

COMvantage Solutions

Presents:



Version 3.x

Cloud based Document Management

Guide to Setting up Docs2Manage using Cloud Services

Docs2Manage Support:

Email: service@docs2manage.com

Phone: +1.847.690.9900 United States

Background

Cloud computing gives a means to move processing and storage that used to require hardware and software on the local area network to the Internet managed by a third party. Some of the cloud services available today make it possible to no longer have the need for servers on a LAN, while offering better availability and portability. Docs2Manage was modified to leverage some of these available services.

Docs2Manage has two requirements to function, storage and database. In terms of cloud storage, dropbox (from www.dropbox.com) has quickly become one of the early favorites because its ease of use, free basic storage, and speed. Beginning in Docs2Manage Version 3.x, direct dropbox support has been added, but you must install the dropbox application to use Docs2Manage. Dropbox runs as an application and automatically synchronizes a local folder with the files stored in the Dropbox cloud. The challenge with dropbox is that it is stored in a different location on every computer it is installed on. Docs2Manage “figures out” where dropbox is installed; so the only thing needed to use dropbox is to configure Docs2Manage to use “dropbox” as a storage method and specifying a sub-folder for only Docs2Manage documents.

In terms of the database, Microsoft created Windows Azure cloud services (from www.windowsazure.com). Windows Azure has an option to create a SQL Azure database. This database is available to Docs2Manage through the Internet. The SQL Azure database is really just Microsoft SQL Server configurable through your browser rather than a local installation on a server on your network. Docs2Manage needs to be configured as if were connecting to a normal SQL Server instance, except the server is a domain name rather than a server name.

With both of these cloud services being used by Docs2Manage; the user experience is no different than a non-cloud installation. In fact in many cases Docs2Manage actually works faster than the traditional set-up since documents are copied to the local machine rather than on a file share on the network.

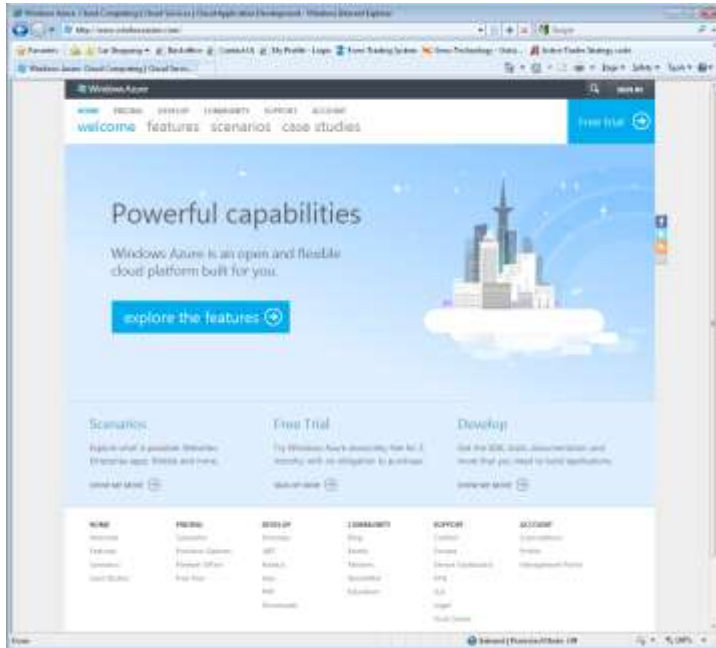
This document will serve as a tutorial on how to set up both a Windows Azure SQL database and Dropbox for document storage. Finally, this document will also instruct how to configure Docs2Manage to use these cloud services and alternate cloud configuration concepts.

Before we begin, it should be mentioned how many times these steps described in this document needs to be performed or repeated. First, the Windows Azure SQL Database needs to be set-up only once, but the database connection information needs to be configured on every machine that will use Docs2Manage. This is similar to any of the databases that Docs2Manage supports. As for Dropbox, if all users share the same Dropbox account, only one Dropbox account needs to be set-up. If everyone will have their own Dropbox account, every user must create a Dropbox account, but all users must have access to the same Dropbox share. Every client computer where Docs2Manage is installed will need to install the Dropbox application and enter the credentials, whether they are shared or individual credentials. Since the storage type is stored in the database which is shared with everyone that uses the same database, the storage type “Dropbox” only needs to be configured once. Other possible scenarios will be mentioned in the “Alternate Cloud Configuration Concepts” section towards the end of this document.

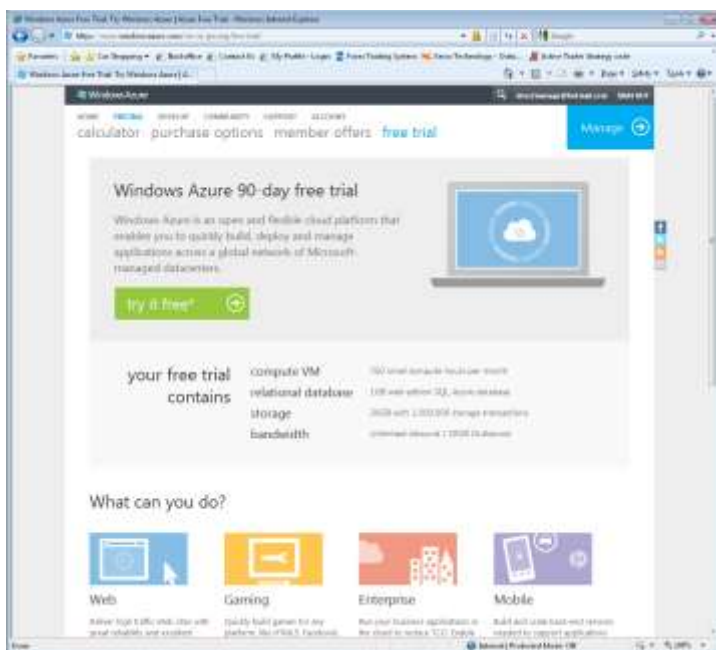
Setting up Windows Azure and a SQL Azure database

You will need a Hotmail/Windows Live email account to create a Windows Azure account. If you do not have one, please visit www.hotmail.com or www.live.com to create an account.

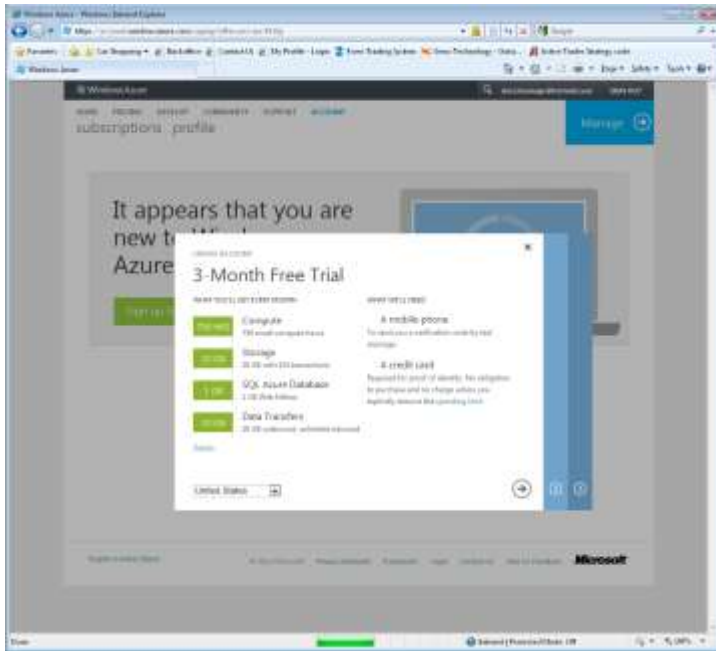
- 1) Visit www.windowsazure.com and click sign-in using your Hotmail/Windows Live account.
- 2) Click “Free trial” or look for other options under pricing.



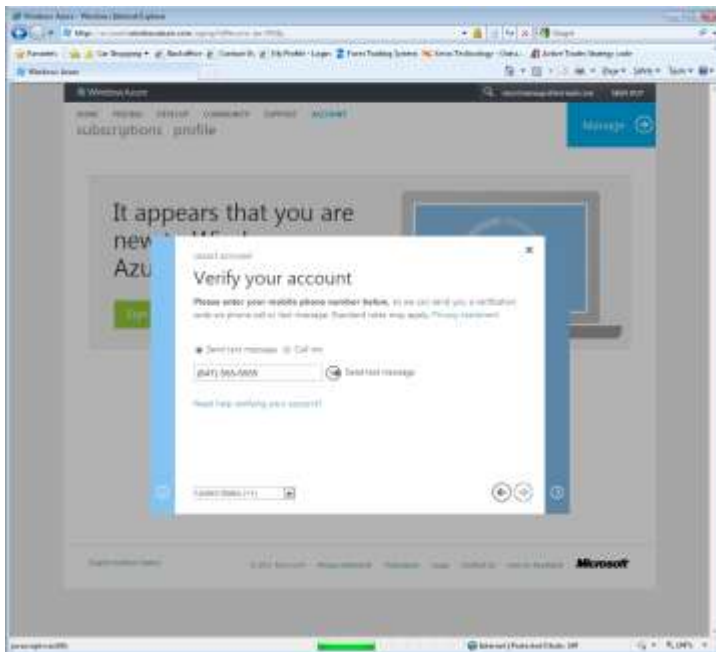
- 3) Next click the “Try it Free” button.



4) View the details of the free trial and click the next arrow on the bottom right of the dialog.

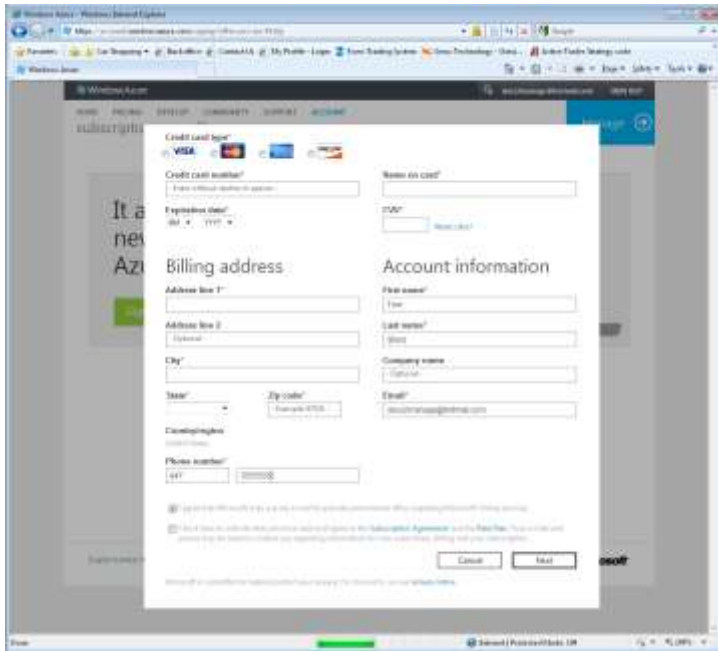


5) Next verify your account by entering your phone number click "Send Text Message" or "Call me".

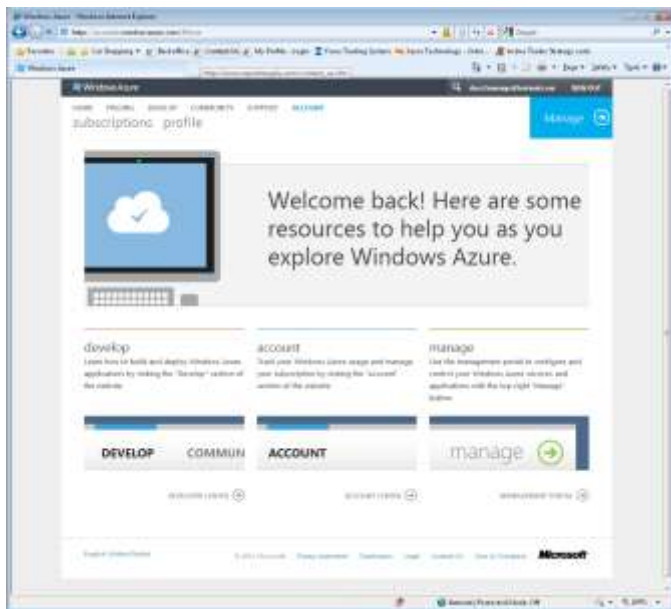


6) Enter the received code and click "Verify Code" and then click the next arrow.

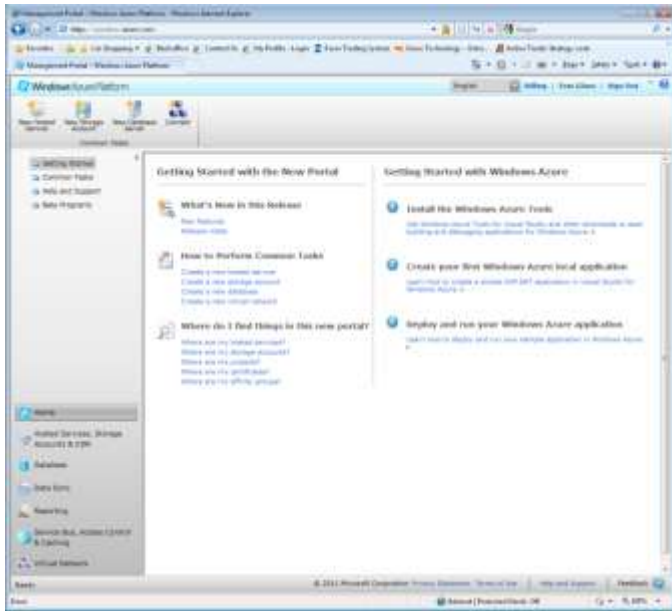
7) Next enter your account and billing information. You will not be billed while you are in the trial period.



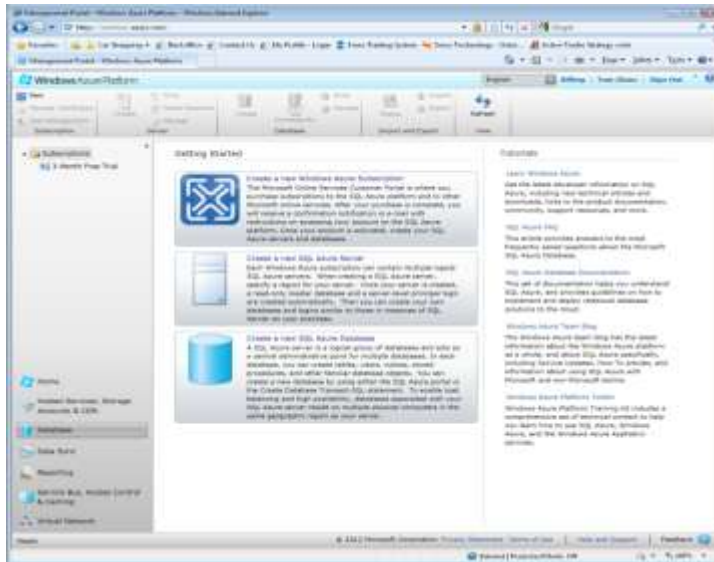
8) Click "Management Portal" and click the button to "Use the New Portal" on the next screen.



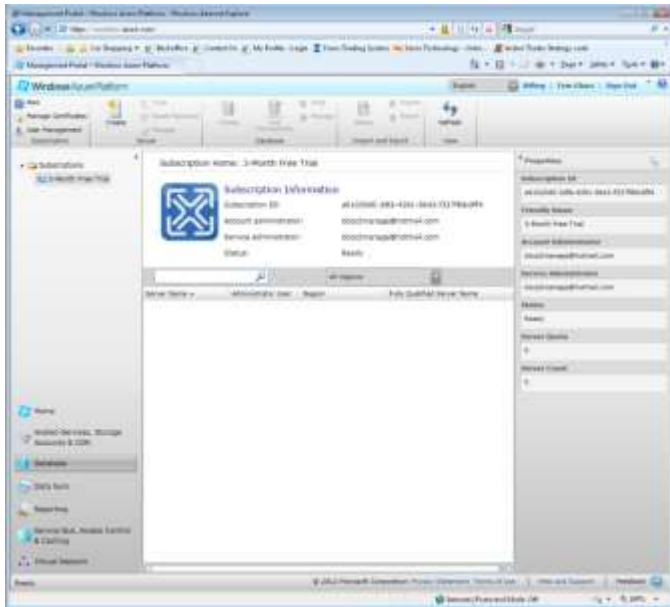
9) Click the "New Database Server" in the upper left.



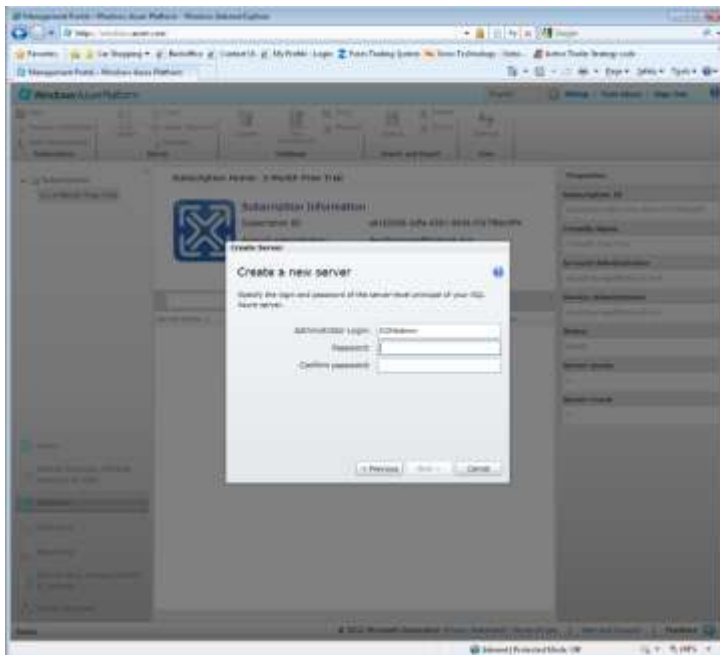
10) On the left, under “Subscription” click and highlight “3-month Free Trial” or you may also click “New” if you want to create a paid subscription.



11) Next, click the “Create” server button to create your cloud server.

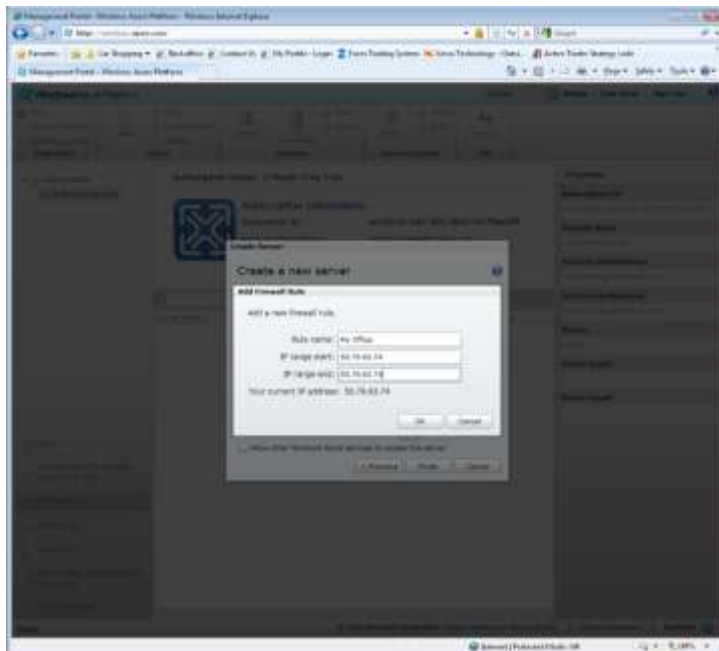
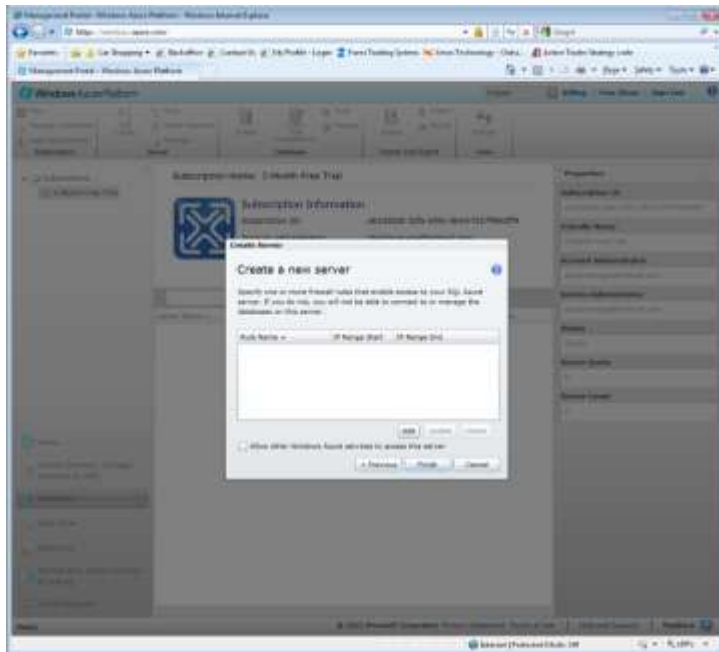


- 12) At this point a dialog should pop-up asking you to choose a region. Choose the location that is closest to where your Docs2Manage clients will be.
- 13) Next create an "Administrator Login". You may not use "sa", "root", or other typical Administrative usernames. In this case I will use the name "D2MAdmin", but feel free to make up your own and then click the "Next" button. Please make a note of your login and password you created- you will need them later.

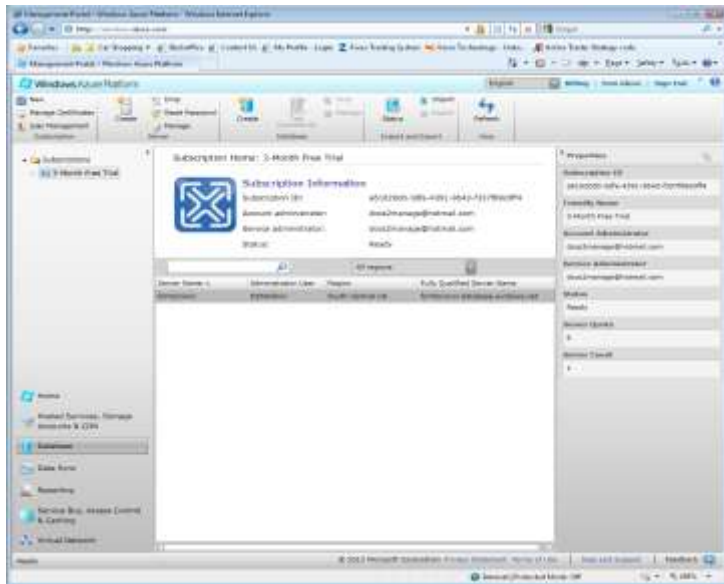


- 14) Next click the "Add" button to add a firewall rule.

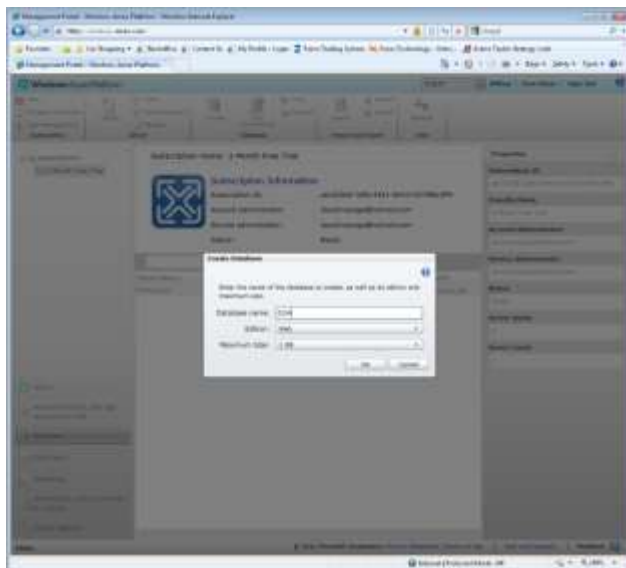
- 15) Create and name a firewall rule that will allow you access your computer from your current location. Note: Your current IP address is listed for your convenience, but you must have a static IP address for the rule to work in the future.
- 16) Create all the needed firewall rules that will allow all the Docs2Manage clients to access the database server. Typically most companies have a single static IP address, but you may also enter a range of IP addresses or create multiple firewall rules for multiple locations.
- 17) When you have finished entering all the firewall rules, click the “Finish” button.



- 18) Your cloud database is now created. Make a note of the “Fully Qualified Server Name”. This is your server name that is accessible to your SQL Management Tool and the Docs2Manage client through the Internet (D2M configuration will be covered later in this document).
- 19) Now you must create a database clicking “Create” under the Database section, just to the right of the server section.



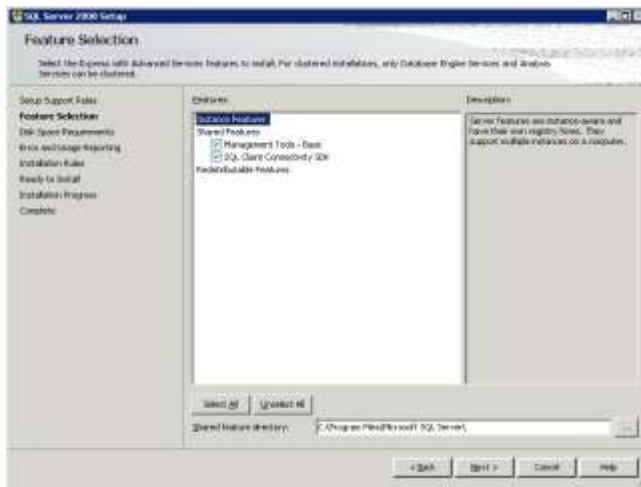
- 20) Enter the name you want to assign to the Docs2Manage database, but “D2M” is suggested since some of the included scripts use that database name. The “Web” Edition should be adequate to start with, select 1GB which should be more than adequate for the trial, and finally click the “Okay” button to create the database.



- 21) Next, download the latest SQL management tool named Microsoft SQL Server Management Studio Express from Microsoft by visiting:
<http://www.microsoft.com/download/en/details.aspx?id=7593>
 (Or search for “SQL Server Management Studio Express”)
- 22) Select either x86 for 32-bit and x64 for 64-bit systems and then install. The download should be about 150Mb as it includes the install for SQL Server Express as well.
- 23) Click “Installation” and then click “New SQL Server stand-alone installation or add features to an existing installation” to start the install.



- 24) Click “Next” and/or “Install” as needed to install any support files and agree to the Microsoft license agreement.
- 25) Check “Management Tools – Basic” and “SQL Client Connectivity SDK” and click the “Next” button to get through the next few screens and the “Install” button.

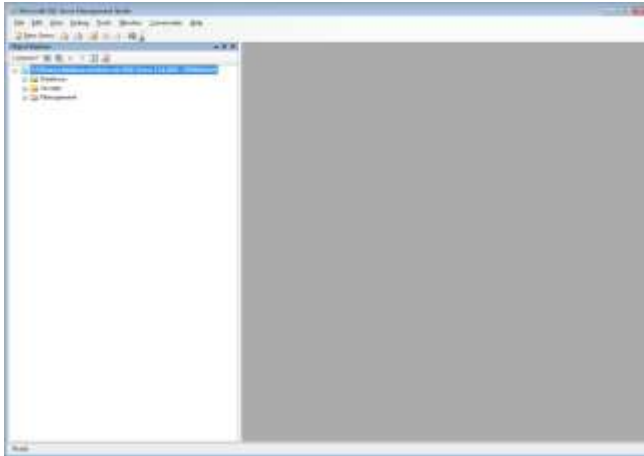


- 26) Finally, click “Next” followed by “Close” to complete the installation.
- 27) Next run “SQL Server Management Studio” which can be found under the SQL Server 2008 R2 program group.

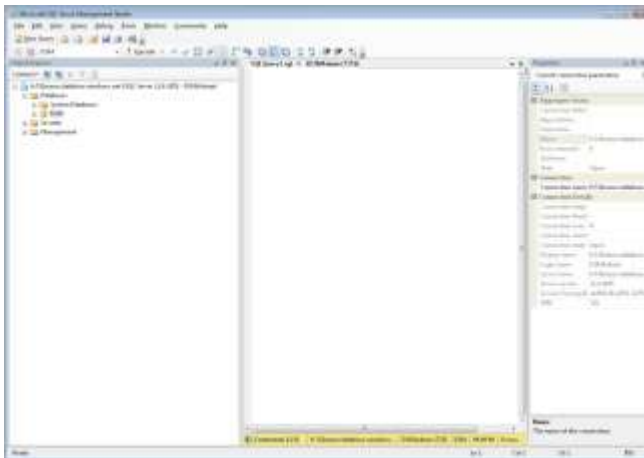
- 28) Next, enter the server name as noted from your Windows Azure account (the Fully Qualified Server Name), use “SQL Server Authentication” and enter the Login and Password you created and noted before and click connect.



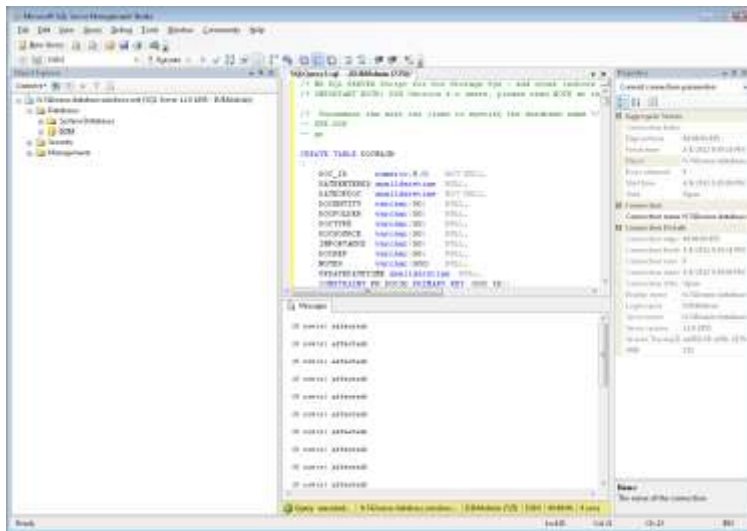
- 29) Click the “+” next to Databases and you should see the database you created before.



- 30) Highlight and right-click the named database you created earlier and select “New Query” from the pop-up menu. This will create a text window where you can type or paste SQL statements to be executed.



- 31) Next, from the Start menu, open “Create Database Tables Script” found in the Docs2Manage program group under Database Scripts -> MS SQL Server Related. It is SQL text, but it should open in Notepad. Select all the text in the file (click CTRL and letter “A” [in that order at the same time]) and copy it to the clipboard (click CTRL and letter “C”).
- 32) Go back to MS SQL Server Management Studio and click on the SQL Text box to set focus on the window, so you see the cursor is active and blinking in that window.
- 33) Next, paste that text from the clipboard (click CTRL and letter “V”) to the SQL text window. Once that SQL text appears in the SQL text window (as seen below), click the “Execute” button on the tool bar. This will create all the tables that Docs2Manage needs to function. Be sure the script executes without any errors which will be shown in red under “Messages”.



- 34) Clear out the SQL text window (click CTRL and letter “A” to Select All the text then press the delete key).
- 35) Repeat step 31 – 33 for “Grant Table Rights to Public Script” found in the Docs2Manage program group under Database Scripts -> MS SQL Server Related. Note: That script assumes the database name used is D2M, so modify those statements if you named the database differently. This step is necessary if you want every user that has access to the database, to have access to these database tables, which are necessary to run Docs2Manage. It is possible to grant rights to the tables per each user, but this should only be done by someone experienced with SQL Server.
- 36) Next create the Logins for the database server; Docs2Manage will use these logins and can be configured in Docs2Manage later to specify what Docs2Manage rights a user has. To do this, under “Databases” -> “System Databases” -> highlight the “master” database and then right-click the database and select “New Query” from the pop-up menu.

37) Enter the following text in the SQL window (replacing the “MyUser” with the login name you desire and “password123!” with the password you desire):

```
CREATE LOGIN MyUser WITH PASSWORD = 'password123!';  
go
```

38) Repeat this step to create all the needed logins for each user that will access Docs2Manage.

39) To clarify, those “logins” give access to the SQL Server, but not to the actual database. You will also need to create “users”, which give a login rights to a particular database. To do this, under “Databases” -> highlight the “D2M” database (or the database name you used) and then right-click the database and select “New Query” from the pop-up menu.

40) Enter the following text in the SQL window (replacing the “MyUser” with the username name you desire and “MyUser” matching a “login” name you created before. I suggest that login name and user should be the same, but it does not have to be):

```
CREATE USER MyUser FOR LOGIN MyUser;  
go
```

41) Repeat this step to create all the needed users for each login that you created.

42) Your cloud database should be ready to use for Docs2Manage.

Setting up dropbox

There are two parts to setting up Dropbox. First you need to create a Dropbox.com account. Then you will need to install the Dropbox application which syncs Dropbox on that PC with the contents of the Dropbox cloud.

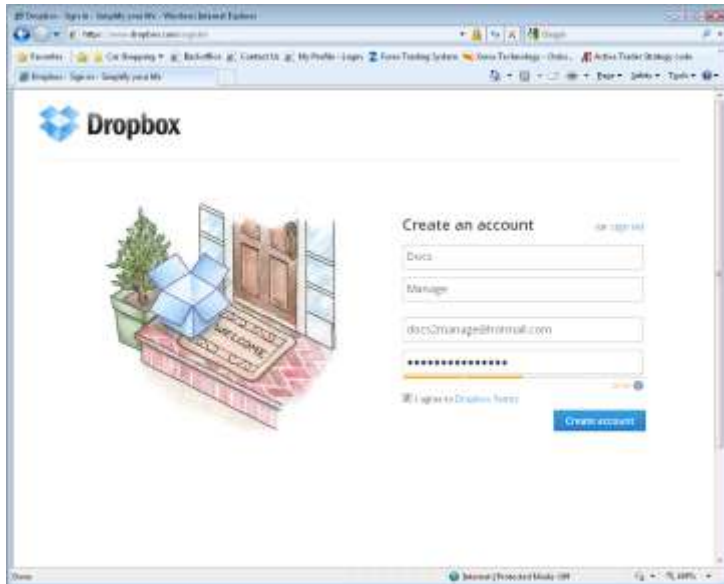
- 1) Visit Dropbox.com and click the “Sign in” link in the upper-right corner.



- 2) A sign-in dialog will appear; click on “Create an Account” if you do not already have a Dropbox account. If you have an account already, skip to step number 4.



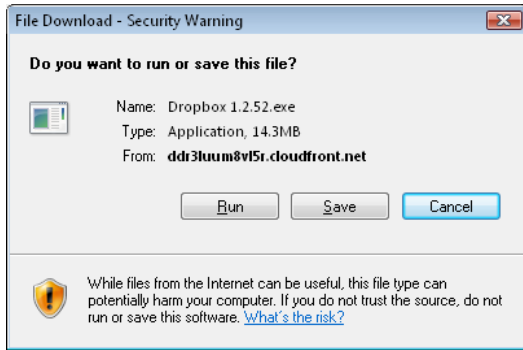
- 3) Fill in your name, email address (which is your log-in) and create a password for the new account. Then click the “Create account” button.



- 4) You are now done creating an account. You will be redirected to the download page to download the Dropbox application or the main Dropbox webpage contains a download link as well.



- 5) The download should automatically begin, but if it does not, click the “restart the download” link. The save dialog shall appear; if you click “Save”, make a note of the location you save the installation program and double-click the icon to execute the installation program, or click “Run” to start the install process.



- 6) The Dropbox install program should begin with the following dialog. Click the "Install" button to start the installation.



- 7) Select "I already have a Dropbox account".



8) Enter the credentials you used when you created the Dropbox account and then click “Next”.



9) Select the desired size; a good rule of thumb is 1 GB can store 20,000 to 40,000 pages at 200dpi. I suggest starting with the 2 GB free trial and upgrade later if necessary.



10) Select “Typical” install type and click the “Install” button.



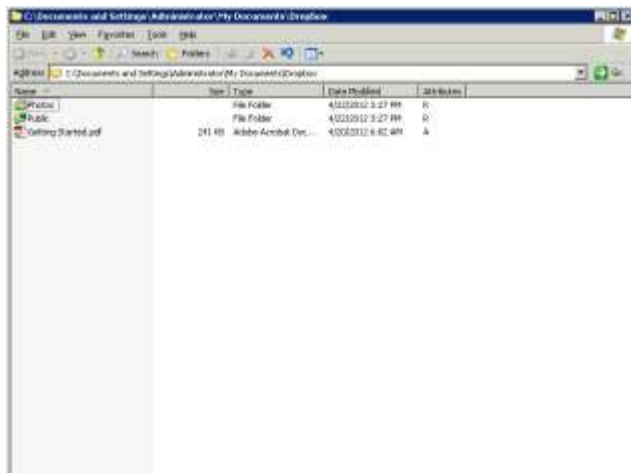
11) Once the install is finished, click the “Next” button to go through the dropbox tour or click the “Skip tour” button.



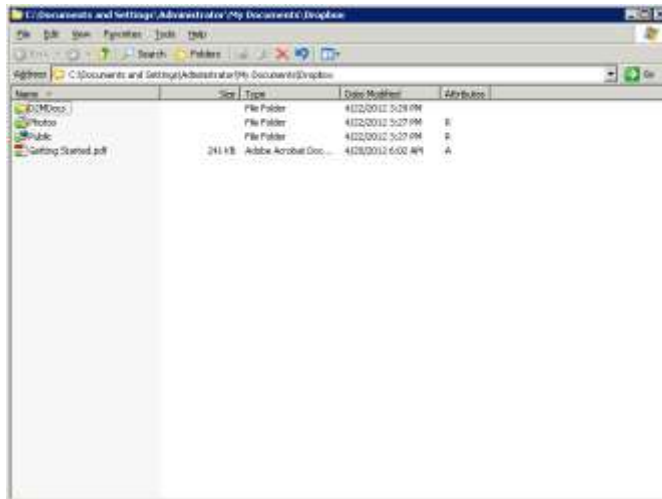
12) Check the “Open my Dropbox folder now” and click the “Finish” button. Repeat steps 1 through 12 for other computers that will also use Dropbox. If the same Dropbox account will be used for all users, skip steps 1 through 3.



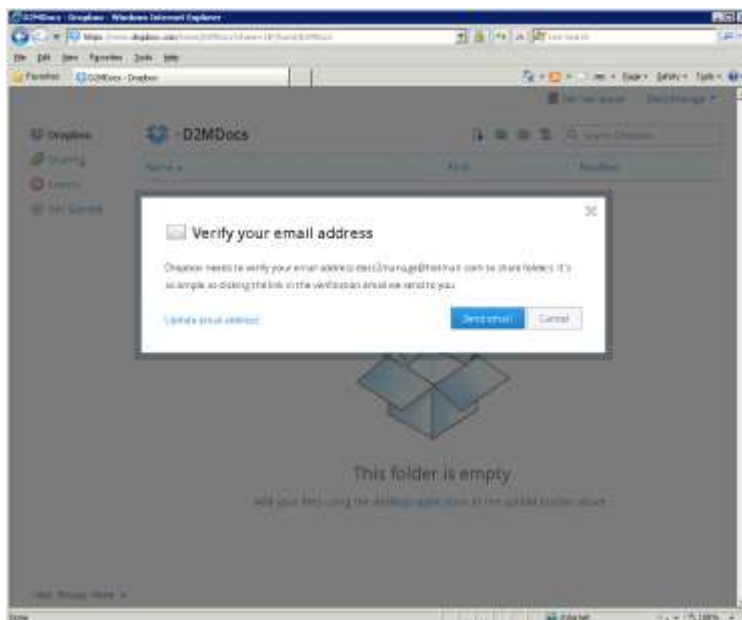
13) The dropbox install dialog will close, but Windows Explorer will open to your new Dropbox folder.



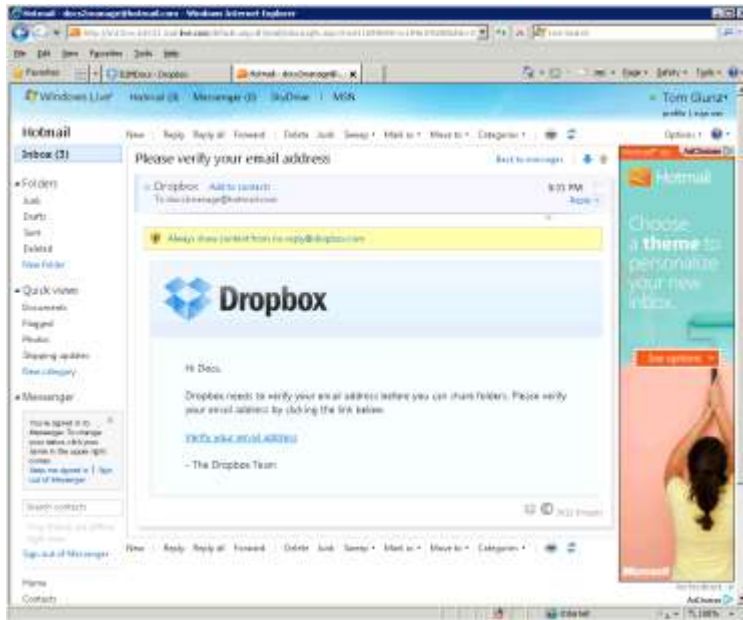
- 14) Create a new folder by right-clicking the window and selecting “New” from the pop-up menu and then clicking “Folder”. Name the folder “D2MDocs”, but any name will suffice. Make a note of the name, as it will need to be entered into Docs2Manage later. This practice will keep the Docs2Manage documents separate from other documents in your dropbox.
- 15) Next, if you do not plan to share a single Dropbox account, then you will need to share this new folder with other dropbox users that will also use Docs2Manage through the cloud. To do this, highlight the folder you want to share for Docs2Manage, and then right-click the folder. Click “Dropbox” from the pop-up menu, and then select “Share this folder...”



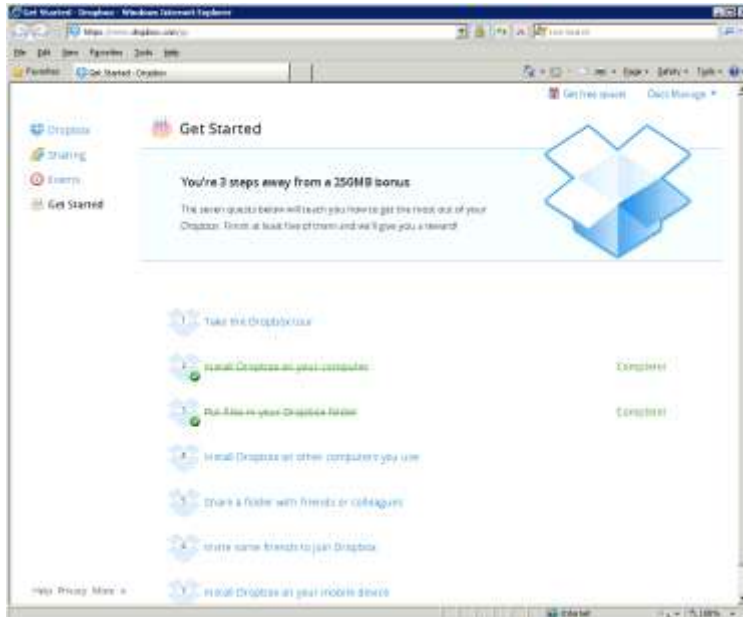
- 16) At this point your browser will open to the Dropbox website. Dropbox may require that your email address is verified before you can share a folder. If the following page appears, you must first verify the email you are using for that account. If this page appears, click the “Send email” button.



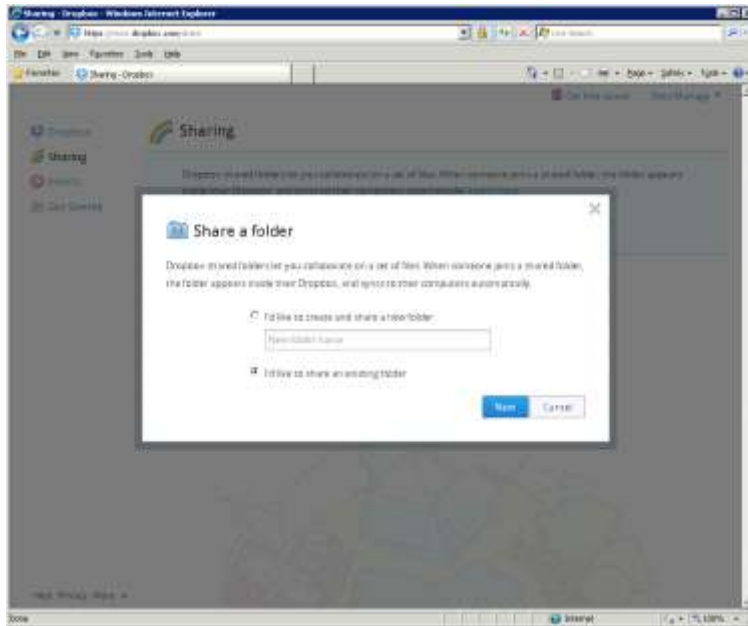
17) Go into your email client or email webpage and click the verification link to “Verify your email address”.



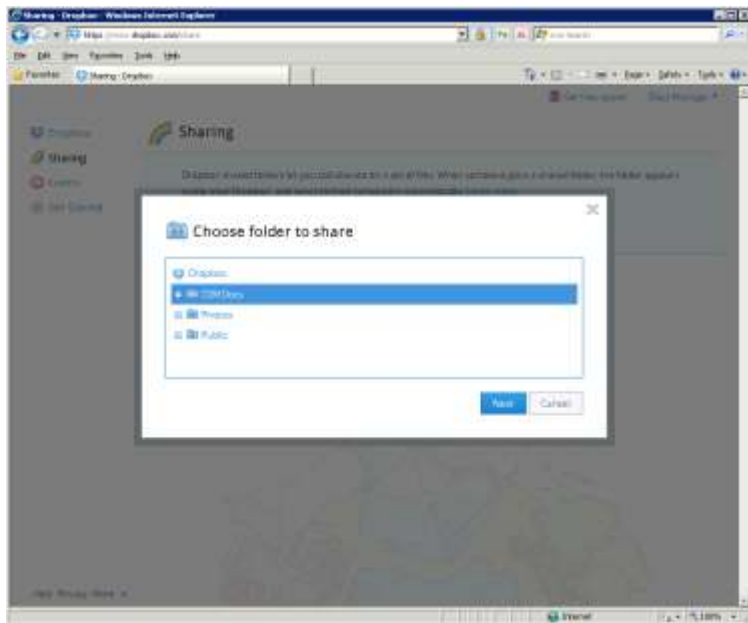
18) Next click step “5- Share a folder with friends or colleagues” to share the folder you created with the additional users that will share the same cloud storage for Docs2Manage.



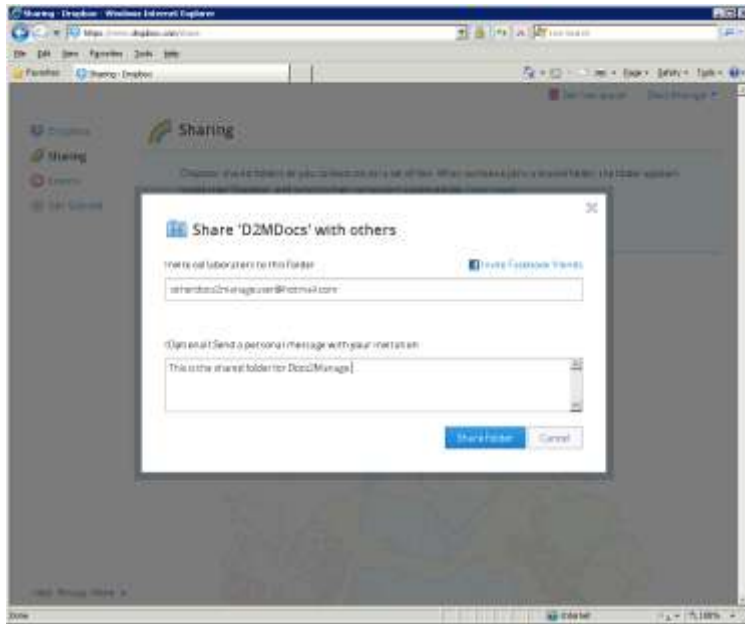
19) Click “I’d like to share an existing folder” followed by clicking the “Next” button.



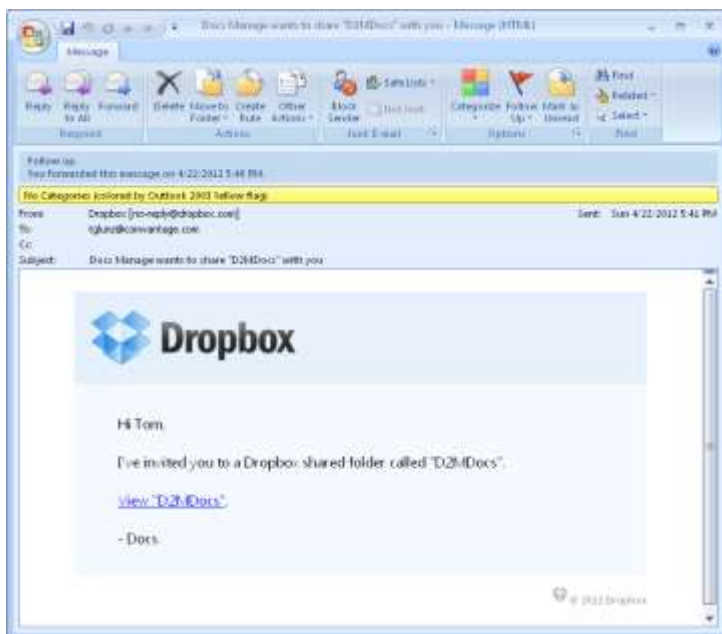
20) Click the "D2MDocs" folder to highlight your selection and click the "Next" button.



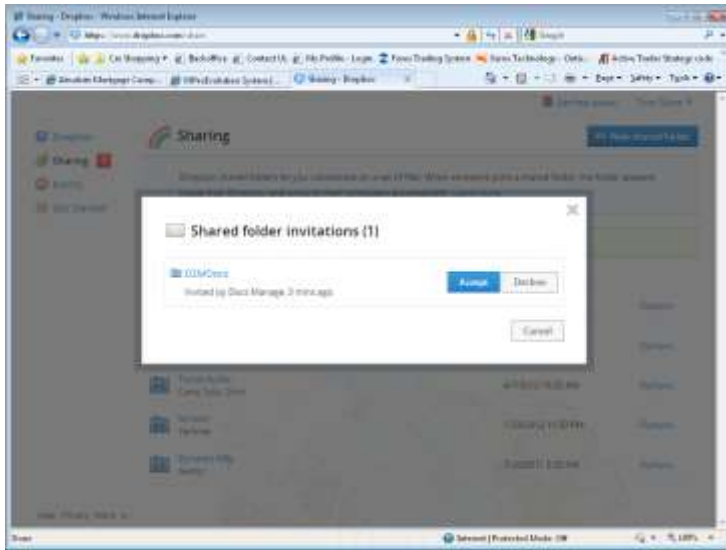
21) Enter the email addresses of other Dropbox users separated by commas, add a message to your invitation if you desire, and finally click the "Share Folder" button.



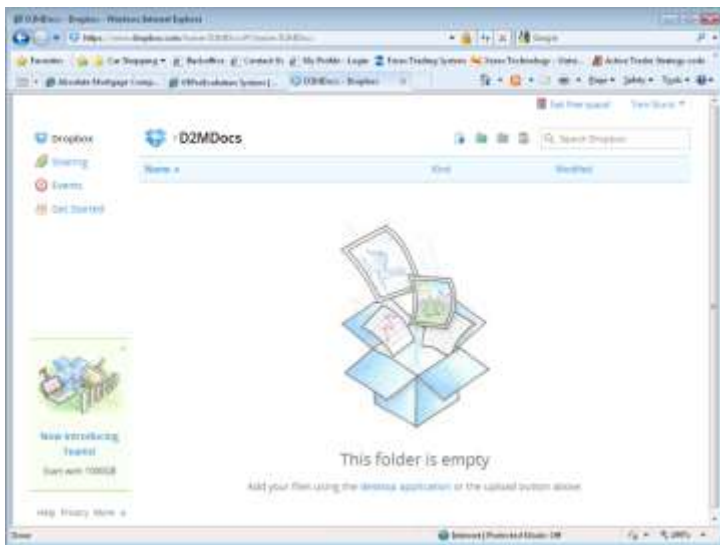
22) The recipient of the shared folder only needs to open the Dropbox share folder invitation email and click the “View D2MDocs” (invite).



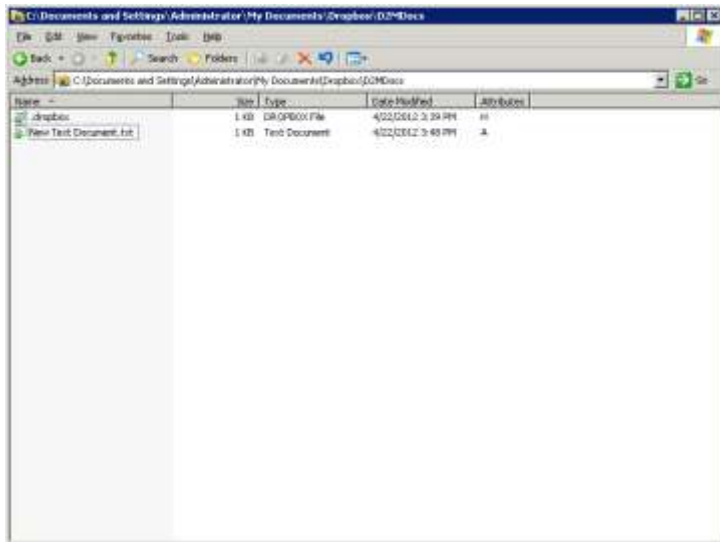
23) Click “Accept” invite and the folder will automatically be added to the recipient’s Dropbox and if it contains files, Dropbox will start to sync the folder to match the contents of the sender.



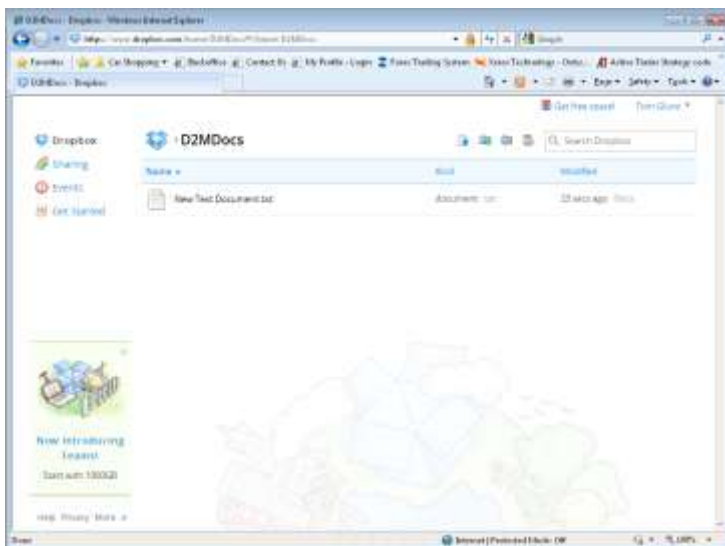
24) After clicking “Accept”, a webpage will open showing the contents of the shared folder. Leave this window open for a moment to perform a test.



25) To verify the folder is syncing with Dropbox, open up your Dropbox folder from your “My Documents” folder and create or copy a file in to that directory. To create a document, right-click the window and select “New” -> “Text Document”.



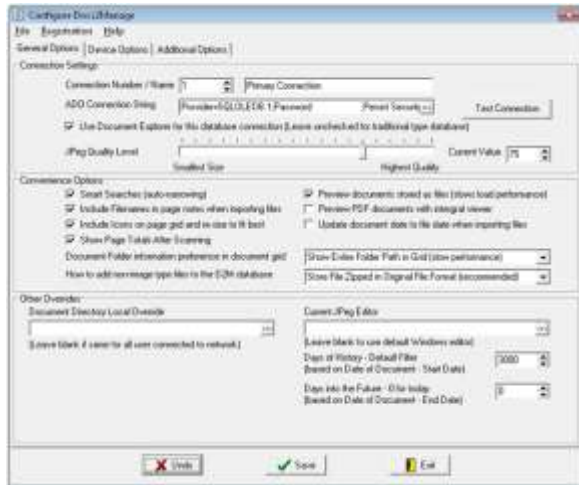
26) Go back to the browser window and click the “F5” button to refresh the page. If all is working, the document you created or copied into the directory will appear in the browser window. This document or file should also appear in other recipients “D2MDocs” folder including the original creator of the Dropbox folder. Delete the file to complete the test; this will delete the file from all subscribers in the shared folder.



27) Your cloud storage via Dropbox should be ready to use for Docs2Manage.

Configuring Docs2Manage to use Cloud Services

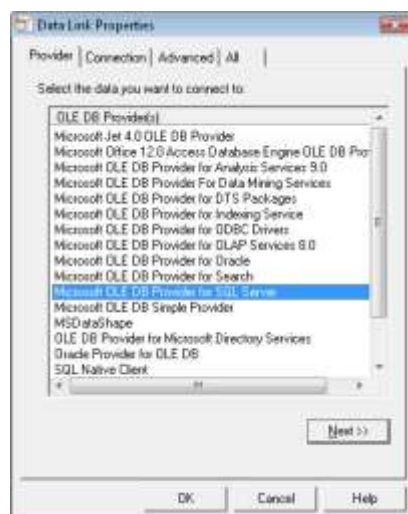
- 1) First you must establish a connection to your Windows Azure SQL database; the following process will have to be repeated on every Docs2Manage client machine. To do this open the “Configure Docs2Manage” under the “Docs2Manage” program group.
- 2) Click the triple-dots that follow the “ADO Connection String” field.



- 3) Click “OK”, which is reminding you to save your database password, so you will not have to enter the password every time you enter Docs2Manage.



- 4) The “Data Link Properties” dialog will appear. If the “Provider” tab is not selected, click the “Provider” tab, select the “Microsoft OLE DB Provider for SQL Server” (I found this provider to work the best, but you may want to test the connectivity and performance of other SQL Providers like “SQL Native Client”). Finally click the “Next” button.



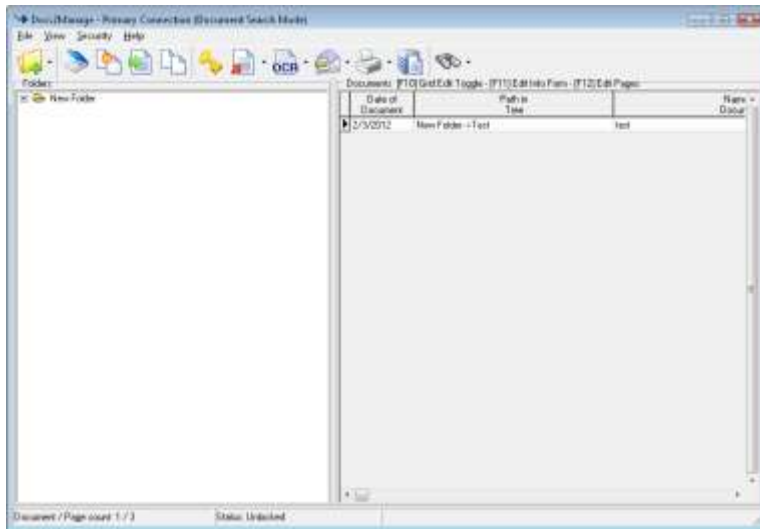
- 5) Enter or Copy-and-Paste the “Fully Qualified Server Name” you noted before when you set-up your Windows Azure SQL Database into the “1. Select or enter a server name” field.
- 6) Under section “2” click the radio-button to “Use a specific name and password”. Enter the “User name” and “Password” you specified when you were setting up your Windows Azure SQL Database. Also, check the “Allow saving password” check-box if you would like to open Docs2Manage without requiring to enter a password every time.



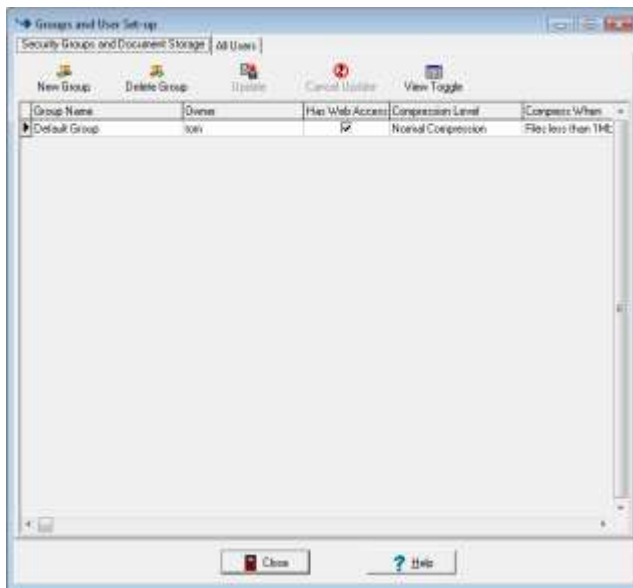
- 7) Finally, to test the credentials you entered, click the “Test Connection” button. If everything is correct, you will receive the follow message:



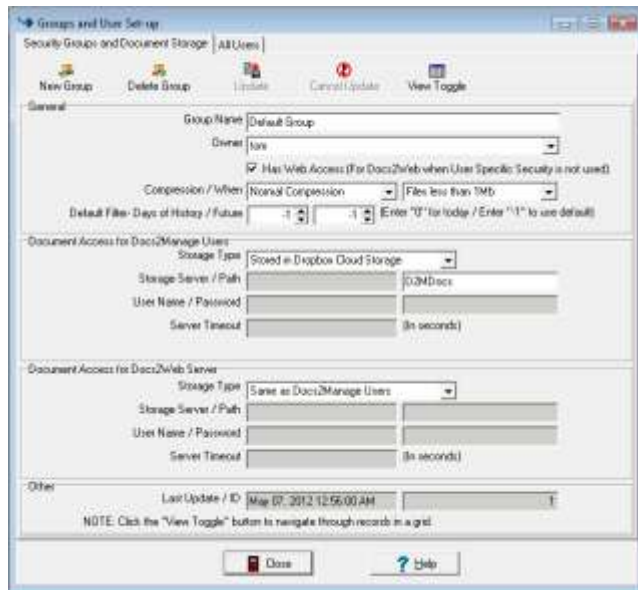
- 8) Now you are ready to open the “Docs2Manage” main program either by the icon on your desktop or under the “Docs2Manage” program group. The program should open without error, but if you are the first user to open Docs2Manage, the program will ask a couple questions concerning setting up security, click “Yes” to all the dialogs that appear. Please read the “Docs2Manage User’s Guide for more information about setting up security groups and users.
- 9) The “Docs2Manage Wizard” will appear; do not change the database connection, since you need to configure your settings in the default database.



- 10) Now you are ready to configure Docs2Manage to use Dropbox; this process only needs to be done once as this setting is shared to all users through the database. Click “Groups, Document Storage, and Users” under the “Security” menu. The following dialog will appear:



- 11) Click the “View Toggle” on the main toolbar of the dialog.
- 12) Under the “Document Access for Docs2Manage Users” section, change the “Storage Type” to be “Stored in Dropbox Cloud Storage”.
- 13) Finally enter the name of the storage directory you shared from Dropbox (“D2MDocs” was used in the example in this document). Finally, click the “Update” button on the main toolbar and click the “Close” button to exit the dialog.



14) Docs2Manage is now set up to use both a cloud database and storage. Import or scan a test document to test your cloud storage Dropbox connection.

Alternate Cloud Configuration Concepts

Docs2Manage is flexible, so the possibilities are endless. First it should be mentioned that you do not have to use cloud services at all. If you prefer hosting the database and storage on your own network, that is still supported as it has been since Docs2Manage was first created. If you prefer to use a cloud service for just one of the services required, that is possible too. For example, if you are comfortable with running Microsoft SQL Server or Oracle on your own network, but prefer cloud storage, Dropbox can still be used by itself. Likewise, if you are comfortable storing documents on your local network, but don't want to maintain a database server locally, you can use the Windows Azure SQL Database cloud service for your database needs.

Besides the Windows Azure SQL Database cloud service, there are other database services available that allow the use of Oracle or MySQL through cloud services. Most notable is Amazon's Web (Cloud) Services available at aws.amazon.com. Keep in mind, these solutions have not been tested, but if they are the same type of database as used on a local network, there should be no problem, as long as they support TCP/IP database connections through the Internet. There are also other vendors that may make Microsoft SQL Server available through the Internet. Also, both Windows Azure and Amazon Web Services support storage clouds, so if you prefer, you can use one of them as your cloud storage provider. If you do use one of those vendors for storage, you will need to use a third-party application to sync cloud storage with a local computer directory (as the Dropbox application does for the Dropbox cloud).

If your storage cloud becomes very large where it is not practical to sync with every computer that uses Docs2Manage with the cloud, it may be better to install Dropbox on a server on the network and create a network share on the Dropbox directory on that server, which by setting up a network share becomes available to your client computers. This makes more sense if your Docs2Manage installation is several clients per local area network, but has more than one location or branch (several distinct local area networks). In this scenario, Docs2Manage would actually be configured to use a file share to connect to the network share, rather than Dropbox even though Dropbox is being used to sync the data from the network server(s) to the Dropbox cloud.

Conclusion

Docs2Manage has been a successful document management solution for small to medium size business on the desktop or local area network serving many industries for many years. The new cloud support allows Docs2Manage to be used as a multi-location enterprise wide application without costing performance and in many cases improving performance. Even for the small organization, Docs2Manage using cloud services are beneficial in terms of cost, since server hardware is no longer necessary. Also, these cloud service are maintained by the cloud provider and are not susceptible to server crashes, since these services are typically failover or clustered. Finally, the information in Docs2Manage is completely portable, since this information and documents are available anywhere the Internet is available and the back-up or CD/DVD archive feature can be used to view Docs2Manage when the Internet is not available. Docs2Manage cloud support makes Docs2Manage into a more complete document management solution.