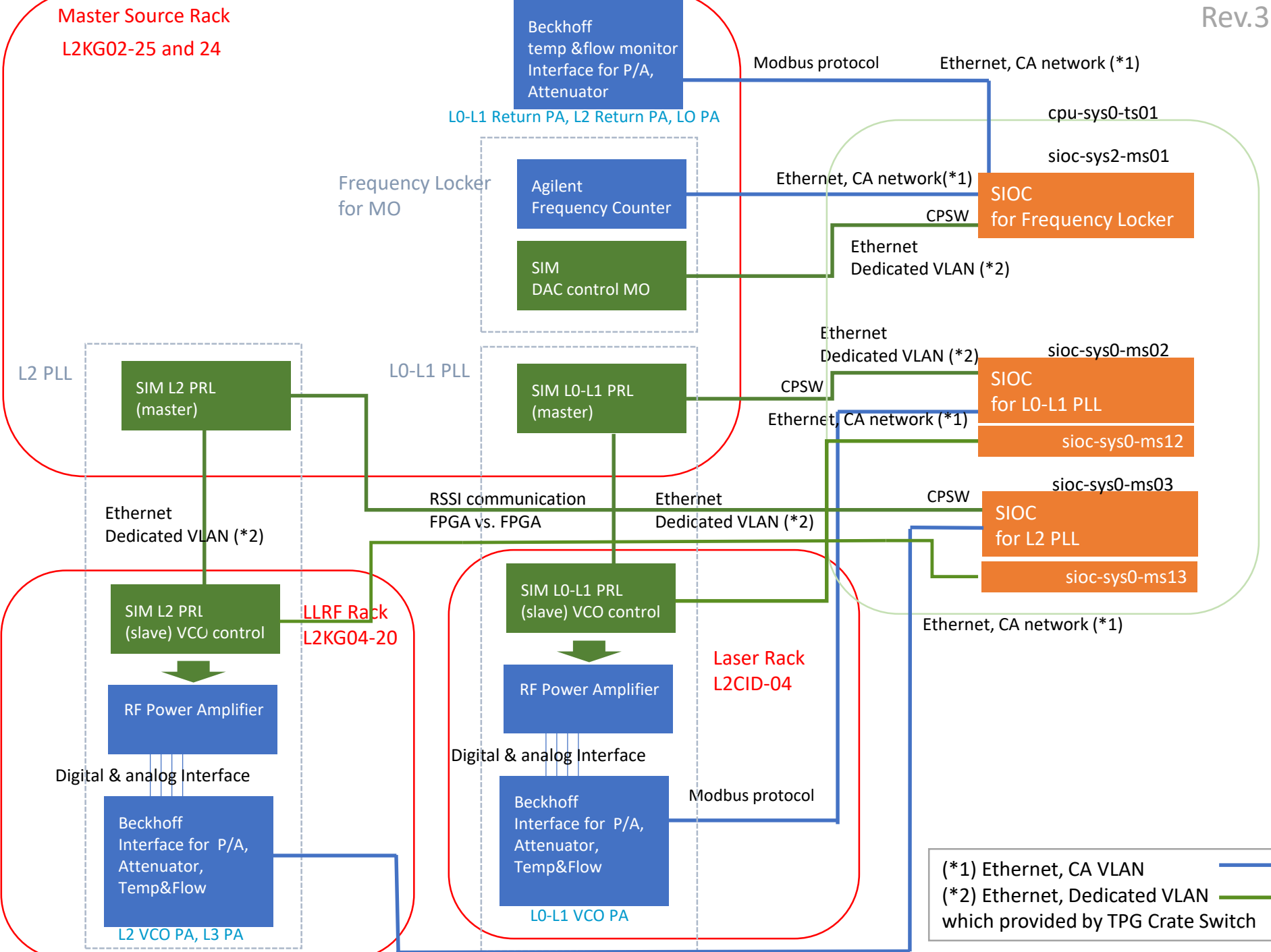


Master Source Rack
L2KG02-25 and 24



Beckhoff
temp & flow monitor
Interface for P/A,
Attenuator

L0-L1 Return PA, L2 Return PA, LO PA

Frequency Locker
for MO

Agilent
Frequency Counter

SIM
DAC control MO

L2 PLL

SIM L2 PRL
(master)

L0-L1 PLL

SIM L0-L1 PRL
(master)

Ethernet
Dedicated VLAN (*2)

RSSI communication
FPGA vs. FPGA

Ethernet
Dedicated VLAN (*2)

CPSW

SIM L2 PRL
(slave) VCO control

LLRF Rack
L2KG04-20

RF Power Amplifier

Digital & analog Interface

Beckhoff
Interface for P/A,
Attenuator,
Temp&Flow

L2 VCO PA, L3 PA

SIM L0-L1 PRL
(slave) VCO control

RF Power Amplifier

Digital & analog Interface

Beckhoff
Interface for P/A,
Attenuator,
Temp&Flow

L0-L1 VCO PA

Modbus protocol

Modbus protocol

Ethernet, CA network (*1)

Ethernet, CA network(*1)

CPSW

Ethernet
Dedicated VLAN (*2)

Ethernet
Dedicated VLAN (*2)

CPSW

Ethernet, CA network (*1)

CPSW

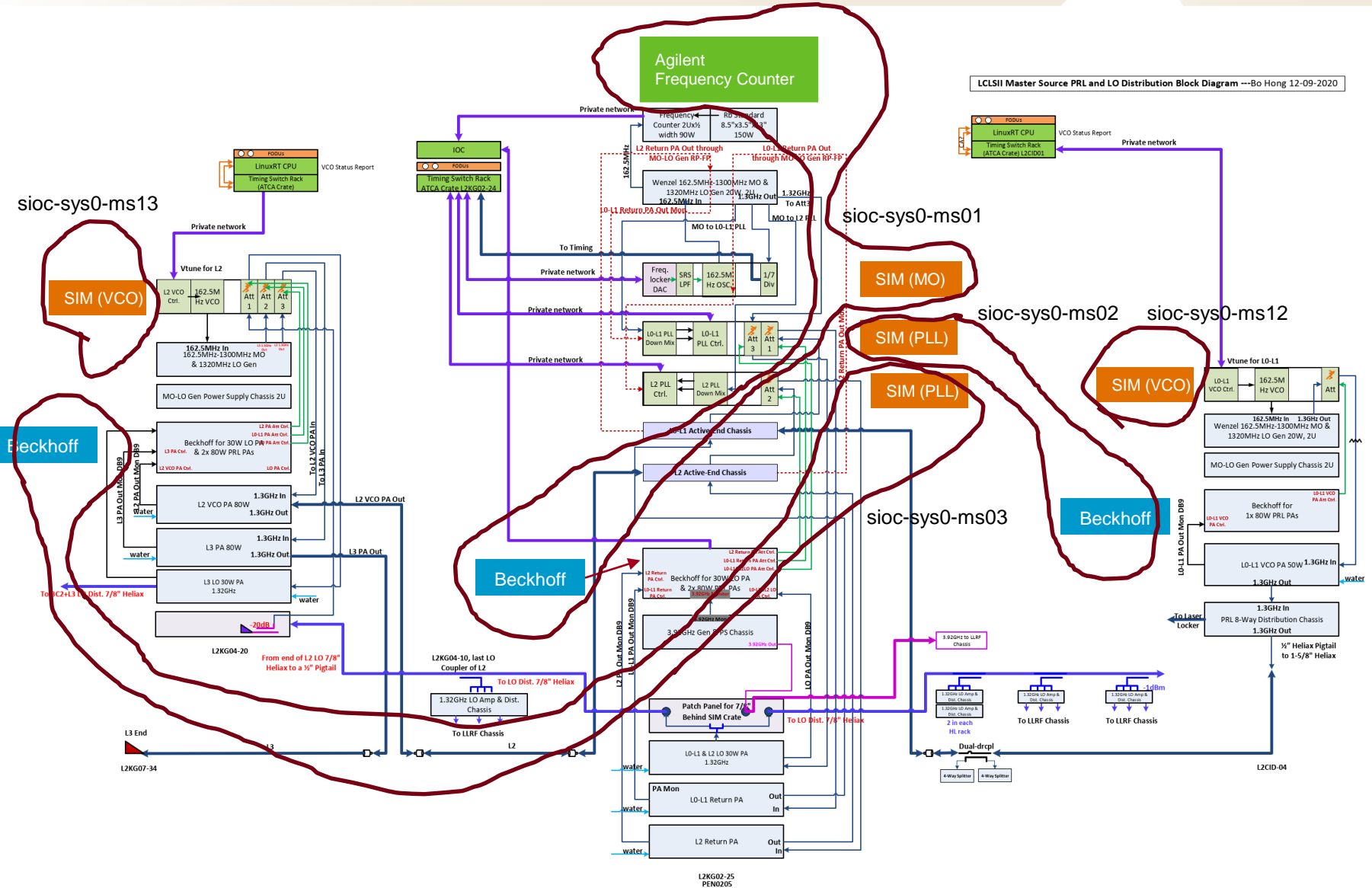
Ethernet, CA network (*1)

(*1) Ethernet, CA VLAN
 (*2) Ethernet, Dedicated VLAN
 which provided by TPG Crate Switch

Master Source System

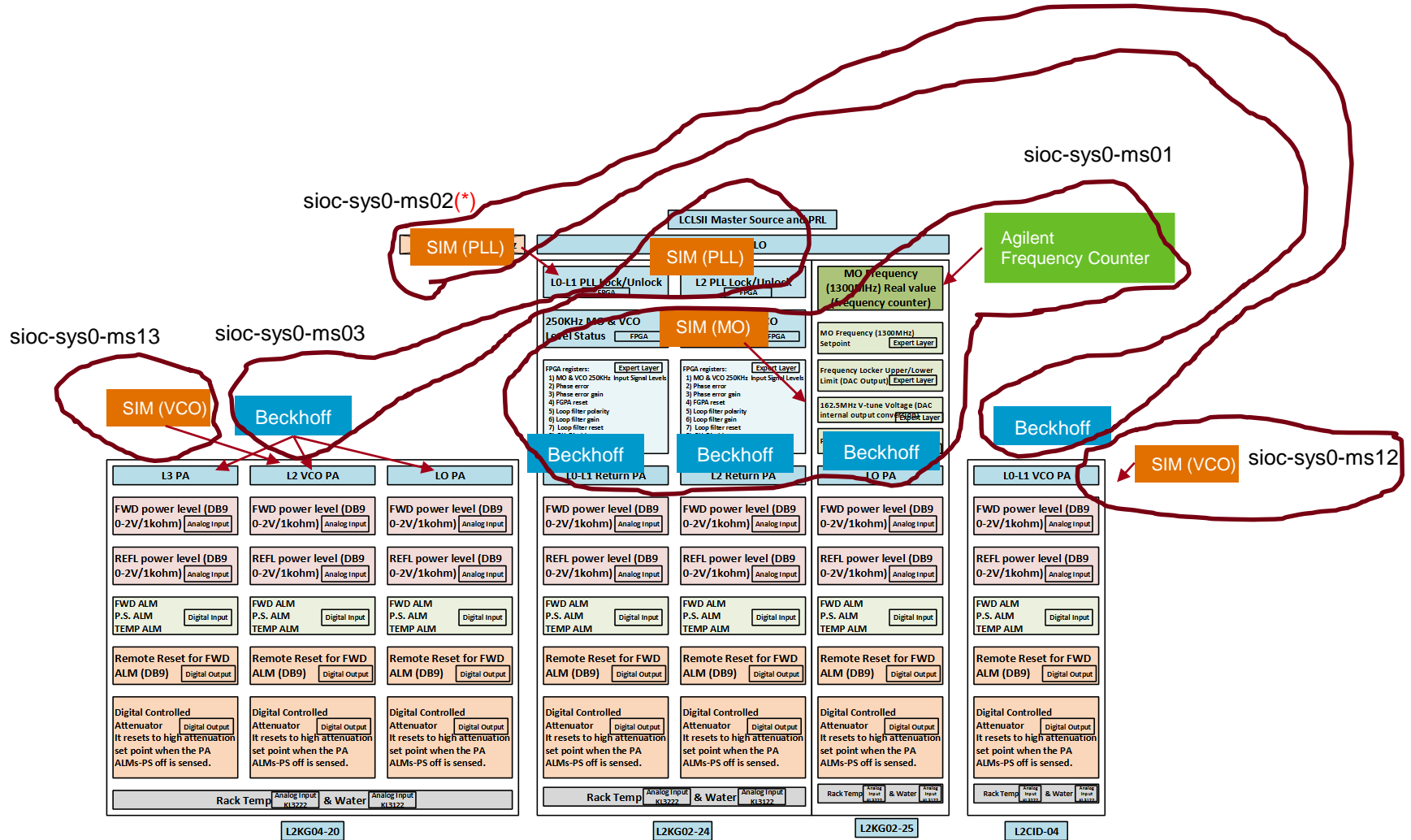
- System Diagram & ioc coverage

LCLSII Master Source PRL and LO Distribution Block Diagram --Bo Hong 12-09-2020

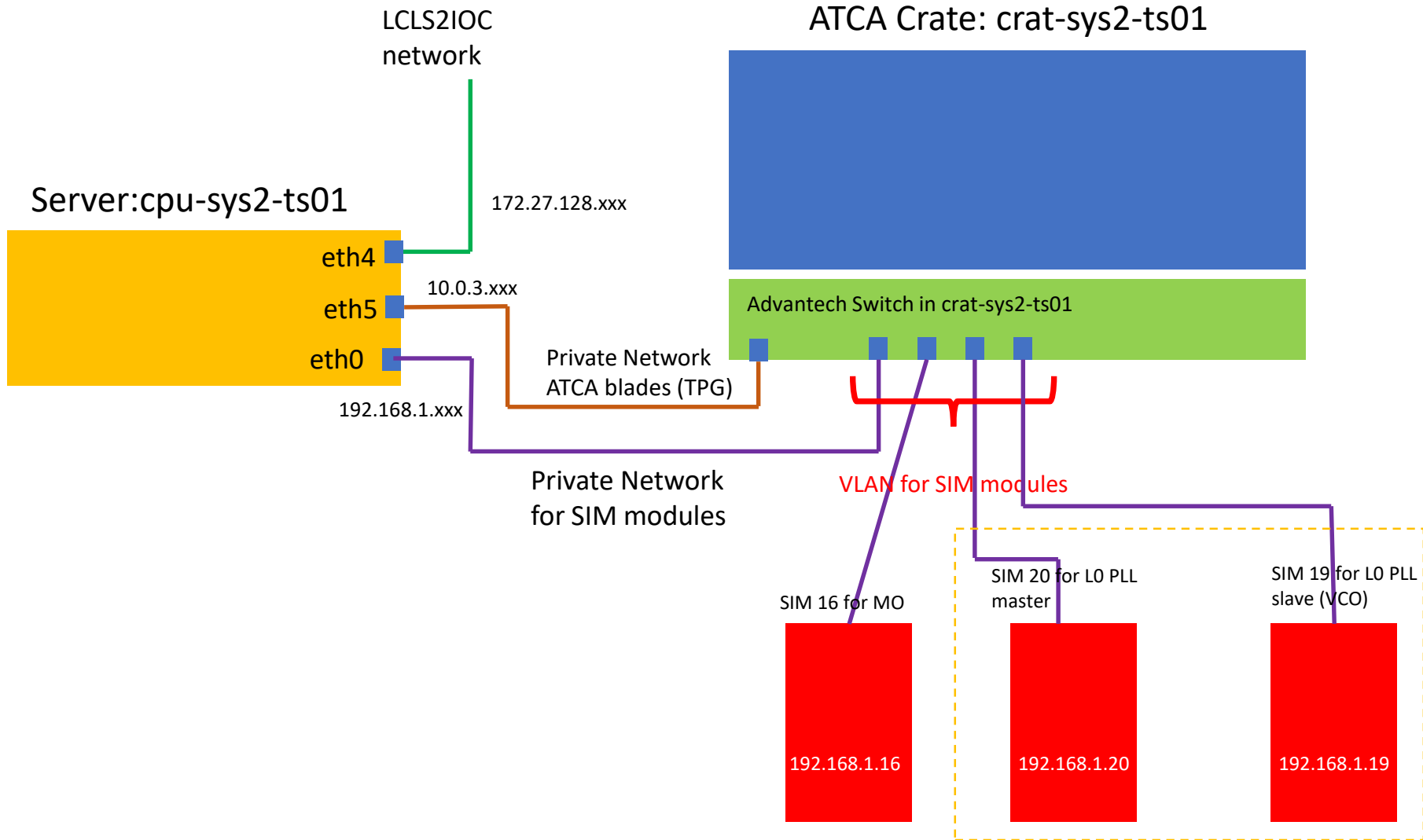


Master Source System

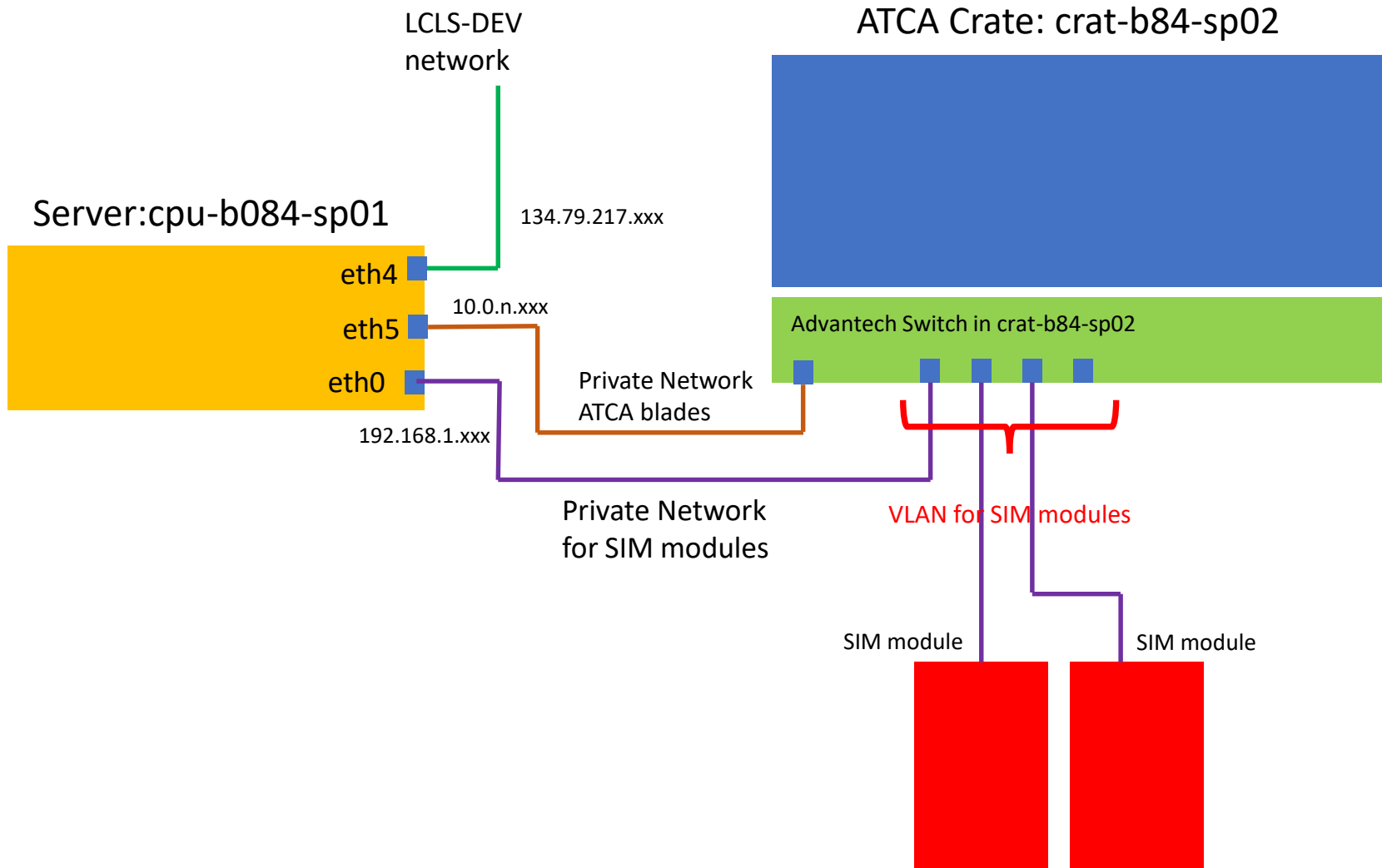
- rack profile & ioc coverage



SIM Current Configuration for Production



RF Lab SIM module test stand



RF Lab SIM module test stand (ASU)

