

NITRO Studio Azure Component Setup

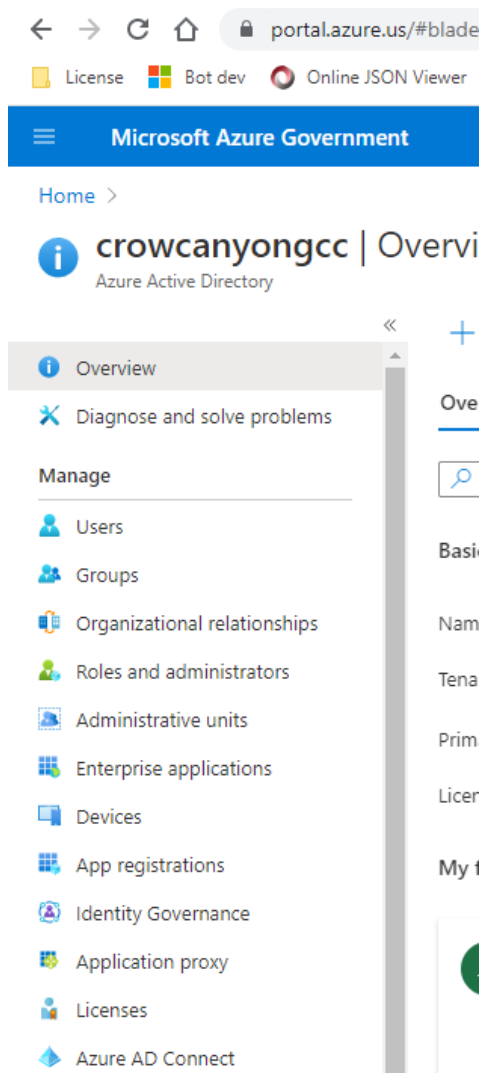
Updated February 7, 2022

Prerequisite

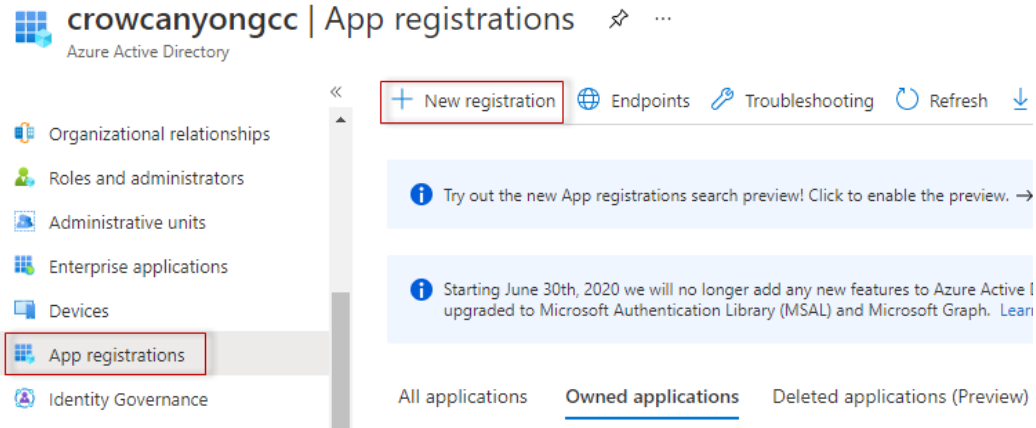
- Azure Subscription
- Tenant Id
- Azure Environment Type
- .Net Framework 4.7.2

Steps to Create Azure AD Application Setup Account:

1. Create Azure AD Application
 - a. Log in to Azure portal and open the Azure Active Directory blade



b. Select the App registrations blade and select 'New registration'



crowcanyongcc | App registrations Azure Active Directory

Organizational relationships
Roles and administrators
Administrative units
Enterprise applications
Devices
App registrations
Identity Governance

+ New registration Endpoints Troubleshooting Refresh ↓

Try out the new App registrations search preview! Click to enable the preview. →

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory that are not supported by Microsoft Authentication Library (MSAL) and Microsoft Graph. Learn more

All applications Owned applications Deleted applications (Preview)

- c. Fill in the following information:
- Name - **NITRO Studio Setup**
 - Supported account types
 - Select **Register**

Register an application ...



* Name

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

Supported account types

Who can use this application or access this API?

- Accounts in this organizational directory only (crowcanyongcc only - Single tenant)
- Accounts in any organizational directory (Any Azure AD directory - Multitenant)

[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 changed later, but a value is required for most authentication scenarios.

Web 

e.g. <https://example.com/auth>

Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from [Enterprise applications](#).

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

[Register](#)

- d. Select the **Overview** blade and copy both the **Application (client) ID** and the **Directory (tenant) ID**.

NITRO Studio Setup

Search (Ctrl+/) << Delete Endpoints Preview features

- Overview
- Quickstart
- Integration assistant

Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions
- Expose an API
- App roles
- Owners

Essentials

Display name : NITRO Studio Setup

Application (client) ID : f2edafc3-e2c7-403c-bf0d-24886cb63193

Object ID : a227616c-3fd8-47da-bb47-950c6e210898

Directory (tenant) ID : dbc1c245-88df-411f-a421-422db64089c9

Supported account types : My organization only

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory. We will be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. Learn more

Get Started Documentation

e. In the **Certificates & secrets** blade, select **New client secret**

Branding

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles

Owners

Roles and administrators | Preview

Manifest

Support + Troubleshooting

Troubleshooting

Upload certificate

Thumbprint	Start date	Expires	Certificate ID
No certificates have been added for this application.			

Client secrets

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
No client secrets have been created for this application.			

f. Enter a description, expiration (select **24 months**), and select **Add**

Add a client secret ✕

Description

Expires

g. Copy the key value (i.e., App credentials)

Client secrets

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
Client Secret	8/25/2023	w4X6.6 <input type="text"/>	ba2fb64a-88b9-4ca

h. Please keep this **Application ID** and **App credentials** in notepad.

2. Configure Application permissions for the application registration.

a. In the **API permissions** blade, select **Add a permission**.

Manage

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

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 config all the permissions the application needs. [Learn more about permissions and consent](#)

Grant admin consent for crowcanyongcc

API / Permissions name	Type	Description	Admin consent requ...
Microsoft Graph (5)			
Application.ReadWrite.All	Application	Read and write all applications	Yes
Application.ReadWrite.OwnedBy	Application	Manage apps that this app creates or owns	Yes
AppRoleAssignment.ReadWrite.All	Application	Manage app permission grants and app role assignments	Yes
Directory.ReadWrite.All	Application	Read and write directory data	Yes
User.Read	Delegated	Sign in and read user profile	No

b. Select **Microsoft APIs**. and select **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 tremendous amount of data in Office 365, Enterprise Mobility + Security, and Windows 10. Access Azure AD, Excel, Intune, Outlook/Exchange, OneDrive, OneNote, SharePoint, Planner, and more through a single endpoint.



Azure Batch



Azure DevOps

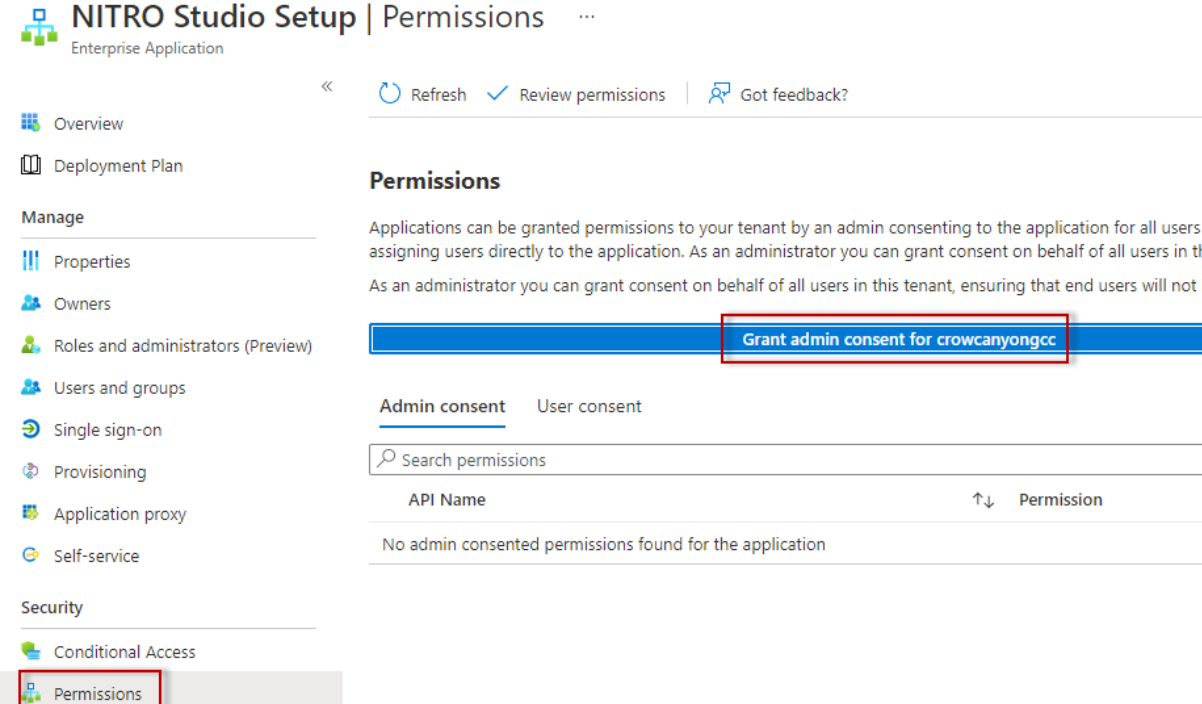


Azure Key Vault

- c. In **Application permissions**, select following Permission
 - i. Application.ReadWrite.All
 - ii. Application.ReadWrite.OwnedBy
 - iii. ApproleAssignment.ReadWrite.All
 - iv. Directory.ReadWrite.All
- d. click **Add permissions**

3. Grant admin consent from the Azure portal

- a. Sign in to the [Azure portal \(Commercial\)](#) or [Azure portal \(US Government\)](#) as a [Global Administrator](#), an [Application Administrator](#), or a [Cloud Application Administrator](#).
- b. Select **Azure Active Directory** then **Enterprise applications**.
- c. Select **NITRO Studio Setup** application to grant tenant-wide admin consent.
- d. Select **Permissions** and then click **Grant admin consent**.



NITRO Studio Setup | Permissions ...
Enterprise Application

Overview
Deployment Plan

Manage

- Properties
- Owners
- Roles and administrators (Preview)
- Users and groups
- Single sign-on
- Provisioning
- Application proxy
- Self-service

Security

- Conditional Access
- Permissions**

« Refresh ✓ Review permissions | Got feedback?

Permissions

Applications can be granted permissions to your tenant by an admin consenting to the application for all users assigning users directly to the application. As an administrator you can grant consent on behalf of all users in th

As an administrator you can grant consent on behalf of all users in this tenant, ensuring that end users will not l

Grant admin consent for crowcanyongcc

Admin consent User consent

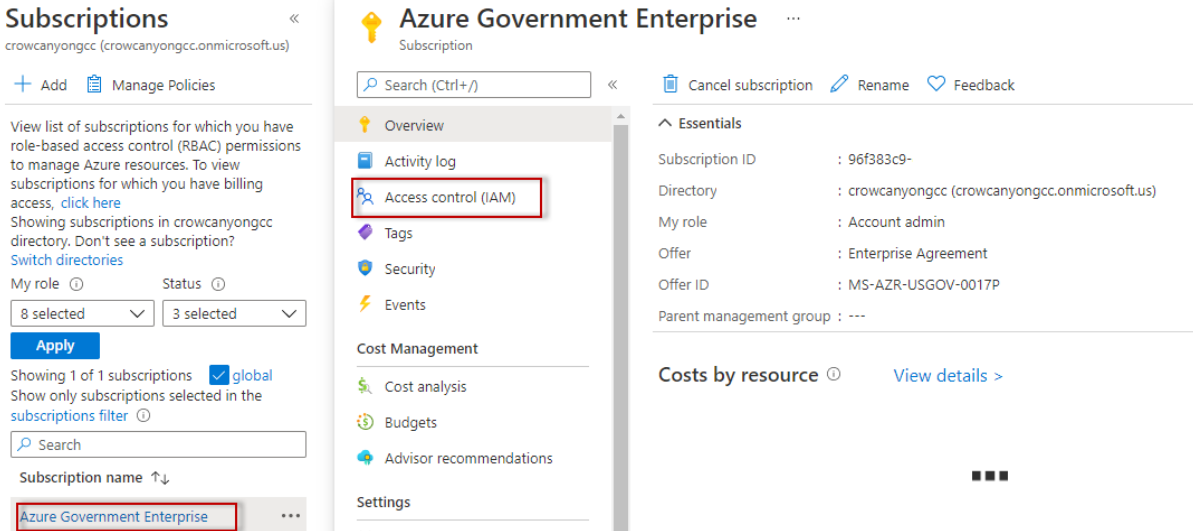
Search permissions

API Name	Permission
No admin consented permissions found for the application	

e. Agree with the permissions the application requires and grant consent.

4. Assign a **NITRO Studio Setup** App as an administrator of an Azure subscription

- Sign-in to the Azure portal.
- In the Search box at the top, search for subscriptions.
- Click the subscription you want to use.



Subscriptions ...
crowcanyongcc (crowcanyongcc.onmicrosoft.us)

+ Add Manage Policies

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#)

Showing subscriptions in crowcanyongcc directory. Don't see a subscription? [Switch directories](#)

My role ① Status ①

8 selected 3 selected

Apply

Showing 1 of 1 subscriptions global
Show only subscriptions selected in the [subscriptions filter](#) ①

Search

Subscription name ↑↓

Azure Government Enterprise ...

Azure Government Enterprise ...
Subscription

Search (Ctrl+)

Cancel subscription Rename Feedback

Overview

- Activity log
- Access control (IAM)**
- Tags
- Security
- Events

Cost Management

- Cost analysis
- Budgets
- Advisor recommendations

Settings

- Resource groups

Essentials

Subscription ID : 96f383c9-
Directory : crowcanyongcc (crowcanyongcc.onmicrosoft.us)
My role : Account admin
Offer : Enterprise Agreement
Offer ID : MS-AZR-USGOV-0017P
Parent management group : ---

Costs by resource ① [View details >](#)

- Click **Access control (IAM)**.
- Click the **Role assignments** tab to view the role assignments at this scope.
- Click **Add > Add role assignment**.

Add role assignment ×

Role ⓘ

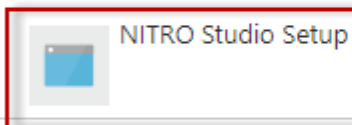
Owner ⓘ

Assign access to ⓘ

User, group, or service principal

Select ⓘ

Nitro Studio Setup



Selected members:
No members selected. Search for and add one or more members you want to assign to the role for this resource.

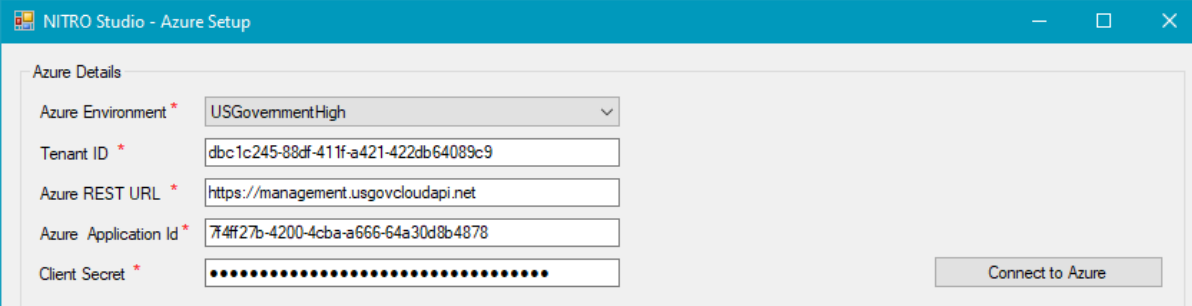
[Learn more about RBAC](#)

Save Discard

- g. On the **Roles** tab, select the **Owner** role.
- h. Find **NITRO Studio Setup**.
- i. Select **NITRO Studio Setup**.
- j. Click **Save** to add account to the Members list.

NITRO Studio Azure Component Setup

1. Extract setup zip file and run CrowCanyon.NITROSetup.exe

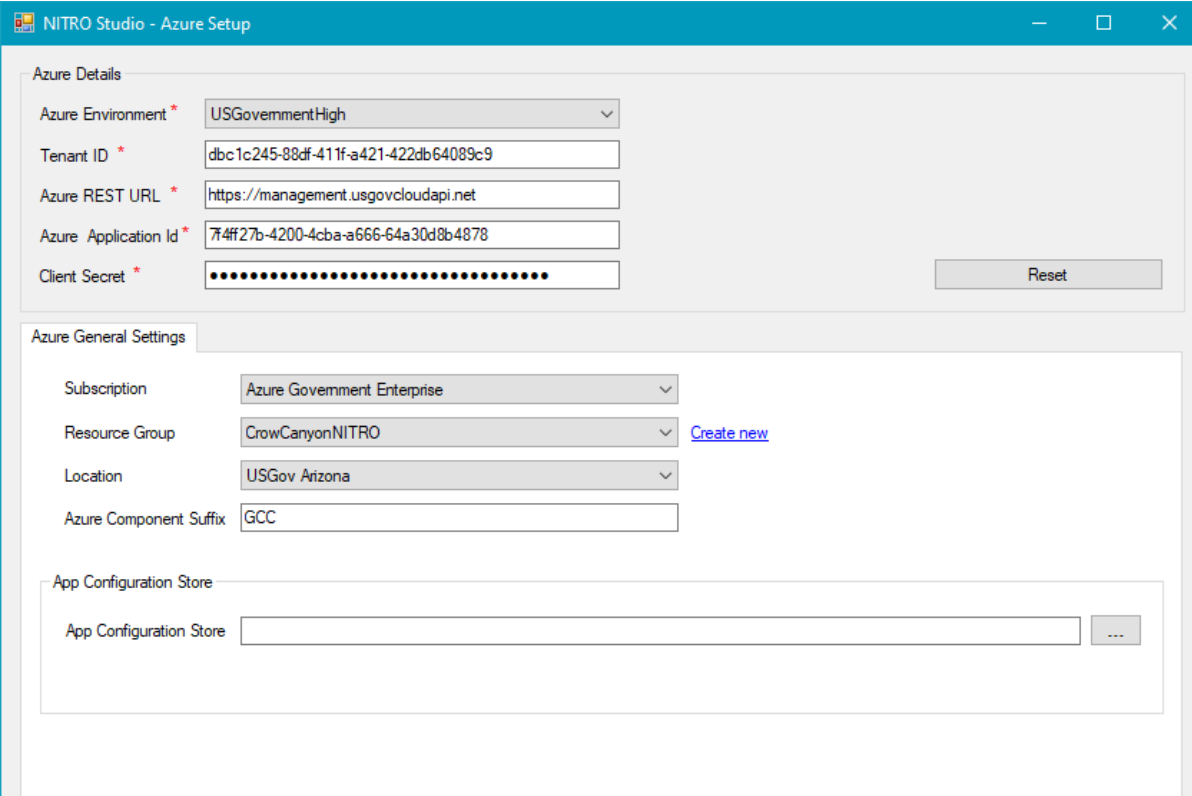


The screenshot shows the 'Azure Details' tab in the NITRO Studio - Azure Setup window. The fields are filled with the following information:

Field	Value
Azure Environment *	USGovernmentHigh
Tenant ID *	dbc1c245-88df-411f-a421-422db64089c9
Azure REST URL *	https://management.usgovcloudapi.net
Azure Application Id *	74ff27b-4200-4cba-a666-64a30d8b4878
Client Secret *

A 'Connect to Azure' button is visible on the right side of the form.

2. Enter following information
 - a. **Azure Environment:** Select Azure environment
 - b. **Tenant Id:** Enter Tenant Id
 - c. **Azure Rest URL:** Please enter Azure Rest URL.
 - d. **Azure Application ID:** Enter Azure AD Application Setup Account Application ID
 - e. **Client Secret:** Enter Azure AD Application Setup Account Application secret
3. Click **Connect to Azure** button

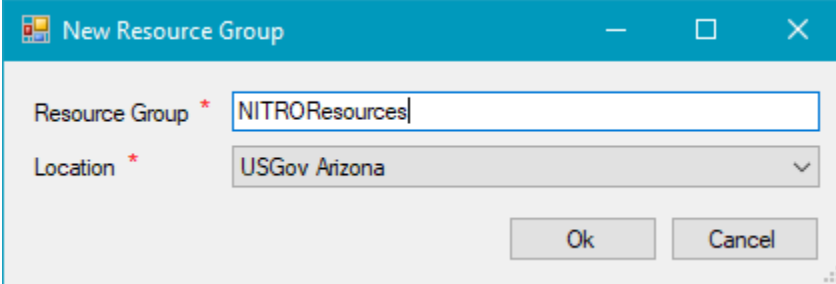


The screenshot shows the 'Azure General Settings' tab in the NITRO Studio - Azure Setup window. The fields are filled with the following information:

Field	Value
Subscription	Azure Government Enterprise
Resource Group	CrowCanyonNITRO Create new
Location	USGov Arizona
Azure Component Suffix	GCC

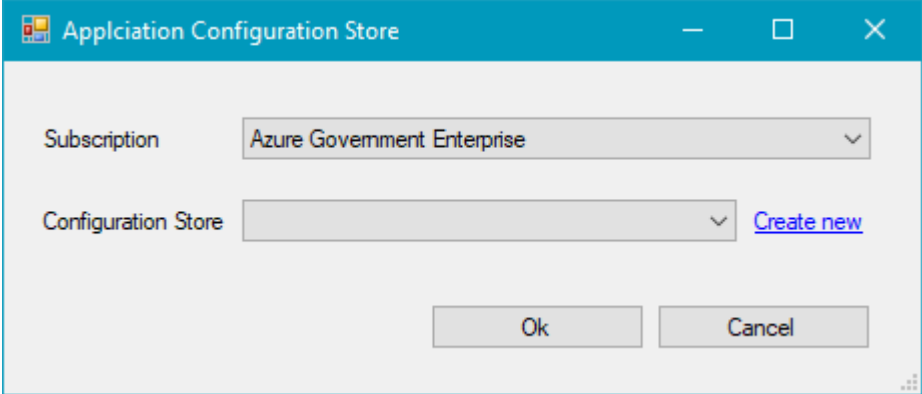
Below the 'Azure General Settings' section, there is an 'App Configuration Store' section with a text input field and a button with three dots.

4. In **Azure General Settings** Tab, select following details
 - a. **Subscription:** select Subscription on which **NITRO Studio Setup** has admin rights
 - b. **Resource Group:** Select resource group if already Exist or you can Create New Resource Group. Steps to create New Resource group
 - i. Click Create new Link
 - ii. Popup dialog will open



The screenshot shows a dialog box titled "New Resource Group". It has two input fields: "Resource Group" with the text "NITROResources" and "Location" with a dropdown menu showing "USGov Arizona". There are "Ok" and "Cancel" buttons at the bottom right.

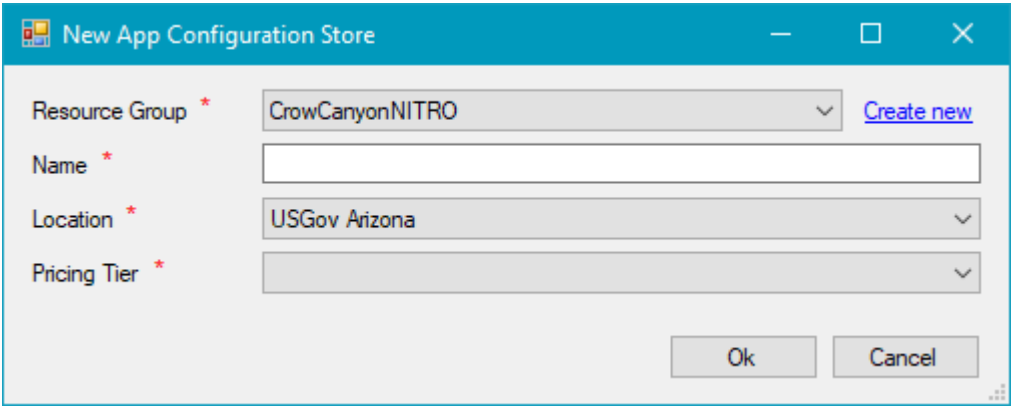
- iii. Enter Resource Group Name
 - iv. Select Location where you want to create Resource Group (Select current Region)
- c. **Location:** Select default Location for creating new Azure resources
 - d. **Azure Component Suffix:** enter text, used in Web Application URL name
 - e. **App Configuration Store:** select App Configuration Store Click selection Button. App Configuration Selection Dialog will open. Select existing App Configuration Store or Create new App Configuration for NITRO Studio.



The screenshot shows a dialog box titled "Application Configuration Store". It has a "Subscription" dropdown menu showing "Azure Government Enterprise" and a "Configuration Store" dropdown menu. To the right of the "Configuration Store" dropdown is a blue link labeled "Create new". There are "Ok" and "Cancel" buttons at the bottom.

Step to create New Application Configuration Store

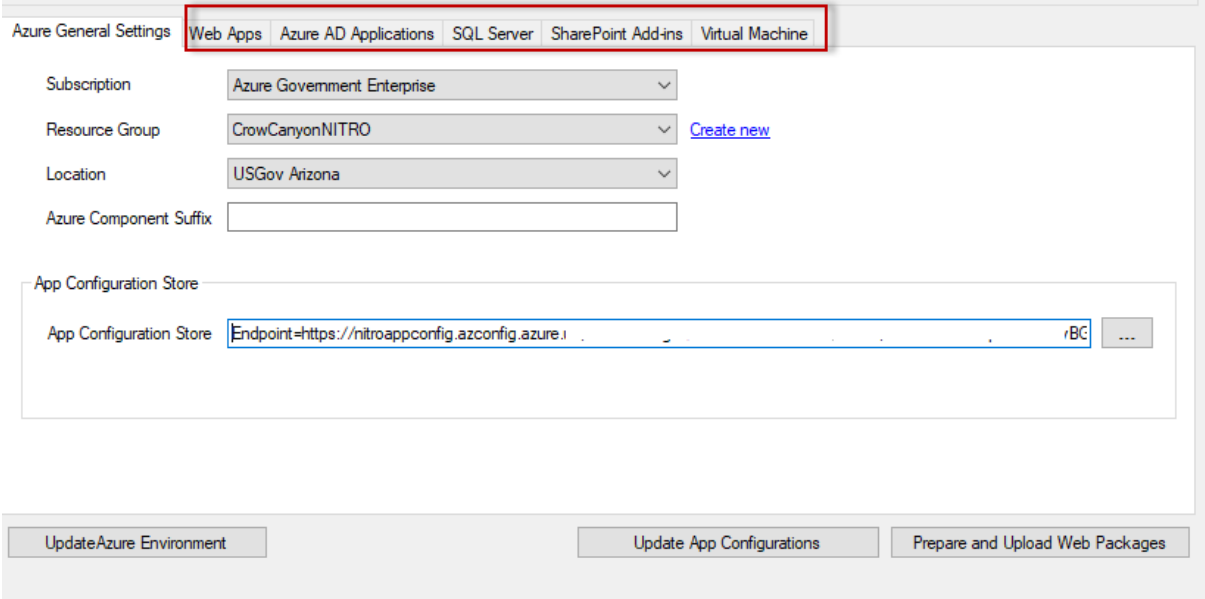
- i. Click Create new Link
- ii. Popup dialog will open



The screenshot shows a dialog box titled "New App Configuration Store". It has four input fields: "Resource Group" with a dropdown menu showing "CrowCanyonNITRO" and a blue link "Create new"; "Name" with an empty text box; "Location" with a dropdown menu showing "USGov Arizona"; and "Pricing Tier" with a dropdown menu. There are "Ok" and "Cancel" buttons at the bottom right.

- iii. Enter Name - CrowCanyonAppsConfig
 - iv. Select Location where you want to create Resource Group (Select current Region)
 - v. Select Pricing Tier
 - vi. Click Ok Button.
- f. After Configuration Store selection, Click Ok button.

5. After Configuration Store selection other tabs are visible.



Azure General Settings

Web Apps | Azure AD Applications | SQL Server | SharePoint Add-ins | Virtual Machine

Subscription: Azure Government Enterprise

Resource Group: CrowCanyonNITRO [Create new](#)

Location: USGov Arizona

Azure Component Suffix:

App Configuration Store

App Configuration Store: rBC

Update Azure Environment | Update App Configurations | Prepare and Upload Web Packages

6. Click Web Apps Tab
- NITRO Studio Site: Click selector button. Popup dialog Open
 - Select NITRO Studio Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.
 - NITRO Workflow Site: Click selector button. Popup dialog Open
 - Select NITRO Workflow Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.
 - Approval Manager Site: Click selector button. Popup dialog Open
 - Select Approval Manager Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.
 - Email and Text Sync Site: Click selector button. Popup dialog Open
 - Select Email and text sync Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.
 - NITRO Portal Site: Click selector button. Popup dialog Open
 - Select NITRO Portal Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.
 - Application Logs Site: Click selector button. Popup dialog Open
 - Select Application Log Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - Click Ok Button.



- g. Product Site: Click selector button. Popup dialog Open
 - i. Select Product Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - ii. Click Ok Button.
 - h. Utility Site: Click selector button. Popup dialog Open
 - i. Select Utility Web site if it exists or create a new one using Create new link. Please refer [Steps to Create Web App](#) article for detailed steps.
 - ii. Click Ok Button.
 - i. NITRO APPs (CDN): Click selector button. Popup dialog Open
 - i. Select NITRO Apps Web site if it exists or create a new one using Create new link. Please refer to Please refer [Steps to Create Web App](#) article for detailed steps.
 - ii. Click Ok Button.
 - j. CDN Endpoint URL (Optional): You can setup CDN on NITRO Apps Web site and enter the CDN Endpoint URL here. Please refer to [Steps to Create CDN Profile and Endpoint](#) below. MSDN Link: <https://docs.microsoft.com/en-us/azure/cdn/cdn-create-new-endpoint>
7. Click Azure AD Applications Tab
- a. Email API: Click selector button. Popup dialog Open
 - i. NITRO Email API: Select NITRO Email API if it exists or create a new API using Create new link. Please refer [Steps to Create Azure AD Application](#) article for detailed steps.
 - ii. Application Id: populate on API selection
 - iii. Client Secret: Click generate new client Secret
 - iv. Click OK button.
 - b. Azure AD API: Click selector button. Popup dialog Open
 - i. NITRO Azure AD API: Select NITRO Azure AD API if it exists or create a new API using Create new link. Please refer [Steps to Create Azure AD Application](#) article for detailed steps.
 - ii. Application Id: populate on API selection
 - iii. Client Secret: Click generate new client Secret
 - iv. Click OK button.
 - c. MS Teams API: Click selector button. Popup dialog Open
 - i. NITRO Teams API: Select NITRO Teams API if it exists or create a new API using Create new link. Please refer [Steps to Create Azure AD Application](#) article for detailed steps.
 - ii. Application Id: populate on API selection
 - iii. Client Secret: Click generate new client Secret
 - iv. Click OK button.
 - d. NITRO API: Click selector button. Popup dialog Open
 - i. NITRO Azure AD API: Select NITRO Azure AD API if it exists or create a new API using Create new link. Please refer [Steps to Create Azure AD Application](#) article for detailed steps.
 - ii. Application Id: populate on API selection



- iii. Client Secret: Click generate link to generate new Application certificate.
Please refer [Steps to Generate Application Certificate](#)
 - e. Click OK button.
 8. Click SQL Server Tab
 - a. NITRO Studio Database:
 - i. Subscription: Select Azure subscription
 - ii. SQL Server: Select SQL Server if it already exists or create a new SQL Server using Create new link. Please refer [Steps to Create SQL Server](#) article for detailed steps.
 - iii. Enter SQL Admin Username and password
 - iv. SQL Database: Select NITRO Studio Database if it already exists or create a new SQL Database using Create new link. Please refer [Steps to Create SQL Server Database](#) article for detailed steps.
 - v. Enter SQL server Username and password having read write access on Database. (We can use above SQL admin Username and password also)
 - vi. Click Ok button to finish this process. This will take some time to create required SQL Tables in Database.
 - b. NITRO Apps Database:
 - i. Subscription: Select Azure subscription
 - ii. SQL Server: Select SQL Server if it already exists or create a new SQL Server using Create new link. Please refer [Steps to Create SQL Server](#) article for detailed steps.
 - iii. Enter SQL Admin Username and password
 - iv. SQL Database: Select NITRO Studio Database if it already exists or create a new SQL Database using Create new link. Please refer [Steps to Create SQL Server Database](#) article for detailed steps.
 - v. Enter SQL server Username and password having read write access on Database. (We can use above SQL admin Username and password also)
 - vi. Click Ok button to finish this process. This will take some time to create required SQL Tables in Database.
 9. Click SharePoint Add-ins Tabs

Note: For client secrets generated for add-ins below, refer to [this article](#) for creating new secret when the existing ones expire.

Please be careful to use the domain of the NITRO Studio Web Site Host and not the domain for your M365 Tenant.

 - a. NITRO Studio Add-in:
 - i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon NITRO Studio**
 - iii. App Domain: NITRO Studio Web Site Host Name (get information in Web App Tabs)
 - iv. After Generating client Id and client secret.
 - v. Enter **Client Id** and **Client Secret**.
 - vi. Expires Date: Current Date + 1 year.
 - vii. Click **Update Config** button to update setting in App Configuration Store.
 - viii. Redirect URL: NITRO Studio Web Site URL (get information in Web App Tabs)



- b. NITRO Workflow Add-in:
 - i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon NITRO Workflows**
 - iii. App Domain: NITRO Workflow Web Site Host Name (get information in Web App Tabs)
 - iv. Redirect URL: NITRO Workflow Web Site URL (get information in Web App Tabs)
 - v. After Generating client Id and client secret.
 - vi. Enter **Client Id** and **Client Secret**.
 - vii. Expires Date: Current Date + 1 year.
 - viii. Click **Update Config** button to update setting in App Configuration Store.

- c. Approval Manager Add-in:
 - i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon Advanced Approval**
 - iii. App Domain: Approval Manager Web Site Host Name (get information in Web App Tabs)
 - iv. Redirect URL: Approval Manager Web Site URL (get information in Web App Tabs)
 - v. After Generating client Id and client secret.
 - vi. Enter **Client Id** and **Client Secret**.
 - vii. Expires Date: Current Date + 1 year.
 - viii. Click **Update Config** button to update setting in App Configuration Store.

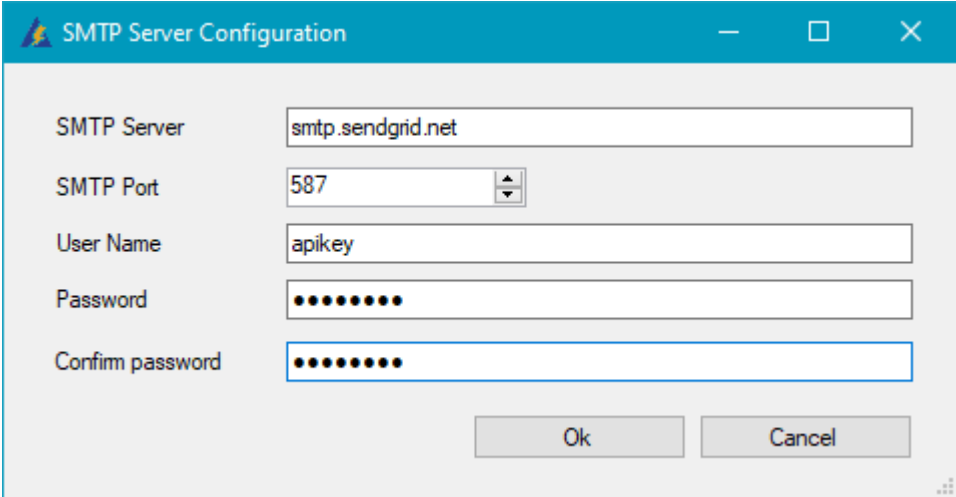
- d. Email and Text Sync Add-in:
 - i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon Email and Text Sync**
 - iii. App Domain: Email and Text Web Site Host Name (get information in Web App Tabs)
 - iv. Redirect URL: Email and Text Web Site URL (get information in Web App Tabs)
 - v. After Generating client Id and client secret.
 - vi. Enter **Client Id** and **Client Secret**.
 - vii. Expires Date: Current Date + 1 year.
 - viii. Click **Update Config** button to update setting in App Configuration Store.

- e. NITRO Portal Add-in:
 - i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon NITRO Portal**
 - iii. App Domain: NITRO Portal Web Site Host Name (get information in Web App Tabs)
 - iv. Redirect URL: NITRO Portal Web Site URL (get information in Web App Tabs)
 - v. After Generating client Id and client secret.
 - vi. Enter **Client Id** and **Client Secret**.
 - vii. Expires Date: Current Date + 1 year.
 - viii. Click **Update Config** button to update setting in App Configuration Store.

- f. Product Add-in:

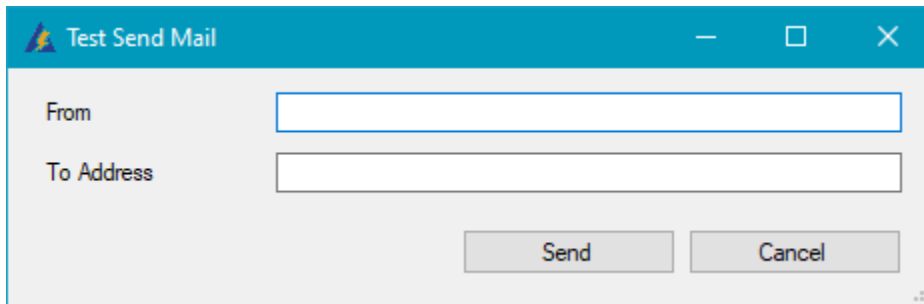
- i. Please refer [Steps to Create SharePoint Add-in](#) article for detailed steps.
 - ii. Title: **Crow Canyon Product App**
 - iii. App Domain: Product Web Site Host Name (get information in Web App Tabs)
 - iv. Redirect URL: Product Web Site URL (get information in Web App Tabs)
 - v. After Generating client Id and client secret.
 - vi. Enter **Client Id** and **Client Secret**.
 - vii. Expires Date: Current Date + 1 year.
 - viii. Click **Update Config** button to update setting in App Configuration Store.
 - g. NITRO Framework Add-in:
Setting up an app-only principal with tenant permissions
 - i. Please refer [Setting up an app-only principal with tenant permissions](#) article for detailed steps.

Note: Use App Title as **Crow Canyon Framework App**
 - ii. Please enter **Client Id** and **Client Secret** in text box and store this Information in Some notepad file.
 - iii. Expires Date: Current Date + 1 year.
 - iv. Click **Update Config** button to update setting in App Configuration Store.
10. Click Virtual Machine Tabs
 - a. Web API URL: Enter Web site URL (Prerequisites - IIS Server blank Web Site URL).
11. Click SMTP Server Tabs to config SMTP Server configuration.
 - a. Click **Update SMTP Configuration button**
 - b. Open SMTP Server Configuration Dialog



The screenshot shows a dialog box titled "SMTP Server Configuration". It has a teal header bar with the title and standard window controls (minimize, maximize, close). The main area is light gray and contains five input fields arranged vertically. The first field is labeled "SMTP Server" and contains the text "smtp.sendgrid.net". The second field is labeled "SMTP Port" and contains the number "587". The third field is labeled "User Name" and contains the text "apikey". The fourth field is labeled "Password" and contains a series of black dots. The fifth field is labeled "Confirm password" and also contains a series of black dots. At the bottom of the dialog, there are two buttons: "Ok" and "Cancel".

- c. Enter SMTP Server Name
 - d. Enter SMTP Port: SMTP outgoing mail Port Number
 - e. Enter Username
 - f. Enter Password and Confirm Password.
 - g. Click Ok Button.
 - h. Open Test send mail dialog for validating SMTP server configuration.

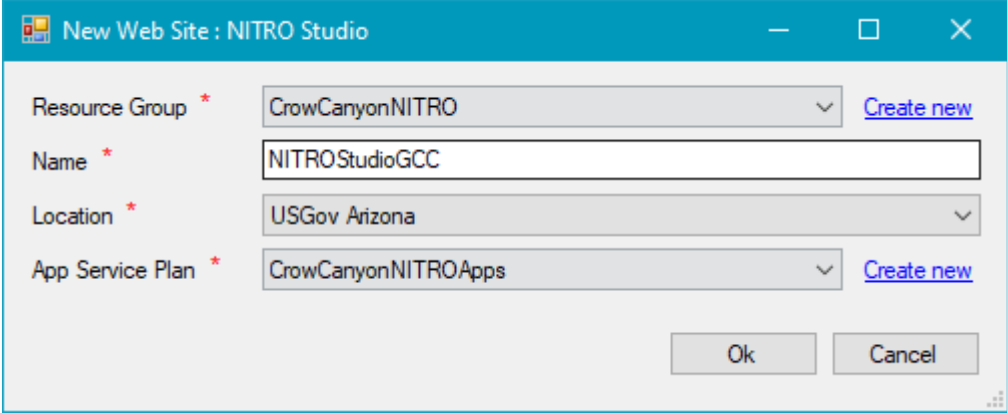


- i. Enter From address
 - j. Enter To address
 - k. Click Send Mail Button.
 - l. After some time, recipient will receive a Test Mail (Subject: **Testing SMTP Server Configuration**).
12. After filling information in all the above tabs, Click **Prepare and Upload Web Packages** button
13. Please wait for some this. This process will generate SharePoint Add-in files, and Web Service site packages (installed in Azure App service), Custom Web API and Windows Services.
14. After process completion, log will be shown in text box. Log will list some manual steps. Please follow these steps to finish NITRO components installation.
 - a. Web API:
 - i. **CustomWebAPI.zip**: Please refer [Steps to Install Web API Package](#) article
 - b. Windows Services: Please refer [Steps to Install Windows Services](#) article.
 - i. CCSWorkflowManagerService.zip
 - ii. CCSWorkflowManagerServiceScheduled.zip
 - iii. CCSWorkflowManagerServiceAsyncUpdate.zip
 - iv. CrowCanyon.EmailSyncService.zip
 - v. CrowCanyon.SMSSyncService.zip
 - vi. CrowCanyon.NITROMaintenance.zip
 - vii. CCSPRODUCTMaintenanceService.zip
15. After finishing all above steps, click **Update Azure Environment** button to update Azure Environment setting in App Configuration Store.
16. Click **Update App Configuration** button to make configuration changes available in all apps.
17. Proceed with NITRO Studio site installation and activation using [NITRO Studio App Manual](#).

Steps to Create Web App:

1. Select Resource Group
2. Enter Name
3. Select Location
4. Select App Service Plan. If it does not exist, then Create new App Service Plan. Please refer [Steps to Create App Service Plan](#) article.

5. Click Ok Button



The screenshot shows a dialog box titled "New Web Site : NITRO Studio". It contains the following fields and options:

- Resource Group ***: A dropdown menu with "CrowCanyonNITRO" selected and a "Create new" link.
- Name ***: A text input field containing "NITROStudioGCC".
- Location ***: A dropdown menu with "USGov Arizona" selected.
- App Service Plan ***: A dropdown menu with "CrowCanyonNITROApps" selected and a "Create new" link.

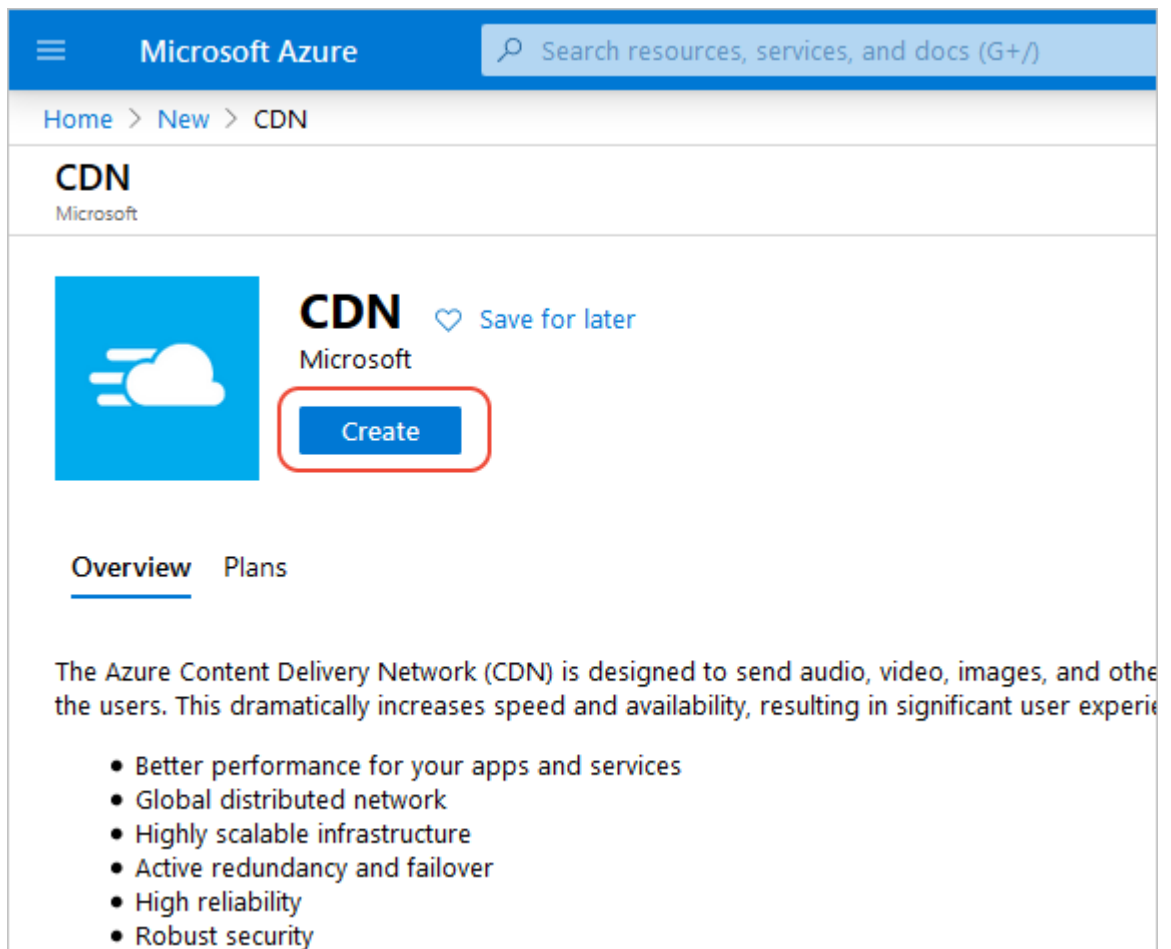
At the bottom right, there are "Ok" and "Cancel" buttons.

Steps to Create CDN Profile and Endpoint:

Create a new CDN profile

A CDN profile is a container for CDN endpoints and specifies a pricing tier.

1. In the Azure portal, select **Create a resource** (on the upper left).
The **New** pane appears.
2. Search for and select **CDN**, then select **Create**:



The **CDN profile** pane appears.


3. Enter the following values:


Setting	Value
Name	Enter your profile name.
Subscription	Select an Azure subscription from the drop-down list.
Resource group	Select Create new and enter for your resource group name or select Use existing and choose if you have the group already.
Pricing tier	Select Standard Microsoft option from the drop-down list.
Create a new CDN endpoint now	Leave unselected.


CDN profile ...


[Basics](#) [Tags](#) [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. [Learn more](#) 

Subscription * 


Resource group * 
[Create new](#)


Resource group region ⓘ 


Profile details

Name * 

Region

 CDN profiles are global resources that work across Azure regions

Pricing tier * 

[View full pricing details](#) 

Endpoint settings

Create a new CDN endpoint

[Review + create](#)

[< Previous](#)

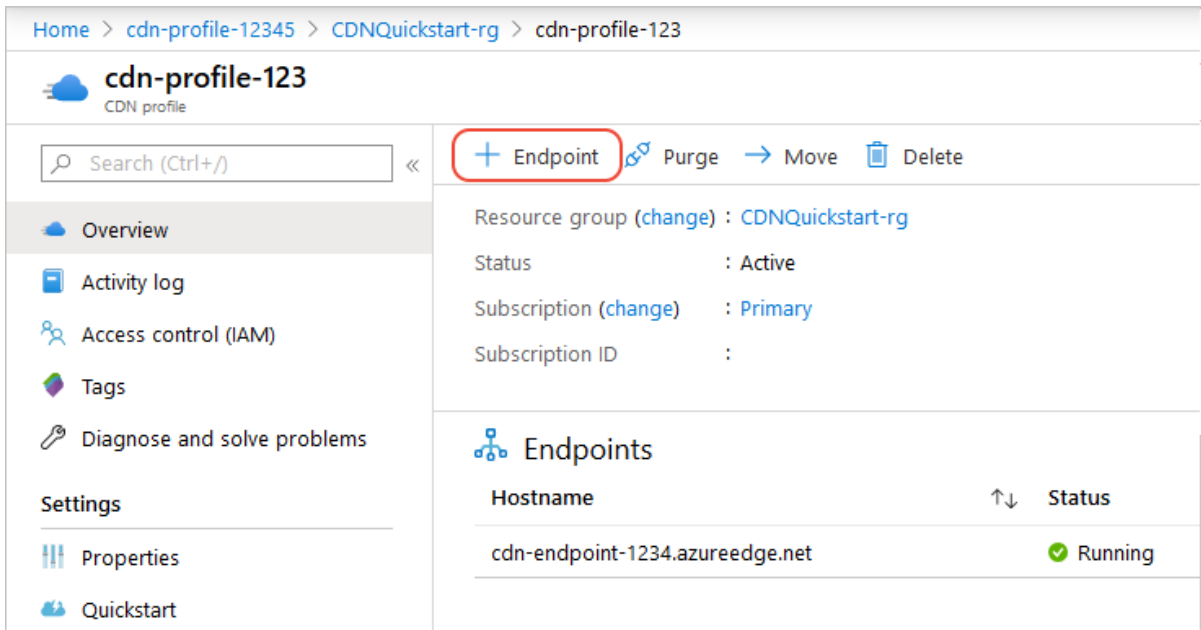
[Next: Tags >](#)

4. **Select Review + Create** to create the profile.

Create a new CDN endpoint

After you've created a CDN profile, you use it to create an endpoint.

1. In the Azure portal, select in your dashboard the CDN profile that you created. If you can't find it, you can either open the resource group in which you created it, or use the search bar at the top of the portal, enter the profile name, and select the profile from the results.
2. On the CDN profile page, select **+ Endpoint**.



Home > cdn-profile-12345 > CDNQuickstart-rg > cdn-profile-123

cdn-profile-123
CDN profile

Search (Ctrl+/) << **+ Endpoint** Purge → Move Delete

Resource group (change) : CDNQuickstart-rg

Status : Active

Subscription (change) : Primary

Subscription ID :

Endpoints

Hostname	↑↓	Status
cdn-endpoint-1234.azureedge.net		Running

The **Add an endpoint** pane appears.

3. Enter the following setting values:

Setting	Value
Name	Enter NITROCDN for your endpoint hostname. This name must be globally unique across Azure; if it's already in use, enter a different name. This name is used to access your cached resources at the domain <code><endpoint-name>.azureedge.net</code> or <code><endpoint-name>.azureedge.us</code>
Origin type	Select Web App
Origin hostname	Select the host name of the Azure Web App you're using (NITRO Apps site) from the drop-down list.
Origin path	Leave blank
Origin host header	Leave the default value (which is the Origin hostname).
Protocol	Leave the default HTTP and HTTPS options selected.
Optimized for	Leave the default selection, General web delivery .

Add an endpoint ✕

Allows configuring content delivery behavior and access.

Name *

NITROCDN ✓

.azureedge.us

Origin type *

Web App ▼

Origin hostname * ⓘ

nitroappsgcc.azurewebsites.us ▼

Origin path ⓘ

/Path

Origin host header ⓘ

nitroappsgcc.azurewebsites.us ✓

Protocol ⓘ

HTTP

HTTPS

Origin port ⓘ

80



443

Optimized for ⓘ

General web delivery ▼

Add

4. Select **Add** to create the new endpoint. After the endpoint is created, it appears in the list of endpoints for the profile.

+ Endpoint  Purge → Move  Delete


^ Essentials

Resource group (change) : CrowCanyonNITRO Pricing Tier : Standard Microsoft

Status : Active

Subscription (change) : Azure Government Enterprise

Subscription ID : 96f383c9-d997-44a3-b5af-b5403c346117

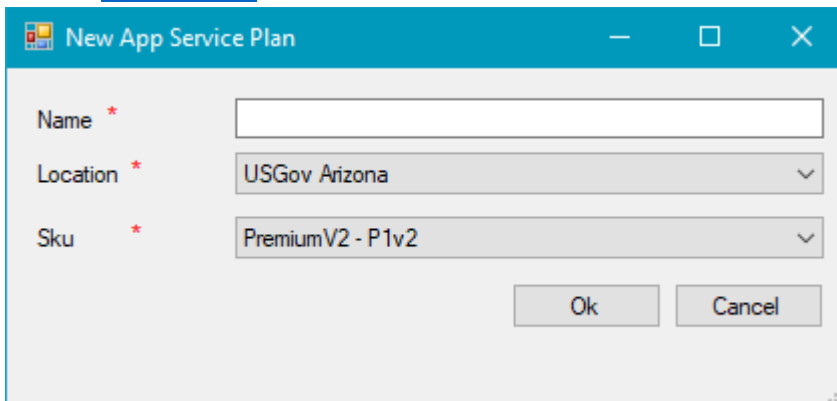
 Endpoints

Hostname	↑↓ Status	↑↓ Protocol	↑↓ Origin type
Endpoint1.azureedge.us	✔ Running	HTTP, HTTPS	Web App
NITROCDN.azureedge.us	✔ Running	HTTP, HTTPS	Web App

Note: Above operations may take some time to complete.

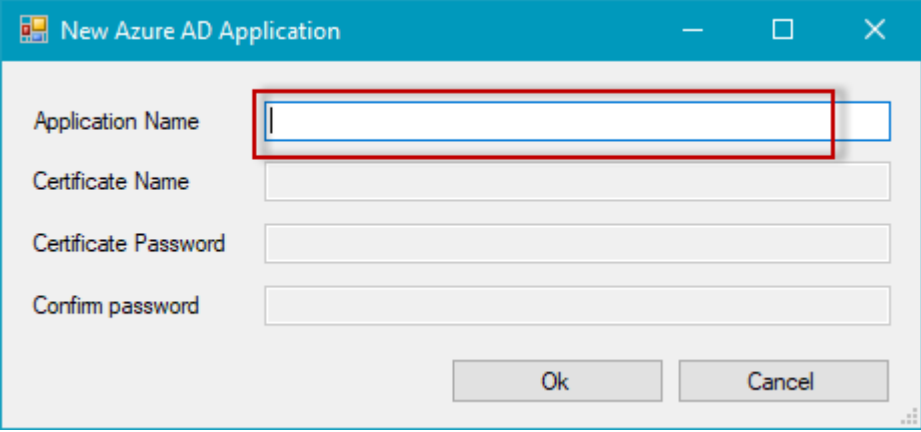
Steps to Create App Service Plan:

1. Enter Name
2. Select Location
3. Select Sku
6. Click Ok Button
4. Reference MSDN Link: <https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage>



Steps to Create Azure AD Application:

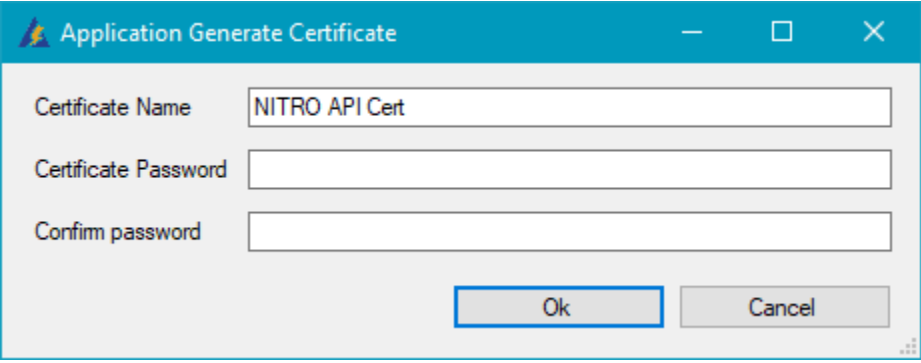
1. Enter Name
2. Click Ok Button



The screenshot shows a dialog box titled "New Azure AD Application". It contains four text input fields: "Application Name", "Certificate Name", "Certificate Password", and "Confirm password". The "Application Name" field is highlighted with a red rectangular border. At the bottom of the dialog are "Ok" and "Cancel" buttons.

Steps to Generate Application Certificate:

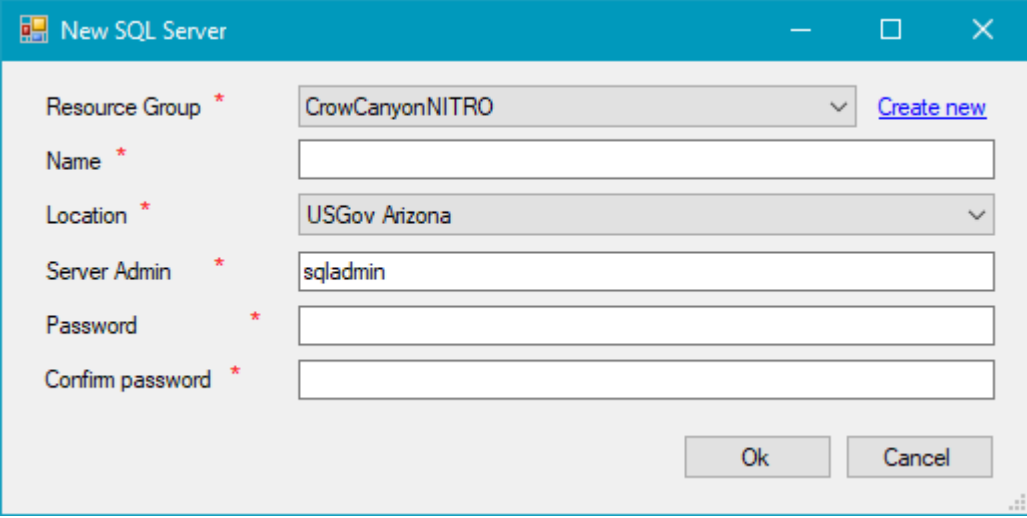
1. Enter Certificate Name
2. Enter Password and Confirm Password.
3. Click Ok Button



The screenshot shows a dialog box titled "Application Generate Certificate". It contains three text input fields: "Certificate Name", "Certificate Password", and "Confirm password". The "Certificate Name" field contains the text "NITRO API Cert". At the bottom of the dialog are "Ok" and "Cancel" buttons.

Steps to Create SQL Server:

4. Select Resource Group
5. Enter Name
6. Select Location
7. Enter Admin Name
8. Enter Password and Confirm Password.
9. Click Ok Button
10. Reference MSDN Link: <https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-create-quickstart?tabs=azure-portal#create-a-single-database>



New SQL Server

Resource Group * CrowCanyonNITRO [Create new](#)

Name *

Location * USGov Arizona

Server Admin * sqladmin

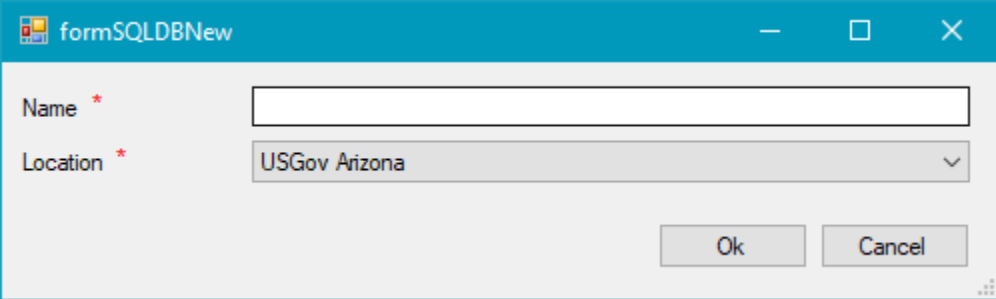
Password *

Confirm password *

Ok Cancel

Steps to Create SQL Server Database:

1. Enter Name
2. Click Ok Button



formSQLDBNew

Name *

Location * USGov Arizona

Ok Cancel

Steps to Create SharePoint Add-in:

1. Generate app credentials from the SharePoint site:
 - a. Navigate to SharePoint site collection
 - b. Go to <site collection url>/_layouts/15/AppRegNew.aspx by using a web browser.
AppRegNew page form

Crow Canyon Software

App Information

The app's information, including app id, secret, title, hosting url and redirect url.

Client Id:

Client Secret:

Title:

App Domain:
Example: "www.contoso.com"

Redirect URI:
Example: "https://www.contoso.com/default.aspx"

- c. **Add-in ID:** Click Generate button to generate Add-in Id (Client Id)
- d. **Add-in Secret:** Click Generate button to generate Add-in Secret (Client Secret)
- e. **Title:** Enter **SharePoint Add-in Name**
- f. **Add-in Domain:** Enter **Azure web application host domain (Azure web app)**
- g. **Redirect URI:** Enter **Azure web application URL (Azure web app)**
- h. **Click Create button to register application**

```
The app identifier has been successfully created.  
Client Id: c160dae7-e008-4def-be5b-4b40254a76f5  
Client Secret: FJF/wsfMBJJMafv4M3uaAcqkQWJ8hUoJ9ypXeMy9dal=  
Title: Crow Canyon NITRO Studio  
App Domain: nitrostudiogcc.azurewebsites.us  
Redirect URI: https://nitrostudiogcc.azurewebsites.us
```

Copy Information in Notepad and Save

OK

- i. Reference MSDN Link: <https://docs.microsoft.com/en-us/sharepoint/dev/sp-add-ins/register-sharepoint-add-ins#to-register-by-using-appregnewasp>

Steps to Install Windows Services:

1. Extract Service Package zip file to a separate folder located in :C/CrowCanyon.
2. Use windows command line interface (run cmd as an administrator) to navigate to the directory where service file and installutil.exe are located. Type in `installutil -i <ServiceExe File>`

For example, the command to install Windows Services for ProductMaintenanceService.exe would look like

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>cd C:\Users\mmonroe\OneDrive - Crow Canyon Systems, Inc\Desktop\GCC High Install\CrowCanyon.NITROSetup (1)\ServicePackages\CCSPProductMaintenanceService

C:\Users\mmonroe\OneDrive - Crow Canyon Systems, Inc\Desktop\GCC High Install\CrowCanyon.NITROSetup (1)\ServicePackages\CCSPProductMaintenanceService>installutil -i CCSProductMaintenanceService.exe
```

3. If prompted, enter username and the password (two textboxes for password).

Steps to Install Web API Package:

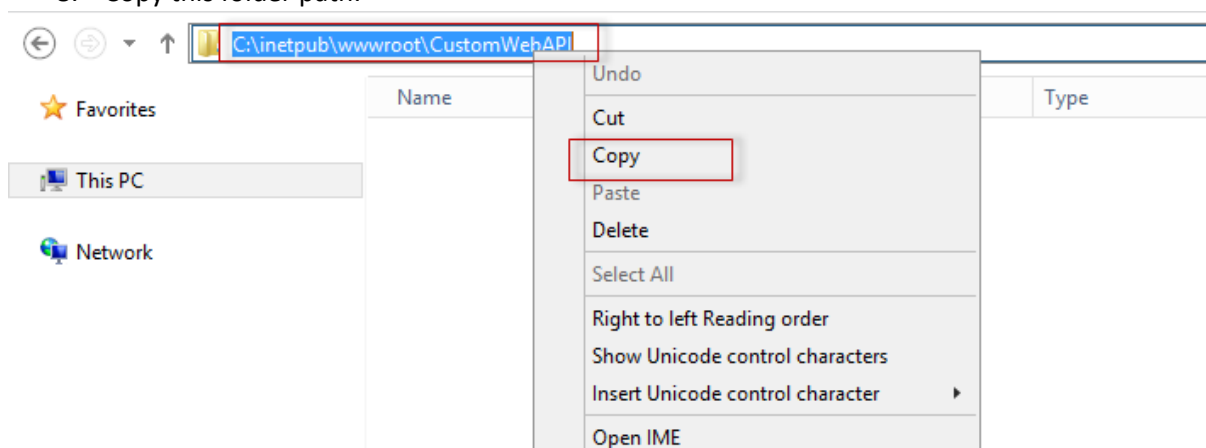
This web API is required for generate Document action functionality of NITRO Custom Actions. This is only required for Documents generated using Office object model. For open XML and print template-based documents this step is not required.

Prerequisites for Web API setup:

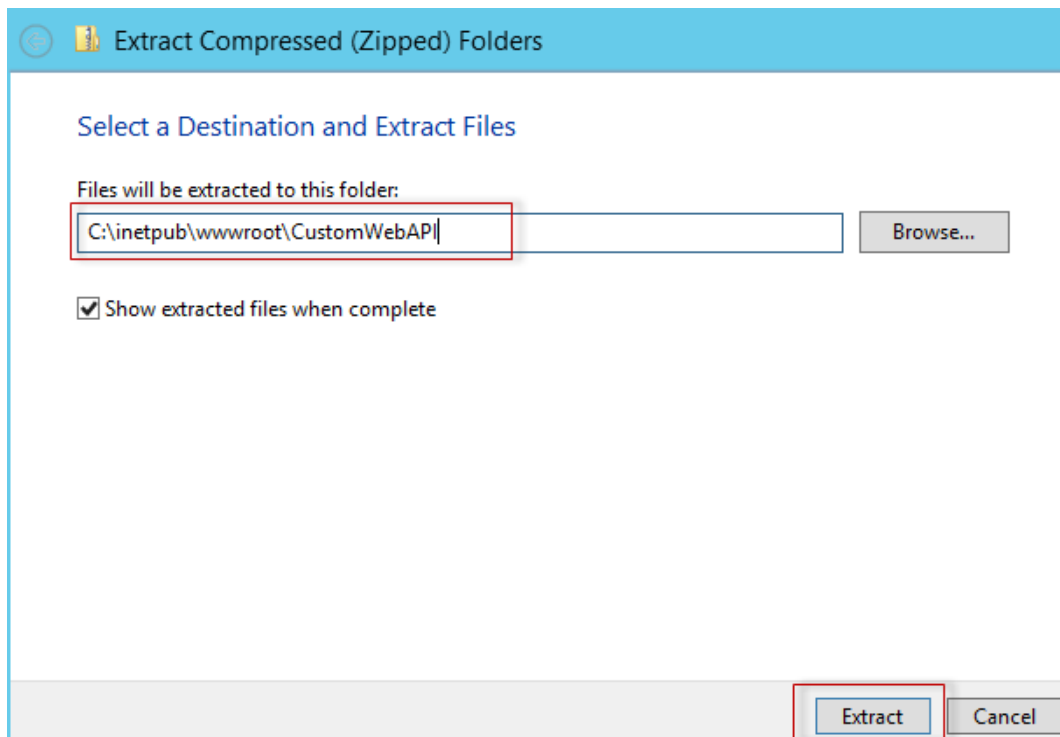
1. A Web site in the IIS server which is accessible over the internet.
2. Licensed version of Microsoft word and Excel should be installed on the IIS server.

Installation Steps:

4. Open IIS Server Manager tool (in Run dialog type **inetmgr** and Click OK button)
5. Open IIS Manager. Expand IIS Server => Sites.
6. Right Click Web Site.
7. Click **Explorer** menu option. Open Windows explore
8. Copy this folder path.



9. Go to Web API Package Zip file. Right Click file and Click Extract all.

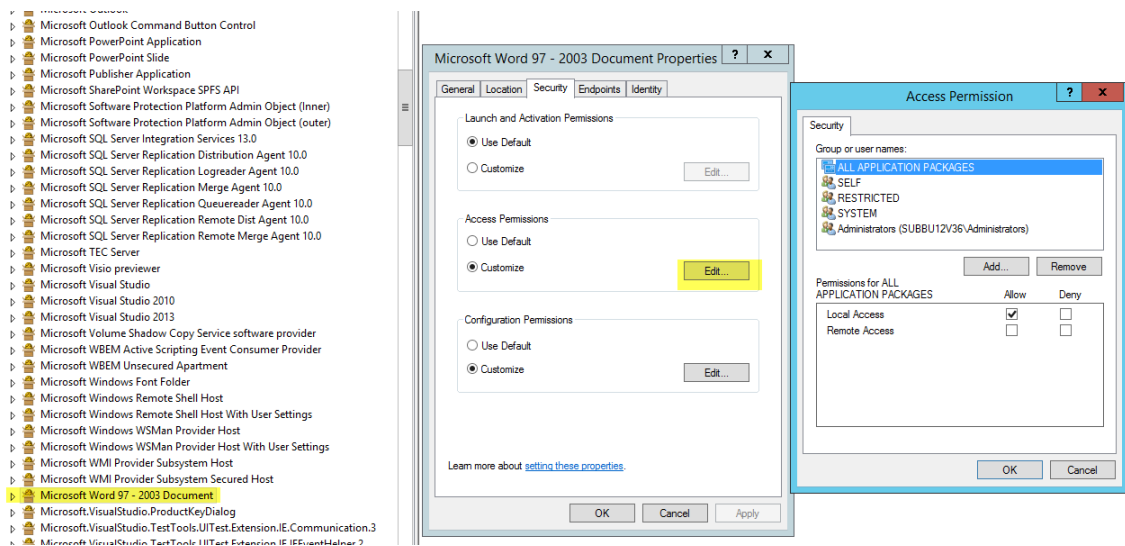


10. Paste the Web Site Folder URL. Click Extract button.

Additional Server configuration for Office object Model:

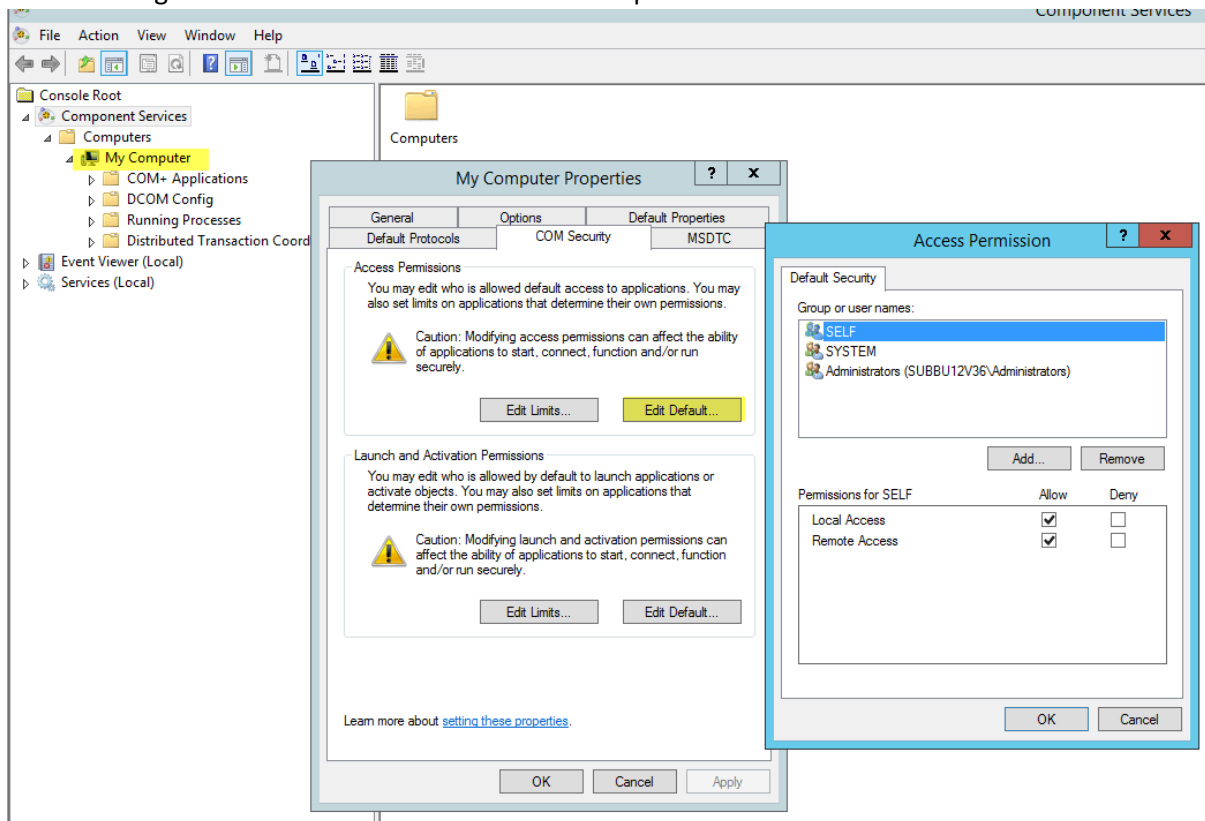
Steps to Add Access Permission on Microsoft Word

1. In the command line put DCOMCNFG
2. Component Services -> Computers -> My Computer -> DCOM Config
3. Find "Microsoft Word 97 - 2003 Document" (If it is missing check if your Word is also 64 bit (if your Windows is))
4. Right click -> Properties
5. Go to Tab Security and Edit the "Customize" radio buttons so that IIS_IUSRS could have rights for launch and access
6. Go to Tab Identity and choose "The interactive user"
7. Apply changes and try again
8. If all this fails, go also to tab "General" and in "Authentication Level" drop down choose "None".



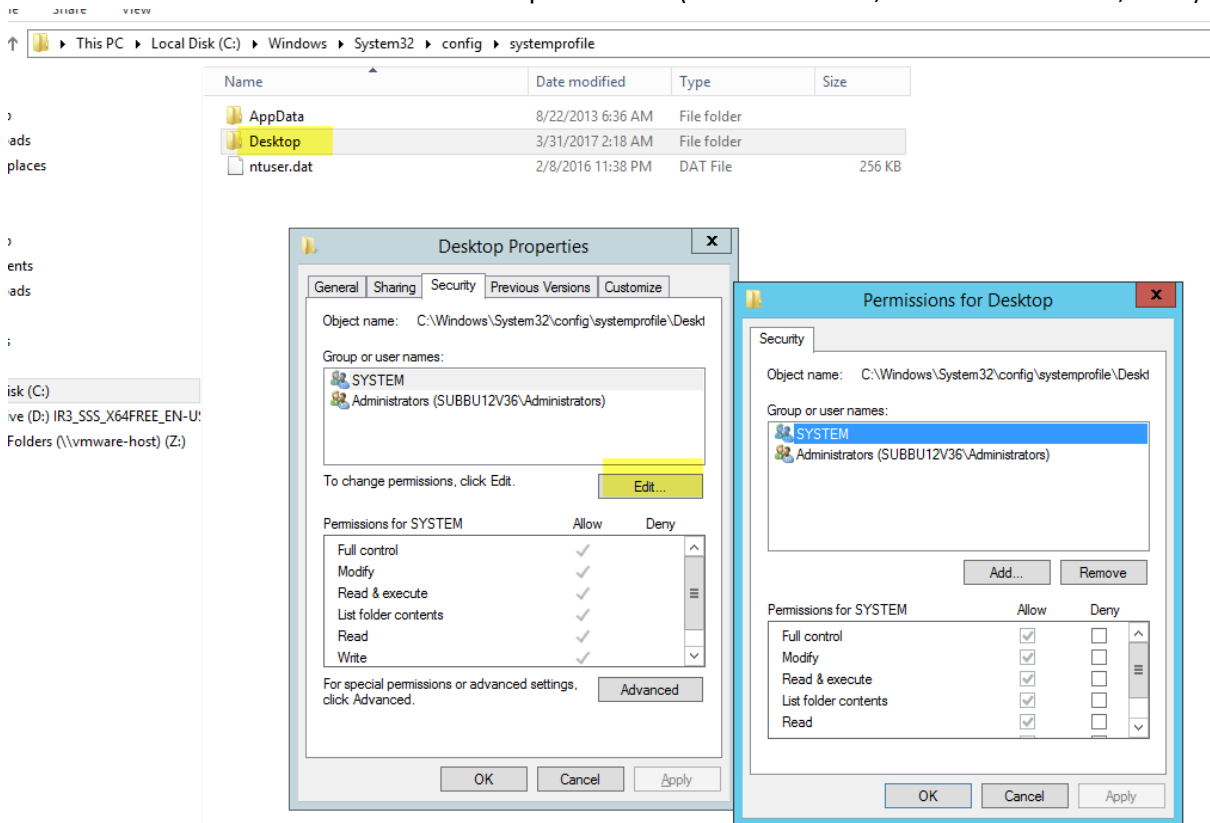
Steps to grant Launch and Activation Permissions

1. In DCOMCNFG, right Click the My Computer and select properties
2. Choose the COM Securities tab.
3. In Access Permissions, click Edit Defaults and Add App pool user of Web API Service both Local Access and Remote Access.
4. In Launch and Activation Permissions, click Edit Defaults and Add App pool user of Web API and give it Local launch and Local Activation permission.



Steps to grant Permissions Desktop

1. Open Windows Explorer
2. Depending on whether you installed a 32bit or 64bit version of office you will need to do one (or both) of the following:
 - a. 32bit Office installation: Navigate to C:\Windows\System32\config\systemprofile
 - b. 64bit Office installation: Navigate to C:\Windows\SysWOW64\config\systemprofile
3. Verify the folder "Desktop" exists (create it if it's not there)
4. Right click > Properties
5. On the security tab: Add App pool user of CrowCanyon Application and CrowCanyon Doc Processor Service user with default permissions (Read & execute; List folder contents; Read)



The screenshot shows a Windows Explorer window with the address bar set to "This PC > Local Disk (C:) > Windows > System32 > config > systemprofile". The file list shows folders for AppData and Desktop, and a file named ntuser.dat. The Desktop folder is selected, and its properties dialog is open. The Security tab is active, showing the object name "C:\Windows\System32\config\systemprofile\Desktop" and the group "SYSTEM". The permissions for SYSTEM are listed as follows:

Permissions for SYSTEM	Allow	Deny
Full control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modify	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read & execute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List folder contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The "Advanced" button is visible at the bottom of the Desktop Properties dialog. The "Permissions for Desktop" dialog is also open, showing the same object name and group, with the permissions for SYSTEM listed as follows:

Permissions for SYSTEM	Allow	Deny
Full control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Modify	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read & execute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List folder contents	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>