Access Gmail, Exchange, or other IMAP based Email over Restricted Bandwidth Connections

As the bandwidth of most electronic communications channels continues to increase, content providers take advantage of the increased bandwidth by delivering more and more content and at higher resolutions. But not all communication channels can support a high effective bandwidth. These Restricted Bandwidth communication channels may be considered bandwidth restricted if its bandwidth is less than the bandwidth that a content provider can support. Or even a high-bandwidth communication channel may be effectively bandwidth restricted if the cost of sending content via the high-bandwidth communication channel is so high as to be an effective restriction on the bandwidth that can be used. Another example occurs when many devices use the same high-bandwidth communication channel and the communication channel may be effectively bandwidth restricted for each device. If a high-bandwidth communication channel is used by a device that is nearly out of the communication channel's range or that is used in an environment (e.g., noisy) where reception is otherwise poor, the communication channel may be effectively bandwidth restricted. And we all see how cell phones become bandwidth restricted because a smartphone is being used in a geographic location where reception is poor.

 A particularly noteworthy example of a restricted-bandwidth communication channel may be a satellite telephone, ie satphone. A satphone may be restricted to sending content at low rates relative to the rates at which a content provider can send content. Even if a satellite phone communication channel did support a higher bandwidth, the cost of sending content might be so high as to be an effective restriction on the bandwidth that can be used.

For all these reasons, it can be difficult for devices to access the content of content providers who have designed their interfaces to take advantage of high-bandwidth communication channels. For example, it may take a prohibitively long time or be prohibitively expensive to download even a single email message whose content is only one word because the HTML document defining the message page may include thousands of characters to fully specify its format and content. It would take an even longer time or be more costly to download all the content of an inbox or to download even a short HDTV video of a web page.

Enter OCENS OneMail for Gmail, Exchange, or almost any other IMAP based email. Nothing has become more routine in our day to day lives than checking for email. But over restricted bandwidth connections this can be extremely slow, extremely expensive or simply not possible. For Gmail and Exchange-based email this can be particulary frustrating because they are highly popular email services used by billions of people use each day. Many of these people would like to continue to do so when they are faced with restricted bandwidth connections. OneMail is the first application that allows them to do so.

By using a patent-pending two-step approach, OneMail works in a private and secure fashion to efficiently acquire your Gmail, Exchange-based or IMAP email account over restricted bandwidth connections. It first reaches out and snaps back to you the basic information about each email waiting for you in your Gmail or Exchange inbox, telling you who its from, how big it is, and what is its date and subject. OneMail users can then tag only those mails of interest to them for high-compression retrieval on their next connection over the restricted channel. Untagged email remains on the Gmail, Exchange, or other server for access at a later time when the mail user has a higher bandwidth connection.

As a result, OneMail provides rapid, efficient access to the Gmail and Exchange mail that really matters to you over even the most restricted bandwidth communication channel.

OneMail

User guide
2016

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Things to Remember

You can setup one of each account types: Gmail, Exchange, or other IMAP based email accounts. If you want to check two Gmail accounts you could register the first using the Gmail option and then the second Gmail using the IMAP option.

Once you setup OneMail and authenticate your account on your device - **do not remove the app or your account** unless you have full internet access to re-authenticate your account. **You will not be able to re-authenticate your account via your satellite phone connection.**

Sizes observed in your header list are uncompressed sizes. In general the download size can be smaller.

First Use

The first time you launch the OneMail app you will be greeted with a Welcome page similar to the following:

Here you can choose to go through the Tutorial or skip and go directly to the email setup screen.

You may also disable the Tutorial from launching each time you start OneMail by taping on check mark at the bottom of the screen.

You are now ready to begin using OneMail.

## What if I don't have an Internet connection?

You will need to have an active internet connection to setup your email accounts. This is required for verification and security and cannot be performed over low bandwith connections such as Iridium GO..
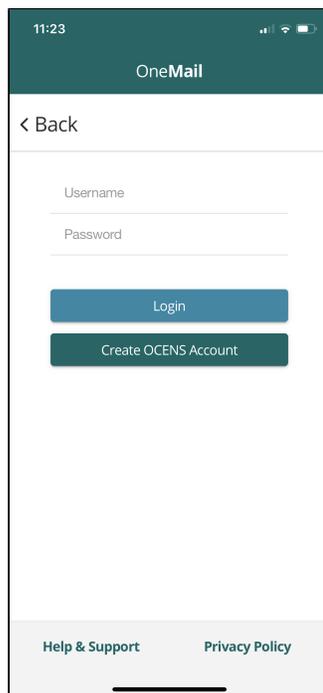
Setting up your OCENS Account

From any screen in OneMail you can select the Menu by tapping on the [≡] icon to open the settings.

On the Settings screen select the OCENS Account Settings:
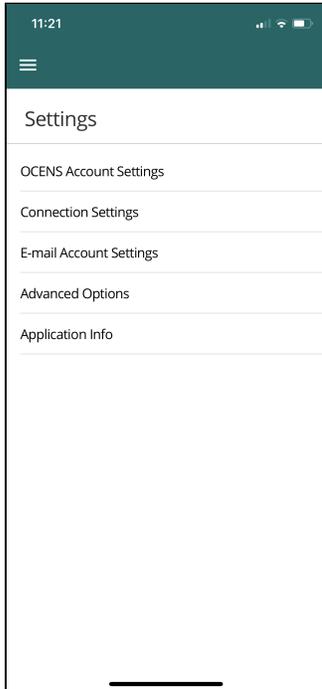
Enter your OCENS account Username and Password If you have not already created an OCENS account tapping the "Create OCENS Account" button will take you to the registration page on our website.
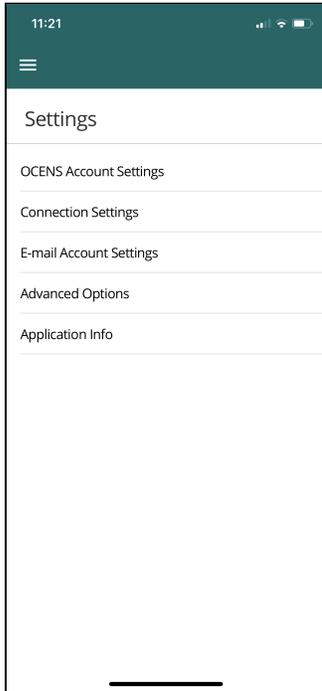

Select Login to confirm your account and return to the the Settings screen.
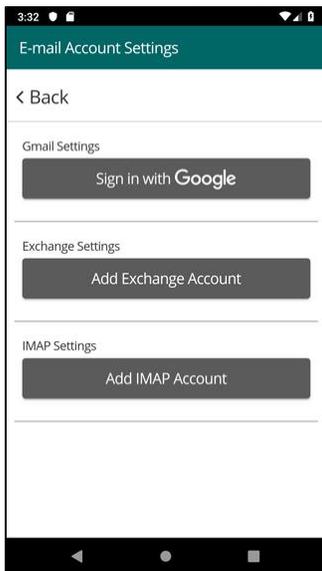
Setting up Gmail Account

From any screen in OneMail you can select the Menu by tapping on the [≡] icon to open the settings.

On the Settings screen select Email Settings:

Select the Sign in with Google option.
(Note: This step require standard internet connection and cannot be done via satellite phone connection.)

From here you will follow the Google prompts to allow access to your Gmail account. Once this is complete you will be returned to the OneMail Inbox screen.

Running Gmail under the IMAP section

The best method is to create an app specific password

Use when users account has 2-step authentication ON - Setting your account up via this method will avoid the need to authenticate via a standard internet connection should you not have access.

1. Login to your Gmail account online: https://mail.google.com
2. In the top right corner of the page is a "gear icon". Click on it.
3. Select Settings
4. Look for the "Forwarding and POP/IMAP" tab at the top of the screen. Click on it.
5. Scroll down and 'Enable imap'
6. Return to the main page of your Gmail account and this time click on the icon in the upper right with your account initials in it, then Select the Google Account button
7. Select the Security link on the left
8. Look for the section "Signing in to Google" and select App passwords
9. You will be asked to enter your Google password
10. You should now see your app specific passwords. You will need to create a new password that you will use with your OneMail app to access your Gmail.
    - Click on "Select app"
    - Select "Other (Custom name)"
    - Give it a Name "OneMail"
    - Click on "Generate"
    - Copy down this password so that you can enter it when you setup OneMail

In OneMail

1. E-mail Settings
2. select "Add IMAP Account"
3. Enter your gmail username (typically your gmail address) and for the password use the one you just generated.

   You are now ready to check your Gmail account.

The other method is to allow less secure apps to access your Gmail Account

Use when user does not have 2-step authentication ON.

1. Login to your Gmail account online: https://mail.google.com
2. In the top right corner of the page is a "gear icon". Click on it.
3. Select Settings
4. Look for the "Forwarding and POP/IMAP" tab at the top of the screen. Click on it.
5. Scroll down and 'Enable imap'
6. Return to the main page of your Gmail account and this time click on the icon in the upper right with your account initials in it, then Select the Google Account button
7. Select the Security link on the left
8. Scroll down until you get to the "less secure app" section
9. Make sure 'allow less secure app access' is ON. If it is already on, you may have to go in, turn it off, save the changes, then come back to it and turn it ON. Then save changes again.

   In OneMail app
1. Skip Setup on the blue screen or go to the Settings and select Email Settings
2. Choose Add IMAP Account

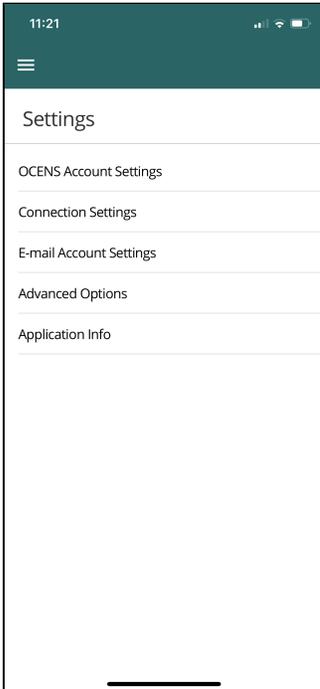3. Use your Gmail email address and password.

   You are now ready to check your Gmail account.
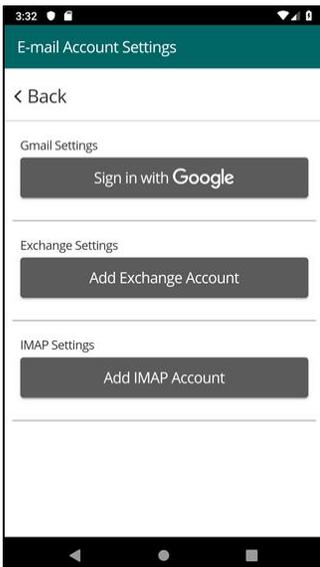
Setting up Exchange Account

From any screen in OneMail you can select the Menu by tapping on the [≡] icon to open the settings.

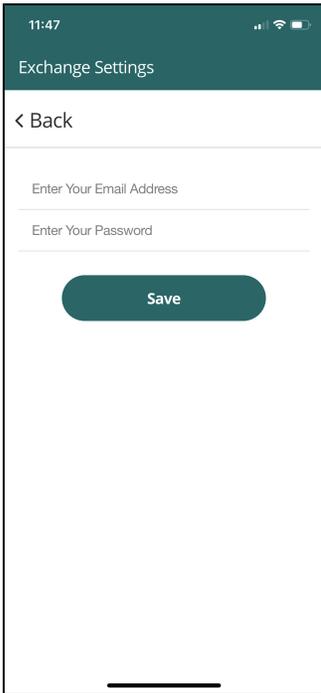On the Settings screen select Email Settings:

Select the Add Exchange Account option.
(Note: This step require standard internet connection and cannot be done via satellite phone connection.)

Enter your Exchange account Username (this is also your exchange email address) and Password:
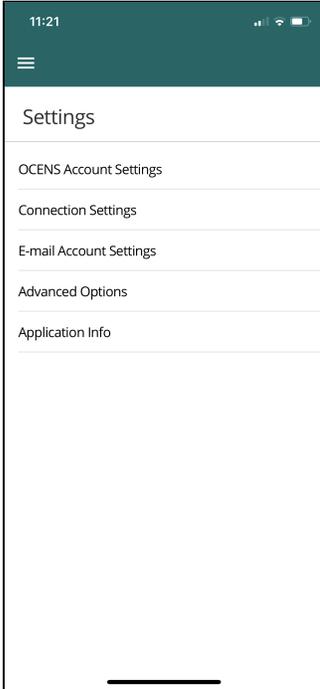
Once this is complete you will be returned to the OneMail Inbox screen.
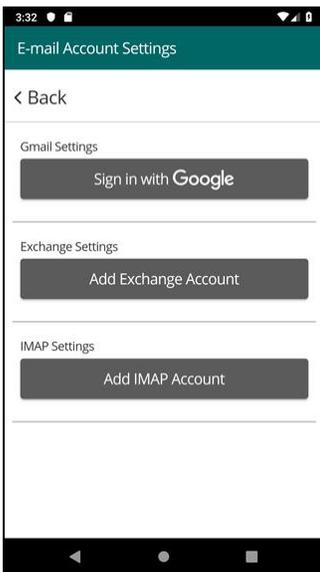
Setting up Other Email Accounts

From any screen in OneMail you can select the Menu by tapping on the [≡] icon to open the settings.
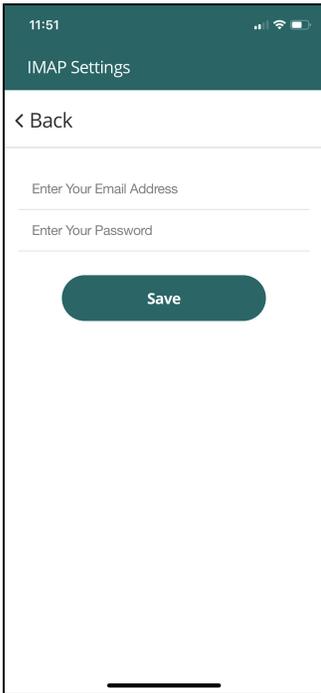
On the Settings screen select Email Settings:

Select the Add Other Email Account option under the IMAP Account tile.

Enter your Email account Username (this is also your full email address) and Password:
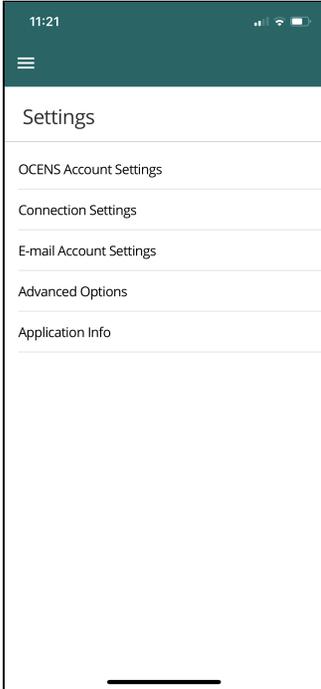
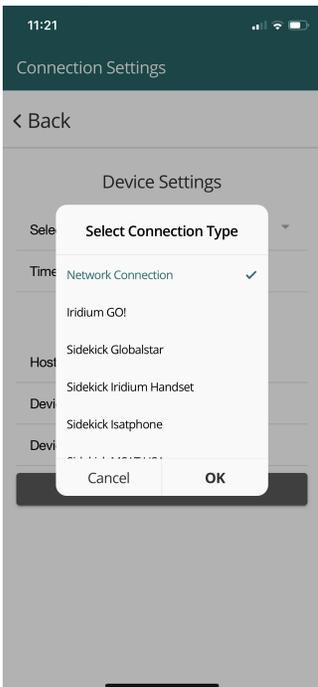Once this is complete you will be returned to the OneMail Inbox screen.

Connection Settings

From any screen in OneMail you can select the Menu by tapping on the [≡] icon to open the settings.

On the Settings screen select theConnection Settings:

Here you will be able to change the connection Method.

Advanced Options

The Advanced Options section is where you can change the Application Language as well as Font Size.

Update Common Database:

Reset Database: it is vitally important that you not reset the database unless you have been instructed to do so by OCENS support staff.

Downloading Email

From any screen in OneMail you can select the Menu by tapping on the [☰] icon to open Settings screen and then select the Inbox.

From the Inbox you can tap the Connect button to begin downloading your email headers.
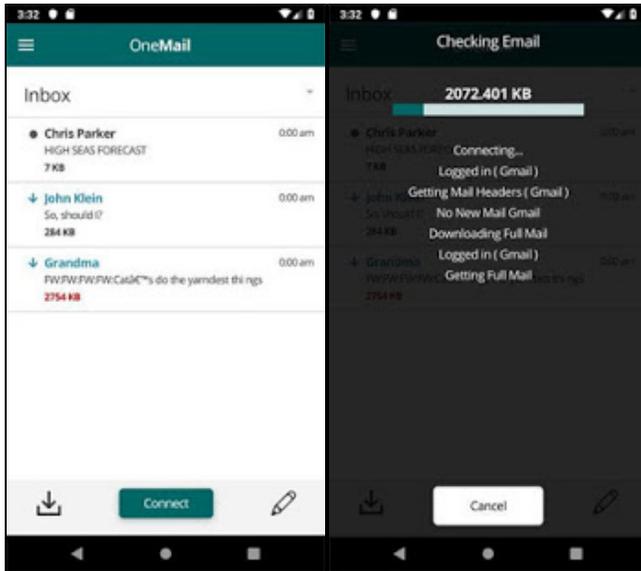
Once you have downloaded your email headers you can select the emails for which you would like to download the full content by tapping on the message header. You will see the down arrow marking these for download. When you are ready just tap the Connect button to begin the transfer.

Network Connection

If you have been using OneMail through a satellite connection and then move to a location where a Network or Wifi connection to the internet is available, You can change your connection selection to "Network" to utilize the local connection.

File sizes

The file sizes you see in your OneMail Inbox after checking for mail are the UNCOMPRESSED sizes of these emails. The actual size of your download will actually be less, sometimes much less, than the sizes you see with your Inbox header.

If there is no size associated with an Inbox entry, this indicates that this email has already been downloaded by OneMail.

Transferring Photos

Check out this [discussion](#) of the photo compression and transfer approach used in OneMail. In short, OneMail compression is able to compress your photos immensely (often compressing multi-MB photos to 30 kb) without rendering these photos into the size of a postage stamp as do other competing satellite mail services.

OCENS Contact Information

You can reach OCENS Support via

Email: support@ocens.com or

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