# Network Monitoring and Management
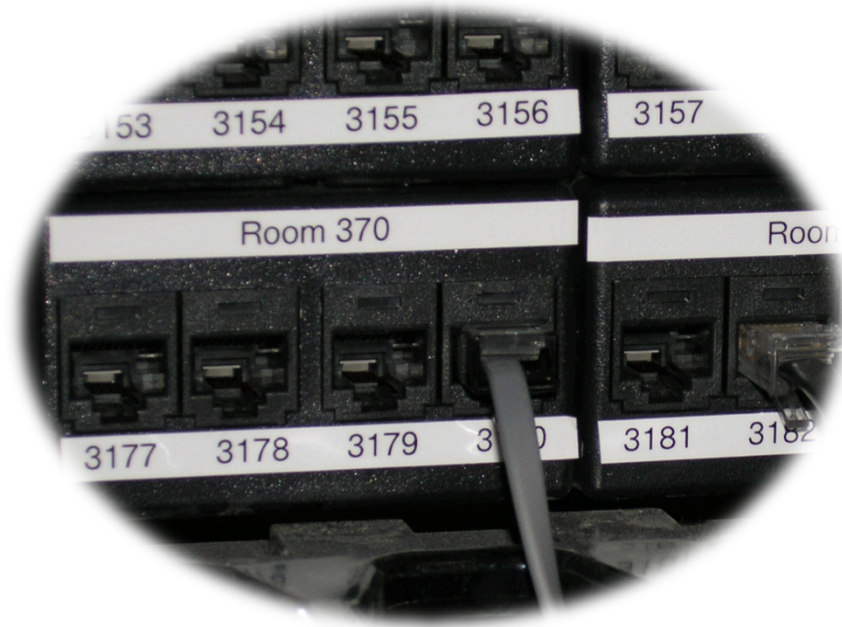
# Network Documentation

# Documentation

**Maybe you've asked, "*How do you keep track of it all*?"...**



**Document, document, document…**

# Documentation: Labeling

Nice…

# Automated Systems

There are quite a few automated network documentation systems. Each tends to do something different:

- IPplan:

    http://iptrack.sourceforge.net/

- Netdisco:

    http://netdisco.org/

- Netdot:

    https://netdot.uoregon.edu/

- Rack Tables:

    http://www.racktables.org/

# IPplan: [[IPplan]]

## From the IPplan web page:

"IPplan is a free (GPL), web based, multilingual, TCP IP address management (IPAM) software and tracking tool written in php 4, simplifying the administration of your IP address space. IPplan goes beyond TCPIP address management including DNS administration, configuration file management, circuit management (customizable via templates) and storing of hardware information (customizable via templates)."

## Lots of screenshots:

http://iptrack.sourceforge.net/doku.php?id=screenshots

# Netdisco:

- Project launched 2003. Version 1.0 released October 2009.
- Some popular uses of Netdisco:
  - **Locate** a machine on the network by MAC or IP and show the switch port it lives at.
  - **Turn Off** a switch port while leaving an audit trail. Admins log why a port was shut down.
  - **Inventory** your network hardware by model, vendor, switch-card, firmware and operating system.
  - **Report** on IP address and switch port usage: historical and current.
  - **Pretty pictures** of your network.

# Racktables: RackTables

## From the http://racktables.org page:

- Have a list of all devices you've got
- Have a list of all racks and enclosures
- Mount the devices into the racks
- Maintain physical ports of the devices and links between them
- Manage IP addresses, assign them to the devices and group them into networks
- Document your firewall and NAT rules
- Describe your load balancing policy and store load balancing configuration
- Attach files to various objects in the system
- Create users, assign permissions and allow or deny any actions they can do
- Label everything and even everyone with flexible tagging system
- Access all this from the web

# Netdot: {net.} NETwork DOcumentation Tool

Includes functionality of IPplan and Netdisco and more. Core functionality includes:

– Device discovery via SNMP

– Layer2 topology discovery and graphs, using:

  • CDP/LLDP

  • Spanning Tree Protocol

  • Switch forwarding tables

  • Router point-to-point subnets

– IPv4 and IPv6 address space management (IPAM)

  • Address space visualization

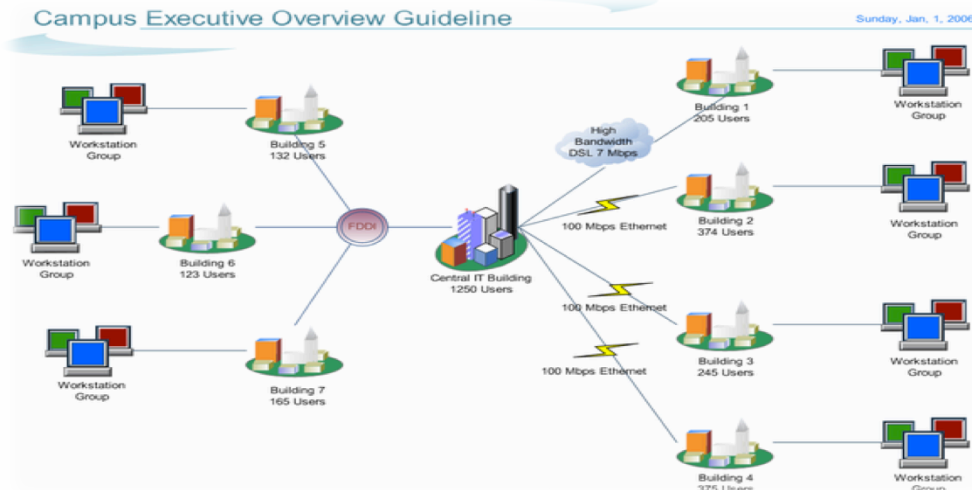  • DNS/DHCP config management

  • IP and MAC address tracking

# Netdot: {net.} NETwork DOcumentation Tool
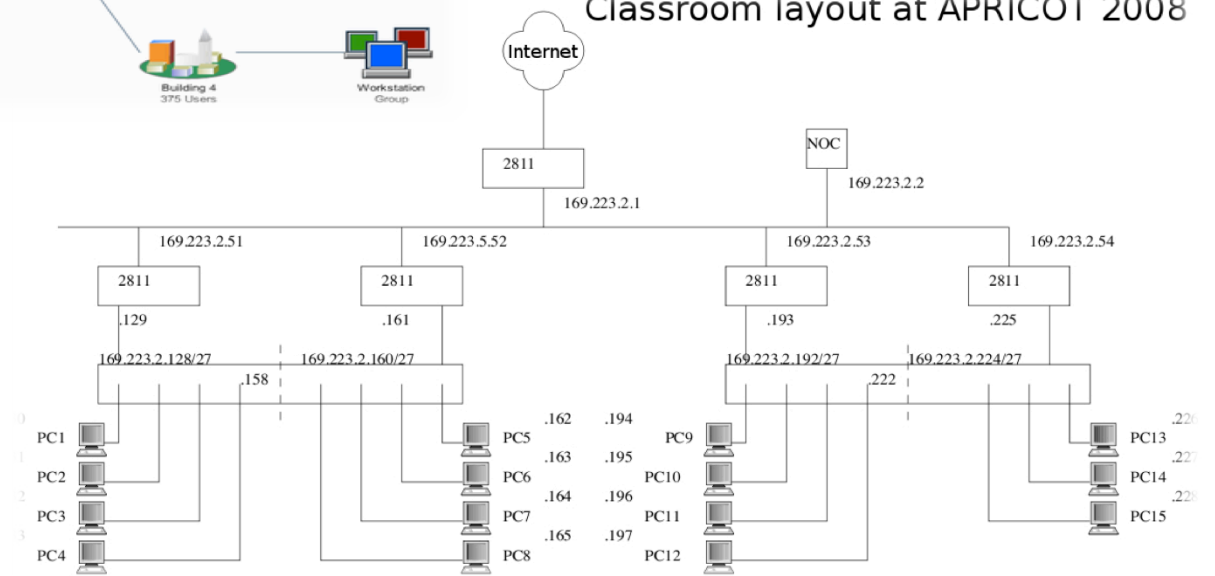
## Functionality continued:

- Cable plant (sites, fiber, copper, closets, circuits...)
- Contacts (departments, providers, vendors, etc.)
- Export scripts for various tools (Nagios, Sysmon, RANCID, Cacti, etc)
  - I.E., how we could automate node creation in Cacti!
- Multi-level user access: Admin, Operator, User
- It draws pretty pictures of your network



Management | Contacts | Cable Plant | Advanced | Reports | Export | Help

Devices | VLANs | Address Space | DNS Records | DNS Zones | DHCP

**Device Tasks** [new] [hide]

**Find Devices**

Name/IP/MAC: [_____]

[ search ]

© GPL. Netdot: NETwork DOcumentation Tool v.0.9

# Documentation: Diagrams



Campus Executive Overview Guideline — Sunday, Jan, 1, 2006



Classroom layout at APRICOT 2008

# Diagramming Software

**Windows Diagramming Software**

– Visio:

  http://office.microsoft.com/en-us/visio/FX100487861033.aspx

– Ezdraw:

  http://www.edrawsoft.com/

**Open Source Diagramming Software**

– Dia:

  http://live.gnome.org/Dia

– Cisco reference icons:

  http://www.cisco.com/web/about/ac50/ac47/2.html

– Nagios Exchange:

  http://www.nagiosexchange.org/

# Questions

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