Edge X 2.0 Micro + Requirements and Design – VERITIV Corporation

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The use of the term’s “partner” or “partnership” in this Document does not imply a formal, legal, or contractual partnership, but rather a mutually beneficial relationship arising from the teamwork between Customer VERITIV and its vendors.

**Document Purpose**

The Requirements and Design document contains the detailed requirements, logical overview, and detailed description of the planned implementation at a physical, communication, security level. It identifies the vendors, models, versions, releases, capacities, connections, and any other specific information required to enable infrastructure to be deployed.

**Document Control**

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**Change History**

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| **0.5** | 11/21/2023 | Pradeep Kumar N | Initial Draft as part of Elysium Project Kick off |

**Document Authorisation**

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**Document Review / Approval**

Once Sizing and Placement has been agreed to with account, the information contained in the **Error! Hyperlink reference not valid.** below must be submitted for review and approval from the Edge Internal Architecture Review Team (IRB). This step is required to ensure the proper designs, placement, and sizing as well as any issues are avoided.

This document should be copied to the [T&T IRB Teams Channel Initial Review](https://teams.microsoft.com/_#/files/Edge%20Onboarding%20-%20IRB%20(Internal%20Review%20Board)?threadId=19%3Ab3a2889d0e23453ba9c390f4fcc48f04%40thread.tacv2&ctx=channel&context=00%2520%2520Edge%2520Sizing%2520and%2520Placement%2520First-Review%2520Documents&rootfolder=%252Fsites%252FTTEdgeDeploymentandEnrollment%252FShared%2520Documents%252FEdge%2520Onboarding%2520-%2520IRB%2520(Internal%2520Review%2520Board)%252F00%2520%2520Edge%2520Sizing%2520and%2520Placement%2520First-Review%2520Documents) folder. You can also post to this folder using the [T&T IRB SharePoint](https://dxcportal.sharepoint.com/sites/TTEdgeDeploymentandEnrollment/Shared%20Documents/Edge%20Onboarding%20-%20IRB%20(Internal%20Review%20Board)/00%20%20Edge%20Sizing%20and%20Placement%20First-Review%20Documents).

This information above must be submitted for review and approval from the Edge X Architecture Review Team (IRB - Internal Review Board) as early in the process as possible. This step is required to ensure the proper designs, placement, and sizing as well as any issues are avoided.

The updated Pre-requisite document (this document), with the accounts name in the document name, should be copied to the [IRB Teams](https://teams.microsoft.com/_#/files/General?threadId=19%3A82d8efc0eaec4e54b10c179c0f4d04ee%40thread.skype&ctx=channel&context=90%2520CVA%2520Sizing%2520and%2520Placement%2520First-Review%2520Documents&rootfolder=%252Fsites%252FAMSOnboarding-InternalReviewBoardIRB%252FShared%2520Docum) or IRB SharePoint Folders. (They go to the same location) Via Teams: The updated pre-requisites document, with the accounts name in the document name, should be copied to the [IRB Teams](https://teams.microsoft.com/_#/files/General?threadId=19%3A82d8efc0eaec4e54b10c179c0f4d04ee%40thread.skype&ctx=channel&context=90%2520CVA%2520Sizing%2520and%2520Placement%2520First-Review%2520Documents&rootfolder=%252Fsites%252FAMSOnboarding-InternalReviewBoardIRB%252FShared%2520Docum) or [IRB SharePoint](https://dxcportal.sharepoint.com/sites/AMSOnboarding-InternalReviewBoardIRB/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2FAMSOnboarding%2DInternalReviewBoardIRB%2FShared%20Documents%2FGeneral%2F90%20CVA%20Sizing%20and%20Placement%20First%2DReview%20Documents&FolderCTID=0x012000F924D11B1C2E554FA934820A97671413) Folders. (They go to the same location)

Once a document is placed in the above folder, a workflow process kicks off notifying the Architect Review Board that a document has been submitted. The TOEL will be invited to a meeting by the Edge X Product Owner to review the submission based on the availability of the needed architects. Please make every effort to prioritize this meeting.

The assigned account TOEL is required to attend the next scheduled meeting once submitted. Optional are the assigned Regional Edge X SME, the Account Architect.

If complex network issues exist for the customers environment, an additional meeting may be scheduled if not fully covered and resolved in the initial meeting.

Once approved by the Edge X Architecture Team you can continue with deployment of the Edge X infrastructure.

All issues identified, must be mitigated prior to deployment. All rejected reviews must be resubmitted to gain approval.

Prior to submitting the Pre-Req document, please have these predecessors completed:

Hold an Edge X Kick-Off Meeting with the required audience

Review Edge X Network Requirements with the account so they can share with the client

Complete the required sections of the Edge X Pre-Req document

The “Acceptance Criteria” is the proposed implementation plan meets the current acceptable design criteria for the Edge X capability and is approved by the Edge X Architect Review Board in the IRB Meeting. The expected outcomes are an approved sizing and placement plan and all issues identified are mitigated and approved.

|  |  |  |
| --- | --- | --- |
| Document | Version | File name |
| Edge X PTM for VERITIV | 0.5 | EdgeX\_Micro+\_PTM-VERITIV |
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Document Instructions

This document is a template that is designed to allow for quick update of a PTM for Edge X 2.0. The following Instructions will facilitate a quicker template update. Once updated DELETE this section.

* Open the File -> Info -> Properties and update the Client and the Account Values. This will update fields throughout this document with the customer’s name.
* Section Instructions are highlighted in RED and is a hidden style. To see the text, the “Show/Hide” option must be turned on (CTRL + SHIFT + \*). This text will not print and can be turned off by using the same shortcut.
* The text may also be deleted if needed. The drawings in this template can be downloaded from: https://github.dxc.com/pages/Innovation-Automation/dynatrace\_documentation/onboarding/Utilities/

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Executive Summary

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## Platform X Edge X 2.0 Micro+ Overview

Platform X - Edge X 2.0 Micro+ utilizes the DXC Core Dynatrace Cluster & ActiveGates to receive events from a customer’s environment directly. This eliminates the need of an Edge within the customer’s environment.

Below represents the current PLATFORM X Edge X 2.0 Micro+ Architecture



Figure 1: + Overview

Edge X 2.0 Micro+ contains the DXC standard tools that are integrated with the PLATFORM X Core tooling within the AWS Tools VPC. The current tooling scope includes:

* Supports up to 50 managed devices. Amounts greater than 50 will require an on premise DXC Edge.
* No Event Automation / Runbook – All Incidents are handled directly in ServiceNow by SA Team.
* Managed Device Monitoring / Discovery – Dynatrace OneAgent
* Managed Agentless Monitoring – Dynatrace Active Gate

## Outstanding Issues

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXX]

The following is a list of issues that are outstanding for this solution or implementation of this solution.

|  |  |  |
| --- | --- | --- |
| ID | Issue | Comment |
| 1 |  |  |
| 2 |  |  |

Table 1: Outstanding Issues

### In Scope Components and Services

The PLATFORM X Edge X 2.0 Micro toolset in the Microsoft environment comprises of the following new Services:

|  |  |  |
| --- | --- | --- |
| Item | In SCOPE | |
| Data | Various | |
| Application | PLATFORM X Edge X 2.0 Micro+ | |
| Technology | Services | * PLATFORM X ServiceNow Instance * Managed Device Monitoring / Discovery - Dynatrace |

Table 2: New Components and Services

### Out of Scope

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXX]

|  |  |
| --- | --- |
| Item | Out of SCOPE |
|  |  |

Table 4: Out of Scope

# Architecture

The purpose of this document is to provide the Physical and Logical Design in response to the solution requirement for DXC to Edge X 2.0 Micro on premise managed device monitoring and management for Microsoft

## Edge X 2.0 Micro +

[**ONBOARDING INSTRUCTIONS**: PTM document should reflect the placement within the customer environment with network details.

In the event no such diagram exists, the one shown below can be downloaded from the Onboarding Utilities directory.]

[**ONBOARDING INSTRUCTIONS:** Copy the following table from the Design Workbook. NOTE: the sizing below is a minimal requirement, therefore it is important to place the Edge X 2.0 Micro VMs in an environment with enough resources to facilitate a 25% to 50% increase.

+ is utilized within the following patterns and guidelines.If total number of managed devices exceeds 50 or additional capabilities are required other than OneAgent monitoring, an Edge can be deployed using the small, standard, or standard+ deployment pattern.

|  |  |  |
| --- | --- | --- |
| Pattern | Scaling (Monitored Nodes) | Components |
| [Micro](https://github.dxc.com/Innovation-Automation/dynatrace_documentation/blob/main/docs/architecture/Deployment-Patterns/edgex-micro-deployment-pattern.md) + | Less than 50 | Agent based observability only Agentless observability (ActiveGate Extensions) No automation. (No EKAM)  ServiceNow Integration Required Scalability to other building blocks. |

**NOTE:**  Account may utilize the leverage Pre-Prod environment by enrolling their test managed devices to the instance directly

### Sites Supported

[**ONBOARDING INSTRUCTIONS**: Use the inventory worksheet at located at <https://github.dxc.com/pages/Innovation-Automation/dynatrace_documentation/onboarding/Utilities/> to calculate the Edge X Size Required. Copy and paste the information in the Location & Network Tab here

Delete these instructions prior to sending to the account transition team]

The following Sites have been identified and are required to communicate effectively to the DXC CORE directly

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Region** | **Location/Site** | **Country** | **State Prov / City** | **# of Devices at Site** | **Network Link Speed** | **Available Bandwidth** |
| AMS | AMS-US-Plano-PDC03-D3 |  |  | 2 |  |  |
| AMS | VRTV-US-SUWANEE-GA |  |  | 3 |  |  |
|  |  |  |  |  |  |  |

Table 5: Edge X 2.0 Micro Site Information

## Devices Supported

The following devices have been determined as in scope for Edge X 2.0 Micro monitoring.

|  |  |  |  |
| --- | --- | --- | --- |
| **Location/Type** | **Hostname** | **IP Address** | **Assigned NAT Address** |
| AMS-US-Plano-PDC03-D3 | |  | | --- | | ipdma.veritiv.net | | swxpdev.veritiv.net | |  |  |
| VRTV-US-SUWANEE-GA | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | suwhost.veritiv.net | | uwsadev.veritiv.net | | uwsaprod.veritiv.net | | |  |  |

Table 5: Edge X 2.0 Micro Hostname and NAT assignments

NOTE: The in scope ESL extract which has been agreed with the account can be found [here](https://dxcportal.sharepoint.com/:x:/r/sites/TTEdgeDeploymentandEnrollment/Shared%20Documents/Deployment%20-%20MICRO/AGCO%20Corporation%20-%20AGCO/AGCO-CI-Scope.xlsx?d=w9d9416837dd646329557852fb844ce67&csf=1&web=1&e=oK1HCE).

## Platform X CORE Instances Utilized

The following information must be captured to facilitate onboarding a customer to Edge X.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Description | Pre-Prod (STG) | Production |
| ServiceNow Instance | Edge X will communicate with ServiceNow in such that the ServiceNow instance must be known | Global Commercial-PRE-PROD | Global Commercial- PROD |
| ServiceNow Customer ID | Onboarding the customer to Edge X requires the Customer ID from ServiceNow (Domain Character Code) | VERI | VERI |
| AWS Instance | Determine what **PDXC AWS** instance is used by the customer to determine PDXC AWS communication | Global Commercial STG - AWS EU West | Global Commercial PROD - AWS EU West |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Description | Pre-Prod (STG) | Production |
| ServiceNow Name | Customer Name in ServiceNow | Veritiv Corporation | Veritiv Corporation |

Table 6: Platform X Instance Requirements

## Requirements

The solution requires that the following mandatory and optional requirements be met and understood prior to implementing / operating the solution in a production environment.

### Customer Required Provided Services

[INSERT Customer Network topology focusing on zones, such as MFG zones which are typically high security, Internet, DMZ, Separate BU zones, or site specific if separated by FW. Intent is to show all FWs in customer environment as well as in DXC]

The PLATFORM X toolset in the environment relies on the following existing defined components:

|  |  |
| --- | --- |
| SERVICE | DESCRIPTION |
| Core Service - AD | Active Directory Service required for service / user account integration for the Edge X 2.0 Micro platform and for integration with PLATFORM X.  Appropriate permissions to manage endpoints will need to be assigned to the DXC support staff, groups, and service accounts. |
| Core Service - DNS | Domain Name Space Service required for the VM platform and for integration with PLATFORM X. |
| Core Service - NTP | Network Time source required for integration for the VM platform. |
| C2SSN – Customer Perimeter Firewall | Site to site or business to business network connectivity enable DXC support of the environment via the DXC delivery network. |

Table 7: Existing Services or Components utilized

### Managed Device Requirements

The following installations are supported with the installation pattern as noted as well as minimum/typical requirements.

#### Windows Servers

The following minimal resources are required. Once installed the agent working directories are utilized.

|  |  |  |
| --- | --- | --- |
| **Description** | **Value** | **Location** |
| Memory required (Planning) | 200MB | demand well below 100MB for most applications |
| Disk Space | Utilized | Default directory |
| Size of installation (with temporary installation files removed) | 1.1 GB | %PROGRAMFILES%\dynatrace\oneagent |
| Persistent configuration | 5 MB | %PROGRAMDATA%\dynatrace\oneagent\agent\config |
| Temporary files, runtime configuration | 200 MB | %PROGRAMDATA%\dynatrace\oneagent\agent\runtime |
| Logs | 1 GB | %PROGRAMDATA%\dynatrace\oneagent\log |
| Crash reports, memory dumps | 3 GB | %PROGRAMDATA%\dynatrace\oneagent\datastorage |
| Additional space required for updates | 2.4 GB |  |
| **Total** | **7.7 GB** |  |

#### Linux Servers

The following minimal resources are required. Once installed the agent working directories are utilized.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Value** | | | **Location** |
| Memory required (Planning) | 200MB | | | demand well below 100MB for most applications |
| Disk Space | Linux (x86) | Linux (ppcle) | Linux (s390) | Default directory |
| Size of installation | ~1 GB | 410 MB | 145 MB | /opt/dynatrace/oneagent |
| Persistent configuration | ~5 MB | ~5 MB | ~5 MB | /var/lib/dynatrace/oneagent/agent/config |
| Temporary files, runtime configuration | 200 MB | 200 MB | 200 MB | /var/lib/dynatrace/oneagent/agent/runtime |
| Logs | 1 GB | 1 GB | 1 GB | /var/log/dynatrace/oneagent |
| Crash reports, memory dumps | 3 GB | 3 GB | 3 GB | /var/lib/dynatrace/oneagent/datastorage |
| Additional space required for updates | 1.9 GB | 728 MB | 226 MB |  |
| **Total** | **7.1 GB** | **5.3 GB** | **4.6 GB** |  |

### Security and Credential Requirements

No special credentials are required for Edge X 2.0 Micro. The OneAgent will be installed using a prescribed command/script will be executed on each managed device. Alternatively, if so equipped, DXC MFSA can be utilized as well.

**NOTE: There is no automation, application monitoring performed in the Edge X 2.0 Micro**, thus no special credentials are required. However as we have IBM I Series, ZOS ( AS400 ) minitoring in scope for this account and a Active Gate will be deployed as part of Micro+ deployment, any credentials for the same may be required.

##### Monitoring Credentials

The following credentials with defined access rights must be present on the managed device for database monitoring and configured on Active Gate Server to connect to the AS400 , IBM I series etc.

|  |  |  |
| --- | --- | --- |
| Type | Usage | Requirements |
|  |  |  |
|  |  |  |

The following Database Monitoring IDs have been implemented for

[**ONBOARDING INSTRUCTIONS**: Update the table below with all ids used for database monitoring. Add rows if multiple domains/environments exist with different IDs]

|  |  |  |  |
| --- | --- | --- | --- |
| **Database Type / Environment** | **Domain / Local Account** | **ID** | **Notes/Restrictions** |
|  |  |  |  |
|  |  |  |  |

Table 8: User Credentials

#### Network Security/Restricted Access Zones

internal network has functional aligned security network zones as shown and listed:

[**ONBOARDING INSTRUCTIONS**: Identify if any, DMZ, restricted customer compartments, restricted customer sites]

|  |  |
| --- | --- |
| **ZONE** | **DESCRIPTION** |
| DMZ XXXXX | VLAN XXXX secured – limited access and firewalled |
| DMZ XXXXX | VLAN XXXX secured – limited access and firewalled |
| DMZ XXXXX | VLAN XXXX secured – limited access and firewalled |
| DMZ XXXXX | VLAN XXXX secured – limited access and firewalled |

Table 9: Secured Network Zones

### Additional Requirements

[**ONBOARDING INSTRUCTIONS**:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID | REQUIREMENT | FUNCTIONAL / NON-FUNCTIONAL | DESIRABLE / MANDATORY | STAKEHOLDER | MET / NOT MET | EXPLANATION |
| 1 |  |  |  |  |  |  |

Table 10: Requirements

## Design Principles

[**ONBOARDING INSTRUCTIONS**:

|  |  |  |  |
| --- | --- | --- | --- |
| PRINCIPLE | STATEMENT | ALIGNMENT (H/M/L) | EXPLANATION |
| Remove single points of failure. | Production environment to be designed to use high availability components. | H | Only single ActiveGate used, monitoring recovery would be dependent on the ActiveGate VM recovery times |

Table 11: Design Principles

## Design Decisions

[**ONBOARDING INSTRUCTIONS**:

|  |  |  |
| --- | --- | --- |
| ID | DECISION | RATIONALE |
| DDX | Deploy Edge X 2.0 Micro+ instance as determined in Architecture Approval | Standard PLATFORM X solution requirements |

Table 12: Design Decisions

NOTE: Approval received from Account to move it to Micro from Micro+ as a temp decision. Link to email approval is [here](https://dxcportal.sharepoint.com/sites/TTEdgeDeploymentandEnrollment/Shared%20Documents/Deployment%20-%20MICRO/AGCO%20Corporation%20-%20AGCO/RE_%20Elysium%20_%20AGCO%20Corporation%20(AGCO)%20-%20EdgeX%202_0%20scope%20discussion%20and%20next%20step.msg)

## Server Naming standard

[**ONBOARDING INSTRUCTIONS**: Document or Insert Account / Customer Naming Standards link as required below]

The following naming standards are utilized in the customer environment:

|  |  |  |
| --- | --- | --- |
| Pattern | Description | Examples |
|  |  |  |
|  |  |  |
|  |  |  |

Table 13: Naming Standard

For additional information please see the Microsoft Naming Standards document here:

[<Insert](https://dxcportal-my.sharepoint.com/:b:/g/personal/rjennings5_csc_com/Ec2N-imO0aJPtPSqRcoS2woB7lma2CjYOz5lT3-EYym5oA?e=bjcnQu) DXC Account URL here>

# Physical Architecture Environment

The requires no physical components to be implemented within the account or customer environment. OneAgents are installed on the managed devices and communicate directly to the DXC Dynatrace Cluster / ActiveGate(s).



## CORE Support Services

### Component – AD Service

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXXXXXX]

DXC requires integration with the customer AD infrastructure. The following Domains are identified / utilized in this environment.

|  |  |
| --- | --- |
| AD Domain | IP Addresses – Primary/Backup |
| XXXX.XXXX.XXXXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX |
| XXXX.XXXX.XXXXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX |
| XXXX.XXXX.XXXXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX |

Table 14: AD Configuration

### Component – DNS

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXXXXXX]

Forward and Reverse name resolution is required. The following DNS service(s) are identified

|  |  |  |  |
| --- | --- | --- | --- |
| Domain | | IP Addresse(s) – Primary / Backup | Priority/ORDER |
| XXXXXXXX.XXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX | | <1,2,3> |
| XXXXXXXX.XXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX | | <1,2,3> |
| XXXXXXXX.XXXXXXXXX.net | XXX.XXX.XXX.XXX  XXX.XXX.XXX.XXX | | <1,2,3> |

Table 15: DNS Configuration

### Component – Jump Host

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXXXXXX]

A jump host is required to facilitate the ability of DXC support staff to connect to the within the customer environment. Existing capabilities can be used if an existing customer or other methods are used within the customer environment. The following jump hosts have been identified

|  |  |  |  |
| --- | --- | --- | --- |
| Server Name | IP Address | Site / Region | Notes |
| XXXXXXXXXXXXXXXX | XXX.XXX.XXX.XXX |  |  |
| XXXXXXXXXXXXXXXX | XXX.XXX.XXX.XXX |  |  |
| XXXXXXXXXXXXXXXX | XXX.XXX.XXX.XXX |  |  |
|  |  |  |  |

Table 16: Account Jump Host Information

### Component – Active Gate

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXXXXXX]

Active Gate for this account is deployed to have agents enrolled to and also have Agentless monitoring setup with extensions.

Active Gate will be configured as follows:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPONENT | DESCRIPTION | | | | | | | | |
| **Description** | PRODUCTION Edge X 2.0 Activegate | | | | | | | | |
| **Network Services** | DNS, NTP | | | | | | | | |
| **OU** | N/A | | | | | | | | |
| **Type** | Virtual | | | | **Host Platform** | | VMWare XX.XX | | |
| **RAM (GB)** | 8 | | | | **Assigned CPU** | | 4 | | |
| **Storage Allocation** | **Disk** | | **Format** | | **Purpose** | | | | **Size (GB)** |
| Partition | | VMDK | | OS Partition | | | | 100 |
| Partition: | | VMDK | | App & Data | | | | 150 |
| **Total provisioned Storage** | | | | | | | | 250 |
| **Operating System** | DXC Redhat 8.X + Patches | | | | | | | | |
|  | **Vdisk Assignment** | **Mount Point** | | **Logical Volume Name** | | **Volume Group** | |  | |
| **File System allocation** | VDisk 1 | **/** | | lvroot | | vgroot | | 10 | |
| VDisk 1 | **/opt** | | lvopt | | vgroot | | 10 | |
| VDisk 1 | **/tmp** | | lvtmp | | vgroot | | 10 | |
| VDisk 1 | **/var** | | lvvar | | vgroot | | 10 | |
| VDisk 1 | **/var/log** | | lvvarlog | | vgroot | | 5 | |
| VDisk 1 | **/var/log/audit** | | lvvaraudit | | vgroot | | 2 | |
| VDisk 1 | **/var/tmp** | | lvvartmp | | vgroot | | 10 | |
| VDisk 1 | */home* | | *lvhome* | | *vgroot* | | 2 | |
| VDisk 1 | */boot* | | *Not\_Applicable* | | */dev/sda1* | | 1 | |
| VDisk 1 |  | | *lvswap* | | vgroot | | 16 | |
| Vdisk 2 | /var/log/dynatrace | | lvapp | | vgapp | | 3 | |
| Vdisk 2 | /var/lib/dynatrace | | lvapp | | vgapp | | 103 | |
| Vdisk 2 | /var/tmp/dynatrace | | lvapp | | vgapp | | 4 | |
| Vdisk 2 | /opt/dynatrace | | lvapp | | vgapp | | 40 | |
| **Application Components** | Dynatrace ActiveGate | | | | | | | | |
| **Mgmnt Software** | Dynatrace OneAgent (Monitoring) | | | | | | | | |
| **Additional Comments** |  | | | | | | | | |
| **Account Required Services** | Backup Service Required  Patching Service Required | | | | | | | | |

Table 17: Component – Edge X Active Gate

# Network Infrastructure

[**ONBOARDING INSTRUCTIONS**: Full details of any network infrastructure included in the overall design, whether new or existing, should be included in this section. The WAN and LAN elements should be detailed separately with all links clearly identified.]

The following customer network information is provided and has been taken into consideration in this physical model.

## WAN Physical Network

[**ONBOARDING INSTRUCTIONS**: LAN information is not typically required. Include only those sites with LAN configuration that is driving the design decisions]

The following WAN information is provided noting the connectivity, link speeds and available bandwidth between sites.

[**ONBOARDING INSTRUCTIONS -** [INSERT Customer XXX LAN Diagram]

Figure 2: WAN Diagram

## Lan Physical Network

[**ONBOARDING INSTRUCTIONS**: LAN information is not typically required. Include only those sites with LAN configuration that is driving the design decisions]

The following LAN information has been taken into consideration.

[**ONBOARDING INSTRUCTIONS -** [INSERT Customer XXX LAN Diagram]

Figure 3: LAN Diagram

## Network Infrastructure Detail

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXXXXXX]

The details of the network implementation (patch panels, switches, routers) are under the control of XXXX the infrastructure provider and will implement the network in accordance with the specifications of this document.

## Bandwidth

[**ONBOARDING INSTRUCTIONS**: Network bandwidth usage can vary by customer monitoring requirements and environment. A Modeling tool is provided to give general guidelines as to typical bandwidth utilization in a run and maintain model. See the Modeler tool at: https://github.dxc.com/pages/Innovation-Automation/dynatrace\_documentation/onboarding/Utilities/. If a Model has been completed, update the link below

A network impact model has been generated for this solution and can be found at the link below.

[<Insert](https://teams.microsoft.com/l/file/69E74CC5-18B1-41DE-8677-B2A5AF30B9E0?tenantId=93f33571-550f-43cf-b09f-cd331338d086&fileType=docx&objectUrl=https%3A%2F%2Fdxcportal.sharepoint.com%2Fsites%2FCVAAcceleration%2FShared%20Documents%2FGeneral%2FEngage%2FAccount%20CVA%20Requirements%2FCVA_Deployment_PreReq_Template_v1.1.docx&baseUrl=https%3A%2F%2Fdxcportal.sharepoint.com%2Fsites%2FCVAAcceleration&serviceName=teams&threadId=19:e034db8d78bb420ebedb4c891165bfcf@thread.skype&groupId=cec60f8b-8430-40c5-8211-be1d125dc721) Link to customer specific Modeler documents>

## Firewalls

[**ONBOARDING INSTRUCTIONS**: Firewalls rules will be required within the customer and DXC Network. A firewall workbook is provided at: https://github.dxc.com/pages/Innovation-Automation/dynatrace\_documentation/onboarding/Utilities/. Update the links below to the final locations of documents

Firewall rules have been implemented to facilitate proper communication for this solution.

* A Firewall workbook has been completed outlining all required firewall ports within the environment. [Veritiv\_EdgeX-VM\_to\_Node-Micro+\_FirewallRules](https://dxcportal.sharepoint.com/:x:/r/sites/TTEdgeDeploymentandEnrollment/Shared%20Documents/Deployment%20-%20MICRO/VERITIV%20Corporation/Veritiv_EdgeX-VM_to_Node-Micro+_FirewallRules.xlsm?d=w41d5e82442a343b4b97617ec653dfb86&csf=1&web=1&e=0scvgd)

# Service Management and Delivery

[**ONBOARDING INSTRUCTIONS**: The following is provided for account specific details. Update as required using account guidelines]

## Service Management Tools

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Authenication | Remote | Capacity | Monitoring | Security |
| AD | RDP access via SSN link | PLATFORM X | PLATFORM X | Existing QUALYS implementation from DX Cyber Security Team |

Table 18: Service Management

## Data Protection Management

[**ONBOARDING INSTRUCTIONS**:

|  |  |
| --- | --- |
| Component | Description |
|  |  |

Table 19: Data Protection Management

## Disaster Recovery Management

[**ONBOARDING INSTRUCTIONS**:

|  |  |
| --- | --- |
| Component | Disaster Recovery Tool |
|  |  |

Table 20: Disaster Recovery Management

# Assumptions, Risks and Constraints

## Assumptions

[**ONBOARDING INSTRUCTIONS**: Update the table below as required per account guidelines]

The following assumptions have been taken into consideration:

|  |  |  |
| --- | --- | --- |
| ID | ASSUMPTION | CRITICALITY (H/M/L) |
| A1 |  | H |
| A2 |  | H |

Table 22: Assumptions

## Risk Register

[**ONBOARDING INSTRUCTIONS**: Update the table below as required per account guidelines]

The following risks have been identified:

|  |  |  |  |
| --- | --- | --- | --- |
| ID | RISK | IMPACT | CRITICALITY (H/M/L) |
| R1 |  |  | M |

Table 23: Risk Register

## Constraints

[**ONBOARDING INSTRUCTIONS**: Update the table below as required per account guidelines]

The following constraints have been identified:

|  |  |  |  |
| --- | --- | --- | --- |
| ID | CONSTRAINT | IMPACT | CRITICALITY (H/M/L) |
| C1 |  |  | H |
| C2 |  |  | H |
| C3 |  |  | H |
| C4 |  |  | H |

Table 24: Constraints.

# Appendix 1 – License Information

## Servers (License)

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXX]

|  |  |  |
| --- | --- | --- |
| Description | Part Number | Quantity |
| Dynatrace OneAgent |  |  |
|  |  |  |

Table 25: BoM for Edge X 2.0 Micro Build Licenses

# Appendix 2 – Monitoring Threshold Requirements

[**ONBOARDING INSTRUCTIONS**: XXXXXXXXX]

For the customer target CI types, review the Edge X Monitoring and Threshold summary which can be downloaded from the [DXC Onboarding Repository](https://github.dxc.com/pages/Innovation-Automation/dynatrace_documentation/onboarding/Utilities/) Document any identified threshold requirement adjustments needed to the Customer profiles and share with the Edge X Build team.

* Additionally, review with the account the current Edge X Tracker extract located at: **<TBD>**
* Complete Edge X Monitoring Content can be reviewed at: **<TBD>**

# Appendix 3 - Glossary of Terms

| Reference | | Description |
| --- | --- | --- |
| AD | Active Directory | |
| AED | Architecture Engagement Document | |
| AV | Antivirus | |
| AWS | Amazon Web Services | |
| Edge X 2.0 Micro | On Premise Monitoring Instance (PLATFORM X) | |
| CVM | Controller Virtual Machine (Nutanix) | |
| DC | Data Center | |
| DMZ | Demilitarized Zone | |
| DNS | Domain Name Space | |
| DR | Disaster Recovery | |
| DXC | DXC Technology | |
| ESM | Enterprise Service Management | |
| EUC | End User Computing | |
| FMO | Future Mode of Operation | |
| HA | High Availability | |
| IMO | Initial Mode of Operation | |
| LBS | Location Based Services | |
| LTM | Logical Technology Model | |
| MDE | Organizational Change Management | |
| OCM | Platform DXC (DXC’s Next Generation digital management platform) | |
| PLATFORM X | Program Manager | |
| PM | Program Management Office | |
| PMO | Recovery Point Objective (Data Loss) | |
| RPO | Recovery Time Objective (System Recovery Time) | |
| RTO | Subject Matter Expert | |
| SME | Secure Services Interface | |
| SSI | Secure Services Network | |
| SSN | Transition Mode of Operation | |
| TMO | Virtual Machine | |
| VM | Work Breakdown Structure | |
| WBS | Internet Access | |
| www | Active Directory | |

Table 26: Glossary of Terms