



Setting up a Microsoft Azure ICR Account

For use with Remark® Office OMR

Remark Office OMR includes an ICR feature that utilizes Microsoft's Computer Vision ICR engine. In order to use ICR in Remark, you will need a Microsoft Azure account. The following document outlines how to set up the Azure account as well as how to port the information to Remark Office OMR.

Step 1: Create an Azure Account

Go to <https://azure.microsoft.com/en-us/services/cognitive-services/computer-vision/>.

Enter basic information to get started. You will also need a Microsoft account if you do not have one.

A screenshot of the Microsoft Azure 'Your profile' form. The form is titled 'Your profile' and has an upward-pointing arrow. It contains several input fields: 'Country/Region' with a dropdown menu showing 'United States' and a help icon; 'First name' with a text input field and a red error message 'This field is required'; 'Last name' with a text input field and a red error message 'This field is required'; 'Email address' with a text input field and a help icon, and a red error message 'This field is required'; and 'Phone' with a text input field containing 'Example: (425) 555-0100'. Below the fields is a blue 'Next' button. At the bottom, there is a section for 'Identity verification by phone' with a downward-pointing arrow. The background of the form is dark grey with the Microsoft Azure logo in the top left corner.

Step 2: Verification

Verify your identity with a text or phone call.

Your profile ∨

Identity verification by phone ∧

A text or phone call helps us make sure this is you.

Country code

Phone number

Verification code

Identity verification by card ∨

Agreement ∨

Step 3: Payment Information

Enter credit card information (it's free to start and they will contact you after the trial to ensure you want to continue in a pay as you go fashion).

Identity verification by card ∧

We'll make a temporary authorization on this card, but **you won't be charged unless you upgrade.**

We accept the following cards:


Cardholder Name

Card number

Expires
MM YY

CVV
 [What is a CVV?](#)

Address line 1

Address line 2 (Optional)

City

State

ZIP code

Country/Region

Step 4: Agreements

Agree to the customer agreement and privacy agreement. You may optionally choose to share information with Microsoft. Your account is then created.

Your profile ▼

Identity verification by phone ▼

Identity verification by card ▼

Agreement ▲

I agree to the [customer agreement](#) and [privacy agreement](#).

I will receive information, tips, and offers about Azure and other Microsoft products and services.

I would like Microsoft to share my information with select partners so I can receive relevant information about their products and services.

[Sign up](#)

Step 5: Establish Computer Vision

Once the account is set up, go to the Search bar and type Computer Vision. Select **Computer Vision** from the list.

The screenshot shows the Azure search interface with the search bar containing 'computer vision'. The search results are categorized into Services, Marketplace, Resources, Documentation, and Resource Groups. The 'Computer Vision' service in the Marketplace section is circled in red. Below the search results, there are suggestions for searching in Activity Log and Azure Active Directory, and a link to change subscriptions.

Step 6: Set up your Computer Vision

You can personalize the computer vision to your own liking. You will need to enter a **Resource Group Name**, your **Region** and a **Name**. The Name will become part of your end point URL (used in Remark), so it's best to keep it simple. Then choose your pricing tier. You will probably want to start with the free tier to see how it all works.

Create Computer Vision ...

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Boost content discoverability, accelerate text extraction, and create products that more people can use by embedding vision capabilities in your apps. Use visual data processing to label content (from objects to concepts), extract printed and handwritten text, recognize familiar subjects like brands and landmarks, and moderate content. No machine learning expertise is required. [Learn more](#)

Project details

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

Subscription * ⓘ Azure subscription 1

Resource group * ⓘ (New) ICR
[Create new](#)

Instance details

Region * ⓘ East US

Name * ⓘ gravicicr ✓

Pricing tier * ⓘ Free F0 (20 Calls per minute, 5K Calls per month)

[View full pricing details](#)

Click the **Next: Virtual Network** button.

Step 7: Virtual Network

Choose the default to allow all networks, including the internet to access this resource.

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 Configure network security for your cognitive service resource. 

Type *

- All networks, including the internet, can access this resource.
- Selected networks, configure network security for your cognitive service resource.
- Disabled, no networks can access this resource. You could configure private endpoint connections after resource creation. It will be the exclusive way to access this resource.

Click the **Next: Tags** button.

Step 8: Enter Tags (Optional)

If desired, enter tags to help you categorize resources. This is a personal preference and not required to use ICR with Remark Office OMR.

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Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name ⓘ	Value ⓘ	Resource
<input type="text"/>	: <input type="text"/>	Cognitive Services

Click the **Next: Review and Create** button.

Step 9: Create the Computer Vision

If everything looks good, click the **Create** button. Your deployment will take a minute or so to complete and then you will see the following confirmation:

The screenshot shows the Azure portal interface for a deployment. At the top, the deployment name is "Microsoft.CognitiveServicesComputerVision-20210309153426" with an "Overview" link. Below the name is a search bar and a row of action buttons: Delete, Cancel, Redeploy, and Refresh. A navigation pane on the left lists "Overview", "Inputs", "Outputs", and "Template". The main content area features a purple feedback banner, a green checkmark icon, and the text "Your deployment is complete". Below this, deployment details are listed: "Deployment name: Microsoft.CognitiveServicesComputerVision-20...", "Subscription: Azure subscription 1", and "Resource group: ICR". The start time is "3/9/2021, 3:46:58 PM" and the correlation ID is "750a5a7a-f1e2-450c-8520-42cc74f15fdc". There are expandable sections for "Deployment details (Download)" and "Next steps", with a blue "Go to resource" button at the bottom.

Step 10: Get the API Key and Endpoint

Look on the left side of the screen and click **Keys and Endpoint**.

The screenshot shows the left-hand navigation pane of the Azure portal. At the top, the breadcrumb is 'gravicicr | Quick start' with 'Cognitive Services' below it. A search bar is present with the text 'Search (Ctrl+/)'. The navigation items are as follows:

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- RESOURCE MANAGEMENT
- Quick start
- Keys and Endpoint** (circled in black)
- Pricing tier
- Networking
- Identity
- Billing By Subscription
- Properties
- Locks
- Monitoring
- Alerts
- Metrics

Large blue numbers 1, 2, and 3 are overlaid on the right side of the navigation pane, with horizontal lines extending from them to the right. Number 1 is next to 'Overview', number 2 is next to 'Diagnose and solve problems', and number 3 is next to 'Networking'. The 'Keys and Endpoint' item is highlighted with a black oval.

You should see a screen similar to the following:

Regenerate Key1 Regenerate Key2

i These keys are used to access your Cognitive Service API. Do not share your keys. Store them securely— for example, using Azure Key Vault. We also recommend regenerating these keys regularly. Only one key is necessary to make an API call. When regenerating the first key, you can use the second key for continued access to the service.

Show Keys

KEY 1
..... 

KEY 2
..... 

Endpoint

Location 
 

Step 11: Enter Information in Remark Office OMR

In the Remark Office OMR Data Center, click **Tools | Preferences | Cloud Add-ons**.

Application Preferences

- General
- Folders
- Display
- Email
- Speech
- Data
- Updates
- Images
- Cloud Add-ons**

Cloud Based Text Recognition Providers

Remark Office OMR integrates directly with several cloud based engines to provide recognition of both typewritten (OCR) and handwritten (ICR) text. Note: ICR tends to be less accurate than OCR.

Microsoft Cloud Vision (separate subscription required)

Microsoft's AI based recognition has little to configure, but does well with both type written text and unconstrained handwriting like essays and short answers. It also performs reasonably well with constrained ICR regions.

Endpoint URL:

Subscription Key: [Learn more](#)

Save a trace log

Enter your **Endpoint URL** and **Subscription Key 1** from the screen above. (Note that you can either copy the key and paste it in Remark or click the Show Keys button and type it.)

Click **Apply** and then **OK**.

You have enabled ICR within Remark Office OMR. You can now add ICR regions to your templates, as well as utilize Microsoft's Computer Vision OCR engine. Please see the Remark Office OMR User's Guide for detailed information about creating and using ICR regions.