

ScipherKey User's Guide

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Introduction

ScipherKey keeps all your sensitive information securely on your Apple devices (iPhone®, iPad®, or iPod touch® and Mac devices). You can store your login information (user names and passwords), documents, and images securely on your devices.

ScipherKey allows you to synchronize your devices without sending your important information to the internet or the “cloud”. It uses the new *“Multi-peer Connectivity”* technology to transfer information between your devices.

ScipherKey uses military grade 256-bit AES encryption for all your information including image and document files. Your ScipherKey password is used as one of the ingredients to create the encryption key. This means hacking the information without knowing your password is practically impossible.

Why is ScipherKey more secure?

To be able to de-cipher your information, a hacker needs to have access to 2 key information:

- 1) Your information in encrypted form. This includes the file(s) containing your information saved on your device, your hard drive, or on any other physical location (such as a server in the cloud.)
- 2) Your Password.

ScipherKey protects both of the items:

- 1) Your encrypted information never leaves your devices. Even during the synchronization, the encrypted information is transferred directly between your devices. It does not go through internet. ScipherKey does not support synchronization through iCloud, Dropbox, etc.

This difference in design, means that you don't have to worry about whether the cloud company hosting your information is properly securing it against a rogue employee, hackers, NSA, or other agencies.

Also, since the information does not travel over the internet, it cannot be intercepted by a surveillance agency.

- 2) Your Password information is stored securely on your device and never leaves it in any form (even during synchronization). That's why you need to use the same password on all your devices to be able to sync your devices.

When you synchronize your devices, ScipherKey does not use any Key Exchange mechanism. After all it doesn't make sense to exchange keys when both sides of the communication is the same person - you.

This document explains ScipherKey features on all devices. The main functionality of the App is the same on iPhone, iPad, iPod touch, and Mac. However, since there is more UI real state available on iPad and Mac, some tasks are done easier on these devices.

The Mac version of the software uses the same basic design concepts as the iOS version. Since there is more UI capabilities available on Mac, some actions are done easier (Drag-Drop, Multiple TableViews, etc).

This document uses iPhone screen shots for almost all of the explanations. Some iPad and Mac screen shots have also been included to give some idea about how the software looks different on different devices.

Getting Started with ScipherKey (iOS)

The latest version of ScipherKey for iPhone, iPad, and iPod touch is available on the iTunes [App Store](#)SM.

Running ScipherKey for the first time

When you run ScipherKey on your device for the first time, you must initialize it with your main password.

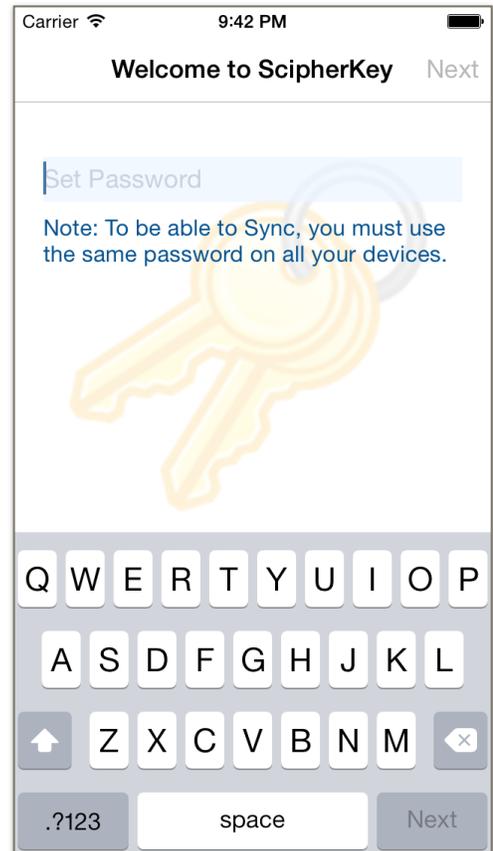
Since this password provides access to all your information stored in ScipherKey, it is very important to select a strong password and make sure you don't forget your password.

It is recommended to use a password with a minimum length of 8 characters that includes lowercase and uppercase letters, numbers, and special characters.

Same ScipherKey password on all iDevices

If you use ScipherKey on more than one Device (your iPhone, iPad, and/or Mac), you **MUST** use the same password for all your devices.

For security reasons, ScipherKey never sends out your password information (not even in encrypted form or as part of public/private keys).



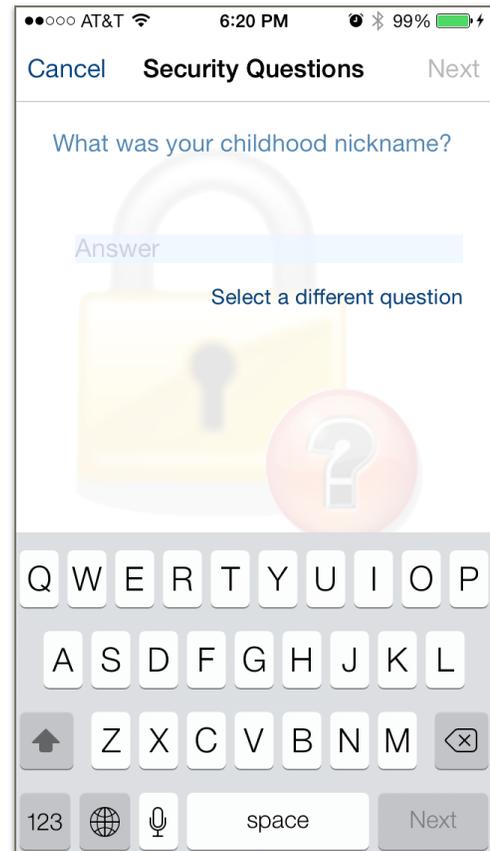
Setting up Security Questions

You can setup 2 security questions that are used to reset your ScipherKey password in case you forget it (Optional). If you turn on this feature, ScipherKey includes a **“Forgot Password?”** button in the login page. If for any reason you forget your ScipherKey password you can tap on this button to answer the security questions and reset your password.

For security reasons, it is recommended to turn this feature off. But if you think you may forget your ScipherKey password, enable this feature and make sure no one else knows the answer to the selected security questions. It is recommended to enter a custom question.

For more information about how to setup the security questions please refer to [Using Security Questions](#).

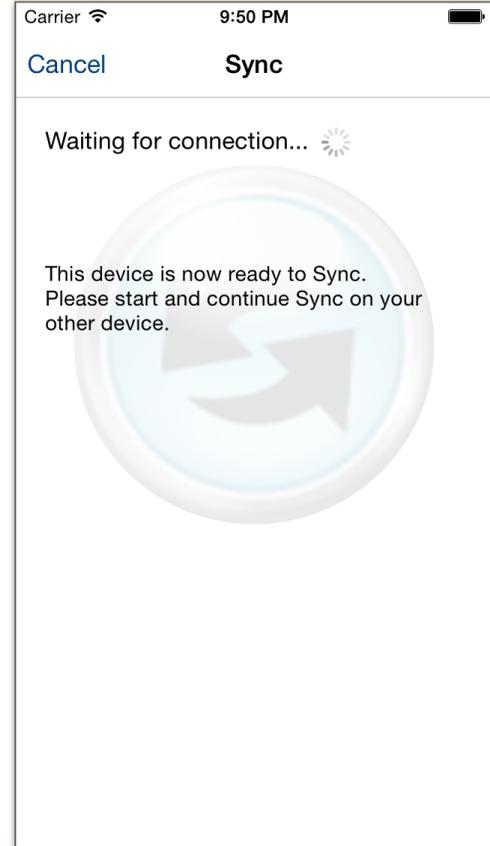
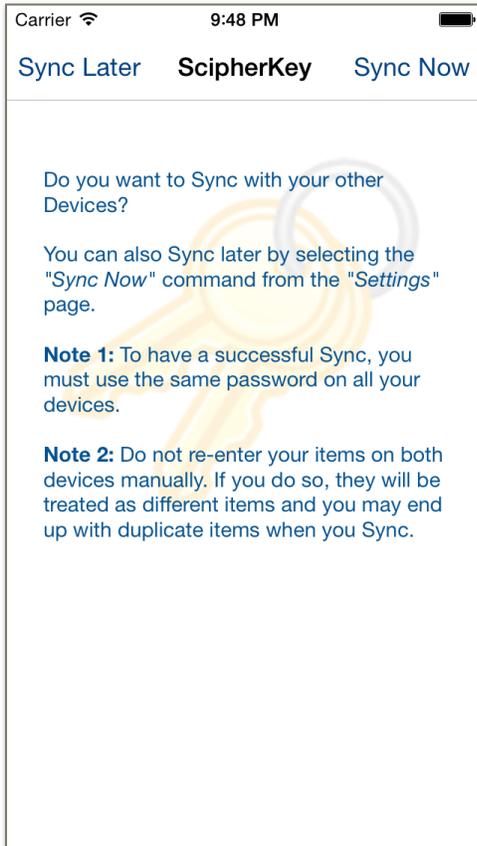
You can turn this feature on/off later in the **“Settings”** page of ScipherKey. If you don't want to use this feature or you want to configure it later, just tap on the **“Cancel”** button on the top left corner of the page.



Synchronizing your information

After setting up your security questions, the synchronization page appears.

If this is the first time you are using ScipherKey, you don't have any information to Sync. So you can simply skip this step by selecting "**Sync Later**" button on the top left corner of the page. This takes you to the main page of ScipherKey.



If you have already installed and used ScipherKey on your other devices, you can copy all the information to this device by tapping on the "**Sync Now**" button on the top right corner of the page. This opens the synchronization page. To finish the synchronization, on your other device go to the "**Settings**" page and select "**Sync Now**".

You can also synchronize your devices later from the "**Settings**" page. For more information about how to synchronize two devices, please refer to [Synchronization](#).

ScipherKey	Categories Edit
 Favorites/History >	 emails 2 Items >
 Categories >	 Online Accounts 63 Items >
 Search >	 Credit Cards 3 Items >
 Settings >	 Bank Accounts 4 Items >
 About >	 ID Cards 9 Items >
 Lock	 Wifi info 2 Items >
	 Notes No Items >
	 Photos No Items >
	 Documents 2 Items >
	 Others 3 Items >

Getting Started with ScipherKey (OS X)

The latest version of ScipherKey for Mac is available on the Mac App Store.

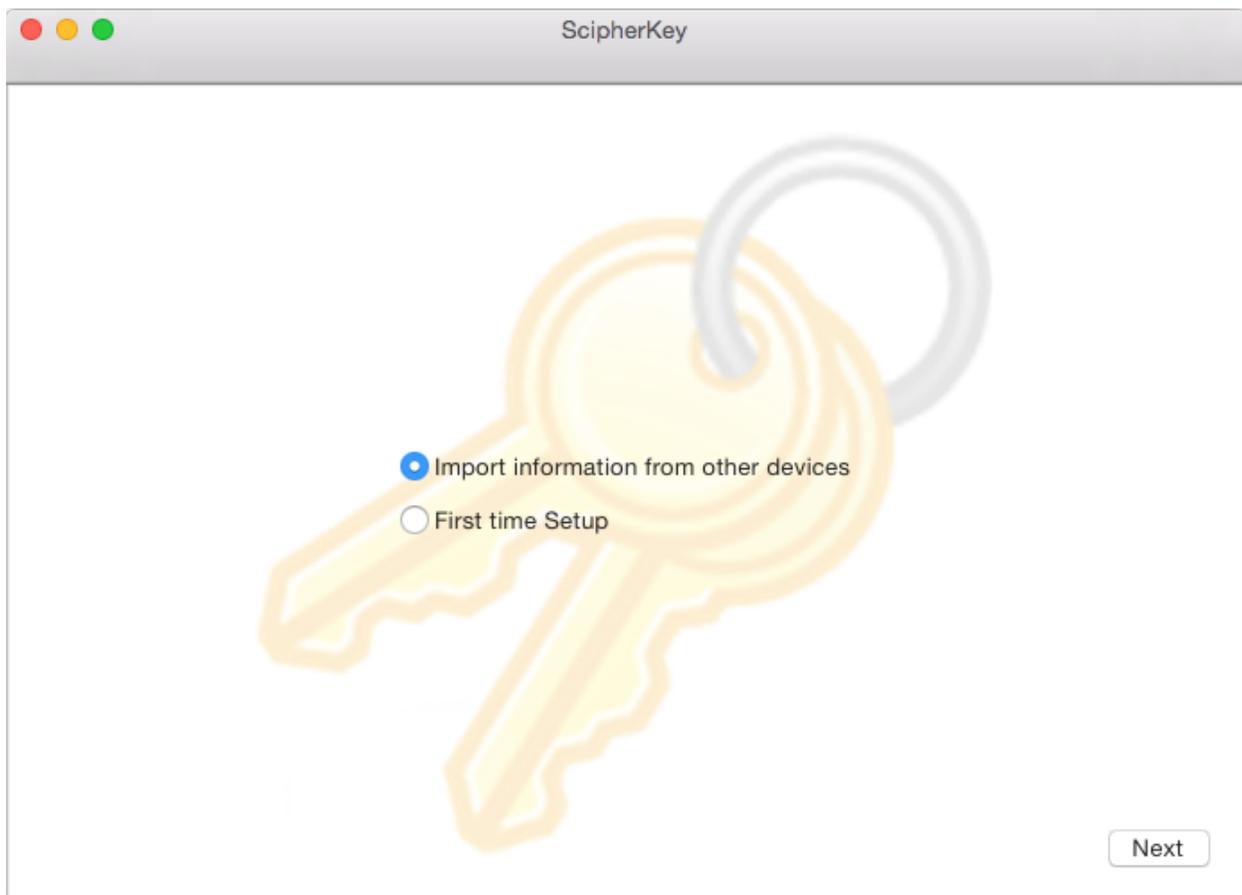
Running ScipherKey for the first time

When you run Scipherkey on your Mac computer for the first time, you are provided with 2 choices.

If you have the iOS version of ScipherKey on your mobile devices and have entered some information on those devices, select the first option “Import information from other devices” and click “Next”. Then enter your ScipherKey password on your other devices, and click “Sync”.

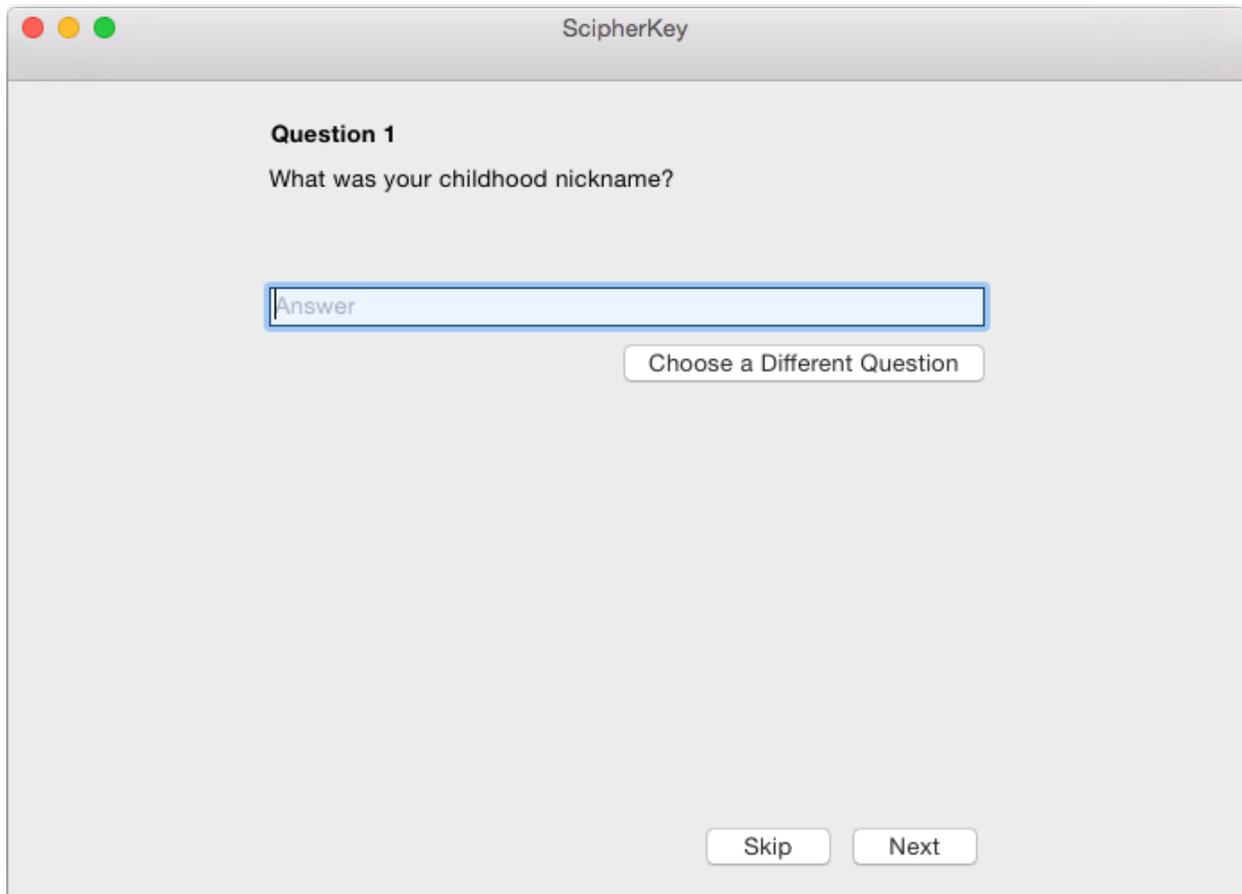
This opens the Synchronization page where you can synchronize your Mac with your other devices. This will copy all your Scipherkey information to your Mac. You can also synchronize your devices later from the “**Settings**” page. For more information about how to synchronize two devices, please refer to [Synchronization](#).

After the synchronization, you can enter the Security questions (Just like the iOS version explained in previous section)



Otherwise, if this is the first time you are using ScipherKey, select the second Option “First time Setup”. When you select this option, the rest of process is very similar to the one on your iOS

device as explained in the previous section. You enter and confirm your password, then optionally enter 2 security questions just like the iOS version explained above.



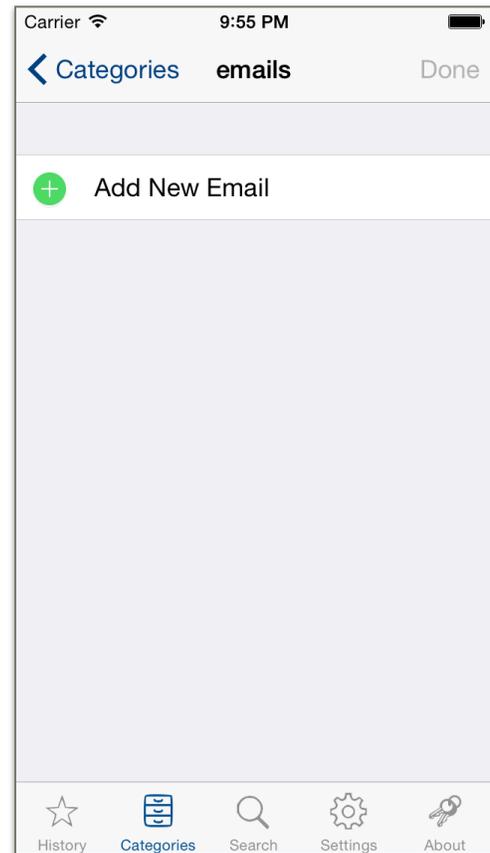
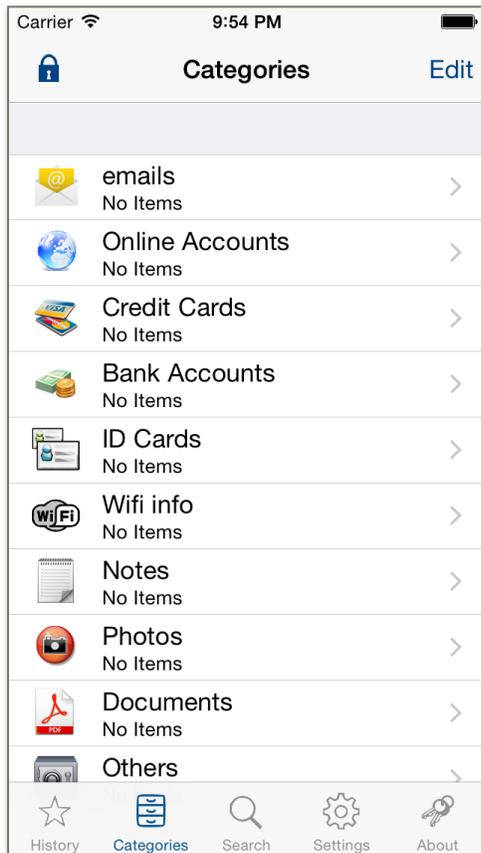
You can enable/disable the security questions later in the “**Settings**” page of ScipherKey. If you don't want to use this feature or you want to configure it later, just click on the “**Skip**” button.

Entering Information

ScipherKey organizes your information in a hierarchy of categories, items, and fields. The Categories page is where you enter most of the information in ScipherKey.

Tap on any category to display the list of items in that category. An item, is a collection of different properties - fields - that contain the information about that item. Tap on each item to display the detail information about the selected item in the Item Details page.

If no item is defined in the category, a row appears with a green plus sign that allows you to add new items to the selected category.



If there are already some items in the selected category, you can tap on the “**Edit**” button on the top right corner of the page to enter the “editing mode”. This causes the “**Add New Item**” row to appear.

In the Categories page of the Mac version of ScipherKey, the tables of Categories, Items, and item details are displayed at the same time from left to right. As your selection changes in any list, the lists on its right will update to show the information related to the selected item.

Adding a new Item

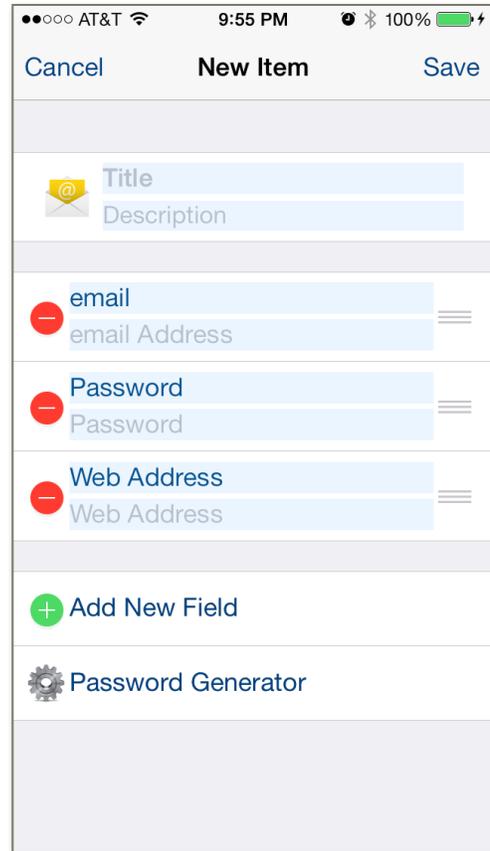
To add a new item tap on the green plus sign. The “**New Item**” page appears and you can enter information about the new item.

The only field required for each item is the Title (Name) of the item. All other fields are optional.

Depending on the category, some predefined fields appear by default for each new item. You may use these fields as is, modify them, or delete them and add new fields. You can also reorder the fields of an item and group them using the separator field type. The picture on the right shows the “**New Item**” page for an email account.

The following paragraphs explain how to do the common tasks when adding a new item or modifying an existing one.

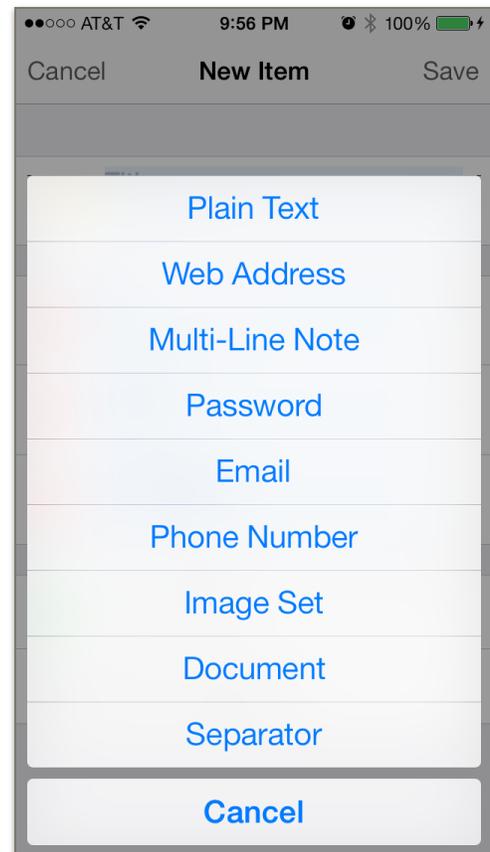
In Mac version of ScipherKey, you can click on the “+” button below the Items list to add a new item.



Adding a new Field

To add a new field, tap on the green plus sign in the “**Add New Field**” row near the bottom of the page. This opens an action sheet that contains a list of available field types. The following table explains these fields types.

In Mac version of ScipherKey, click on the “+” button below the table view for the item being added, and select the type of field from the menu that appears. (See the pictures in the next page)



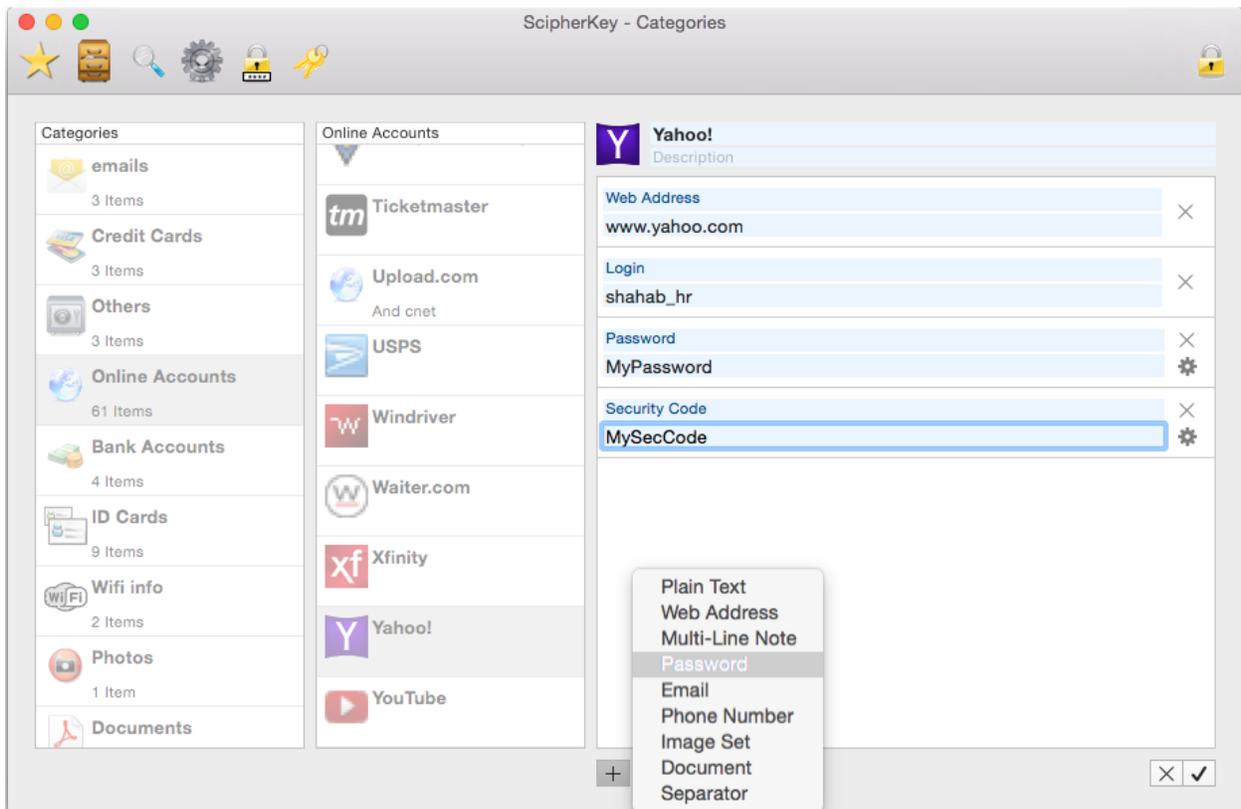
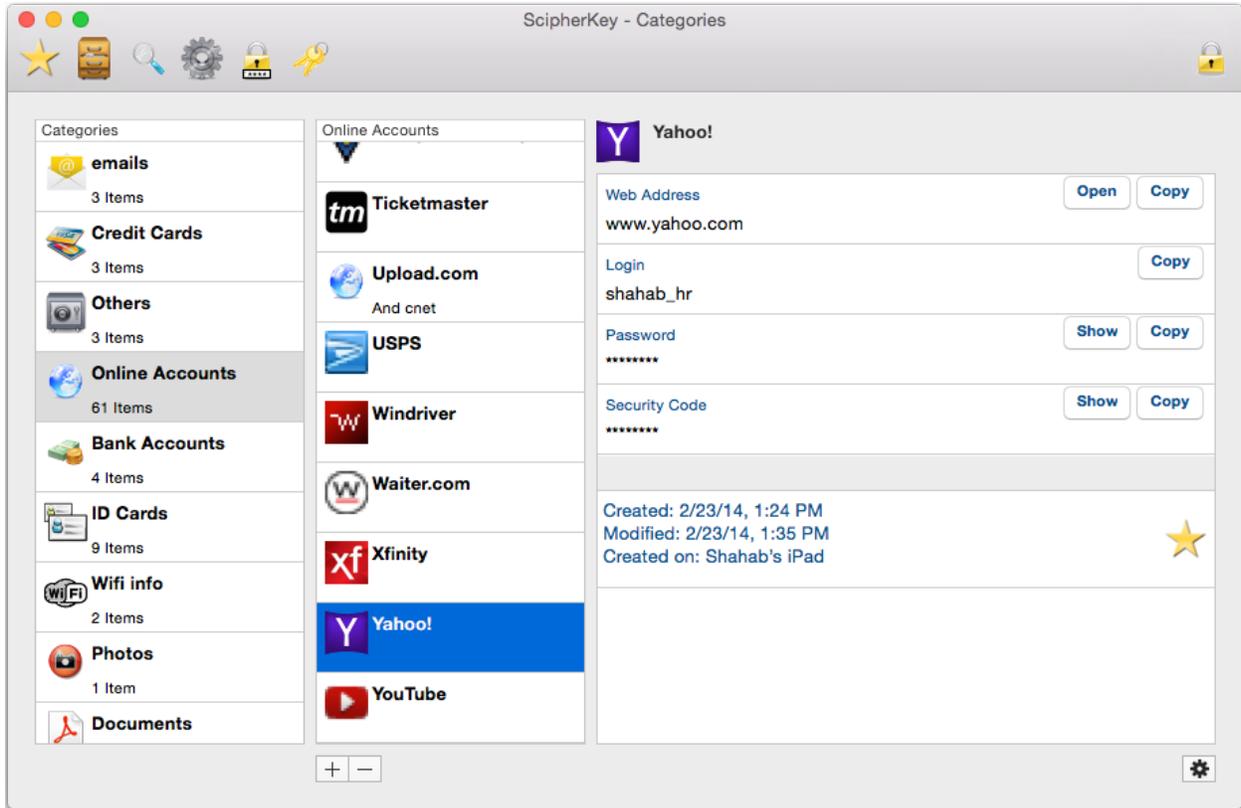


Table 1 - Field Types

Field Type	Description
Plain Text	This is a simple text field that contains one line of information.
Web Address	This type of field stores web address information. When you enter information in this field, the soft keyboard automatically changes to ease web address data entry. An “Open” button appears next to Web Address fields in the Item Details page that opens the specified web address in Safari. If the web address entered, contains a link to an Icon, ScipherKey automatically loads the icon and uses it as the item icon. For more information about how to change the icon associated with each item, please refer to Item Icons .
Multi-Line Note	This is usually used to include a short note about the item. When this field appears in the Item Details page, you can scroll the text in this field to show the hidden part of the text. Please note that if you want to have a secure note, it is better to create an item in the “Notes” category. The items in this category only include a single field to enter notes. For more information please refer to Adding Secure Notes .
Password	The information in the password field is not visible in the Item Details page by default. A Show/Hide button appears next to this field to reveal the password. This type of field is usually used to store information about passwords, PIN numbers, or any other sensitive information. At the bottom of the page, there is a “Password Generator” row. You can use this row to open the “Password Generator” page which helps you generate strong passwords. In Mac version of ScipherKey, click on the "Gear" (See previous page) button next to the password field to open the “Password Generator” page.
Email	When you enter information in this field, the soft keyboard automatically changes to ease email address data entry. An “Email” button appears next to this field in the Item Details page that opens the standard iOS user interface used to compose an email.
Phone Number	When you enter information in this field, the soft keyboard automatically changes to ease entering numbers. A “Call” button appears next to this field in the Item Details page that initiates a phone call to the specified number (on iPhone devices)
Document	This field contains a document in Portable Document Format (PDF). Using this type of field, you can attach PDF files to any item. For more information about how to attach PDF files to document fields, please refer to Working with PDF files .
Separator	This field does not keep any type of information. All it does is separating fields. You can add as many separators as you need to group the fields in an item.

Deleting a Field

To delete a field, tap on the red minus button in the left side of the field and then tap on the “Delete” button that appears on the right side of the field.

If you delete an Image Set field, all the images in the Image Set are also deleted when you tap the “Save” button.

If you delete a Document field, the associated PDF file is also deleted when you tap the “Save” button.

In Mac version of ScipherKey, you can click on the “X” button next to each field to delete it.

Reordering Fields

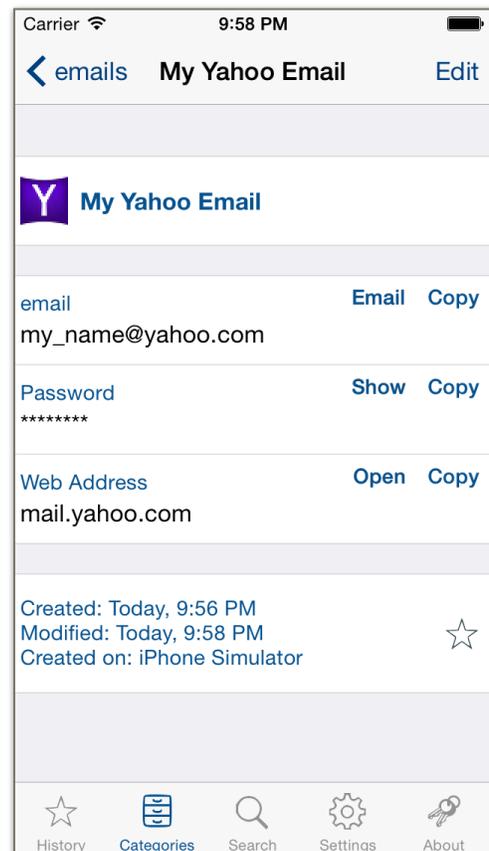
You can reorder the fields in the list by dragging the re-ordering control (3 parallel lines) on the right side of each field. In the Mac version, just click and drag a field to its new location.

Item Details Page

To see the details of each item, you can open the Item Details page. You can access the Item Details Page in different ways:

- 1) Go to the category containing the item. Then tap on the item in the list of items for that category.
- 2) Tap on the “Search” button on the tab bar at the bottom of the page, then scroll to the item and tap on it. You can also use the index letters at the right side to jump to the section starting with the selected letter.
- 3) (Easiest) Type in a few letters about the name, description, or other information related to the item in the search area. ScipherKey’s smart search feature lists the related items as you type in the information. Tap on the desired item to open the Item Details page.
- 4) You can also access your favorite items or most recently viewed items from the Favorites/History page.

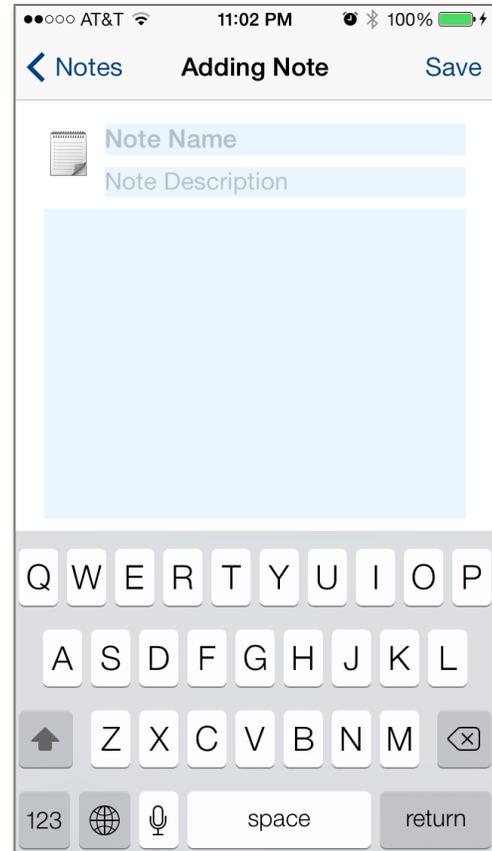
The picture on the right shows an example of Item Details page for an email account.



As you can see at the bottom of the page there is an additional field that shows the timestamps of the item’s creation and last modification times and also the device on which this item was first created. This field also includes a Star button. This can be used to mark (unmark) this items as favorite. For more information, please refer to Favorite Items.

Adding Secure Notes

Secure Notes are a special type of ScipherKey Items that contain only one field which is the note. You can edit the name, description, and the contents of the note. The Item Details page for items in the Notes category is also different from other types of items.



Secure Copy feature

In the Item Details Page, there is a “**Copy**” button on the right side of every text fields. You can use this button to copy the field value to the clipboard and then paste it in other Apps.

To explain the Secure Copy feature lets consider the following scenario:

Suppose you use the “Copy” button to copy a password and paste it in a related web page. When you are done, you lock ScipherKey and turn off your device. The problem is that your password is still in clipboard. So anyone can open the “Notes” App for example and use the paste command to reveal your password.

To protect your password fields, ScipherKey automatically replaces the copied password in the clipboard with the string “ScipherKey” about 30 seconds after you switch to the other App.

Item Icons

ScipherKey has a set of internal icons that it assigns to the items as they are created. It uses the information entered by the user to choose the appropriate icon for an item. This section explains how to assign the best icon for each item. To be able to modify an item's icon, you must go to the Edit Item page. (Tap on the **"Edit"** button from Item Details page)

Cycling through available Icons

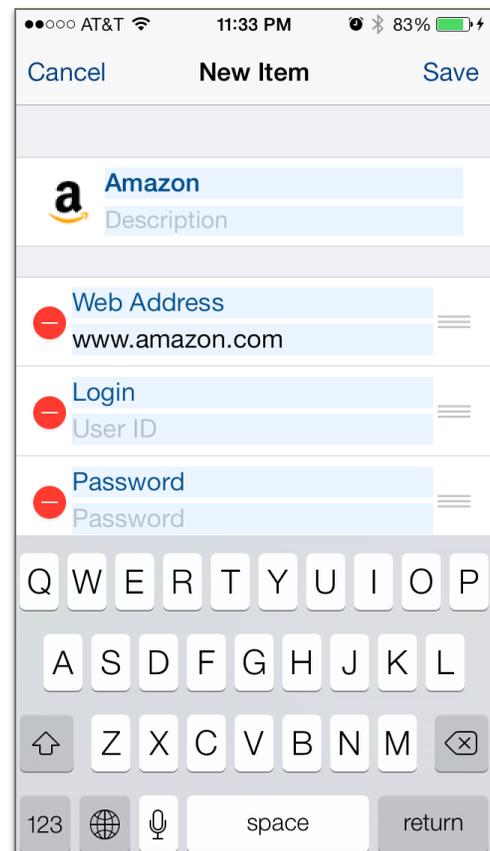
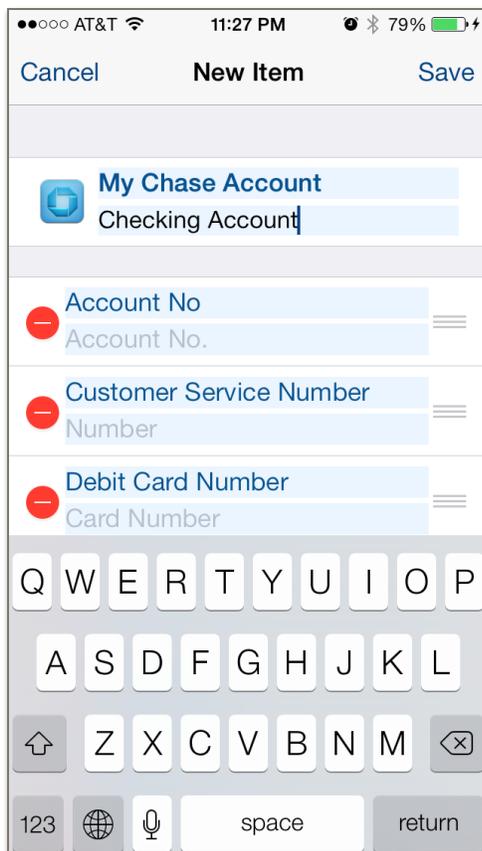
To cycle through available icons for an item, you can tap (or click in Mac version) on the icon in the Edit Item page. ScipherKey displays all available icons for the specified category one by one as you tap on the icon. Once you find the desired icon, tap on the **"Save"** button to assign the selected icon to the item.

Automatic Icon selection based on Name and Description

For items in Credit Cards, Bank Accounts, and email categories, as you enter the name and description fields, ScipherKey automatically finds an icon that matches the entered information. You can still change the icon by tapping on it, or assigning one from the related web site.

Automatic Icon Download

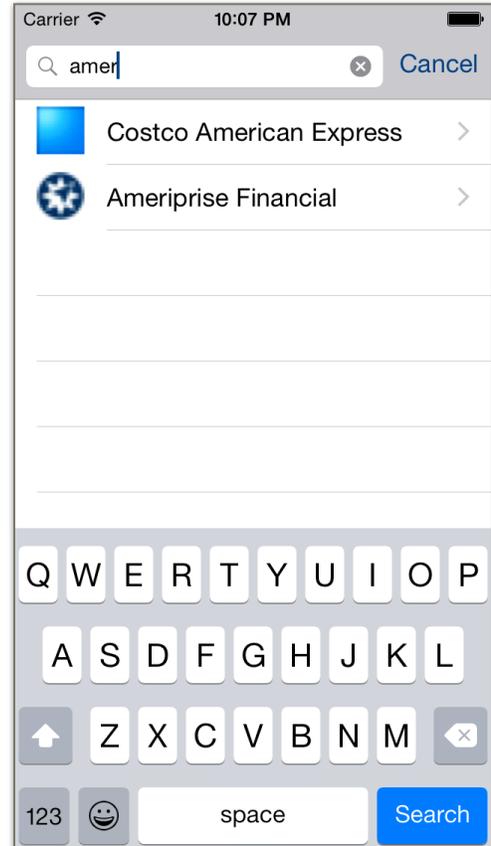
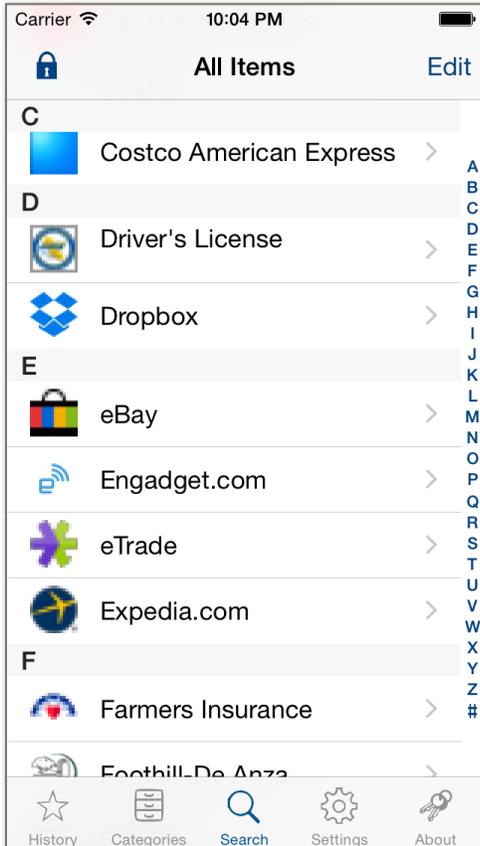
In items containing a web address or email field, as you enter information in the field, ScipherKey automatically checks the web address and tries to download an icon from the web site. If an icon is available on the web site, ScipherKey automatically assigns the downloaded icon to the item. If you don't like the downloaded icon, you can still change the icon by tapping on it.



Searching ScipherKey Items

ScipherKey comes with a smart search feature that lets you quickly find what you are looking for. In most cases using this feature is the fastest method of opening the item even if you know in which category your item is.

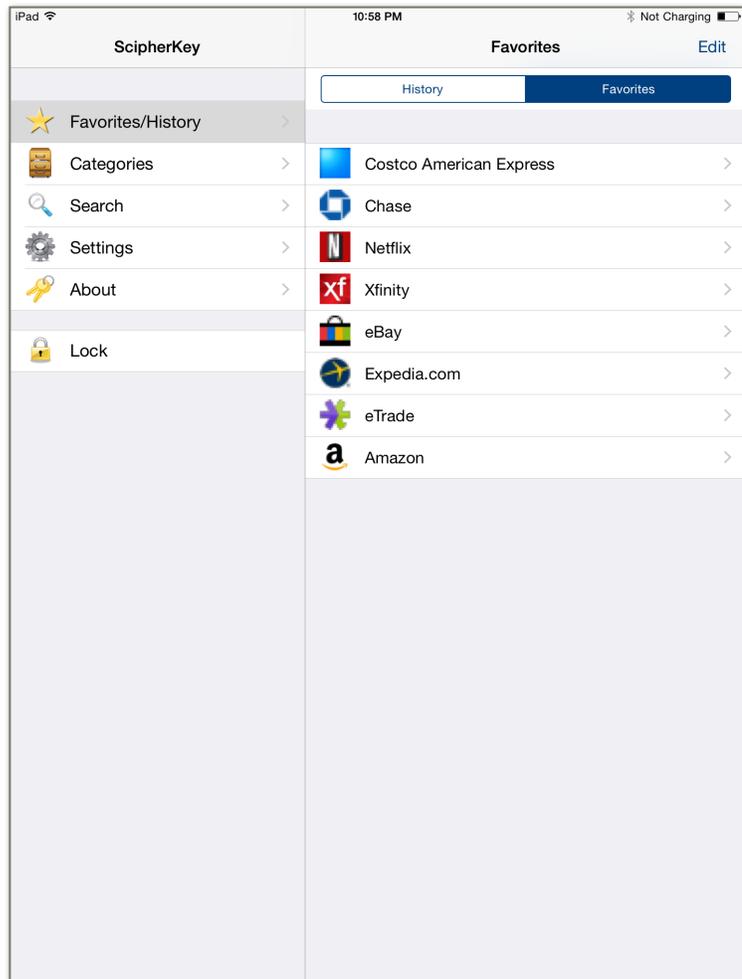
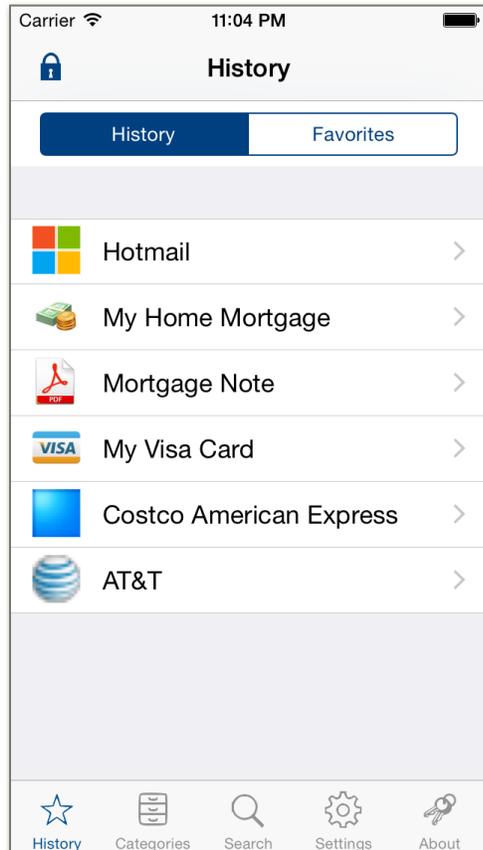
To search for a string in all items, tap on the search button to open the search page. As you start typing in the search bar, ScipherKey automatically filters the list and displays only the items that contain your text. ScipherKey searches all the fields (except the password fields) in all the items for the specified text.



Favorites/History Page

ScipherKey version 2 and later comes with a new page that allows you to access your favorite item easily.

To add an item to the “Favorites” list, you can just tap on the star icon that appears in at the bottom of page when you open the item details page. When an item is in the favorites list the star icon will appear in gold color.



To remove an item from the Favorites list, just tap on the star icon again. To reorder the items in the Favorites list, tap on the “Edit” button and drag the items and drop them to the desired location.

The History list contains a list of the most recently viewed items. Whenever you view an item, it automatically enters the History List.

Working with Image Sets

The Image Sets field is a powerful feature in ScipherKey with lots of applications. You can use it to securely save any type of image including picture of sensitive documents or pictures that you don't want to be accessible to every one for any reason.

Each Image Set field can store many pictures. The number of images is only limited by the amount of memory you have on your mobile device. However, please note that ScipherKey is not designed to be used as a photo album app. Adding lots of images to items in ScipherKey can affect the performance of the application specially when synchronizing between devices.

The following paragraphs explain basic tasks related to Image Sets.

Creating an Image Set Field

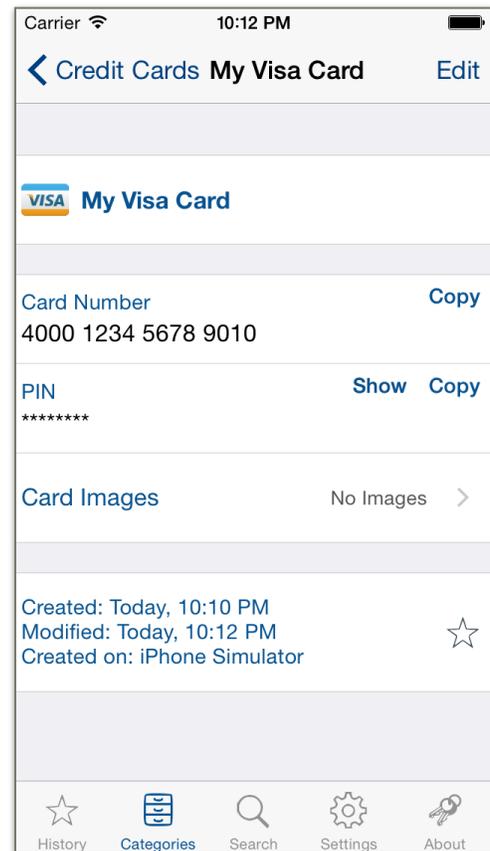
To add an Image Set field to an Item, open the item in the Item Details page and tap on the “**Edit**” button on the top right corner of the page.

In the Edit Item page, scroll all the way down to reveal the “**Add New Field**” row. Tap on the green plus sign and select “**Image Set**” from the list of available fields.

A new Image Set Field is added after the existing fields. Enter a name for this Image Set in the “**Label**” area.

Tap on the “**Save**” button on the top right corner of the page. This saves the changes and returns you to the Item Details page.

The picture on the right shows the Item Details page for a Credit Card item with an Image Set field (Card Images) that was just created.



Adding Images to an Image Set

After creating an Image Set field, you can add images to it in from the Item Details page. Tap on the Image Set field in the Item Details page. This opens the Image Set page. This page shows all the images in the Image Set in a grid of thumbnails.

To add an image to the Image Set, tap on the plus button on the top right corner of the page. This opens the “**Add New Image**” page. (Right)

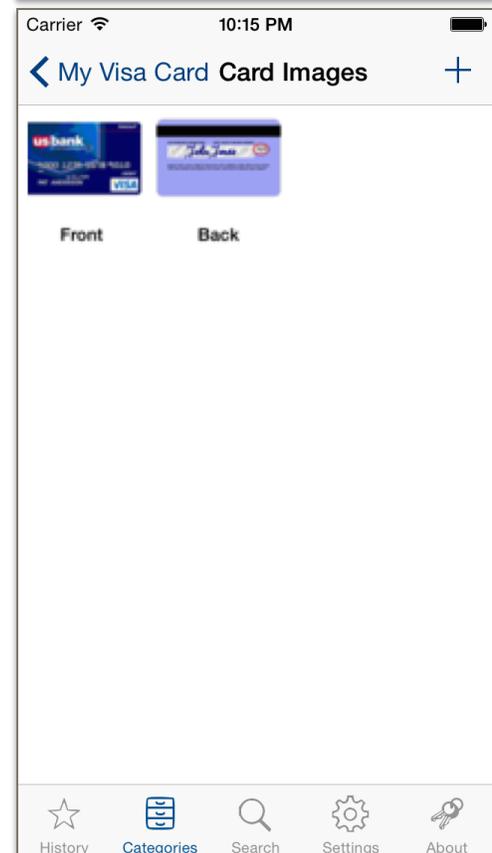
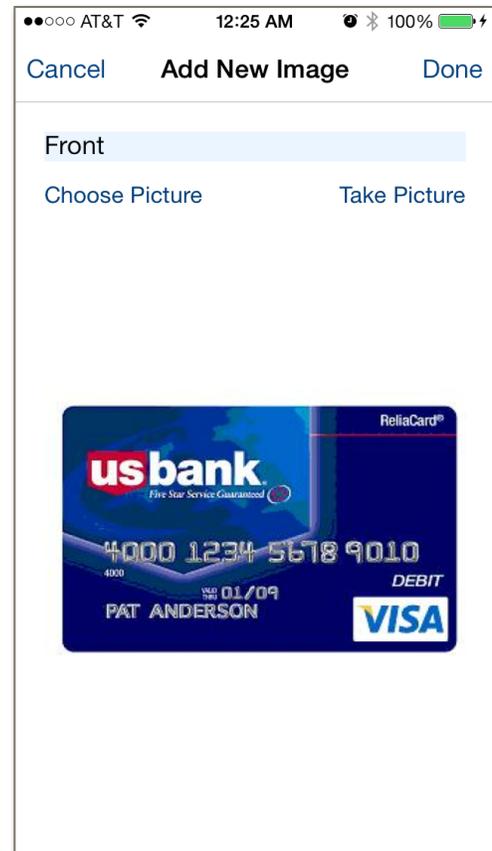
Enter a name for the image in the “**Image Name**” field.

To select an image from the Picture Gallery on your mobile device, tap on the “**Choose Picture**” button. This opens your picture gallery and you can select a picture.

To take a picture and add it to the Image Set, tap on the “**Take Picture**” button. This opens the standard Camera app on your device and you can take a picture.

When you are done with the name and the image, tap on the “**Done**” button on the top right corner of the page. This saves the information you entered and returns to Image Set page. You can see that your new image appears as a new thumbnail in this page. You can tap on the thumbnail to open the Image Details page and display the image in full screen mode.

In the Mac version of ScipherKey, you can drag image files (from finder) into the ImageSet page. Alternatively you can also use the “+” button to browse and select the desired image file.



Displaying an image in full screen mode

You can tap on a thumbnail in the Image Set page to display it in full screen mode. In this page, you can double tap or pinch to zoom in/out.

Tap on the picture to show/hide a toolbar at the bottom of the page. Tap on the “**Done**” button on the lower left corner of the page to return to the Image Set page.

Tap on the action button on the lower right corner of the page to open a list of available commands.

In the Mac version of ScipherKey, just double click on any image to show it in the full view.



Deleting an Image from an Image Set

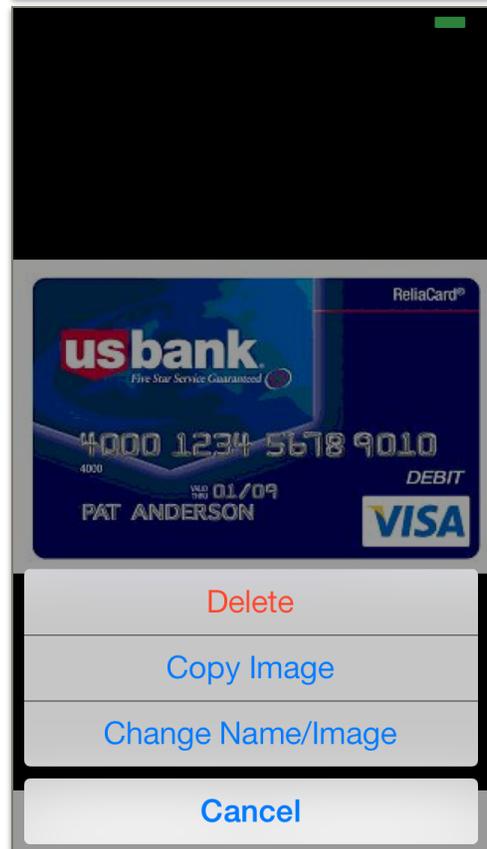
To delete an image, tap on its thumbnail in the Image Set page to open the Image Details page.

Tap on the image to show the toolbar at the bottom of the page (If it is not already displayed).

Tap on the action button and select “**Delete**” from the list of actions.

This deletes the image from the image list.

In the Mac version, just click on the “-“ (Minus) button to delete the image from the ImageSet.



Changing an Image in an Image Set

You can change the name of an image or choose a different image for each image in an Image Set.

To modify an image, tap on its thumbnail in the Image Set page to open the Image Details page.

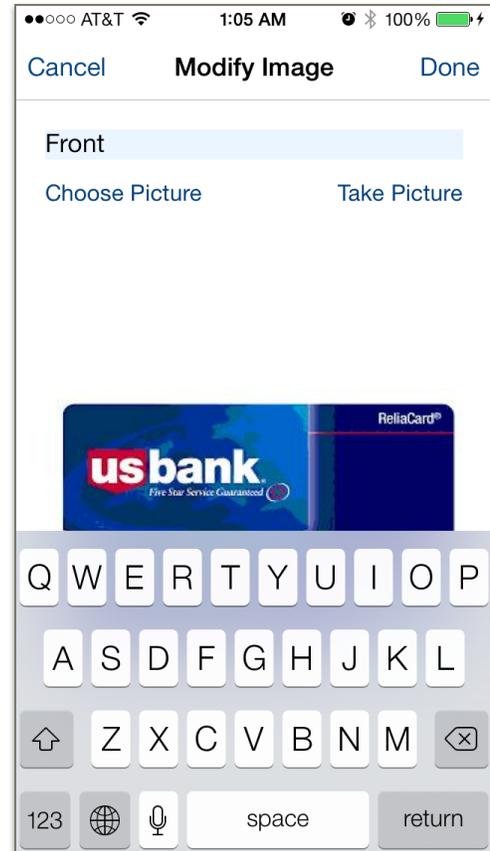
Tap on the image to show the toolbar at the bottom of the page (If it is not already displayed).

Tap on the action button and from the list of actions select **“Change Name/Image”**.

This opens the **“Modify Image”** page and you can modify the image name and/or select a new Image.

When you are done, tap on the **“Done”** button on the top right corner of the page. This saves your changes and returns to the Image Set page. The thumbnail of the image is updated with the new name/image.

In the Mac version, click on the name of each image to rename it. To change, the image, you need to delete it and add a new image.



Copying an image to clipboard

To copy an image to clipboard, tap on its thumbnail in the Image Set page to open the Image Details page.

Tap on the image to show the toolbar at the bottom of the page (If it is not already displayed).

Tap on the action button and from the list of actions select **“Copy Image”**.

This copies the image to the clipboard. You can now paste it in other apps. For example you can paste it in an email message if you want to send it to an email recipient.

Working with PDF files

PDF is the most common file format for sending, receiving, and storing important documents. More and more companies nowadays use PDF file instead of traditional paper work. These PDF files often contain sensitive information such as your SSN or bank account numbers.

With ScipherKey, you can securely have all your documents with you all the time. You can put a set of related documents in an item or create different items for each document. The original document does not need to be a PDF file:

- ★ A document created by Pages, Numbers, or Keynote can easily be converted to a PDF file. Simply tap on the action button on the tool bar of these apps, select **“Open in Another App”** command, and then select PDF.
- ★ A Microsoft Word or Excel document can be opened in Pages or Numbers respectively and then converted to PDF file as explained above.
- ★ A simple text file can be copied and then pasted in Pages, and then converted to a PDF file.
- ★ There also lots of Apps available from App Store that can convert a picture to PDF file. So you can take a picture of a document and then create a PDF file.

Creating a Document Field

To add a Document field to an Item, open the item in the Item Details page and tap on the **“Edit”** button on the top right corner of the page.

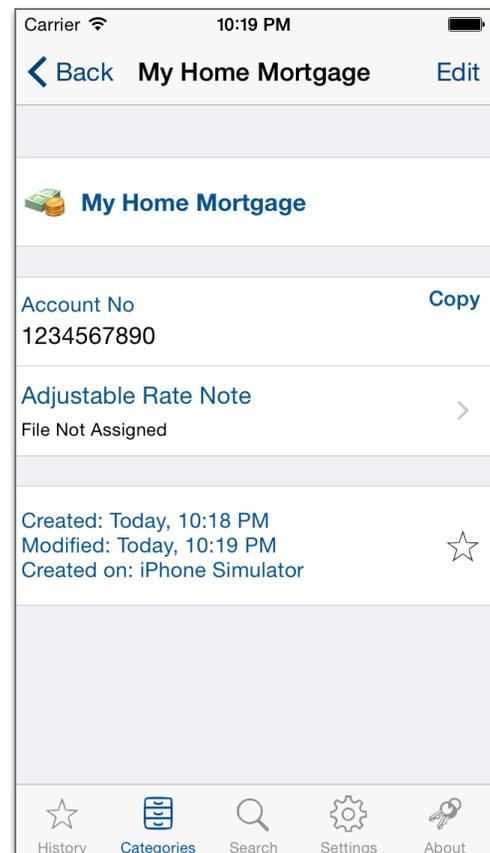
In the Edit Item page, scroll all the way down to reveal the **“Add New Field”** row. Tap on the green plus sign and select **“Document”** from the list of available fields.

A new Document Field is added after the existing fields. Enter a name in the **“Label”** field. This is the name of Document that will be added to this item. You can change the document name later by opening the Edit Item page.

Tap on the **“Save”** button on the top right corner of the page. This saves the changes and returns to the Item Details page. As you can see a new Document Field appears in the Item Details page.

The picture on the right shows the Item Details page for a sample home mortgage account with the new document which is supposed to store the **“Adjustable Rate Note”** document for the mortgage.

As you can see the field shows the text **“File Not assigned”**. This means a PDF file has not been associated with this field yet.



Assigning a PDF file to a Document Field

To be able to associate a PDF file to a Document field in an Item, ScipherKey needs to “receive” the PDF file. A PDF file can be received in any of the following ways:

- ★ Selecting **“Open in Another App”** in an application that owns the document. This includes the documents created by Pages, Numbers, Keynote, or any app that stores and/or creates PDF files. When the document is converted to PDF, you can tap on the **“Choose App”** button and then select the **“Open in ScipherKey”** button.
- ★ Receiving the PDF file as an attachment to an email. You can tap on the attached document in the email App to open the document. When the PDF document is open, you can tap on the action button and select the **“Open in ScipherKey”** button.

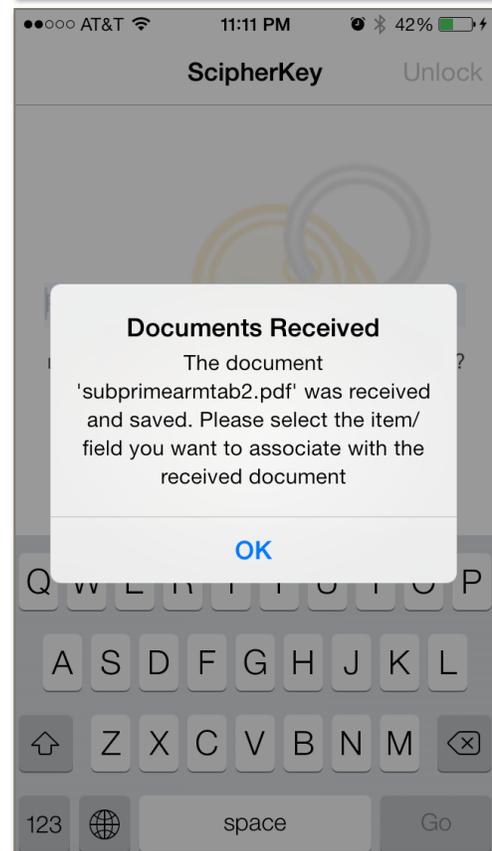
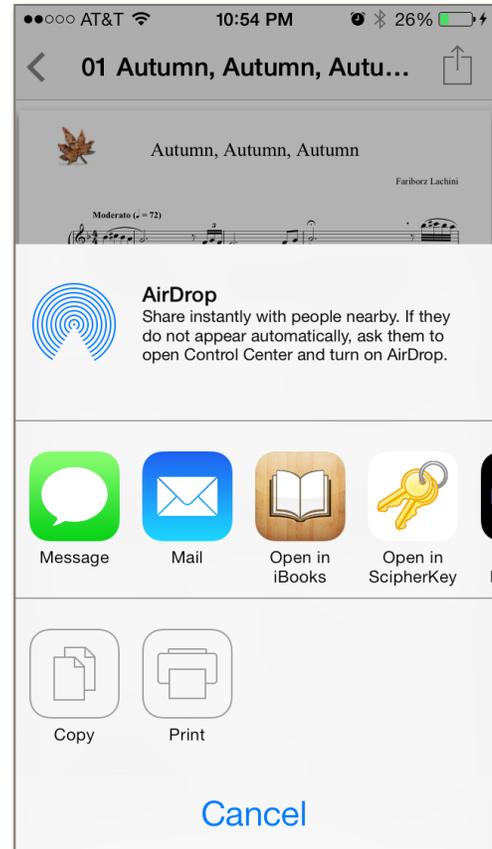
The picture on the right shows the options available when the action button is selected. In this case the PDF Document “Autumn, Autumn, Autumn” was received as an email attachment and was opened in the iOS’s standard PDF viewer.

When you tap on the “Open in ScipherKey” button, ScipherKey is automatically launched and a message box confirms that the PDF file was received by ScipherKey.

The picture on the right shows the message box confirming that the document “Subprimearmtab2.pdf” was received by ScipherKey.

ScipherKey keeps the received document in a temporary location until you assign it to a document field in an item.

To assign the received document to a document field in an item, you need to navigate to the item and open the Item Details page.



In the Item Details page, you can tap on the document field that will contain the received PDF file.

A message box appears showing the received document name and 3 options:

To associate the specified document with the selected field, select **“YES”**.

If you don't want to associate the document to this field, select **“NO”**. The document stays in the temporary location and you can still assign it to other document fields.

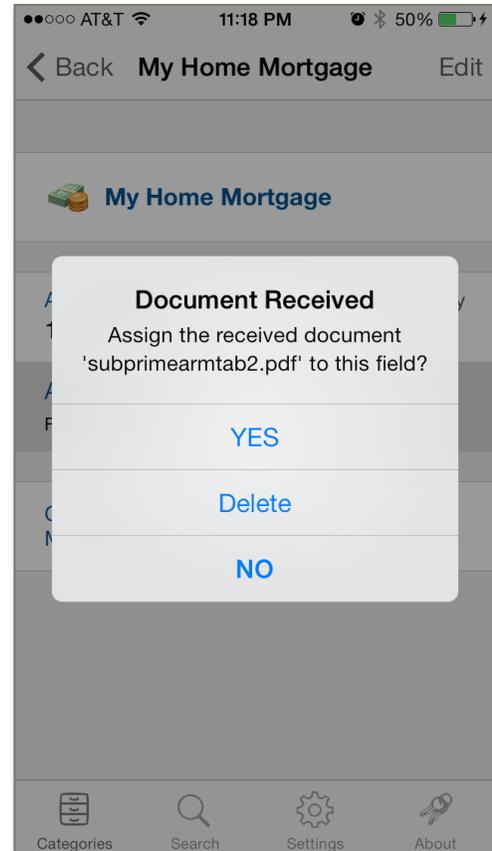
If you don't want to associate the received file to any document field, select **“Delete”**. This deletes the received document from the temporary location.

If you select **“YES”**, ScipherKey removes the document from the temporary location and saves an encrypted version of the document in its database. The received PDF file is now associated with the document field. To open the file, you can simply tap on the document field.

Notes:

- ★ When a document is received and saved in the temporary location, it is not in the encrypted format. So, it is important to associate the files to the corresponding document fields as soon as possible.
- ★ If ScipherKey receives multiple documents before assigning them to document fields, they are all saved in the temporary location and are available one by one to be assigned to the document fields. In this case you need to assign or delete the first received file before the next one becomes available to be associated to the next document field.
- ★ After assigning a PDF file to a document field, you cannot change the document. To assign a different PDF file, you need to delete the field, create a new document field, and then assign the new PDF file to the new document field.

In Mac version of the software, when you click the **“View”** button the first time after the creation of the Document field, an **“Open”** dialog box appears that allows you to find your PDF file and assign it to the field.



Password Generator

A Password Generator is provided in ScipherKey as a utility that can be used to create strong passwords. It randomly generates passwords based on the criteria selected by the user.

It is available at the bottom of the page when you are creating a new item or modifying an existing one.

Password Generator works in 2 different modes: “Strong” and “Meaningful Words”. For both modes you can change the length of generated password using the stepper control (the -/+ buttons).

To generate a new password select the mode and the related settings for the selected mode, then tap on the “**Generate Password**” button. You can also copy the generated password and paste it in the password fields in ScipherKey and/or on your online accounts in Safari.

Strong Mode

In “**Strong**” mode you can choose to include Symbols, Numbers, and Uppercase characters in the generated password. ScipherKey randomly picks from the selected sets of characters and creates a password.

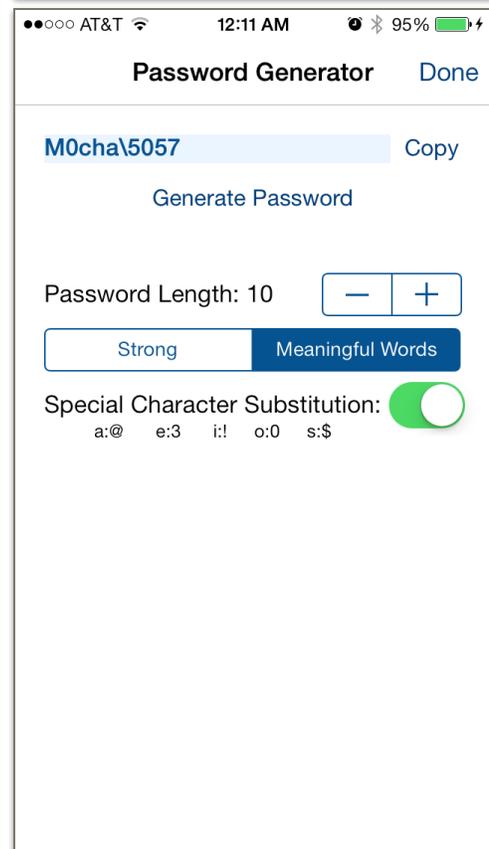
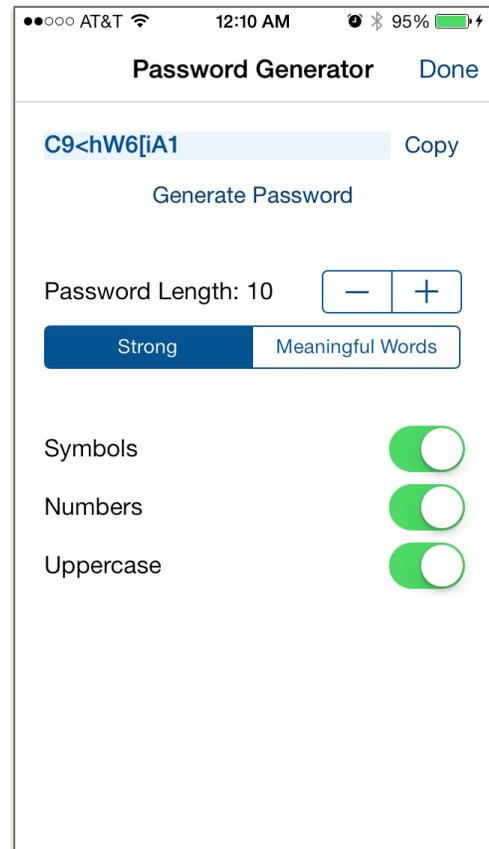
The passwords generated in this mode are usually stronger, but harder to memorize.

Meaningful Words Mode

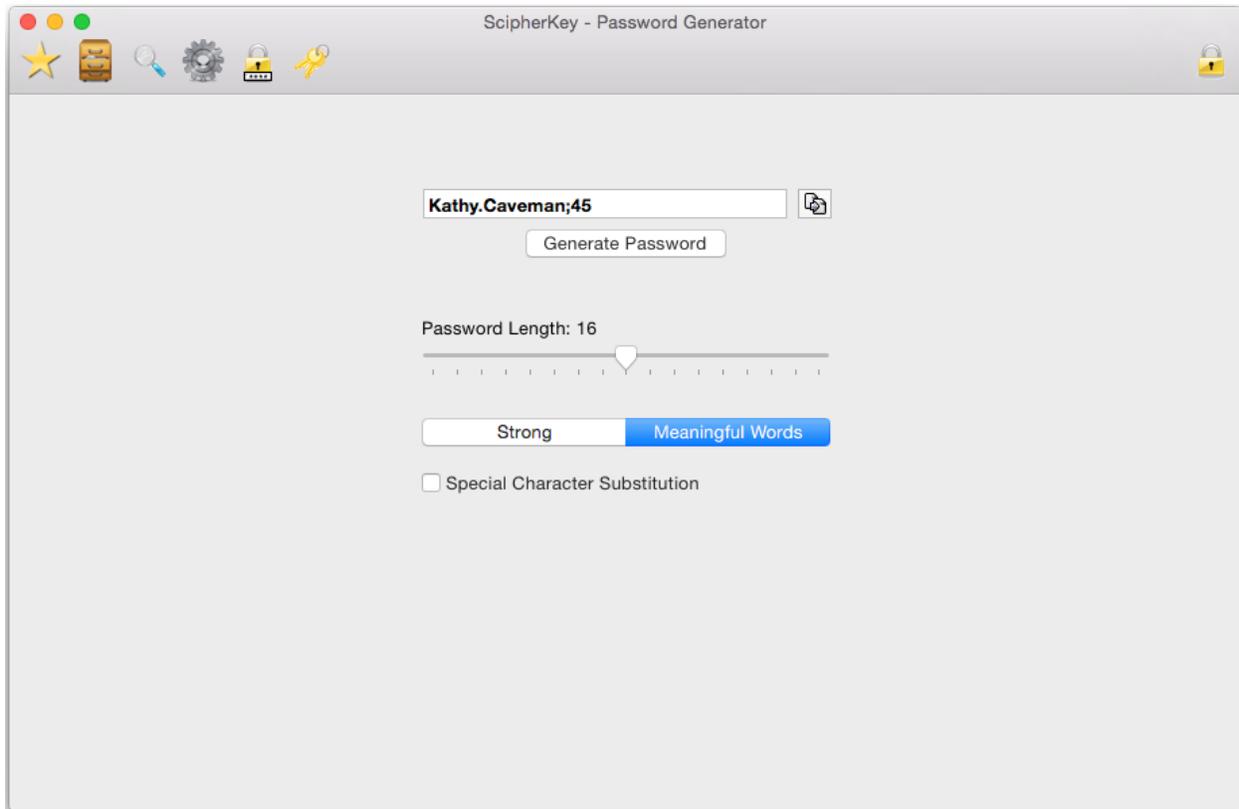
In the “**Meaningful Words**” mode, Scipherkey randomly picks words from the English dictionary and uses them to create passwords. In this mode ScipherKey always includes at least one Uppercase character, one number, and one special character.

The “**Special Character Substitution**” option in this mode causes the ScipherKey to replace some letters with a similar number or special character. When this option is turned on, ScipherKey replaces the occurrences of: “a” with “@”, “e” with “3”, “i” with “!” , “o” with “0”, and “s” with “\$”.

The passwords generated in this mode are not as strong as the “Strong” mode, but they are easier to memorize.



The Password Generator on Mac version of ScipherKey is also available from the toolbar. The functionality of this feature is exactly similar to the iOS version of the App.



Password Generation Tips

Please note that the Password Generator tool explained here is just a random text generator. It is very unlikely but possible that it randomly generates a weak password! (such as your son's name) So, it is recommended to use your common sense when choosing the passwords generated by this tool.

The following suggestions may help you generate and use stronger passwords:

- ★ Avoid using secrets or information that can be related to you personally. Before making decision to use the generated password, think about it for a while and make sure it has no connection to any of your personal information and secrets.
- ★ Passwords with dictionary words are usually weaker than random characters. Since you are using ScipherKey you may not need to memorize your passwords for some items. So, it is recommended to use long random string of characters where possible.
- ★ The max length for the password in this tool is 24. If you want super strong passwords, you can run the tool multiple times and combine the results to create a longer password.

- ★ Dictionary words are weaker passwords because of their predictability. For example if a hacker some how finds out that the first 4 letters of the password are “craz”, it looks very obvious that the next letter is probably going to be “y”. So, if you decide to use dictionary words, do include unpredictable spelling errors in your password.
- ★ As you may know the random numbers generated by computer devices theoretically are not considered random, because the same results can come up again under exact same conditions. To improve the randomness, ScipherKey uses a combination of operating system APIs and customized algorithms. If you want to use dictionary words in your password and you want to be sure that the words are %100 random, you may want to consider using Diceware.

Synchronization

Overview

One of the unique features of ScipherKey, is the way it synchronizes your information between your devices. You can change your items on any of your devices and after synchronization, all devices will have all the changes. You can even change different fields of an item on 2 different devices. When you synchronize the devices, ScipherKey automatically merges the changes so the item will include the changes made on both devices.

This includes the items that have Image Sets and Document fields. ScipherKey compares the information on both devices and transfers only the changed files.

There are some cases when some items are changed on both devices and ScipherKey cannot decide which one to use. When this happens, ScipherKey shows these conflicting items one by one and lets you decide which one to use.

During the synchronization, the devices communicate directly. You don't need to be connected to the internet. In fact you don't even need be connected to a hotspot or a Wifi router. ScipherKey uses the new *"Multi-Peer Connectivity"* technology introduced in iOS 7 and OS X Yosemite.

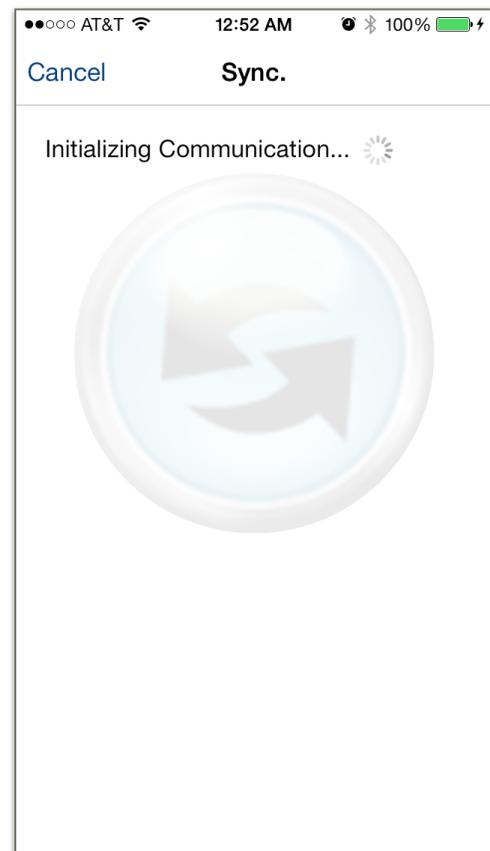
The information sent between the devices (including image and document files) is protected by military grade 256-bit AES encryption using your password to create the encryption key. So, it is practically impossible to extract the information by sniffing the communication.

Since your password is used in the encryption of the information sent and received during the synchronization, you must use the same password on all your devices. Otherwise, the device at the receiving side cannot decrypt the information.

ScipherKey only uses Symmetric Keys for encryption. It means it does not exchange any keys between the peers. So even if someone somehow finds a way to sniff the communication during the synchronization, the information about the encryption key is not there.

Synchronizing Devices

To synchronize two devices, you need to start it on one device and then continue and finish it on the other one. If you are synchronizing an iPhone with an iPad, it is recommended to use iPhone as the first device to start the synchronization and use iPad as the second device. This is because iPad has more UI space and can provide more information during the synchronization and handling conflicts.



To start the synchronization, on the first device, go to the “**Settings**” page, scroll down all the way and then tap on “**Sync Now**” to open the “**Sync**” page.

Wait until communication initialization is complete, and the status text in the page reads “Waiting for connection...”.

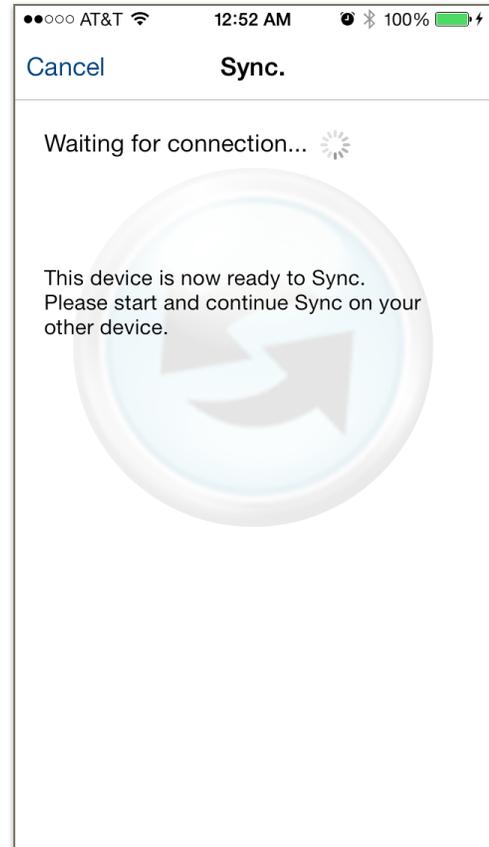
Now on your other device, again go to the “**Settings**” page and tap on the “**Sync Now**” to open the “**Sync**” page. It searches for nearby devices and detects your first device. It then shows the information about the detected device and the last time it was synchronized.

Make sure the detected device is the one you just started the synchronization. Then tap on the “**Sync Now**” button. This causes the 2 devices to connect to each other and start transferring information. In normal cases the synchronization is completed without further interactions.

In some cases, there may be some conflicting changes for the same item on 2 devices. When this happens, ScipherKey displays the conflicting items and lets you decide which version of the item to keep. For more information about resolving conflicting items, see the next sections.

Notes:

- ★ Do not interrupt the synchronization process by powering off any of the devices or switching to another apps.
- ★ If the passwords on the 2 devices are different, the synchronization will fail. You need to change the password on one of the devices to match the other one, and then try again.
- ★ The version of the ScipherKey app must be the same on both devices, otherwise the synchronization will fail.
- ★ If you have many changes to your Image Sets and Documents since last Sync, the synchronization between your devices may take longer. In this case ScipherKey's auto-Lock feature may lock the software, but the synchronization process continues in the background.



What is a Conflict?

Most of the time ScipherKey can automatically merge your changes on your devices without user intervention. However in some situations such as when the same fields of the same item has been changed on both devices, it needs your help to decide which version of the item it should keep.

Here is the list of situations that cause a conflict during the synchronization:

- ★ An item was deleted on one device and later modified on the other device.
- ★ An item was changed on both devices in a way that number of fields on the two devices does not match anymore.
- ★ An item was changed on both devices and item name, description, or icon does not match anymore.
- ★ At least one field of an item was changed on both devices.

When an item is changed on both devices, ScipherKey can resolve the conflict automatically if:

- ★ The name, description, or icon was not changed.
- ★ The number of fields remain unchanged.
- ★ None of the fields was changed on both devices.

For example if you change the login information for an item on your iPad and then change the password information for the same item on your iPhone, ScipherKey can automatically merge your changes at the time of synchronization. After the Synchronization, the item will have the correct new login and password information on both devices.

During the Synchronization, ScipherKey first compares the data base on devices, and finds all the conflicting items. If there is no conflicting item, it synchronizes the items without any more user interactions.

If there are one or more conflicting items, it shows the “**Resolving Conflicts**” page. This page allows you to navigate through all conflicting items.

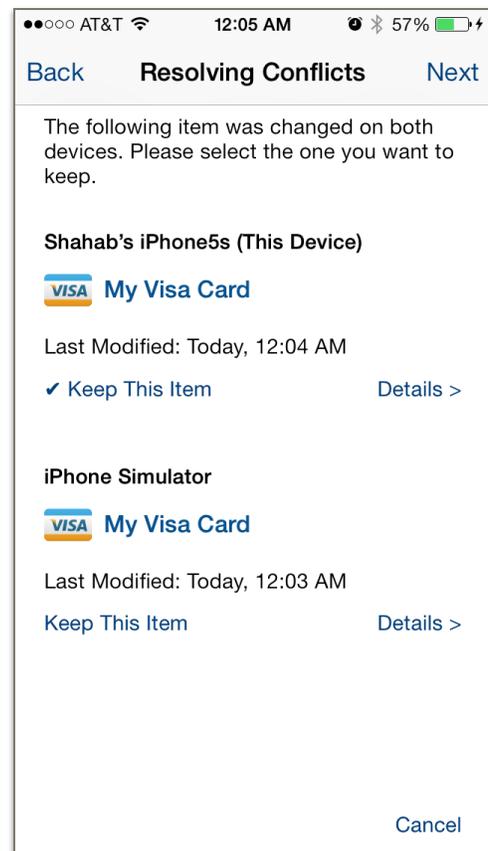
On iPhone, the summary information for the 2 versions of a conflicting item is displayed in the page. You can tap on the “**Details**” button to open the Item Details page and see the detail information about the two versions of the item.

On iPad and Mac the detail information of the conflicting items are displayed side by side. (See next page)

Selecting the item to keep

For each conflicting item, select the version you want to keep by tapping on the corresponding “**Keep This Item**” button.

A check mark appears next to this button as you make your selections.

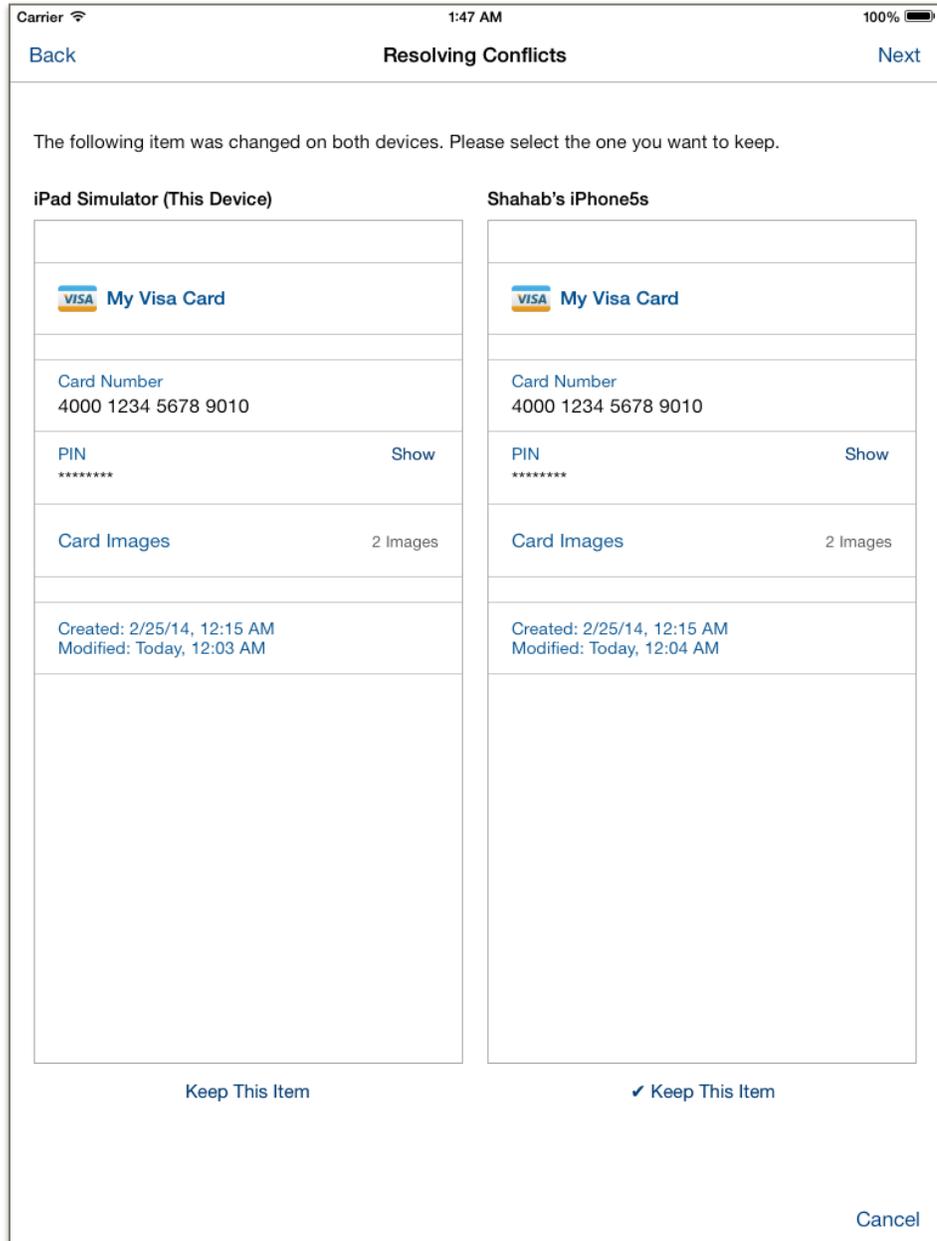


Navigating through conflicting items

You can use the top corner buttons (“**Next**” and “**Back**”) to navigate through all conflicting items. When you reach to the last conflicting item, the “**Next**” button on the top right corner changes into

“**Done**”. If you tap on this button, ScipherKey continues with the synchronization and applies all your selections for the conflicting items.

When reviewing the conflicting items, if you decided that more changes are needed on the items before they can be synchronized, you can tap on the “**Cancel**” button on the lower right corner of the page. This cancels the synchronization and now you can go back to any of your devices and modify the item before your retry the synchronization.

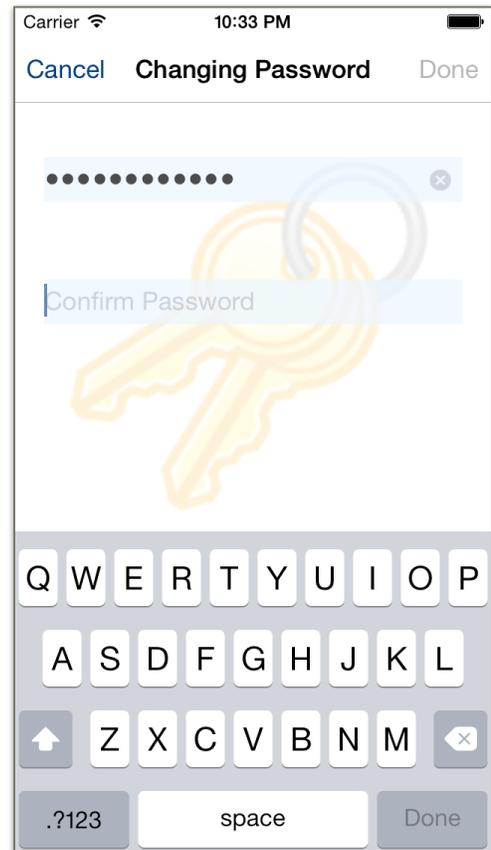
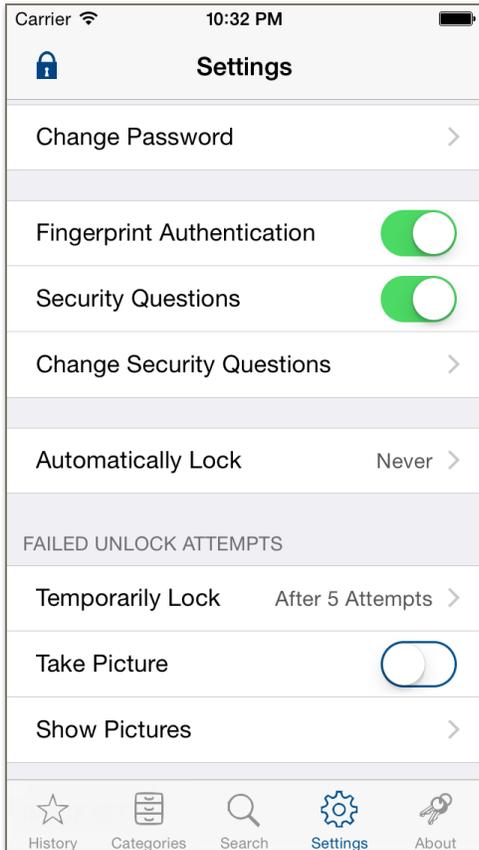


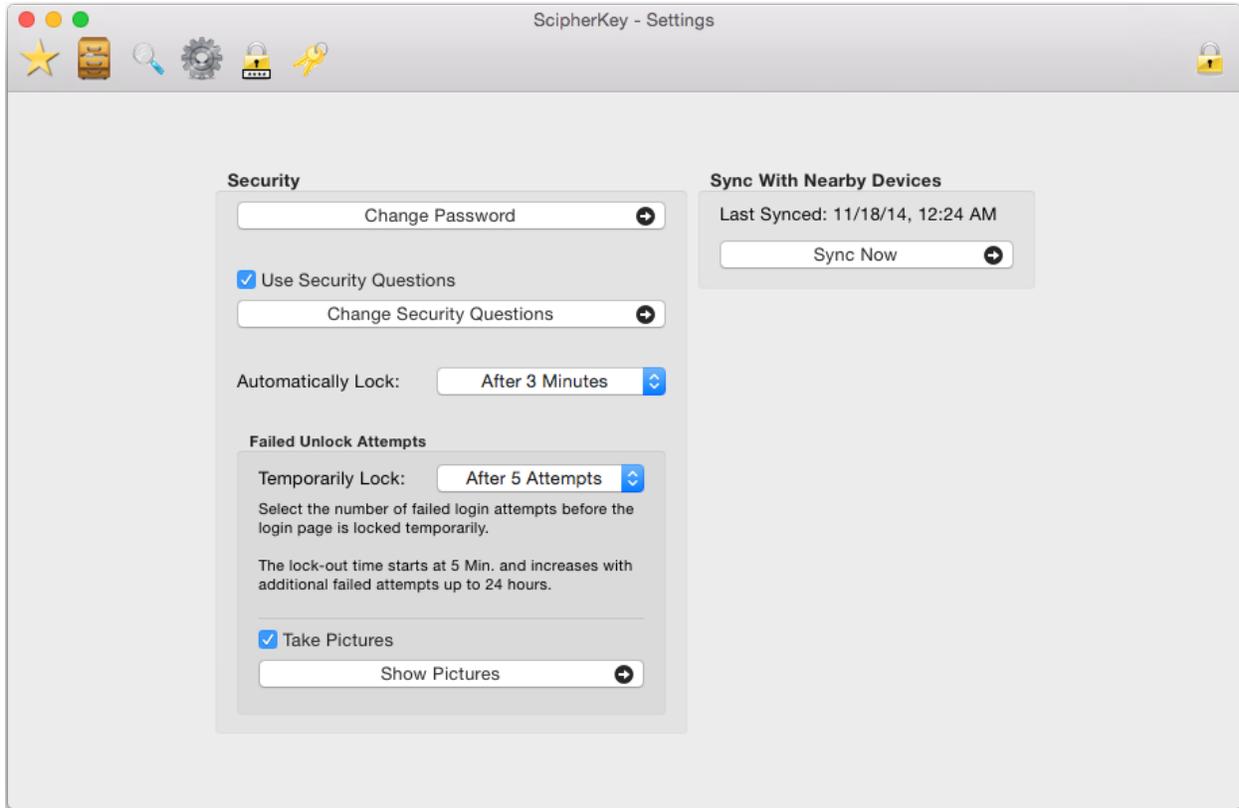
Initial Synchronization after installation

Suppose you have already installed ScipherKey on one of your devices and entered your information on that device. When you install Scipherkey on your other devices, it is recommended to synchronize your information the first time you configure your new ScipherKey installation.

ScipherKey Settings

Using the settings page, you can change ScipherKey's behavior and configuration. This section explains these settings.





Changing your ScipherKey password

To change your ScipherKey password, go to the “**Settings**” page and tap on “**Change Password**”. This opens the “**Changing Password**” page. Enter your current password, then enter your new password.

Confirm your new password and then tap “**Done**”. ScipherKey then creates a new encryption key based on your new password and re-encrypts all of your information, images, and documents using your new password.

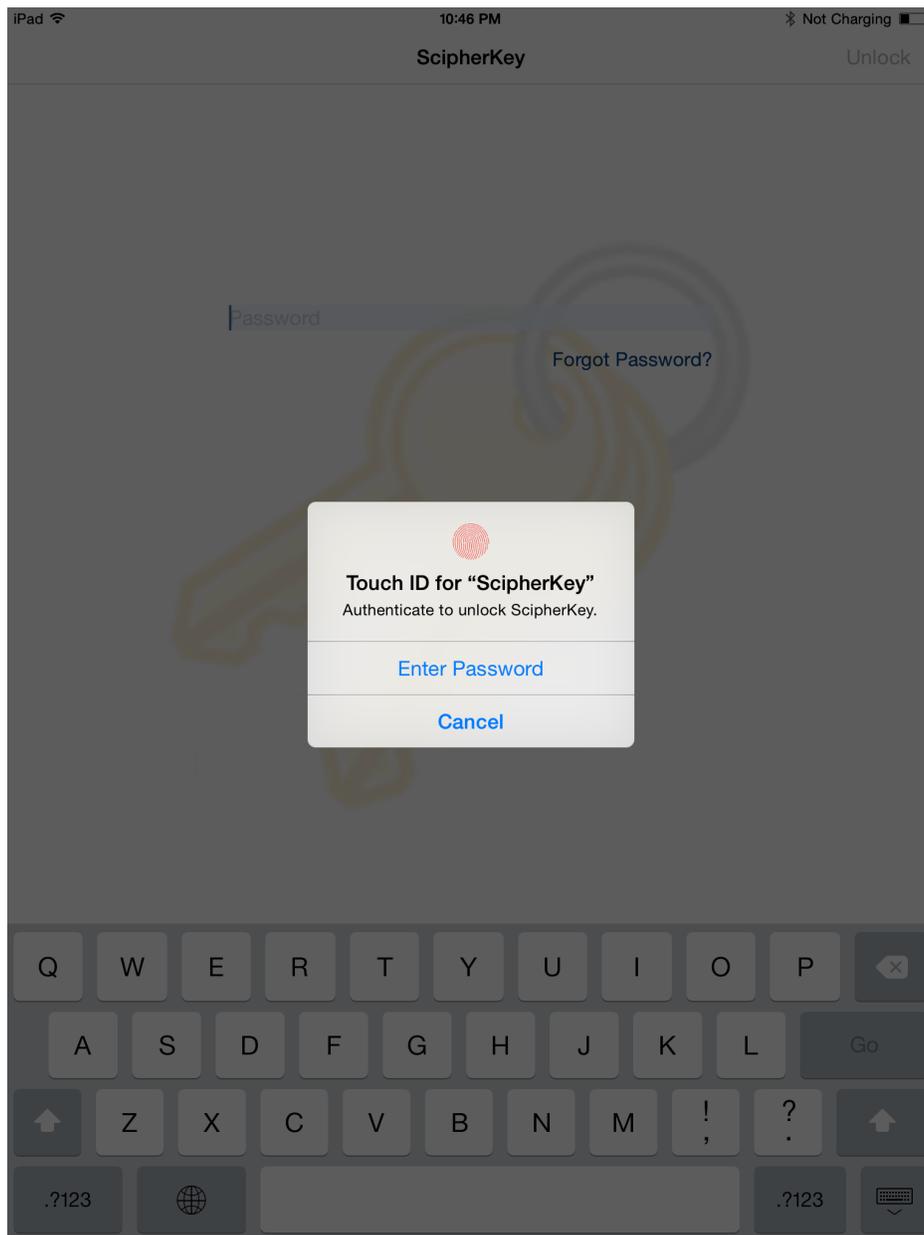
Remember: to be able to synchronize your information, you must use the same password on all your devices.

Fingerprint Authentication

In version 2 later of ScipherKey you can unlock the App using your fingerprint. This feature is only available on the devices equipped with biometric hardware (for example iPhone 5s and 6 or iPad Air 2) and running iOS version 8 or later.

To enable this feature, turn on the **“Fingerprint Authentication”** switch in the settings page.

When this feature is enabled, whenever the login page of the App appears, it will show the **Touch ID for “ScipherKey”** box and you can unlock the App using your fingerprint or you can just choose the **“Enter Password”** or **“Cancel”** options to go back to the original login page.



Using Security Questions

In the **“Settings”** page, you can change your options to use security questions to unlock ScipherKey in case you forget your passwords.

To enable this feature, turn on the switch **“Use Security Questions”**. When you turn this on, the **“Security Questions”** page appears.

You can choose two security questions and enter the answer to these questions in this page.

Selecting a question

To change the question, tap on the **“Select a different question”** button. This shows a list of available questions. As you make your selection, current question changes to the one you selected. When you are done, tap on the **“Answer”** field to enter the answer to the selected one from the list.

Using custom questions (Recommended)

To enter your own question, tap on the **“Select a different question”** button to reveal the questions list. Scroll all the way down and select **“Other Question”**.

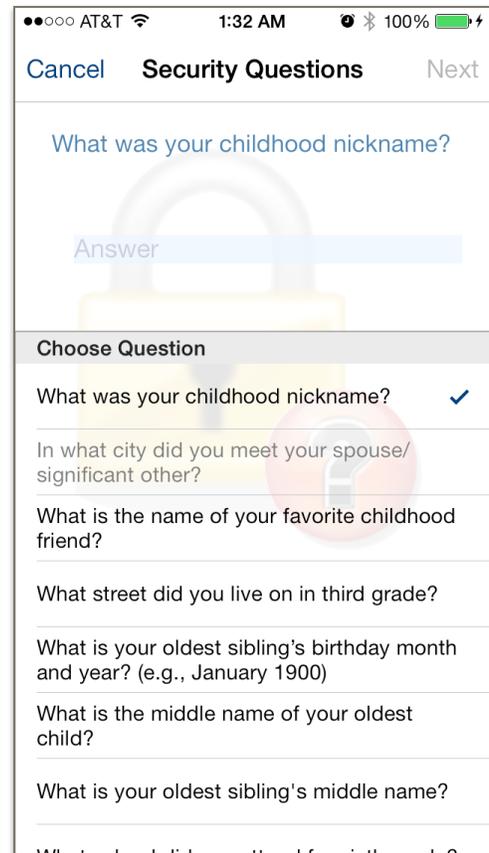
As you select this row, the list disappears and you can enter your question in the question field, and then enter the answer to your question in the **“Answer”** text field.

You cannot use the same question twice. For example if you are making your first selection, the item currently selected for your second question is disabled in the list. When you move on to select your second question, the one selected for your first question is disabled in the list.

Your security questions are just a way to reset your password in case you forget it. It is not used when encrypting/decrypting your information. Although it makes more sense to use the same settings for this feature, they do not need to be the same on your devices. This includes the feature (On/Off), the questions, and the answers.

If you disable this feature, the **“Forgot Password?”** button would not appear in the main login page of ScipherKey.

To disable this feature, turn off the **“Use Security Questions”** switch in the **“Settings”** page. Your selected questions and answers remain unchanged and you can re-enable the feature again.



Auto-Lock

The auto-lock feature automatically locks ScipherKey after a configurable time of inactivity. Also if you switch to other apps or lock your device, this feature locks ScipherKey after the selected time.

To configure the Auto-Lock feature, go to the “**Settings**” page and tap on “**Automatically Lock**”. Then select the timer time, in the list of available options (The default is 1 Min.). To disable this feature (Not recommended) select “Never” from the list.

Failed Unlock Attempts

Sometimes, someone may try to access your ScipherKey information by trying/guessing different passwords.

Temporary lock on failed login attempts

ScipherKey can be configured to prevent these attacks by temporarily locking the app for a duration of time when several login attempts fail in a row.

To change this settings, go to the “**Settings**” page and tap on “**Temporarily Lock**”. Then select the number of failed attempts that would trigger the temporary lock feature. (The default is 5)

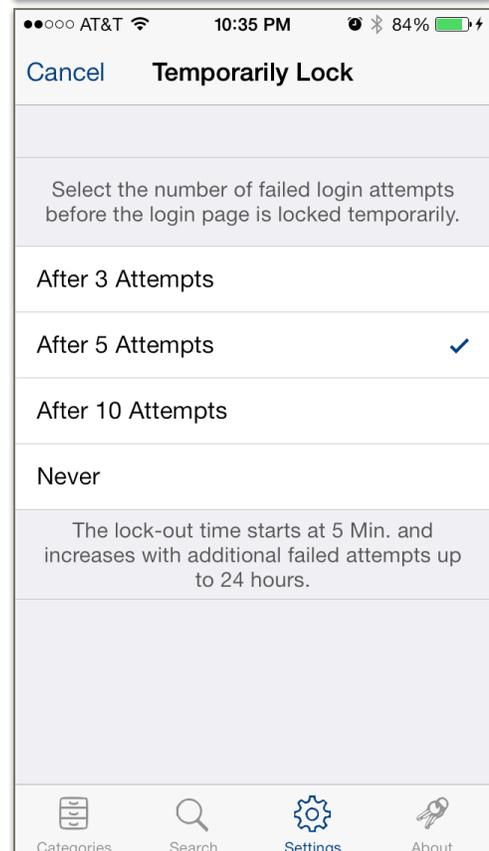
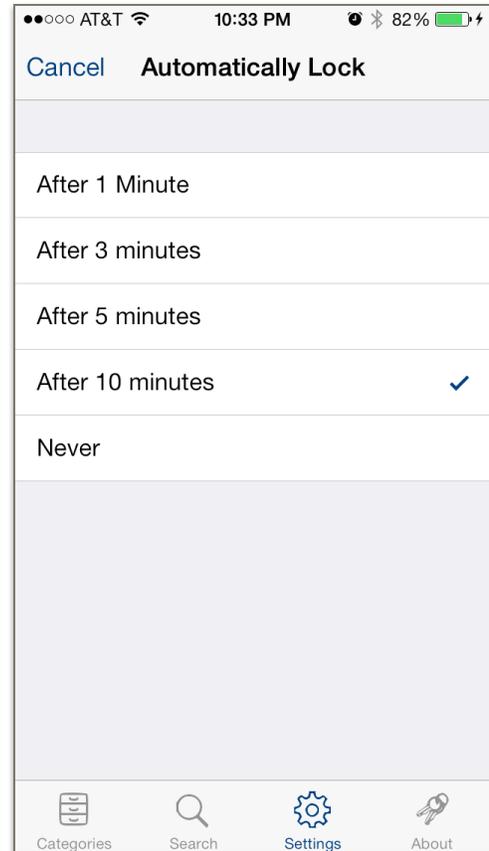
For example if you set this value to 3, ScipherKey is locked for 5 minutes after third failed login attempt (entering wrong password for 3 times). After 5 minutes, ScipherKey allows the user to enter the password again. If the login attempt fails again, ScipherKey is locked for 10 minutes. Additional failed attempts after 10 minutes, increase the lock-out duration up to 24 hours.

Taking Picture on failed login attempts

You can also configure ScipherKey to take a picture using the front camera, after the number of failed attempts reaches the values set for the “Temporarily Lock” field. The pictures are saved in an area in ScipherKey’s internal database and help you find out who was trying to access your information.

To enable this feature (which is disabled by default), go to “**Settings**” page and turn on the “**Take Pictures**” switch.

To see the pictures related to the failed unlock attempts, tap on “**Show Pictures**”, in the “**Settings**” page.



Disabling iCloud Backups

If you enable iCloud backup on your device, it automatically backs up the information and documents for all of the Apps on your device by default. You can disable iCloud backup for individual apps. To disable iCloud backup for ScipherKey:

- 1) Open the Settings App on your iDevice and tap “**iCloud**”.
- 2) Tap “**Storage**”.
- 3) In the “**Storage**” page tap “**Manage Storage**”.
- 4) In the “**BACKUPS**” section, tap on the device name corresponding to this device.
- 5) Scroll down to find ScipherKey in the list. If it is not in the list, tap “**Show All Apps**” to list all the Apps.
- 6) Turn off the switch next to ScipherKey.
- 7) While you are there, you can turn off the backup on other Apps if they don't need iCloud backup. This can save you some room on your limited iCloud space.

ScipherKey Requirements

ScipherKey is available on iOS 7.0 or later and OS X Yosemite and later. Some features are Hardware dependent and may not be available on all devices.

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More Info: <http://www.shahabonline.com/ScipherKey>
Comments and feedback: ScipherKey@shahabonline.com