



API MFA Specification Document



We are **agile**
We are **responsive**
We solve problems
and we solve them
really well.

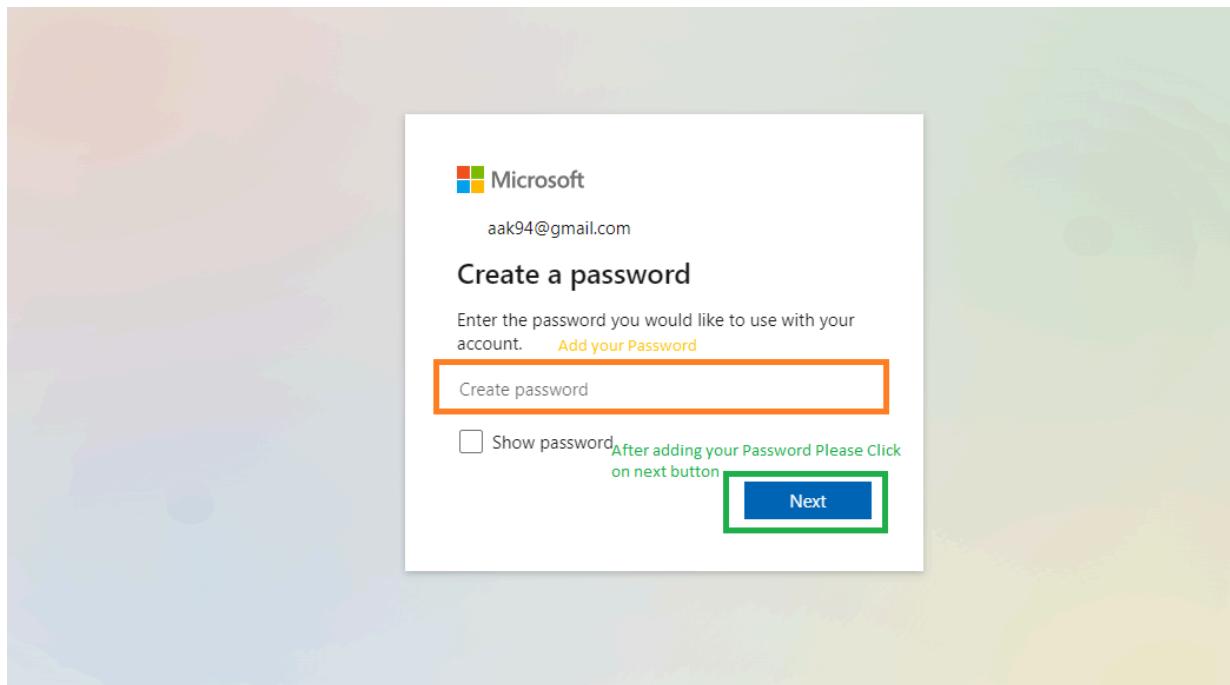
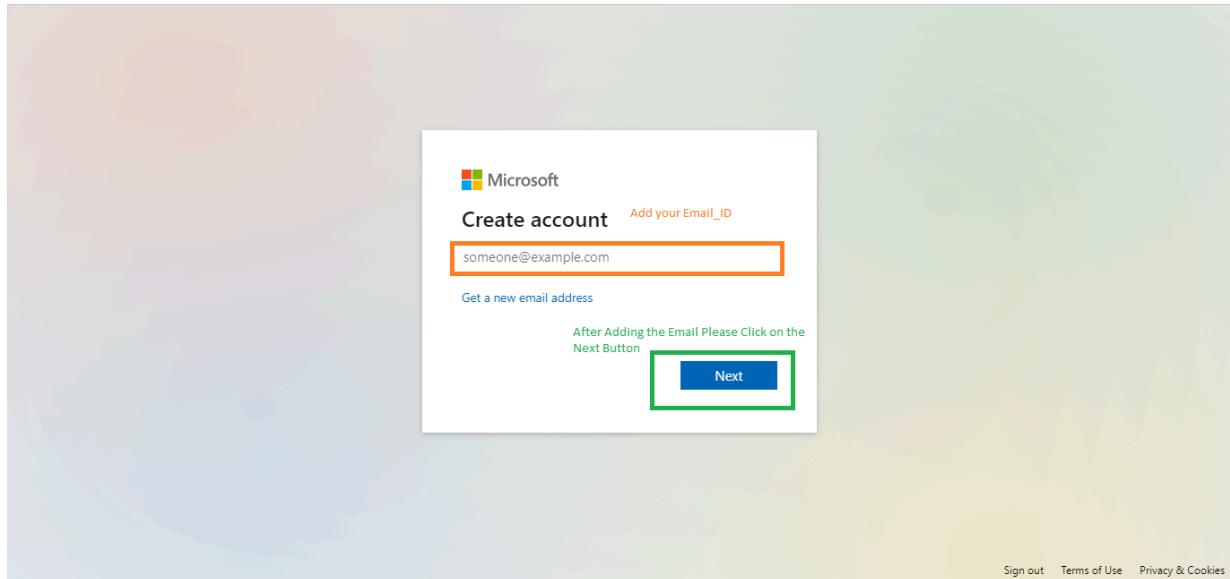
Microsoft Azure Login Portal	03
Overview	03
Users Portal	04
API Permissions	09
Certificates & secrets	10
Expose an API	11
Integration assistant	14
Authentication	15
Summary	17
Login URL	17
Taking Authentication Code from the front end	18
About Tudip	21
Our Clients	22
Awards and Accolades	22
	22

Let Us Build Your Product!



Confidential
www.tudip.com | biz@tudip.com | 1

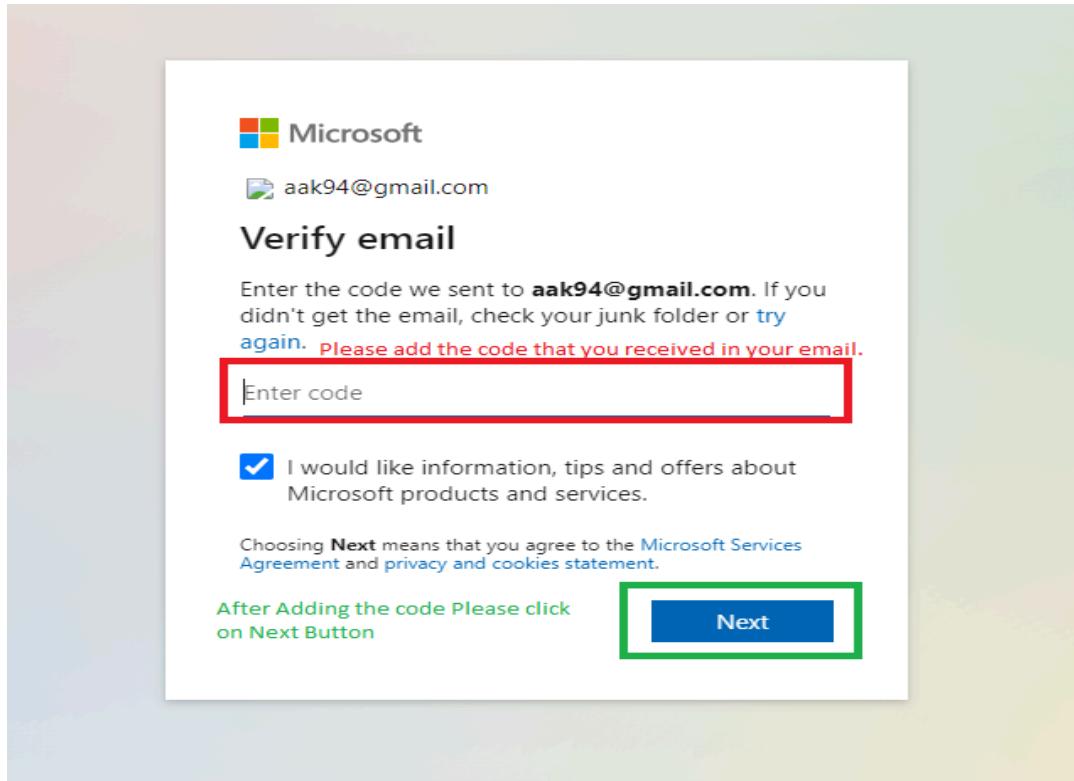
Microsoft account creation



Let Us Build Your Product!

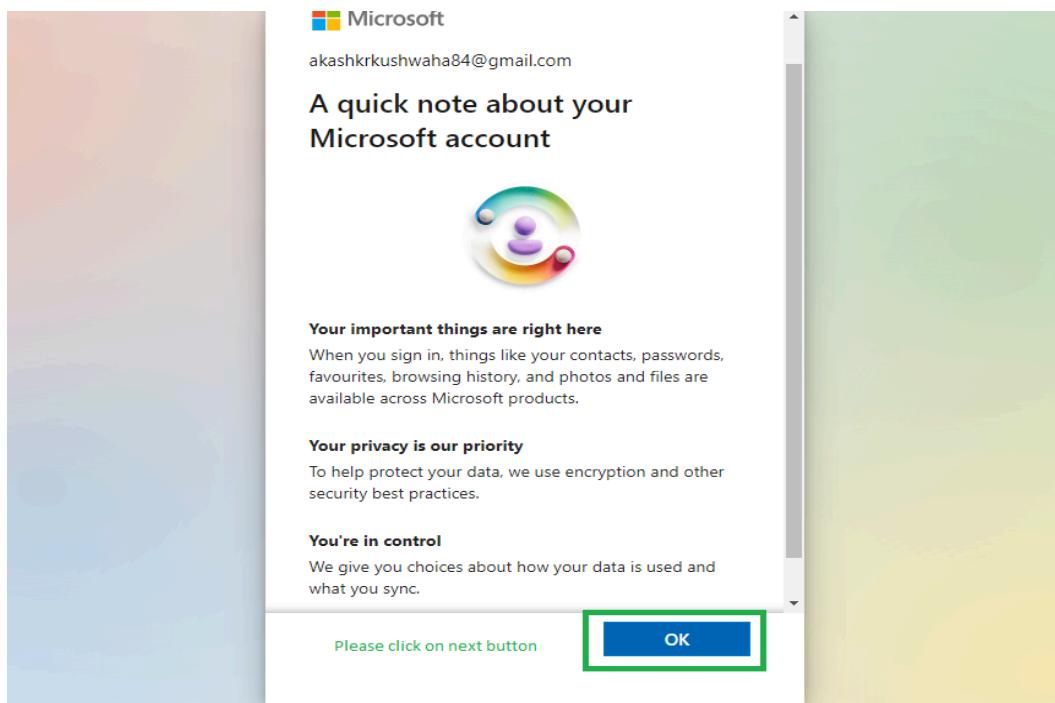


Confidential
www.tudip.com | biz@tudip.com | 2



Let Us Build Your Product!



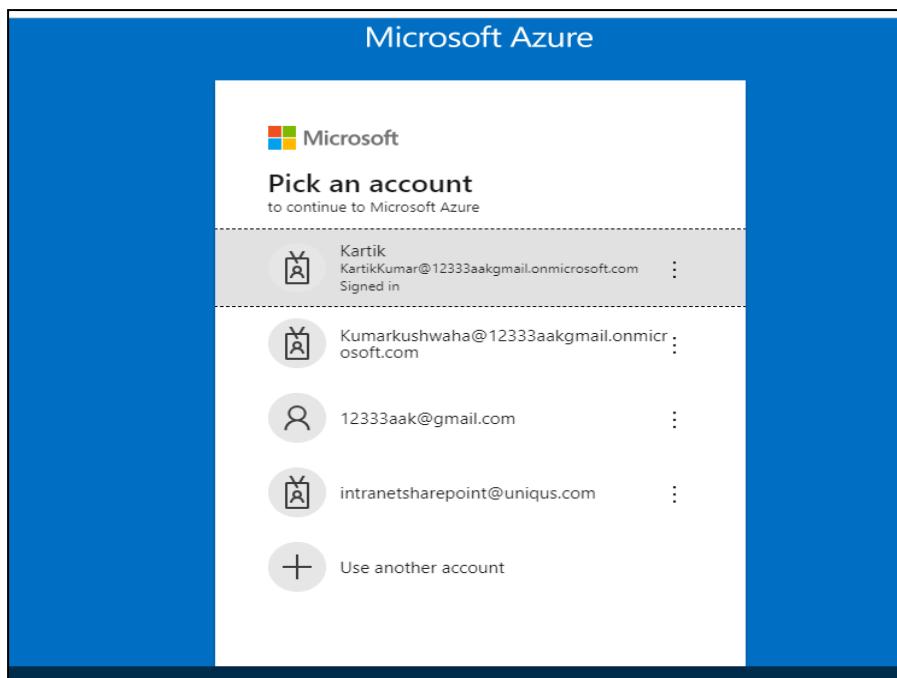


Microsoft Azure Login Portal

- Which is used for Login the Users.

Let Us Build Your Product!





The screenshot shows the Microsoft Azure login interface. It features a blue header bar with the Microsoft logo and the text "Microsoft Azure". Below this is a white card titled "Pick an account" with the sub-instruction "to continue to Microsoft Azure". A list of accounts is displayed:

- Kartik (KartikKumar@12333aak@gmail.onmicrosoft.com) - Signed in
- Kumarkushwaha@12333aak@gmail.onmicrosoft.com
- 12333aak@gmail.com
- intranetsharepoint@uniquus.com
- + Use another account

Below the login card is the main Azure dashboard. The left sidebar contains a navigation menu with items like "Create a resource", "Home", "Dashboard", "All services", "FAVORITES" (which includes "All resources", "Resource groups", "App Services", "Azure Cosmos DB", "Function App", "SQL databases", "Virtual machines", "Load balancers", "Storage accounts", "Virtual networks", and "Microsoft Entra ID"), "Monitor", "Advisor", and "Microsoft Defender for". A red box highlights the "Microsoft Entra ID" item. A red arrow points from the text "Click on this button" to the "Microsoft Entra ID" link.

The main content area of the dashboard features a "Welcome to Azure!" message and three promotional cards:

- Azure free trial**: Get credit toward Azure products and services, plus popular free services. Includes a "View" and "Learn more" button.
- Manage Microsoft Entra ID**: Manage access, set smart policies, and enhance security with Microsoft Entra ID. Includes a "View" and "Learn more" button.
- Access student benefits**: Get free software, Azure credit, or access Azure Dev Tools for Teaching after you verify your academic status. Includes a "Explore" and "Learn more" button.

At the bottom of the dashboard, there are links for "Microsoft Entra ID", "Users", "Enterprise applications", "App Services", "Function App", "Security", "Resource groups", "All resources", and "More services".

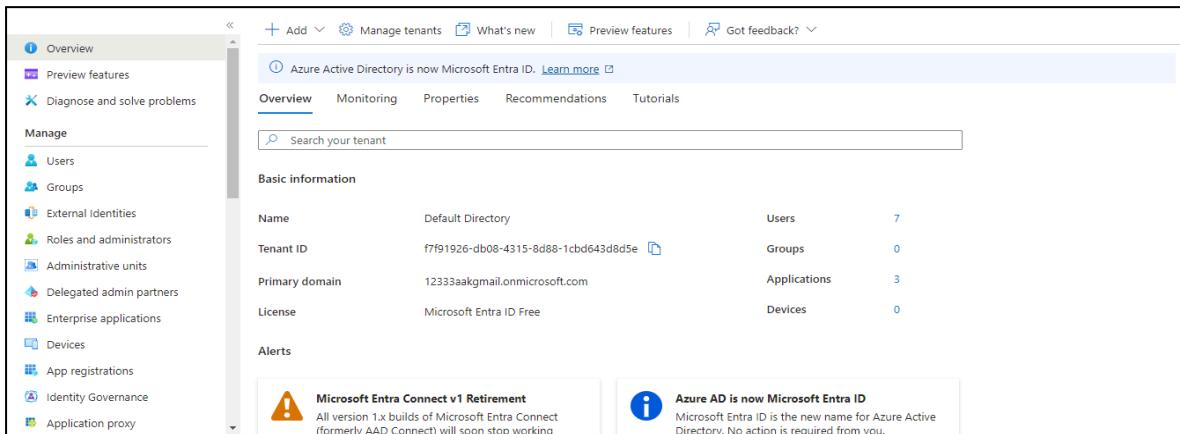
Overview

In summary, the "Overview" section in Microsoft Azure serves as a central hub for monitoring, management, and optimization of Azure resources and services. It

Let Us Build Your Product!



provides users with a comprehensive view of their Azure environment, actionable insights, and tools to ensure the reliability, performance, and cost-effectiveness of their cloud infrastructure.



Users

In Microsoft Azure Active Directory (Azure AD), the "All users" option provides administrators with a convenient way to view and manage all user accounts registered in the Azure AD tenant.

In summary, the "All users" option in Microsoft Azure AD provides administrators with a centralized view and management capabilities for all user accounts within the Azure AD tenant. It supports various administrative tasks, enhances user visibility, and facilitates efficient user lifecycle management and security monitoring.

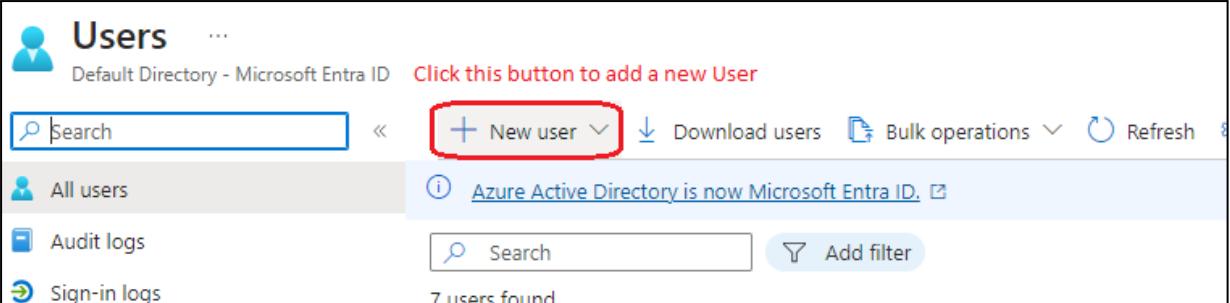
- 1st We need to click the All users button

Let Us Build Your Product!



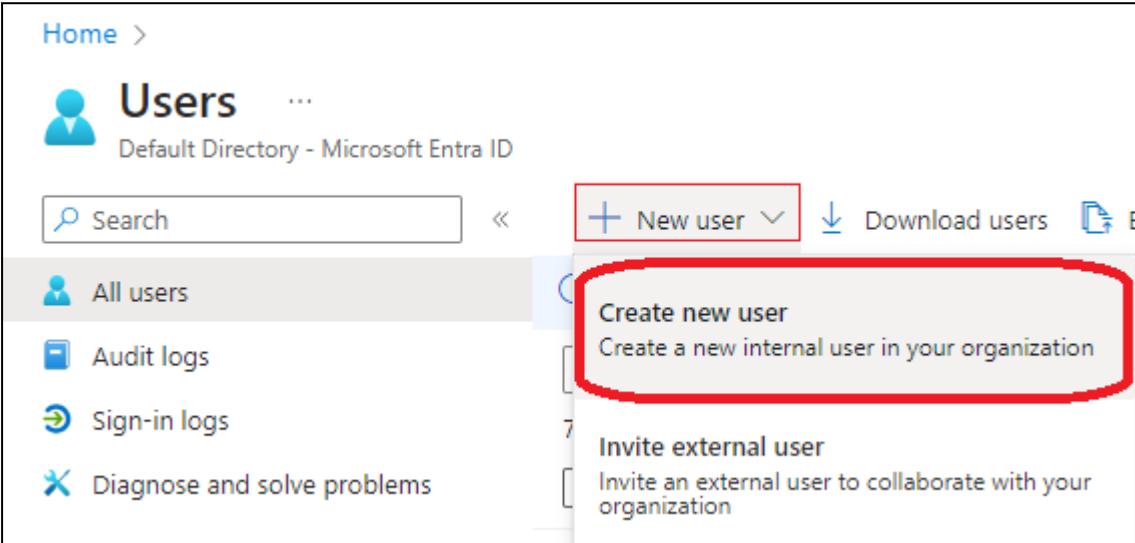
Confidential

www.tudip.com | biz@tudip.com | 6



The screenshot shows the 'Users' dashboard for a Microsoft Entra ID directory. At the top, there's a search bar and a prominent red box around the '+ New user' button. Below the search bar, there are links for 'All users', 'Audit logs', and 'Sign-in logs'. A message at the top right says 'Azure Active Directory is now Microsoft Entra ID.' On the right side, there's a search bar and a 'Add filter' button. The bottom right corner indicates '7 users found'.

- User Portal used for Creating the Users.
- User Portal is used for the display of the Users Which you have created Already.



This screenshot is similar to the one above, showing the 'Users' dashboard. The '+ New user' button is again highlighted with a red box. A dropdown menu has opened, showing two options: 'Create new user' (highlighted with a red box) and 'Invite external user'. Both options have descriptive subtext below them.

- Creating the New Users from the Users dashboard
- This Dashboard is mainly used for adding Users' details

Let Us Build Your Product!



Home > Users >

Create new user

Add all the details of the basics, properties and assignment section and then click on the review + Click button

Create a new internal user in your organization

Basics Properties Assignments Review + create

Create a new user in your organization. This user will have a user name like alice@contoso.com. [Learn more](#)

Identity

User principal name * @

Domain not listed? [Learn more](#)

Mail nickname *
 Derive from user principal name

Display name *

Password *
 Auto-generate password

Account enabled

Review + create [Previous](#) [Next: Properties](#)

- This Dashboard shows the Users which is created by you

Home >

Users Default Directory - Microsoft Entra ID

Search

All users Azure Active Directory is now Microsoft Entra ID.

7 users found In the All Users Section, the newly created user will be going to display

<input type="checkbox"/>	Display name	User principal name	User type	On-premises sync	Identities	Company name
<input type="checkbox"/>	Aarti	Aarti@12333aakgmail.onmicrosoft.com	Member	No	12333aakgmail.onmicrosoft.com	
<input type="checkbox"/>	AK Akash kushwaha	12333aak@gmail.com@EXT...	Member	No	Microsoft account	
<input type="checkbox"/>	A akashkumar	AakashKumar@12333aak...	Member	No	12333aak@gmail.onmicrosoft.com	
<input type="checkbox"/>	K Kartik	KartikKumar@12333aakg...	Member	No	12333aak@gmail.onmicrosoft.com	
<input type="checkbox"/>	KK Kumar kushwaha	akashhk@12333aakgmail.o...	Member	No	12333aak@gmail.onmicrosoft.com	
<input type="checkbox"/>	K Kumarkushwaha	Kumarkushwaha@12333a...	Member	No	12333aak@gmail.onmicrosoft.com	
<input type="checkbox"/>	p pranitcode	pranit@12333aakgmail.o...	Member	No	12333aak@gmail.onmicrosoft.com	

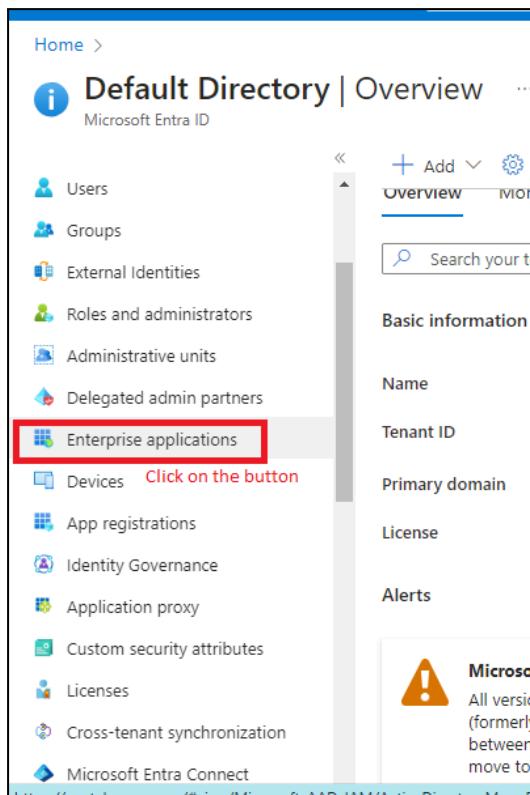
Enterprise applications

Overall, Azure Enterprise Applications provide a comprehensive solution for managing, securing, and integrating applications within enterprise environments. By leveraging Azure AD's identity and access management capabilities, organizations can improve

Let Us Build Your Product!

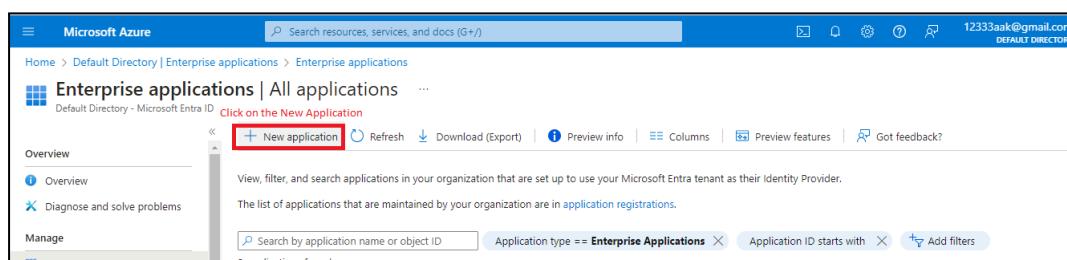


security, streamline operations, and enhance user productivity across their application portfolio.



The screenshot shows the Microsoft Entra ID - Default Directory Overview page. The left sidebar lists various management options: Users, Groups, External Identities, Roles and administrators, Administrative units, Delegated admin partners, Enterprise applications, Devices, App registrations, Identity Governance, Application proxy, Custom security attributes, Licenses, Cross-tenant synchronization, and Microsoft Entra Connect. The 'Enterprise applications' option is highlighted with a red box and has the text 'Click on the button' overlaid. The main pane displays basic information such as Name (Default Directory), Tenant ID, Primary domain, License, and Alerts. An alert message is visible, stating: 'Microsoft Entra ID - Microsoft Entra ID' and 'All versions of Microsoft Entra ID (formerly Azure Active Directory) will move to Microsoft Entra ID on March 31, 2024.'

After clicking the EnterPrise applications we are getting the All applications dashboard.



The screenshot shows the Microsoft Azure - Default Directory | Enterprise applications | Enterprise applications | All applications page. The top navigation bar includes 'Search resources, services, and docs (G+)', a user profile (12333aak@gmail.com), and a gear icon. The main content area shows the 'Enterprise applications | All applications' dashboard. It features a 'New application' button highlighted with a red box and labeled 'Click on the New Application'. Below it, there's an 'Overview' section with links for 'View', 'Diagnose and solve problems', and 'Manage'. A search bar at the bottom allows filtering by application name, type (set to 'Enterprise Applications'), and application ID.

After clicking the New application button you will see the browse Microsoft etra gallery dashboard.

Let Us Build Your Product!



Home > Default Directory | Enterprise applications > Enterprise applications | All applications > Browse Microsoft Entra Gallery ...

Create your own application

Click on the create your own application, then you will get the dialogue box

+ Create your own application Got feedback?

The Microsoft Entra App Gallery is a catalog of thousands of apps that make it easy to deploy and configure single sign-on (SSO) and prebuilt templates to connect your users more securely to their apps. Browse or create your own application here. If you are wanting organizations to discover and use, you can file a request using the process described in this article.

Search application Single Sign-on : All User Account Management : All Category

Cloud platforms

Amazon Web Services (AWS)

aws

Google Cloud Platform

Google Cloud

On-premises applications

Click on the create button

New Project for MFA

What are you looking to do with your application?

Configure Application Proxy for secure remote access to an on-premises application
 Register an application to integrate with Microsoft Entra ID (App you're developing)
 Integrate any other application you don't find in the gallery (Non-gallery)

Now, select the option why are you looking

Create

After clicking the create button You will get the register an application dashboard.

Home > Default Directory | Enterprise applications > Enterprise applications | All applications > Browse Microsoft Entra Gallery > Register an application ...

Supported account types Click any of the option as per the condition

Who can use this application or access this API?

Accounts in this organizational directory only (Default Directory 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 changed later, but a value is required for most authentication scenarios.

Select a platform e.g. https://example.com/auth Add the website URL

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

Select a platform which you want

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

Register Click on the Register Button

After registering the new Project you will get the all-applications Dashboard.

Let Us Build Your Product!



Default Directory - Microsoft Entra ID

Overview

- Overview
- Diagnose and solve problems

Manage

- All applications (highlighted with a red box)
- Private Network connectors
- User settings
- App launchers
- Custom authentication extensions (Preview)

Security

- Conditional Access
- Consent and permissions

View, filter, and search applications in your organization that are set up to use your Microsoft Entra tenant as their Identity Provider.

The list of applications that are maintained by your organization are in [application registrations](#).

Search by application name or object ID Application type == Enterprise Applications Application ID starts with Add filters

4 applications found

Name	Object ID	Application ID	Homepage URL	Created on	Certi
New web API	20e4965b-897c-4867-8378-a5700...	cec508e8-b896-459c...	http://localhost:4200/	19/03/2024	-
AM Asp.net MVC	215c45ae-6422-47e1-96cb-13600...	50c4656d-8e56-44f8...		14/03/2024	-
NP New Project for MFA	92565b51-5092-4853-8ac4-7cae1...	fa0521c4-df20-42f1...		27/03/2024	-
T TestAuthentication	eef3385b-e129-4d5f-a0cd-ecbcc4...	522956b1-f001-41d...		20/03/2024	-

After Creation of the new project it will going to dispaly under the all application section

By clicking the "New Project for MFA" you will get an overview with detailed properties of selected projects.

Home > Enterprise applications | All applications >

New Project for MFA | Overview

Enterprise Application

Properties

Name: New Project for MFA

Application ID: fa0521c4-df20-42f1-be69-6...

Object ID: 92565b51-5092-4853-8ac4-...

After clicking on the new application you will get this dialogue box under the overview Section. Application ID needs to get copied

Getting Started

1. Assign users and groups

Provide specific users and groups access to the applications

Assign users and groups

2. Conditional Access

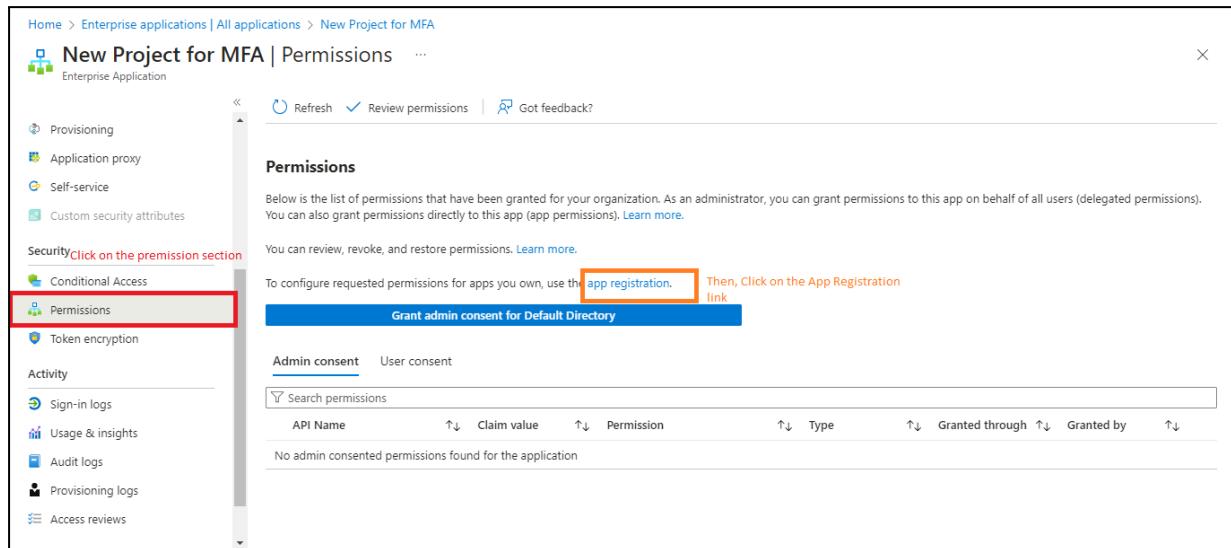
Permissions

In summary, the "Permissions" option in Microsoft Azure AD is essential for managing access control, defining permissions, configuring role-based access, and ensuring

Let Us Build Your Product!



security and compliance across Azure AD resources, applications, and services. It provides administrators with the tools and controls needed to effectively govern identity and access management within their organization's Azure environment.



The screenshot shows the 'Permissions' section of the Azure portal for a new project named 'New Project for MFA'. The 'Permissions' link in the left sidebar is highlighted with a red box. A tooltip above the main content area points to the 'app registration' link, which is also highlighted with an orange box. A blue button at the bottom of the page is labeled 'Grant admin consent for Default Directory'.

API Permissions

In summary, API permissions play a crucial role in access control, security, compliance, resource management, and integration within Microsoft Azure. By accurately defining and managing API permissions, organizations can ensure secure and controlled access to resources, protect sensitive data, and maintain compliance with regulatory requirements.

Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | 12

The screenshot shows the 'New Project for MFA' application in the Azure portal. The left sidebar has 'API permissions' highlighted with a red box. The main area shows a table of configured permissions for Microsoft Graph, with one row for 'User.Read'.

API / Permissions name	Type	Description	Admin consent requ...	Status
User.Read	Delegated	Sign in and read user profile	No	...

Certificates & secrets

- Application Secrets: When registering an application in Azure AD, you can generate client secrets (passwords) or use certificates for authentication. These secrets are used by the application to authenticate with Azure AD and obtain access tokens for accessing secured resources.
- Certificate-Based Authentication: Instead of using client secrets, applications can authenticate with Azure AD using client certificates. This involves registering the application with Azure AD and uploading the public key of the certificate to the application registration.

The screenshot shows the 'Certificates & secrets' section for the 'New Project for MFA' application. Step 1 highlights 'Certificates & secrets'. Step 2 highlights 'Client secrets (0)'. Step 3 highlights the 'New client secret' button. Step 4 highlights the 'Add a client secret' dialog with 'Description' set to 'New Project For MFA' and 'Expires' set to '545 days (18 months)'. Step 5 highlights the 'Add' button.

Let Us Build Your Product!



The screenshot shows the 'Certificates & secrets' tab in the Azure portal. A client secret named 'New Project For MFA' has been created. The 'Value' field for this secret is highlighted with a red box.

Description	Expires	Value	Secret ID
New Project For MFA	23/09/2025	ZUy8Q~AdiEVtar60jf3hKbCQfb3~5xcN36W3vbLj	ff54551b-3d1a-416a-818d-2680...

Expose an API

In summary, exposing an API in Microsoft Azure empowers organizations to create scalable, interoperable, and extensible solutions, foster developer ecosystems, and unlock new business opportunities by providing controlled access to their services and data

The screenshot shows the 'Expose an API' section in the Azure portal. A 'Add a scope' dialog is open, with the 'Scope name' field highlighted by a red box. Other fields like 'Who can consent?' and 'Admin consent display name' are also visible.

Let Us Build Your Product!



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

Adding a scope here creates only delegated permissions. If you are looking to create application-only scopes, use 'App roles' and define app roles assignable to application type. [Go to App roles.](#)

+ Add a scope [Copy the Scopes ID](#)

Scopes	Who can consent	Admin consent display name...	User consent display name...
api://fa0521c4-df20-42f1-be69-612e47a03613/NewProjectForMFA	Admins and users	NewProjectForMFA	NewProjectForMFA

Authorized client applications

Home > New Project for MFA

New Project for MFA | API permissions

First, click on the API permission

Search Refresh Got feedback?

- Overview
- Quickstart
- Integration assistant
- API permissions**
- Expose an API
- App roles
- Owners
- Roles and administrators
- Manifest

Configured permissions

The "Admin consent required" column indicates whether admin consent is required for the permission. The "Last updated" column shows when the permission was last modified.

Starting November 9th, 2020 end u

1. The "Admin consent required" column indicates whether admin consent is required for the permission. The "Last updated" column shows when the permission was last modified.

2. Click on the Add a permission button.

+ Add a permission Grant admin consent

API / Permissions name	Description	Last updated
Microsoft Graph (1)	User.Read	Nov 9, 2020

To view and manage consented permissions, click on the link below.

Request API permissions

Select an API 3. Click on the organization uses

Microsoft APIs APIs my organization uses My APIs

Apps in your directory that expose APIs are shown below

New

Name	Application (client) ID
New Project for MFA	fa0521c4-df20-42f1-be69-612e47a03613
New web API	cec508e8-b896-459c-9270-63cfb6acd081

Let Us Build Your Product!



Request API permissions

What type of permissions does your application require?

Delegated permissions
Your application 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 permissions

Start typing a permission to filter these results

Permissions (1) Select the project where you need to add the permission

Permission	Admin consent required
NewProjectForMFA ⓘ NewProjectForMFA	No

Click on the Add permission button

Add permissions Discard

Let Us Build Your Product!



The screenshot shows the 'New Project for MFA' API permissions page. A callout box highlights the 'Yes' button in the 'Grant admin consent confirmation' section, with the instruction '1. Click on the API permissions' and '2. Click on the Yes button'. Another callout box highlights the 'Grant admin consent for Default Directory' checkbox in the 'Add a permission' section, with the instruction '3. Click on the grant admin'. The table below lists permissions, with the first row being 'User.Read'.

API / Permissions name	Type	Description	Admin consent requ...	Status
User.Read	Delegated	Sign in and read user profile	No	...
New Project for MFA (1)				...
NewProjectForMFA	Delegated	NewProjectForMFA	No	...

Integration assistant

Overall, Integration Assistant in Microsoft Azure simplifies the process of designing, implementing, and managing integration solutions by offering tailored guidance, templates, configurations, and learning resources specific to your integration requirements. It empowers users to build robust, efficient, and scalable integrations that connect Azure services and external systems effectively.

The screenshot shows the 'New Project for MFA' Integration assistant page. A callout box highlights the dropdown menu 'What application types are you building?' with the instruction '3 selected' and 'Add all the details of the dropdown'. The dropdown contains several options, with 'Single-page app (SPA)' and 'Web app' checked.

Let Us Build Your Product!



Microsoft Identity platform.

* What application types are you building?

3 selected ▾

Is this application calling APIs?

Yes

Evaluate my app registration

Authentication

In summary, the "Authentication" tab in Azure AD serves as a central hub for configuring and managing authentication methods, security policies, and authentication-related settings to protect user identities, enforce access controls, and ensure secure access to Azure AD-integrated resources. It provides administrators with the necessary tools and controls to implement robust authentication mechanisms and mitigate identity-related security risks within their organization

Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | 18

Home > New Project for MFA

New Project for MFA | Authentication

Search Got feedback?

Web

Redirect URIs

The URIs we will accept as destinations when returning authentication responses (tokens) after successfully authenticating or signing out users. The redirect URI you send in the request to the login server should match one listed here. Also referred to as reply URLs. [Learn more about Redirect URIs and their restrictions](#)

https://localhost:44363/

Add URI

Front-channel logout URL

This is where we send a request to have the application clear the user's session data. This is required for single sign-out to work correctly.

e.g. https://example.com/logout

Add the logout URL

Implicit grant and hybrid flows

Save Discard

1. click on the authentication

Overview Quickstart Integration assistant Branding & properties Authentication Certificates & secrets Token configuration API permissions Expose an API App roles Owners Roles and administrators Manifest

Got feedback?

e.g. https://example.com/logout

Implicit grant and hybrid flows

Request a token directly from the authorization endpoint. If the application has a single-page architecture (SPA) and doesn't use the authorization code flow, or if it invokes a web API via JavaScript, select both access tokens and ID tokens. For ASP.NET Core web apps and other web apps that use hybrid authentication, select only ID tokens. [Learn more about tokens](#)

Select the tokens you would like to be issued by the authorization endpoint:

Access tokens (used for implicit flows) Select the details as per the required condition

ID tokens (used for implicit and hybrid flows)

Supported account types

Who can use this application or access this API?

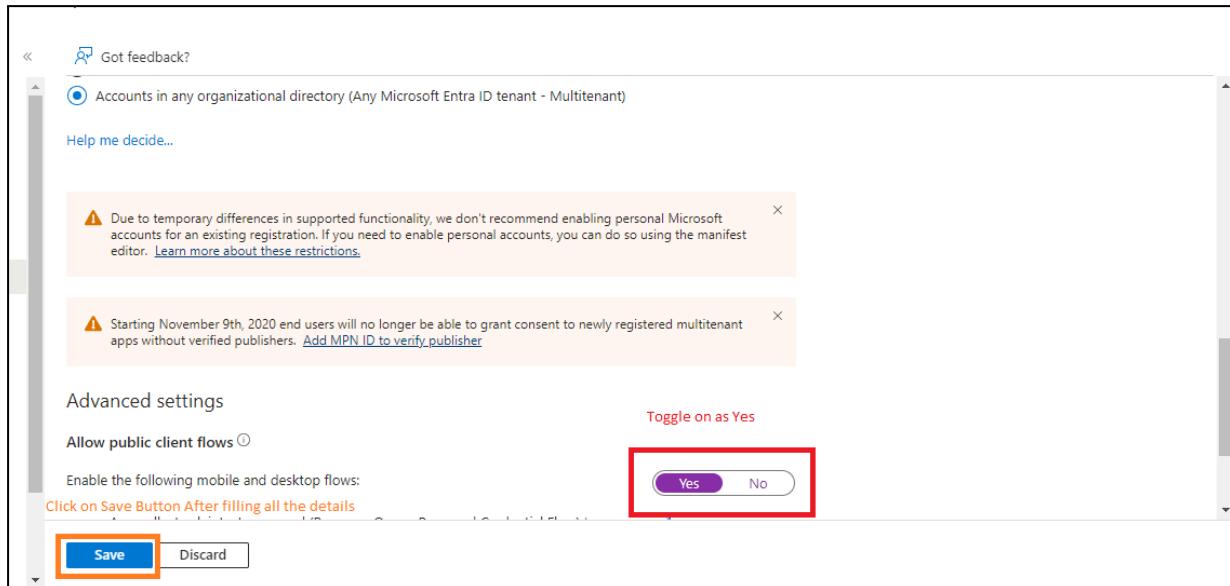
Accounts in this organizational directory only (Default Directory only - Single tenant)

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

Save Discard

Let Us Build Your Product!





API Details Summary

This document defines the flow of the MFA api service.

Login URL

For external access, Merlin gives a grant called Client Credentials (<https://login.microsoftonline.com/organizations/oauth2/v2.0/token>) that in order to make any API call it is needed to, first, retrieve an Authenticated Code and then send this code together with the API call after that we are getting the Authorization Token From the Azure After that we need to convert the JWT Token to Json Form we are comparing the Data with the Database user information.

Description	Returning the One URL which is using for login for each user.
URL	/api/userLogin
Method	Get
Header	None
URL Params	None

Let Us Build Your Product!



Query Params	Required:
Data Params	None
Success Response	Http Code: 200 OK Content: <pre>{ "URL": "https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize?&client_id=cec508e8-b896-459c-9270-63cfb6acd081&scope=user.read+mail.read&redirect_uri=https%3a%2f%2flocalhost%3a44363%2f&response_type=code&state=c9659ec7-2843-47ee-b2fd-889f60d51c26&nounce=19c4f1d2-4f09-4089-92d4-676d407a7f44" }</pre>
Error Response	Http Codes: 400 Bad Request 401 UNAUTHORIZED 403 FORBIDDEN 404 NOT FOUND 405 Method Not Allowed 408 Request Timeout 500 Internal Server

Taking Authentication Code from the front end

Description	Users will be able to search for the company details present in the Darwin system. It will return only the company's general information.
URL	/api/TakingAuthetedCode
Method	Post
Header	None
URL Params	None
Query Params	Required: Code="0.ASsAJhn59wjbFUONiBy9ZD2N XugIx6WuJxFknBjz7as0IEAAAAA.AgABA AIAAADnfolhJpSnRYB1SVj-Hgd8AgDs_w UA9P9t7ZwQ_Tdj9fu0r-VP5U1n6gldnYI G3C_eLOLdsGt-uZNOtBxmrycCPYROhk6 3rSqTkvh0GnszoTgn7F-mc2VVgjkNXAB G39EGkGtzPA62o_nGIRzLWUe74ptwsR 7DrGAK52C4MibfWd8Z25a_Mbwkm7p WCNlKNTPEu0pKKHvFzJLaQLnTQE51Z

Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | 21

	_jTXI3J8ZnFj92YXX1dh1Av3julzDXgVLG3 js7uHcINQi-sRanSRdzz3ruomrcbmY1QC e1IJrVvnXP2KmkQ1onsRjXhw-udnulo9p dPrBwewx0V2FTbLJgR3JuZkjZSWhrSSh QV7Zz14cv9DELmISEERYKd2-vYuu31kTp LVMYJJoonb5dv5ABDVUDqwnTcpeKB4t HVUXILdet489bHVXdQMsfF__5EOIWZG 4iSi3rqY4ji55riDml3g0A0SS-MKWmi-wZ PyhObo2oQNarFZJUTP9IS09I-QRNC3Gx oyaGS5lb-j7U9OMhVrDm-lbXE1ciIGXL9r onrXf5boUb8RqU6n4myD1xPgQ5ZODN 9eKWeboetTz1B_Wt1jZNf090cEkOMaB AhWB9J0g2UP3Kn1pQ_-7jcnDcTUCE5A zXe0UA_alUMbtX56vaMAAOVnVsNuwZ NJfry8Qty8HK1GRA49Ex3JEik1VdTOi58 Ouz89LY7GZXEBQL5uxGEHt31mQzm3lf V6_hT35686TTVeDtNsoa-ruW7MVSk88 UNb0hAIPLKg33AgbDy8NIpbbyKsQ"
Data Params	None
Success Response	<p>Http Code: 200 OK Content:</p> <pre>{ "aud": "api://cec508e8-b896-459c-9270-63cfb6acd081", "iss": "https://sts.windows.net/f7f91926-db08-4315-8d88-1cbd643d8d5e/", "iat": "1711545778", "nbf": "1711545778", "exp": "1711550197", "acr": "1", "aio": "AVQAq/8WAAAoMg0e8HrXBrFhKCuL+/jPs4NcV4YHweSGj8UFyEKqHXe+l1zQydnpC4k4//BMx+pN72wzgoc6To7o/ZA5JvQLw15J24N0WZ/bwtOBSoElQo=", "amr": "mfa", "appid": "cec508e8-b896-459c-9270-63cfb6acd081", "appidacr": "0", "family_name": "Kumar", "given_name": "Abhishek", "ipaddr": "118.185.182.181", "name": "Kumarkushwaha", "oid": "f5729e8d-5687-493f-9cc8-216262d90bdc", "rh": "0.ASsAJhn59wjbFUONiBy9ZD2NXuglxc6WuJxFknBjz7as0IHCAPO.", "scp": "Akash", "sub": "xbh2NmGUyFuXR6HkMtW-W55VPxAUgs5JC8OYH8BrWOk", "tid": "f7f91926-db08-4315-8d88-1cbd643d8d5e", "unique_name": "Kumarkushwaha@12333aakgmail.onmicrosoft.com", "upn": "Kumarkushwaha@12333aakgmail.onmicrosoft.com", "uti": "qc0I9hTuukK2AjbNCevYAA", "ver": "1.0" }</pre>

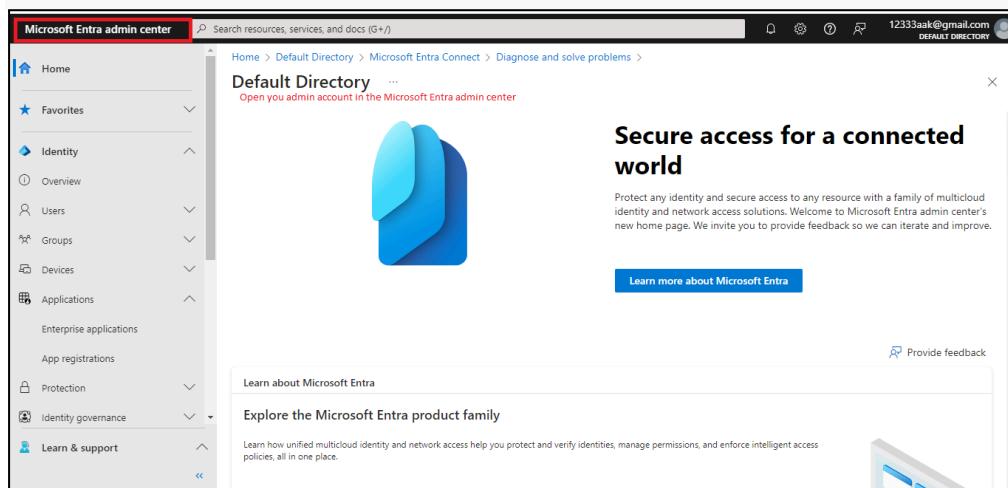
Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | 22

Error Response	Http Codes: 400 Bad Request 401 UNAUTHORIZED 403 FORBIDDEN 404 NOT FOUND 405 Method Not Allowed 408 Request Timeout 500 Internal Server
-----------------------	---

Need admin approval*Let Us Build Your Product!*

The screenshot shows the Microsoft Entra admin center interface. The search bar at the top contains the text "admin consent request". Below the search bar, the "Admin Consent Requests" option is highlighted with a red box. A tooltip "Please select this option" is displayed above the list of options. To the right, there is a sidebar with the word "connected" and a "Provide feedback" button.

The screenshot shows the "Admin consent requests" page. The search bar at the top contains the text "All (Preview)". Below the search bar, a table lists a single application entry:

Name	Application ID	Created Date	Last Updated Date
New web API	ce508e8-b896-459c-9270...	27/03/2024	30/03/2024

A note below the table says "Just click on the application id". To the right, there is a "Help" section with instructions for approving and blocking applications.

Let Us Build Your Product!



Confidential
www.tudip.com | biz@tudip.com | 24

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with navigation links like Home, App registrations, Protection, Identity governance, and Learn & support. The main area is titled 'Details' under 'Step >1'. It shows a list of users: Rohit Kumar, Akash Kushwaha (selected), Kartik, Aarti, and Bhush Vis. A red box highlights the 'Akash Kushwaha' row with the text 'Step >2 select your admin account'. Below this, there's a section for 'App details' with fields for Application name (New web API), Reply URL (https://localhost:44352/swagger, https://localhost:44352/swagger/), and Homepage URL (http://localhost:4200). To the right, there's a note about enabling access: 'This application requires an administrator to consent. Select Review permissions and consent to see what permissions are being requested and grant admin consent.' A red box also highlights this note.

Let Us Build Your Product!



Confidential
www.tudip.com | biz@tudip.com | 25

About Tudip

Tudip is an extreme Agile (Sprint planning, Daily Standups and Sprint retrospectives) 350+ engineers, CMMI Level 3 company (www.tudip.com), that has been helping clients with their product building needs across the platforms and domains. We believe in taking the clients simply stated one liner idea to develop production-ready products. This is what provides us a competitive edge over other software companies. Tudip believes in **Total Commitment to Customer Value**, and that was the premise on which Tudip was born. Tudip's core competency is to build world class customer centric products, catering to customer requirements and providing right value to customers at every phase of development.



towards its customers.

Tudip started on 5th April 2010 with a 4 people team and today we have 350+ engineers, growing every year at 100% both in terms of revenue and headcount. This success story could be possible because of the complete dedication and total commitment of Team Tudip

We work on cutting edge technologies. We believe cookie-cutter solutions don't work for clients. Each client has its own personalized requirements and one cannot suggest any solution or technology because of one's own familiarity with it. Detailed technical analysis is taken place by Tudip technocrats who are not technology fanatics, but are technology evangelists. We are always suggesting the technology which best suits the client's business and product requirements, and not necessarily the popular or most available technology.

What makes Tudip unique is its approach to solve the client's business problems. It is agile like a startup but has the processes of a well established giant enterprise. This is the unique combination we bring to the table, not found in most other development companies.

Tudip has a track record of developing more than 100 products over a period of 9 years. Clients of Tudip are mostly based out of the US and Europe. Few renowned clients of Tudip are **Google, PaloAltoNetworks, BrightSide etc.** Few well-known startups Tudip is helping are **Livongo, TV2, Innit, etc.**

Few quick insights about Tudip can be viewed [here](#). Tudip has been featured in multiple magazines such as Silicon India, Insight Success, CEO Magazine etc. Tudip is also a member of NASSCOM (Nasscom is the premier organisation that represents and sets the tone for public policy for the Indian software industry). Also, we are an ISO 9001 and 27000 certified.

Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | **26**

Our Clients

Niche Start Ups
Small and Medium
Enterprises
Large Enterprises

30+
Happy and
Active Clients



Awards and Accolades



Let Us Build Your Product!



Confidential

www.tudip.com | biz@tudip.com | **27**