G E N I

Global Environment for Network Innovations

Milestone S3.ab
Cisco 3400 Handler Code Release

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Prepared by:

D. Majumder, D. Gurkan, and I. Baldine[2]

University of Houston: College of Technology

2: RENCI-BEN

Under Project Nr. 1733

"Programmable Measurements over Texas-based Research Network: LEARN"

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1 Document Scope

This section describes this document's purpose, its context within the overall GENI project, the set of related documents, and this document's revision history.

1.1 Executive Summary

A handler software package has been released to the ORCA-BEN team [orca_1] to integrate with the substrate control mechanisms of ORCA for future use of Cisco 3400s in a network with ORCA control framework. The release was on October 6th, 2010. The tests have been completed before November 1st, 2010 and presented at the GEC9 as running correctly by the ORCA-BEN team.

1.2 Related Documents

None.

1.2.1 GENI Documents

Document ID	Document Title and Issue Date

1.3 Document Revision History

The following table provides the revision history for this document, summarizing the date at which it was revised, who revised it, and a brief summary of the changes. This list is maintained in chronological order so the earliest version comes first in the list.

Revision	Date	Revised By	Summary of Changes

2 Cisco 3400 Handler Software

Cisco 3400 configuration commands, related VLAN mappings, and QinQ commands have been built into the software to be integrated into the ORCA control framework suite as a substrate control handler. These commands and software suites are similar to the ones implemented for the Cisco 6509 VLAN mappings [orca_2]. Additional commands have been included for the QinQ functions enabled by Cisco 3400s.

3   Deployment Plan

The following network will be realized through the deployment of Cisco 3400 switches on the
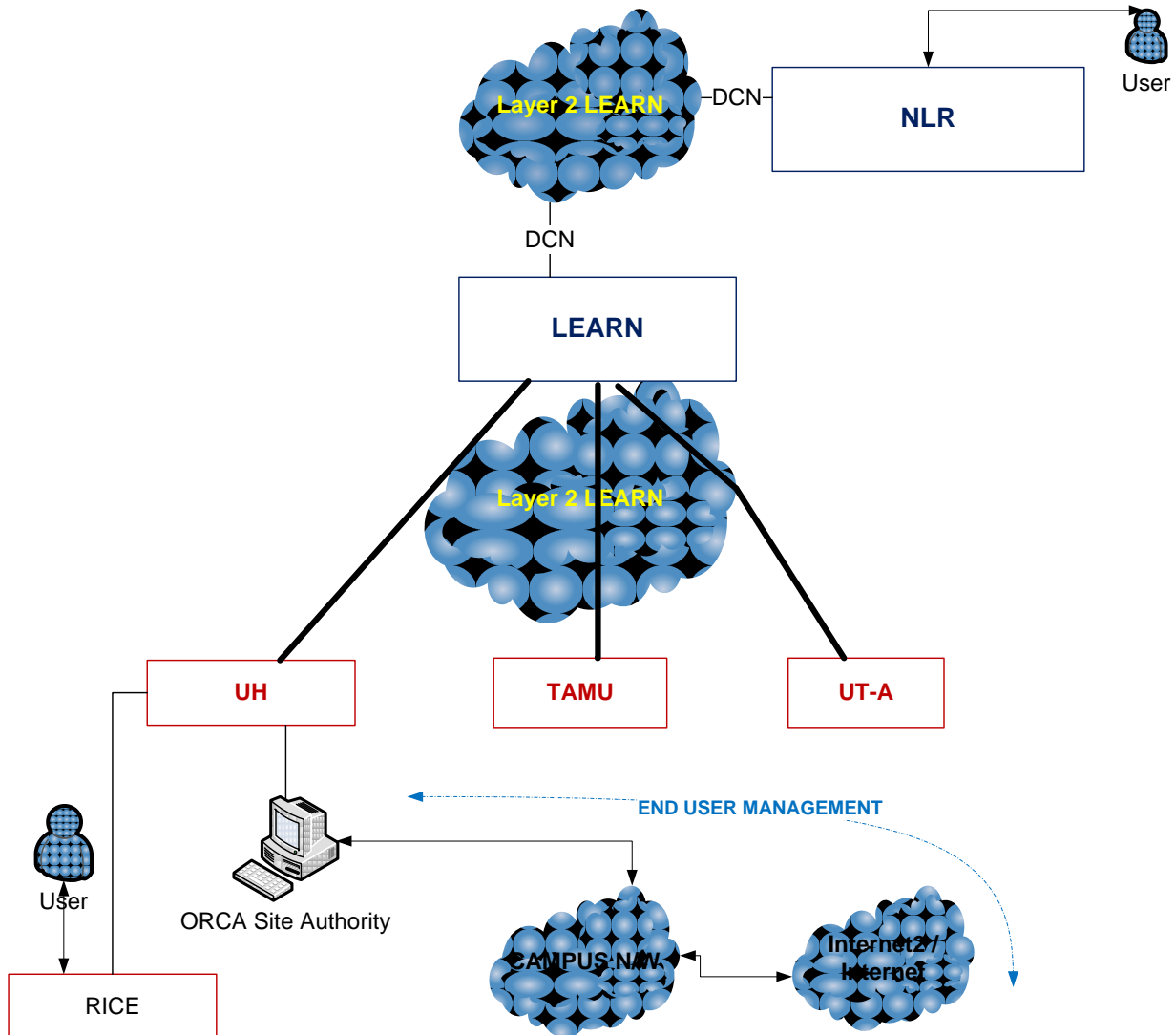
LEARN network and the partnering institutions.

Figure 1. Deployment plan on LEARN.

4   VLAN Assignments and the Emulation Network

The following VLAN assignments and the emulation network has been realized and tested by the ORCA-BEN team for configuration purposes.
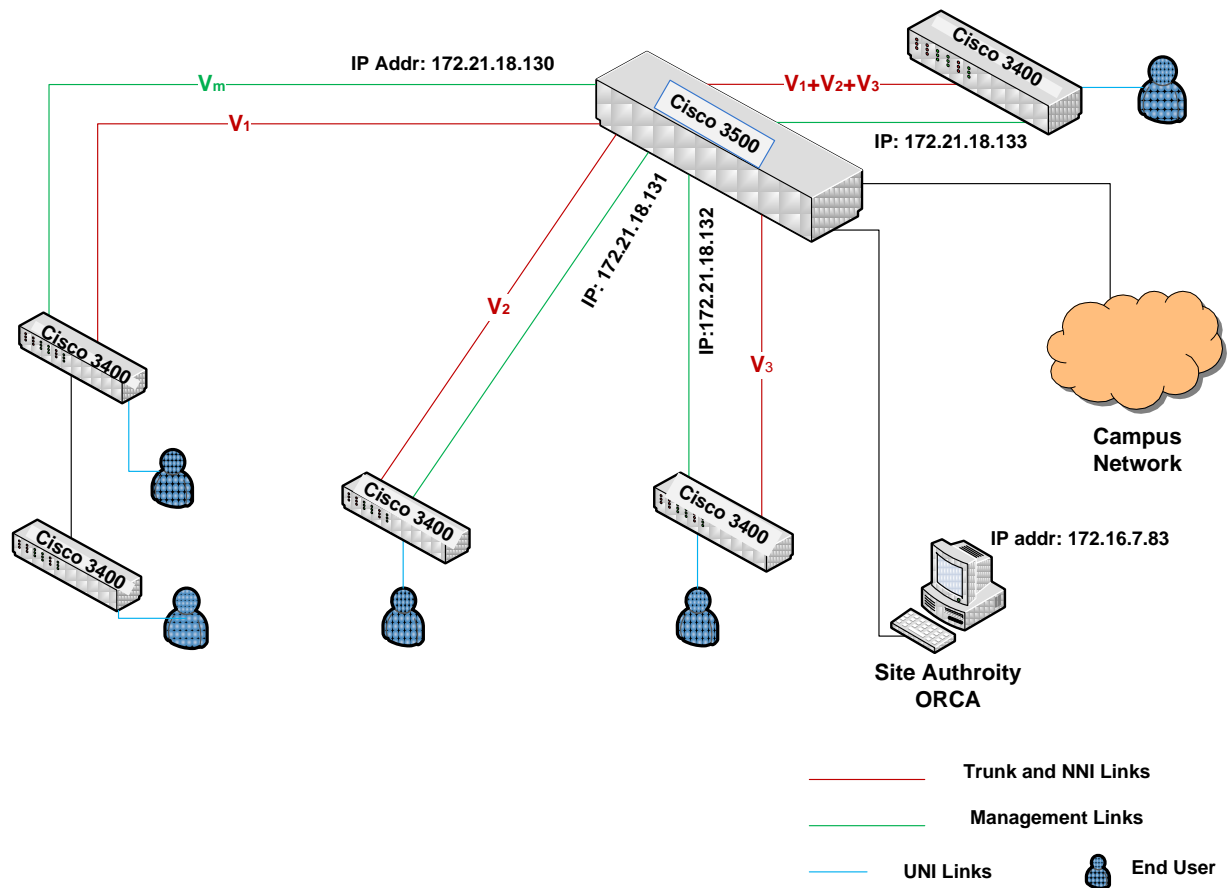
Figure 2. Expected VLAN assignments where V_m corresponds to a management VLAN tag to be assigned by LEARN network and other VLAN tags to be determined as accessible by campuses.

5   Bibliography

[1] [orca_1] ORCA main homepage. [Online]. Available: https://geni-orca.renci.org/trac/
[2] [orca_2] ORCA network setup and configuration of substrates. [Online]. Available: https://geni-orca.renci.org/trac/wiki/ORCAAndVLANs