Open Directory

Contents

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Before You Start

Open Directory is Apple's directory and network authentication services architecture. Rumpus Pro includes the ability to authenticate users via Open Directory, and therefore allow access to your Rumpus server based on local user accounts, accounts defined on a network LDAP server, or other Open Directory supported service.

Administering LDAP and other user account management services is beyond the scope of this article, and it is assumed that you are experienced in managing directory services. For those without an existing Open Directory service, we strongly recommend using the built-in Rumpus user account management database, instead of Open Directory. For complete details, see the "Managing User Accounts" article in the "Helpful Info" folder of the Rumpus package.

Open Directory Requirements

Rumpus Open Directory support requires that the server be running Mac OS X 10.6 or later.

Because use of a directory server allows for an unlimited number of unique user accounts, Open Directory authentication requires a Rumpus Professional license. If you originally purchased a Rumpus Standard license, contact Maxum Development for upgrade options.

Open Directory Considerations

Because Rumpus uses the Open Directory framework to authenticate users, it is compatible with standard user authentication sources configured for use on the Rumpus computer. Use the Directory Access utility to select authentication services to be searched. Again, it is assumed that you are familiar with the Directory Access application in OS X, and that you have already configured the Rumpus server to search needed databases for user authentication information.

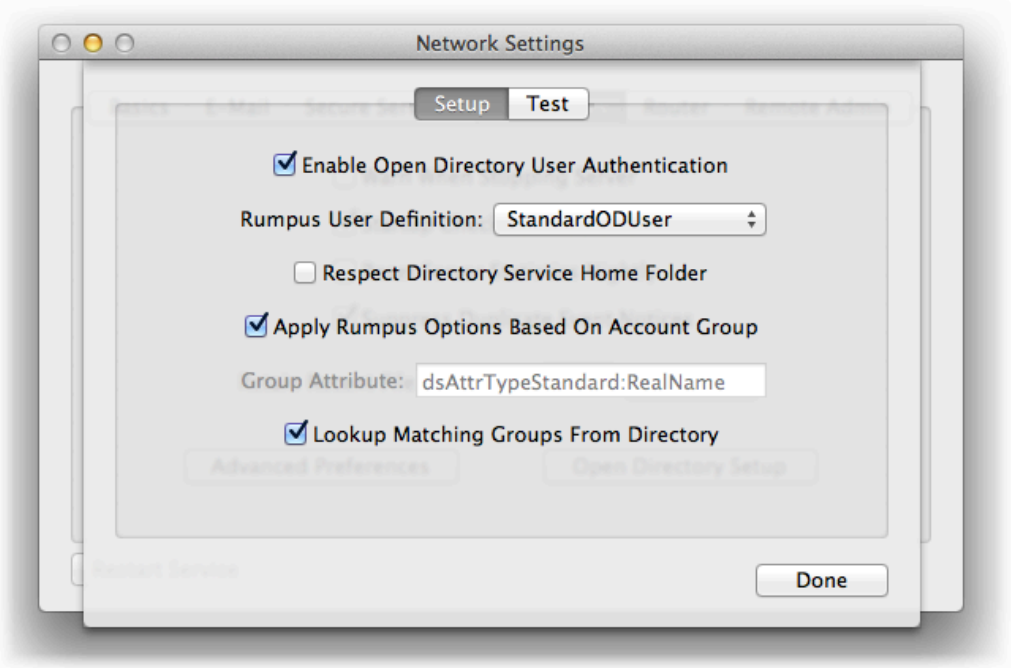
At this point, it is important to understand the difference between "authentication" and "authorization". "Authentication" refers to the act of confirming a user's identity, which in most cases (including all authentication done by Rumpus) means verifying that the user has entered the correct password. "Authorization", on the other hand, defines what the user is permitted to do. Rumpus will authenticate users via any Open Directory user account database, but for the most part, authorization (specifying what the Open Directory authenticated user is permitted to do) is defined within Rumpus.

So, while users will be authenticated via your Open Directory service, one or more user accounts defined within Rumpus will be applied to all Open Directory authenticated users to define authorization privileges. These accounts will also be used to apply all other user-specific options, such as upload and download notices, account restrictions, and so on.

Configuring Rumpus

At least one Rumpus user account is required to define default privileges for Open Directory authenticated users. To get started, open the "Define Users" window and add a new user to define these privileges. Create the user account as you would any other Rumpus-defined account, and set the password to some suitably difficult to guess password (a long, random string of characters, for example) to ensure that the account is never used directly to access the server. Set the privileges and other account settings as needed to define access rights for default Open Directory authenticated users.

Next, open the Open Directory setup sheet by clicking the "Open Directory Setup" button on the "Preferences" tab of the Network Setup window.

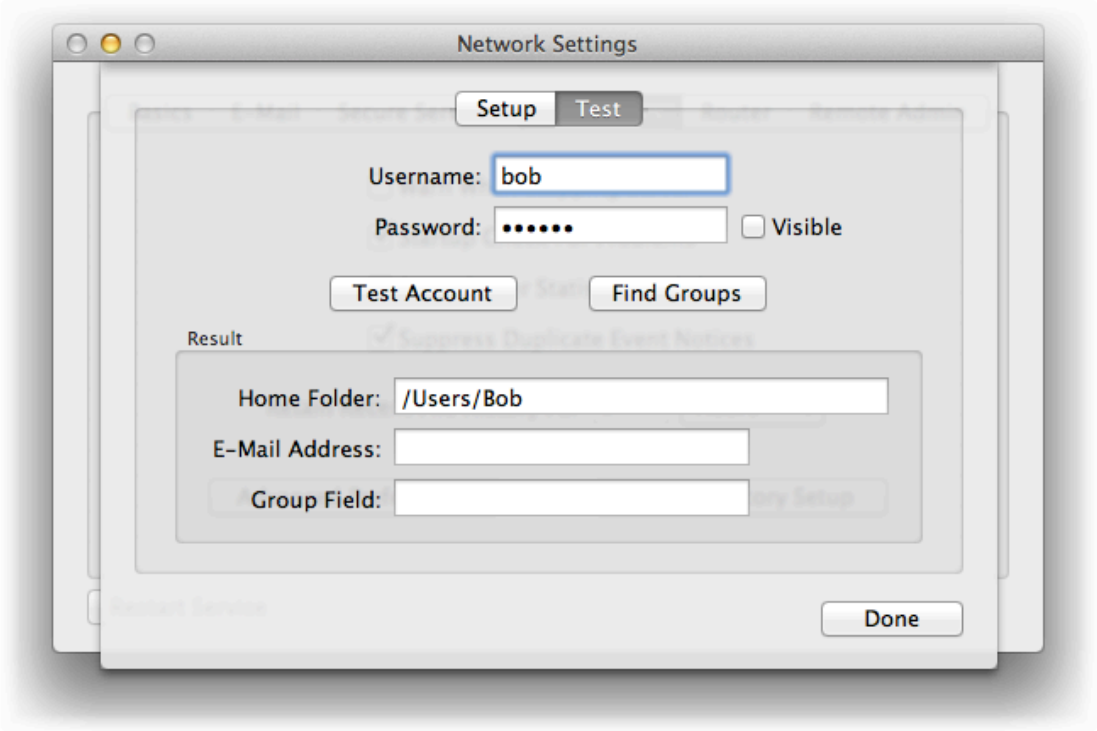


The Rumpus "Open Directory Setup" sheet

Check the "Enable Open Directory User Authentication" checkbox, then select the Rumpus user account which will define Open Directory user access from the "Rumpus User Definition" menu. The user account selected defines the authorization and other user-specific configuration options available in Rumpus. In other words, the privileges, Upload Notice, account restrictions, etc. configured on the Define Users window for the "Rumpus User Definition" user account will be applied by default to all users authenticated via Open Directory.

Testing Accessible Directory Service Access

To confirm that Rumpus is able to lookup accounts in Open Directory data sources, use the "Test Account" function on the "Test" tab of the Open Directory Setup sheet. When you supply the name and password of an account in the directory service database, and click "Test Account", Rumpus will query the database and display the user account Home Folder, E-Mail Address and Group.



Testing the ability of Rumpus to access and authenticate users via Open Directory

Use the “Find Groups” function to find the account in the directory service and then make additional queries to obtain a list of groups of which the specified user is a member.

For details on how the “Group Field” and standard groups list can be applied in Rumpus, see the “Open Directory Groups” section, below.

Specifying Home Folders

While any number of users can be authenticated via Open Directory, chances are each user needs to be granted access only to their own specific home folder. Because Rumpus provides a unique service that is distinct from other network resources, Rumpus does not automatically provide access to any particular folder on the Rumpus server or your file server. There are, however, a number of options that allow you to specify a home folder for users authenticated via Open Directory.

When All Users Should Share One Folder

If all users authenticated through Open Directory should be dropped into the same folder, then simply specify that folder for the selected user account in Rumpus. In this case, disable the "Respect Directory Service Home Folder" option, so that the folder chosen in Rumpus will be used as the home folder for all users.

When Each User Should Have A Home Folder On The Rumpus Server

If each authenticated user should be given their own home folder somewhere on the local Rumpus server, then specify a parent folder, followed by a tilde ("~") in the Home Folder field of the selected user account. Also, be sure to disable the "Respect Directory Service Home Folder".

In this configuration, Rumpus will replace the tilde in the home folder path with the user's account name, creating a unique path for each user. When users first log in, the home folder will be created if it doesn't already exist.

For example, if the user accounts "Bob", "Mary" and "Fred" are all authenticated using Open Directory, and the selected Rumpus user account has a home folder of "/Users/Shared/~", then each of these users will be assigned home folders of:

/Users/Shared/Bob

/Users/Shared/Mary

/Users/Shared/Fred

When Open Directory User Folders Are Correct Paths On The Rumpus Server

In some cases, such as defined users of the local system, the Open Directory user folder is a valid path on the Rumpus server and should be used as the user's Rumpus home folder. In this case, simply enable the "Respect Directory Service Home Folder", and set the selected user account home folder to a default path that can be used in case the Open Directory user folder is missing or can't be retrieved.

When The User Home Folder Exists On A Remote Volume

Rumpus can also handle the case where the Open Directory entry for each user account includes an accurate path to a folder on another server on your LAN. The remote server will need to be mounted as a volume on the Rumpus server's desktop at all times, so that Rumpus has access to the volume.

To set up this type of access, enable the "Respect Directory Service Home Folder" option, then open the Define Users window in Rumpus and choose the Open Directory user account. Click the "Choose Folder" button next to the Home Folder field, and select the top level volume of the remote file server. Add a tilde ("~") to the end of the path, which tells Rumpus to append the users Open Directory user folder path to the path to the remote server.

For example, if the users "Bob", "Mary" and "Fred" all have user folders on a remote file server called "Server", set the selected user account home folder in Rumpus to "/Volumes/Server/~". If the user folder defined for each of those Open Directory Users were "/Users/Bob", "/Users/Mary" and "/Users/Fred" respectively, then Rumpus would map each user's home folder path to the correct local path on the Rumpus server:

/Volumes/Server/Users/Bob

/Volumes/Server/Users/Mary

/Volumes/Server/Users/Fred

Open Directory Groups

Groups of users defined in your directory service can be treated differently in Rumpus. To enable this feature, make sure the "Apply Rumpus Options Based On Account Group" checkbox is on.

When the groups feature is enabled, you can set up multiple Rumpus user accounts, each of which will control the access of a specific group of Open Directory authenticated users. For example, users defined in the directory service might be assigned groups of "students" or "teachers". In Rumpus, these groups can be given different privileges and account settings by creating Rumpus user accounts called "students" and "teachers", with those accounts set up accordingly. If an Open Directory authenticated user is assigned to a group which does not exactly match the name of a Rumpus user account, the default user definition account will be applied.

There are 2 ways for Rumpus to discover the “Group Name” from your directory service.

Matching Open Directory Groups To Rumpus User Account Names

On the directory server, any user account can be made a member of one or more groups. When a user is authenticated via Open Directory, Rumpus can obtain a list of the groups to which the user is assigned, and compare the list to user account names in the Rumpus user account database. When a match is found, that user account record will be used to determine access privileges for the user. To enable native Open Directory groups support as described here, check the “Lookup Matching Groups From Directory” option on the “Setup” tab of the Open Directory Setup sheet.

For example, an Open Directory user account might be a member of the groups: admin, everyone, staff and teachers. If any of those group names match an account name defined in Rumpus, the privileges and settings specified for that account will be applied for the user session.

Obtaining The Group Name From A Field In The User Record

When the “Lookup Matching Groups From Directory” option is disabled, Rumpus will not query the directory server for standard groups, but will instead extract the group name from a field in the user record. In this case, whenever Rumpus authenticates a user, it will access the user record field specified by the “Group Attribute”, and use that value to find a matching user account in the Rumpus accounts database.

In Open Directory, fields in the user record are accessed by “attribute”. For example, if you set the Group Attribute to “dsAttrTypeStandard:RealName” and click “Test Account” (with a valid account name and password supplied, of course) you will see the full user account name displayed in the “Group Field” text box.

If you would like to define groups of Open Directory users by specifying a group name in a field of the user account record on the directory server, enter the standard attribute name of that field in the “Group Attribute” field in Rumpus. One common option is to use the “Comments” field associated with user accounts, in which case the Group Attribute in Rumpus would be “dsAttrTypeStandard:Comments”. In this setup, to have a Rumpus user account definition named “BasicUser” applied to select Open Directory authenticated users, you would enter “BasicUser” in the “Comments” field of those user accounts.

Other Uses Of Open Directory Groups

Assume you have a directory service where some user accounts are members of a group called "FTP", and only those users should be permitted to login to your Rumpus server. In this case, first create a user account called "NoAccess", or something similar, with all privileges disabled (including the "Permit Login" privilege). Select that account as the Rumpus User Definition account for Open Directory access. Now, by default, all Open Directory authenticated users will be denied access to the server. Next, create a user account called "RumpusFTP" and set the privileges as needed for those users who should be given access. With the "Apply Rumpus Options Based On Account Group" option enabled, Open Directory users with a group name that matches the "RumpusFTP" user account name will be permitted to log in to the server.

The Home Folder for groups of users can also be set in this way. For example, you might have Open Directory users that are assigned groups named "Sales", "Engineering" and "Office", where each group should be granted access to a corresponding content folder on the Rumpus server. Here, you would simply create Rumpus user accounts called "Sales", "Engineering" and "Office", and assign each of those user accounts the appropriate Home Folder.