# Fortanix<sup>®</sup>

# User Guide

FORTANIX CONFIDENTIAL COMPUTING MANAGER – ENROLL COMPUTE NODES USING AZURE MARKETPLACE

VERSION 4.0



# TABLE OF CONTENTS

1.0		2
2.0	ENROLL COMPUTE NODE USING AZURE MARKETPLACE	2
3.0	DOCUMENT INFORMATION	9
3.1	Document Location	9
3.2	Document Updates	9

# **1.0 INTRODUCTION**

Welcome to the Fortanix Confidential Computing Manager (CCM) User Guide. This document describes how to enroll a compute node using Azure Marketplace.

# 2.0 ENROLL COMPUTE NODE USING AZURE MARKETPLACE

- 1. First, generate a Join Token using the Fortanix CCM UI. To generate your Join Token, log in to <a href="https://ccm.fortanix.com">https://ccm.fortanix.com</a>.
- Navigate to the Infrastructure → Compute Nodes menu item in the CCM UI left navigation bar and click the + ENROLL NODE on the Compute Nodes page.

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FIGURE 1: ENROLL COMPUTE NODE

3. Click **COPY** to copy the Join Token. This Join Token is used by the compute node to authenticate itself.



FIGURE 2: GENERATE TOKEN



4. Visit <u>https://azuremarketplace.microsoft.com/en-</u>

<u>us/marketplace/apps/fortanix.rte\_node\_agent</u> to create the Node Agent VM to register the compute node.

**NOTE**: Alternatively, you can also download the latest node agent software from <u>https://support.fortanix.com/hc/en-us/articles/360043407012-Fortanix-Node-Agent</u> and install it on your own machine.

5. Click the **GET IT NOW** button in the "Fortanix Confidential Computing Node Agent" page.

Microsoft Azure Marketplace Apps Consulti	g Services Hire an expert Search Marketplace	P
Products > Fortanix Confi	ential Computing Node Agent         Fortanix         Fortanix         ***** (0) Write a review         Overview       Plans         Reviews         Worker Node enables trusted compute pool for Enclave Manager powerd by Azure Confidential Computing         Node Agent is offware deployed on confidential computing infrastructure to mange the complexitors running in enclaves. The node agent is	Agent 🕫 swe for later
Support Support Help Under Microsoft Standard Contract Privacy Policy	compatible with Inclave Manager enables running containerized apps in the Intel SGX enclaves leverage Azer Condential Computing Mc. The Fortanic Confidential Computing Enclave Manager enables applications to run in confidential computing environments, wrieffs the integrity of those environments, and manages the enclave application lifecycle. The solution orchestrates critical security policies such as identity verification, data access control, and code attestation for enclaves that are required for confidential computing. Dilike other approaches, fortanix provides the Resbling to run and manage the knoadest set of applications, including estimage applications, and re- enclave-nable applications, and pre-packaged applications. Fortanic Enclave Manager is available at https://enfortanic.com/, Sign up for an account running confidential compute workloads. Learn more Fortanic Runtime Encyption Platform	

FIGURE 3: GET THE NODE AGENT

6. Click **Continue** in the pop-up window.

# ENROLL COMPUTE NODES USING AZURE MARKETPLACE

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FIGURE 4: CONFIRM CREATING APP IN AZURE

7. In the Node Agent preview page, click **Create**.

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>>	Dashboard > Fortanix Confidential Computing Node Agent (preview)		
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FIGURE 5: PROCEED TO CREATE NODE AGENT

### 8. In the Create Fortanix Confidential Computing Node Agent form (Figure 6), fill all the

necessary details.

- a. Information about the available regions can be found <u>here</u>.
- b. Information about the supported VMs can be found <u>here</u>.
- c. In the **Join Token** field, paste the join token that you generated using the Fortanix CCM UI.
- d. It is strongly recommended to use DCAP attestation as the **Attestation Protocol** while installing the node agent on azure VM.
- 9. Click the **Review + create** button to validate the node agent details.



# Create Fortanix Confidential Computing Node Agent

Basics Review + create		
Project details		
Select the subscription to manage deploye manage all your resources.	ed resources and costs. Use resource groups like folders to organize and	
Subscription * ()	Fortanix-Internal	$\sim$
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	Create new	
Instance details		
Region * 🛈	UK South	$\sim$
Learn more about the supported regio     Fortanix Confidential Computing.	ons and VM sizes for Confidential Computing. Find more information about	ď
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OS Type * (i)	Ubuntu 20.04 LTS	$\sim$
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Username * 🕕	ccm-user	$\checkmark$
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Password * ①		$\checkmark$
Confirm password *	••••••	$\checkmark$
Join Token * ①		✓
Confirm Join Token * 🕕		✓
Attestation Protocol * ①	EPID	$\checkmark$
Review + create < Previous	Next : Review + create >	

FIGURE 6: VALIDATE NODE AGENT

- 10. Wait for the validation to pass.
- 11. After the validation is successful, click **Create** to create the node agent.

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Validation Passed	
Basics Review + cr	eate
PRODUCT DETAILS	
Fortanix Confidential	Computing Node
Agent	
by Fortanix	
Microsoft Enterprise Co policy	tract   Privacy
TERMS	
By clicking "Create", I (a listed above; (b) authori with the same billing fre	) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) ze Microsoft to bill my current payment method for the fees associated with the offering(s), quency as my Azure subscription: and (c) agree that Microsoft may share my contact, usage
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### FIGURE 7: CREATE NODE AGENT

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» + ♠	Dashboard > fortanix.rte_node_ay Deployment P Search (Ctrl+/) «	gent-20201127201618   Overview ☆			
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0		FIGURE 8: NODE AGENT CREATED			



12. After the node agent is created, the compute node will be enrolled in the Fortanix CCM, you

will see it under the **Compute Nodes** overview table.

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FIGURE 9: ENROLLED NODE

**NOTE:** To know the attestation type of the node, hover on the certificate icon. The attestation type is either "DCAP" or "EPID".

# Add Labels

To control which applications are allowed to run on which nodes, we add Labels for applications and nodes in the form of "Key:Value" pairs. *Refer to <u>Application and Compute Node Policy</u>* 

# *Enforcement* for more details.

- a. **Suggested Labels** This field will show the top 10 labels that are frequently used by users of an account.
- b. Add Labels Enter the Key and Value pair and click the LABEL button to save the label. The newly created label will appear in the Labels Added field. A user can also choose an existing label from the Suggested Labels field.

# NOTE:

- A label's key and value can have a maximum of 256 characters and is **case-sensitive**.
- Some keys are reserved for internal use which are called system defined labels.
  - o Such as: 'Fortanix', 'fortanix', 'CCM, 'ccm, confidentialcomputingmanager. Or
  - {Fortanix | Fortanix | CCM | ccm | confidentialcomputingmanager | Confidentialcomputingmana
- If we are adding labels for an application, then it is mandatory to add the same labels on the node on which the application will run.
- A node can have different labels that belong to multiple applications. For example:





App1's label => Location1: Value1

App2's label => Location2: Value2

Then the Node can have labels => Location1: Value1 , Location2: Value2

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FIGURE 10: NODE LABEL

# **3.0 DOCUMENT INFORMATION**

# 3.1 DOCUMENT LOCATION

The latest published version of this document is located at the URL:

https://support.fortanix.com/hc/en-us/articles/4414187862164-User-s-Guide-Enroll-a-Compute-Node-Using-Azure-Marketplace

# **3.2 DOCUMENT UPDATES**

This document will typically be updated on a periodic review and update cycle. For any urgent document updates, please send an email to: <a href="mailto:support@fortanix.com">support@fortanix.com</a>

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