





# TRBOnet Enterprise/PLUS OAUTH 2.0 Migration Guide

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## 1 Introduction

#### 1.1 About This Guide

This document describes the steps that must be followed to migrate to the OAUTH 2.0 protocol that is used for authorization when accessing email services.

#### 1.2 About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

For more information about TRBOnet products, refer to our <u>website</u>.

#### 1.3 Contacts

Region	Phone	Email & Support
EMEA	+44 203 608 0598	<u>info@trbonet.com</u> — general and commercial inquiries
Americas	+1 872 222 8726	<u>support@trbonet.com</u> — technical support
АРАС	+61 28 607 8325	<u>https://trbonet.com/kb/</u> — online knowledge base



## 2 TRBOnet Server

This section contains step-by-step instructions on configuring email services in TRBOnet Server to comply with OAUTH 2.0

### 2.1 Incoming Mail Sever

• In the **Configuration** pane, under **Email**, select **Incoming Mail Server**.

Configuration	1	Incoming Mail Server
Advanced Settings Cable Settings Cable Set Set Set Set Set Set Set Set Set Se	^	Enable  Server:  This server requires a secure connection (SSL)  Port:  993  Protocol:  MAP  Check for new messages  augur:  5  Augurt  5  Augurt 5  Augurt  5  Augurt  5  Aug
Teltonika Remote Agents Friendly Servers Phone Connect Advanced Settings Tinternal PBX Server Data Sources Email Free Tincoming Mail Server Outgoing Mail Server SMS Notifications Clicense		Connect using OAuth 2.0  Provider: Gmail Email: Client ID: Client secret: Authorize and Check
Set Defaults	•	Apply OK Cancel

- In the right pane, specify the following OAuth-related parameters:
  - Connect using

From the drop-down list, select OAuth 2.0:

Provider

From the drop-down list, select either Office 365 or Gmail.

Email

Enter the email address.

- If Gmail is selected as the email provider, enter the Client ID and Client secret (obtained in this section).
   If Office 365 is selected as the email provider, enter the Client ID and Tenant ID (obtained in this section).
- Authorize and Check
   Click this button to authorize your email account and check for new emails.



## 2.2 Outgoing Mail Server

• In the **Configuration** pane, under **Email**, select **Outgoing Mail Server**.

Configuration		Outgoing Mail Server	
Console User Console User Console User Console User Console Swift Agent #1 Console Swift Agent #1 Console Swift Agent #1 Console Cellular Con	^	✓ Enable Sender's Email: SMTP Server: Encryption: SMTP Server Port:	outlook.office365.com Explicit (TLS) * 587
Teironika     Remote Agents     Friendly Servers     Phone Connect     Advanced Settings     Internal PBX Server     Data Sources     COM ports		Connect using Provider: Email: Client ID: Tenant ID:	OAuth 2.0 •
TCP/IP  TCP/IP  TCD/IP  TCD/I	>		Authorize Send Test Message
Set Defaults			Apply OK Cancel

- In the right pane, specify the following OAuth-related parameters:
  - Connect using

From the drop-down list, select **OAuth 2.0**:

Provider

From the drop-down list, select either Office 365 or Gmail.

Email

Enter the email address.

- If Gmail is selected as the email provider, enter the Client ID and Client secret (obtained in this section).
   If Office 365 is selected as the email provider, enter the Client ID and Tenant ID (obtained in this section).
- Authorize

Click this button to authorize your email account.

Send Test Message

Click this button to send a test message from the Sender Email address.



## **3 Google Service**

This section contains step-by-step instructions on configuring your Google email account authorization to comply with OAUTH 2.0.

- In a browser, go to **console.cloud.google.com** and log in with your account.
- In the upper toolbar, click **Select a project**.

≡ Google Cloud Select a project -	۹	>.	۵	?	0
Get Started with Google Cloud Platform 90-day, \$300 free trial to get you start Always free products to keep you goin	n ed 19	· · · · ·			
TRY FOR FREE					
Top Products					
۰ 😁		3			

• In the **Select a project** pane that pops up, click **NEW PROJECT**.

Sta Lea	Select a project		ACTIVATE
≡ G	Search projects and folders		:
1 5	RECENT STARRED ALL		21
TES .	Name	ID	100
	No organization	0	1 - 46
2			
			5 / /
Top Pr			
۲		CANCEL OPEN	

• In the **New Project** page, enter the **Project name** and click **CREATE**.

≡ Google Cloud	>.	1	?	
New Project				
You have 9 projects remaining in your quota. Request an increase or delete projects. Learn more MANAGE QUOTAS				
Project ID: neo-come 116, it cannot be changed later. EDIT				
Location * BROWSE Based organization or folder Browse				
CREATE CANCEL				



• In the left side menu, select **APIs & Services > OAuth consent screen**. In the right pane, choose the appropriate **User Type** and then click **CREATE**.

=	Google Cloud : Neo Cl	• m •	Q Search Products, resources, docs (/)
API	APIs & Services	OAuth consent screen	
÷	Enabled APIs & services	Choose how you want to configure and register your app, inc target users. You can only associate one app with your proje	cluding your
ш	Library		
0.4	Credentials	User Type	
82	OAuth consent screen	🔾 Internal 🥵	
V	Domain verification	Only available to users within your organization. You will submit your app for verification. <u>Learn more about user t</u>	not need to type
Ξo	Page usage agreements	External Available to any test user with a Google Account. Your at testing mode and will only be available to users you add users. Once your app is ready to push to production, you verify your app. Learn more about user type	pp will start in to the list of test may need to
		Let us know what you think about our OAuth experience	

- The **Edit app registration** page opens in the right pane. Configure your app registration as desired and click **SAVE AND CONTINUE** at the bottom of the page.
- In the left side menu, select **APIs & Services > Enabled APIs & services**. In the right pane, click **ENABLE APIS AND SERVICES**.

	Google Cloud So Neo	Com 🔫	۹	Search	Produc
API	APIs & Services	APIS & Services + ENABLE APIS AND SERVICES			
۰.	Enabled APIs & services				
Ш	Library	_			
0+	Credentials	Traffic			:
:2	OAuth consent screen			1.0/s	
	Domain verification			0.8/s	
≡o	Page usage agreements	No data is available for the selected time frame.		0.6/s	
				0.2/s	
		Thu 22 6 AM 12 PM		0	

• Navigate to the **Google Workspace** section and click **Gmail API**.

≡ Google Cloud	🐌 Neo Com	•		
Databases	(6)		•	<b>1-1</b>
Machine learning	(11)	<b>•</b>	<b></b>	
Developer tools	(20)	Dialogflow API Google Enterprise API	Cloud Vision API Google Enterprise API	Google Enterprise API
Compute	(11)	Builds conversational interfaces	Image Content Analysis	Provides natural language understanding technologies, such
Advertising	(15)			as sentiment analysis, entity
Social	(5)			
Operating systems	(1)			
Healthcare	(4)	Google Workspace		
Science & research	(1)		_	
Google Enterprise APIs	(182)	Google Drive API	Google Calendar API	Gmail API
Climate	(1)	Google Enterprise API	Google Enterprise API	Google Enterprise API
Blog & CMS	(1)	The Google Drive API allows clients to access resources from Google	Integrate with Google Calendar using the Calendar API.	Flexible, RESTful access to the user's inbox
Security	(7)	Drive		
CRM	(1)			
Developer stacks	(3)	VouTubo		
Networking	(8)	rourupe		VIEW ALL (3)



• Click ENABLE.



• In the left side menu, select **APIs & Services > Credentials**. In the right pane, click **CREATE CREDENTIALS > OAuth client ID**.

=	Google Cloud So Neo C	com 🔻	Q Search Products, resources, doc
API	APIs & Services	Credentials	+ CREATE CREDENTIALS
4.	Enabled APIs & services	Create credentials to ac	API key Identifies your project using a simple API key to check quota and access
***	Library	API Keys	OAuth client ID Requests user consents o your app can access the user's data
0+	Credentials	Name	Service account
92	OAuth consent screen	No API keys to displa	Enables server-to-server, app-level authentication using robot accounts
	Domain verification	OAuth 2.0 Client I	Help me choose Asks a few questions to help you decide which type of credential to use
≡¢	Page usage agreements	Name -	Creation date 🗸

• From the **Application type** list, select **Desktop app**. Enter the **Name** of the OAuth 2.0 client. Click **CREATE**.



 As a result, you will see the values of the Client ID and Client secret parameters that are used when configuring email settings in TRBOnet Server (see section <u>2, TRBOnet Server</u>).

=	Google Cloud 💲 test	Q Search Products, resources, docs (/)	) (	2	1	?	G
API	APIs & Services	Client ID for Desktop ± DOWNLOAD JSON C RESET SECRET					
<≎>	Enabled APIs & services						
Ш	Library	Name * Client ID					
0+	Credentials	The name of your OAuth 2.0 client. This name is only used to identify the client in the console and will not be shown to end users.					
:2	OAuth consent screen	Client secret					
2	Domain verification	Note: It may take 5 minutes to a few hours for settings to take effect					
Ξo	Page usage agreements	SAVE CANCEL Creation date		Septer 3:04:0	nber 12 7 PM GI	, 2022 a VIT+3	t



## 4 Office 365 Service

This section contains step-by-step instructions on configuring your Office 365 account authorization to comply with OAUTH 2.0.

- In a browser, go to **portal.azure.com** and sign in with your account.
- Search for and select Azure Active Directory.



• In the left pane, under Manage, select App registrations > New registration.





• Enter a display **Name** for the application. Under the **Supported account types** section, choose the desired option. Click **Register**.

* Name	
The user-facing display name for this applicat	ion (this can be changed later).
TRBOnet	✓
Supported account types	
Who can use this application or access this AI	212
Accounts in this organizational directory	only (Неоком софтвеа, ООО only - Single tenant)
O Accounts in any organizational directory	(Any Azure AD directory - Multitenant)
<ul> <li>Accounts in any organizational directory</li> </ul>	(Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
<ul> <li>Personal Microsoft accounts only</li> </ul>	
Help me choose	
Redirect LIRL (ontional)	
We'll return the authentication response to thi	s LIRI after successfully authenticating the user. Providing this now is optional and it can be
changed later, but a value is required for mos	st authentication scenarios.
Public client/native (mobile V	/localhost 🗸
Register an app you're working on here. Integ	rate gallery apps and other apps from outside your organization by adding from Enterprise application
By proceeding, you agree to the Microsoft Pla	atform Policies 📴
Register	
	Create application X

• In the left pane, under **Manage** select **Authentication**. In the right pane, in the **Mobile and desktop applications** section, under **Redirect URIs**, select https://login.microsoftonline.com/common/oauth2/nativeclient.

© Search •	< 🔗 Got feedback?		
Overview Quickstart Integration assistant	Platform configurations Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URX, specific authenticatios settings; or fields specific to the platform.		
lanage	+ Add a platform		
Branding & properties			
Authentication	<ul> <li>Mobile and desktop applications</li> <li>Quickstart</li> </ul>	Docs	l
Certificates & secret	Redirect URIs		
Token configuration	The URis we will accept as destinations when returning authentication responses (tokens) after successfully authenticating users. The redirect URI you require to the logic sense chould with our listed have black and their section to an ender URI - Large more should ender URIs and their section target.	send in the	e
API permissions	request to the login server should match one listed nere. Also reletted to as reply UKLS, Learn more about Redirect UKLS and their restrictions of		
Expose an API	https://ogin.microsoftonline.com/common/oauth2/nativeclient		
App roles	https://login.live.com/oauth20_desktop.srf (LiveSDK)		
Owners	msal2a039b87-6fet-4030-9634-79e544cce6e0t//auth (MSAL only)		_
Roles and administrators	http://localhost		l
Manifest	Add URI		
upport + Troubleshooting			
Troubleshooting	Supported account types		
New support request	Who can use this application or access this API?		
	Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)		
	All users with a work or school, or personal Microsoft account can use your application or API. This includes Office JieS subscribers.		
	▲ To change the supported accounts for an existing registration, use the manifest editor. Take care, as certain		



• In the left pane, under **Manage** select **API permissions**. In the right pane, click **Add a permission**.

	ssions 🖈 …
₽ Search «	🕐 Refresh 🔰 🖗 Got feedback?
<ul> <li>Overview</li> <li>Quickstart</li> <li>Integration assistant</li> </ul>	Configured permissions Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. Learn more about permissions and consent + Add a permission $\checkmark$ Grant admin consent for Heokow coorteeq. 000
Branding & properties	API / Permissions natured a permission pe Description Admin consent req Status
Authentication	No permissions added
📍 Certificates & secrets	
Token configuration	To view and manage permissions and user consent, try Enterprise applications.
API permissions	
🔷 Expose an API	
👢 App roles	
A Owners	
Roles and administrators	
Manifest	
Support + Troubleshooting	
Troubleshooting	
New support request	

• In the right pane, under **Request API permissions** > **Microsoft APIs** choose **Microsoft Graph**.

Request API permissions					
Select an API					
Microsoft APIs APIs my organization	uses My APIs				
Commonly used Microsoft APIs					
Microsoft Graph Take advantage of the trem Access Aure AD, Excel, Intu single endpoint.	andous amount of data in Office 365, Enterprise ine, Outlook/Exchange, OneDrive, OneNote, Sh	Mobility – Security, and Windows 10. arePoint, Planner, and more through a			
Rich communication experiences with the same secure CPasS platform used by Microsoft Teams	Azure DevOps Integrate with Azure DevOps and Azure DevOps server	Azure Key Vault Manage your key vaults as well as the keys, secrets, and certificates within your Key Vaults			
Allow validated users to read and write protected content	Azure Service Management Programmatic access to much of the functionality available through the Azure portal	Azure Storage Secure, massively scalable object and data lake storage for unstructured and semi-structured data			
Data Export Service for Microsoft Dynamics 365 Export data from Microsoft Dynamics CFM organization to an external destination	Central Dynamics 365 Business Central Programmatic access to data and functionality in Dynamics 365 Business Central	Dynamics CRM Access the capabilities of CRM business software and ERP systems			
Flow Service Embed flow templates and manage flows	Figure Intune Programmatic access to Intune data	Office 365 Management APIs Retrieve information about user, admin, system, and policy actions and events from Office 356 and Azure AD activity			



- Choose **Delegated permissions**.
- Select the following permissions:
  - email
  - offline\_access
  - IMAP.AccessAsUser.All
  - POP.AccessAsUser.All
  - SMTP.Send
  - User.Read
- Click Add permissions.

Your app	d permissions lication needs to access the API as the signed-in user.	Application permissions Your application runs as a background service or daemon without a signed-in user.
Select per	rmissions	expand
🔎 Start ty	ping a permission to filter these results	
1 The perm more	"Admin consent required" column shows the default value for mission, user, or app. This column may not reflect the value in g	an organization. However, user consent can be customized per your organization, or in organizations where this app will be used. <u>Learn</u>
Perm	ission	Admin consent required
∨ Open	1d permissions (2)	
<b>—</b> ;	email 🕕 View users' email address	No
	offline_access ① Maintain access to data you have given it access to	No
	and a	No
	Sign users in	
	openia 🕤 Sign users in profile 🛈 View users' basic profile	No

• In the **Configured permissions** page, click **Grant admin consent for** ...

Configured permissions Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. Learn more about permissions and consent					
+ Add a permission 🗸 Gran	t admin conser	it for			
API / Permissions name	Туре	Description	Grant admin consent for	in consent req	Status
∽ Microsoft Graph (6)					
email	Delegated	View users' email	address	No	
IMAP.AccessAsUser.All	Delegated	Read and write ac	cess to mailboxes via IMAP.	No	
offline_access	Delegated	Maintain access to	o data you have given it access to	No	
POP.AccessAsUser.All	Delegated	Read and write ac	cess to mailboxes via POP.	No	
SMTP.Send	Delegated	Send emails from	mailboxes using SMTP AUTH.	No	
User.Read	Delegated	Sign in and read u	iser profile	No	

To view and manage permissions and user consent, try Enterprise applications



• See that the required permissions are granted (**Status** column).

○ Refresh					
Successfully granted admin consent for the requested permissions.					
Configured permissions	APIs when they	are granted nermissions by users/admins as part of the	consent process. The list of c	configured permissions should	Id
include all the permissions the ap	plication needs.	Learn more about permissions and consent	consent process. The list of t	tonigured permissions shou	
+ Add a permission 🗸 Gra	nt admin consen	t for			
API / Permissions name	Туре	Description	Admin consent req	Status	
∽ Microsoft Graph (6)					
email	Delegated	View users' email address	No	Granted for	
IMAP.AccessAsUser.All	Delegated	Read and write access to mailboxes via IMAP.	No	Granted for	
offline_access	Delegated	Maintain access to data you have given it access to	No	Granted for	
POP.AccessAsUser.All	Delegated	Read and write access to mailboxes via POP.	No	Granted for	
SMTP.Send	Delegated	Send emails from mailboxes using SMTP AUTH.	No	Granted for	
User.Read	Delegated	Sign in and read user profile	No	Granted for	

To view and manage permissions and user consent, try Enterprise applications.

• In the left pane, select **Overview**. In the right pane, under **Essentials**, see the values of the **Application (client) ID** and **Directory (tenant) ID** parameters that are used when configuring email settings in TRBOnet Server (see section <u>2</u>, TRBOnet Server).

TRBOnet 🖉 …			
₽ Search «	📋 Delete 🜐 Endpoints 🐻 Preview features		
Overview	↑ Essentials		
<ul> <li>Quickstart</li> <li>Integration assistant</li> </ul>	Display name : <u>TRBOnet</u> Application (client) ID :		
Manage	Object ID :		
🖬 Branding & properties	Directory (tenant) ID :		
Authentication	Supported account types : <u>All Microsoft account users</u>		
📍 Certificates & secrets	Cet Started Decumentation		
Token configuration			