IEC Type1&2 Release Notes for R5

Akraino Release Notes for the IEC Blue Print

This document covers both Integrated Edge Cloud Type 1 & 2.

Summary

This document provides the release notes for IEC Blue Print in Akraino. IEC (Integrated Edge Cloud) is a platform that will enable new functionalities and business models on the network edge. The benefits of running applications on the network edge are - Better latencies for end users - Less load on network since more data can be processed locally - Fully utilize the computation power of the edge devices.

The platform is typically available for both x86 and aarch64 architectures, and IEC type1 with small deployment now just support aarch64 platform. IEC is designed to work with multiple edge use-cases.

Release Data

Document Version Changes

Version	Date	Author	Rationale
0.1	15 May 2019	IEC Blueprint Team	First draft
0.2	22 Oct 2019	IEC Blueprint Team	Release 2 updates

Deliverable

Software Deliverable

Software is available in the IEC repo

Documentation Deliverable

- IEC Architecture Document
- IEC Installation Instruction
- Release notes (This document)
- IEC Test Document

Fixed Issues and Bugs

- IEC Release_2 issues

Hardware Platform

Device 1

Quantity	Category	Brand	Model	P/N
1	Compute	Cavium	ThunderX2	ThunderX2
4	Memory	Micron Technology	9ASF1G72PZ-2G6D1	9ASF1G72PZ-2G6D1 8GB*4
1	Management switch (L2 with VLAN support)	*	*	*
1	Network interface card(for mgmt)	Intel	10-Gigabit X540-AT2	10-Gigabit X540-AT2
1	Network interface card(for data)	Intel	XL710 40 GbE	XL710 40 GbE
2	SFP(for mgmt)	Intel	FTLX8571D3BCV-IT	INTEL FTLX8571D3BCV-IT Finisar 10GB s 850nm Multimode SFP SR Transceiver
	Fabric switch	N/A	N/A	N/A

Device 2

Quantity	Category	Brand	Model	P/N
1	Compute	Ampere	eMAG server	eMAG server
8	Memory	Samsung	M393A4K40CB2-CTD	M393A4K40CB2-CTD 32GB*8
1	Management switch (L2 with VLAN support)	*	*	*
1	Network interface card(for mgmt)	Mellanox	MT27710 Family	ConnectX-4 Lx
1	Network interface card(for data)	Intel	XL710 40 GbE	XL710 40 GbE
2	SFP(for mgmt)	Intel	FTLX8571D3BCV-IT	INTEL FTLX8571D3BCV-IT Finisar 10GB s 850nm Multimode SFP SR Transceiver
	Fabric switch	N/A	N/A	N/A

Device 3(IEC Type1)

Quantity	Category	Brand	Model	P/N
2	Compute	Marvell	Marvell ARMADA 8040	MACCHIATObin Double Shot
1	Memory	System memory	Marvell ARMADA 8040	DDR4 DIMM slot with optional ECC and single/dual chip select support 16GB
1	Management switch (L2 with VLAN support)	*	*	*
1	Network interface card(for mgmt)	Marvell	Marvell ARMADA 8040	Dual 10GbE (1/2.5/10GbE) via copper or SFP 2.5GbE (1/2.5GbE) via SFP 1GbE via copper
2	SFP(for mgmt)	Cisco	Passive Direct Attach Copper Twinax Cable	SFP-H10GB-CU3M Compatible 10G SFP+
	Fabric switch	N/A	N/A	N/A

Software Version

Blueprint/Feature Project Name	Bare Metal OS & Installer	Edge Hypervisor or Container Runtime	Edge Cloud Orchestrator (under cloud)	Upstream Orchestrator (s)	Edge Cloud Networking
IEC Type 1 for Integrated Edge Cloud (IEC) Blueprint Family Trevor Tao	Ubuntu 16.04	Docker (>=18.06.1-ce)	Kubernetes	Kubernetes(1.13) kubernetes-cni (0.6.0) Helm(2.12.3)	Calico(3.3.2) flannel(0.11.0) contiv-vpp(v3.2.1) ovn-kubernetes(v0.3.11)
IEC Type 2 for Integrated Edge Cloud (IEC) Blueprint Family xinhuili	Ubuntu 16.04 or Centos 7	Docker (>=18.06.1-ce)	Kubernetes	Kubernetes(1.13) kubernetes-cni (0.6.0) Helm(2.12.3)	Calico(3.3.2) flannel(0.11.0) contiv-vpp(v3.2.1) ovn-kubernetes(v0.3.11)

Known Limitations, Issues and Workarounds

System Limitations

- **Min number of blades:** 1 Jumpserver

Known Issues

None

Workarounds

None

References

For more information on the Akraino Release 1, please see:

1. Akraino Home Page
2. IEC Wiki