User Guide

FORTANIX CONFIDENTIAL COMPUTING MANAGER – ENROLL COMPUTE NODES USING AZURE MARKETPLACE

VERSION 4.0

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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 https://ccm.fortanix.com.

2. 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.
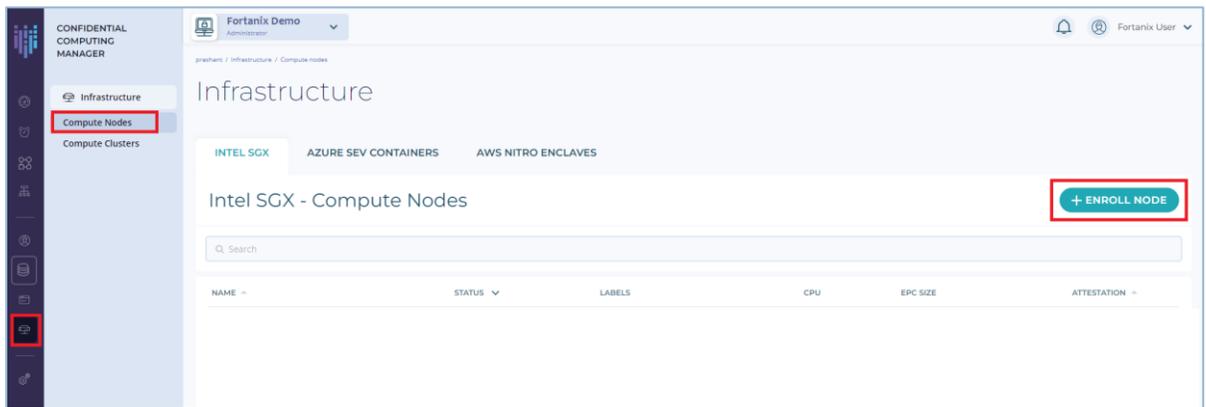
FIGURE 1: ENROLL COMPUTE NODE

3. Click **COPY** to copy the Join Token. This Join Token is used by the compute node to authenticate itself.
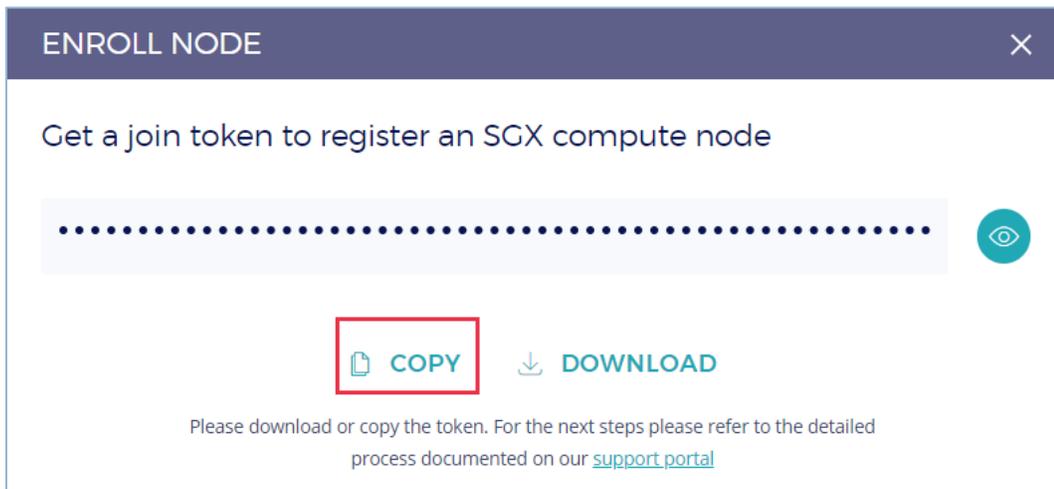
FIGURE 2: GENERATE TOKEN

4. Visit https://azuremarketplace.microsoft.com/en-us/marketplace/apps/fortanix.rte_node_agent to create the Node Agent VM to register the compute node.

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

5. Click the **GET IT NOW** button in the "Fortanix Confidential Computing Node Agent" page.
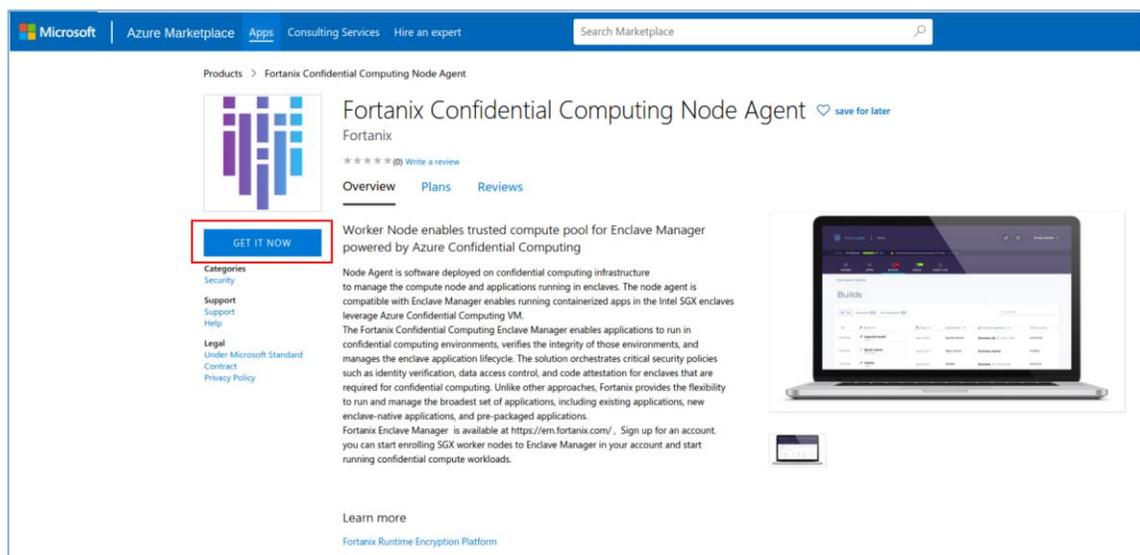
FIGURE 3: GET THE NODE AGENT

6. Click **Continue** in the pop-up window.
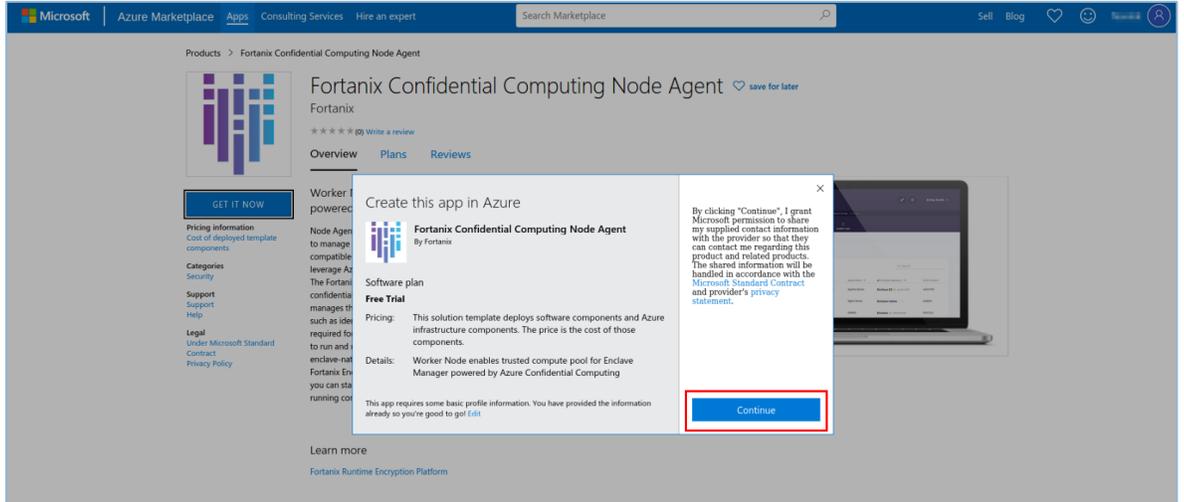
FIGURE 4: CONFIRM CREATING APP IN AZURE

7. In the Node Agent preview page, click **Create**.
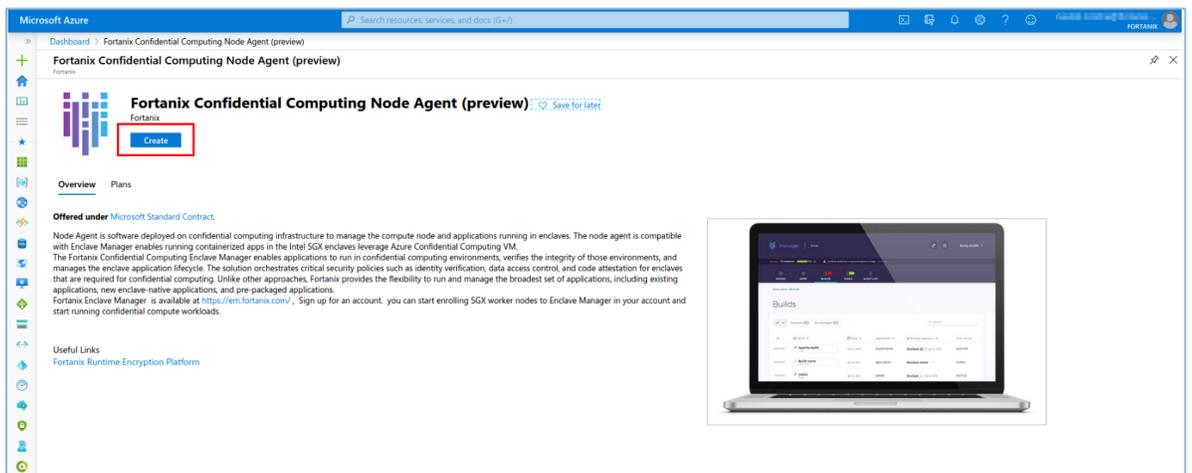
FIGURE 5: PROCEED TO CREATE NODE AGENT

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 here.

   b. Information about the supported VMs can be found here.

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

Subscription * ⓘ
| Fortanix-Internal ⌄ |

        Resource group * ⓘ
| ccm-node ⌄ |

Create new

Instance details

Region * ⓘ
| UK South ⌄ |

> ⓘ Learn more about the supported regions and VM sizes for Confidential Computing. Find more information about Fortanix Confidential Computing. ⬈

VM Size * ⓘ

1x Standard DC4s v2
4 vcpus, 16 GB memory
Change size

OS Type * ⓘ
| Ubuntu 20.04 LTS ⌄ |

OS Disk Size * ⓘ
| 200 ⌄ |

Compute Node Name * ⓘ
| ccm-node-demo ✓ |

Username * ⓘ
| ccm-user ✓ |

Authentication type * ⓘ
   ⦿ Password
   ○ SSH Public Key

Password * ⓘ
| •••••••••••• ✓ |

Confirm password *
| •••••••••••• ✓ |

Join Token * ⓘ
| ••... ✓ |

Confirm Join Token * ⓘ
| ••... ✓ |

Attestation Protocol * ⓘ
| EPID ⌄ |

[**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.
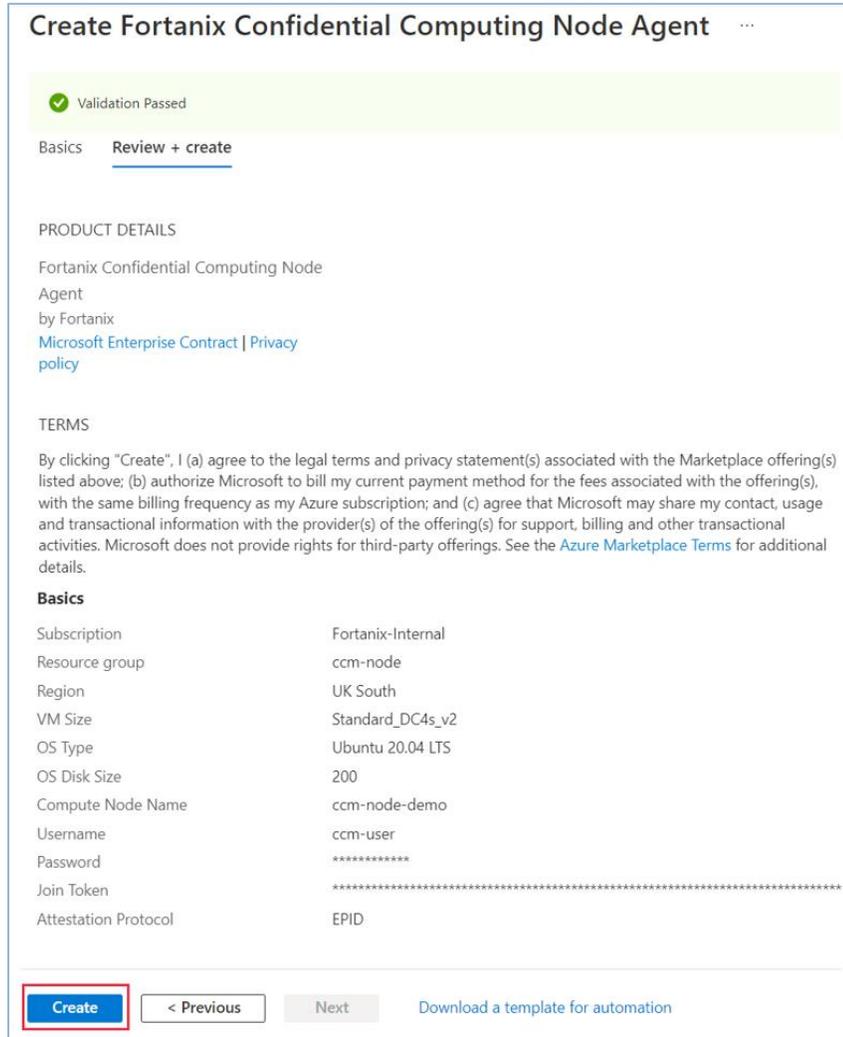
FIGURE 7: CREATE NODE AGENT
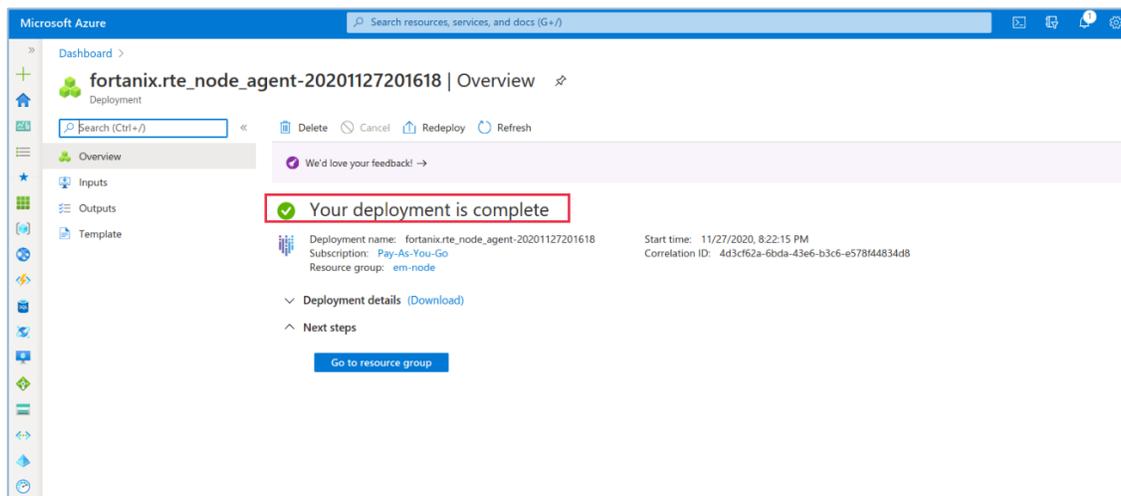
FIGURE 8: NODE AGENT CREATED

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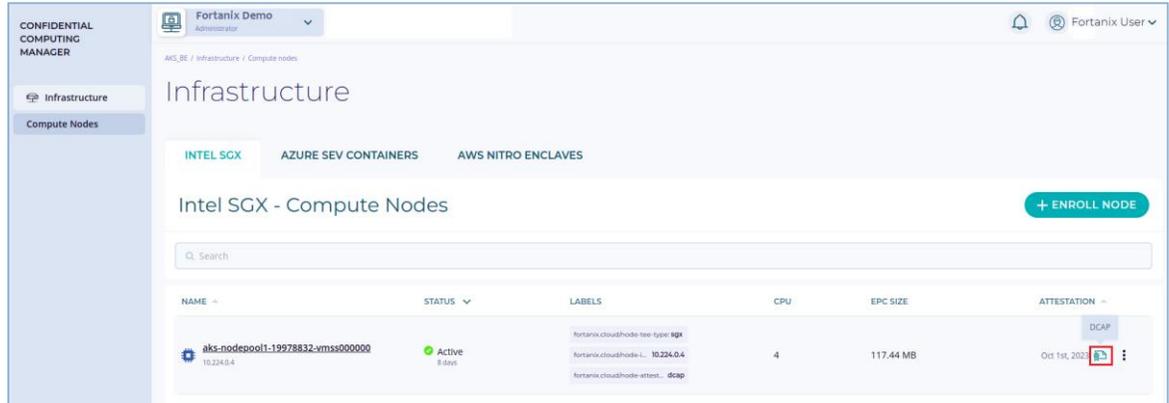
NOTE: To know the attestation type of the node, hover on the certificate icon. The attestation type is either "DCAP" or "EPID".

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 Application and Compute Node Policy 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
  - o {Fortanix|Fortanix|CCM|ccm|confidentialcomputingmanager|Confidentialcompu tingmanager}<Any_Non-Alphanumeric-Char><Any-Char>.
- 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
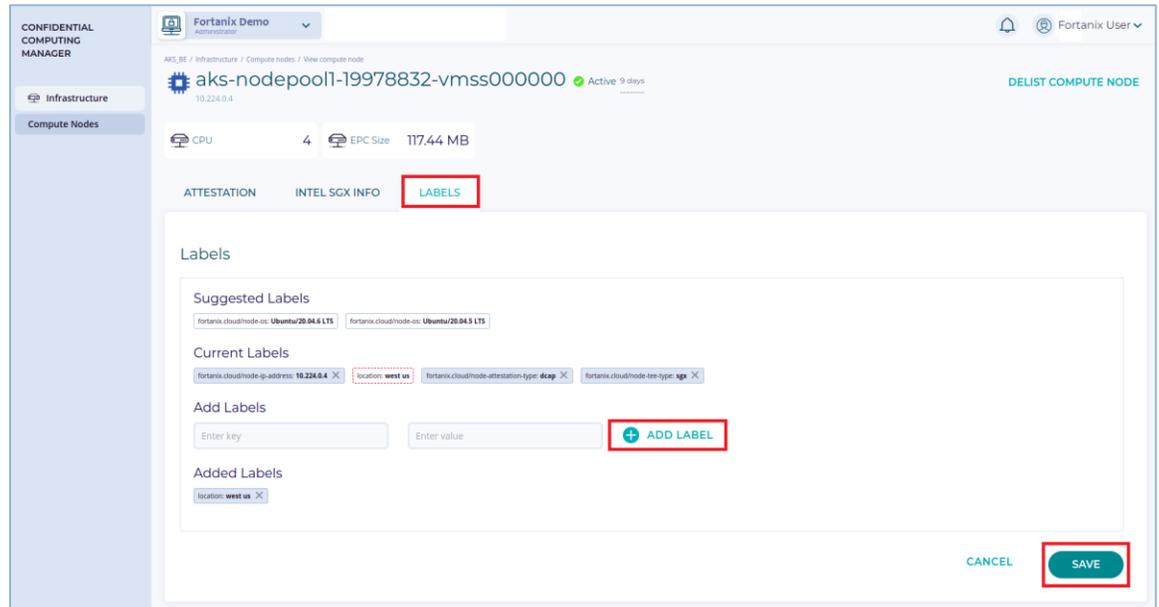
FIGURE 10: NODE LABEL

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: support@fortanix.com