R6 Installation Document of IEC Type 5: Composable Integrated Edge Cloud (IEC) Server Blueprint Family

Introduction

Since DPU is PCIe-compatible device, we can further combine DPU and PCIe Networking together. In R6, we introduce a hardware layer or physical link /fabric layer between the DPU and the CPUs as below. With this layer, we extend the DPU cluster size and also use the DPU management features as well.
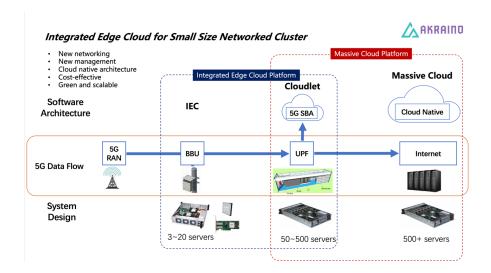
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N/A

How to use this document

this document is used to guide how to install the necessary software with the server.

Deployment Architecture

Integrated Edge Cloud for Small Size Networked Cluster

Pre-Installation Requirements

1. Hardware Requirements

- Hardware Requirements

3xarm64 server:

Arch	AARCH64
Processor model	1 x processor, each 24 x A53 cores
RAM	32GB DDR4-2400 ECC
Storage	10*2.5 inch SAS/SATA/SSD or 8*2.5 inch NVMe SSD
XPU Fabric	**1x16GbE20GT/s) PCIe Net**
Network	2x1GbE port (RJ45)
Power Supply	15watts (100~240V AC240V DC)
Scale	420 mm x 240 mm x 86.1 mm

ARM Server satisfies the Arm Server Ready certified.

2. Recommended Hardware Requirements

N/A

3. Software Prerequisites

item	comments	method
os	centos7	N/A
docker	N/A	apt-get install docker.io
swarm	N/A	docker pull swarm
portainer	N/A	docker pull portainer

4. Database Prerequisites

N/A

5. Schema scripts

N/A

6. Other Installation Requirements

N/A

7. Jump Host Requirements

N/A

8. Network Requirements

N/A

9. Bare Metal Node Requirements

N/A

10 Execution Requirements (Bare Metal Only)

N/A

Bare Metal Deployment Guide

1. Install Bare Metal Jump Host

N/A

2. Creating a Node Inventory File

N/A

3. Creating the Settings Files

N/A

4. Running

N/A

5. Virtual Deployment Guide

N/A

6. Standard Deployment Overview

N/A

7. Snapshot Deployment Overview

N/A

8. Special Requirements for Virtual Deployments

N/A

9. Install Jump Host

N/A

10. Verifying the Setup - VMs

N/A

11. Upstream Deployment Guide

N/A

12. Upstream Deployment Key Features

N/A

13. Special Requirements for Upstream Deployments

N/A

14. Scenarios and Deploy Settings for Upstream Deployments

N/A

15. Including Upstream Patches with Deployment

N/A

16. Running

N/A

17. Interacting with Containerized Overcloud

N/A

18. Verifying the Setup as defined the Akraino validation feature project plus any additional testing specific to the blue print

N/A

Developer Guide and Troubleshooting

1. Utilization of Images

N/A

2. Post-deployment Configuration

N/A

3. Debugging Failures

N/A

4. Reporting a Bug

N/A

5. Uninstall Guide

not applicable

Maintenance

1. BluePrint Package Maintenance

Software maintenance

N/A

Hardware maintenance

N/A

2. Blueprint Deployment Maintenance

N/A

3. Frequently Asked Questions

N/A

4. License

N/A

5. References

N/A