

BUI Security Assessment Toolset

Summary:

The following document outlines the necessary steps for enrolling the BUI Security Assessment tool into an Azure Tenant. As of March 2023, this tool provides the capability to perform two assessments at no cost:

MFA Check:

- a) This assessment evaluates the multi-factor authentication (MFA) status of all user accounts that have access to an Azure Subscription.
- b) The report generated will include the MFA status of any user with subscription access, regardless of their level of access. MFA is a potent technology that can enhance the security of your Azure environment by strongly authenticating users.

VM Remote Access Check:

- a) This assessment evaluates all deployed Virtual Machines and identifies which machines are directly accessible over the internet using management ports (e.g., TCP 22, 3389).
- b) The report will list the resources that have access granted to them for Remote control, including Remote Desktop and SSH.

As of April 2023, the assessment tool now includes two additional assessments for a few of 5 USD per/month:

TLS Assessment:

- This assessment will assess several Azure Resource types and indicate whether they are configured with encryption in transit and whether they are using the latest supported TLS version for a particular resource.

Remote Access Exposure:

- This assessment will assess several Azure Resource types and indicate whether they are publicly accessible from the Internet.

Prerequisites:

The user Enrolling the tool, needs to have the appropriate level of access to the Azure Tenant that the tool will assess. This effectively means that each Azure Tenant needs the BUI Assessment tool enrolled separately.

The minimum required permissions to perform an assessment are:

- For MFA Check:
 - "Global Reader" in Azure AD
 - "Reader" access on the Azure Subscriptions
- For the VM Remote Access Check:
 - "Reader" access on the Azure Subscriptions
- TLS Assessment:
 - "Reader" access on the Azure Subscriptions
- Remote Access Check:
 - "Reader" access on the Azure Subscriptions

Location:

The BUI Security Assessment tool can be enrolled via the Microsoft Azure Marketplace, on the following URL:

[Microsoft Azure Marketplace](#)

How to Enrol

The below picture shows how to enrol this tool.

Products > BUI Cloud Assessment



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BUI Cloud Assessment

The BUI Cloud Assessment SaaS Solution allows you to assess the security posture of your Azure Environment. The solution gives visibility into potential misconfigurations, which puts your cloud environment at risk. By gaining visibility into security misconfigurations, you can proactively mitigate and address vulnerabilities.

This solution is for any business that have workloads running on Azure.

Current Assessments include:

- **MFA Assessment:** This assessment will assess the MFA status of all user accounts that have access to any Azure Subscription.
- **VM Remote Access Exposure:** This assessment will assess all Virtual Machines deployed and indicate which machines are directly accessible over the internet using management ports, i.e. TCP 22, 3389

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[Sample BUI](#)

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Pricing information

Price varies

Categories

Security

Support

Support

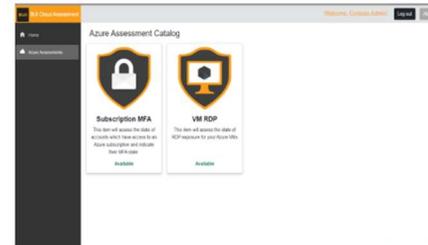
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You will be redirected to [Portal.Azure.com](https://portal.azure.com)

Azure Enrollment

Simply Click Subscribe, note pricing tier is set to "Free"

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

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Media



Create a Resource Group for the BUI Assessment Tool

Microsoft Azure Search resources, services

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Fill out the plan details. After you've finished subscribing, configure your SaaS account on the publisher's website to complete the process.

Project details

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

Subscription *

Resource group *
[Create new](#)

Resource group location *

SaaS details

Name *

Plan

Free - 1-year subscription

This plan comes with completely free assessments:

- MFA Assessment
- VM Remote Access Assessment

[Change plan](#)

Billing term

Price/payment frequency

Subtotal

Recurring billing On Off

Step 1:

Create new – Resource Group – Any Name can be used.

Step 2:

Select and Azure Region – Any Region can be Selected.

Step 3:

Step 3: Give a name to your Resource Group – You can choose your own name.

Step 4: - Press Next and Select Tags if needed, if not select "Next" .

Final Step to Subscribe

The BUI Cloud Assessment Tool is free of charge. However, if additional services are needed, they can be obtained through paid services. This document solely outlines the usage of the assessment tools that are free of cost,

* Basics Tags [Review + subscribe](#)

Product + plan details
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payment method for the fees associated with my use of the offerings, including applicable taxes, with the same billing frequency as my Azure subscription, until I discontinue use of the offerings. (j) agree that Microsoft may share my contact information and transaction details (including usage volume associated with the offering) with the sellers of the offerings so that they can contact me regarding this product. Microsoft does not provide rights for third-party products or services, and (d) agree to the additional [Azure Marketplace Terms](#).

Contact details

Name

Email address

Primary phone number

Basics

Subscription	Pay-As-You-Go
Resource Group	SecurityCheck
Name	MFAandSecurityReview
Plan	Free
Billing term	1-year subscription
Price/payment frequency	\$0.00/month
Subtotal	\$0.00 for 1 year
Recurring billing	Off

After subscribing, remember to configure your SaaS account on the publisher's website.

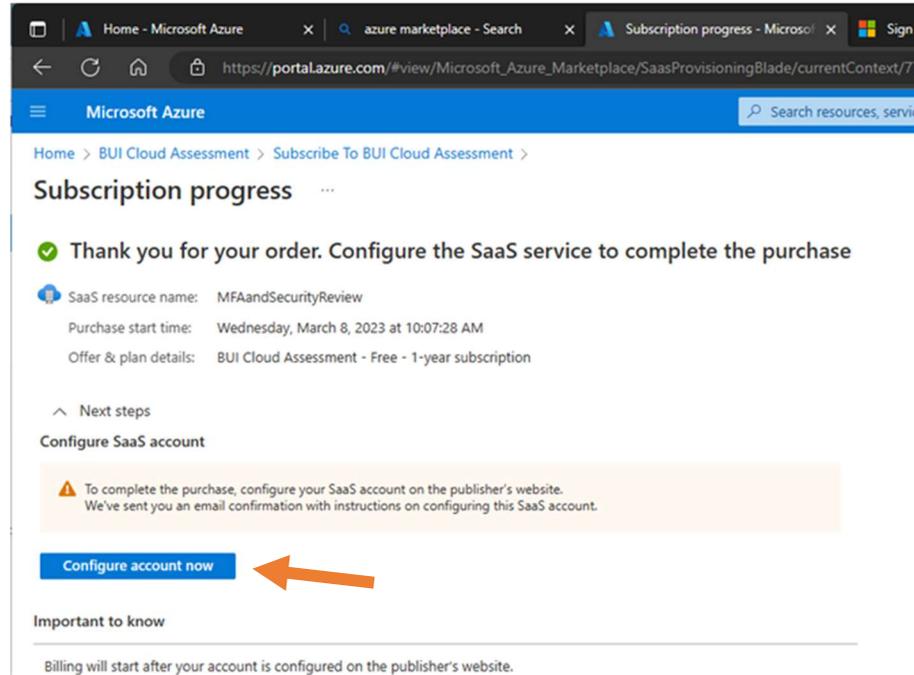
[Subscribe](#) [Previous Tags](#) [Next >](#)

As above - Click Subscribe

Note: this tool is “Zero Cost” and has no monetary value attached and can be used as such.

Enrolment Completed:

Press “Configure account now,” this will redirect you to the final page to activate the Assessment Tools.



Final Step:

Home

SUBSCRIPTION DETAILS

Customer Email	admin@[REDACTED]
Customer Name	[REDACTED] Admin
ID	f5eb53dd-[REDACTED]
Name	saas05
Status	PendingFulfillmentStart
Plan	cloud_assessment_free
Purchaser Email	admin@[REDACTED]
Azure Tenant ID	2c797364-[REDACTED]
Contact Email *	<input type="text"/>

[Activate](#)

This final step will activate the subscription and an email will be sent to your email address if the account you used has a valid email address. Since not all accounts have a valid mailbox, you will need to provide a valid "Contact Email" address and then click "Activate".

After activation the solution can be accessed in one of three ways:

- By navigating directly to the solution:

<https://cloudmanage.bui.co>

- By navigating to the BUI SaaS Portal (<https://saasportal.bui.co/>), signing-in and then clicking the relevant button (**Access Application**) which will take you to your purchased\subscribed solution:

SUBSCRIPTIONS

Name	Plan	Quantity	Status	Access Application	Action
saas-test02	cloud_assessment_free	N/A	Subscribed	Access Application	☰

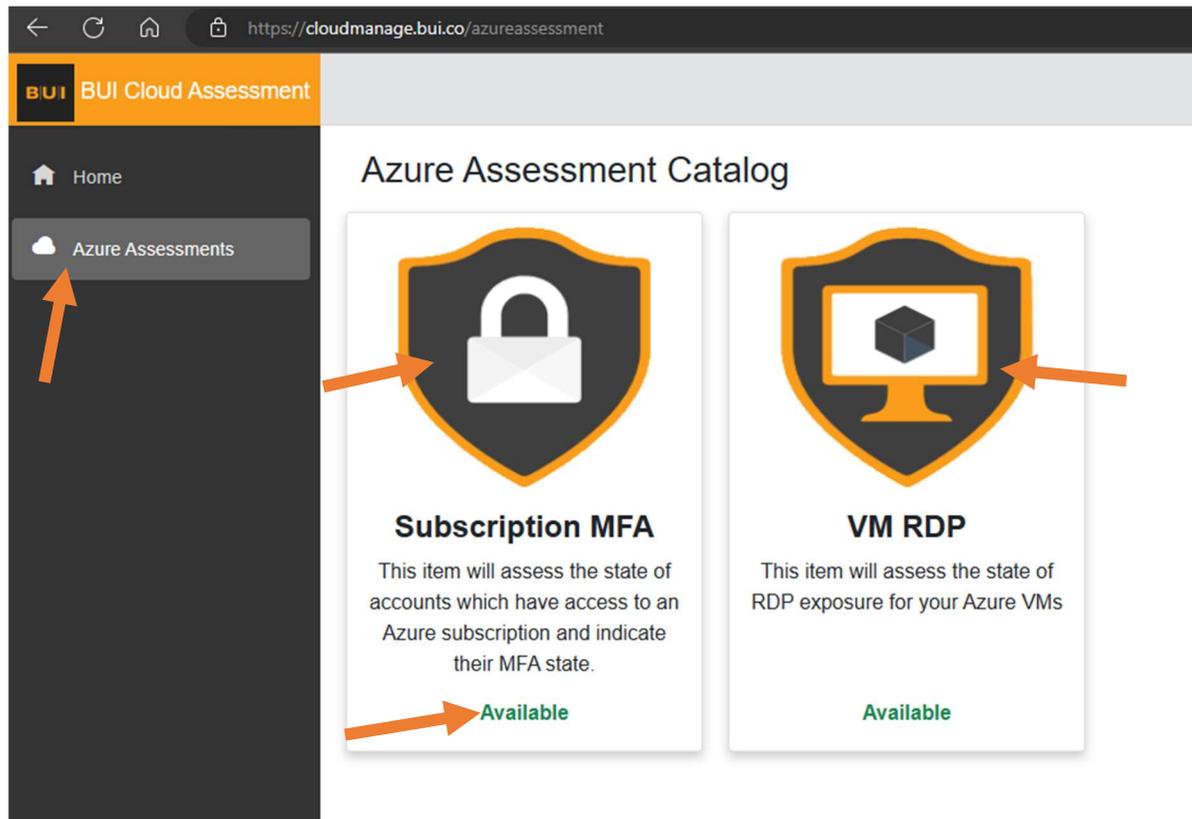
- By waiting for the email confirming subscription activation and then selecting “Access Application”. This email should be like the sample below and will be emailed to your registered email address:



How to use the Tool

This Toolset uses the Security rights of the logged in user and all scanning happens in the context of the logged in tenant. The minimum required rights are described [here](#).

Navigate to: <https://cloudmanage.bui.co>



To view which assessments are available to you,

Click on the **Security Assessments** tab, and then “Start Assessment”. This will initiate the assessment.

Azure Subscription MFA Assessment

Assessing



Querying User MFA Details

```
08/03/2023 10:22:51 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:22:53 Querying subscription BUI-Robotic Process Automation for Role Assignments
08/03/2023 10:22:54 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:22:55 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:22:56 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:22:57 Querying subscription Azure Tutorials for Role Assignments
08/03/2023 10:22:59 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:23:00 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:23:01 Querying subscription Visual Studio Enterprise Subscription - MPN for Role Assignments
08/03/2023 10:23:02 Querying Effective Role Assignments
08/03/2023 10:23:06 Querying User MFA Details
08/03/2023 10:23:06 Querying MFA State for Principal: f53ba2f8-89e2-4c94-a34d-6707f096e20
```

Note: If you have been enrolled for the BUI Assessment Tools, via the Azure Marketplace previous steps you will see in Green the word “**Available**”

Note: This may take several minutes depending on the number of subscriptions your user has access to, the results will look similar to the below screenshots, and are easily copy and pasted into excel as required.

Azure Subscription MFA Assessment

Refresh Assessment

Tenant Level MFA Settings

Tenant Id	Security Defaults	AZ MFA via Conditional Access	Effective MFA Status
[Redacted]	Disabled	Enabled	Enabled

MFA is applied on a Tenant Level for Azure Management using Conditional Access.

* NOTE: Due to API Limitations the assessment assumes MFA is not enforced via Legacy means.

Azure User MFA Settings

User Display Name	User Name	MFA Registered	Subscription Name	Subscription Id	MFA Effective Status
[Redacted]	[Redacted]	Yes	[Redacted]	[Redacted]	Enabled
[Redacted]	[Redacted]	Yes	[Redacted]	[Redacted]	Enabled
[Redacted]	[Redacted]	Yes	[Redacted]	[Redacted]	Enabled
[Redacted]	[Redacted]	Yes	[Redacted]	[Redacted]	Disabled

1. First section shows the Tenant MFA Settings
2. The above image depicts the results of the Azure MFA assessment, it has been colour coded in the above example MFA is enabled and this tenant and its subscription have MFA enabled

Green = Enabled

Yellow = Not enabled or not needed

Red = Disabled this is an issue which needs to be resolved.

Blue = Redacted information for this example.

Per User MFA = Account which are using Legacy MFA, these should be moved for Security Baseline or Conditional access.

FAQ

Issue – Error when enrolling application in Azure Portal

1. When subscribing to the Assessment tools, it is possible to encounter an enrolment issue. The current workaround for this issue is to manually create the resource group and restart the enrolment process. By redoing the step where the resource group is selected, users can bypass this random issue. Select the newly manually created resource group and proceed with the next steps.

General assistance:

If you encounter any issues, you are welcome to email:

BUISaaSTools@bui.co

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