



Table of Contents

1.0 Prepare the Target Tenant	2
2.0 Creating an App-registration for Graph access and integrating it with Selfservice	2
3.0 Creating an App-registration for the intergration App and Installing the Integration App	2
3.1 Check your Azure Subscription	2
3.2 Create a Ressource group and find the Tenant ID	4
3.3 Creating an App registration	7
3.4 Installing the Intergration App	15
3.6 (Optional) App Security Review	23

Introduction

This guide will walk you through the process of creating an app registration and installing the Integration App in Azure. It includes steps such as checking your Azure subscription, creating a resource group and app registration, and installing the Integration App. Additionally, it provides an optional security review of the app. The guide provides clear steps and instructions, including information on necessary IDs and keys. After installation, you can enable various operations within the app based on JSON content, such as self-testing, inspection, and control of Teams telephony. It is important to follow the instructions not to modify the Powershell code and to take note of important information like app keys and URLs. This guide will help you set up the Integration App correctly and use its features to enhance your business communication with TDC Business Selfservice.



1.0 Prepare the Target Tenant

It is assumed that you have followed this guide: <https://tdc.dk/implementation-guide-teams>. This ensures that your Azure Tenant is configured for telephony, connected to a Supertrunk, and that the Supertrunk is linked to a Broadworks trunk.

2.0 Creating an App-registration for Graph access and integrating it with Selfservice

This is described in this guide: <https://tdc.dk/kundeservice/telefoniloesning/tjenester/teams-telefoni/opsaet-ad-integration>.

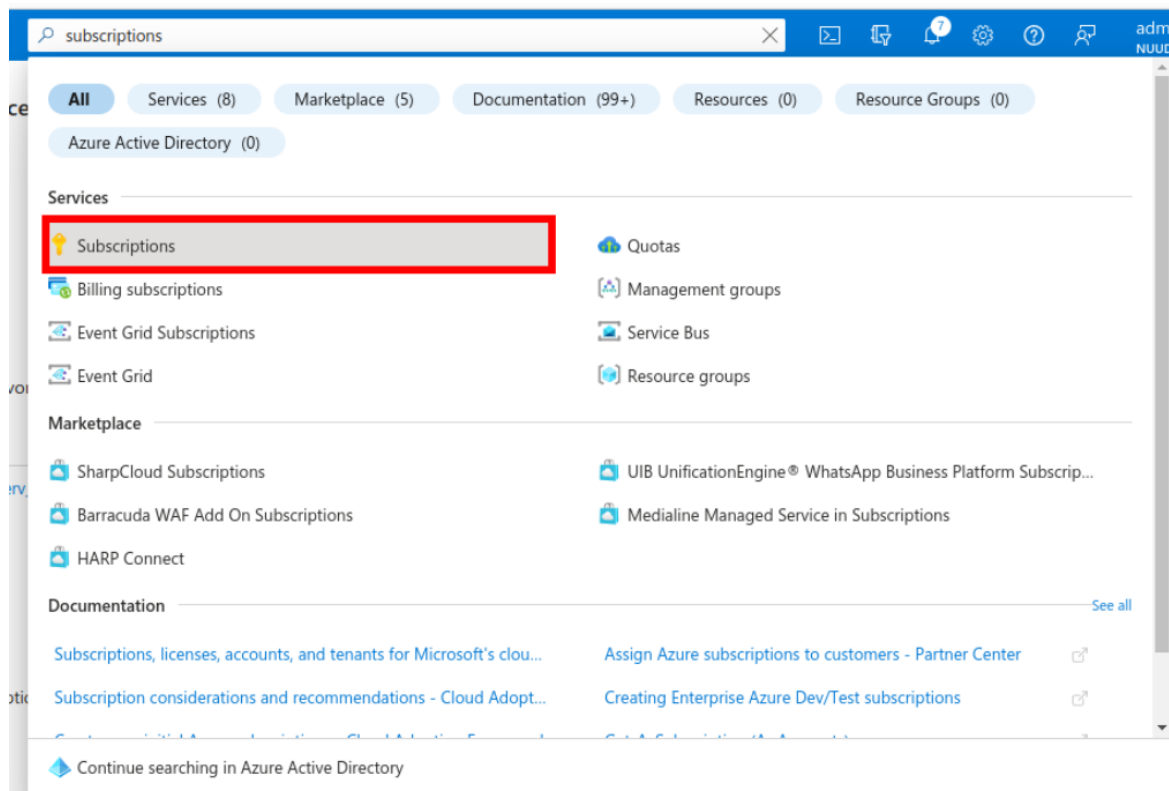
3.0 Creating an App-registration for the intergration App and Installing the Integration App

Log in-to the target Azure Tenant on <https://portal.azure.com/> using an account that is Global Administrator. If you are not a Global Administrator some of the steps below will not work for you.

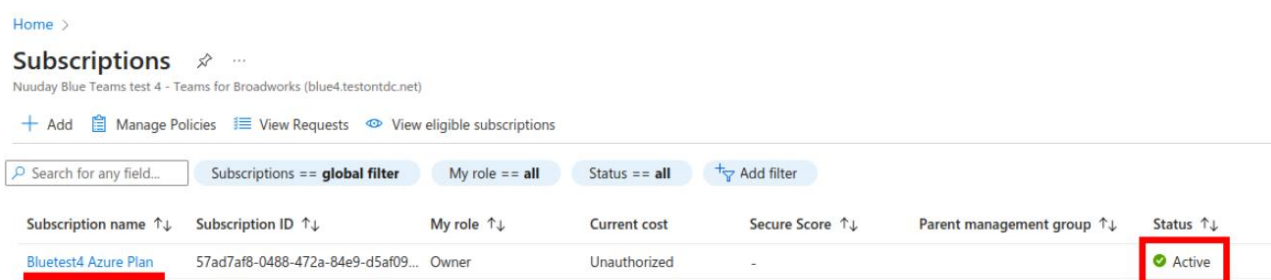
3.1 Check your Azure Subscription

Before we start, let's make sure your Azure Tenant has an active Subscription. This is necessary because the Integration App consumes cloud storage and CPU cycles whenever it is triggered. Azure must be able to bill these expenses, and this requires a Subscription.

Search for “Subscriptions” and go to that section by clicking the “Subscriptions” link with the yellow key icon.



Your organization may have more than one Subscription listed here. Be sure you have decided on which one to use and double check that it is **Active**.

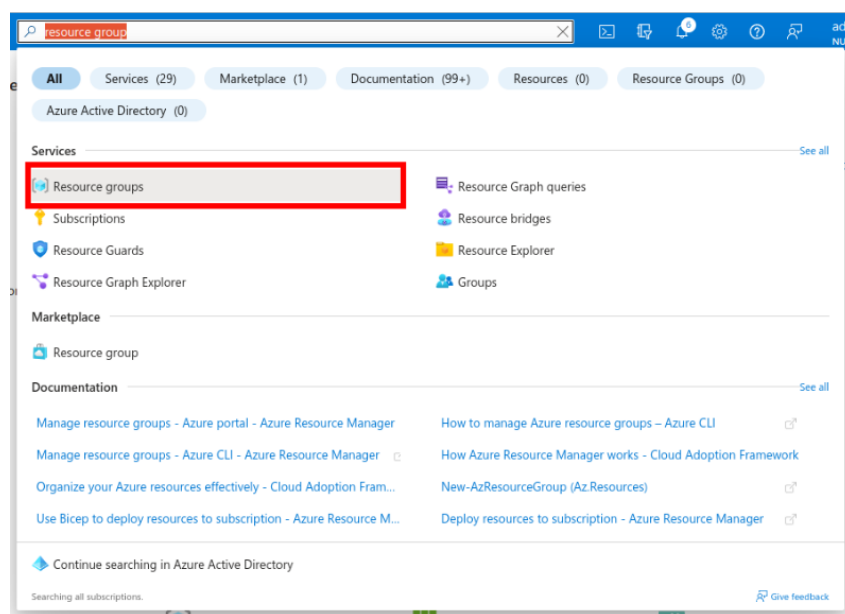


Make a note of the Subscription name, we will need it later. In this example we will be using a Subscription called **Bluetest4 Azure Plan**.

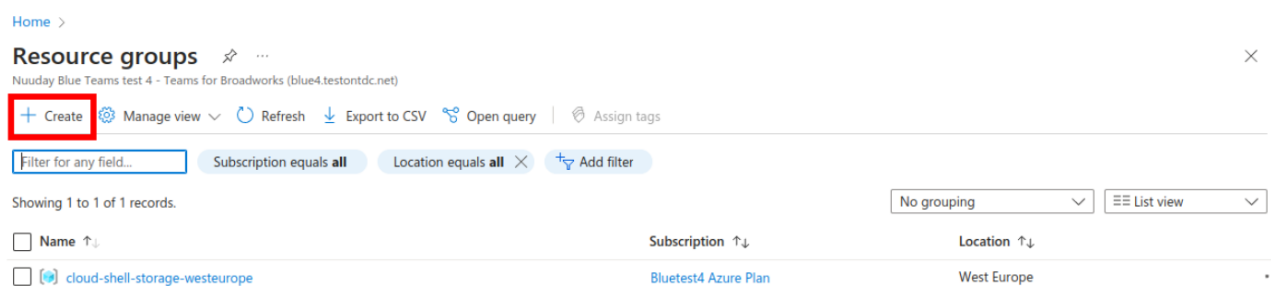


3.2 Create a Ressource group and find the Tenant ID

The Integration App will need to be installed into a new empty Azure Resource group. Search for “Resource groups” and go to that section.



You may already have several resource groups already listed here, ignore those, and click the plus-icon to create a new empty resource group.



You should see a page that looks like this.

- Choose the Azure Subscription that we found in the section above. This will be billed for the storage and CPU cycles consumed by the Integration App once it is installed.



- You can enter any (locally unique) name for your new group, in this example we will call it **TDC_Erhverv_Telephony_Integration**.
- Choose a region that is geographically close to the TDC Erhverv servers, for example “(Europe) North Europe”.

The screenshot shows the 'Create a resource group' page in the Microsoft Azure portal. The 'Basics' tab is selected. The 'Project details' section shows 'Subscription' set to 'Bluetest4 Azure Plan' and 'Resource group' set to 'TDC_Erhverv_Telephony_Integration'. The 'Resource details' section shows 'Region' set to '(Europe) North Europe'. Red arrows point to each of these three dropdown menus. At the bottom, the 'Review + create' button is highlighted with a red rectangle.

Click “**Review + create**”. And then on the next page click “**Create**”. (Pro tip: if your accounting department wants telephony related cloud resources grouped together, you can optionally add some helpful Tags).

The screenshot shows the 'Review + create' step of the 'Create a resource group' process. A green banner at the top indicates 'Validation passed.' The 'Review + create' tab is selected. The 'Basics' section displays a summary of the configuration: Subscription (Bluetest4 Azure Plan), Resource group (TDC_Erhverv_Telephony_Integration), and Region (North Europe). The 'Tags' section shows 'None'. At the bottom, the 'Create' button is highlighted with a red rectangle.



Remember the name of your new empty Resource group, we will need it later.

Resource groups ✕ ...

Nuuday Blue Teams test 4 - Teams for Broadworks (blue4.testontdc.net)

+ Create ⚙️ Manage view ▾ 🔄 Refresh ⬇️ Export to CSV 🔗 Open query | 🏷️ Assign tags

Filter for any field... Subscription equals **all** Location equals **all** ✕ + Add filter

Showing 1 to 2 of 2 records. No grouping ▾

<input type="checkbox"/> Name ↑↓	Subscription ↑↓	Location ↑↓
<input type="checkbox"/> cloud-shell-storage-west europe	Bluetest4 Azure Plan	West Europe
<input type="checkbox"/> TDC_Erhverv_Telephony_Integration	Bluetest4 Azure Plan	North Europe

We will also need to note down the global ID of your tenant. To find it search for “Microsoft Entra ID” and go to that section.

Microsoft Entra ID

All Services (53) Marketplace (3) Documentation (99+) Resources (0) Resource Groups (0)

Azure Active Directory (0)

Services [See all](#)

- Microsoft Entra ID
- Microsoft Entra ID Protection
- Microsoft Entra ID risk detections
- Microsoft Entra ID risky sign-ins
- Microsoft Entra ID risky users
- Microsoft Entra ID roles and administrators
- Microsoft Entra ID Security
- Microsoft Entra ID risky workload identities

Marketplace

- Microsoft Entra Digital IAM Managed Service
- Omada Identity Cloud: Enhance Your Microsoft Entra ID Capa...

Documentation [See all](#)

- Authorize access with Microsoft Entra ID for Azure SignalR Service
- Quickstart - Set up a tenant - Microsoft Entra
- Authorize request to Web PubSub resources with Microsoft Entra ...
- Managed identities in Azure SignalR Service
- Azure Arc-enabled SQL Server - SQL Server
- Secure a hosted ASP.NET Core Blazor WebAssembly app with Mic...

Continue searching in Azure Active Directory

Searching all subscriptions. [Give feedback](#)



You can now read off the Tenant ID. In this example it is **52d54f0b-90ea-450b-be8b-acd3d8c7a201**. Note it down, we will need it in the next section.

The screenshot shows the Microsoft Entra ID portal for a tenant named "Nuuday Blue Teams test 4 - Teams for Broadworks". The left sidebar contains navigation links for Overview, Preview features, Diagnose and solve problems, and a Manage section with links for Users, Groups, External Identities, Roles and administrators, Administrative units, Delegated admin partners, Enterprise applications, Devices, and App registrations. The main content area shows the Overview tab with a search bar and a table of basic information. The Tenant ID is highlighted in red.

Basic information	
Name	Nuuday Blue Teams test 4 - Teams for Broadworks
Tenant ID	52d54f0b-90ea-450b-be8b-acd3d8c7a201
Primary domain	blue4.testontdc.net
License	Microsoft Entra ID P1
Alerts	

Statistics	
Users	76
Groups	12
Applications	2
Devices	1

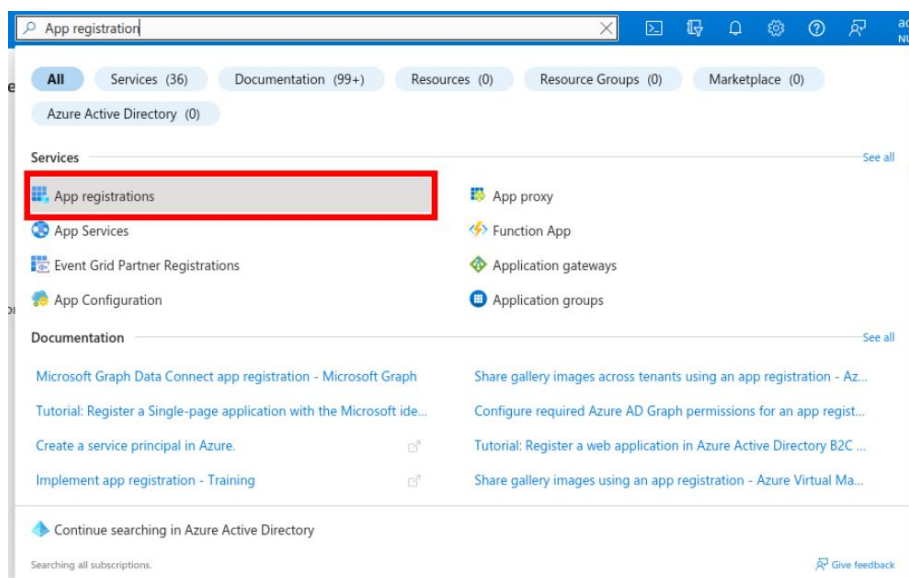
At this point we should have noted down:

- Subscription name: **Bluetest4 Azure Plan** (we used it in this section but will need it again later)
- New empty resource group, located in northern Europe: **TDC_Erhverv_Telephony_Integration**
- Your Azure Tenant ID: **52d54f0b-90ea-450b-be8b-acd3d8c7a201**

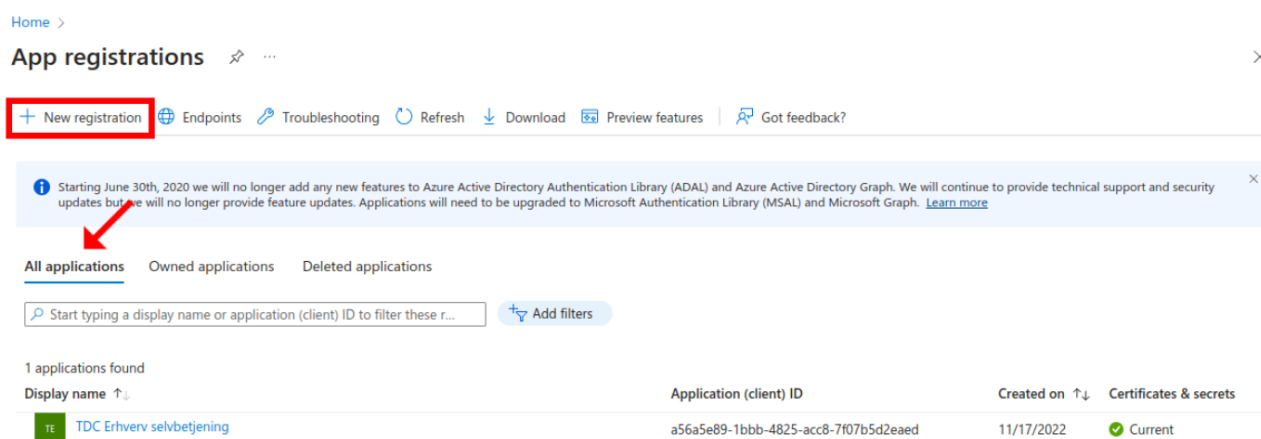
3.3 Creating an App registration

When we install the App, it will need to be configured with credentials, we provide these by making a new App-registration and configuring it with the required permissions.

Let's get started. Search for "App registration" and click on the link to go there.



From the section “App registration” choose the tab “All applications”. If you have already completed the guide [Opsæt AD-integration](#) you should already have a registration here called **TDC Erhverv Selvbetjening**. If you don't, this is fine. You can come back and create this other registration later.



Now click the link at the top with the plus-sign called “New registration”.

- You can name the new registration anything, but in this example, we will call it **TDC Erhverv Telephony Integration**. Remember this name, we will need it later.
- Under “Supported account typed” choose “Accounts in this organizational directory only” (Single tenant).



- Don't enter any value for the section “Redirect URI”.

Click the “Register” button at the bottom.

Home > App registrations >

Register an application

Name

The user-facing display name for this application (this can be changed later).

TDC Erhverv Telephony Integration ✓

Supported account types

Who can use this application or access this API?

☒ Accounts in this organizational directory only (Nuuday Blue Teams test 4 - Teams for Broadworks only - Single tenant)

☐ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)

☐ Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

☐ Personal Microsoft accounts only

[Help me choose...](#)

Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be

[By proceeding, you agree to the Microsoft Platform Policies](#)

Register

You should now see the Overview page for your new App-registration. From this page note down the “Application (client) ID”, in this example it is **3068f451-4cfb-4c68-b213-2b39a269e693**, and save it, we will need it later.

Microsoft Azure Search resources, services, and docs (G+/)

Home > App registrations >

TDC Erhverv Telephony Integration

Search

Overview

Quickstart

Integration assistant

Manage

Branding & properties

Authentication

Certificates & secrets

Token configuration

Delete Endpoints Preview features

Essentials

Display name
[TDC Erhverv Telephony Integration](#)

Application (client) ID
3068f451-4cfb-4c68-b213-2b39a269e693

Object ID
7fc4b503-3a63-4edb-a008-667281187f0a

Directory (tenant) ID
52d54f0b-90ea-450b-be8b-acd3d8c7a201

Supported account types
[My organization only](#)

Client credentials
[Add a certificate or secret](#)

Redirect URIs
[Add a Redirect URI](#)

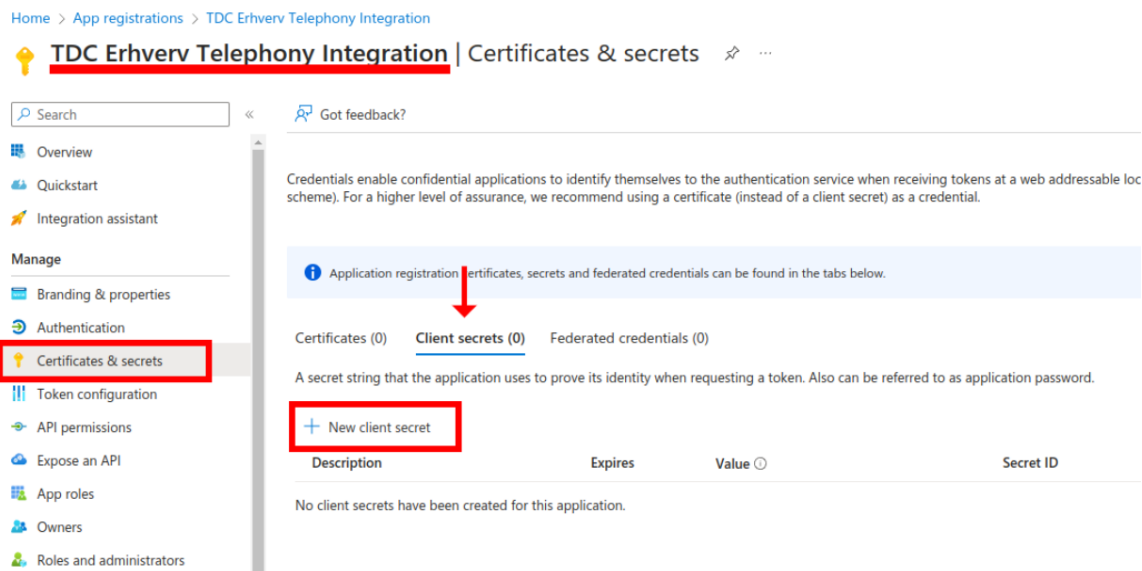
Application ID URI
[Add an Application ID URI](#)

Managed application in local directory
[TDC Erhverv Telephony Integration](#)



Next click the section “Certificate & secrets” in the menu bar on the left. You should now see this page.

Click the plus-icon “New client secret”.



This is the secret that we will later give the Integration App so that it may use the identity of this App registration when performing telephony related operations in your Teams setup.

- You can add any Description you want, but in this example, we will call it “TDC Erhverv Telephony Integration”.
- You can choose any Expires date you want. We recommend choosing the max.: 24 months - this way you will not have to reconfigure your App for at least two years.
- When you are done click the button “Add” at the button.



Home > App registrations > TDC Erhverv Telephony Integration

TDC Erhverv Telephony Integration | Certificates & secrets

Search

Overview
Quickstart
Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets**
- Token configuration
- API permissions
- Expose an API
- App roles
- Owners
- Roles and administrators
- Manifest

Support + Troubleshooting

Troubleshooting

Got feedback?

Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Application registration certificates, secrets and federated credentials can be found in the tabs below.

Certificates (0) **Client secrets (0)** Federated credentials (0)

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

+ New client secret

Description	Expires
No client secrets have been created for this application.	

Add a client secret

Description: TDC Erhverv Telephony Integration

Expires: 730 days (24 months)

Recommended: 180 days (6 months)

90 days (3 months)

365 days (12 months)

545 days (18 months)

730 days (24 months)

Custom

Add Cancel

You have now created a new secret. Do not share this with *anyone*, not even TDC Erhverv. You will need to note down the secret value, we will need this later. Be aware that once you leave this page the value can never be displayed again - so note it down now. (Pro tip: If you lose the value of your secret, just delete it and make a new one). In this example the value of our secret is **xDn8Q~GpsHX9BnvgJrhy~s9uuUxY8T1A~iMIa8I**.

Home > App registrations > TDC Erhverv Telephony Integration

TDC Erhverv Telephony Integration | Certificates & secrets

Search

Overview
Quickstart
Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets**
- Token configuration
- API permissions
- Expose an API
- App roles
- Owners
- Roles and administrators
- Manifest

Got feedback?

Got a second to give us some feedback? →

Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Application registration certificates, secrets and federated credentials can be found in the tabs below.

Certificates (0) **Client secrets (1)** Federated credentials (0)

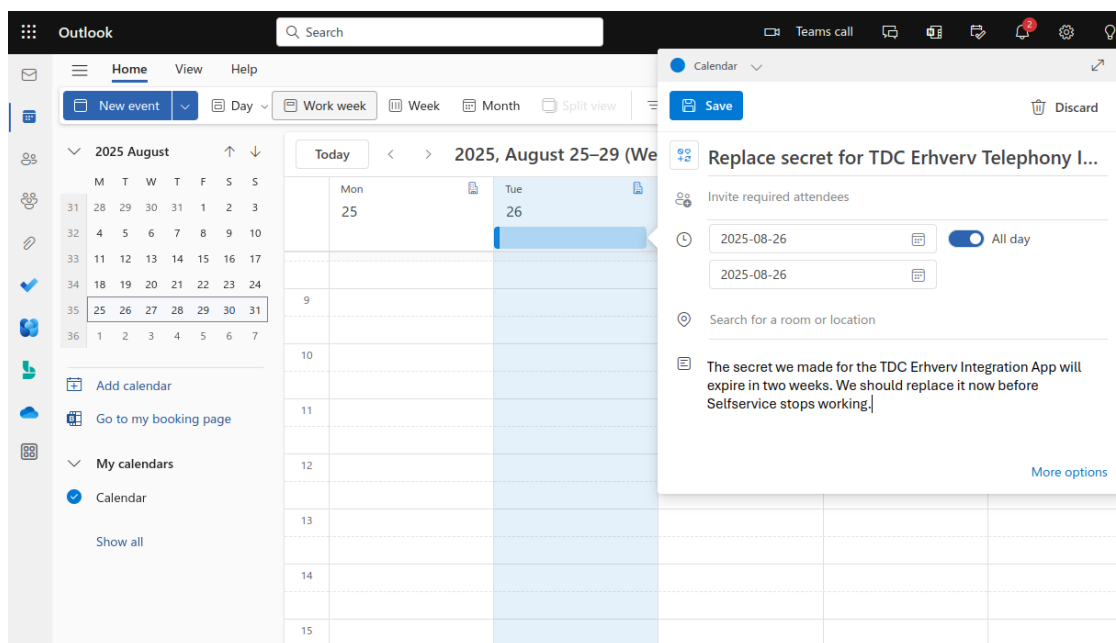
A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

+ New client secret

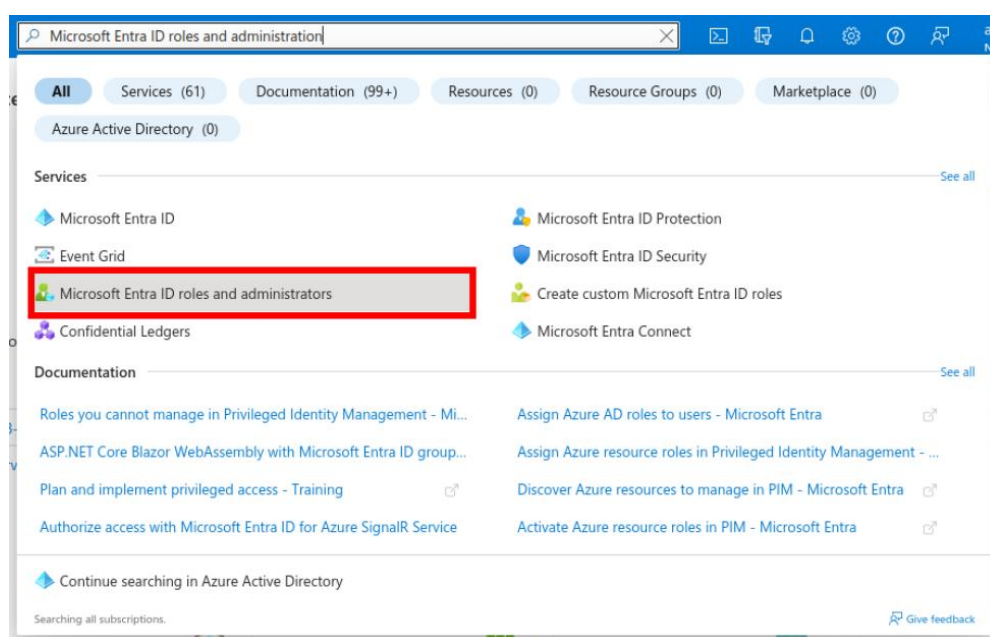
Description	Expires	Value	Secret ID
TDC Erhverv Telephony Integration	9/10/2025	xDn8Q~GpsHX9BnvgJrhy~s9uuUxY8T1A~iMIa8I	1889d59e-f5f3-4f4f-aeed-7ab601646035



You should also make a note of the secret expire date. In this example it is 2025-09-10. It is good practice to set yourself a reminder to come back and update the secret (see our PDF-file for this on page) two weeks before the secret expires.



The new App registration by itself can't do much. Now we will grant it the permissions it needs to update Teams telephony setting. Search for the section called “**Microsoft Entra ID roles and administration**” and go there.





Now search for the role called “**Teams Communications Administrator**”. Click the name of the role (not the check box) to proceed.

Home > All roles

Microsoft Entra ID

+ New custom role | Delete custom role | Download assignments | Refresh | Preview features | Got feedback?

Get just-in-time access to a role when you need it using PIM. Learn more about PIM →

Your Role: Global Administrator

Administrative roles

Administrative roles are used for granting access for privileged actions in Microsoft Entra ID. We recommend using these built-in roles for delegating access to manage broad application configuration permissions without granting access to manage other parts of Microsoft Entra ID not related to application configuration. [Learn more.](#)

[Learn more about Microsoft Entra ID role-based access control](#)

Teams Communications

Role	Description	Privileged	Ass...	Type
<input type="checkbox"/> Teams Communications Administrator	Can manage calling and meetings features within the Microsoft Teams service.		1	Built-in
<input type="checkbox"/> Teams Communications Support Engineer	Can troubleshoot communications issues within Teams using advanced tools.		1	Built-in
<input type="checkbox"/> Teams Communications Support Specialist	Can troubleshoot communications issues within Teams using basic tools.		0	Built-in

On this page you may already have this role assigned to someone. In this example we do not. In either case click the plus-icon at the top to add a new assignment.

portal.azure.com/#view/Microsoft_AAD_IAM/RoleMenuBlade/-/RoleMembers/objectid/baf37b3a-610e-45da-9e62-d9d1e5e8914b/roleName/T...

Microsoft Azure Search resources, services, and docs (G+)

admkasfre@blue4 test... HOLIDAY BLUE TEAMS TEST 4 - 1

Home > All roles > Teams Communications Administrator

Teams Communications Administrator | Assignments

+ Add assignments | Remove assignments | Download assignments | Refresh | Manage in PIM | Got feedback?

Diagnose and solve problems

Manage

Assignments

Description

Activity

Bulk operation results

Troubleshooting + Support

New support request

You can also assign built-in roles to groups now. [Learn More](#)

Search

Search by name

Type

All

Name	UserName	Type	Scope
No role assignments found			



On this page, don't bother scrolling through the user list looking for your new App-registration. It will not appear there until we search for it.

Add assignments

Try changing or adding filters if you don't see what you're looking for.

Only groups eligible for role assignment are displayed.
[Learn more](#)

Search

All Users Groups

	Name	Type	Details
<input type="checkbox"/>	Aarav Suarez	User	asuarez@blue4.testontdc.net
<input type="checkbox"/>	Abigayle Collier	User	acollier@blue4.testontdc.net
<input type="checkbox"/>	Adelaide Carney	User	acarney@blue4.testontdc.net
<input type="checkbox"/>	Adolfo Owen	User	aowen@blue4.testontdc.net
<input type="checkbox"/>	Alvaro Snow	User	asnow@blue4.testontdc.net
<input type="checkbox"/>	Amiya Tyler	User	atylar@blue4.testontdc.net
<input type="checkbox"/>	Angelica Lane	User	alane@blue4.testontdc.net

Add

Remember the name we gave the new registration above and type this into the search field. Now click the check box to mark the registration and click “Add”.

Add assignments

Try changing or adding filters if you don't see what you're looking for.

Only groups eligible for role assignment are displayed.
[Learn more](#)

Search TDC Erhverv Telephony Integration

All Users Groups Enterprise applications

	Name	Type	Details
<input checked="" type="checkbox"/>	TDC Erhverv Telephony Integration	Enterprise ap...	30688451-4cfb-4c68-b213-2b39a269e693

Add



The App registration will now appear on the list of entities that have the role “[Teams Communications Administrator](#)”. Remember that this is a highly privileged administrator role. Do not give the App registration secret value to anyone, not even TDC Erhverv.

Home > All roles > Teams Communications Administrator

Teams Communications Administrator | Assignments

All roles

« + Add assignments ✕ Remove assignments ⬇ Download assignments ↻ Refresh 🔗 Manage in PIM 🗨 Got feedback?

✕ Diagnose and solve problems

Manage

- Assignments
- Description

Activity

- Bulk operation results

Troubleshooting + Support

- New support request

📘 You can also assign built-in roles to groups now. [Learn More](#)

Search

Search by name

Type

All

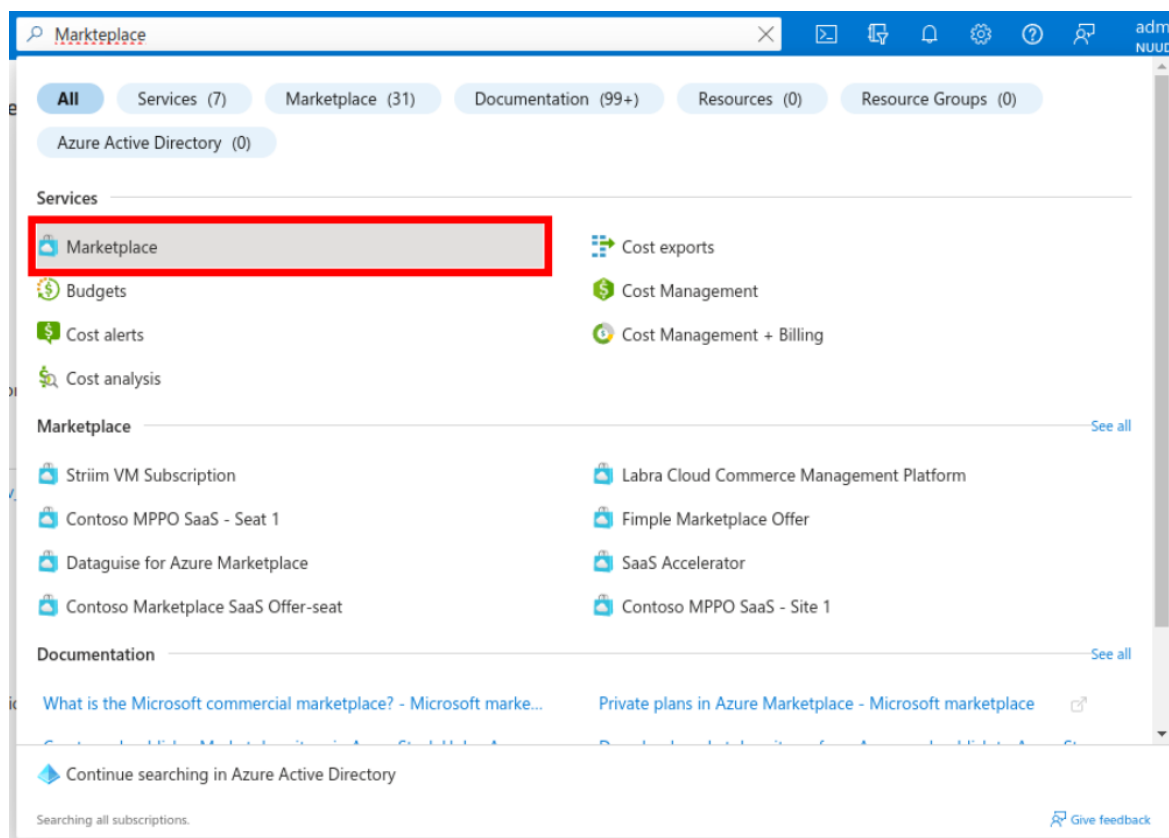
Name	UserName	Type	Scope
<input type="checkbox"/> TDC Erhverv Telephony Integration	3068f451-4cfb-4c68-b213-2b39a269e693	ServicePrincipal	Directory

3.4 Installing the Intergration App

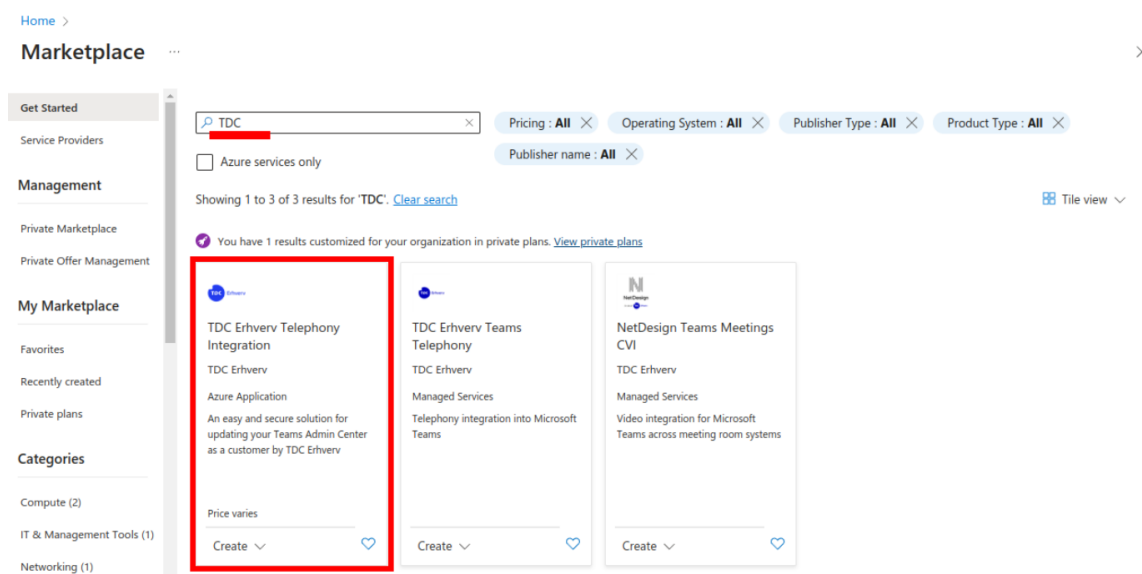
If you have followed the sections above, you should now have five pieces of information ready.

- Subscription name: [Bluetest4 Azure Plan](#)
- Tenant ID: [52d54f0b-90ea-450b-be8b-acd3d8c7a201](#)
- Name of new empty Resource group: [TDC_Erhverv_Telephony_Integration](#)
- App-registration Application (client) ID: [3068f451-4cfb-4c68-b213-2b39a269e693](#)
- App-registration Application secret value: [xDn8Q~GpsHX9BnvlGJrhy~s9uuUxY8T1A~iMla8l](#)

Now search for “[Marketplace](#)” and click the link to go to that section.



Search for “TDC”, and find the App called “TDC Erhverv Telephony Integration” (*don't* pick “TDC Erhverv Teams Telephony” by mistake). The search result should look like this.





Click on “TDC Erhverv Telephony Integration” and select the latest version in the drop down.
Now click “Create”.

Home > Marketplace >

TDC Erhverv Telephony Integration

TDC Erhverv



TDC Erhverv Telephony Integration

♥ Add to Favorites

TDC Erhverv | Azure Application

Plan

Release 2023-09-01 v1.0.0

Create



Release 2023-09-01 v1.0.0

Overview

Plans

Usage Information + Support

Ratings + Reviews

TDC Erhverv Telephony Integration helps you as a customer at TDC Erhverv to ensure an easy and secure solution for updating your Microsoft application such as Teams Admin Center with changes made in TDC Erhverv Self-Service on your Telephony solution.

To be able to use the app, you must be a customer of TDC Erhverv and subscribe to Teams Calling as an add-on to your telephony solution. With TDC Erhverv Teams Calling, you ensure easy access to make and receive external calls in Teams for your employees.

With TDC Erhverv Telephony Integration, you can safely and securely update the company's user setup in Teams Admin Center so that it matches your subscription with TDC Erhverv.

Fill out the fields with the information we prepared above. Be sure to select “North Europe” as the region since this is close to the TDC Erhverv servers.

Click “Review + create”.

Home > Marketplace > TDC Erhverv Telephony Integration >

Create TDC Erhverv Telephony Integration

Basics

Review + create

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *

Bluetest4 Azure Plan



Resource group *

TDC_Erherv_Telephony_Integration

Create new



Instance details

Region *

North Europe



Tenant ID *

52d54f0b-90ea-450b-be8b-acd3d8c7a201



Application ID *

3068f451-4cfb-4c68-b213-2b39a269e693



Client secret *

.....



Confirm client secret *

.....



Previous

Next

Review + create



Then click “Create”.

Home > Marketplace > TDC Erhverv Telephony Integration >

Create TDC Erhverv Telephony Integration

Basics **Review + create**

[View automation template](#)

Price

TDC Erhverv Telephony Integration
by TDC Erhverv
[Terms of use](#) | [Privacy policy](#)

TERMS

By clicking “Create”, I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; and (b) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Name

Preferred e-mail address

Preferred phone number

[Previous](#) [Next](#) **Create**

The installation will take a few minutes.

nuudayas1682937330801.tdc-erhverv-telephony-integ-20230911154655 | Overview ✕

Deployment

Search « [Delete](#) [Cancel](#) [Redeploy](#) [Download](#) [Refresh](#)

- Overview
- Inputs
- Outputs
- Template

Deployment is in progress

Deployment name : nuudayas1682937330801.tdc-... Start time : 9/11/2023, 3:55:40 PM
Subscription : Bluetest4 Azure Plan Correlation ID : 59e77bd6-be4d-43f8-b0d1-82...
Resource group : TDC_Erhverv_Telephony_Integr...

Deployment details

Resource	Type	Status	Operatic
fnstor5sutozr67...	Storage account	Accepted	Operatic
pid-df79caa1-f747-	Deployment	Created	Operatic

Give feedback
[Tell us about your experience with deployment](#)

Microsoft Defender for Cloud
Secure your apps and infrastructure
[Go to Microsoft Defender for Cloud >](#)

Free Microsoft tutorials
[Start learning today >](#)

Work with an expert
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
[Find an Azure expert >](#)



When you see this, you know the installation has completed.

The screenshot shows the Azure Portal interface. On the left, a sidebar lists navigation options: Home, Overview, Inputs, Outputs, and Template. The main area displays a deployment page for 'nuudayas1682937330801.tdc-erhverv-telephony-integ-20230911'. A green checkmark and the text 'Your deployment is complete' are prominently displayed. Below this, deployment details are listed: Deployment name, Subscription (Bluetest4 Azure Plan), and Resource group (TDC_Erhverv_Telephony_Integr...). A 'Go to resource group' button is visible. On the right, a 'Notifications' panel shows a 'Deployment succeeded' message with a red arrow pointing to it. The notification text states: 'Deployment 'nuudayas1682937330801.tdc-erhverv-telephony-integ-20230911155738' to resource group 'TDC_Erhverv_Telephony_Integration' was successful.' It includes buttons for 'Pin to dashboard' and 'Go to resource group'.

3.5: Preparing the App's external API credentials

To have a closer look at the App we just installed, navigate to the resource group that contains it. Do this by searching for “Resource groups” and clicking the icon.

The screenshot shows the Azure Portal search results for 'Resource groups'. The search bar at the top contains the text 'Resource groups'. Below the search bar, there are tabs for 'All', 'Services (28)', 'Marketplace (1)', 'Documentation (99+)', 'Resources (0)', and 'Resource Groups (0)'. The 'All' tab is selected. Under the 'Services' section, 'Resource groups' is highlighted with a red box. Other services listed include Subscriptions, Resource Guards, Resource Graph Explorer, Resource Graph queries, Groups, Application groups, and Configuration Groups. The 'Marketplace' section shows 'Resource group'. The 'Documentation' section lists various articles related to managing resource groups. At the bottom, there is a link to 'Continue searching in Azure Active Directory'.



Now click on the **name** (not the check box) of the resource group we selected while installing the App.

Home >

Resource groups

Nuuday Blue Teams test 4 - Teams for Broadworks (blue4.testontdc.net)

+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Location equals all Add filter

Showing 1 to 2 of 2 records. No grouping List view

<input type="checkbox"/> Name ↑↓	Subscription ↑↓	Location ↑↓	
<input type="checkbox"/> cloud-shell-storage-west europe	Bluetest4 Azure Plan	West Europe	...
<input type="checkbox"/> TDC_Erhverv_Telephony_Integration	Bluetest4 Azure Plan	North Europe	...

You will find the App-offer we installed from Marketplace has created seven resources in the resource group. The resource marked “**Function App**” is the App itself, the rest are cloud infrastructure that the App need to function. Click the Function App resource with the lightning bolt icon to take a closer look at the internal logic of the App (click the name, not the check box).

Home > Resource groups >

TDC_Erhverv_Telephony_Integration

Resource group

Search + Create Manage view Delete resource group Refresh Export to CSV Open query Assign tags Move

Overview Activity log Access control (IAM) Tags Resource visualizer Events Settings Deployments Security Deployment stacks Policies Properties Locks Cost Management Cost analysis

Essentials JSON View

Resources Recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 7 of 7 records. Show hidden types No grouping List view

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓	
<input type="checkbox"/> Application Insights Smart Detection	Action group	Global	...
<input type="checkbox"/> Failure Anomalies - NuudayToB-5sutozr67fiik	Smart detector alert rule	Global	...
<input type="checkbox"/> fnstor5sutozr67fiik	Storage account	North Europe	...
<input type="checkbox"/> kv5sutozr67fiik	Key vault	North Europe	...
<input type="checkbox"/> NuudayToB-5sutozr67fiik	Application Insights	North Europe	...
<input type="checkbox"/> NuudayToB-5sutozr67fiik	Function App	North Europe	...
<input type="checkbox"/> ServicePlanFunctionApp	App Service plan	North Europe	...

< Previous Page 1 of 1 Next >

Give feedback



From the Overview section copy the URL and save it, we will need this later. In this example the URL is <https://nuudaytob-5sutozr67fiik.azurewebsites.net> but every time you install a copy of the App a new globally unique public URL will be created. Next click the “App keys” menu point on the left-hand side.

Home > Resource groups > TDC_Erherv_Telephony_Integration > NuudayToB-5sutozr67fiik

Function App

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Functions

App keys

App files

Proxies

Essentials

Resource group (move): TDC_Erherv_Telephony_Integration

Status: Running

Location (move): North Europe

Subscription (move): Bluetest4 Azure Plan

Subscription ID: 57ad7af8-0488-472a-84e9-d5af09f8793c

Tags (edit): displayName: BicepDisplayname

URL: <https://nuudaytob-5sutozr67fiik.azurewebsites.net>

Operating System: Windows

App Service Plan: ServicePlanFunctionApp.(Y1:0)

Properties: See More

Runtime version: ---

JSON View

Functions Metrics Properties Notifications (0)

+ Create {} Set up local environment Refresh

Filter by name...

You will find that the installation process has created two keys “_master” and “default”. You should keep these private and create a dedicated App key for integrating with the TDC Erhverv Selfservice portal. Click the plus-icon named “New host key” at the top to create a new key.

Home > Resource groups > TDC_Erherv_Telephony_Integration > NuudayToB-5sutozr67fiik

Function App

Search

+ New host key Refresh

System keys

System keys are automatically managed by the Function runtime. System Keys provide granular access to functions runtime features.

Name	Value
------	-------

Host keys (all functions)

Use Host keys with your clients to access all your HTTP functions in the app. _master key grants admin access to Functions Runtime APIs.

Name	Value	Show value	Renew key value
_master	Show value	Renew key value
default	Show value	Renew key value

You can name the key anything you like; in this example we will call it “TDC_Selfservice”. Leave the value blank to have Azure auto-generate a strong key for you, then click the link in the bottom right-hand corner called “Generate a random key value and save”.



Home > Resource groups > TDC_Erhverv_Telephony_Integration > NuudayToB-5sutozr67fiik

NuudayToB-5sutozr67fiik | App keys

Function App

Search

+ New host key Refresh

System keys
System keys are automatically managed by the Function runtime. System Keys provide granular access to functions runtime features.

Name	Value
------	-------

Host keys (all functions)
Use Host keys with your clients to access all your HTTP functions in the app. The app._master key grants admin access to Functions Runtime APIs.

Name	Value
_master
default

Add Cancel

Generate a random key value and save

Add host key

Name * TDC_Selfservice

Value Enter value

You now have a new app key. Make a note of it, we will need it later. You can always come back here and copy the value again if you lose it. This key will never expire, but if at any point you would like to cut off TDC Erhverv's access to your App, then come back here and delete the key. In our example the key is `3Br2w2pK1l6qflrlLnMvZl-sMQk2Fj58amQx1Ng-nogoAzFuTsZg4g==`

Home > Resource groups > TDC_Erhverv_Telephony_Integration > NuudayToB-5sutozr67fiik

NuudayToB-5sutozr67fiik | App keys

Function App

Search

+ New host key Refresh

System keys
System keys are automatically managed by the Function runtime. System Keys provide granular access to functions runtime features.

Name	Value
------	-------

Host keys (all functions)
Use Host keys with your clients to access all your HTTP functions in the app. The app._master key grants admin access to Functions Runtime APIs.

Name	Value	Actions
_master	Show value Renew key value
default	Show value Renew key value
<u>TDC_Selfservice</u>	Show value Renew key value



You should now have:

- App URL: <https://nuudaytob-5sutozr67fiik.azurewebsites.net>
- App key: 3Br2w2pK1l6qflrlLnMvZl-sMQk2Fj58amQx1Ng-nogoAzFuTsZg4g==

You can now proceed to integrate the App with the TDC Erhverv Selfservice portal, but you may want to go through the next optional step first.

3.6 (Optional) App Security Review

Before handing over the App key to TDC Erhverv you may be required to have your local security team review function inside the App. Fortunately all logic inside the App is fully visible and is managed and controlled by you. If you ever re-install a *newer updated version* of the App you may want to perform this review again since the content may have changed.

First navigate back to the Function App Overview section. At the bottom in the middle are listed all the internal functions that make up this App. Currently there is only one. We call it “**psweb**” (aka. Powershell Webservice). Click on it to inspect it.

Home > Resource groups > TDC_Erhverv_Telephony_Integration >

NuudayToB-5sutozr67fiik Function App

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Functions

App keys

App files

Proxies

Deployment

Deployment slots

Deployment Center

Essentials

Resource group (move): [TDC Erhverv Telephony Integration](#)

Status: Running

Location (move): North Europe

Subscription (move): [Bluetest4 Azure Plan](#)

Subscription ID: 57ad7af8-0488-472a-84e9-d5af09f8793c

Tags (edit): displayName: BicepDisplayname

URL: <https://nuudaytob-5sutozr67fiik.azurewebsites.net>

Operating System: Windows

App Service Plan: [ServicePlanFunctionApp\(Y1:0\)](#)

Properties: [See More](#)

Runtime version: 4.25.2.21138

Functions Metrics Properties Notifications (0)

+ Create {} Set up local environment Refresh

Filter by name...

Name	Trigger	Status	Monitor
psweb	HTTP	Enabled	Invocations and more



From here navigate to the section “Code + test”.

Home > Resource groups > TDC_Erhverv_Telephony_Integration > NuudayToB-5sutozr67fiik > psweb

psweb Function

Search

Overview

Developer

Code + Test

Integration

Monitor

Function Keys

Essentials

Resource group (move) TDC_Erhverv_Telephony_Integration

Location North Europe

Subscription (move) Bluetest4 Azure Plan

Subscription ID 57ad7af8-0488-472a-84e9-d5af09f8793c

Function app NuudayToB-5sutozr67fiik

Tags (edit) Add tags

See more

Application Insights NuudayToB-5sutozr67fiik

JSON View

This is the internal Powershell “payload” that is run whenever the API of the surrounding App is called by TDC Erhverv. This code cannot be changed by the external caller. Make a copy and pass it on to your security review team if your company governance practices require this.

Home > Resource groups > TDC_Erhverv_Telephony_Integration > NuudayToB-5sutozr67fiik > psweb

psweb | Code + Test

Function

Search

Save Discard Refresh Test/Run Upload Get function URL

Overview

Developer

Code + Test

Integration

Monitor

Function Keys

NuudayToB-5sutozr67fiik \ psweb \ run.ps1

```
1 using namespace System.Net
2
3 param($Request, $TriggerMetadata)
4
5 Write-Host "--- Start ---"
6
7 #
8 # Generic result for an command
9 class Result {
10     [string] $appVersion = '1.0.0' #the curent version of _this_ file
11     [string] $command
12     [System.Boolean] $success
13     [string] $message
14     [string] $resultCode
15 }
```

Logs App Insights Logs Log Level Stop Copy Clear Maximize Leave Feedback

Connected! You are now viewing logs of Function runs in the current Code + Test panel. To see all the logs for this Function, please go to 'Monitor' from the Function menu.



You will find that the code can be triggered to perform four different operations depending on the JSON body of the incoming request.

Operation	JSON input	Description
App self-test	<pre>{ "function": "Test" }</pre>	Is the App installed and configured correctly.
App inspection	<pre>{ "function": "Dump" }</pre>	Check the presence of all App files and show their current MD5 sum. Only the sum is returned, never the file content.
Voice-enable a target Teams-user	<pre>{ "function": "Enable", "VKID": "<customer ID>", "Identity": "<target user ID>", "PhoneNumber": "+4588888888" }</pre>	Instruct the App enable Teams-calling and assign the given phone number on the target user.
Voice-disable a target Teams-user	<pre>{ "function": "Disable", "Identity": "<target user ID>", "PhoneNumber": "+4588888888" }</pre>	Remove Teams-calling on the target user.

These operations will be called by the Order Management system of the TDC Erhverv Selfservice system. We do not recommend you run the voice-enable/disable operations by yourself since they require synchronization with the TDC Erhverv telephony system, but at any point you can run the self-test and inspect operations to diagnose App health.

Please do not make any modifications to the Powershell code. Even once character out of place in this file will change its MD5 sum. If TDC Erhverv ever finds an app where the MD5 sum does not



match what was delivered with that version of the Marketplace Offer, then support will not be available, and any unexpected side-effects of your local modifications will not be covered.

Example 1:

```
curl https://nuudaytob-5sutozr67fik.azurewebsites.net/api/psweb?code=3Br2w2pK1l6qflrLnMvZl-sMQk2Fj58amQx1Ng-nogoAzFuTsZg4g== \  
-d '{"function":"Test"}' \  
-H "Content-Type: application/json" -X GET
```

Expected response:

```
{  
  "appVersion": "1.0.0",  
  "command": "Test",  
  "success": true,  
  "message": null,  
  "resultCode": "0"  
}
```

Example 2:

```
curl https://nuudaytob-5sutozr67fik.azurewebsites.net/api/psweb?code=3Br2w2pK1l6qflrLnMvZl-sMQk2Fj58amQx1Ng-nogoAzFuTsZg4g== \  
-d '{"function":"Dump"}' \  
-H "Content-Type: application/json" -X GET
```



Expected respons:

```
{
  "runFileStatus": {
    "name": "run.ps1",
    "hash": "35DEB8F80790AE4FC592E978D7741A8C",
    "algorithm": "MD5",
    "path": "C:\\home\\site\\wwwroot\\psweb\\run.ps1",
    "lastWriteTime": "09/12/2023 12:02:10"
  },
  "hostFileStatus": {
    "name": "host.json",
    "hash": "87C6EC5070CAFFC64BFCA6EC866124D0",
    "algorithm": "MD5",
    "path": "C:\\home\\site\\wwwroot\\host.json",
    "lastWriteTime": "09/12/2023 12:02:09"
  },
  "profileFileStatus": {
    "name": "profile.ps1",
    "hash": "3232551F749A13C292B1471EBA30B0EF",
    "algorithm": "MD5",
    "path": "C:\\home\\site\\wwwroot\\profile.ps1",
    "lastWriteTime": "09/12/2023 12:02:10"
  },
  "requirementsFileStatus": {
    "name": "requirements.psd1",
    "hash": "7C9133B2BBF8F5E365C0C579C1CCB79C",
    "algorithm": "MD5",
    "path": "C:\\home\\site\\wwwroot\\requirements.psd1",
    "lastWriteTime": "09/12/2023 12:02:10"
  },
  "appVersion": "1.0.0",
  "command": "Dump",
  "success": true,
  "message": null,
  "resultCode": "0"
}
```