

The Network Documentation Tool – Netdot

{net.}
NETwork DOcumentation Tool

What is Netdot?

- An open-source tool designed to help network administrators to collect, organize and maintain network documentation.
- **Why Document?**

How do you keep track of it all?
Sites, Devices, cabling, racks,
VLANs, ports, IP addresses, assets,
contacts.



Why Document?

- Saves the time.
- Promotes consistency.
- Promotes knowledge retention.
- Helps to quickly onboard new hires.
- Provides accurate inventory and device documentation.
- Centralizes and integrates network information.

What does Netdot do?

- Device discovery via SNMP
- Layer 2 topology discovery
- IPv4 and IPv6 Address Management (IPAM)
- Documents cable plant information
- Organizes contact information
- Generates configurations for other tools
- Has role-based access control
- Generates useful reports
- Keeps records of equipment (Asset Management)

Device Management

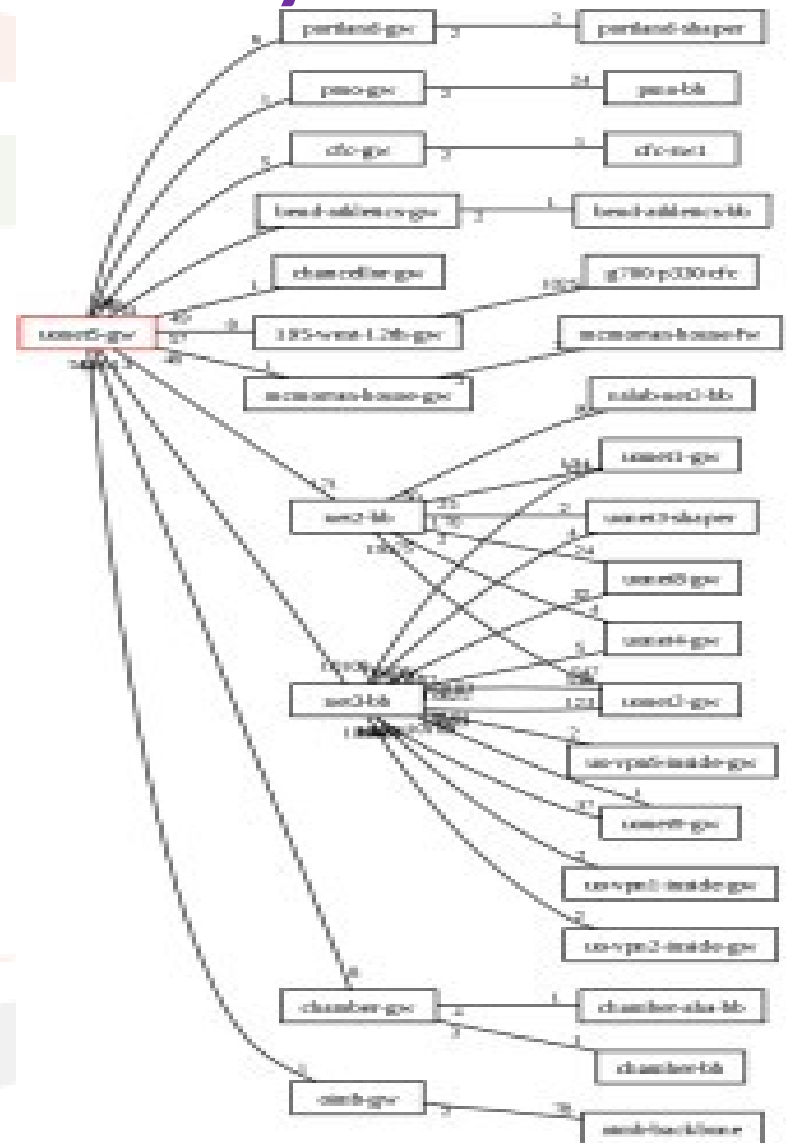
- Devices can be added via SNMP (preferred) or manually. Automatic updates done via SNMP.
- Include manufacturer, model, software version, name and domain etc.
- Interface, VLAN, IP address and BGP peer configurations are also detected.
- ARP tables (routers) and redirection tables (switches) are discovered.

Network Topology Discovery

Discovers and builds Layer 2 topology using the following sources of topological information:

- CDP, LLDP and STP.
- Switches forwarding tables.
- Router point-to-point subnets.

Netdot dynamically draws the topology of a network or a segment of a network.



IP Address Management

IP Space Visualization (IPv4 and IPv6)

- Hierarchical and graphical representation.
- IP added manually or discovered via SNMP.
- Classification in:

-Block

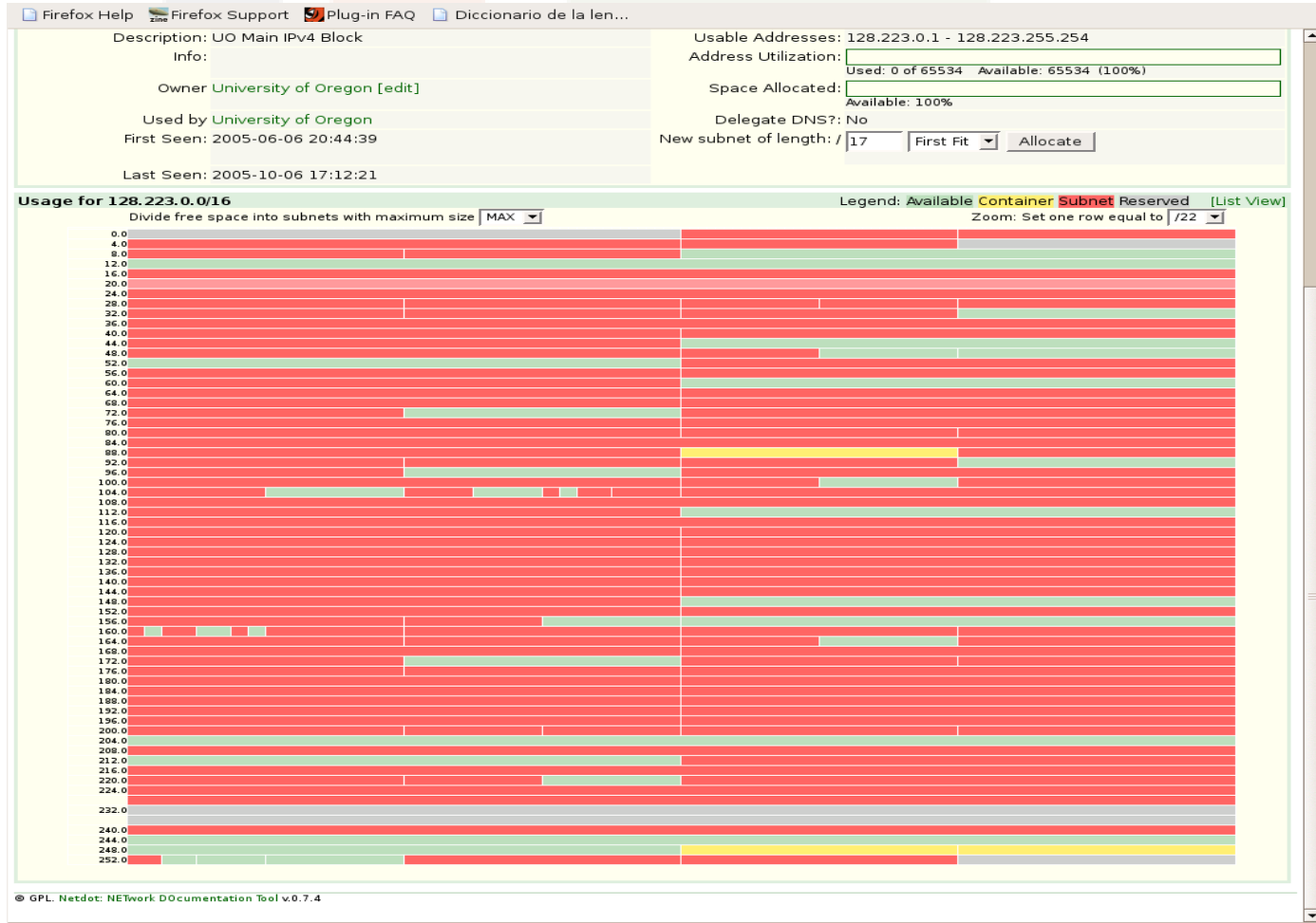
Container, Subnet, and Reserved.

-Address

Static, Dynamic, Reserved and Available.

IP Address Management {continued}

- Caption of address space



IP Address Management {continued}

DNS config management

- Maintain DNS zone data. Zones can be exported as text files to be used by DNS server software.

DHCP config management

- Maintain DHCP information and generate configurations for ISC DHCPD.

Cable Plant

Document:

- Inter-building cabling (backbone).
- In-building fiber and copper distribution.
- Type of fiber, length, quantity of fibers.
- Fiber Interconnections (splicing) and sequences.
- Measurements, tests, interfaces, circuits, status.
- Physical data.
- Photos

Contact Organization

Contact information based on individuals and roles
(Person & Contact)

Information by individual

- Contact data can include; Locations, position, phone number, e-mail address, etc.

Roles

- Administrative contact, technical, etc.
- Notification schedule and levels
- Contact lists

Export Configurations

Netdot enables the generation of configurations for the following software packages.

- Monitoring devices and services; Nagios, Sysmon
- Monitoring configurations; RANCID
- Traffic analysis; Cacti
- Services; DNS and DHCP

Role Based Access Control

There are three types of user access levels in Netdot:

- Admin: Full access to the UI and operations on objects.
- Operator: Full access to the UI, but read-only access to objects.
- User: Limited UI, with view, edit, and delete access to particular objects.
- Tasks such as IP address management, documentation of switch/router ports and updating contact information can only be delegated to specific groups with limited access to the web interface .

Generate Reports

- Device reports.
- Asset reports.
- IP reports based on unused subnets or maxed out subnets.
- Reports on MAC addresses.

Asset Management

- Management of information about device hardware.
- Information such as serial number, inventory number, MAC address, product name, etc of assets are recorded on netdot.
- Information about equipment that are deployed and yet to be deployed.
- Bulk assets can be imported from a text file composed of part number, serial number, and optionally other fields.



QUESTIONS And Answers

Thank You

www.kenet.or.ke

Jomo Kenyatta Memorial
Library, University of Nairobi
P. O Box 30244-00100, Nairobi.
0732 150 500 / 0703 044 500