

Volume

1

SYNCCLOUD 0.5.2

Administrator Console Web Application



User Manual
Administrator Console
Web Application

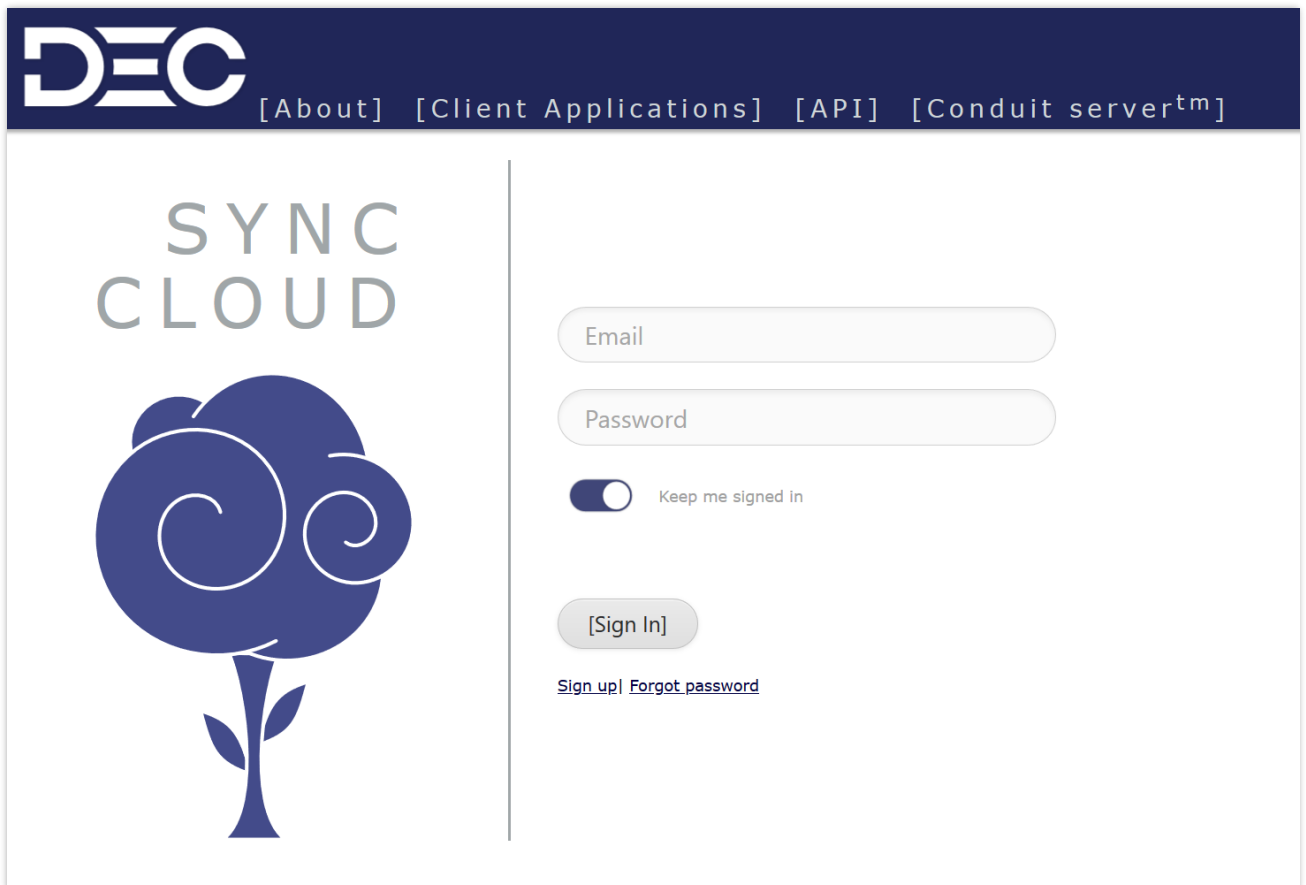
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GETTING STARTED

Administrator console Web application is the main tool that is used to set up virtual projects. This application does not require any specialized hardware, software, or operating system to run. It can be accessed on any device through a Web browser. The Web app supports all modern Web browsers capable of rendering HTML-5 and CSS-3 Web sites.

Administrator console Web application can be accessed by visiting the following URL:
<https://console.synccloudservices.com>






Accessing the administrator console requires registration with the SyncCloud system. Once registered, administrators can log into the console using their e-mail and password. The [Sign up] link can be used to access a registration form.

Account activation requires e-mail confirmation. Upon registering the system sends an activation e-mail to the e-mail address associated with the newly registered administrator user. The message contains a link to a user activation page. After activation is complete, administrator users can sign into the project administrator console.

MAIN PAGE (PROJECTS PAGE)

The main page of the administrator console is divided into a header and a body. The header contains controls that persist between different console pages, while the body displays pages relevant to selected features.

The top of the header displays an administrator user e-mail address, user account setting button () , feature title, support button () , and sign-out button () . The second row of the header contains the following tabs to the three main administrator pages:

1. **Projects** –Page for creating, deleting, and administrating virtual projects
2. **Payer profiles** – Page for creating, deleting, and administrating project sponsor profiles and billing
3. **Conduit servers** – Page for viewing and managing trusted third-party conduit servers

PROJECT ADMINISTRATION TAB

The first page of the project administration tab displays a list of projects for the administrator. Three buttons at the top of the tab page are as follows:



- **Main** drawer menu that contains links to various console pages and functions






- **Create new project** page that displays a project creation form dialog window



- **Link project** page that allows linking projects created by other administrators using special invitation codes

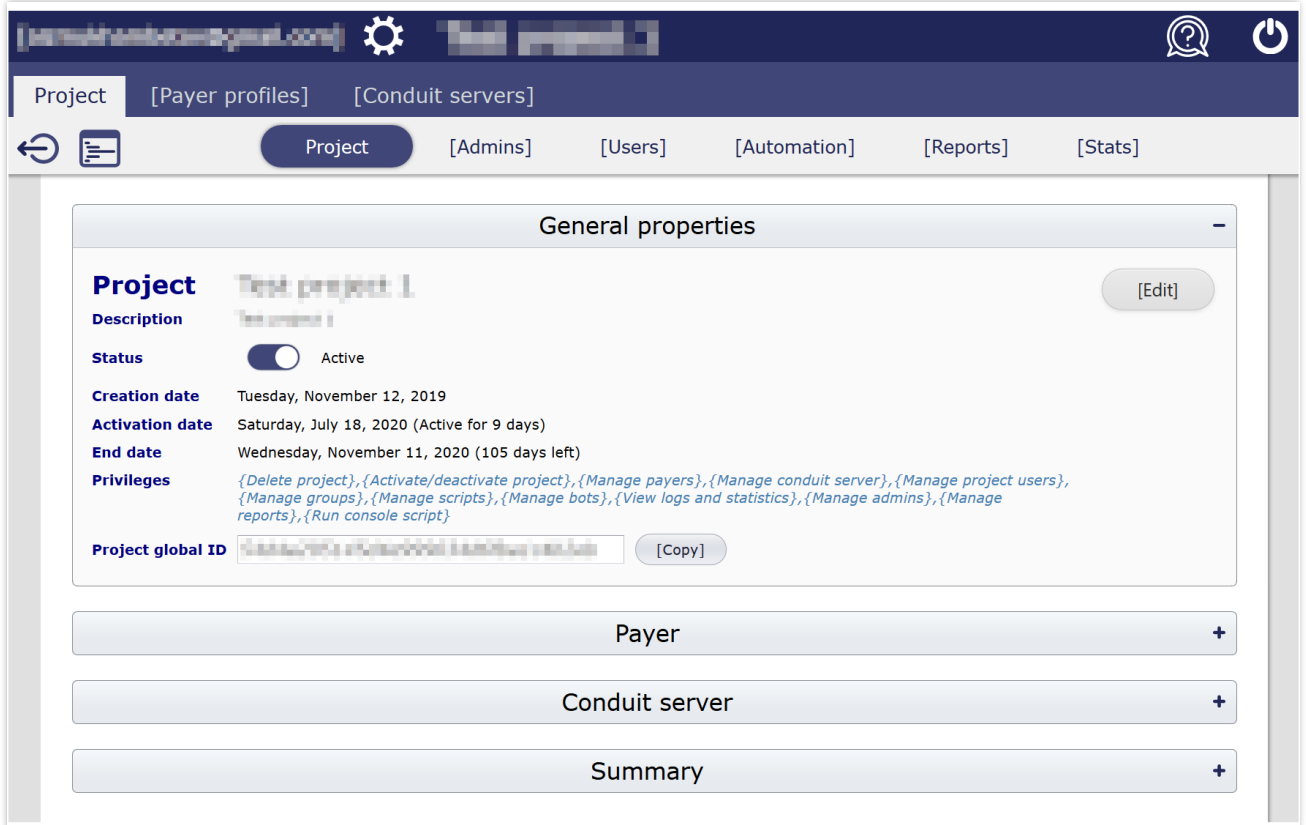
The body of the project administration tab displays a list of all projects created or linked to the current administrator account. Each item on the list represents one project and displays the following project properties:

- **Project name** – Name given to the project by its administrator
- **Project description** – Additional information related to created project
- **Project status:**
 -  **Active** – Project features can be activated to allow transactions between client applications and online services
 -  **Not active** – All project features are switched off and no transactions are allowed between client applications and online services
- **Creation date** – Date/time value automatically set upon project creation
- **Activation date** – Date/time value of most recent event of project activation
- **End date** – Project expiration date. Projects are automatically deactivated at the specified value.
- **Privileges** – Set of privileges granted to the project administrator. Projects created by the administrator grant full privileges by default to said administrator. When projects are linked to the account via an invitation code, privileges are granted by the inviting administrator.



Project can be deleted from the list by clicking the delete icon (). Once the project is deleted all project features are deactivated and it is no longer possible to access it.

PROJECT TAB

Accessing any particular project administration pages is possible by clicking on the project name in the list.




The first page visible after accessing a project is a general properties page. The top of the page header also displays the name of the selected project. The bar under the main tabs displays the following additional buttons:

-  - Return to project selection page
-  - Project console script dialog window
- [Project]** - Project general properties page
- [Admins]** - Project administrator management table page
- [Users]** - Project users and groups management page
- [Automation]** - Project client scripts and bots management page
- [Reports]** - Web reports management page
- [Stats]** - Data transfer history table page

Each project administration page consists of one or more panels. Each panel is responsible for administering a project feature. Project page contains four panels: general properties, payer, conduit server, and summary.

GENERAL PROPERTIES PANEL

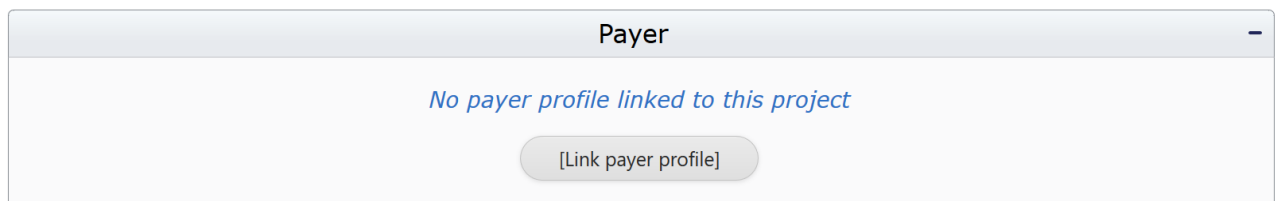
This panel is for viewing and editing general project properties as well as for activating or deactivating projects. Click the **[Edit]** button in the top-right corner of the panel to edit general project properties. Status toggle switch  can be used to activate or deactivate the entire project.

***Note:** When project is deactivated, all project features, even those that are marked as active, also get deactivated. Once the project is reactivated, all project features that have been active before project deactivation will also reactivate. However, bots are handled differently. When bots are deactivated due to project deactivation, they will need to be manually reactivated upon project reactivation.*

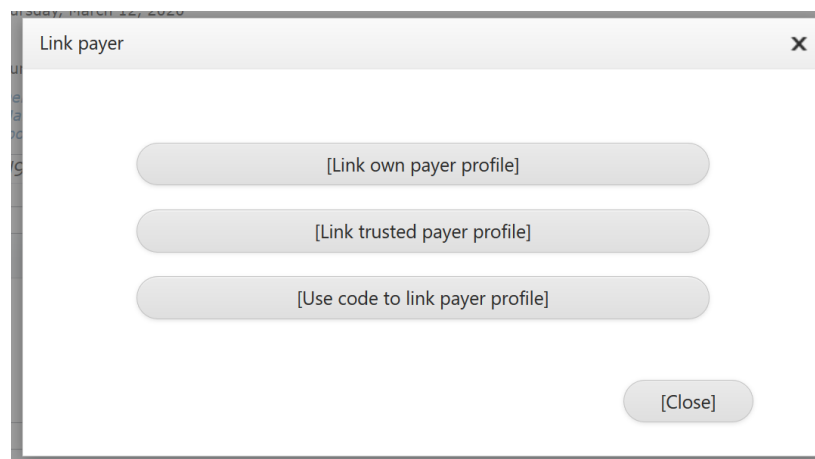
Created projects are assigned a unique persistent global identifier, i.e. project global ID. This ID value is used by client applications, along with project user credentials, to authenticate project users with the SyncCloud global service.

PROJECT PAYER PROFILE PANEL

A project requires a linked payer to be activated. Payer profile is a feature linked to an administrator account that can be used to sponsor projects. Once projects are linked to a payer profile, all project-related charges appear on the billing statement of that payer profile.

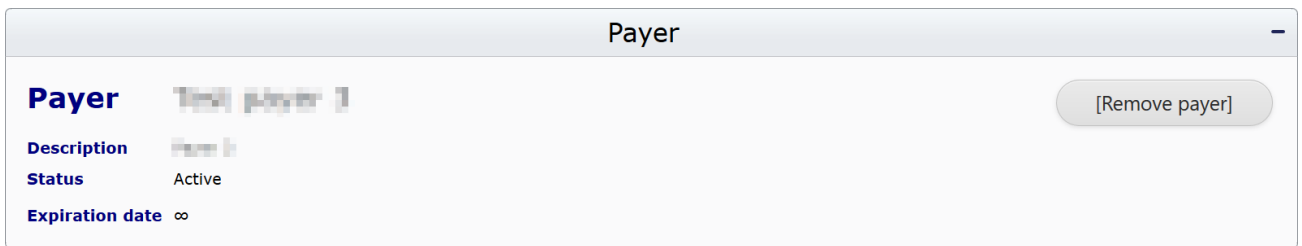


, Click the **[Link payer profile]** button on the payer panel to link a payer profile to projects.



There are the following three ways a payer can be linked to the project:

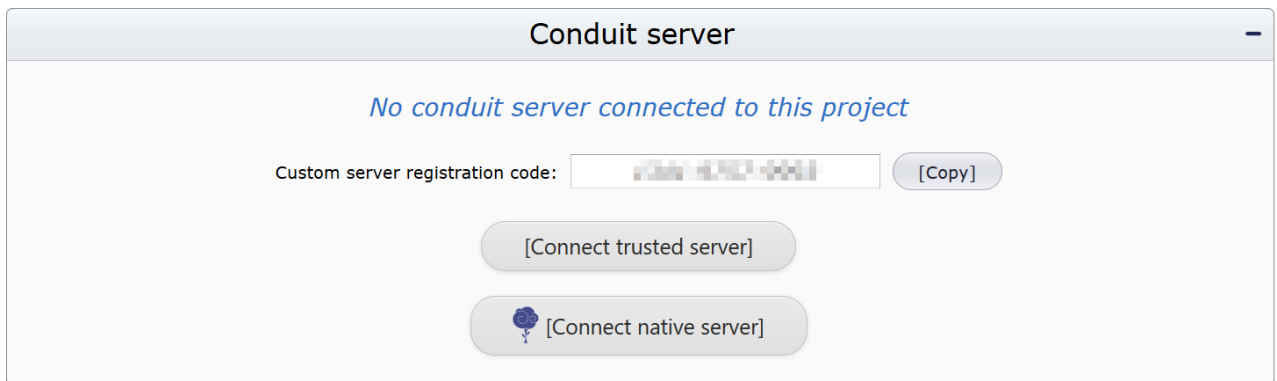
1. **Own payer** – Self-sponsored projects: a payer profile existing under the same administrator account that can be also assigned as a sponsor the project
2. **Trusted payer** – Payer profiles of the accounts that mark the current project administrator as “trusted” will appear in this list: when a project administrator selects a trusted payer, the payer administrator will receive an e-mail with options to accept or reject the linked project
3. An assigned **code** can be used to create a one-time link to the payer without registering project administrator as “trusted” with the payer account.



After the payer is successfully linked to the project, the payer panel will display payer general information such as name, description, status, and link expiration date. Click the **[Remove payer]** button in the top-right corner of the payer panel to remove the link between the project and the payer.

CONDUIT SERVER PANEL

The third panel on the project general properties page is used for connecting a conduit server to a project. This conduit server will be used for all data transactions between client applications and other online services. Only one conduit server can be connected to the project at a time. However, a single conduit server can be connected to multiple different projects simultaneously.



There are the following three ways a conduit server can be connected to the project:

1. **Using conduit server custom registration code**

Each virtual project has a unique conduit server registration code. Project administrators may request conduit server administrators to connect a conduit server to a given project. In this case

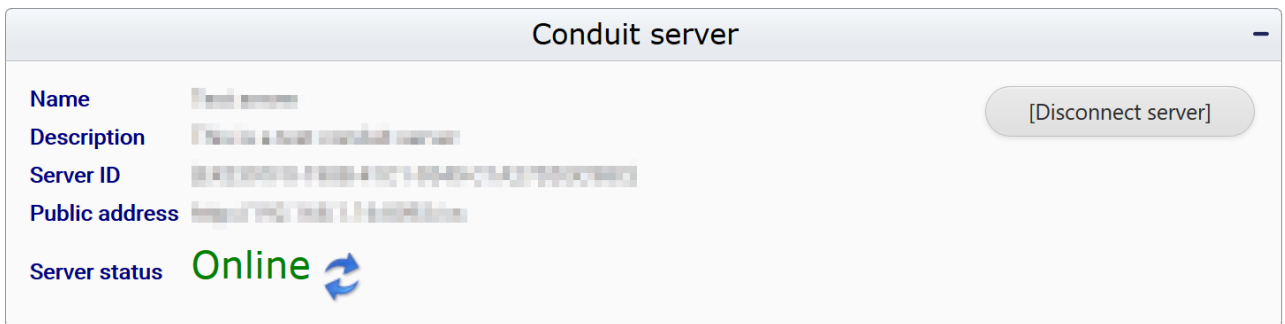
custom code needs to be shared with conduit server administrators, which can then be used with a conduit server management console to link the project to the server.

2. Connect trusted conduit server

Conduit server administrators may maintain a list of trusted SyncCloud accounts which are explicitly allowed to connect servers to their projects without active participation of conduit server administrators. If a project administrator is trusted by the conduit server, the name of this server will appear in the popup list upon clicking on the **[Connect trusted server]** button.

3. Connect native conduit server

SyncCloud system provides access to a network of native conduit servers administered by the system. Any of the native servers can be connected to the project at any time.

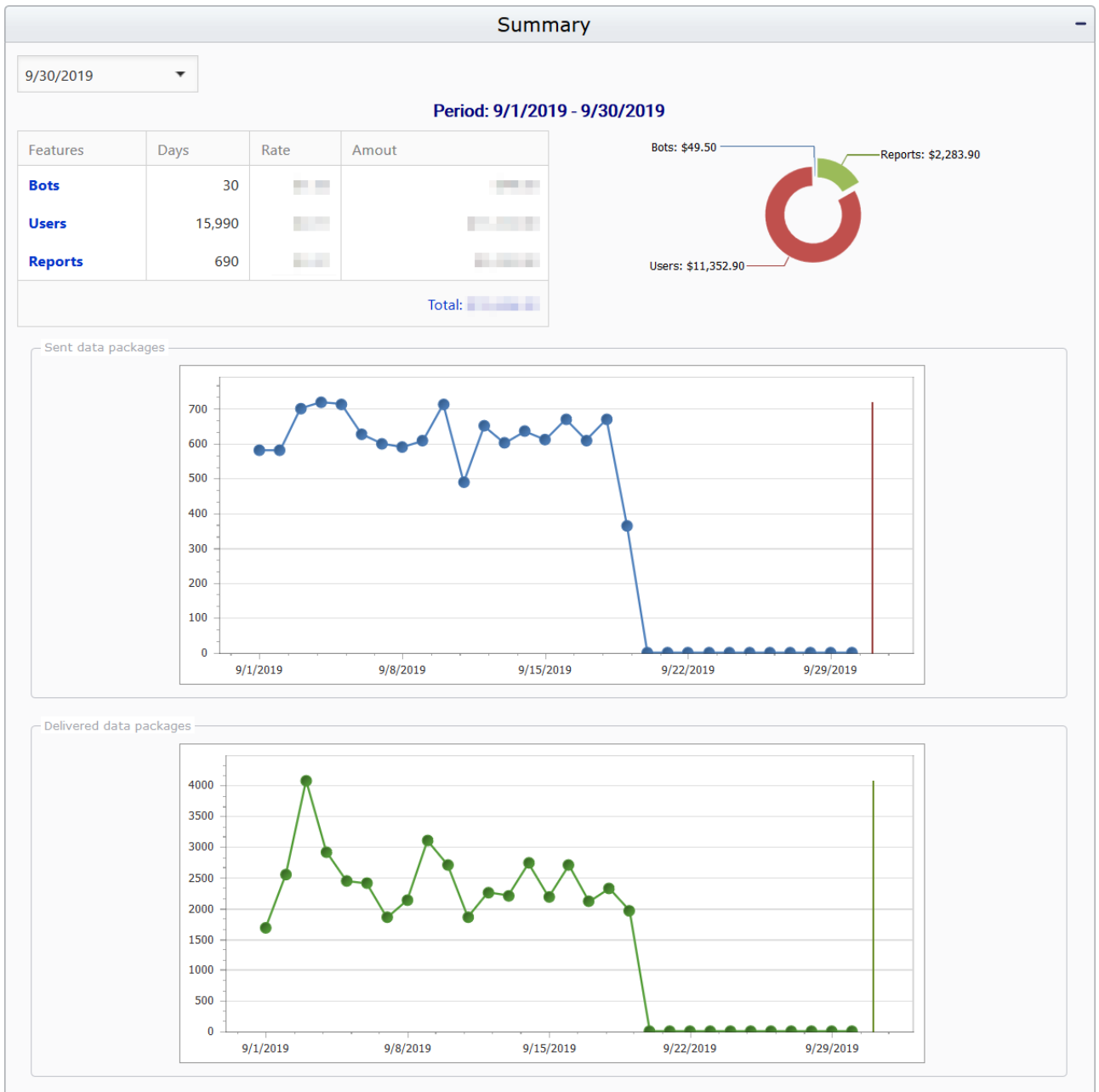


Once the conduit server is connected to the project, it is ready to transfer data between client applications and other project services. The panel displays the following conduit server metadata broadcasted by the server.:

- **Name** – Conduit server name given by server administrators
- **Description** – Short server description specified by server administrators
- **Server ID** – Globally unique server identifier
- **Public address** – URL that client applications and services use for connecting to the server
- **Server status** – Current server status

PROJECT SUMMARY PANEL

The fourth panel on the project general properties page displays a project summary as well as data transfer activity. The summary is displayed by monthly billing periods. Each period begins on the 1st and ends on the last day of that month.



Select a date in the calendar drop down box in the top-left corner of the panel to view the summary for a selected period. The summary contains the following information:

- Period dates
- Table outlining the frequency of use of different project features that have been active during the period as well as an associated daily rate and total accrued amount within the period
- A pie chart with distribution of accrued charges for the selected period
- Two line graphs displaying the amount of data packages sent and received by clients and other services within the selected period

PROJECT ADMINISTRATORS MANAGEMENT TAB

Project administrator management page contains a panel to view and manage other SyncCloud project administrator accounts linked to the project.

Project admins				
[Invite admin]		[Remove selected]		
<input type="checkbox"/>	Admin Email	Privileges	Status	
<input type="checkbox"/>	admin.project@synccloud.com	{Manage project users},{Manage groups}	Active	
<input type="checkbox"/>	admin.project@synccloud.com	{Delete project},{Activate/deactivate project},{Manage payers},{Manage conduit server},{Manage project users},{Manage groups},{Manage scripts},{Manage bots},{View logs and statistics},{Manage admins},{Manage reports},{Run console script}	Pending, Expires in 47:59:58	

The panel displays a table that shows which administrators are linked to the project, their level of privileges and status. The table only includes additional accounts different from the currently logged in project administrator account.

To link an external administrator to the project, that administrator needs to be “invited” to participate in the project. This can be done by Click the **[Invite admin]** button and fill out the administrator invitation form in a pop-up dialog window.

Invite admin
✕

Email:*

Privileges:

{Delete project} ✕

{Activate/deactivate project} ✕

{Manage payers} ✕

{Manage conduit server} ✕

{Manage project users} ✕

{Manage groups} ✕

{Manage scripts} ✕

{Manage bots} ✕

{View logs and statistics} ✕

{Manage admins} ✕

{Manage reports} ✕

{Run console script} ✕


[Select All]

[Clear All]

[Invite admin]

[Cancel]

Enter their e-mail address and select which privileges you would like to grant them. Then click the **[Invite admin]** button to add them to the project administrators table. At the same time an e-mail is dispatched to the administrator with a project invitation code that enables them to link the project to their SyncCloud account. Until the invited administrator accepts the invitation and uses the invitation code, the status of the administrator in the project is set to

“Pending”. The invitation expires 48 hours after it has been sent. The invitation can be extended by clicking the [Resend invitation email] button indicated by the  icon next to the status column in the table.

Administrator privileges are used to manage the level of access administrators have to different project features. The project administrator account that was used for creating the project is granted full privileges by default. However, they can be limited to the following privileges:












{Delete project}	- Privilege to delete the project from the server
{Activate/deactivate project}	- Privilege to activate or deactivate the project
{Manage payers}	- Privilege to link or de-link payer profiles in the project
{Manage conduit server}	- Privilege to connect or disconnect conduit servers in the project
{Manage project users}	- Privilege to create/delete/activate/deactivate/edit project users
{Manage groups}	- Privilege to create/delete/edit project groups
{Manage scripts}	- Privilege to create/delete/edit client scripts in the project
{Manage bots}	- Privilege to create/delete/activate/deactivate bot instances
{View logs and statistics}	- Privilege to view transaction related metadata and statistics
{Manage admins}	- Privilege to invite/remove other project admins
{Manage reports}	- Privilege to publish/delete Web report templates in the project
{Run console script}	- Privilege to execute global console scripts in the project

PROJECT USERS TAB

Project users page contains controls to manage project users and groups. Project user accounts supply credentials through client application enabling it to access network to send and receive data.

[Users] [Groups]

Project Users: 11

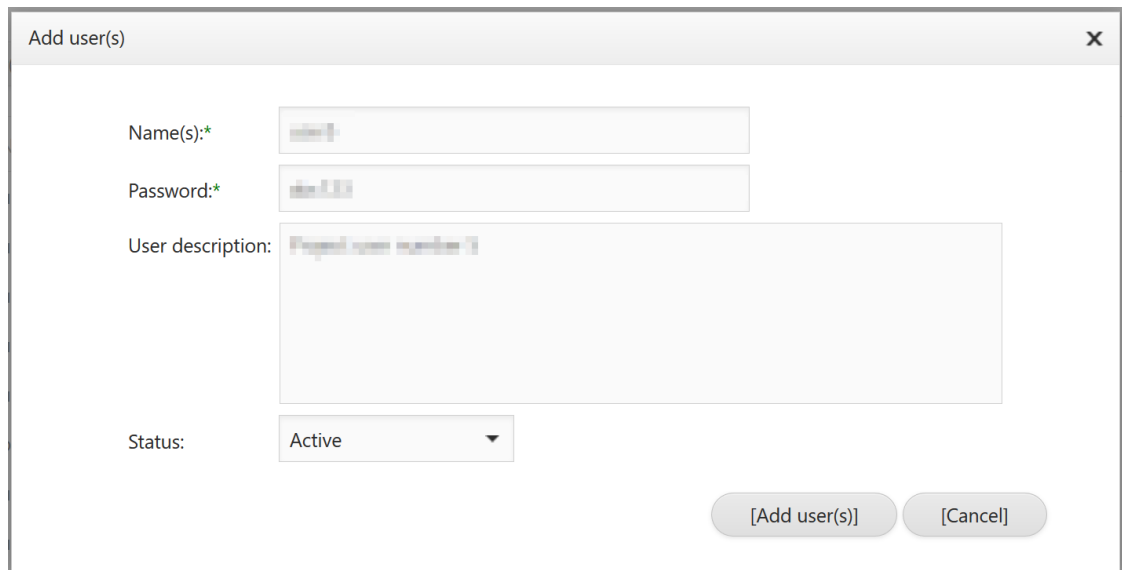
<input type="checkbox"/>	Name	Password	Status	Description	
<input type="checkbox"/>	user1	abc123	Active	Test user	
<input type="checkbox"/>	user1	abc123	Active	Test user	
<input type="checkbox"/>	api	abc123	Active	Test user	
<input type="checkbox"/>	api	abc123	Active	Test user	
<input type="checkbox"/>	api	abc123	Active	Test user	
<input type="checkbox"/>	testuser	abc123	Active	Test user	
<input type="checkbox"/>	user1	abc123	Active	Test user	
<input type="checkbox"/>	user1	abc123	Active	Mobile-Test user	
<input type="checkbox"/>	user1	abc123	Active	Test user	
<input type="checkbox"/>	user1	abc123	Active	Mobile test user	
<input type="checkbox"/>	user1	abc123	Active		

On this page project administrators can create or delete project user accounts as well as modify user status. Each username must be unique within the project. Each user must have a password of six or more characters long. The password is assigned by project administrators and cannot be changed by users. Although not recommended, the same password can be shared by multiple project users.

Note: A project user account cannot be shared between different projects. There is a hard-coded partitioning in place guarding the data transfer from breaching the project boundaries. No data from one project can be shared with users from another project. Even if the same conduit servers or client devices are used to transfer data in multiple projects, transfer protocols do not allow for data sharing between projects on all levels in the system.

Project administrators can also control the active/inactive status of each user. When user accounts are inactive, the system prevents client application to send or receive any data. Only active project users accumulate charges within the current monthly billing period. Once users are inactive within 24-hour period, the daily charge associated with each user account does not apply. User active status, the same as any other project feature, is superseded by project global active/inactive status. I.e., if the user account is marked as active, but the project itself is not active, no data transfer is possible, hence no daily charge is applied.


Click **[Add user(s)]** in the top-left corner of the panel to add project users and fill out the form on the following pop-up dialog:



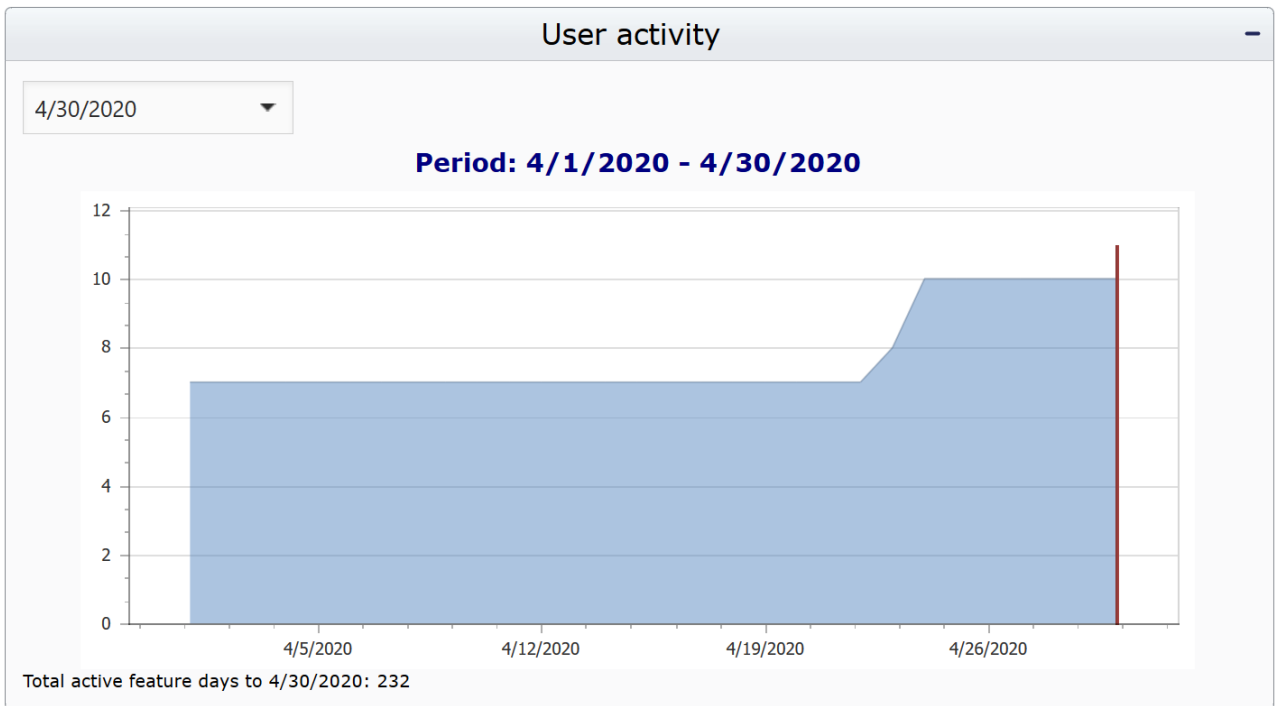
The screenshot shows a pop-up dialog titled "Add user(s)". It contains the following fields and controls:

- Name(s):***: A text input field containing "user1".
- Password:***: A password input field containing "123456".
- User description:**: A text area containing "Project user number 1".
- Status:**: A dropdown menu currently set to "Active".
- At the bottom right, there are two buttons: "[Add user(s)]" and "[Cancel]".

The **Name(s)** field accepts comma separated usernames. Usernames can only contain letters and numbers and cannot have spaces or special characters. **Passwords** cannot be fewer than 6 characters long. **User description** is optional and can be left blank if necessary. The **Status** field indicates the status of the user after creation. Click the **[Add user(s)]** button to create requested user accounts in the project.

User password, description, and status can be modified at any time by project administrators by clicking on the **[Edit]**  button in the corresponding row in the users table.

User activity panel displays the status of user activation/deactivation within selected billing period. The graph shows how many project users were active during each day for the selected period.



PROJECT USER GROUPS TAB

In the project user groups tab several project users can be grouped together under a single group name. The group name can then be used for linking project scripts to or serving as data package recipient.

[Users] [Groups]

Groups: 2

[Add group]

g1

Description: Group one

Users: [Click the box below to add users to group](#)


g2

Description: Group two

Users: [Click the box below to add users to group](#)

Use the **[Add group]** button in the top-left corner of the panel to add a group. Group names must be unique and cannot be the same as user names. Once the group is added to the project, use the “Users” token box to populate the group with project users.

Note: The same user can be linked to multiple groups.

Use the **[Delete]** button () in the top-right corner of each group panel to delete a group.

PROJECT AUTOMATION TAB

The project automation tab contains panels for managing client scripts and bots. Scripts are the main method of enabling automation of data transfer and synchronization between project users and other on-line services. Script is a piece of XML formatted text that encodes instructions to be executed by client application. When a script is linked to the user or to a group the user belongs to, it is downloaded and executed by client application upon successful user authentication with the project.

To add a script to the project click on the **[Add script]** button in the top-left corner of the scripts panel and fill out the pop-up dialog form. A script requires a name. Script names must be unique within the project. Description is optional. After a new script is added to a project it will appear on the script pannel as one of the tabs at the top of the panel. Multiple scripts may be defined per project.

The screenshot shows a web application window titled "Scripts: 5". At the top, there are buttons for "[Add script]" and "Delete [testscript]". Below these are tabs for "[TESTSCRIPT]", "[REPORT]", "[TESTSCRIPT2]", "[TESTSCRIPT3]", and "[REPORT2]". The main content area is divided into four sections:

- Description:** A text area containing "Test file transfer script".
- Event:** A dropdown menu currently showing "AfterLogin".
- Body:** A code editor showing XML code:


```

1 <CreateFilePackage
2   name="'TestTransfer'">
3   <Recip
4     name="'user2'" />
5   <Recip
6     name="'g1'" />
7   <PackFile
8     source="'c:\1\SyncCloud\Tests\FileTransfer1\In\file1.png'"
9     destinationFolder="'c:\1\SyncCloud\Tests\FileTransfer1\Out'"
10    includeOnlyNew="false"
11    includeSubfolders="false" />
12  <PackFile
13    source="'c:\1\SyncCloud\Tests\FileTransfer1\In\file2.png'"
14    destinationFolder="'c:\1\SyncCloud\Tests\FileTransfer1\Out'"
15    includeOnlyNew="false"
16    includeSubfolders="false" />
17  <PackFile
18    source="'c:\1\SyncCloud\Tests\FileTransfer1\In\file3.png'"
19    destinationFolder="'c:\1\SyncCloud\Tests\FileTransfer1\Out'"
20    includeOnlyNew="false"
21    includeSubfolders="false" />
22 </CreateFilePackage>
      
```
- Links:** A text input field with the text "Click the box below to add links" and a button labeled "g2" with a close icon (X).

The script form consist of the following four fields:

1. **Description** – Optional general text describing the purpose of the script
2. **Event** – Events that the body of the script is associated with. These events are triggered at various points during client application execution. When events are triggered, client application attempts to execute script instructions associated with each event.
3. **Body** – Set of script instructions formatted using XML syntax rules. Usually these instructions represent code to create various data packages to be enqueued for transfer to another user or Web service via conduit server.
4. **Links** – List of project users or groups the script is linked to. Client application only downloads and executes scripts linked to a project user upon user authentication.

Script execution is tied to certain events that occur during client cycle. Whenever events are fired by the client application corresponding script procedure is executed for each event. Different client applications define their own event types. General package transfer client application, for example, fires four different events as follows:

1. **AFTERLOGIN** –Fires after successful user authentication with SyncCloud project
2. **PACKAGESENT** – Fires after each package in send queue is uploaded to conduit server

3. **PACKAGERECEIVED** – Fires after each package is downloaded from conduit server
4. **CLIENTCLOSE** – Fires after all packages have been sent/received/processed and just before client application process is terminated

When events are fired, client application extracts the body of the script (or scripts) associated with each event. The body of the script consists of one or more commands. A command is represented by an XML formatted node with parameters or other nested commands. See SyncCloud scripting manual for detailed documentation on different types of commands.

Scripts can be deleted at any time by clicking on the **[Delete]** button. This will delete the script on the currently selected tab page.

AUTOMATED ACTIVE BOT INSTANCES

SyncCloud system provides a special automated service that allows project administrators set up active server instances, bots. A bot is a server-side process that can synchronize with conduit server using the same client/server protocols as regular client applications. However, unlike client applications designed for human interface, bots are automated and do not require any human input. This ensures that whenever any data is transferred to bots, they always receive and process it immediately.

Bots are visible to SyncCloud network and conduit server networks as regular clients. Same as project users, bots require credentials to access SyncCloud system and synchronize with conduit servers. In other words, bots are automated project users that are on-line 24/7.

Bots can be added to the project by navigating to the **[Bots]** tab on the **[Automation]** page, clicking the **[Add bot]** button in the top-left corner of the panel, and filling out the following pop-up dialog form:

The screenshot shows a dialog box titled "Add bot" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- User name:***: A dropdown menu with "botuser" selected. Below it is the text: "Project user which the bot will use to log into the project".
- Process incoming:**: A checked checkbox. Below it is the text: "If checked, the bot will process all packages sent by other users/bots in the project".
- Process outgoing:**: An unchecked checkbox. Below it is the text: "If checked, the bot will be enabled to send out packages to other users/bots in the project".
- Interval:**: A spinner box with the value "60". Below it is the text: "The number of seconds the bot will stay idle between communication attempts with the Conduit server".

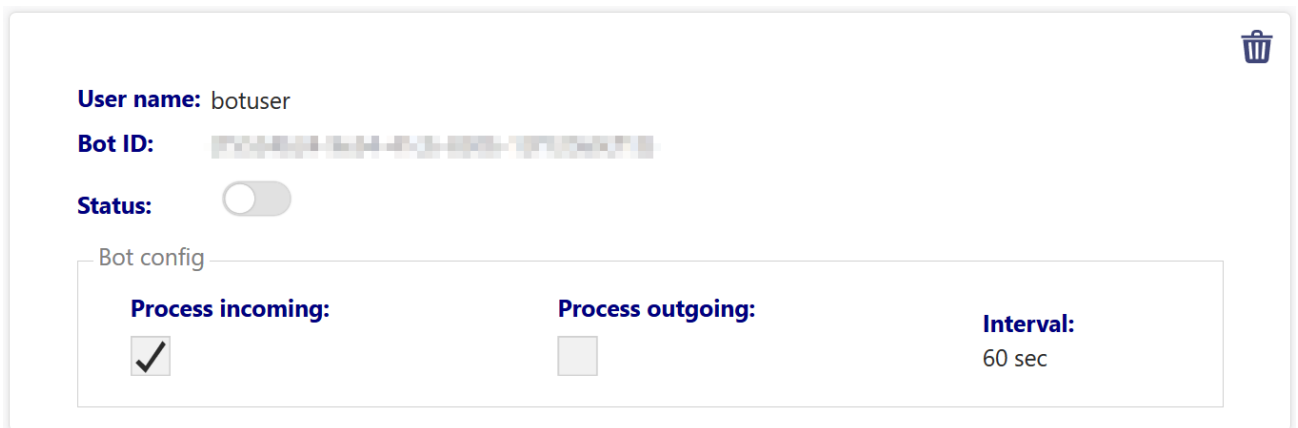
At the bottom right of the dialog are two buttons: "[OK]" and "[Cancel]".

Bots require to be linked to project user accounts. Bot instance running on the server communicates with SyncCloud system using credentials of linked users. It is good practice to create a dedicated project user account reserved exclusively for a bot instance. This way it is easy to track each data transaction between other users and the created bot instance.


To instruct the bot to process all incoming data packages coming from other project users or services select the **Processing incoming** checkbox. Similarly, to enable bots to create and send out data packages per user script associated with each bot, select the [Process outgoing] checkbox.

A time **interval** is a delay value represented in seconds between requests coming from the created bot instance to conduit server. It is set to 60 seconds by default, and that is the recommended value in most circumstances.

After a bot is created, it is added to the list of the project bot instances. Bots are always set to deactivated status upon creation and require explicit activation by project administrators. Bots can be activated using the **Status** toggle switch inside the bot instance panel.



The screenshot shows a configuration panel for a bot instance. At the top right is a trash icon. Below it, the 'User name' is 'botuser'. The 'Bot ID' is a long alphanumeric string. The 'Status' is a toggle switch currently turned off. Below this is a 'Bot config' section with three fields: 'Process incoming' with a checked checkbox, 'Process outgoing' with an unchecked checkbox, and 'Interval' set to '60 sec'.

Click the **[Delete bot]**  button in the top-right corner of the bot panel to delete bot instances.

PROJECT WEB REPORTS TAB

SyncCloud implements a Web-based reporting feature that aggregates and displays data synchronized by users within virtual projects. Project administrators can publish report templates in their virtual projects. Web reporting application can then format reports per published report templates and populate them with data shared by project users. The [Reports] page allows to publish Web report templates as well as manage reporting data source records submitted by users.


Reports: 1 -

Data source records count: 9

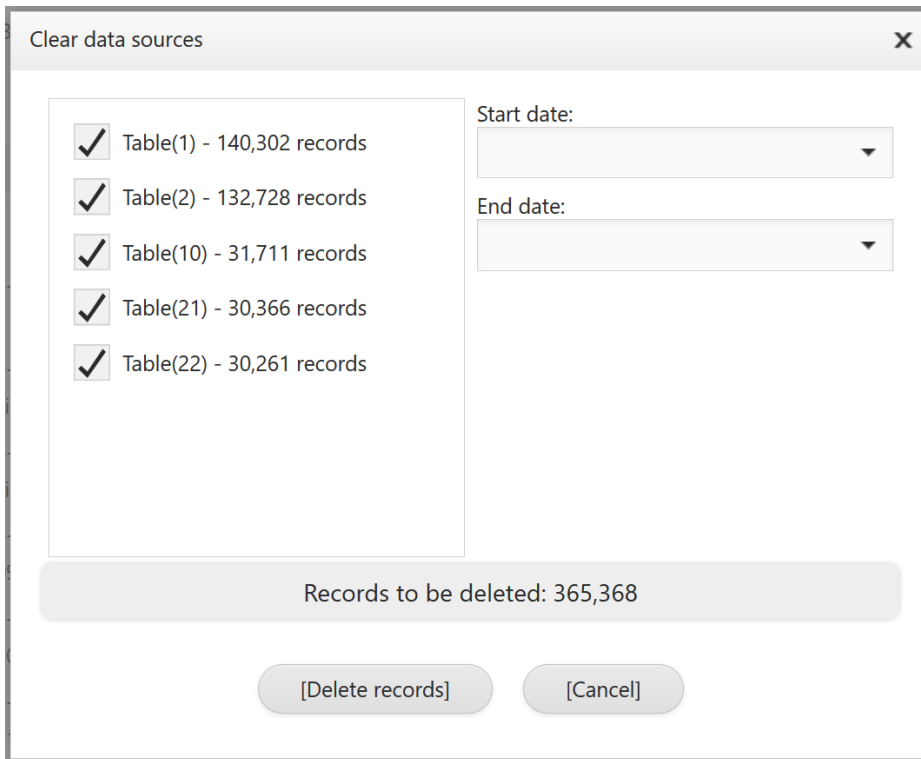
<input type="checkbox"/>	Name	Report URL	
<input type="checkbox"/>	Test report	http://localhost:8080/Reports/TestReport.html?reportURL=TestReportURL&reportName=TestReport	<input type="button" value="✎"/>

Drag-drop template file here to
publish report

Web report templates are specially formatted XML files that are used by Web report server to build HTML report pages using data sources submitted by project users via automated reporting pipeline. Drag and drop a report template into the **Drag-drop template** box below the reports table to upload it. If successful, the system will generate a unique URL to the published report. The report can then be accessed from any internet connected device using a Web browser. Clicking the **Drag-drop template** box displays a regular file open dialog box which can also be used to upload the template to the project.

Select the checkbox in the first column of the table and click the **[Delete_selected_reports]** button to delete the published report. To reupload report template to the existing published report use the **[Update_template]**  button in the right-most column in the reports table.

At the top of the panel there is a data source records counter which displays the number of data records currently submitted by project users to the reporting database of that project. Click **[Clear data sources]** button to manage currently synchronized report data sources in the project in the following pop-up dialog window.



The right panel of the window displays all data source tables currently present in the database with the number of records in each table. Selecting the check boxes for each data table will include that table in the current selection.

On the right side of the window there are two calendar drop-down boxes that can be used to filter the records by date. If left unselected, all data records are included in the selection. If only start date is selected, records that are submitted on the selected date and later are included in the selection. If start date is unselected but end date is selected, records that are submitted on that date and earlier are included in the selection. Clicking the **[Delete records]** button will result in deletion of the current selection.

Note: Record deletion is permanent. No 'undo deletion' action is possible.

REPORT STATS TAB

The [Stats] page contains a log table detailing all data transactions between project users, online services, and conduit server. Every SyncCloud data transaction in the project is registered by conduit server accommodating that transaction and is regularly reported to the logging database available for viewing by project administrators. SyncCloud administrator Web application aggregates these log records into a data-minable table **Package log**. Each row in the table represents a data package that was created and sent by project users or a connected automated service.

Package log
-

Filters
+

Conduit server last reported on: Thursday, July 30, 2020 @ 12:51 PM

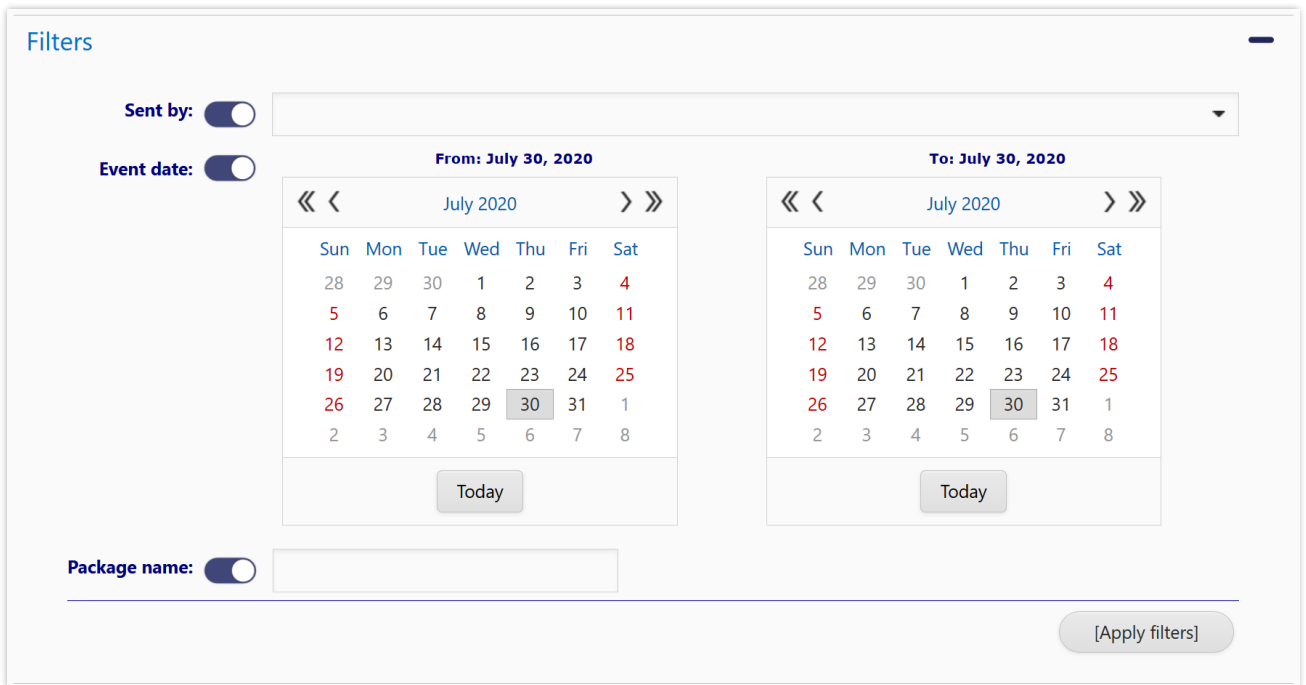
[Sync with Conduit server]

Package	Sender	Date
[TestTransfer]	user4	2020-04-24 12:34:21
[TestTransfer]	user4	2020-04-24 12:35:23
[TestTransfer]	user4	2020-04-24 12:50:24
[TestTransfer]	user4	2020-04-24 12:59:02
[TestTransfer]	user4	2020-04-24 13:07:49
[TestTransfer]	user4	2020-04-24 13:11:32
[TestTransfer]	user4	2020-04-24 13:29:25
[TestTransfer]	user4	2020-04-24 13:38:56
[TestTransfer]	user4	2020-04-24 13:46:51
[TestTransfer]	user4	2020-04-24 14:05:47
[TestTransfer]	user4	2020-04-24 14:05:47
[TestTransfer]	user5	2020-04-24 14:06:04
[TestTransfer]	user5	2020-04-24 14:06:04
[TestTransfer]	user4	2020-04-24 14:06:31
[TestTransfer]	user4	2020-04-24 14:06:31
[TestTransfer]	user4	2020-04-24 14:09:54
[TestTransfer]	user4	2020-04-24 14:09:54
[Test report]	user7	2020-04-24 15:38:26
[Test report]	user7	2020-04-24 15:39:17
[Test report]	user7	2020-04-28 10:35:28
[TestTransfer]	user1	2020-06-01 11:32:15
[TestTransfer]	user8	2020-06-01 11:34:21

Page 2 of 2 (72 items) ◀ 1 2 ▶ Page size: 50 ▼

Conduit server can be configured to report transaction metadata every two hours when active. The label at the top of the panel displays a date and time stamp of the latest log synchronization. Additionally, the log may be manually synchronized by clicking the **[Sync with Conduit server]** button.

The package transfer record displays package name, project user the package originated from, and a date/time stamp of the instance the package was received by conduit server. The table may be sorted by any of the columns by clicking on the column header.

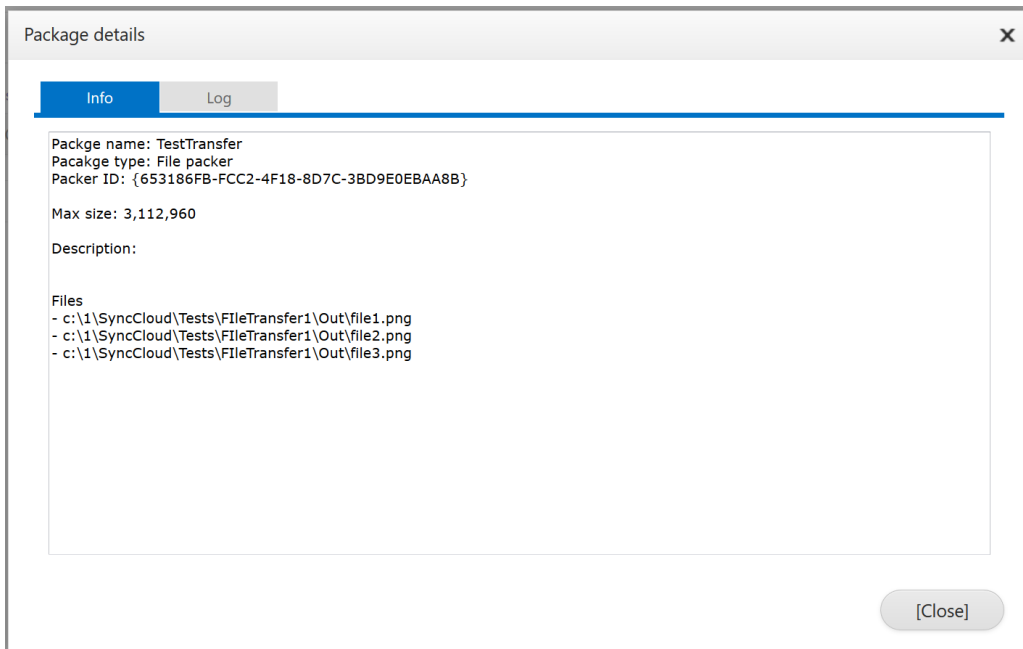


The Filters panel is for filtering records in the table. To expand the panel, click on the **+** button in the top-right corner of the panel. The following filters are available:

- **Sent by** – Include only selected users into the table
- **Event date** – Filter the table by a time period between [From:] and [To:] dates selected in the corresponding calendar controls
- **Package name** – Only include packages with an exact name

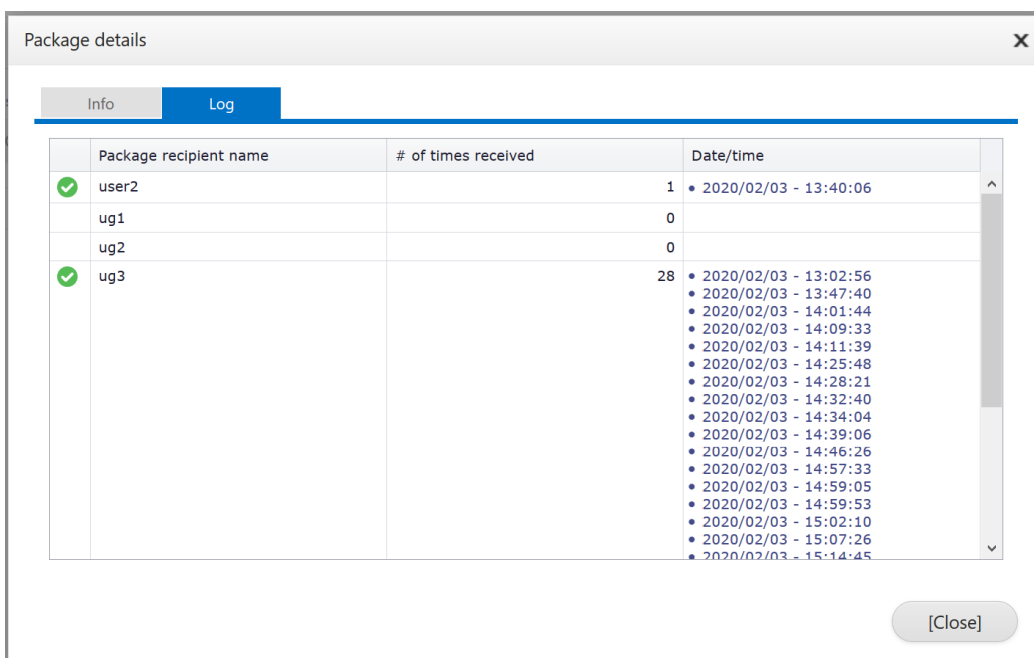
After the filter panel is profiled click the **[Apply filters]** button to filter the log table according to specifications.

Clicking on **Package name** in any of the table rows produces a pop-up window with further information related to that package. There are two tabs on that window: (1) the **Info** tab contains general information about the package and (2) the **Log** tab displays a table with all instances of package being received by destination users.



The package metadata is queried directly from conduit server and requires it to be connected and active to view. The **Info** tab specifically constructed from the information parsed by the package-specific packer library using information from the package header. Different types of packages will produce differently formatted information. For example, a file package will display all filenames along with destination paths contained within the package.


Similarly, the package receipt **log** table is also queried directly from conduit server. However, unlike package info, in case conduit server is offline or not present, the table is still populated with the latest metadata reported by conduit server when it was on-line.

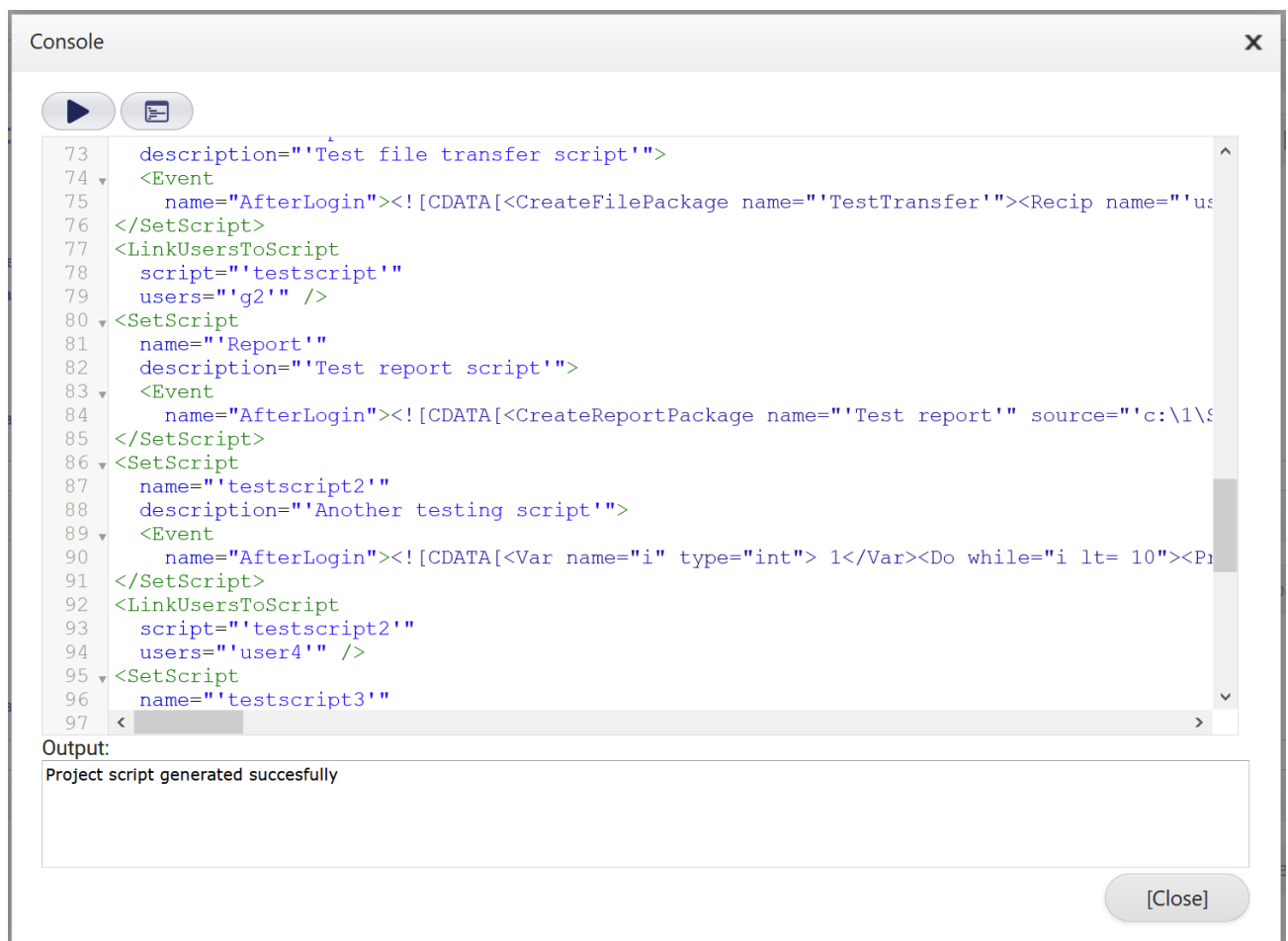



Each row in the package receipt table represents a destination user and consists of the following four columns:


1. **Receipt check** column. If green checkmark is present, the user has received the package. If the field is blank, the user has yet to receive the package.
2. **Package recipient name**
3. **Number of times** the package has been received by the user. The user may log in from different devices and, therefore, the package can be delivered more than one time.
4. **Date/time** stamp for each instance of package receipt by the user

GLOBAL PROJECT CONSOLE SCRIPTS


Project administrators may automate setup of certain project features by using a global project console script dialog window. The window can be accessed by clicking on the **[Project console]**  button in the top-left corner of the project page under the main tabs. When clicked, the following pop-up dialog window appears:

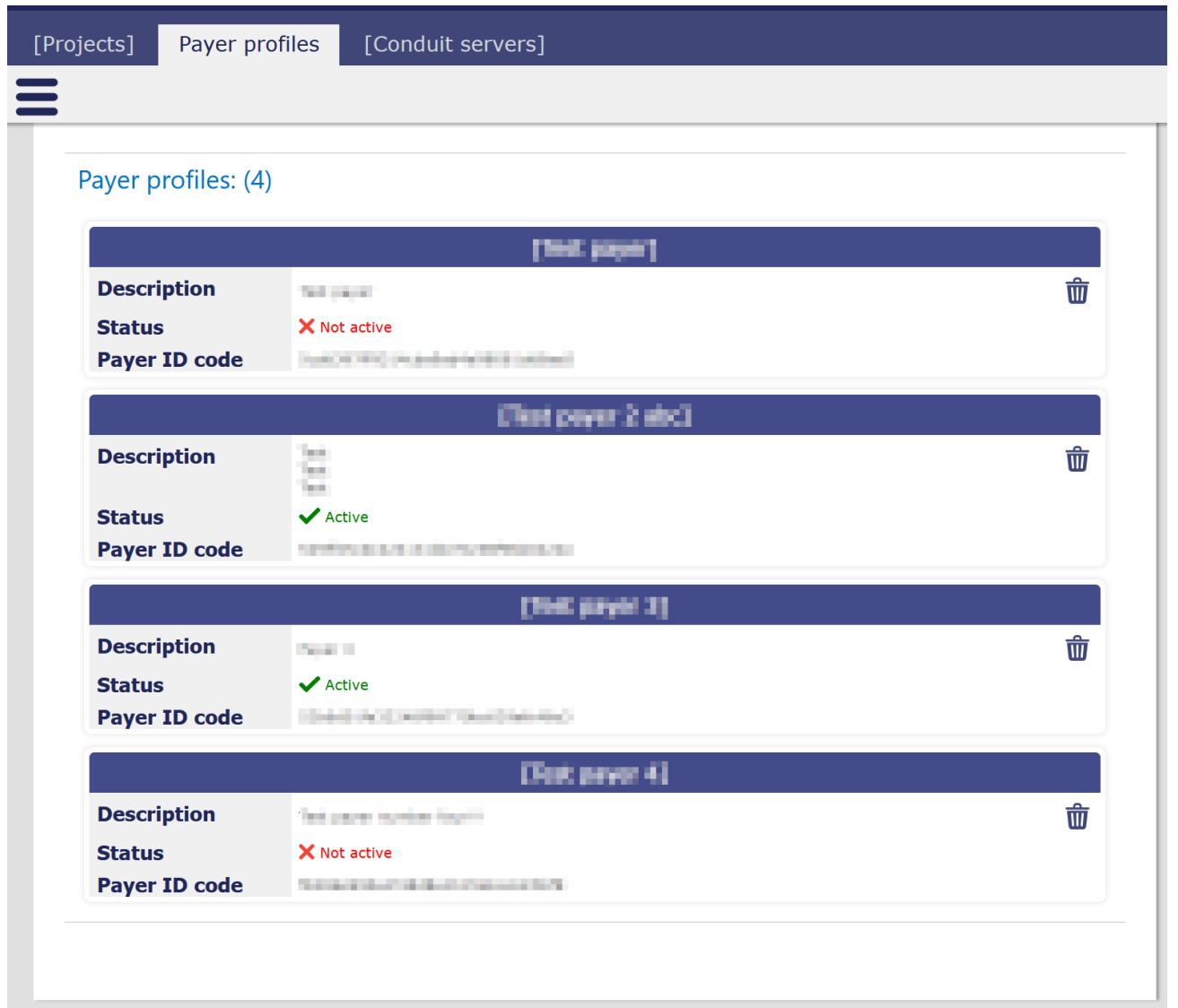


The window consists of control buttons, script editing box and output box. Script commands may be directly typed into the editing box and executed by clicking on the **[Run]**  button.



The **[Script current project]**  button can be used to generate global script for the current project. Once generated it can be executed in a different project to effectively automatically reproduce project features of the original project. Refer to scripting manual for a documentation of commands available for execution by the global script console.

PAYER PROFILES PAGE


In order to be activated each project needs to have a sponsoring payer. Under the Payer profiles tab administrators can create profiles that can be used to sponsor projects. There is no limit on how many payer profiles can be created per account. Click on the drawer menu  button and select the **[Add new payer profile]** option in the menu to add a payer profile to your account. In the pop-up dialog window enter payer profile name and optional description. After clicking the **[Create payer]** button, a new payer profile item will appear in the list.



Each payer profile item in the list contains the following general payer information:

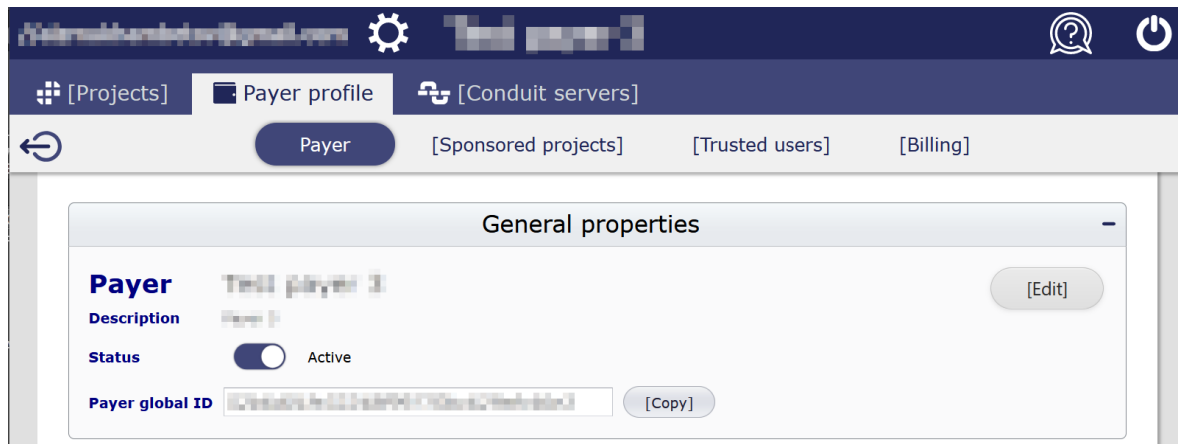
- **Payer name** in the title of the item
- Optional **description** of the payer profile
- Payer profile **status**, either “ Active” or “ Not active”

- Unique **payer identification code** that can be used to link projects without adding project administrator account to the trusted users list.

Payer profiles are always created with the “**X** Not active” status and can only be activated after billing method has been set and approved for each payer profile. Payer profiles can be deleted by clicking on the **[Delete payer]**  button in the top-right corner of each payer profile panel in the list. Click on the title of the payer profile item in the list to open a payer profile.

PAYER GENERAL PROPERTIES PAGE

Payer profile management interface is similar to the project management interface. It is organized in pages that can be accessed by clicking on the tab buttons at the top of the page. Each page contains panels responsible for various options in the profile.



There are four pages related to payer profile management as follows:

1. **[Payer]** –General payer properties and summary
2. **[Sponsored projects]** –List of all projects currently being sponsored by a payer profile with options to approve or reject any of the sponsored projects
3. **[Trusted users]** –List of SyncCloud administrator users that are trusted by this payer profile
4. **[Billing]** –Billing and invoicing related information

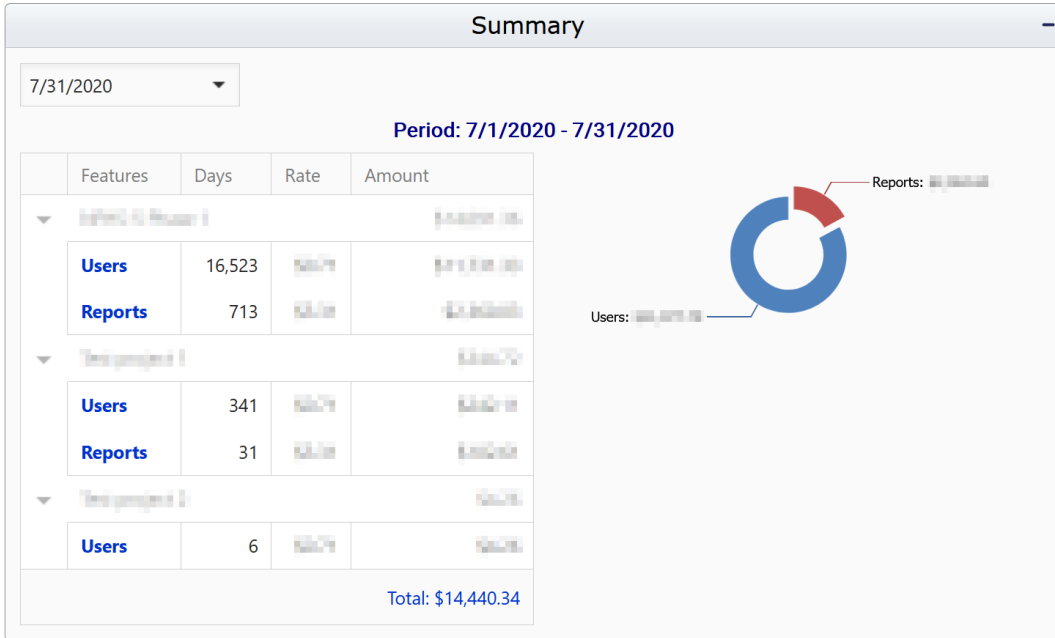
Payer general properties page contains the following two panels:

1. General properties
2. Summary

General properties panel (see above) displays payer name, description, status, and payer unique global identifier. Clicking the **[Edit]** button allows changing payer name and description. Payer global ID can be copied to clipboard by clicking on the **[Copy]** button. Status of payers may be changed by clicking on the status toggle switch.

Note: *Disabling the payer profile leads to deactivation of all projects being sponsored by this payer profile. Those projects can be reactivated only after the payer profile had been activated.*

The **Summary** panel contains quick overview of the billing period and all charges for all project accrued during the period.



Calendar drop-box at the top-left corner of the panel can be used to select the billing period. The table displays all projects sponsored by the payer profile and all charges accrued by these projects during the selected billing period. The pie chart in the right side of the panel displays a total distribution of charges by features.

SPONSORED PROJECTS PAGE

All projects being currently sponsored by the payer can be found listed in a table on the **[Sponsored_projects]** page.

Projects: 3

[Approve selected projects] [Reject selected projects]


<input type="checkbox"/>	Project	Admins	Status	
<input type="checkbox"/>	Project 1	<ul style="list-style-type: none"> admin@synccloud.com 	Approved	
<input type="checkbox"/>	Project 2	<ul style="list-style-type: none"> admin@synccloud.com sync_admin@synccloud.com sync_admin@synccloud.com 	Approved	
<input type="checkbox"/>	Project 3	<ul style="list-style-type: none"> admin@synccloud.com 	Approved	

Projects are added to this table once they are linked to the payer profile by project administrators. Each row of the table represents one project and displays the following:

- **Project** name
- All linked project **administrator** e-mails
- **Status**



There are the following three possible statuses a sponsored project may have in relation to its payer profile:

- **Approved** –Payer approved sponsorship for the project
- **Rejected** –Payer rejected sponsorship for the project
- **Pending** – Project has been linked to the payer profile but has not yet been approved or rejected by the payer

Projects can only be activated and start accumulating charges in the payer billing statement once they have been approved by the payer. The project status can be changed by the payer at any time by clicking on the **[Edit]**  button. Projects may also be approved or rejected in bulk by selecting the rows using the checkbox in the first column and clicking on the **[Approve selected projects]** or **[Reject selected projects]** buttons at the top of the panel.

TRUSTED USERS PAGE

The trusted users page is used to manage trusted status of other SyncCloud project admin accounts. In this context “users” are users of the payer profile. On this page it is possible to maintain a list of admins who can be assigned as “trusted” with linking their projects to the payer profile without explicit sharing of the ID code by payer profile administrators. As soon as an administrator is added by the payer to the list of their trusted users, that administrator is able to link their project to this payer profile.

Trusted users: 2			
<input type="checkbox"/> [Add user(s)]		<input type="checkbox"/> [Remove selected]	
<input type="checkbox"/>	Email	Privileges	
<input type="checkbox"/>	admin@synccloud.com	Preapproved	
<input type="checkbox"/>	admin@synccloud.com	Preapproved	

Each row in the table displays one administrator account that has been added as trusted user of the payer profile. The row contains two columns as follows:

1. **Email** – Trusted user e-mail address
2. **Privileges** – a List of privileges granted by payer administrators to trusted users

Click on the **[Add user(s)]** button in the top-left corner of the panel and fill out the pop-up dialog form to add trusted users. Multiple users can be added to the trusted list at once by listing user e-mails separated by comma in the

Email(s) field on the pop-up form. To remove users from the trusted list, select the checkbox in the first column of the table and click on the **[Remove selected]** button.

User privileges include only one item – “Preapproved”. In case trusted users are granted this privilege, the status of the payer-project link will automatically be approved at the time the link is created. No explicit authorization is required on the part of the payer. In case trusted users are not granted this privilege, the status of the payer-project link will be “Pending approval by payer,” and the project cannot be activated without explicit authorization by payer profile administrators. In both cases when the project is linked to the payer profile, an automatic e-mail is sent to the payer profile administrator with information about the project being linked. In case the “Preapproved” privilege is not granted, the e-mail will contain a URL to the approval/rejection page.

Note: Project approval and rejection status can be changed at any time by the payer profile administrator on the [Sponsored projects] page

BILLING PAGE

Billing page contains detailed information about all charges for all projects accrued by the payer profile. Invoices to any billing period can also be generated on this page as well as all billing information related to the payer and the billing method may be profiled here.


Billing summary is displayed by year that can be selected in the dropdown box in the top-left corner of the panel. The table displays all billing periods in the selected year per charge.

Billing summary				
Year	2020			
▶	Period	Amount	Status	Invoice
▶	2020/02	\$1,123,456	Amount due: \$1,123,456	
▶	2020/03	\$1,123,456	Amount due: \$1,123,456	
▶	2020/04	\$1,123,456	Closed	
▶	2020/05	\$1,123,456	Closed	
▶	2020/06	\$1,123,456	Closed	
▶	2020/07	\$1,123,456	Open	

Each row represents a monthly billing period indicated by year and month. The second column displays a total amount accrued during that period. The third column shows the status of the period. The last column allows generation of the invoice for the selected period.

The status of the billing period can be shown as follows:

- **Open** –Current month. Charges are still being accrued in that period and not yet finalized.
- **Closed** – Period that has ended and all outstanding charges have been settled
- **Amount due** – Period that has ended but there is still unpaid balance present in that period

Each row can be expanded to reveal the detailed information about all charges and deposits made in the period. An Invoice for any period, except the current, can be generated using the **[View invoice]**  button.

Billing info -

Organization [Edit]

Address [Edit]

Country

Contact

Billing method Direct invoicing [Delete]

Status ✔ Approved

The billing info tab contains the following information required from payer administrators:

- Organization
- Address
- Country
- Contact name (optional)
- Billing method






Use the **[Edit]** button to update billing info and the **[Add]** button to set the billing method of the profile.

Note: Billing method needs to be explicitly approved by SyncCloud accounting administrators before payer profiles can be activated.



CONDUIT SERVERS PAGE

The Conduit servers tab is designed for viewing all conduit servers that list the currently authenticated administrator account as “trusted”. In order for administrator accounts to be trusted by server, either conduit server administrators list administrators as trusted, or administrators with the **{ManageTrustedUsers}** privilege extend server access to other administrators.


Conduit servers (3)

	Server name	Privileges
	MP-11 conduit server	AttachProject
 	Test server	ManageTrustedUsers, AttachProject
 	Conduit server 1	ManageTrustedUsers, AttachProject

In the conduit servers table rows represent server instances that list the current administrator as “trusted”. The first column contains the following buttons related to server management:


-  - Ping conduit server to see server status
-  - Manage conduit server trusted users

Any trusted user has access to view server status. However, only users with the **{ManageTrustedUsers}** privilege have access to the server trusted users list and are able to add and remove other trusted users.

Clicking on the **[Ping]**  button brings up the following pop-up dialog window with conduit server information as well as its status:

Conduit server
✕

Conduit server

Name	Test server
Description	This is a test conduit server
Server ID	804929180-1000-4071-0040-01-100000000000
Public address	http://192.168.1.1:8080/ps
Server status	Online 


Conduit server last reported on: Saturday, August 1, 2020 @ 1:27 PM
 0.69 hours ago.

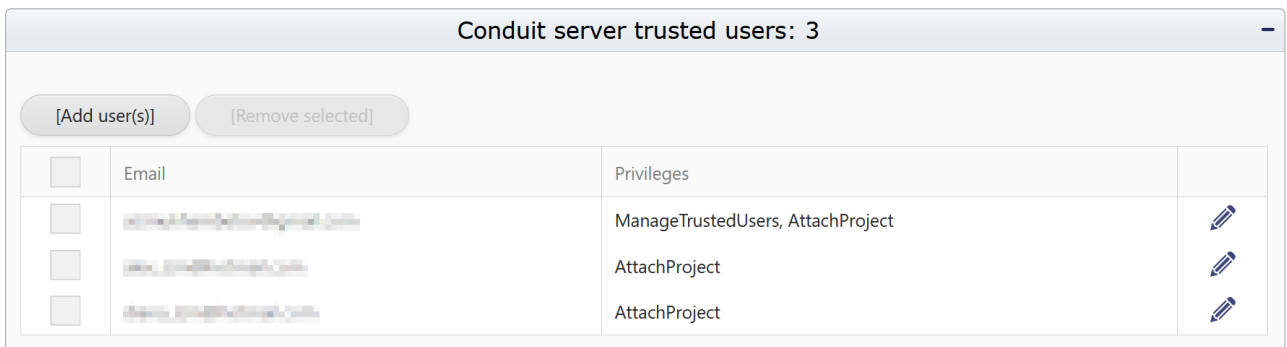
[Close]





Conduit server information panel contains the following lines:

- **Name** of conduit server (given by server administrators)
- **Description** of conduit server (optionally given by server administrators)
- **Server** globally unique **identifier** (assigned automatically at server installation time)
- URL representing server endpoint **public address**
- Current **server status**

The label below the conduit server information panel displays the date/time stamp of the server latest report. Servers report their status and transaction metadata to the global SyncCloud service in two-hour intervals by default.

Click the **[Manage]**  button to open conduit server trusted user management page. The page contains the ping panel as well as a table dedicated to viewing/adding/removing trusted server users as well as assigning user privileges.




<input type="checkbox"/>	Email	Privileges	
<input type="checkbox"/>	[redacted]	ManageTrustedUsers, AttachProject	
<input type="checkbox"/>	[redacted]	AttachProject	
<input type="checkbox"/>	[redacted]	AttachProject	

Rows in the table represent SyncCloud accounts that were added to the conduit server trusted users list. Click the **[Add_users(s)]** button in the top-left corner of the panel to add new trusted users.

Trusted users may be granted the following two types of user privileges:

1. **AttachProject** –Grants user permission to link conduit server to their virtual projects
2. **ManageTrustedUsers** –Grants user permission to access the trusted users management page

Privileges may be assigned at the time users are added and/or updated at any time by clicking on the **[Edit]**  button in the last column of the table. Trusted users may be removed from the table at anytime by selecting them using the selection checkbox column and clicking on the **[Remove selected]** button.