
Sugar Enterprise 7.8 Installation and Upgrade Guide

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Sugar Enterprise 7.8 Installation and Upgrade Guide

Overview

This documentation will go through the requirements and steps to [install](#) or upgrade an on-site Sugar instance (hosted on a local web server). The following instructions are intended for system administrators with access to the appropriate systems and knowledge of the technology being used.

Installing an On-Site Instance

Installing Sugar requires a web server running PHP and a database server. The following sections detail the requirements needed for installing Sugar on a local web server stack as well as the individual steps to install Sugar.

Installation Prerequisites

Sugar can run on a variety of stack configurations but there are some general requirements that all configurations should meet to properly run Sugar. For more information regarding which platforms and database providers are supported by Sugar, please refer to the 7.8.x Supported Platforms documentation.

Please note it is recommended to install your Sugar instance with SSL security using a signed certificate to enable secure HTTPS access.

PHP

In addition to having a supported version of PHP installed, Sugar also requires several specific PHP modules and settings. Verify that the following modules and extensions are installed in your PHP configuration by checking the `php.ini` file or by executing a `http://us.php.net/manual/en/function.phpinfo.php` output:

- `bcmath`
- `curl`
- `gd`
- `hash`
- `imap`
- `JSMIn`
- `json`
- `mbstring`

- mcrypt
- openssl
- SimpleXML
- zip
- zlib

Sugar also requires one of the following extensions or settings to provide a source of CSPRNG for random tokens, in order of preference:

- libsodium extension
- open_basedir : If this setting is enabled, the following settings are recommended:
 - The use of /dev/urandom should be allowed.
 - Configure the temp directory to be used by the web server in php.ini (system_temp_dir = "/<temp directory>").
 - Add the path for this temp directory to the allowed open_basedir paths in php.ini (open_basedir="/var/www/html/sugar:/<temp directory>").
 - Optionally, configure the upload_tmp_dir and append that path to the allowed open_basedir paths as well.
- mcrypt extension
- com_dotnet extension

The following are some directives and their recommended values to be set in the php.ini file of your PHP configuration:

Directive	PHP Default	Recommended	Description
date.timezone		The value can be set according to your needs	The timezone to use by default for date and time functions. View the list of possible time zones here: http://www.php.net/manual/en/timezones.php
display_errors	1	0	Determines if errors will be printed on the web page as part of the output or if they are hidden.
fastcgi.logging	1	0	Determines if SAPI logging is on or off when using

			FastCGI. FastCGI logging should be disabled when running on IIS.
max_execution_time	30	120	Determines the maximum amount of time in seconds that a script can run. This helps prevent the server being occupied by a long-running script.
max_input_time	-1	120	Determines the maximum amount of time in seconds that a script can analyze input data such as POST and GET. The default value of "-1" specifies that the max_execution_time will be used instead.
mbstring.func_overload	0	0	Overloads a set of single-byte functions by the mbstring counterparts. If this setting is not set to "0" you may experience unexpected results when using mbstring functions.
memory_limit	128M	512M	Determines the maximum memory size in bytes that a script can be allocated. This helps prevent a script from using all of the available memory.

post_max_size	8M	100M	Determines the maximum size in megabytes of post data allowed. This is primarily important for file uploads as if the file is larger than this value the upload will fail. This value should mirror the setting for upload_max_filesize and may be set to a larger value if your users routinely upload large files.
session.use_cookies	0	1	Determines whether or not the session can use cookies
session.cookie_htp only	0	1	Determines whether PHP session cookies will be marked HTTPOnly which is recommended for security reasons.
session.cookie_lifetime	0	The default value is acceptable but can be adjusted according to your needs	Determines the lifetime of a PHP session in seconds. The value 0 specifies the session will be active until the browser is closed.
session.gc_maxlifetime	1440	The default value is acceptable but can be adjusted according to your needs	Determines the number of seconds after which data in the session will potentially be removed.
session.save_handler	files	memcached	Determines the session storage

			mechanism used by PHP. Please note that the recommendation is to use the memcached module rather than the memcache module. The memcache module is not recommended as its use may result in performance deterioration for legacy modules.
session.use_trans_sid	0	0	Determines whether transparent sid support is enabled or not.
upload_max_filesize	2M	100M	Determines the maximum size in megabytes of an uploaded file. This value should mirror the setting for post_max_size and may be set to a larger value if your users routinely upload large files.

For more information regarding PHP directives and their function, please refer to

Database

Prior to installation, Sugar requires a supported database to already be running on your server. On top of a running database, there are some specific settings that need to be configured before Sugar can be installed. PHP needs to be configured with the proper drivers to communicate with the database of your choice.

Use the following steps to configure PHP to be able to access your database:

1. Obtain the proper driver files corresponding to your database, server

architecture, and PHP version.

Database	Extension	Driver Location
MySQL	mysqli	http://us.php.net/manual/en/book.mysqli.php
DB2	ibm_db2	http://us.php.net/manual/en/book.ibm-db2.php
Oracle	oci8	http://us.php.net/manual/en/book.oci8.php
Microsoft SQL	sqldrver	http://msdn.microsoft.com/en-us/library/cc296170.aspx

Place the driver files into PHP's `extension_dir` folder.

Add an extension line into your `php.ini` file loading the driver file (e.g. `extension=php_mysqli.dll`).

Restart your web server.

When running on Oracle, ensure that the character set is `AL32UTF8` in `NLS_LANG` setting on the client machine for Search optimization. For example, `AMERICAN_AMERICA.AL32UTF8` for a US-based user.

When installing on DB2, the database must first be created using the following commands:

```
#!/bin/sh
DBNAME=$1
: ${DBNAME:=sugarult}
export DB2DBDFT=$DBNAME # set $DBNAME as the default branch
db2 "FORCE APPLICATION ALL" # flush all connections
db2stop # stop DB2
db2start # start DB2
db2 "FORCE APPLICATION ALL" # flush all connections
db2 "DROP DATABASE $DBNAME" # drop the previously existing database if
it exists
db2 "CREATE DATABASE $DBNAME USING CODESET UTF-8 TERRITORY US COLLATE
USING UCA500R1_LEN_S2 PAGESIZE 32 K" # create the database from
scratch and enable case-insensitive collation
db2 "CONNECT TO $DBNAME" # make a connection to update the parameters
below
db2 "UPDATE database configuration for $DBNAME using DATABASE_MEMORY
AUTOMATIC" #Prevent memory exceeding
db2 "UPDATE database configuration for $DBNAME using logfilesiz 2048" #
default appeared to be 1024
db2set DB2_COMPATIBILITY_VECTOR=4008
```

```
db2 "CREATE BUFFERPOOL SUGARBP IMMEDIATE SIZE 1000 AUTOMATIC PAGESIZE
32 K"
db2 "CREATE LARGE TABLESPACE SUGARTS PAGESIZE 32 K MANAGED BY
AUTOMATIC STORAGE EXTENTSIZE 32 OVERHEAD 10.5 PREFETCHSIZE 32
TRANSFERRATE 0.14 BUFFERPOOL SUGARBP"
db2 "CREATE USER TEMPORARY TABLESPACE SUGARXGTTTS IN DATABASE
PARTITION GROUP IBMDEFAULTGROUP PAGESIZE 32K MANAGED BY AUTOMATIC
STORAGE EXTENTSIZE 32 PREFETCHSIZE 32 BUFFERPOOL SUGARBP OVERHEAD 7.5
TRANSFERRATE 0.06 NO FILE SYSTEM CACHING"
db2 "FORCE APPLICATION ALL" # close all connections to restart DB2
below
db2stop
db2start
db2 "CONNECT TO $DBNAME"
db2ts DISABLE DATABASE FOR TEXT CONNECT TO $DBNAME
db2ts ENABLE DATABASE FOR TEXT AUTOGRANT CONNECT TO $DBNAME
db2ts START FOR TEXT
```

When installing on DB2, the codepage must be adjusted using the following commands. If your DB2 server and web server are on different machines, this also needs to be run on your web server:

```
db2set DB2CODEPAGE=1208
db2stop
db2start
```

For more information regarding which database platforms and versions are supported by Sugar, please refer to the 7.8.x Supported Platforms documentation.

Please note that Sugar 7.8 now supports stored procedures for MySQL. When installing and backing up your Sugar instance please be sure to export all of the database including the stored procedures.

Web Server

Sugar requires some specific configuration regarding the supported web server on which it is being installed. Sugar creates and maintains many files in the Sugar directories; therefore, Sugar requires some very specific file permissions settings in order to install. The user the web server is running under needs to have read and write permissions on many Sugar files. At a minimum, the following files and directories need to be writable from your web server:

- ./config.php
- ./config_override.php

-
- ./sugarcrm.log
 - ./cache/ and all subdirectories and files
 - ./custom/ and all subdirectories and files
 - ./data/ and all subdirectories and files
 - ./modules/ and all subdirectories and files

Sugar running on Linux expects the listed files and directories to be owned by the same user running the webserver and to also be in the same group. Sugar would then require the following permissions:

- 775 for the directories listed above
- 664 for the config.php file and all files in the directories listed above

To set the permissions on Linux you can execute the following commands modified to replace apache and apache with your web server user and group:

```
chown apache:apache -R <Sugar Directory>
chmod 755 -R <Sugar Directory>
```

Sugar running on Windows requires an updated certificate for the cURL library. Edit php.ini to add curl.cainfo=c:\php\cabundle.pem, place this cabundle.pem file in the c:\php\ directory on your server, and restart your web server.

Sugar running on Windows also requires fileinfo.dll to be enabled. Please refer to this documentation on the php site for more information.

Sugar running on IIS requires the PUT and DELETE verbs to be enabled.

Sugar running on IIS 8 and greater also requires the IIS virtual user responsible for running Sugar to be added to the Sugar instance directory's file access control list and given full control. In most cases, "DefaultAppPool" should be added, but the specific virtual user running your Sugar instance may differ and should be confirmed first. Restart IIS after changing the permission. Please refer to this documentation on the IIS site for more information.

Sugar running on IIS must also have the URL Rewrite module installed in order for the web server to read the web.config file and generate the correct redirects. For more information on IIS URL Rewrite, please refer to the IIS site.

Sugar running on the Apache web server requires a setting configured in the httpd.conf file. Modify the AllowOverride value for the Sugar installation directory to be set to All. Installation and upgrade will fail if AllowOverride is not configured in Apache.

Please note that mod_rewrite must also be enabled in Apache in order for Sugar to

function properly.

It is recommended to configure the Apache modules `mod_headers` and `mod_expires` on your Sugar application server. While not strictly required to run Sugar, they can be used together by the Sugar application to ensure that HTTP Caching is applied properly on static resources such as image files which improve performance by reducing web traffic. For more information, please refer to the HTTP Caching documentation on the Google Developer site.

To prevent performance issues, also add compression offloading if you have a load balancer or `mod_deflate` if you do not have a load balancer. For more information on `mod_deflate`, please refer to the `mod_deflate` documentation on the Apache site.

Your web server can have timeout configurations that may interrupt PHP execution; Apache has a `Timeout` directive. For more information, please refer to the documentation for your specific web server.

Note: If you are planning to use a Real User Monitoring (RUM) agent, this may cause issues when fetching data from the REST APIs as additional data may be appended to JSON responses coming from the server causing errors.

Elasticsearch

Elasticsearch is the built-in support engine for full text search and is a required stack component when installing Sugar. The following resources are available for Elasticsearch:

- [Installing and Administering Elasticsearch for Sugar 7](#) : Sugar's knowledge base article details how to install and configure Elasticsearch.
- [Installing via Setup Wizard](#) : Instructions for setting up Sugar to work with your Elasticsearch engine are available in this section.
- www.elasticsearch.org : The Elasticsearch website contains additional, general information on Elasticsearch.

Please note that only certain versions of Elasticsearch are supported by Sugar. For more information regarding the supported versions, please refer to the 7.8.x Supported Platforms documentation.

Once Sugar is installed, administrators will have the ability to schedule a full system index via `Admin > Search` as necessary. Please note that cron must be configured for the scheduler in order for the full system index to run properly in Sugar.

Downloading Sugar

Use the following steps to download the required files to install Sugar:

1. Navigate to <http://www.sugarcrm.com>.
2. Click "Login" on the top right-hand corner of the page.



3. Enter your SugarCRM.com credentials and click "Log in".

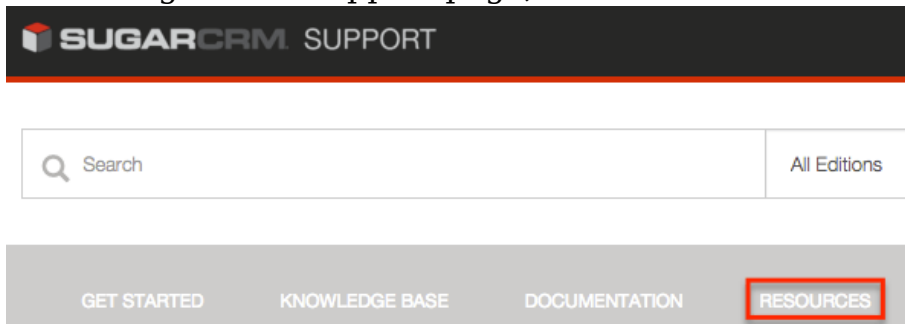
Sign In

A screenshot of the SugarCRM 'Sign In' form. It contains two input fields: 'User Name' and 'Password'. Below the 'User Name' field is the text 'Username is case sensitive'. Below the 'Password' field is the text 'Password is case sensitive'. At the bottom left is a blue 'Log in' button, and at the bottom right is a blue link for 'Forgot password?'.

4. After successfully logging in, click "Support" in the top menu to navigate to the SugarCRM Support page.



5. On the SugarCRM Support page, click "Resources" on the navigation bar.



6. Then on the Resources page, select "Download Purchased Software" under the Customer Resources section.

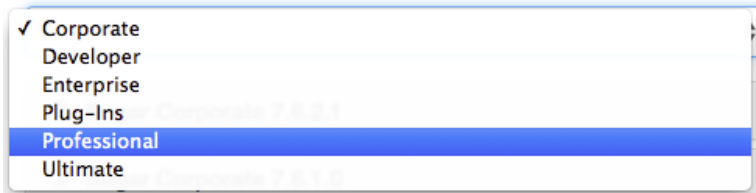
Customer Resources

- [Manage My Account](#) : Manage your contact information and view your subscription information.
- [View Orders](#) : View all orders you have placed with SugarCRM under the Orders tab.
- [Download Purchased Software](#) : Download installation and upgrade files for on-site deployments as well as plug-in installation files.
- [Bug Portal](#) : View past and current product defects and enhancement requests.
- [Case Portal](#) : If you are unable to find a solution on our support site or [community](#), submit a ticket so that a member of our support team can assist you as soon as possible.

7. On the Download Manager page, select the appropriate edition (e.g. Professional) of Sugar from the dropdown.

Downloads

Based on your subscription you have access to the following files:

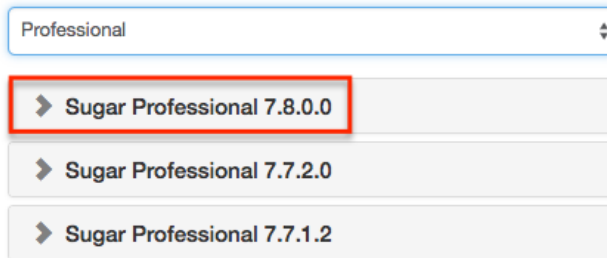


Note: You will only be able to select editions of Sugar that are tied to your SugarCRM.com account.

8. The most recent version of Sugar available for your account will be displayed at the top of the page. Click the link of the desired version to expand out the files available.

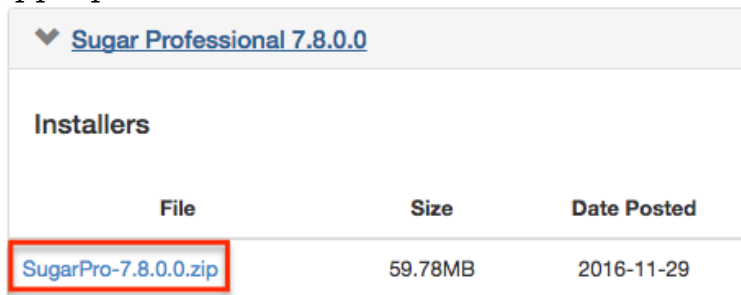
Downloads

Based on your subscription you have access to the following files:



Note: Please keep in mind that there may be versions listed in the download manager which are no longer supported. Please verify that the version desired is supported by checking the Supported Versions page.

9. Download the installer zip file for your desired version by clicking the appropriate link under the Installers section.



10. The installer zip file will be downloaded to your computer.

Preparing Installation

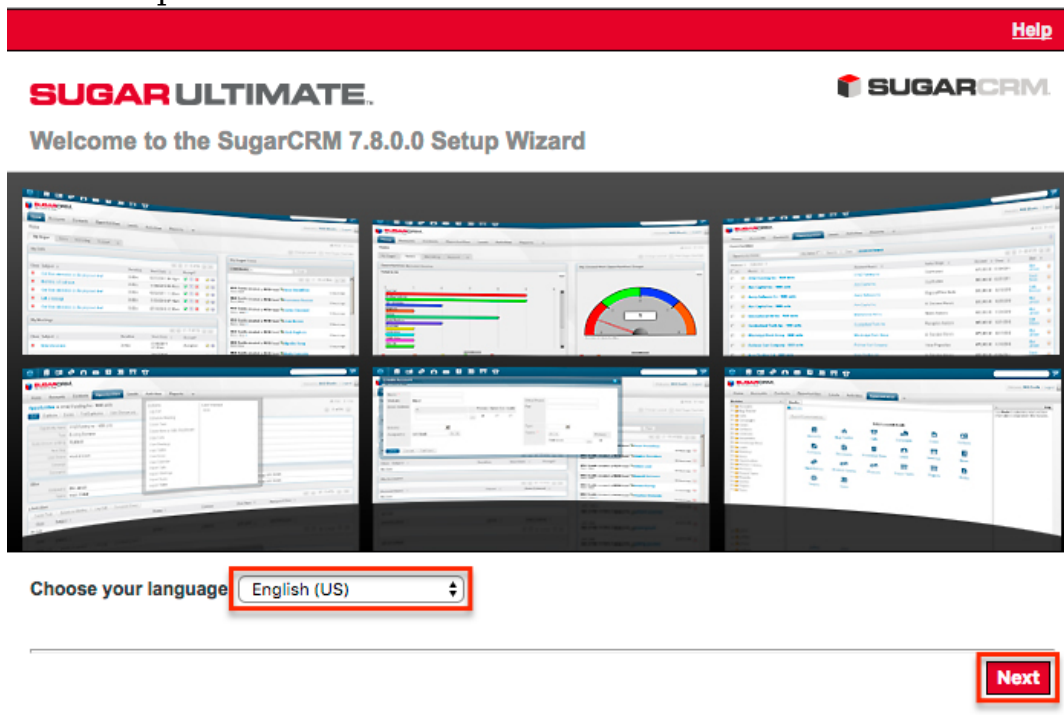
After downloading the installer zip file for Sugar you will need to extract the contents of the zip file into the root directory of your web server. Use the following steps to prepare the files for installation:

1. Transfer the installer zip file to the web server where Sugar is to be installed.
2. Locate the web root directory on the web server. This directory is where files to be served will be located. The following are common locations for the web root directory but may differ depending on your server configuration:
Linux/Apache : /var/www/html/
3. Extract the installer zip file's contents into the web root. This will create a directory in the web root indicating which edition and version of Sugar is in the contents (e.g. SugarUlt-Full-7.8.0.0).
4. Rename this directory to match the intent of the install (e.g. sugarcrm, sugarcrm_dev, sugarcrm_test, etc.).
5. Set the permissions on the files within the Sugar directory as described in the Web Server section above.

Installing via Setup Wizard

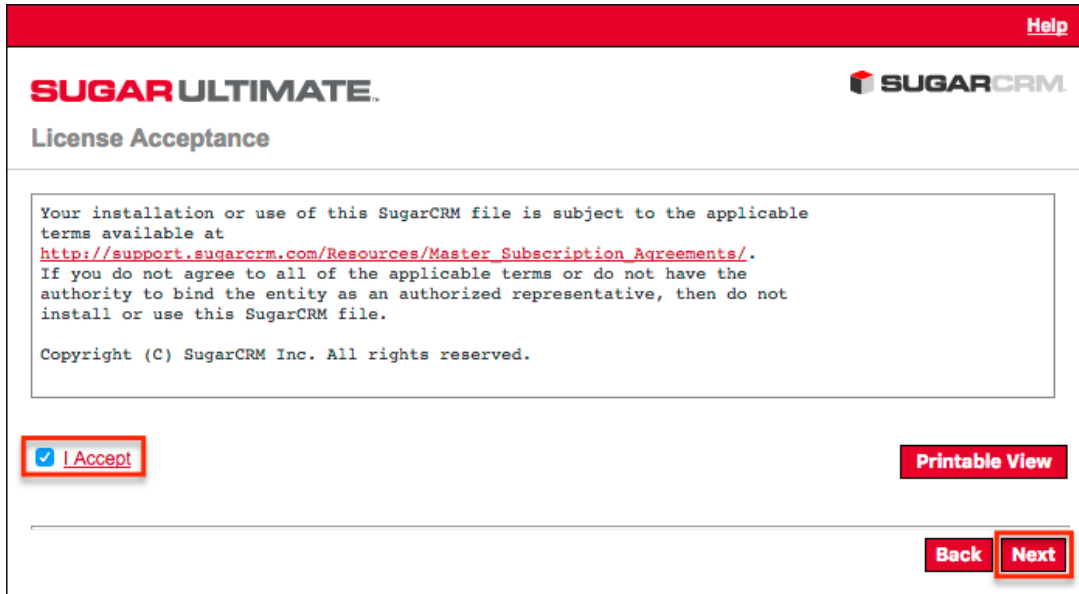
After preparing the installation files, you are ready to install Sugar. Use the following steps to install Sugar via the Setup Wizard:

1. Using a supported web browser, navigate to the primary URL for your Sugar directory:
`http://{Your Web Server}/{Your Sugar Directory}` (e.g. `http://localhost/sugarcrm/`).
2. The Setup Wizard will launch and bring you to the Welcome page.
3. Select the Desired Language to walk through the Setup Wizard and click "Next" to proceed.

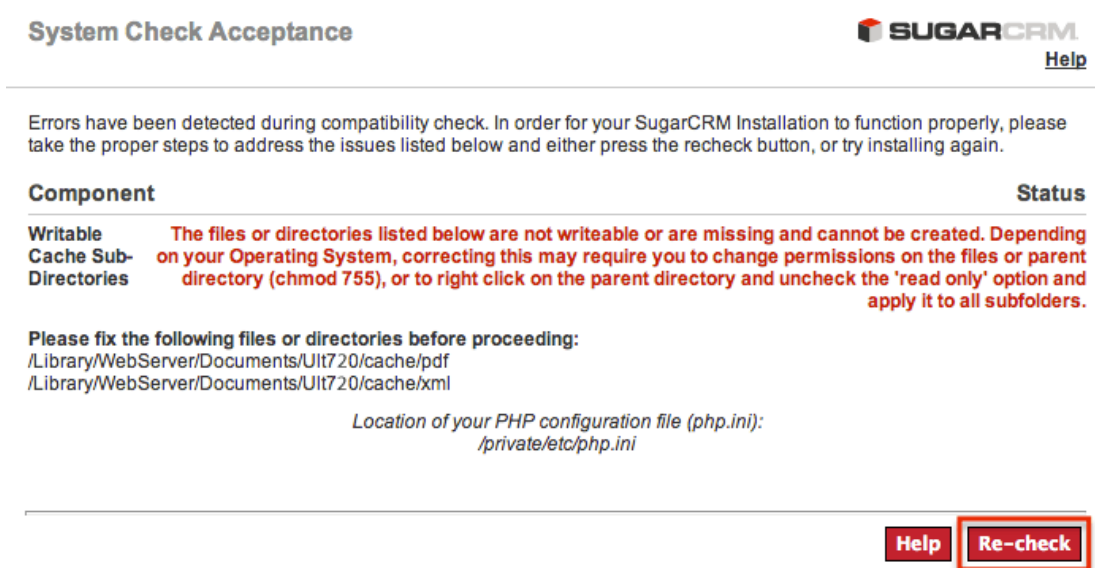


4. Review the information provided to ensure all of the proper steps have been

- taken to perform a successful install and click "Next" to continue.
- Review the License Subscription Agreement and select "I Accept". Click "Next" to continue.



- The Setup Wizard then checks your Server environment for compatibility. If your environment passes, the installation will continue. Otherwise you will be prompted to correct any issues before you may proceed. Once the issues have been resolved, click "Re-check" to perform the compatibility check again and to continue with the installation.



- On the Installation Options page, enter in your download key and select the install type to perform.

SUGAR ULTIMATE **SUGAR CRM**

Installation Options

Enter Download Key

The key is required for general application functionality, but it is not required for installation. You do not need to enter the key at this time, but you will need to provide the key after you have installed the application.

Choose Install Type

Typical Install Requires minimum information for the installation. Recommended for new users.

Custom Install Provides additional options to set during the installation. Most of these options are also available after installation in the admin screens. Recommended for advanced users.

Back **Next**

Typical Install : Provides minimal configuration options for a simple install.

Custom Install : Provides additional configuration options such as Sugar URL, System Name, and Collation.

8. Select the database platform to install your Sugar instance. The listed database types generate from the database drivers currently installed in PHP on the server. If you do not see your expected database engine, please check your PHP configuration and restart your web server to reflect any changes made in the configuration. Click "Next" to continue.

SUGAR ULTIMATE **SUGAR CRM**

Database Type

Specify Database Type

What type of database will be used for the Sugar instance you are about to install?

MySQL (mysqli extension)

Back **Next**

9. On the Database Configuration page, enter appropriate values for the following fields:

Database Name : Name or designation of the database to be created and used with this installation of Sugar. If the database name entered is an existing database on the specified server, the existing database and its contents will be deleted and replaced with the Sugar database.

Host Name : Name of the server or machine where the database will be created and used with this installation of Sugar.

Database Administrator Username : Provide the user name of an

administrative user who has proper permissions to create databases and tables on the specified database server.

Database Admin Password : Provide the password of the specified administrative user.

Sugar Database Username : Select an option from the dropdown to determine the database user Sugar will connect with.

Enable SSL Connection : Select "Yes" to allow Sugar to connect to the database using SSL.

Populate Database with Demo Data? : Select "Yes" to populate the database with demo records for testing Sugar.

Search Engine Type : The ElasticSearch server is required to install Sugar and is selected by default.

Note: All required fields are marked with a red asterisk and must be completed prior to continuing.

- Same as Admin User : Sugar will use the already provided database user name and password to connect to the database.
- Provide existing user : Enter credentials for a different database user for Sugar to connect to the database.
- Define user to create : Enter credentials to create a new user for Sugar to connect to the database.
- Host : Enter the host name or IP address of the full-text search engine. Defaults to "localhost" assuming you are running the search engine on the same server as Sugar.
- Port : Enter the port number for communicating with the full-text search engine. Defaults to 9200, which is elasticsearch's default.

10. Click "Next" to continue.

Provide Full-Text Search Settings

To enable full-text searching, enter the Host and Port where the search engine is hosted. Sugar includes built-in support for the elasticsearch engine.

* Search Engine Type

* Host

* Port

11. On the Site Configuration page, enter appropriate values for the following fields:

Sugar Application Admin Name : The Sugar administrative user name that you will use to log in for the first time upon successful installation. Defaults to admin.

Sugar Admin User Password : A password for the Sugar administrative user that you will use to log in for the first time upon successful installation.

Re-enter Sugar Admin User Password : A confirmation of the provided password to ensure it was entered correctly.

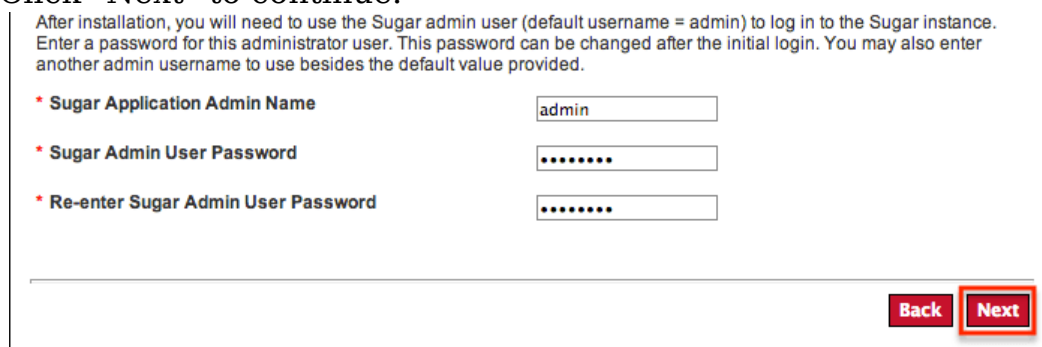
12. When running a custom install instead of a typical, you will have access to the following fields as well:

URL of Sugar Instance : Enter the URL used to access your Sugar instance. This value is important for various integrations to function properly and is generally desired to be a publicly accessible URL where possible.

System Name : Enter the name of your Sugar instance to be displayed in the browser title bar.

Collation Settings : Select the proper collation setting to use when creating the database tables. The collation determines the character set and default sorting options. Defaults to "utf8_general_ci".

13. Click "Next" to continue.



After installation, you will need to use the Sugar admin user (default username = admin) to log in to the Sugar instance. Enter a password for this administrator user. This password can be changed after the initial login. You may also enter another admin username to use besides the default value provided.

* Sugar Application Admin Name

* Sugar Admin User Password

* Re-enter Sugar Admin User Password

[Back](#) [Next](#)

14. If typical Install was selected, you will be taken to the Confirm Settings page.

If custom install was selected, you will be taken to the Site Security page.

On this page, select the desired options from the following list:

Automatically Check For Updates? : When selected, Sugar will periodically check for updates to Sugar.

Use a Custom Session Directory for Sugar : When selected, you can provide a secure folder for storing Sugar session information. This can be done to prevent session data from being vulnerable on shared servers or from conflicting with other session data stored on the server for other applications.

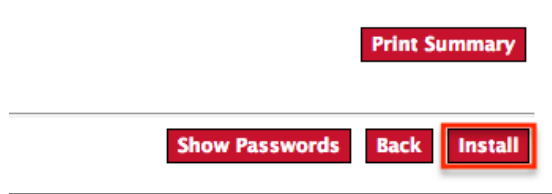
Use a Custom Log Directory : When selected, you can specify a directory to store the Sugar log. Regardless of where the log file is located, access to it through a web browser will be restricted via a .htaccess redirect.

Provide Your Own Application ID : When selected, you can provide an application ID to override the auto-generated ID. This ID should always be unique when compared to any other instances hosted on the same server. This value is utilized by PHP caching engines (e.g. APC, Memcache, etc.) to distinguish the proper files to serve.

Click "Next" to proceed to the Confirm Settings page.

15. On the Confirm Settings page, please review the settings selected for you install of Sugar. If any settings need to be modified, click "Back" to navigate backwards in the install process to revisit any settings. Optionally you may select "Show Passwords" to verify the correct password have been entered into the configuration before installing. You may also click "Print Summary" to be able to print the summary of information before installing.

Once the settings have been confirmed, click "Install" to install Sugar with the provided settings.



16. The Perform Setup page is displayed and will contain the progress and results of the installation of Sugar. The installation is complete when you receive a message indicating the successful installation. Click "Next" to continue.
17. If Custom Install was selected you will have the option to install language packs. Language packs can also be installed through the application later. Click "Next" to continue.
18. You can optionally register your information with SugarCRM on the Product Registration page. To register, fill in the available fields with your contact information and click "Submit". Once registration is complete, or to skip registration, click "Next".
19. This displays the Sugar login page. You can now login to Sugar with the admin user name and password specified during installation.

Please note it is recommended to install your Sugar instance with SSL security using a signed certificate to enable secure HTTPS access.

Upgrading an On-Site Instance

To get the most out of Sugar we recommend being on the latest version. Newer versions of Sugar come with increased performance, bug fixes, and new features in general. Before upgrading Sugar it is highly recommended that the upgrade be run on a test or backup copy of your production system first. This will not only allow you to be familiar with the process, but can point out any potential issue(s) you may encounter when upgrading your production instance.

Upgrade Prerequisites

Before performing an upgrade there are some prerequisites that should be followed to ensure a successful upgrade:

- Only instances running 7.7.2.3, 7.8.0.0, 7.8.0.1, 7.8.1.0, 7.8.2.0, or 7.8.2.1 are eligible for upgrade to 7.8.2.2.
Note: Both the Upgrade Wizard and Silent Upgrader are available for upgrading to 7.8.x.
- If you are upgrading from a release prior to 7.8.x, be sure that all platform components are updated as required for 7.8.x. Please refer to the 7.8.x Supported Platforms page for more information.

-
- Ensure these PHP libraries and extensions are installed.
 - If you are running on Windows, edit `php.ini` to add `curl.cainfo=c:\php\cabundle.pem`, place this `cabundle.pem` file in the `c:\php\` directory on your server, and restart your web server.
 - Ensure ElasticSearch version 1.4.4 or 1.7.5 is installed and properly configured on your server. For instructions, please refer to the [Installing and Administering Elasticsearch for Sugar 7](#) knowledge base article.
 - Verify the PHP `post_max_size` and `upload_max_filesize` settings are sufficiently large for the upgrade files. Our recommendations are available in the PHP section above.
 - Verify that the user the web server is running under has read and write permissions to the Sugar directory as well as the `config.php` file in the Sugar directory.
 - If you have made code level changes to a file, verify the changes are upgrade-safe (i.e. are located in the custom directory) or they may be removed during the upgrade.
 - If op-code caching is enabled in PHP, disable it to ensure cached code is not used during the upgrade. Op-code caching can be re-enabled after the upgrade is complete.
 - If you are using Zend Core 2.0, increase the values for `ConnectionTimeout` to 3000 seconds and `RequestTimeout` to 6000 seconds.
 - If you are running on Apache, set the `LimitRequestBody` value in the `httpd.conf` file to 2GB.

Upgrading via Upgrade Wizard

The Upgrade Wizard allows administrators to quickly and easily upgrade their Sugar instance to a newer version. Please note that the Upgrade Wizard is only available to administrative users and can be accessed via Admin > Upgrade Wizard. Before running the upgrade in Sugar, please be sure to create a backup of your file directory and database.

First, ensure you have completed the upgrade prerequisites listed above.

The health check scanner will run as part of the upgrade process when upgrading to 7.8.x to ensure that your instance is suitable for upgrade. If any issues (red flags) are detected that are deemed incompatible for upgrade, the health check will fail and you will not be able to proceed with the upgrade until the issues have been resolved. If you wish to evaluate your instance's readiness for upgrade prior to performing the upgrade, please proceed through the first two sections below and exit the upgrader after completing the health check.

Note: If your database contains more than 10,000 records per table, we recommend Upgrading via Silent Upgrader instead of using the Upgrade Wizard. Manual upgrades by file replacements and running SQL upgrade statements are

not supported.

Performing the Health Check

To evaluate whether your instance is suitable for upgrade to 7.8 without committing to the actual upgrade, please use the following steps below. If you wish to complete the upgrade to 7.8 including the health check, please proceed to the Performing the Upgrade section below.

1. Navigate to your available downloads using Steps 1 - 8 on the Downloading Sugar section to obtain the appropriate upgrade zip file.
Note: The upgrade files can be found under the Upgrade Packages section and specify the from and to versions of Sugar in the file name. The from version must match your current version of Sugar in order to successfully perform the upgrade. For example, to upgrade a 7.7.2.0 instance of Sugar Professional to 7.8.0.0, you would need the SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip file.

File	Size	Date Posted
SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip	38.62MB	2016-11-29
silentUpgrade-PRO-7.8.0.0.zip	25.72KB	2016-12-01

2. Navigate to Admin > Upgrade Wizard.

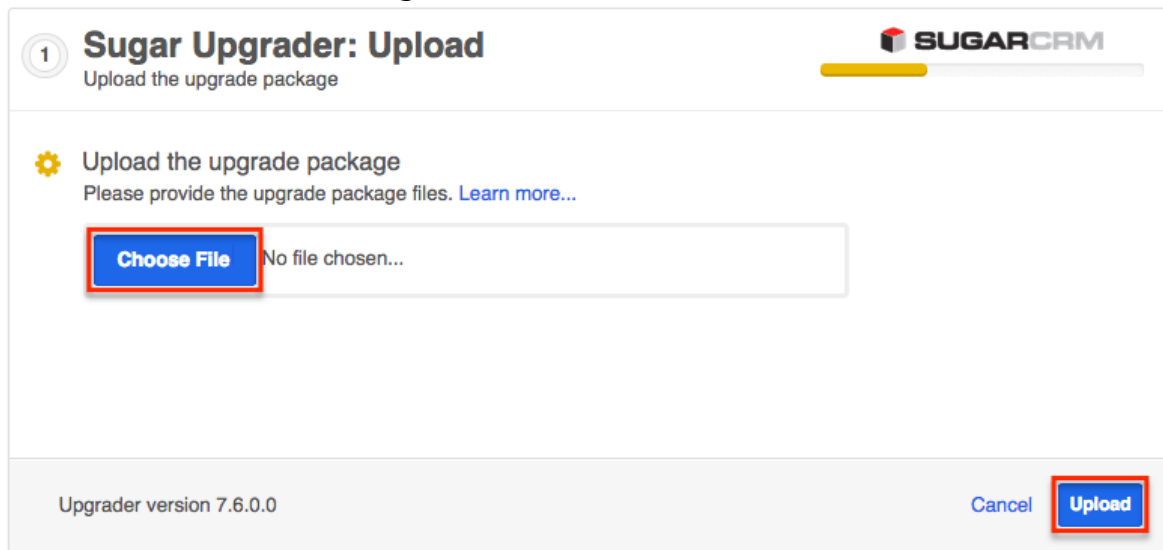
System

Configure the system-wide settings according to the specifications of your organization. Users can override some of the default locale settings within their user settings page.

System Settings	Configure system-wide settings	Import Wizard	Use the import wizard to easily import records into the system
Locale	Set default localization settings for your system	Upgrade Wizard	Upload and install Sugar upgrades
Currencies	Set up currencies and conversion rates	Backups	Backup Sugar files
Languages	Manage which languages are available for users	Repair	Check and repair Sugar
Search	Select modules for the Global Search and configure full-text searching.	Diagnostic Tool	Capture system configuration for diagnostics and analysis
Connectors	Manage connector settings	Tracker	Enable/Disable tracking
Scheduler	Set up scheduled events	PDF Manager	Manage templates for generated PDF files
Mobile	Select modules to appear in the browser-based mobile view and in the Sugar Mobile application	Web Logic Hooks	Manage Sugar Web Logic Hooks
OAuth Keys	OAuth key management		

3. In Step 1 of the upgrade wizard, click the Choose File button and select the appropriate upgrade file from your local machine then click "Upload". The

health check will now begin to run.



4. Step 2 of the upgrade wizard will display the health check results marked by different colored icons.
- Green Check Mark : Health check passed. Any customizations detected in your instance marked with a green check mark will be upgraded properly.
 - Yellow Ellipsis : Health check passed. Outputs are generated which require attention. Should you choose to proceed with the upgrade, please keep in mind that customizations were found in your instance that may:
 - Prevent certain modules from getting upgraded to Sugar 7's Sidecar user interface and will be available with the Legacy user interface.
 - Be modified or disabled to facilitate the upgrade of certain modules to Sugar 7's Sidecar user interface.
 - Red Exclamation : Health check failed. Any issues deemed incompatible for upgrade will need to be resolved before proceeding with the upgrade. By clicking the Send Log to Sugar button, you are agreeing to send the full log file of the health check results to SugarCRM. You can also click the Export Log button to view the log file and troubleshoot the issue.
 - Note: If any customizations have been made since the last successful health check, please be sure to run the health check again before performing the upgrade.

5. Click the Go to Home Page button to exit the upgrade process and navigate to the Home page. If you wish to proceed with the upgrade now, click the Confirm button. Please note that the Confirm button will be disabled if any issues deemed incompatible for upgrade are detected.

Performing the Upgrade

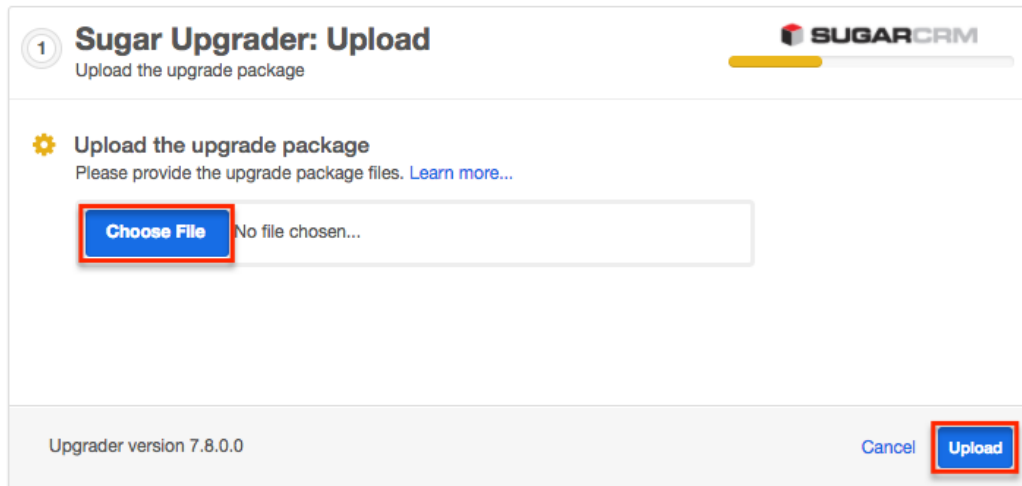
Use the following steps to perform an upgrade using the Upgrade Wizard:

Note: If you have just performed the health check per the steps in the above section, please skip to Step 5.

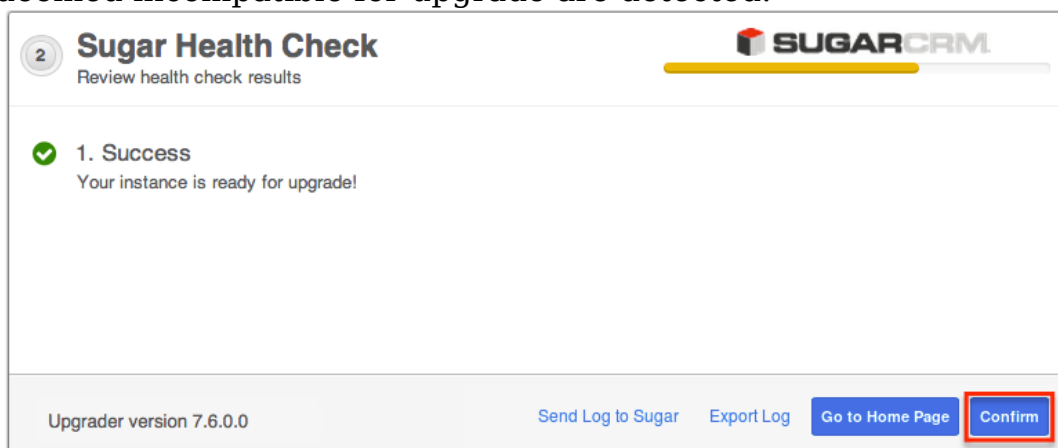
1. Navigate to your available downloads using Steps 1 - 8 on the Downloading Sugar section to obtain the appropriate upgrade zip file.
Note: The upgrade files can be found under the Upgrade Packages section and specify the from and to versions of Sugar in the file name. The from version must match your current version of Sugar in order to successfully perform the upgrade. For example, to upgrade a 7.7.2.0 instance of Sugar Professional to 7.8.0.0, you would need the SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip file.

Upgrade Packages		
File	Size	Date Posted
SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip	38.62MB	2016-11-29
silentUpgrade-PRO-7.8.0.0.zip	25.72KB	2016-12-01

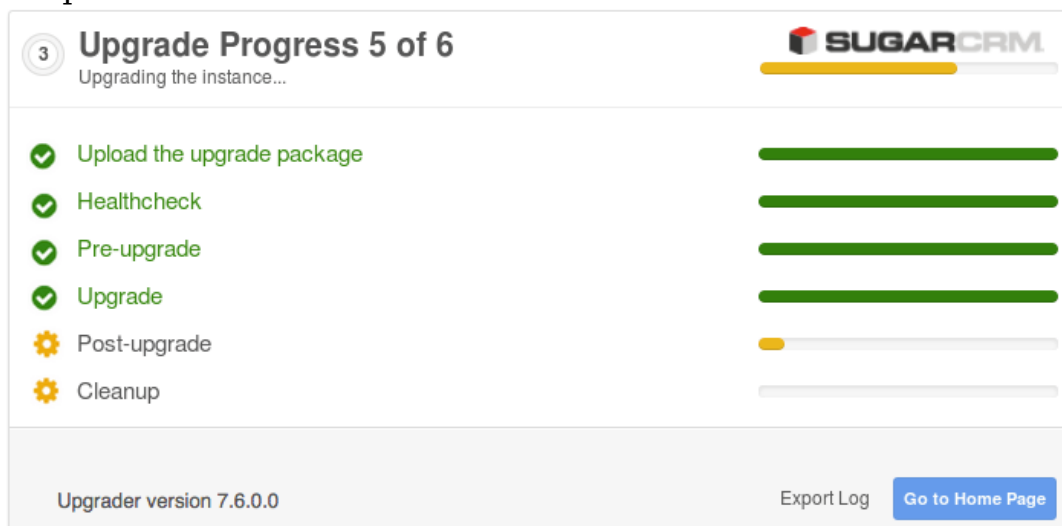
2. Navigate to Admin > Upgrade Wizard.
3. Click the Choose File button in the Sugar Upgrader screen to open a file selection window from your browser.
4. Select the upgrade file from your local machine then click "Upload".



5. The health check will be performed to ensure your instance is ready for upgrade. If you performed the health check just prior to running the upgrade and resolved any issues (if applicable) to pass the health check, you should successfully pass the health check again. Click "Confirm" to proceed with the upgrade. Please note that the Confirm button will be disabled if any issues deemed incompatible for upgrade are detected.

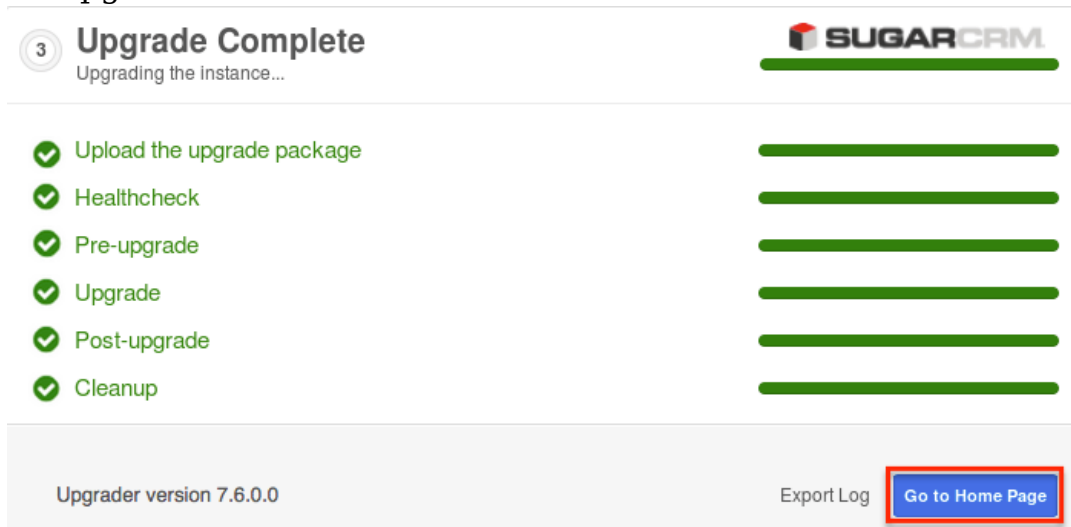


6. A progress bar will display on the following screen showing each step (Upload the upgrade package, Healthcheck, Pre-upgrade, Upgrade, etc.) being completed.



7. Once the upgrade is completed successfully, click the Go to Home Page button.

Note: You can click the Export Log button if you wish to view the log file for the upgrade.



Navigate to the About page in Sugar and it should now display SugarCRM Professional, Version 7.8.0.0.

Now that your instance has successfully been upgraded to 7.8, please upgrade your stack components to be in compliance with the 7.8.x Supported Platforms including updating Elasticsearch to version 1.4.4 or 1.7.5.

Upgrading via Silent Upgrader

The Silent Upgrader is a command line script that enables administrators to avoid some limitations of the server environment PHP and potentially the web server with settings that can put too tight of restrictions on the upload size or session timeouts. The Silent Upgrader either avoids the limitations or better controls the settings in its stand-alone execution environment.

First, ensure you have completed the upgrade prerequisites listed above.

The health check scanner will run as part of the upgrade process to ensure that your instance is suitable for the actual upgrade. If any issues (red flags) are detected that are deemed incompatible for upgrade, the health check will fail and you will not be able to proceed with the upgrade until the issues have been resolved. If you wish to evaluate your instance's readiness for upgrade prior to performing the upgrade, please proceed through the first two sections below and exit the upgrader after completing the health check.

Please ensure that you are executing the Silent Upgrader scripts as the web server user. The Silent Upgrader script creates new files for the user logged in running

the script. For example, for the root user it creates files as user/group root. Since Apache cannot read this, you must ensure that the web server user has the permissions to read and write the script.

Use the following steps to perform an upgrade using the Silent Upgrader:

Downloading the Necessary Files

1. Navigate to your available downloads using Steps 1 - 8 on the Downloading Sugar section to obtain the appropriate silent upgrade file.
Note: The silent upgrade files can be found under the Upgrade Packages section and will specify the "to" version of Sugar in the file name. This version must match your future, desired version of Sugar, not your current version. For example, to silent upgrade a 7.7.2.0 instance of Sugar to 7.8.0.0, you would need the silentUpgrade-PRO-7.8.0.0.zip file. Please note that the silent upgrade file includes the phrase "PRO" for all editions.

Upgrade Packages		
File	Size	Date Posted
SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip	38.62MB	2016-11-29
silentUpgrade-PRO-7.8.0.0.zip	25.72KB	2016-12-01

Note: The upgrade file must be placed in a path that does not include any spaces in the name or there will be errors when performing the upgrade.

2. Also, download to your server the appropriate upgrade package which specifies both the "to" and "from" versions.
 - For example, to upgrade a 7.7.2.0 instance of Sugar Professional to 7.8.0.0, you would need the SugarPro-Upgrade-7.7.x-to-7.8.0.0.zip file. Please note that these upgrade packages are edition specific.
 - Note: The upgrade file must be placed in a path that does not include any spaces in the name or there will be errors when performing the upgrade.
3. Unzip the silent upgrade file.
Note: The upgrade package downloaded in step 2 may also be unzipped if desired prior to performing the upgrade.

Performing the Health Check

1. From the command line of the web server, navigate to the directory containing the above files downloaded and extracted in the Downloading the

Necessary Files section above:

```
php CliUpgrader.php -z <upgradePackage> -l <logFile> -s  
<pathToSugar> -u <adminUser> -m <mask> -b <backup> -S <stage> -A  
<autoConfirm> -H <sendLog>
```

Note: To invoke only the health check stage of the silent upgrade process, populate the parameters above with specific values in your situation:

- <upgradePackage> : The full file path to the upgrade package.
- <logFile> : The path to the log file to store the results of the silent upgrade. A relative path to the Sugar instance may be used.
- <pathToSugar> : The full file path to the instance being upgraded.
- <adminUser> : A valid administrative user name.
- <mask> : Script mask specifying which types of scripts to run. Supported types include: core, db, custom, all, and none. The default value is 'all'.
- <backup> : Determines whether a backup of deleted files will be made with a default of "1" (true). Changing the option to "0" will not create a backup while.
- <stage> : Instructs the upgrader to begin at a specific stage; "healthcheck" will cause only the health check portion to run while "continue" will cause it to start where it stopped on the previous run.
- <autoConfirm> : Determines whether the confirmation prompt to continue with upgrade is bypassed and allows upgrade to automatically proceed when health check passes with a green or yellow flag. The option defaults to "0" (false). Change the option to "1" to enable the autoconfirm and proceed directly to upgrading after the health check. Do not alter this option when attempting to only run the health check without also completing an upgrade.
- <sendLog> : Determines whether a log file is sent to SugarCRM with a default of "0" (false). Changing the setting to "1" (true), you are agreeing to send the health check logs to SugarCRM. For example, when running Sugar on a Linux-based server where your web root directory is located at /var/www/html/sugarcrm and the upgrade zip file and extracted files are all located at /home/users/<yourUserName>/sugarupgrade, use the following commands to perform a silent upgrade with the user "admin" and a log file of "silentUpgrade_7800.log":

```
cd /home/users/<yourUserName>/sugarupgrade/  
php CliUpgrader.php -z  
/home/users/<yourUserName>/sugarupgrade/SugarPro-Upgrade-7.7.x-to-  
7.8.0.0.zip -l ./silentUpgrade_7800.log -s /var/www/html/sugarcrm/  
-u admin -S healthcheck
```

2. The health check results will display whether the health check passed or failed for your instance.
 - Green Flag : Health check passed successfully. Please refer to the log file if you wish to view details of the health check.

-
- Yellow Flag : Health check passed. Please refer to the log file if you wish to view any errors or details of the health check. Should you choose to proceed with the upgrade, please keep in mind that customizations were found in your instance that may:
 - Prevent certain modules from getting upgraded to Sugar 7's Sidecar user interface and will be available with the Legacy user interface.
 - Be modified or disabled to facilitate the upgrade of certain modules to Sugar 7's Sidecar user interface.
 - Red Flag : Health check failed. Issues deemed incompatible for upgrade must be resolved before proceeding with the upgrade. Please refer to the log file in order to view the errors and details of the health check.

Performing the Upgrade

1. From the command line of the web server, navigate to the directory containing the above files downloaded and extracted in the Downloading the Necessary Files section above:

```
php CliUpgrader.php -z <upgradePackage> -l <logFile> -s  
<pathToSugar> -u <adminUser> -m <mask> -b <backup> -S <stage> -A  
<autoConfirm> -H <sendLog>
```

Note: To invoke the silent upgrade process with all the necessary stages (including health check), populate the parameters above with specific values in your situation and exclude the "-S" parameter:

- <upgradePackage> : The full file path to the upgrade package.
- <logFile> : The path to the log file to store the results of the silent upgrade. A relative path to the Sugar instance may be used.
- <pathToSugar> : The full file path to the instance being upgraded.
- <adminUser> : A valid administrative user name.
- <mask> : Script mask specifying which types of scripts to run. Supported types include: core, db, custom, all, and none. The default value is 'all'.
- <backup> : Determines whether a backup of deleted files will be made with a default of "1" (true). Changing the option to "0" will not create a backup while.
- <stage> : Instructs the upgrader to begin at a specific stage; "healthcheck" will cause only the health check portion to run while "continue" will cause it to start where it stopped on the previous run.
- <autoConfirm> : Determines whether the confirmation prompt to continue with upgrade is bypassed and allows upgrade to automatically proceed when health check passes with a green or yellow flag. The option defaults to "0" (false). Change the option to "1" to enable the autoconfirm and proceed directly to upgrading after the health check. Do

not alter this option when attempting to only run the health check without also completing an upgrade.

- `<sendLog>` : Determines whether a log file is sent to SugarCRM with a default of "0" (false). Changing the setting to "1" (true), you are agreeing to send the health check logs to SugarCRM. For example, when running Sugar on a Linux-based server where your web root directory is located at `/var/www/html/sugarcrm` and the upgrade zip file and extracted files are all located at `/home/users/<yourUserName>/sugarupgrade`, use the following commands to perform a silent upgrade with the user "admin" and a log file of "silentUpgrade_7800.log":

```
php CliUpgrader.php -z
/home/users/<yourUserName>/sugarupgrade/SugarPro-Upgrade-7.7.x-to-
7.8.0.0.zip -l ./silentUpgrade_7800.log -s /var/www/html/sugarcrm/
-u admin
```

2. The Health Check scanner will automatically run to evaluate whether your instance is ready for upgrade.

The results will display whether the health check passed or failed for your instance:

- Green Flag : Health check passed successfully and you can proceed with the upgrade. A message will display asking for confirmation (Yes or No) to proceed with the upgrade. Please refer to the log file if you wish to view details of the health check.
- Yellow Flag : Health check passed and you can proceed with the upgrade. A message will display asking for confirmation (Yes or No) to proceed with the upgrade. Please refer to the log file if you wish to view any errors or details of the health check. Should you choose to proceed with the upgrade, please keep in mind that customizations were found in your instance that may:
 - Prevent certain modules from getting upgraded to Sugar 7's Sidecar user interface and will be available with the Legacy user interface.
 - Be modified or disabled to facilitate the upgrade of certain modules to Sugar 7's Sidecar user interface.
- Red Flag : Health check failed and you cannot proceed with the upgrade. Issues deemed incompatible for upgrade must be resolved prior to upgrading. Please refer to the log file in order to view the errors and details of the health check.

3. After the upgrade is completed successfully, fix ownership and permissions of Sugar's root directory:

```
chown apache:apache -R <Sugar root directory>
chmod 755 -R <Sugar root directory>
```

4. Log into Sugar and as a final cleanup, navigate to Admin > Repair and perform "Quick Repair and Rebuild" and "Rebuild Relationships". For more

information on the functions performed by the repair, please refer to the Repair documentation.

Now that your instance has successfully been upgraded to 7.8, please upgrade your stack components to be in compliance with the 7.8.x Supported Platforms including updating Elasticsearch to version 1.4.4 or 1.7.5.

Converting Sugar Editions

The Upgrade Wizard allows administrators to easily convert their Sugar instance to a new edition (e.g. Professional to Enterprise) using a conversion zip file. Before running the conversion in Sugar, please be sure to create a backup of your file directory and database.

Note: The Silent Upgrader may also be used to convert to a new edition via the command line.

The health check scanner will run as part of the conversion process to ensure that your instance is suitable for conversion. If any issues (red flags) are detected that are deemed incompatible for conversion, the health check will fail and you will not be able to proceed with the conversion until the issues have been resolved.

The following table lists the editions that can be converted from and to in Sugar:

From Edition	To Edition
Professional	Corporate, Enterprise, Ultimate
Corporate	Enterprise, Ultimate
Enterprise	Ultimate

Use the following steps to convert your Sugar instance (e.g. Professional) to a new edition (e.g. Enterprise):

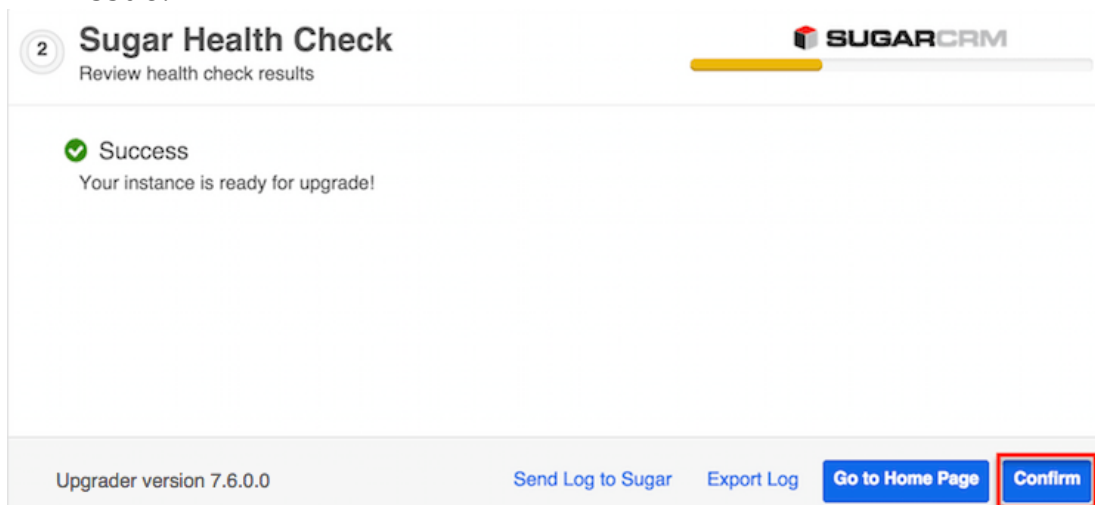
1. Navigate to your available downloads using Steps 1 - 8 on the Downloading Sugar section to obtain the appropriate conversion zip file.
Note: The conversion files can be found under the Conversion Packages section and specify the from and to editions of Sugar in the file name. The from edition must match your current edition of Sugar in order to successfully perform the conversion. For example, to upgrade a 7.8.0.0 instance of Sugar Professional to Sugar Enterprise 7.8.0.0, you would need the SugarPro-to-SugarEnt-Conversion-7.8.0.0.zip.

Conversion Packages		
File	Size	Date Posted
SugarPro-to-SugarEnt-Conversion-7.8.0.0.zip	13.89MB	2016-11-29
SugarCorp-to-SugarEnt-Conversion-7.8.0.0.zip	13.92MB	2016-11-29

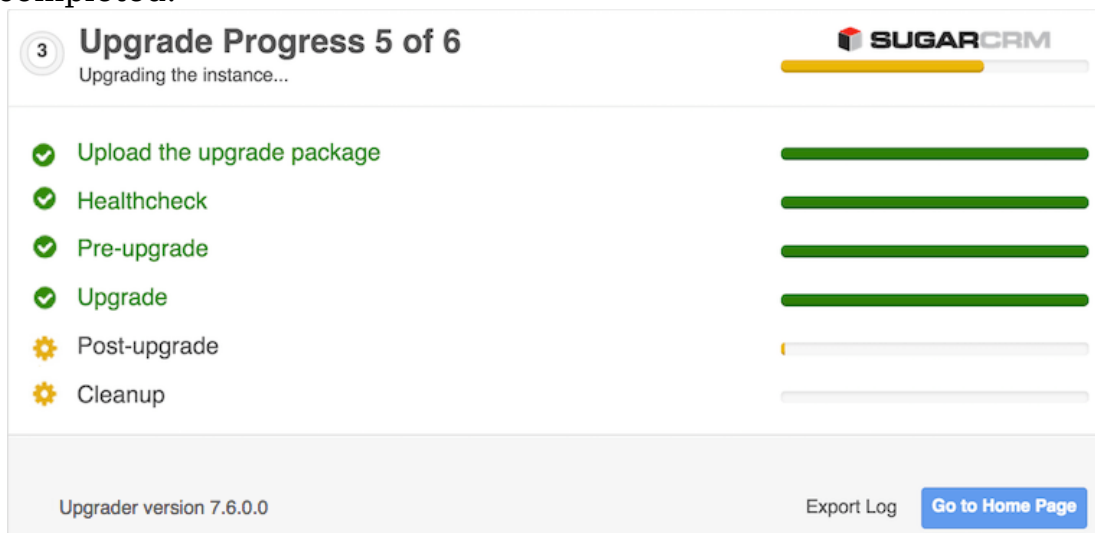
2. Navigate to Admin > Upgrade Wizard.
3. In Step 1 of the upgrade wizard, click the Choose File button and select the appropriate conversion file from your local machine then click "Upload". The health check will now begin to run.

4. Step 2 of the upgrade wizard will display the health check results marked by different colored icons. Click "Confirm" to proceed with the conversion.
Note: The Confirm button will be disabled if any issues deemed incompatible for conversion are detected.
 - Green Check Mark : Health check passed. Any customizations detected in your instance marked with a green check mark will be converted properly.
 - Yellow Ellipsis : Health check passed. Outputs are generated which require attention. Should you choose to proceed with the conversion, please keep in mind that customizations were found in your instance that may:
 - Prevent certain modules from getting converted to Sugar 7's Sidecar user interface and will be available with the Legacy user interface.
 - Be modified or disabled to facilitate the conversion of certain modules to Sugar 7's Sidecar user interface.
 - Red Exclamation : Health check failed. Any issues deemed incompatible for conversion will need to be resolved before proceeding with the conversion. By clicking the Send Log to Sugar button, you are agreeing

to send the full log file of the health check results to SugarCRM. You can also click the Export Log button to view the log file and troubleshoot the issue.

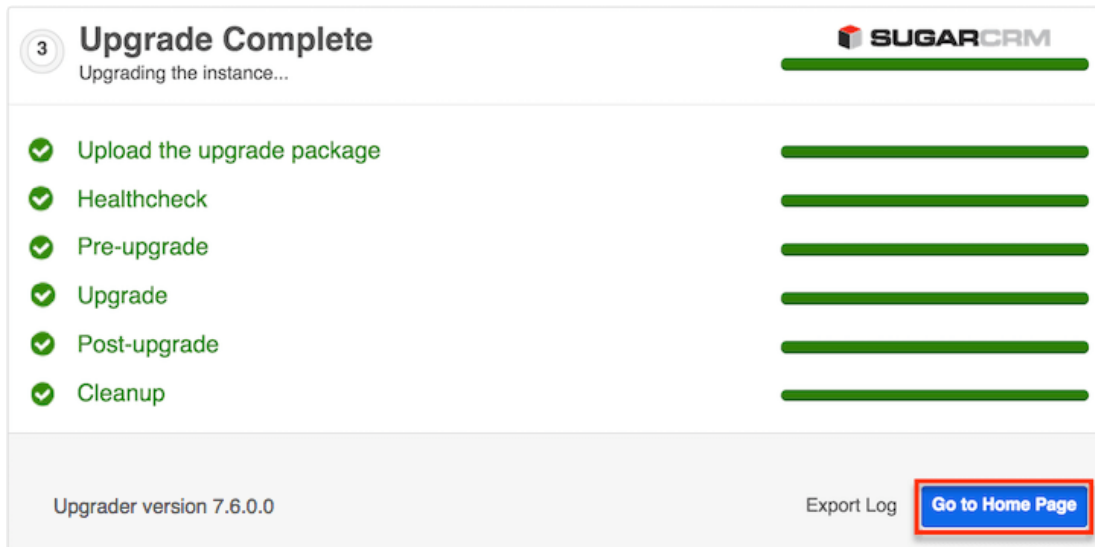


5. A progress bar will display on the following screen showing each step (Upload the upgrade package, Healthcheck, Pre-upgrade, Upgrade, etc.) being completed.

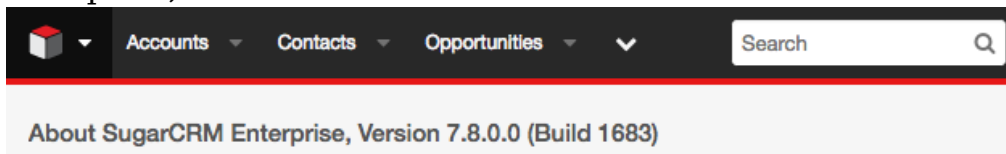


6. Once the conversion is completed successfully, click the Go to Home Page button.

Note: You can click the Export Log button if you wish to view the log file for the conversion.



7. Navigate to the About page in Sugar and it should now display SugarCRM Enterprise, Version 7.8.0.0.



Uninstalling Sugar

Use the following steps to uninstall an instance of Sugar:

1. Navigate to the web server where Sugar is installed and delete the Sugar root directory.
2. Navigate to the Sugar database using a database management system or command line and delete the Sugar database from the server.

Note: It is highly recommended to create a backup of the file directory and database before deleting.

Advanced Configuration

After installing Sugar, there are some advanced configurations that you can take advantage of. During the installation, Sugar attempts to create a .htaccess file in the Sugar root directory. This file helps to ensure certain files are not accessible through a web browser. The contents of this file should contain:

```
# BEGIN SUGARCRM RESTRICTIONS
RedirectMatch 403 (?i).*\.log$
```

```
RedirectMatch 403 (?i)/+not_imported_.*\.txt
RedirectMatch 403
(?i)/+(soap|cache|xtemplate|data|examples|include|log4php|metadata|modules)/+.*\.(php|tpl)
RedirectMatch 403 (?i)/+emailmandelivery\.php
RedirectMatch 403 (?i)/+upload/
RedirectMatch 403 (?i)/+custom/+blowfish
RedirectMatch 403 (?i)/+cache/+diagnostic
RedirectMatch 403 (?i)/+files\.md5$

# Fix mimetype for logo.svg (SP-1395)
AddType      image/svg+xml      .svg
AddType      application/json    .json
AddType      application/javascript .js

<IfModule mod_rewrite.c>
    Options +FollowSymLinks
    RewriteEngine On
    # Replace <basepath> with the relative web root path to your
instance
    RewriteBase /<basepath>
    RewriteCond %{REQUEST_FILENAME} !-d
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteRule ^rest/(.*)$ api/rest.php?__sugar_url=$1 [L,QSA]
    RewriteCond %{REQUEST_FILENAME} !-d
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteRule ^cache/api/metadata/lang_(...)_(.*)_public\.json$
api/rest.php/v10/lang/public/$1?platform=$2 [L,QSA]
    RewriteCond %{REQUEST_FILENAME} !-d
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteRule ^cache/api/metadata/lang_(...)_([\^_]*)\.json$
api/rest.php/v10/lang/$1?platform=$2 [L,QSA]
    RewriteCond %{REQUEST_FILENAME} !-d
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteRule ^cache/Expressions/functions_cache(_debug)?.js$
api/rest.php/v10/ExpressionEngine/functions?debug=$1 [L,QSA]
</IfModule>

<FilesMatch "\.(jpg|png|gif|js|css|ico|woff|svg)$">
    <IfModule mod_headers.c>
        Header set ETag ""
        Header set Cache-Control "max-age=2592000"
        Header set Expires "01 Jan 2112 00:00:00 GMT"
    </IfModule>
</FilesMatch>
```

```
<IfModule mod_expires.c>
    ExpiresByType text/css "access plus 1 month"
    ExpiresByType text/javascript "access plus 1 month"
    ExpiresByType application/x-javascript "access plus 1 month"
    ExpiresByType image/gif "access plus 1 month"
    ExpiresByType image/jpg "access plus 1 month"
    ExpiresByType image/png "access plus 1 month"
</IfModule>

# END SUGARCRM RESTRICTIONS
```

To verify these restrictions are in place in your instance, attempt to navigate to the `sugarcrm.log` file through a supported web browser (`http://{Server Location}/sugarcrm/sugarcrm.log`). If the restrictions are properly in place, you will receive a `#403 Forbidden` error. If you do not receive this error, you are either missing the `.htaccess` file or your web server is not configured to allow a `.htaccess` file. For more information on enabling a `.htaccess` file for your web server, please refer to your web server provider's documentation.

Sugar comes with many different advanced configuration options such as:

- System Configuration
- Security Options
- Performance
- Disabling Automatic Searches
- Elastic Search Configuration

For more information regarding these topics and more configuration options, please refer to the [Advanced Configuration Options](#) documentation.

Last Modified: 05/07/2018 06:04pm