cssf

Commission de Surveillance
du Secteur Financier

Methods of transmitting reports via S3 Application Programming Interface - Technical guidance

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Contents

Update information

Date	Version	Changes
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1. Glossary and objectives

1.1 Glossary

Notion	Definition
Bucket	A bucket is a container for objects. S3 stores data as objects within buckets. An object is a file and any metadata that describes the file. Each entity manages its own separate buckets to be used for each report type.
IT Expert	The "IT Expert" is an eDesk specific role that is granted by the "Advanced User" of the entity to the person managing access to the S3 Application Programming Interface. A person with this role is responsible for creating, viewing and revoking access keys.
S3	S3 – or "simple storage service" – is the object storage protocol (through a web service interface) used by the CSSF for the file exchange. In this context, S3 simply refers to the protocol for managing object storage and does not rely on any services provided by commercial cloud providers.

1.2 Objectives

The general objective of this document is to provide technical information on the S3 system reporting.

2. S3 system reporting technical specifications

2.1 Reporting high-level process

The process for submitting a report via S3 system is the following:

(a) File collection through S3 system;[1]

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[1] Note that S3 simply refers to the protocol for managing object storage and not to any service provided by commercial cloud providers.

(b) Formal verification of the uploaded reporting file;

(c) Feedback sending (positive or negative).

2.2 File collection

About the S3 solution

S3 ("simple storage service") solution is the object storage through a web service interface used by the CSSF for the file exchange through a S3 compatible transfer client.

S3 stores data as objects within buckets. An object is a file and any metadata that describes the file. A bucket is a container for objects. An entity will be linked to one bucket divided into two folders:

- *"submission"*: for the reporting files;
- *"feedback"*: for the feedback files.

2.3 Enrolment process

2.3.1 Concerned entities

According to the reporting, the enrolment process described below must be done by the entity responsible for the submission of the data.

2.3.2 Prerequisite

To access and use the S3 system, an enrolment process performed through eDesk is required.

If it has not already been done, the entity must first create an "advanced user" through eDesk ("New advanced user request") who will accept or reject attachments from other eDesk users for this entity.

The advanced user can therefore define an "IT Expert" who will get the credentials to connect through the S3 solution.

All key information on the eDesk authentication is available in the **eDesk Authentication User Guide** on the eDesk home page.

2.3.3 Defining the "IT Expert" role

Once authentication in eDesk is done, the "Advanced user" can access the "Entity management" menu:
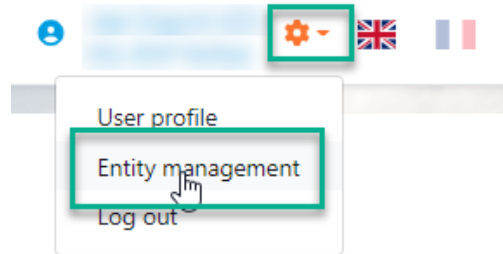
The "Advanced user" can then attribute the specific role of "IT Expert" to anyone linked to the entity, with IT knowledge and responsibilities within the entity:
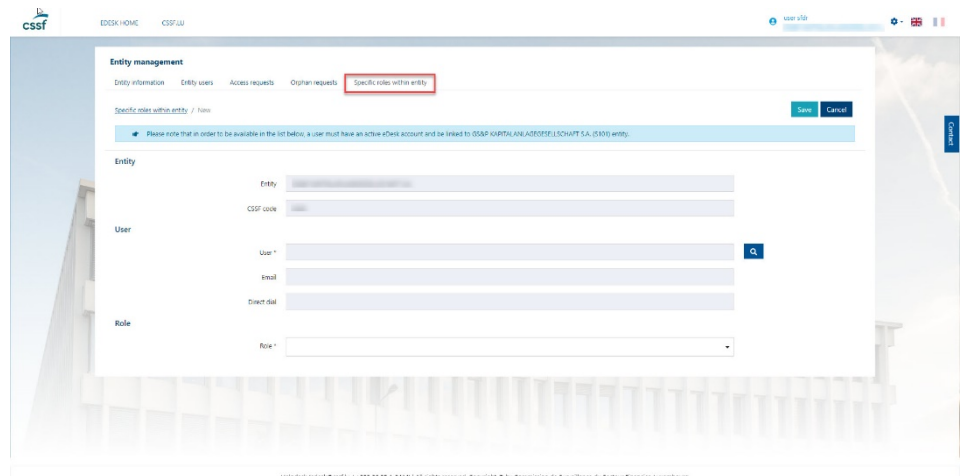
After reaching the "Specific role within entity" tab, choose a user first by using the magnifying glass. Double-click on the chosen person to get the "IT Expert" role.

Select the "IT Expert" role and click on "save" in the top right corner.
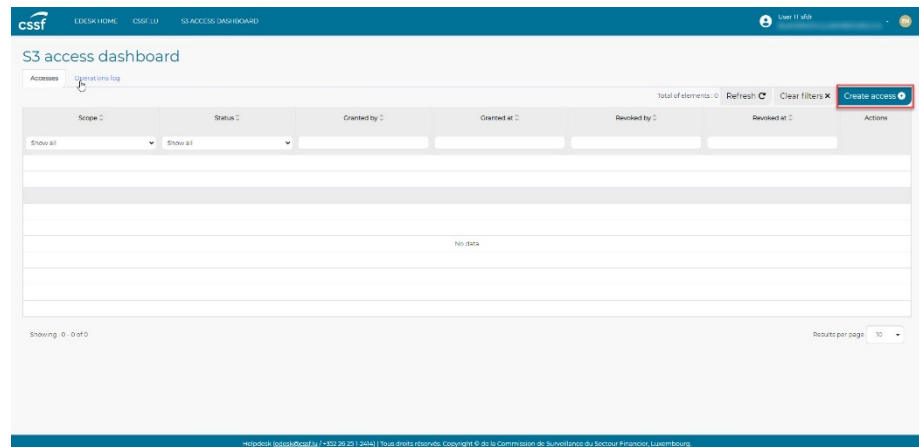
The "IT Expert" is now identified and can access the IT management console.

The IT management console allows managing the accesses of the technical users in the S3 system.
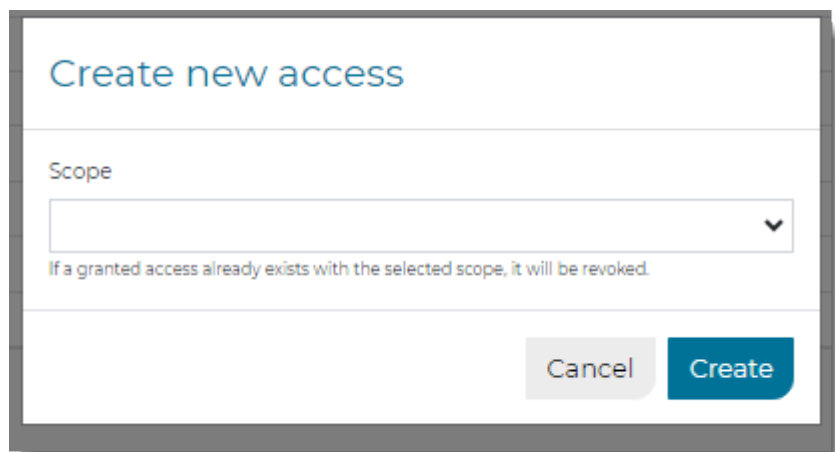
2.3.4   Collect the S3 credentials

The "IT Expert" has to connect on the eDesk IT management console (PRODUCTION link: https://edesk.apps.cssf.lu/edesk-itmgt).

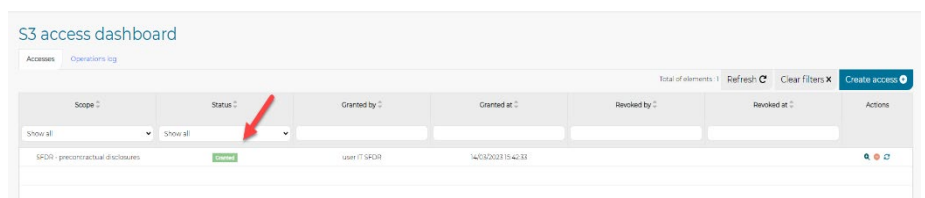1. Log in to get to the S3 access dashboard.
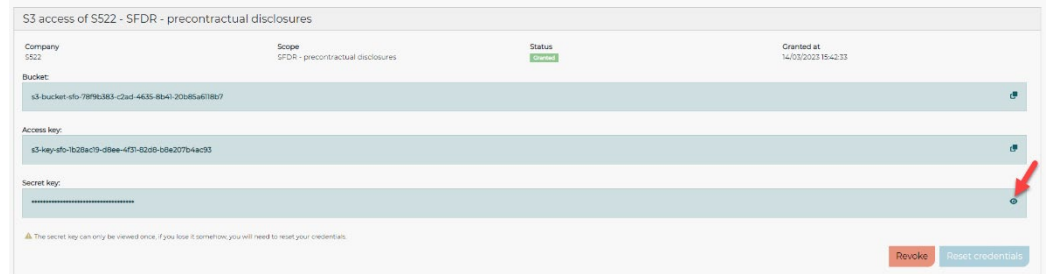
2. Click on the "Create access" button.

3. Select the relevant service and click on the "Create" button. The list of services ("scope") is available in chapter 6.

The access is now granted.

4. Double-click on this new line or click on the "Open" button in the "Actions" column and access the "S3 access" details page to collect the S3 credentials.

5. Save the information provided (bucket, access key, secret key). In order to copy the secret key, press the eye on the right side of the screen.

Pay attention to the message: **the secret key can only be viewed once, if you lose it, you will need to reset your credentials.**

If needed, you can also revoke your access by clicking on the button "Revoke".

2.3.5 Access the S3 module

You can now use the credentials to access the S3 module through a S3 compatible transfer client. Any S3 compatible transfer client can be used to upload and download files manually and any S3 compatible SDK can be used to automate it.

The production information to use is as follows:

- hostname s3.apps.cssf.lu
- port number: 443

In S3 you will use:

- The "submission" folder to upload reporting files;
- The "feedback" folder to retrieve feedbacks.

Depending on the transfer client, "submission" folder may have to be manually created.

3. Reporting entities obligations

3.1 Data quality

Entities are strongly advised to review and validate the reporting files before any submission.

3.2 Review the feedback files and correct the rejected reports

Entities must ensure that all feedback files are properly analysed and that any rejected data are corrected and resubmitted.

4. Testing with the CSSF

The CSSF offers ways for entities to test their reporting file submission before going into production:

- Connectivity check;
- Dedicated testing environment.

4.1 Connectivity check

A connectivity check is highly recommended before the Go-Live.

A dedicated "Echo Service" is at your disposal to ensure the good connectivity between your entity and our systems.

The authentication steps are similar to the regular report in regard to getting the credentials (see 2.3.4) and uploading a file (see 2.3.5).

The "IT Expert" has to create a new access on the "Echo" bucket that is presented below in order to get the right S3 credentials.

You can upload a dummy file to the "submission" folder. If the connectivity check is completed, you will get a dummy feedback file as confirmation in the "feedback" folder.

Please note that this service remains always available.

In case you are unable to connect to the "Echo" Service or that you are not receiving any feedback, please contact edesk@cssf.lu.

5. Questions & Answers

Please find below a selection of questions and answers that might be useful for you.

5.1 Is a LuxTrust certificate mandatory for using eDesk?

Yes. Only authenticated users (through LuxTrust token) are able to access eDesk and get the keys to configure the S3 client. Our eDesk support team is here to help you create your eDesk account if needed (edesk@cssf.lu).

5.2 Who can grant the "IT Expert" role to a user within my entity?

The "IT Expert" is a specific role that can be granted to one (or several) person(s) within your entity. The "Advanced User" assigned in your entity is able to grant this specific role to a user registered in eDesk and already linked to the entity. If the identified person does not have any eDesk account yet, please follow the procedure for eDesk account creation[1].

5.3 What is the role of the "IT Expert"?

The designated "IT Expert" manages access to the S3 API provided by the CSSF. This role is responsible for creating, viewing and revoking access keys. These keys will be used to send the report data to the CSSF (either manually or with an automated tool).

5.4 Is it possible to share S3 credentials externally?

The "IT Expert" is in charge of monitoring all S3 credentials that might be created. The sharing of S3 credentials and file upload through a third party remains the sole responsibility of the entity.

5.5 How might we parameter the S3 protocol?

This new solution is based on the use of a well-documented protocol (S3). The use of the S3 protocol can be done either via various applications supporting this protocol (S3 transfer client) or directly via the programming language of your choice by using a client library supporting this protocol.

5.6 Is S3 similar to a SFTP solution?

Yes, the principle remains the same. The difference is that the S3 protocol is based on "https" standards.

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[1] On the eDesk Portal homepage (https://edesk.apps.cssf.lu/), the eDesk Authentication User Guide (pdf file) is a guide that describes how to configure authentication and that can be found in the "Getting started" menu.

5.7 What is the "ECHO" service?

As good practice for API supply, an ECHO service is available in production to check connectivity. Input files are dummy files and feedbacks are dummy feedbacks. Each submitted file in the ECHO folder produces one immediate feedback only.

5.8 Can you please explain how to set up an S3 compatible transfer client?

Any S3 transfer client tool can be configured with the following information:

- File protocol: S3;
- Host name: s3.apps.cssf.lu;
- Port number: 443;
- Access Key ID and Secret access key that your "IT Expert" can collect on eDesk.

Depending on the tool nature, you will eventually have to change your "URL style" to "Path" in its parameters.

5.9 My entity did choose to configure an S3 transfer client. However, I am not seeing any "submission" folder in my S3 bucket. What should I do?

For each type of report to be filed, the IT Expert must create a 'submission' folder - to upload the first file into our server's bucket. The 'feedback' folder is automatically created when generating the feedback.

5.10 Is the S3 protocol linked to a commercial cloud provider?

In this context, S3 only refers to the technical protocol for managing object storage and does not rely on any services provided by commercial cloud providers.

5.11 What is the retention period for files in the bucket?

The files present in the "submission" and "feedback" folders are cleaned by the CSSF 20 days after their creation.