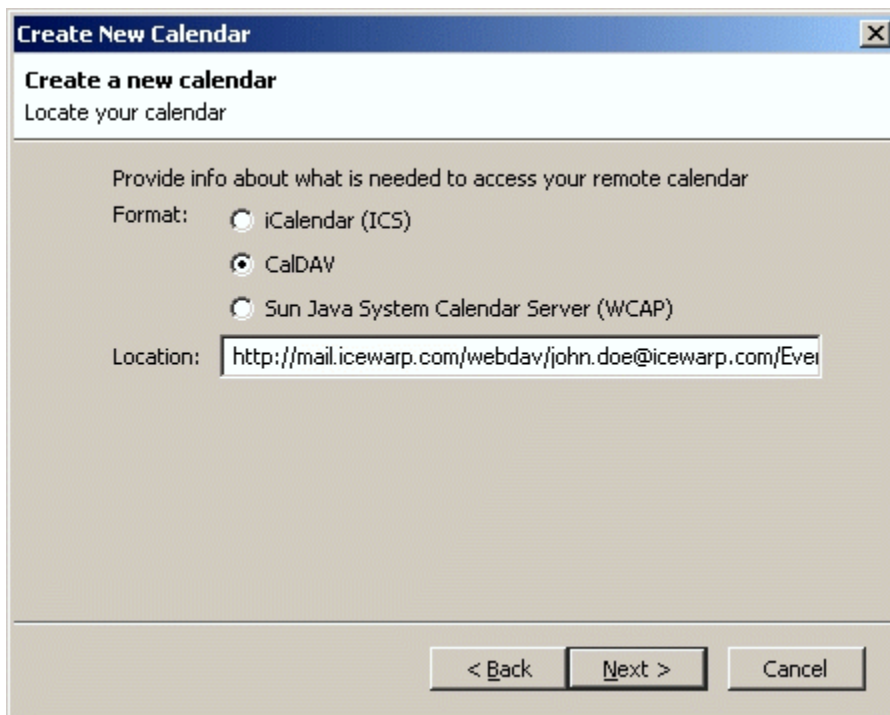
To set synchronization for these clients, do the following:

1. In the client main menu, select the **File – New Calendar...** items (or simply use **CTRL+L** shortcut) to create a new calendar.
2. On the first **Create New Calendar – Locate your calendar** wizard page, select the **On the network** option and click **Next**.
3. Toggle the **Format** radio button to **CalDAV** and fill in the **Location** field.

Location formats are:

- for **Events** `http://<server>/webdav/<email_address>/Events/`
- for **Public Folder Events** (or other nested folder)
`http://<server>/webdav/<your_email_address>/<email_folder_tree_structure>/`
(Example of email folder tree structure: `Public_Folders/Marketing/Events/`)
NOTE: If there is a white space used (e.g. Public Folders), you have to replace it with "%20".
- for **Tasks** `http://<server>/webdav/<email_address>/Tasks/`

Example: see the following figure.



NOTE: Examples given above refer to English folder names. However, any folder names (even localized ones with diacritics) are supported.

In this case, users should add **Locations** using the real folder names they see in their WebClients.

E.g.: User has a calendar folder named "Calendário". To see this folder in Sunbird the CalDAV URL in Sunbird should be:

`http://<server>/webdav/<email_address>/Calendário/`

Because the folder name contains diacritics, the URL part with the diacritics will be URL encoded:

`http://<server>/webdav/<email_address>/Calend%C3%A1rio/`

NOTE: You can also subscribe folders that some other users share with you. The correct syntax is:

`http://<server>/webdav/<other_user's_email_address>/<folder_name>/`

E.g.: `http://mail.mycompany.com/webdav/mike@mycompany.com/Events/`

Click **Next**.

4. On the **Customize your calendar** page, name the calendar. Optionally, select the calendar color and switch on/off showing alarms. Click **Next**.
5. In the **Authentication Required** dialog, fill in the **User Name** and **Password** fields.

NOTE: You have to use your full email address as your user name. This applies always – regardless of the server login policy.

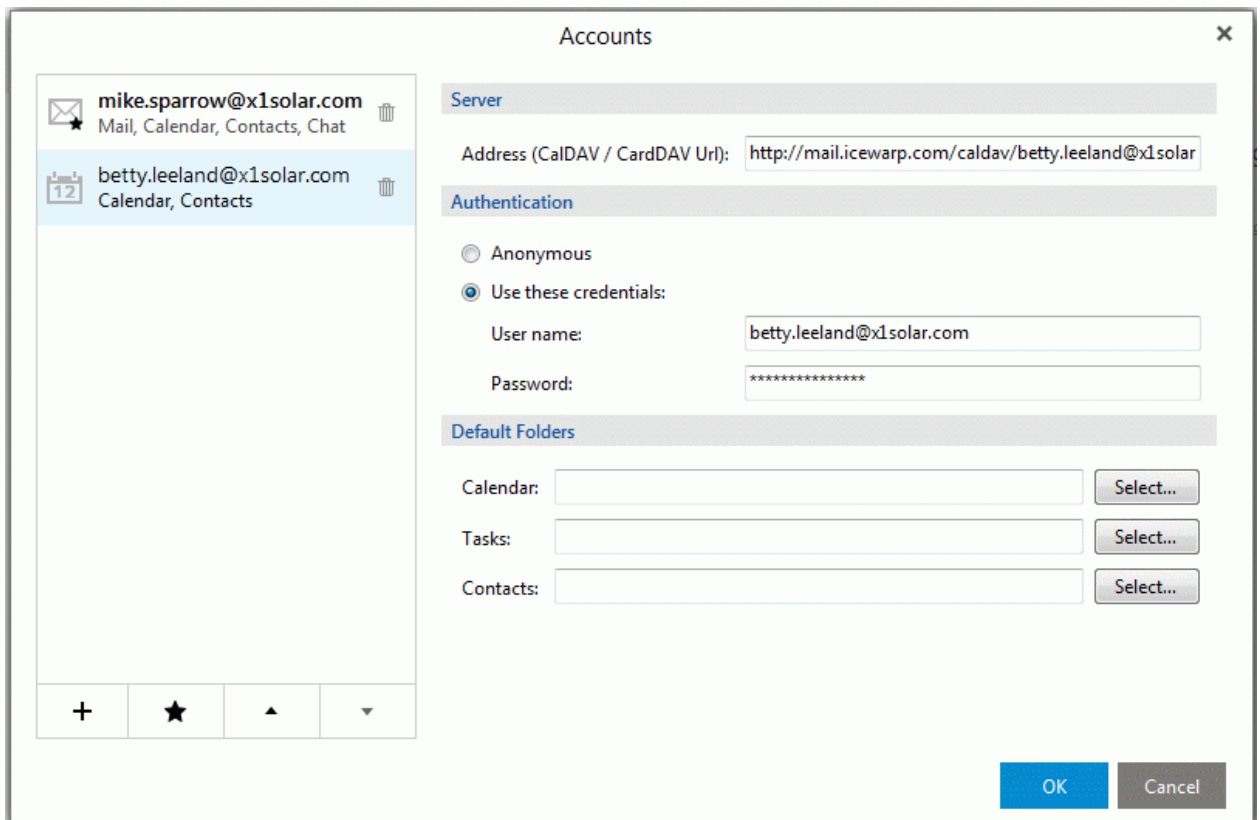
6. Click **OK** to finish setting.

IceWarp Desktop Client

IceWarp Desktop Client is a Windows based communication client for managing e-mails, multiple calendars, contacts and tasks. It contains integrated Instant Messaging for Jabber, ICQ and support for Skype with full communication history.

To set a new calendar, do the following:

1. In the **Desktop Client** main menu, select the **Tools – Accounts** items. The **Accounts** dialog appears.
2. In this dialog, click the **Plus** button. The **New Account** wizard appears.
3. In the **Calendar** pane, select the **CalDAV** item and click **Next**.
4. On the **Server information** page, fill in the **Account address URL**, **User name** and **Password** fields.
Example of the he appropriate address format is given within the page.
Click **Next**.
5. On the **Account details** page, you can modify your **Account name** (not necessary). Click **Next**.
6. Click **Finish** to finish setting.



To access Calendars and Contacts of another users, do the following:

1. In the **Desktop Client** main menu, select the **Tools – Accounts** items. The **Accounts** dialog appears.
2. Navigate to the **Calendar and Contacts** tab – **Delegation** section and click the **Show** button. The **Delegated calendars** dialog appears.
3. Select users you wish to access their **Calendars and Contacts**. Click **OK**.

NOTE: You can access only Calendars and Contacts of users who have shared these folders to you.

Apple Calendar

Calendar (iCal in V 10.7 and older ones) is a personal calendar application made by Apple Inc. that runs on the **Mac OS X** operating system. iCal was the first calendar application that offered support for multiple calendars and the ability to publish/subscribe calendars to WebDAV server.

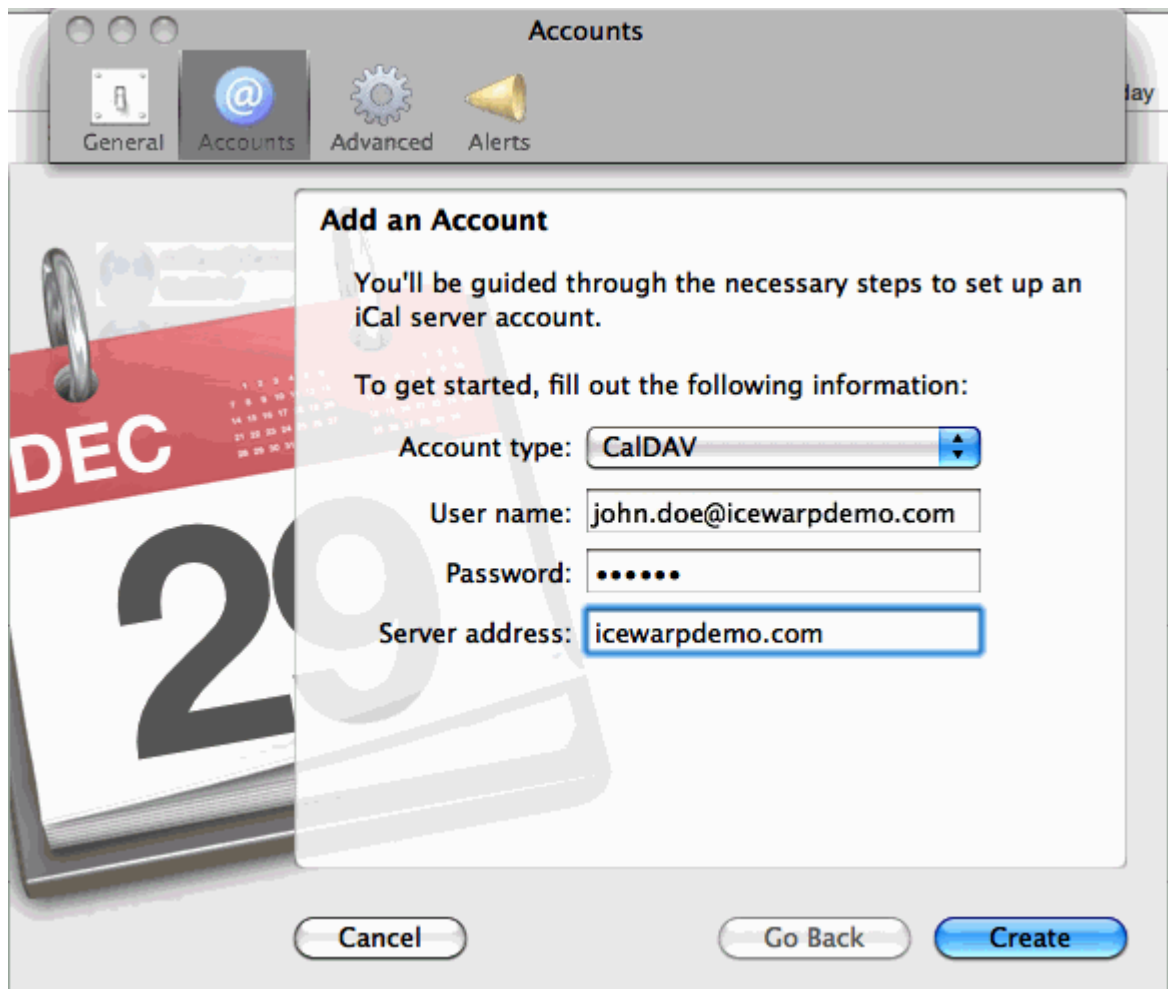
To add a new CalDAV account (when using **IceWarp Server**), do the following:

1. In the main menu, select the **Calendar – Preferences – Accounts** items.
2. In the **Accounts** dialog, click the "+" (plus) button.
3. In the **Account type** field, select **CalDAV**.

Enter the email address (**User name**) and **Password**.

Into the **Server address** field, insert your domain.

4. Click the **Create** button.



NOTE: SRV records must be properly configured, please refer to DNS SRV Records Configuration section of the previous WebDAV chapter. For testing before you create them, it is possible to specify the hostname and ports manually in the **Server** field, e. g. **mail.icewarpdemo.com:443**.

Apple Address Book

Address Book is a personal contact management application made by Apple Inc. that runs on the Mac OS X operating system. Since version 10.6 Snow Leopard, it supports synchronization through CardDAV protocol.

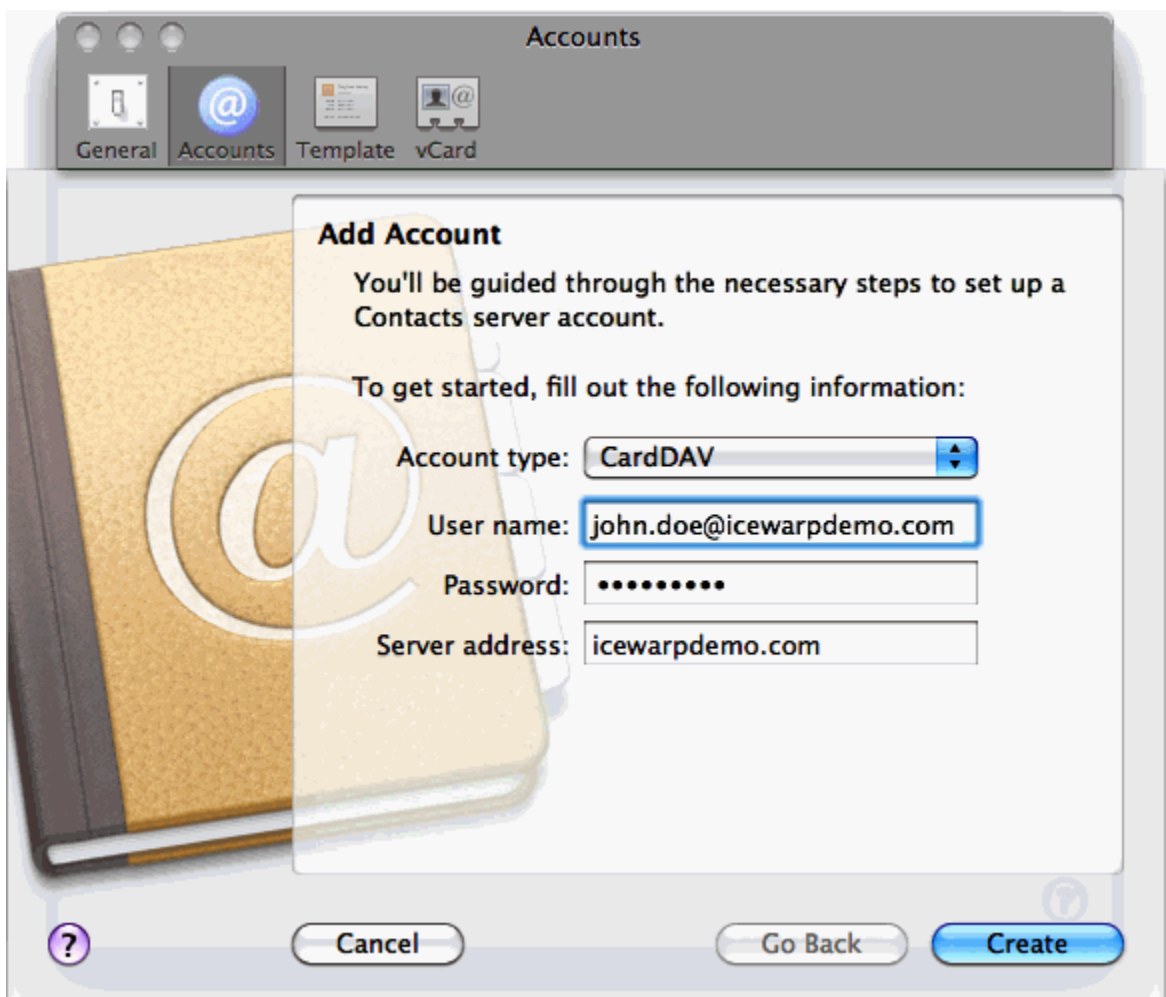
To add a new CardDAV account (when using **IceWarp Server**), do the following:

1. In the main menu, select the **Address Book – Preferences – Accounts** items.
2. In the **Accounts** dialog, click the "+" (plus) button.
3. In the next dialog – **Account type** field, select the **CardDAV** item.

As **User name**, use your email address.

Into the **Server address** field, insert your domain.

4. Click the **Create** button.

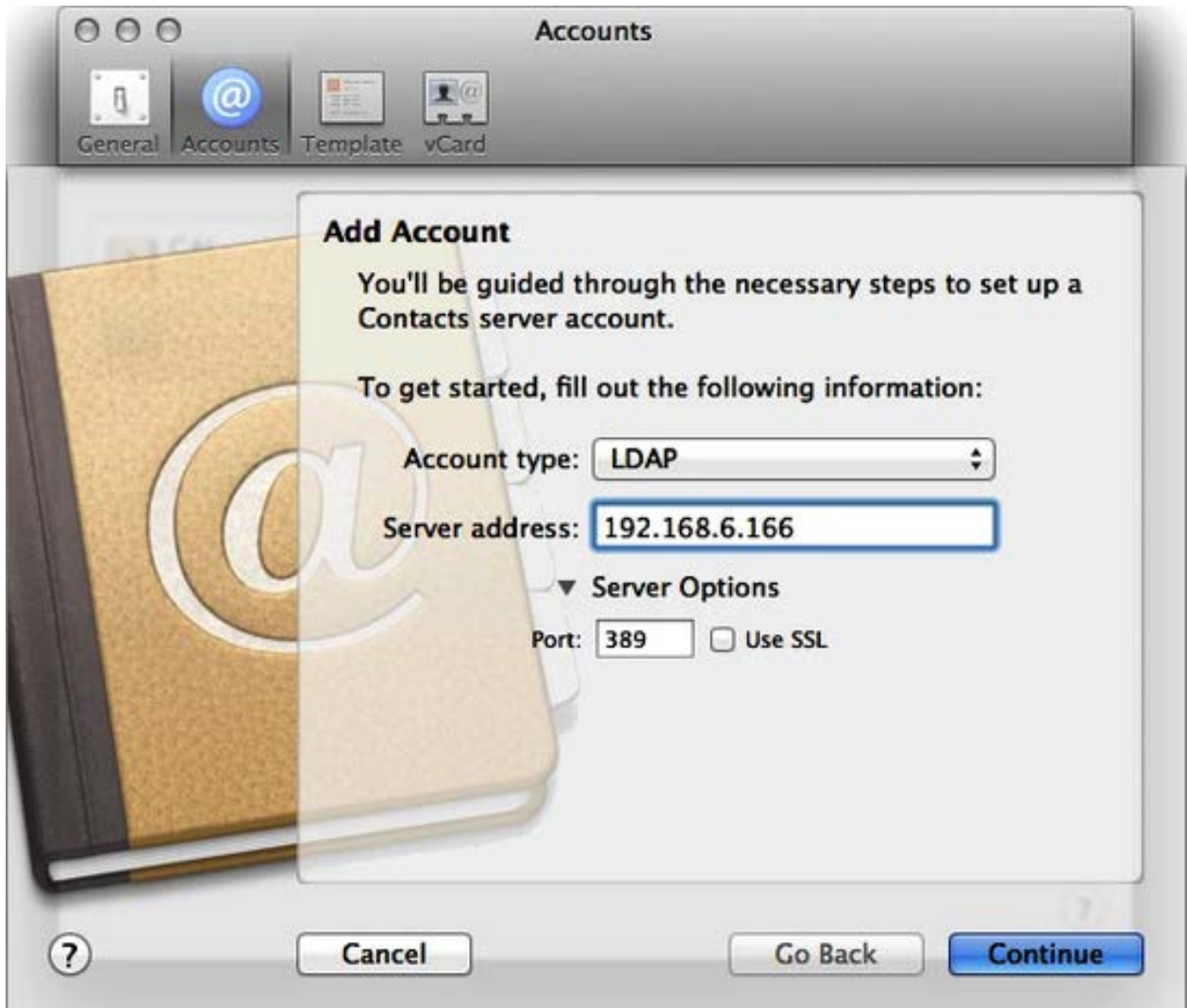


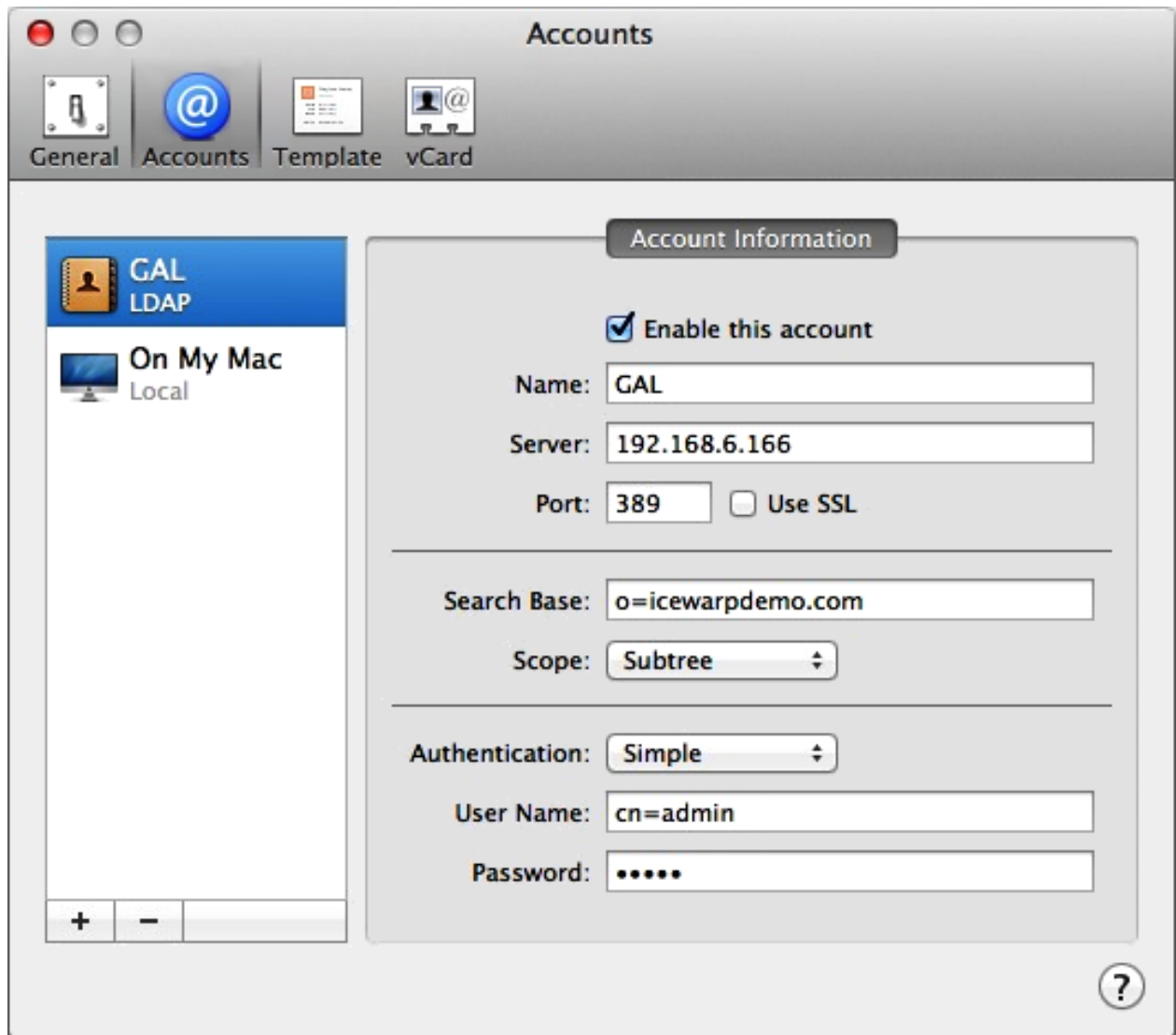
BE AWARE: SRV records must be properly configured, please refer to DNS SRV Records Configuration section of the previous WebDAV chapter. For testing before you create them, it is possible to specify the hostname and ports manually in the **Server** field, e.g. **mail.icewarpdemo.com:443**.

Mac Access to LDAP

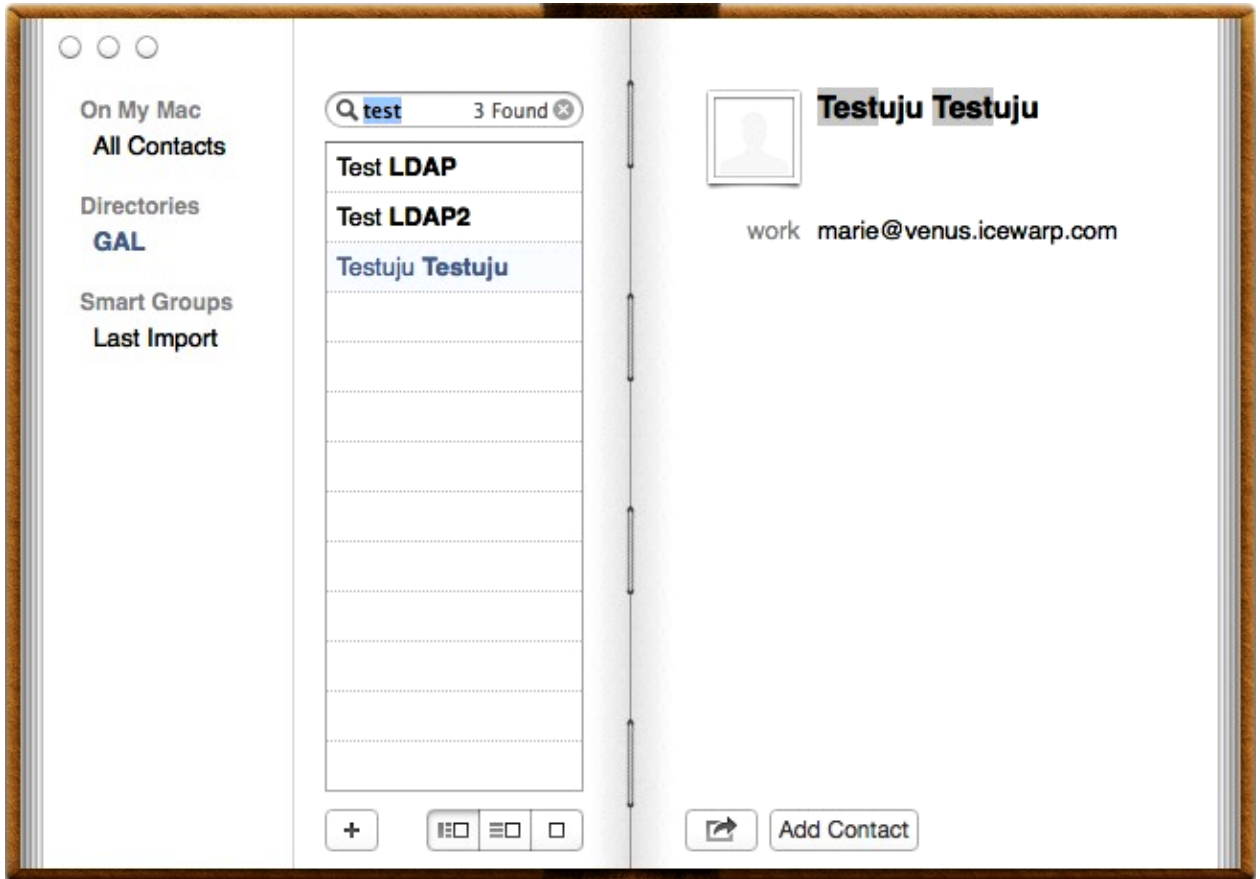
To configure Mac OS X operating system to access LDAP, do the following:

1. Make sure the IceWarp Server is set to support this feature – if in doubt, ask your server administrator.
2. Go to the **Address Book – Preferences – Accounts** tab and add an LDAP account:





3. To view the contents of the directory – you have to use **Search**:



*NOTE: For more details about LDAP settings, refer to the **System Node guide – Services – General – LDAP** section.*

Mobile Access

Mobile access can be enabled through IMAP account configured in the mobile email client, through browser-based **WebClient** interfaces suited for low screen resolutions, Email and/or GroupWare items can be synchronized using **ActiveSync** and **SyncML** technologies, by wirelessly connecting devices with the server over the Internet. There is no need for any middleware or third party services, the connection is always direct and can be tightly secured.

The users benefit from being able to access most of their vital business data on a wide range of mobile devices, meaning they always have current information in whichever device they happen to be carrying, without the need to connect their handhelds using a cable to their computers to download new items. Further described technologies enable a true office-anywhere experience and leverage the mobile work force in your organization.

IceWarp WebClient PDA

WebClient PDA interface provides browser access to emails and address book contacts and is optimized for viewing on a smaller screen estate, in a less capable browser (without JavaScript) and/or optimized for stylus-free operation. IceWarp WebClient PDA interface is suitable for a large variety of stylus operated devices (e.g. Windows Mobile). Touch optimized interface is currently only available for iPhone, upcoming for others touch-screen operated devices.

IceWarp WebClient Basic

WebClient Basic interface provides browser access to emails, calendars and address book contacts, it is optimized for resolution 800 x 600 and higher, and is capable to work in browsers with or without JavaScript. (In browsers with JavaScript it is more user-friendly.)

Push Email

IceWarp Server provides several methods for Push Email, each suitable for different deployment targets and type of device: ActiveSync DirectPush, SMS/TCP SyncML Push, IMAP IDLE and SMS Notifications. Mobile email can be provided through either of them separately for each device or in a combined way. For ease of deployment and widest range of features, ActiveSync should be preferred especially in corporate environment, SyncML Push where groupware data are to be synchronized rather than email, IMAP IDLE on the other hand works only for email and SMS notifications are a good choice only if data transfers are unavailable or undesired on the mobile device.

PIM Synchronization

SyncML and Microsoft Exchange ActiveSync are client-server technologies designed to maintain the same information on the device as on the server, wirelessly over an Internet connection. From user perspective, the same data are constantly updated on the mobile handset when changed in Outlook or WebClient account. The data can be all or a subset of the following items (in the order of common availability): address book contacts, calendar events, tasks, notes, journals, briefcase, email. Some clients/devices are capable of synchronizing multiple folders of the same resource, e.g. enabling access to two or more calendars or several groups of contacts (private and public).

Mobile Files

Files on the move can be accessed using SmartAttach, WebDAV or by the means of Mailbox GroupWare Access, a special extension to Microsoft Exchange ActiveSync. Naturally, files can be e-mailed as attachments. But data transfer speeds are often limited on mobile networks or present increased costs. Using SmartAttach, attachments are converted to download links and can be viewed on demand, saving data traffic and time. Images, video, voice recordings and notes can be exchanged over-the-air using file transfer options of the mobile instant messenger, while IM Server Proxy feature guarantees that NAT and firewalls will not block the connection. There are WebDAV clients available for most mobile platforms which will make users' Files folder available from remote, having access to the same vital files from desktop, notebook and handheld. Best of all, Microsoft Exchange ActiveSync implementation in IceWarp Server brings user's Files folders directly into their mobile e-mail clients by synchronizing them over EAS as emails with attachments – it is only needed to enable synchronization of the File folder and files will be downloaded to the mobile device as emails and sorted by the last modification date.



NOTE: For details about ActiveSync client setup, refer to **ActiveSync Guide**.



WARNING: The first synchronization will delete all current contacts and calendar data from your device and replace them with the data in your server account. This is the intended behaviour when a new device is assigned to an employee and avoids item duplication.

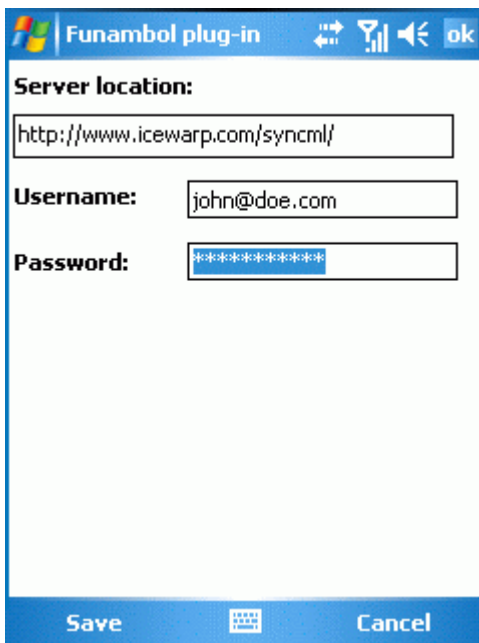
Client Setup – SyncML (PocketPC)

For more details about SyncML, refer to **SyncML Guide**.

1. To synchronize a PocketPC with IceWarp Server's SyncML server, you will need to use the Funambol plug-in (available [here](#)).



2. You will need to set up your device to connect to the SyncML Server:

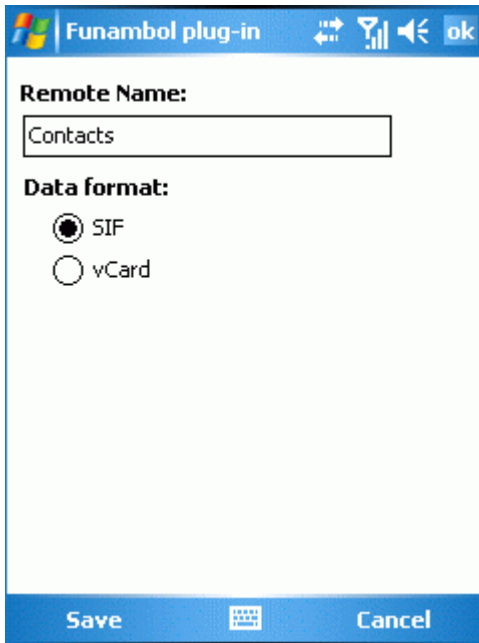


Use your IceWarp Server's domain name and add the port if you are not using the standard HTTP port 80.

Example: `http://www.icewarpdemo.com:32000/syncml`

Your *Username* is your full email address, and your password is that for the corresponding IceWarp Server account.

3. You will then need to add the folders that you wish to synchronize:



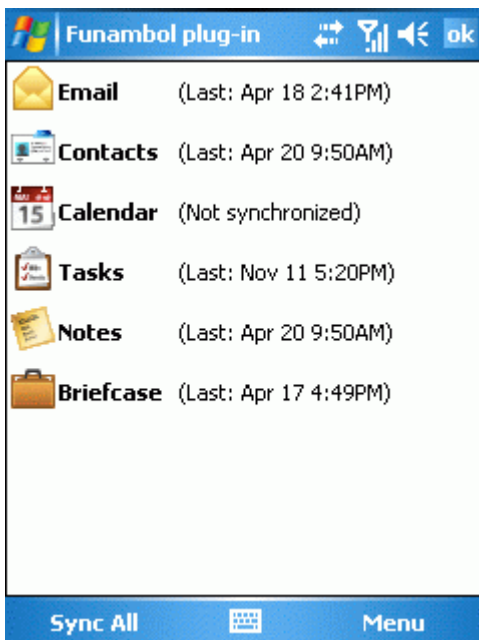
Data format – IceWarp Server will accept any data format you choose. Note that the SIF set of formats is specific to Funambol.

The Remote name is the name of the folder, you can choose from the following standard IceWarp Server folders:

- Contacts – your contact list
- Events – your calendar entries (Calendar can be used here as an alias and the Events folder will be selected unless a folder called Calendar exists)
- Tasks – your tasks
- Notes – your notes
- Journal – your journal
- Mail – your mail items (Note that Mail is an alias for InBox. You can synchronize a different mail folder by specifying its correct name)

The names are not case-sensitive and that mail synchronization currently only synchronizes your Inbox.

4. With the Funambol Plug-in your synchronizable items are shown and you just need to choose when to synchronize



5. Save the changes. You can now synchronize your client with your IceWarp Server account.

Sharing with External Networks

Free/Busy

Free/Busy information is used by people sending meeting requests, to determine when you are available for meetings.

Event time is shown as **busy** in the case the event status is one of the following: **busy**, **tentative**, **out of office**. In the case the event status is **free**, the time is shown as **free**.

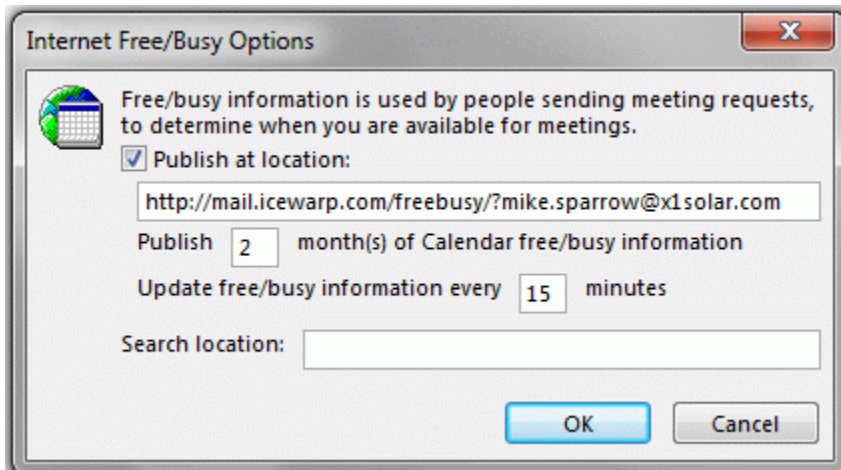
If more calendar folders are used, the final free/busy information merges all events (except for private ones) from all these folders, regardless of access rights set in permissions.

MS Outlook 2010 - 2016 supports this feature.

Free/Busy Sharing

To share your Free/Busy information, do the following:

1. In the **Outlook** main menu, click the **File – Options** items.
2. On the left-side menu, click the **Calendar Options...** tab. The **Calendar Options** dialog appears.
3. Click the **Free/Busy Options...** button. The **Free/Busy Options** dialog appears:



4. Fill in the **Publish ...** and **Update ...** fields with adequate entries.
5. Tick the **Publish at my location** box and fill the field below.
The proper URL syntax is: **http://<my.server>/freebusy/?<my@address>**.
Example – see the figure above.
6. Click **OK** (three times) to set the option.



NOTE: In MS Outlook 2013, swap steps 4 and 5.

Free/Busy Subscription

The **Search location:** path (see above) tells Outlook where to look for other people's free/busy information.



NOTE: For additional information, refer to the [IceWarp Knowledgebase](#) pages.

Internet Calendars

Internet Calendars are calendars that are shared through Internet. These calendars are based upon a global Internet standard that allows calendar information to be exchanged between people regardless of the application that is used to create or view the information. Internet Calendars use the **iCalendar** format and the **.ics** file name extension.

Users can publish their Calendars using IceWarp GroupWare Server. This provides possibility to share own events with external users.

As **Internet Calendars** provide much more information than the **Free/Busy** feature, they are also more secure. Access rights for the default calendar folder are set via standard Permissions what gives users full control over their accounts.



NOTE: If you want to share your Calendar via Internet, you have to set access rights for your **Events (Calendar respectively) folder for Everyone at least to Read** and for events that you want to publish, you must not use the **Private** attribute.

It is possible to publish your calendar in two ways.

- Private authenticated – all events are displayed – including private ones. You will be presented with a browser authentication window and just supply your email and password to access your calendar. The appropriate address is **webcal://<server>/calednar/**.
- Public anonymous – only public events are displayed. The appropriate address is **webcal://<server>/calendar/?<email_address>**, where **email_address** is the address of the user whose calendar you want to see.

MS Outlook 2010 - 2016 supports Internet Calendars.

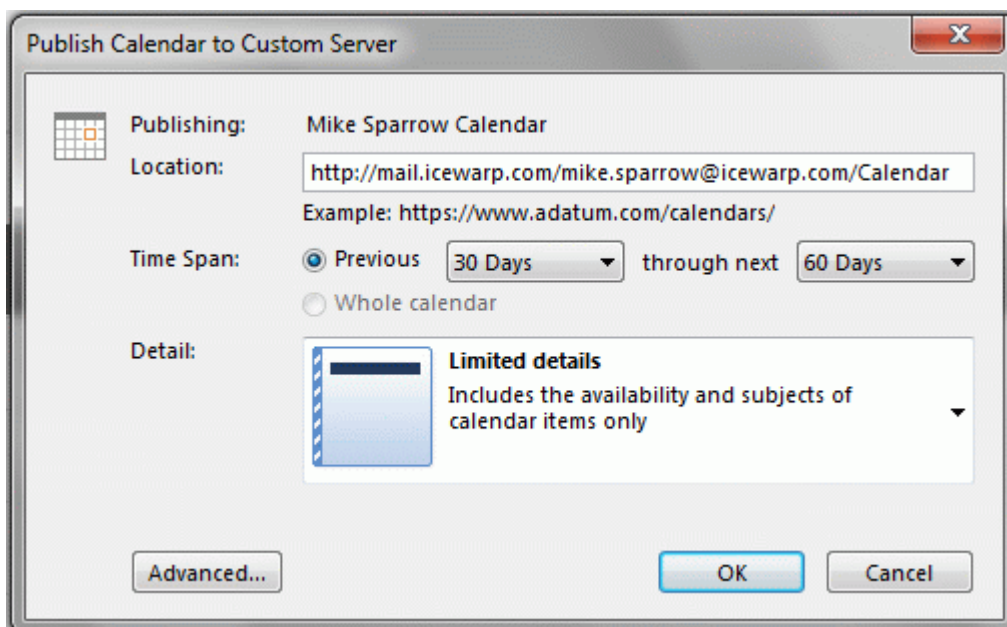
Calendar Sharing

To share your Calendar information, do the following:

1. In the **Outlook** navigation pane, right-click the **Calendar** you want to share and select the **Share – Publish to WebDAV Server...** items. The **Publish Calendar to Custom Server** dialog appears.
2. Fill in the URL into the **Location** field.

The proper URL syntax is: **http://<my.server>/webdav/<my@address>/Calendar**.

Example – see the figure below:



3. Select the **Time Span** and **Detail** features (optional) and click **OK**.

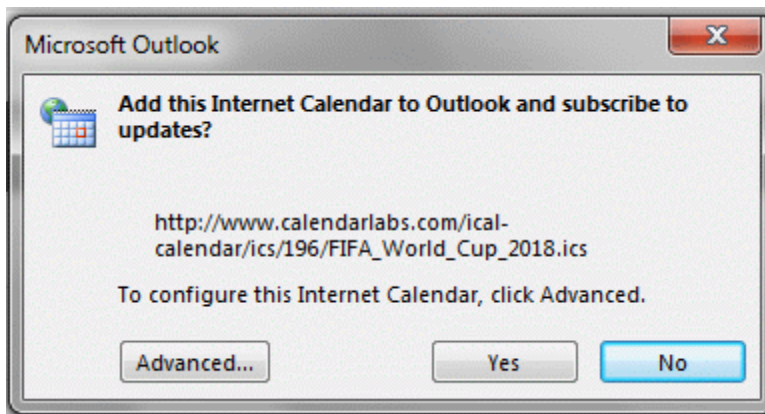
*NOTE: It is recommended to untick the **Update this calendar with the server's recommended frequency option** under **Advanced options**.*

Calendar Subscription

These calendars can be found on web sites where people host their calendars. Once having a link to such a web site, note that it begins with **webcal://**, instead of **http://**, and ends with a file name that has the **.ics** file extension.

To add shared Calendar, do the following:

1. Click the subscription link. The **Add this Internet Calendar to Outlook and subscribe to updates?** prompt appears:



2. Click **Yes** to add the Calendar.

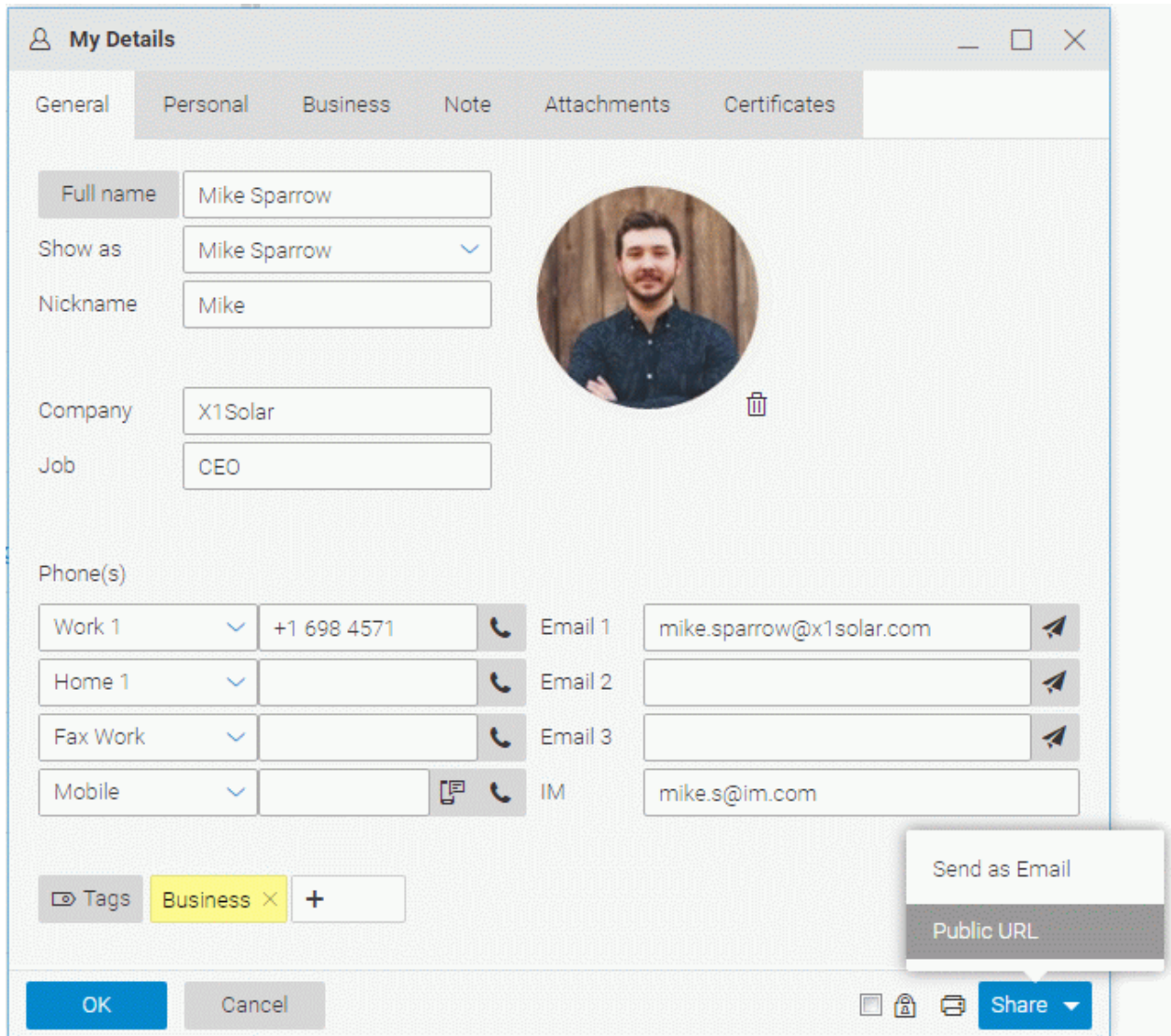
The Internet Calendar opens in side-by-side view in the Outlook Calendar and is added to the Navigation Pane in Calendar view under Other Calendars. The Calendar will check periodically for any updates made by the calendar publisher.



*NOTE: Contrary to the link to the Calendar, the prompt link begins with **http://**.*

Public URLs for Groupware Items

IceWarp Server users can share their groupware items with anybody on Internet. Every object (event, contact, etc.) has the **Share** icon – see the first figure. Click the icon and select the **Public URL** item to open a dialog with a URL that can be copied and sent to other users. Recipients can use their browsers to download these items. It runs over WebDAV and uses the ticket mechanism so no authorization is required for the person downloading the object.



To obtain the URL of a file object, right-click the object and select the **Document Properties** item. The **File** dialog is shown – it also includes the **Share** icon.

