Physical

UE

Logical UE
Tera VM

RRU

Front Hual

VBBU

ONOS / XOS

Interoperability

MME / SGW / PGW

Application (eSON)

Handover scenario

Teams:

A: Integration / Architecture

B: Cavium / VBBU
XOS / ONOS
/ EPC

C: EPC: RadiSys / Netcracker

D: Application (eSON / GUI
ONOS
Airhop
API

Tera VM / SGW / PDN Scrum master

SGW - U - C

PGW - U - C

API.

SPirent

Asset on ONOS

TRAVIS

SPirent

Demo Env

USer cases

Posters

Packets

Testing

wsdnrocks

- Intent of Mobility without ONOS/XOS
- XOS Static vs Dynamic VM Spin-off
- Reuse APPS APIs / Parameter lists.

Tera VM
Control
CP

ONOS
XOS
eSON/APP
PGW-C
PGW-D
SGW
GbE switch
MME
Common

TBD: 1 or 2 Physical Servers
Platform Capability: TBD

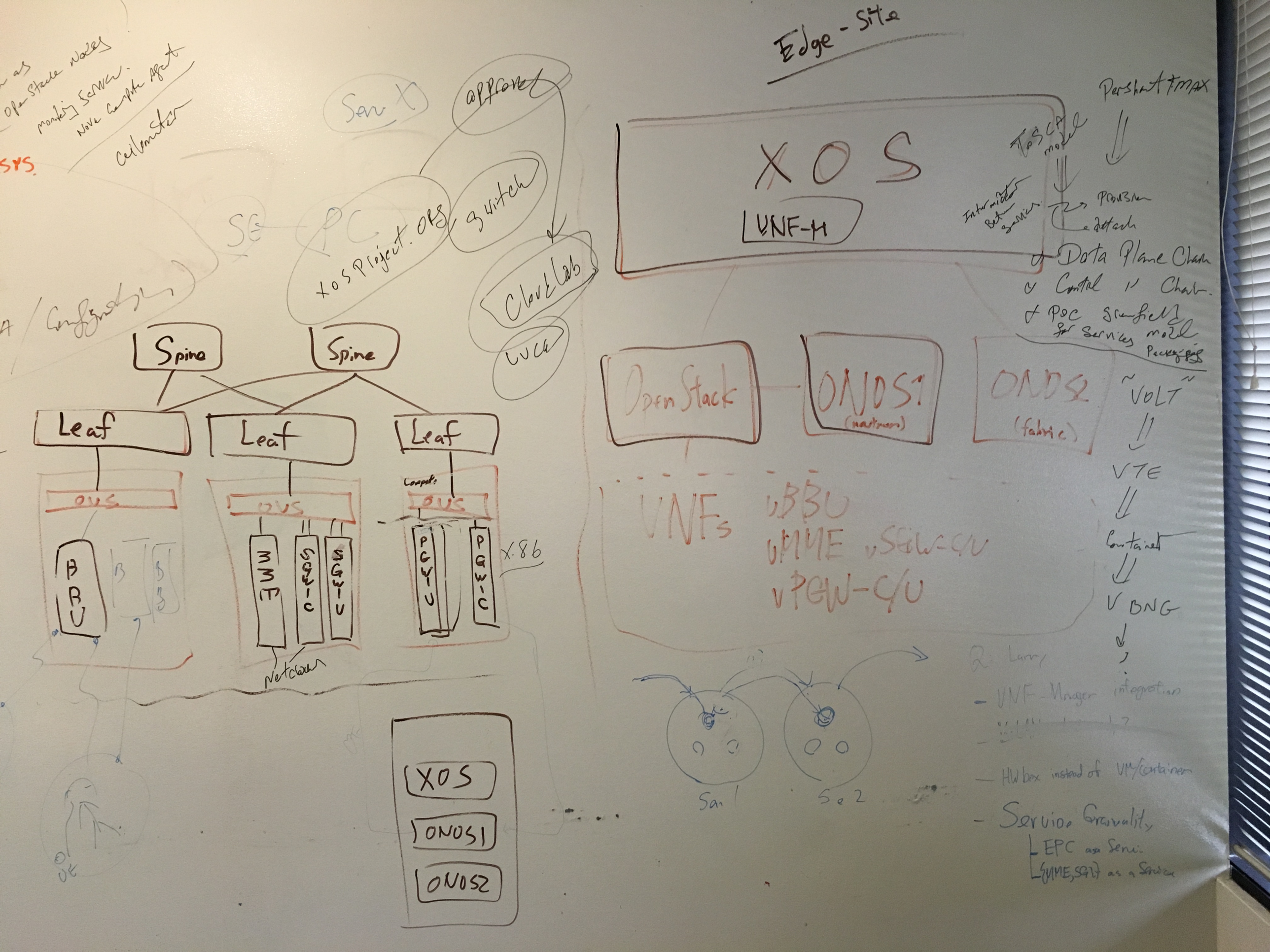
1 Physical Server
Radisys (x86, Ubuntu)
SandyBridge or higher
NEC/NetCracker ( )
NEC/NetCracker (12 Cores, 96GB, + Disk spac
2.7GHz+

VBBU Thunderx
VBBU Thunderx
GbE
RRU
RRU
RRU

Cavium, ThunderX
Cavium, Fasion-based RRUs

UE . . . .

2-3 weeks


Edge - Site
XOS
UNF-M
Spine
Spine
Leaf
Leaf
Leaf
OVS
OVS
OVS
BBU
MME
SGW-C
SGW-U
PGW-U
PGW-C
X.86
Netcloud
XOS
ONOS1
ONOS2
OpenStack
ONOS1
ONOS2
(fabric)
VNFs
vBBU
vMME
vSGW-C/U
vPGW-C/U
Sen 1
Sen 2
Persistent TMAX
TOSCA model
Intermediate Between Services
Provision
Detach
Data Plane Chain
Control " Chain
PoC Greenfield for Services model
Packaging
"VOLT"
VTE
Container
V BNG
Q: Larry
- VNF-Manager integration
- HW box instead of VM/Container
- Service Granularity
EPC as a Service
{MME, SGW} as a Service

INSTALLATIONS XOS TEAM

CAVIUM

RACK Configuration

CAVIUM

Set up rack at Cavium lab

CAVIUM

Set up switch mimicking CORD setup. One switch configuration first

RSYS

IRU Server for Radisys PGW components

CAVIUM

Installation of XOS/ONOS OpenStack @ Cavium Rack

CAVIUM

Integrate RRH, vBBU, Front-haul switch

CAVIUM

Set up XOS, ONOS controller (to be placed in separate server on the rack)

NETCRACKER

RSYS

CAVIUM

TERAVM

Packet trace / CONTROL \ DATA

PGW need pool of Public IP address to be assigned to UE.

Radisys - Specify messages/ procedure supported on S5 interface.

TOSCA DATA MODELING XOS

Tosca Service models

XOS Plugin Data Modeling

TOSCA modeling for vBBU ↑ setup/ Specification of vBBU VNF

~~Identify~~ All Review Service model exposed by XOS (via Tosca)

Encoding of the 3GPP rules logic - identify location

ON-BOARD
- vMME
- vSGW
- vPGW

Into VNF-M

3GPP CALL FLOW

DATA CALL TEST CASES

TBD: 1 or 2 Platform

1 physical Radisys

NEC/Ne

NEC/Ne

vBBU Thunderx

vBBU Thunderx

RRU RRU RRU

Cavium

Cavium

USE CASES

GET ALL CONTACTS

~~VM~~
TeraVM
Installation
&
Training

SLIDEWARES for EPC w/ ONOS & XOS

TOM & YOON

c 18/h

2 Physical Servers
TBD

PGW-C & PGW-D
implementation
- Radisys

Demo Posters
"Use cases"
Test scenarios

TELCO
RACK
FOR
DEMO
ONOS '16

Mapping SON
application messages
to ONOS messages.

"GUI"
AKamai
Cache
VM Environment

github

signaling flow
for
Hand off
Diagram

GUI
Topolog
Representation

ONOS - NAPI for
Packet gateway
(Radisys)

5 switches
GUI POD

TOS

Central EPC
emulation
&
Delay effect

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