

# Akraino ICN Blueprint Family

(Multi-server Intergrated Cloud Native NFV/App stack & Multi-Tenant Secure Cloud Native Platform BPs )

ICN CI and Topology requirements for Community Lab

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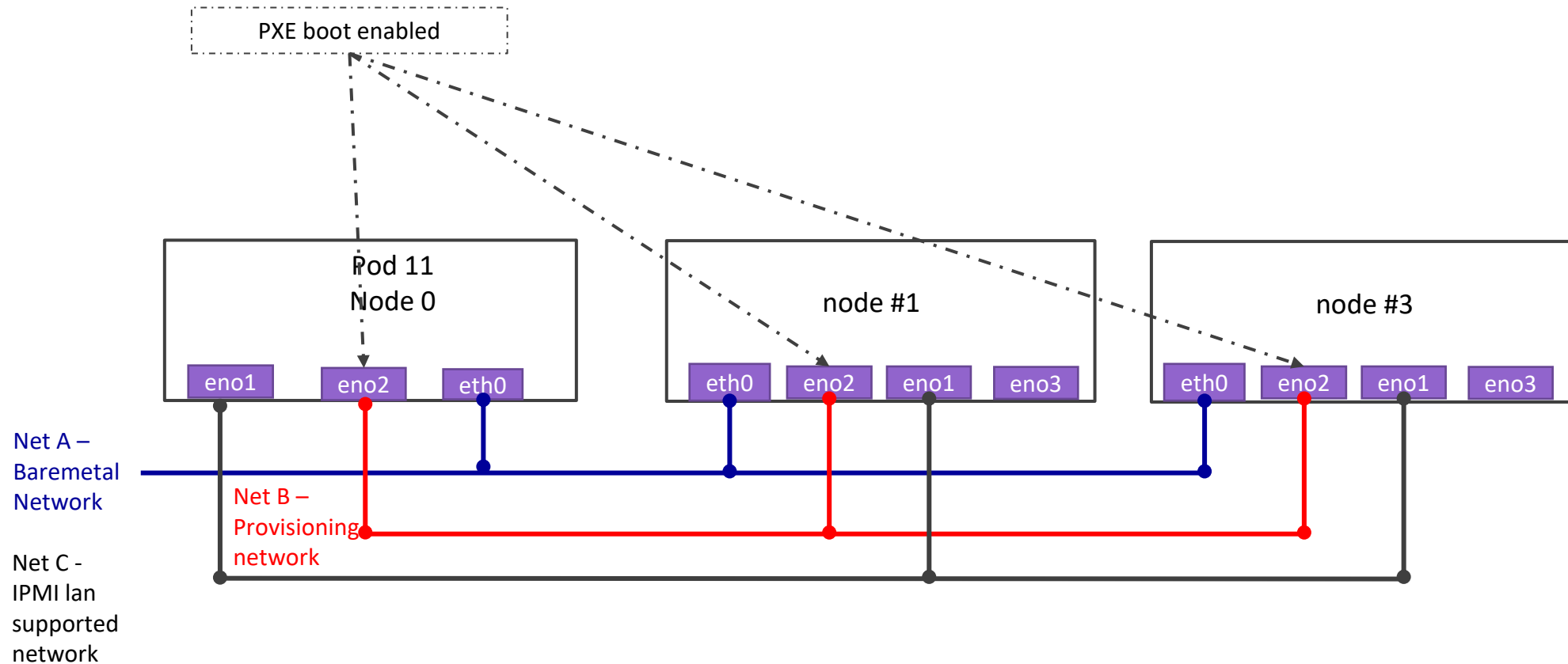


# Pod overview and BoM

- › Dev & Staging Pod:
  - › 4 Baremetal host with Ubuntu 20.04
  - › Intel FLV(XL710)
  - › Intel C627
  - › Intel Optane DC 256GB Persistent Memory Module
- › ICN Baremetal and VM deployment CD Pod:
  - › 3 Baremetal host with Ubuntu 20.04
  - › With Network requirement for CD deployment
  - › Intel FLV(XL710)
  - › Intel C627
  - › Intel Optane DC 256GB Persistent Memory Module
- › ICN Validation & CI Pod
  - › 2 Baremetal Host with Ubuntu 20.04 for ICN project repos - ICN, Nodus and SDEWAN



# CD Topology - ICN Master Bare Metal Deployment Verifier



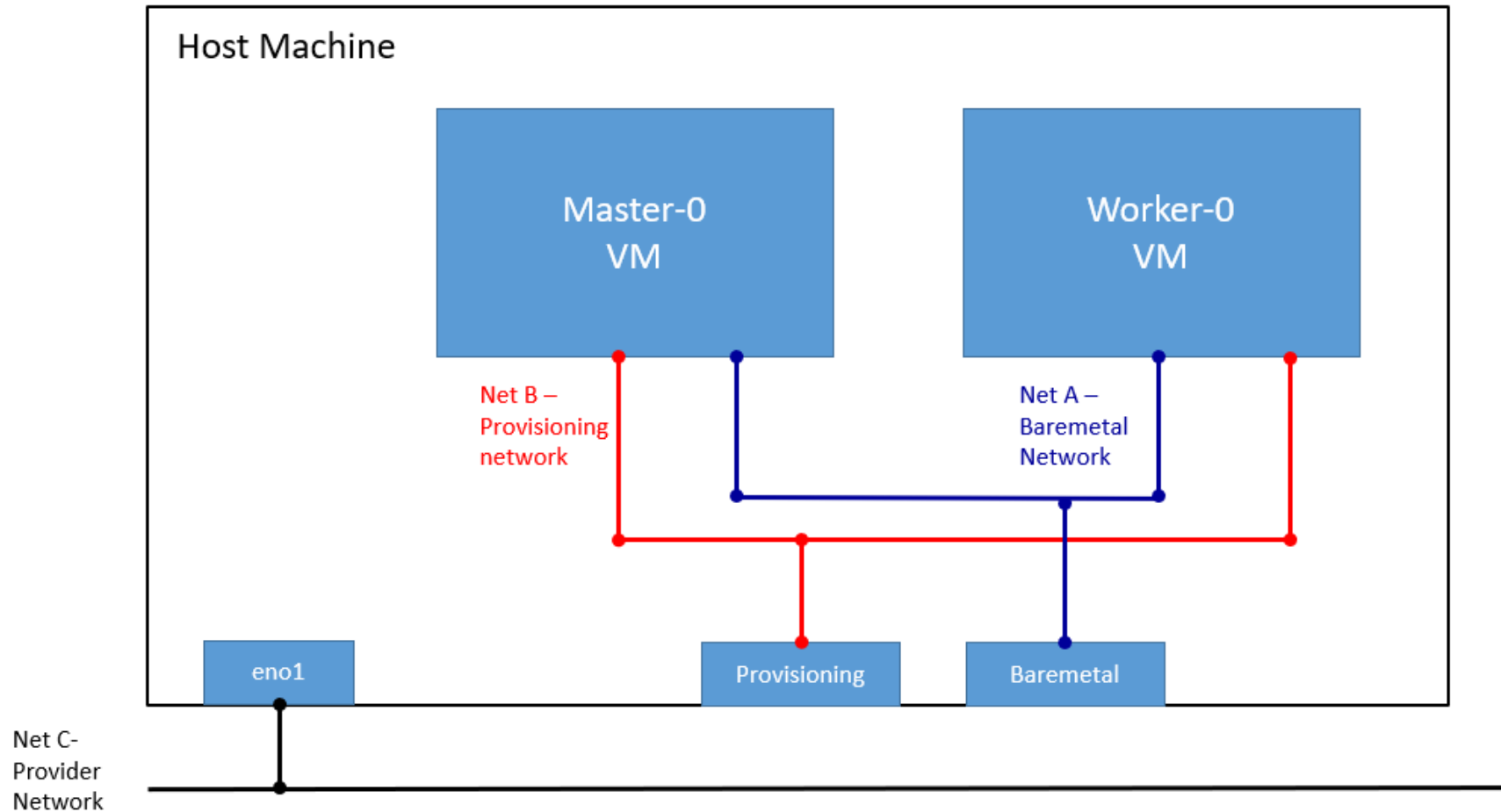
Net A – Baremetal Network, lab networking for SSH, It is used as the control plane for Kubernetes, used by OVN and Flannel for the overlay networking with Internet access

Net B (Internal networking) – Provisioning Networking used by Ironic to do inspection (Will be having DHCP server)

Net C (Internal networking) – IPMI lan to do IPMI protocols for the OS provisioning



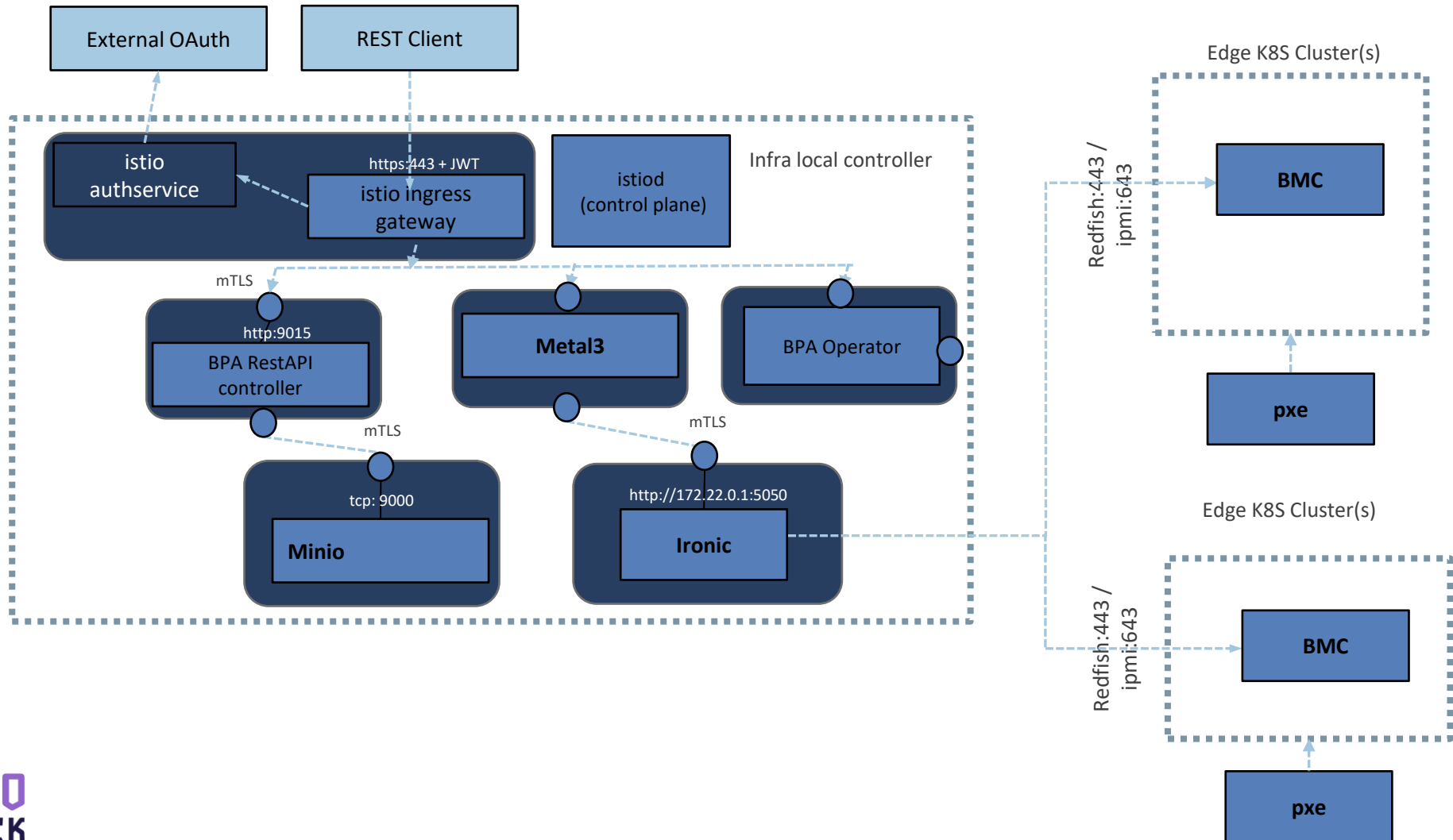
# CD Topology - ICN Master Virtual Deployment Verifier



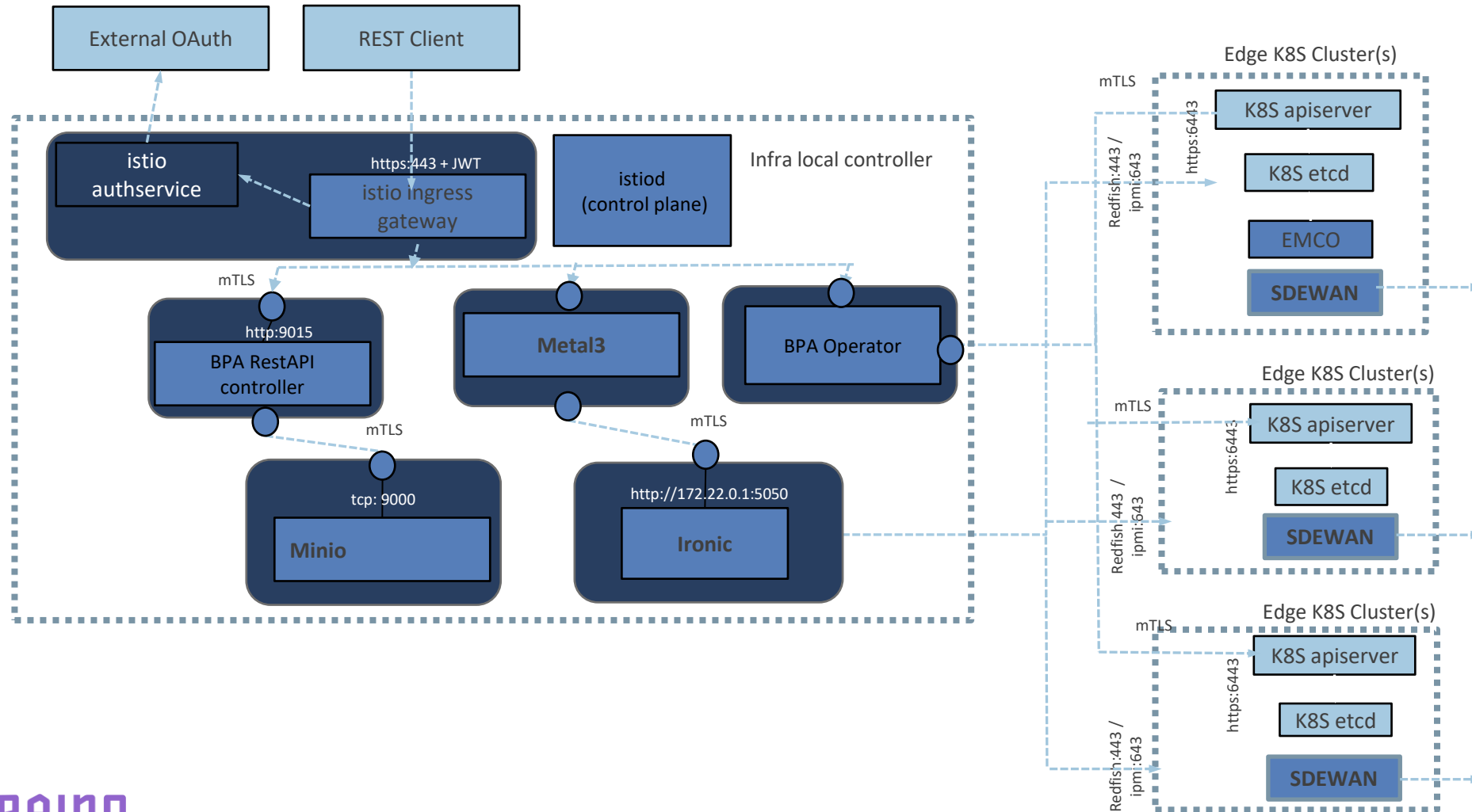
# CI or CD Business logic

- › ICN Blueprints has 3 projects in the Akraino repos
  - › ICN
  - › Nodus
  - › SDEWAN
- › Each project require CI and CD deployments to meet the stability of the project and to work with the external contributors
- › ICN runs private Jenkins for CI to push the logs for each PRs and ICN team planning to introduce source code validation for each PR using code coverage
  - › <https://wiki.akraino.org/display/AK/ICN+R5+Test+Document#ICNR5TestDocument-CIjobdetail>
- › ICN CD runs very extensive end2end test cases for each components in the ICN stack. It helps the teams to identify the test cases failures in Intel Hardware and soon fix it in the end2end testing
  - › <https://wiki.akraino.org/display/AK/ICN+R5+Test+Document#ICNR5TestDocument-CDjobdetail>
  - › [https://wiki.akraino.org/display/AK/ICN+R5+Test+Document#ICNR5TestDocument-CDVerifier\(end-to-endtesting\)](https://wiki.akraino.org/display/AK/ICN+R5+Test+Document#ICNR5TestDocument-CDVerifier(end-to-endtesting))
- › ICN also conduct the Bluval Validation along with CD test case
  - › <https://wiki.akraino.org/display/AK/ICN+R5+Test+Document#ICNR5TestDocument-BluValTesting>
- › CI and CD are required to meet the stability of the ICN BPs

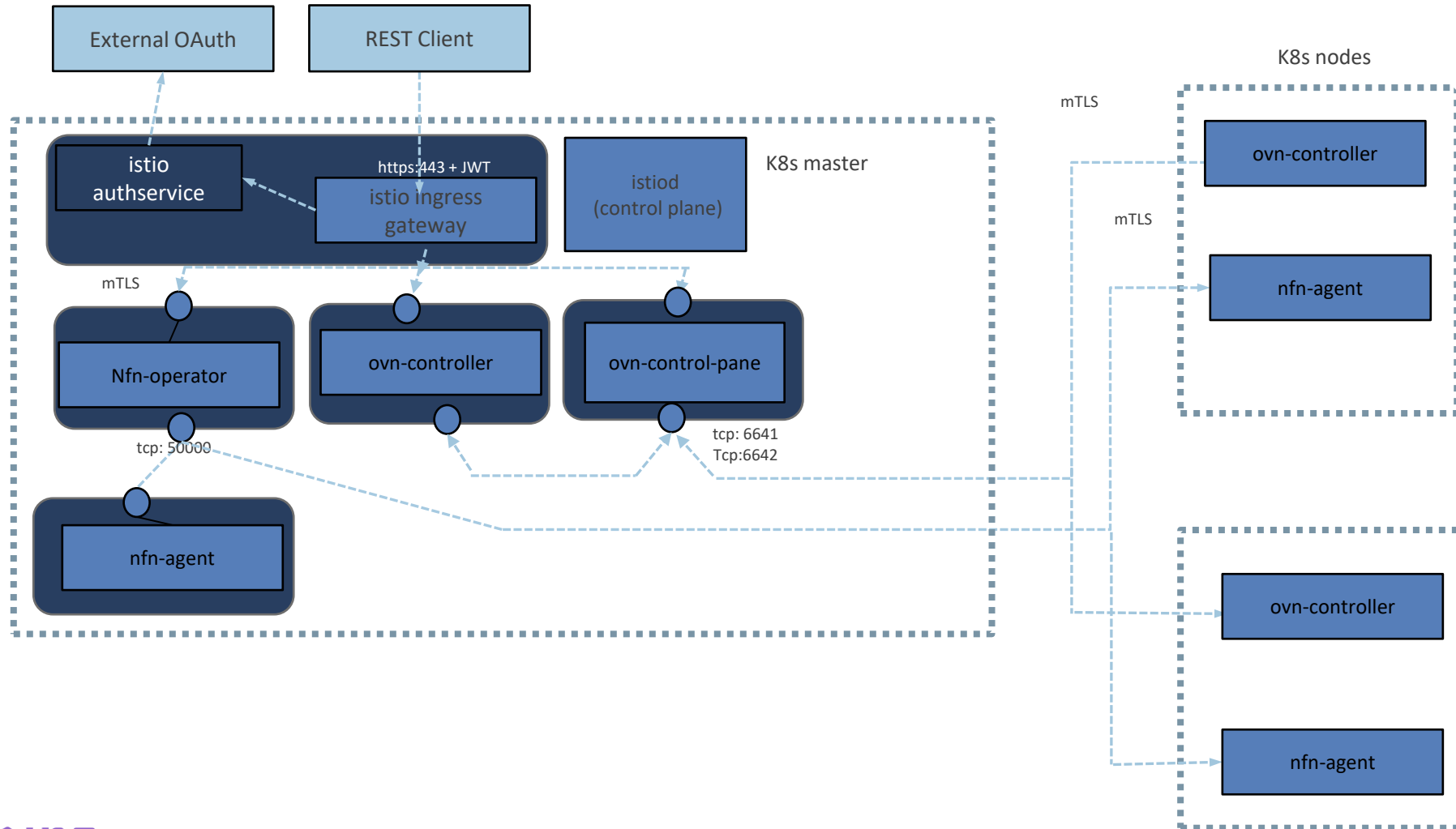
# ICN Communication flows and ports



# ICN Communication flows and ports

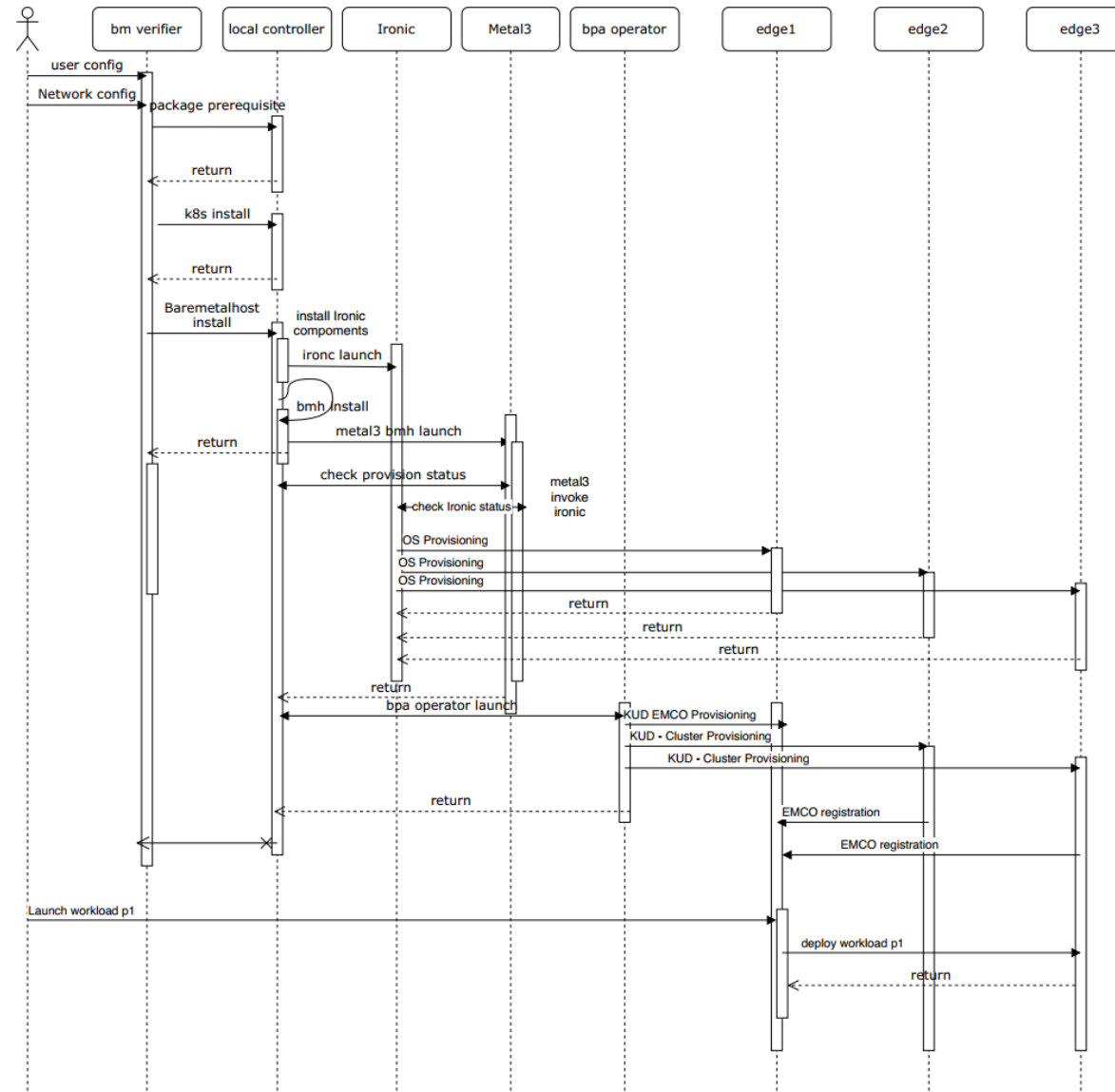


# ICN Communication flows and ports





# ICN SW Architecture – Sequence diagram



# Key contacts

## › Member of TSC

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## › PTLs

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# VPN Users

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Backup Material (insert after this section)



# Required information

- › Designated Blueprint contact will request space to present at CI subcommittee, presentation must include:
  - › Pod overview
  - › Key Contacts
  - › CI or CD business logic
  - › Time frame by milestone
  - › BoM (physical, and virtual)
  - › Physical and logical connectivity
  - › Detailed Communication flows and ports
  - › Dependencies with LF services (Jenkins, Nexus, SonarQube, etc)
  - › VPN users