

Advance Use Power BI:

KIZÉO RECOVERY DATA



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1. Introduction

This document aims to:

1. Introduce a methodology of Kizeo Data Recovery into Power BI Desktop
2. Explain how to set up automatic data recovery from Kizeo in Power BI Service (online) through a gateway (server)

The method explained in this guide is based on the Web Service REST provided by Kizeo that can be called by Power BI to trace the data in JSON format.

2. Get an API/REST authentication token from Kizéo

In order to be able to authenticate with Kizeo, it is necessary to already have a Kizeo account. By using a Token linked to this account, the integrality of the data that this account has access to is recoverable.



A major point of attention must therefore be made to the data security because the Power BI file that you create will embed this authentication token in plain text. So, a malicious person who would recover your PBIX file (either directly or by downloading via Power BI service) will have access to all your Kizeo data. This token will also be recoverable in the online configuration of your gateway. We must therefore be careful not to share the latter.

If you fear that your token could have been recovered by a third party, you will be able to ask the Kizeo teams to revoke it and then generate a new one that will have to be put in your different Power BI requests.

2.1 Recovery of temporary token

Kizeo can generate a token available for 3 days. After this time, you will have to generate another.

So, if you want a durable solution you have to use the second method (2.2)

- 1) Access to the function REST token→login from the documentation Swagger of Kizeo:

https://www.kizeoforms.com/rest/v3/doc/#!/token/login_post_0

token : Required Show/Hide List Operations Expand Operations Raw

POST login Generate a short term token (for development)

Implementation Notes
This function is intended for developers, the generated token will last up to three days. For production environment, please contact Kizeo for a long term Token.

Response Class
Model | Model Schema

```

UserLoginResponse {
  status (string) = ['ok' or 'error'],
  message (string, optional),
  data (array[string], optional)
}

```

Response Content Type:

Parameters

Parameter	Value	Description	Parameter Type	Data Type
body	(required) <div></div>	user Login Parameters	body	Model Model Schema <pre> UserLoginParamsHide { user (string), password (password), company (string) } </pre>

Parameter content type:

Error Status Codes

HTTP Status Code	Reason
400	Error

[Try it out!](#)

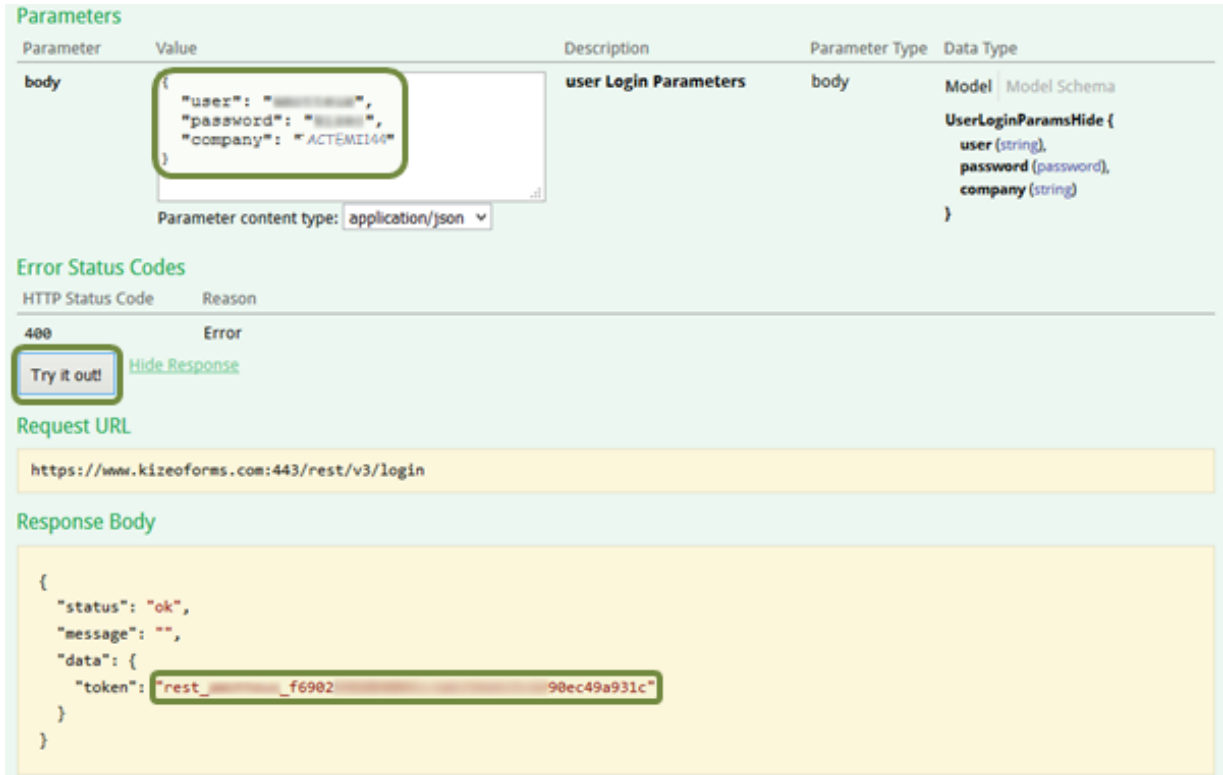
- 2) Enter the following code in the body parameter cell, replacing MyLogin, MyPassword, and MyCompanyCodeO with the values from your Kizeo account.

```

{
  "user": "MyLogin",
  "password": "Password",
  "company": "MyKizeoCompany'sCode"
}

```

3) Click on **Try it out!**



The screenshot shows a REST client interface with the following sections:

- Parameters:** A table with columns: Parameter, Value, Description, Parameter Type, and Data Type.

Parameter	Value	Description	Parameter Type	Data Type
body	<pre>{ "user": "admin", "password": "admin", "company": "ACTEMIUM" }</pre>	user Login Parameters	body	Model Model Schema UserLoginParamsHide { user (string), password (password), company (string) }

 The parameter content type is set to `application/json`.
- Error Status Codes:** A table with columns: HTTP Status Code and Reason.

HTTP Status Code	Reason
400	Error
- Request URL:** `https://www.kizeoforms.com:443/rest/v3/login`
- Response Body:** A JSON object:


```
{
  "status": "ok",
  "message": "",
  "data": {
    "token": "rest_f6902_90ec49a931c"
  }
}
```

4) Collect the token in the Response Body frame in the form
rest_mylogin_aKeyOf40hexanumericCharacters

2.2 Request for a permanent Token to the Kizeo team

The alternative sustainable solution is to ask the Kizeo team to generate a permanent key. They are fast enough to do it (for me it was done in just a few hours).

To do this, simply request it via the contact form on their website in the "Service Support" section, at the address <http://www.kizeo-forms.com/fr/contact/>

The Token is generated then is in the form:

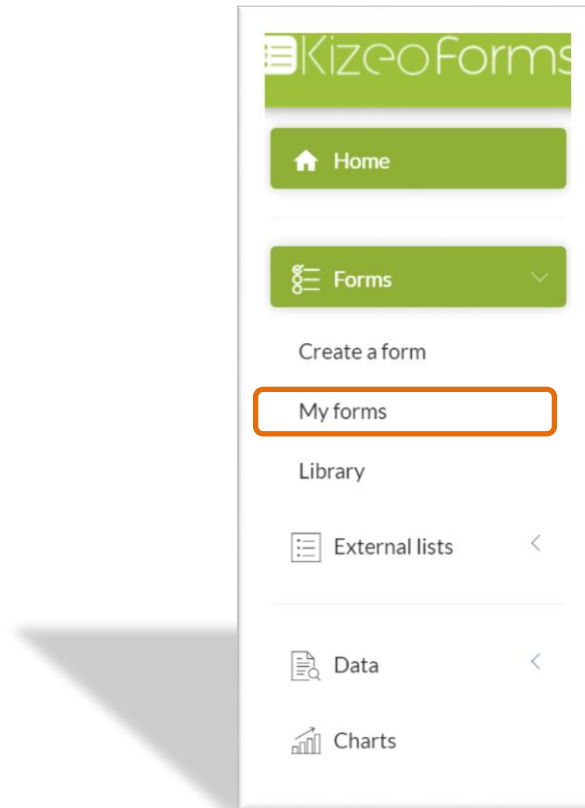
perma_restv3_mylogin_aKeyOf40hexanumericCharacters

3. Recover data from a Kizeo form under Power BI Desktop

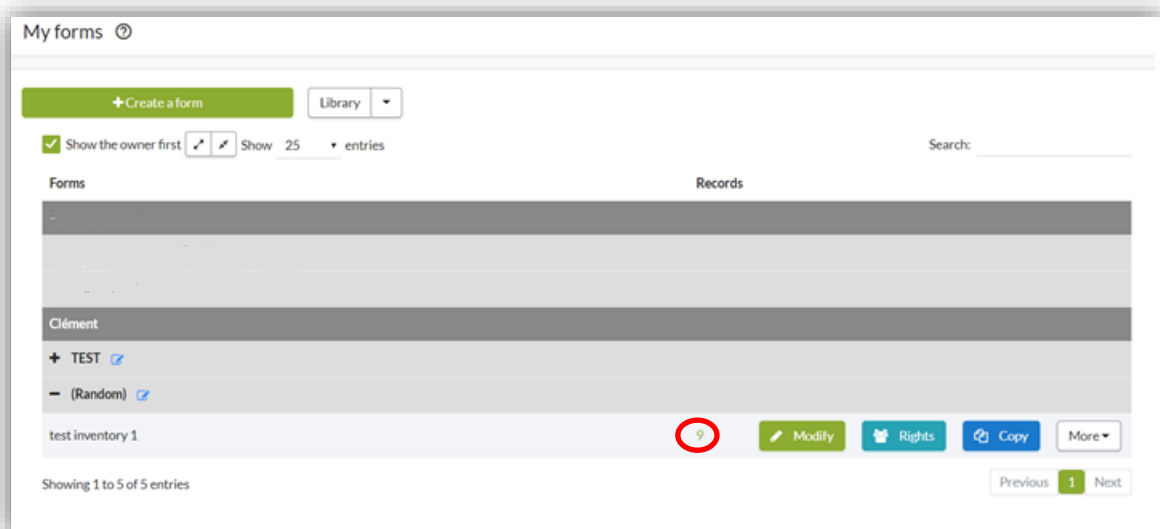
3.1 *Get the FormId from the Kizeo Form*

There are many ways to retrieve this form ID, I suggest one among many:

1. Connect with your *Login, Password* and Kizeo Company: <https://www.kizeoforms.com>
2. Go to Forms → My Forms:



3. On the desired form, click on the number of records (this *sends you back to the data history page of this form*):



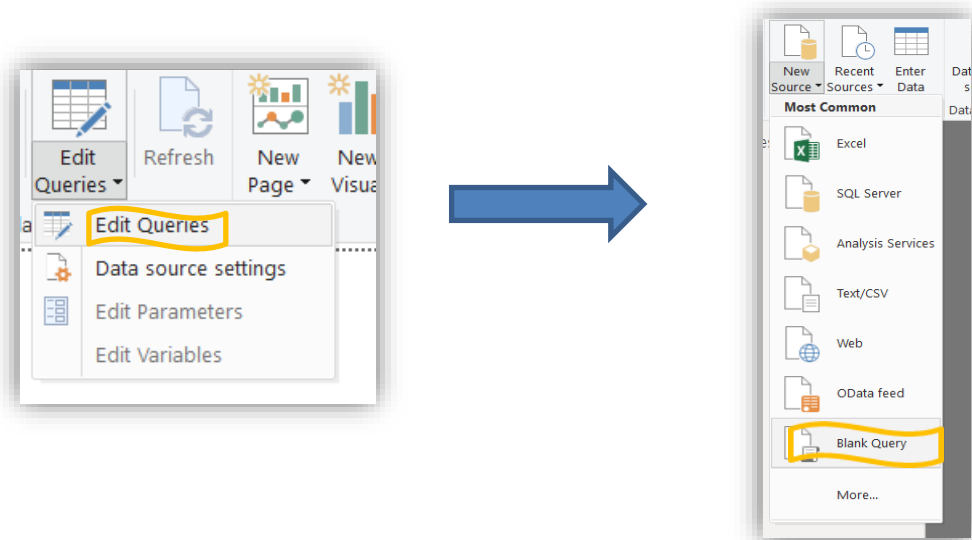
4. In the browser URL, the form ID (FormId) is shown just after "form-id":

https://www.kizeoforms.com/history.php?lang=en&form_id=519360

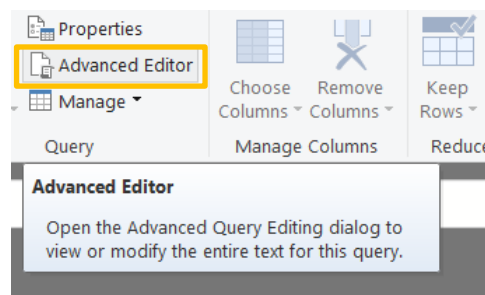
3.2 Recover Kizeo Form Data under Power BI Desktop

Now it's time to open Power BI Desktop and then:

1. Open the query editor and then create an empty query:



2. Open the Advanced Publisher



3. In the query window, paste the following code by replacing the **gray** elements with the previously recovered **FormId** and **Token**:

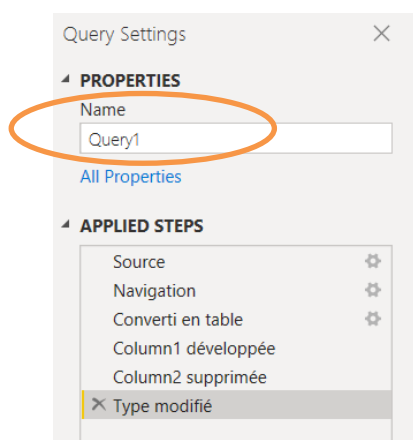
```
let
    Source =
        Json.Document(Web.Contents("https://www.kizeoforms.com/rest/v3/forms/519360/data/readnew?Autho
        rization=perma_restv3_mylogin_AKeyOf40HexanumericCharacters")),
        data = Source[data],
        #"Converti en table" = Table.FromList(data, Splitter.SplitByNothing(), null, null,
        ExtraValues.List),
        #"Column1 développée" = Table.ExpandRecordColumn(#"Converti en table", "Column1", {"id",
        "record_number", "form_id", "user_id", "create_time", "update_time", "update_user_id",
        "update_answer_time", "direction", "recipient_id", "history", "form_unique_id",
        "origin_answer", "answer_time", "user_name", "last_name", "first_name", "phone", "email",
        "login", "update_user_name", "recipient_name", "fields"}, {"ID", "Numéro d'enregistrement",
        "form_id", "Utilisateur_ID", "Date de création", "Date de modification", "Modificateur_id",
        "Mise à jour de la réponse", "Direction", "Destinataire_ID", "Historique", "ID unique dans le
        formulaire", "Origine", "Date de la réponse", "Utilisateur", "Nom", "Prénom", "Téléphone",
        "Email", "Login", "Modificateur", "Nom du destinataire", "Champs"}),
        #"Column2 supprimée" = Table.RemoveColumns(#"Column1 développée", {"Column2"}),
        #"Type modifié" = Table.TransformColumnTypes(#"Column2 supprimée", {"ID", Int64.Type},
        {"Numéro d'enregistrement", Int64.Type}, {"form_id", Int64.Type}, {"Utilisateur_ID",
        Int64.Type}, {"Date de création", type datetime}, {"Date de modification", type datetime},
        {"Modificateur_id", Int64.Type}, {"Mise à jour de la réponse", type datetime}, {"Direction",
        type text}, {"Destinataire_ID", Int64.Type}, {"Historique", type text}, {"ID unique dans le
        formulaire", Int64.Type}, {"Origine", type text}, {"Date de la réponse", type datetime},
        {"Utilisateur", type text}, {"Nom", type text}, {"Prénom", type text}, {"Téléphone", type
        text}, {"Email", type text}, {"Login", type text}, {"Modificateur", type text}, {"Nom du
        destinataire", type text})
in
    #"Type modifié"
```

This request recovers the entire records of the identification form marked as unread and you have access to depending on how your account is linked to Kizeo groups.

By default, all records are unread. To mark them as read (and therefore not download them by this method, it is possible to use the "Markarian" function. This could be appropriate if the amount of registration of the form was significant and unnecessary in your analyses or if you download these records in an intermediary database that stores them all and that you call from Power BI.

The Fields reassembled by this query are the ones that are common to all forms (users, dates, change history,). The following steps explain how to identify the specific fields in your form.

- Now you can rename the query after your form name:



- Develop the "Champs" Column, selecting the fields of your form that you want to be able to analyze with Power BI (note that the Kizeo separators also go back...):

The screenshot shows the Power BI interface with a table containing data from a Kizeo form. The columns are: Téléphone, Email, Login, Modificateur, and Nom du destinataire. A new column named 'Champs' is being expanded, showing a list of fields to select: schroef, spijker, hamer, tang, and schaal. The 'Use original column name as prefix' option is checked.

All selected fields now appear with the name **Champs.NameOfChamp** and Record type. So, we still have to develop them one by one, as follows.

A ^B C Modificateur	A ^B C Nom du destinataire	ABC 123 Champs.schroef	ABC 123 Champs.spijker	ABC 123 Champs.tang	ABC 123 Champs.schaal
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record
clement (Limousin Clément)	null	Record	Record	Record	Record

- On each field, develop them in the same way, keeping only the **value** field:

The screenshot shows the Power BI interface with a table containing data from a Kizeo form. The columns are: Nom du destinataire and Champs.schroef. A new column named 'Champs.schroef' is being expanded, showing a list of fields to select: value, type, subtype, hidden, and time. The 'Use original column name as prefix' option is checked.

- Once all your fields have been extracted, it is necessary to change the type of data behind each field so that the system can convert them properly (if nothey will remain as text), and rename them with a more appropriate name for your analyses.

4. Set up automatic synchronization under Power BI service via a gateway

If your dataset is published on the Internet in Power BI Service (<https://app.powerbi.com>), it is interesting to be able to set up automatic data recovery (without human intervention).

To do this, a proposed method involves setting up an [On-premise data gateway \(On-premise data gateway\)](#) to be installed on a server that will be turned on and connected to the internet at the scheduled hours of automatic refreshment.

If you already have a gateway and you have the option to administer it, then go directly to [the online gateway setting up to retrieve the Kizeo data.4.2](#) Setting up the online gateway to retrieve Kizeo data

4.1 *Downloading, installing and setting up the gateway on the server*

1. Go to the <https://powerbi.microsoft.com/fr-fr/gateway> page/ and click Download the GATEWAY:

Microsoft | Power BI | Products | Pricing | Solutions | Partners | Learn | Community | Sign in | Sign up free

Keep your dashboards and reports up-to-date with your on-premises data sources

With the on-premises gateways, you can keep your data fresh by connecting to your on-premises data sources without the need to move the data. Query large datasets and benefit from your existing investments. The gateways provide the flexibility you need to meet individual needs, and the needs of your organization.

DOWNLOAD GATEWAY [LEARN MORE >](#)

One gateway for all your cloud services

Install once and deploy multiple on-premises data connections across Power BI, PowerApps, Microsoft Flow and Azure Logic Apps using the same gateway.

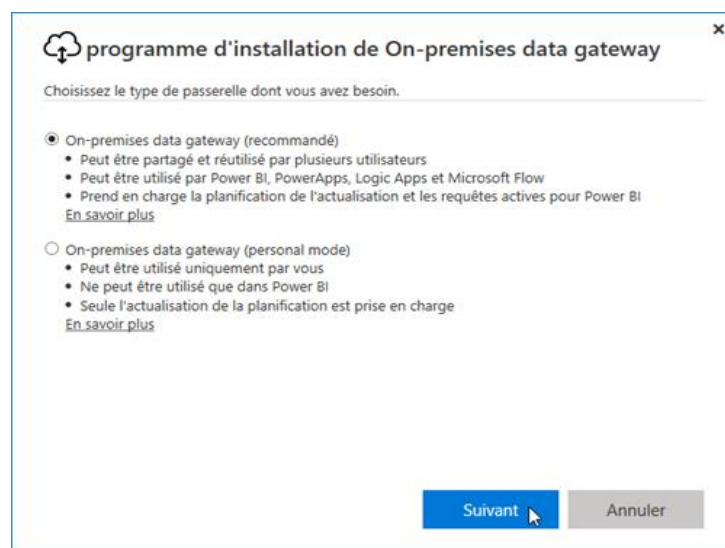
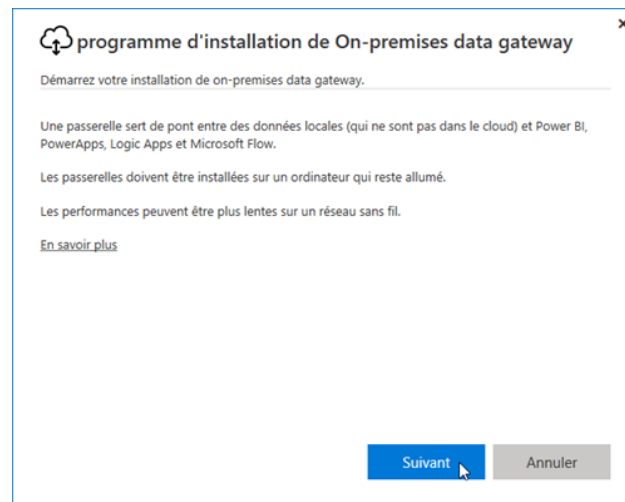
Easy setup

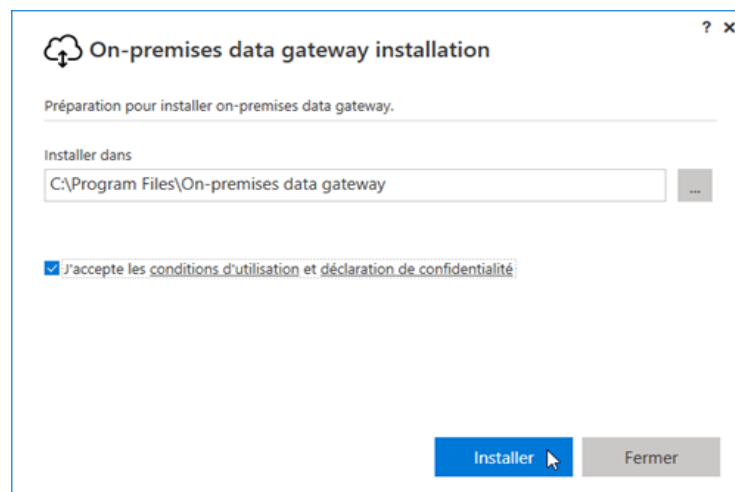
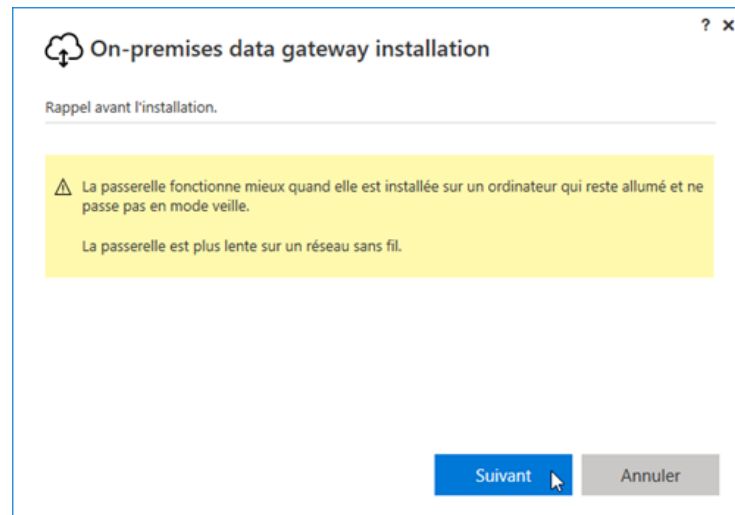
Download and install the gateway with minimal interactions. Then sign in with your organization account to register the gateway to be used by cloud services.

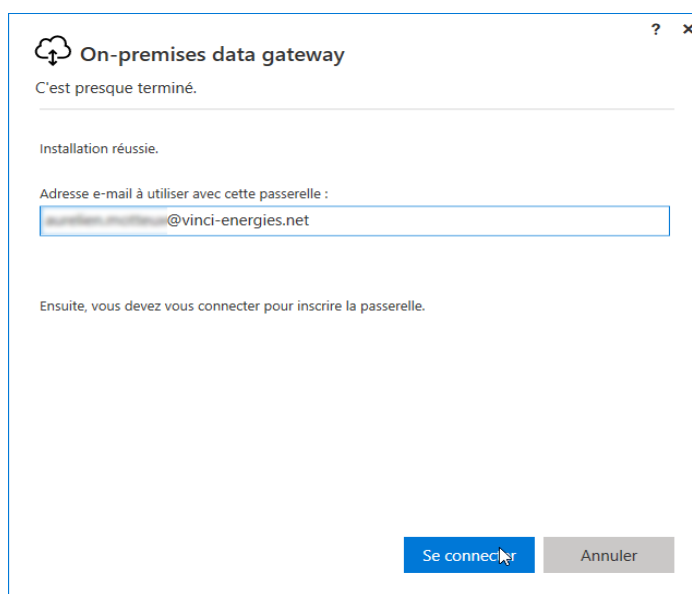
Secured access to data

Data transfer between Power BI and the gateway is secured through Azure Service Bus. Credentials provided by gateway administrators are encrypted to help protect your information in the cloud and only decrypted on the gateway machine.

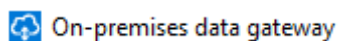
2. Install it by following all the steps of the process.





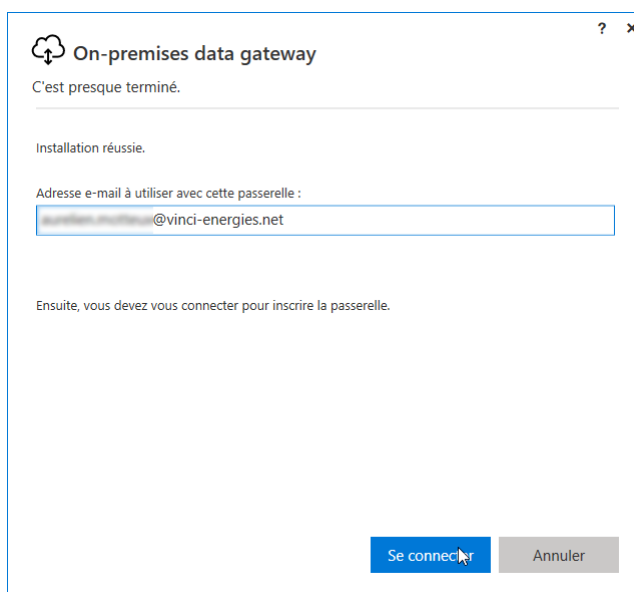


- Restart your PC and then launch the "**On-premises data gateway**" app from your Start Menu:



- Set up with your Power BI account (works with vinci-energies.net or bi-vinci-facilities.com accounts)

then log in with your IDs





On-premises data gateway
? ×

Vous êtes connecté en tant que aurelien.motteux@vinci-energies.net et prêt à inscrire la passerelle.

Nouveau nom de on-premises data gateway

Nom du serveur (ou autre élément vous permettant d'identifier cette passerelle)

☐ Ajouter à un cluster de passerelle existant

Clé de récupération (8 caractères minimum)

.....

① Cette clé est nécessaire pour restaurer la passerelle et ne peut pas être modifiée. Enregistrez-la dans un endroit sûr.

Confirmer la clé de récupération

.....

[En savoir plus sur les clusters de passerelle](#)

Nous utiliserons cette région pour connecter la passerelle aux services cloud : North Europe [Changer la région](#)

Configurer

Annuler



On-premises data gateway
? ×

Statut

Paramètres de sen

Diagnostics

Réseau

✓ La passerelle **On-premises data gateway** est en ligne et prête à être utilisée.

Numéro de version de la passerelle : 14.16.6549.2

☒ Contribuez à l'amélioration de on-premises data gateway en envoyant des informations d'utilisation à Microsoft.
[Lire la déclaration de confidentialité en ligne](#)

Logic Apps, Azure Analysis Services
[Créer une passerelle dans Azure](#)

North Europe

PowerApps, Microsoft Flow
✓ Prêt

Environnement par défaut

Power BI
✓ Prêt

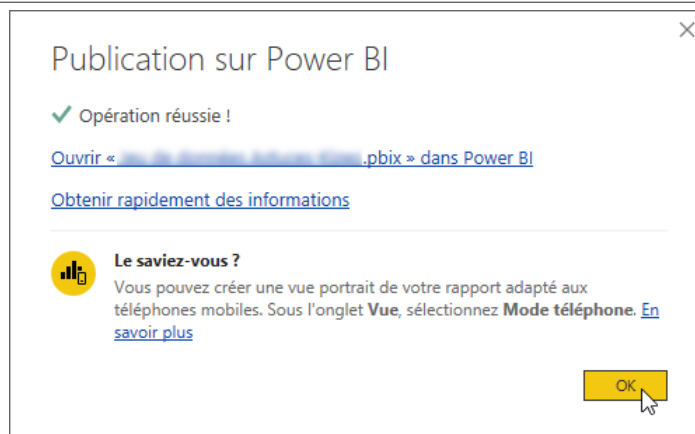
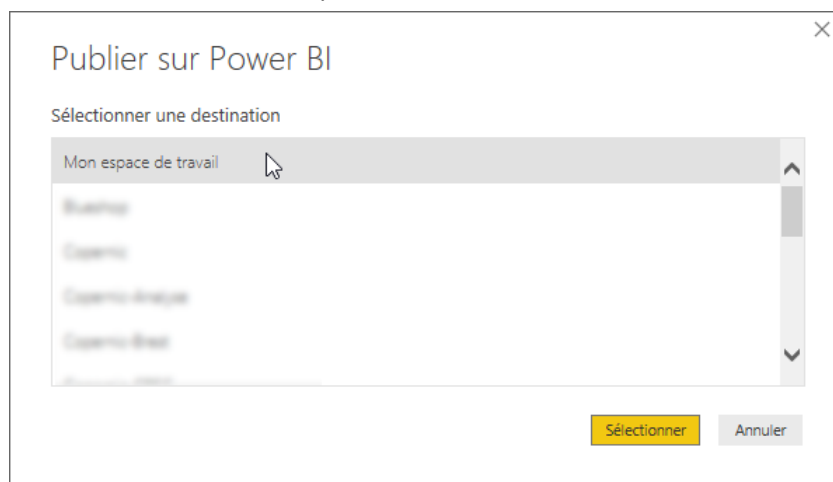
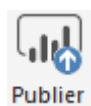
Environnement par défaut

Fermer

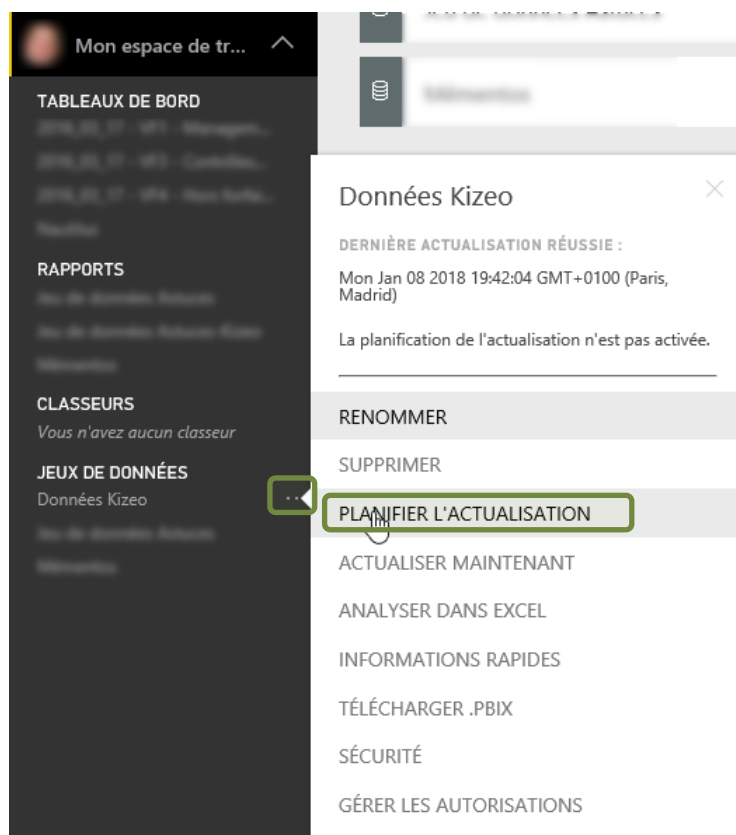
Your gateway is now set up on your server.

4.2 Setting up the online gateway to retrieve Kizeo data

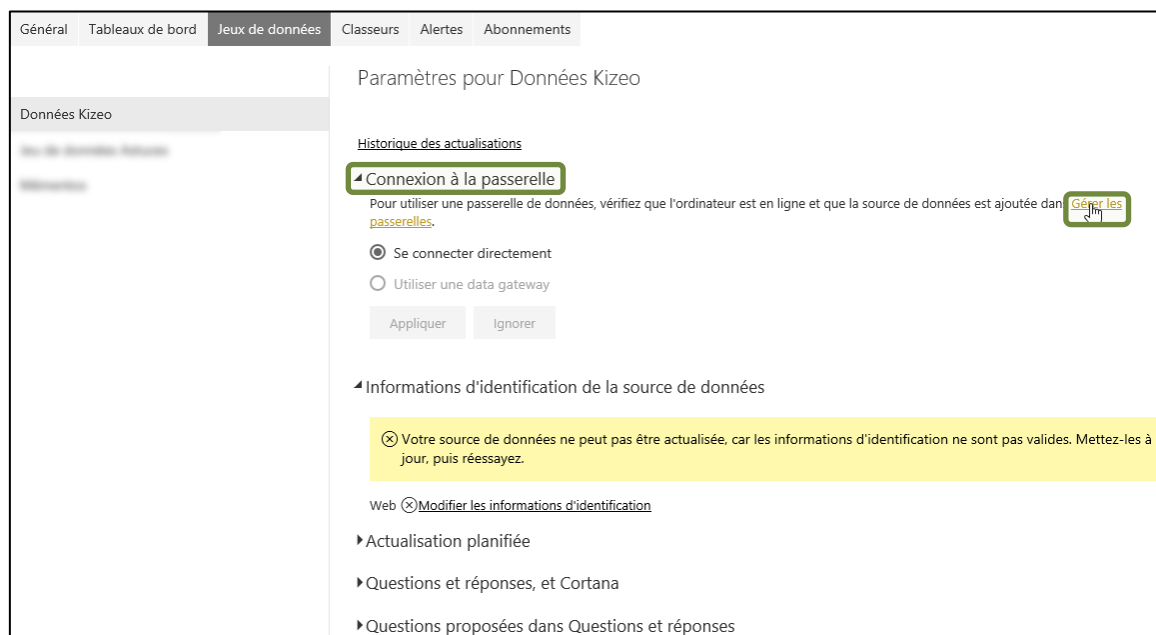
1. Publish your report in a Power BI Service workspace:



2. Visit the "Plan **TO** Update" section of your dataset on Power BI Service (<https://app.powerbi.com>):



3. Develop the "**Bridge** Connection" section and click "Manage **Gateways**":



- You then find the name of the gateway you installed on the server previously. Click " ..." at the end of the name and then on " **ADD A DATA SOURCE** » :

AJOUTER UNE SOURCE DE DONNÉES

CLUSTERS DE PASSERELLE

Kizeo

Tester toutes les connexions

Connecté

AJOUTER UNE SOURCE DE DONNÉES

AJOUTER UNE SOURCE DE DONNÉES

SUPPRIMER

Nom du cluster de passerelle

Kizeo

Service

Description

Coordonnées

@vinci-energies.net

Appliquer Ignorer

- Complete with the settings below (customize the name of your source to make it easier to identify) by replacing the **grey** elements with the previously recovered **FormId** and **Token**(same URL as the one in your PBIX file), then click on **Add** :

Paramètres de la source de données

Nom de la source de données

Mon formulaire Kizeo

Type de source de données

Web

URL

https://www.kizeoforms.com/rest/v3/forms/251150/data/readnew?Authorization=perma_restv3_monlogin_uneclede40caractèreshexanumériques

Méthode d'authentification

Anonyme

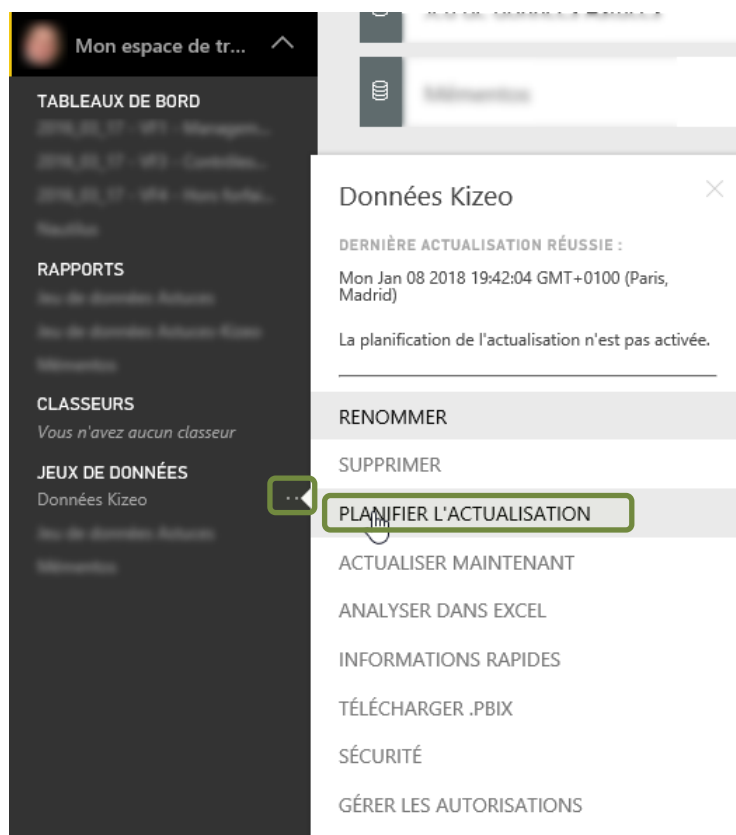
Paramètres avancés

Paramètre du niveau de confidentialité pour cette source de données

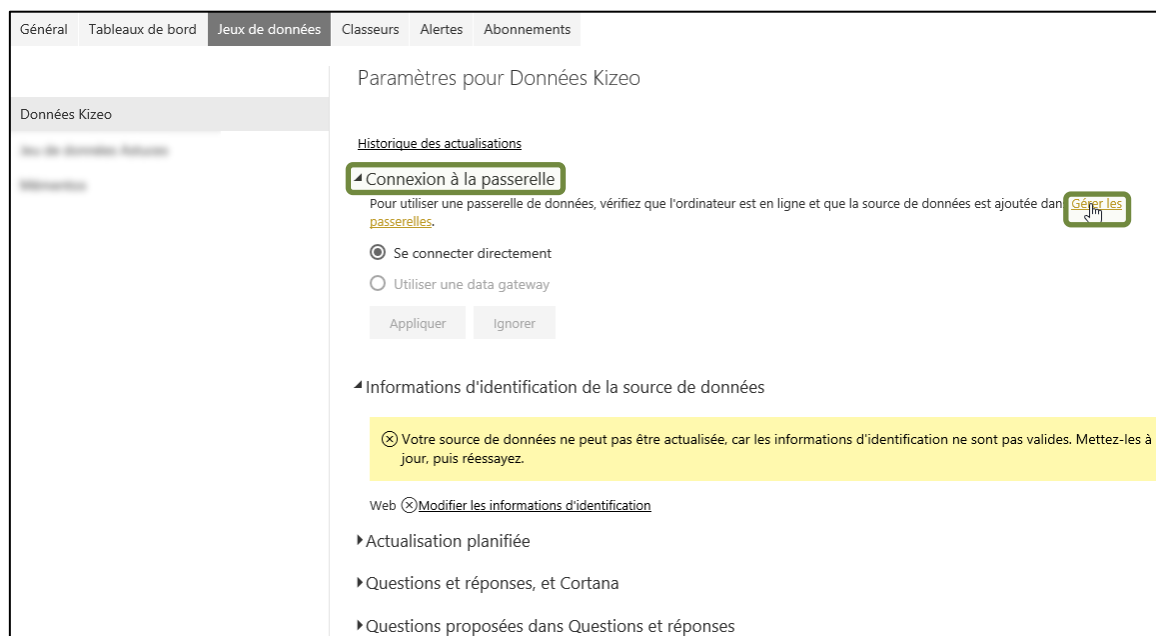
Professionnel

Ajouter Ignorer

6. Now go back to the "Plan **TO** Update" part of your dataset:



7. Develop the "**Bridge** Connection" section, then select the gateway and click **Apply**:



8. Set up refresh planning in the **"Planned Update"** section if you wish...

Général Tableaux de bord **Jeux de données** Classeurs Alertes Abonnements

Données Kizeo

Paramètres pour Données Kizeo

[Historique des actualisations](#)

☑ **Connexion à la passerelle**

Pour utiliser une passerelle de données, vérifiez que l'ordinateur est en ligne et que la source de données est ajoutée dans [Gérer les passerelles](#).

☐ Se connecter directement

☒ **Utiliser une data gateway**

État	Service	Passerelle	Coordonnées	Description
en ligne				@vinci-ene...

Appliquer Ignorer

⚡ Informations d'identification de la source de données

⊗ Votre source de données ne peut pas être actualisée, car les informations d'identification ne sont pas valides. Mettez-les à jour, puis réessayez.

Web ⊗ [Modifier les informations d'identification](#)

▶ Actualisation planifiée

▶ Questions et réponses, et Cortana

▶ Questions proposées dans Questions et réponses

9. Now you can force the update to check that the data is correctly synced by clicking "Refresh Now":

Mon espace de tr...

TABLEAUX DE BORD

RAPPORTS

CLASSEURS
Vous n'avez aucun classeur

JEUX DE DONNÉES
Données Kizeo

Données Kizeo

DERNIÈRE ACTUALISATION RÉUSSIE :
Mon Jan 08 2018 19:42:04 GMT+0100 (Paris, Madrid)

La planification de l'actualisation n'est pas activée.

RENOMMER

SUPPRIMER

PLANIFIER L'ACTUALISATION

ACTUALISER MAINTENANT

ANALYSER DANS EXCEL

INFORMATIONS RAPIDES

TÉLÉCHARGER .PBIX

SÉCURITÉ

GÉRER LES AUTORISATIONS