

# Network Documentation Tool (Netdot)

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# Need for Better Documentation

- Text files scattered everywhere
- No correlation
- All done manually
- Difficult reporting
- Multiple monitoring tools with separate configuration files
- Delegate tasks to other departments



# Features

- Device and Topology Discovery
- IPv4 and IPv6 Address Management (IPAM)
- Cable Plant
- Contacts
- Reports
- Role-based Access Control
- Database backend (MySQL/PostgreSQL)



# Device Management

- SNMP discovery of modules, interface and IP info, VLANs, ARP tables, forwarding tables, manufacturer, model, OS version, etc.
- Topology discovery using CDP/LLDP, Spanning Tree and Forwarding Table analysis
- Manually added information: location, contacts, monitoring, port assignments, etc.



# Topology Graphing

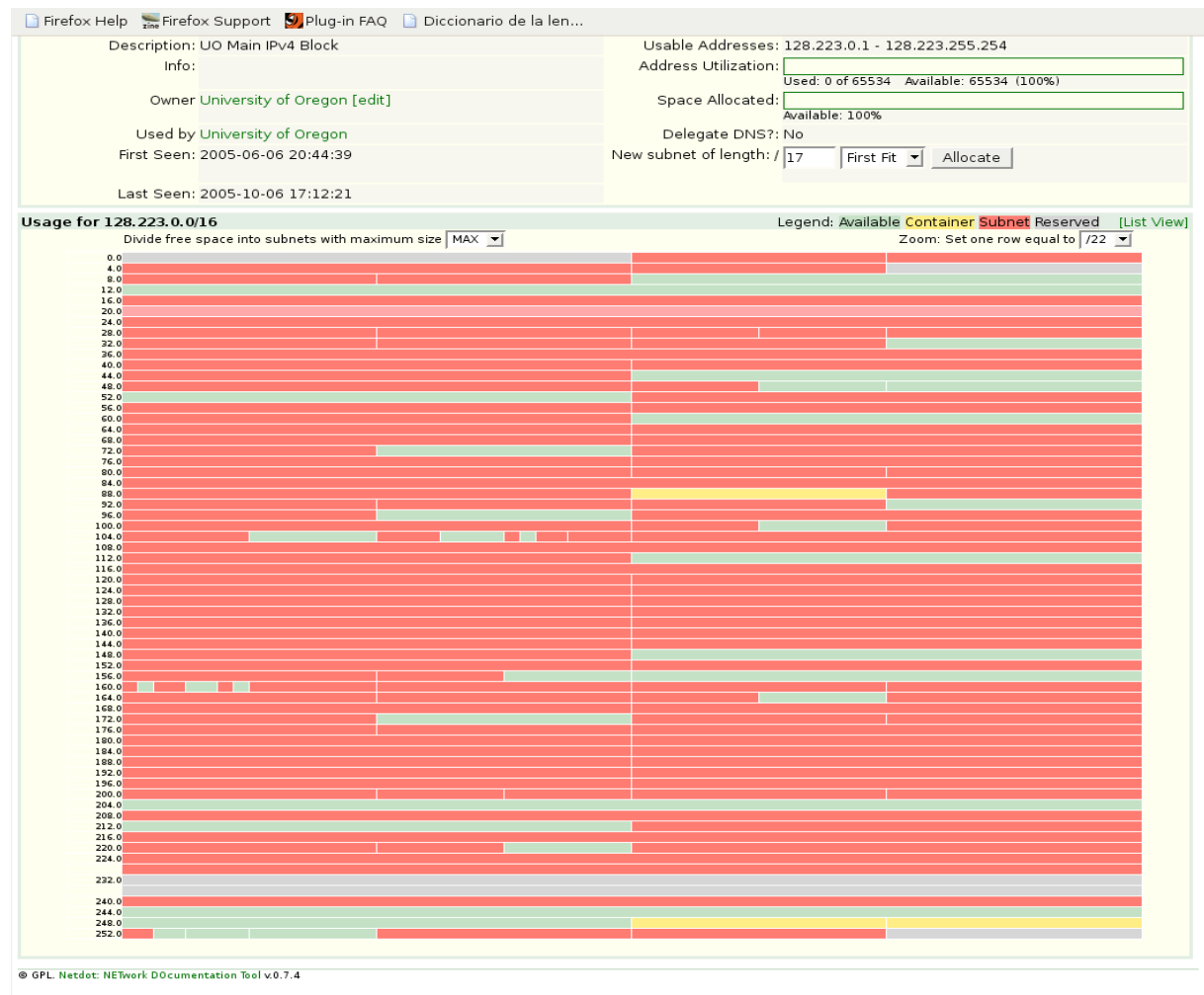


# IP Address Management

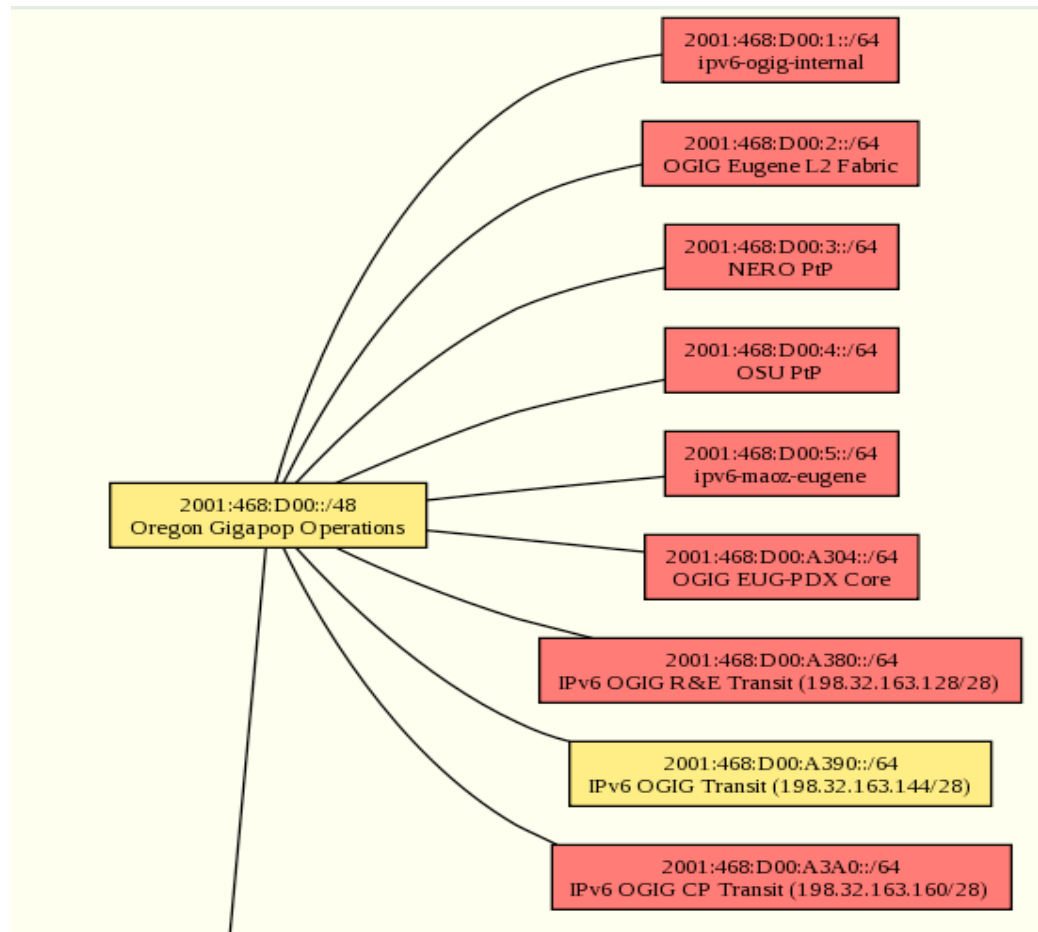
- Hierarchical IPv4 and IPv6 address space organization
- Graphical IP block visualization
- DNS and DHCP configurations (ISC BIND and DHCPD)
- IP and MAC address tracking with history
- Delegation of address and DNS management by subnet



# Graphical IPv4 block view



# IPv6 Block Tree View





# IPv4 Subnet View

[\*]: 128.223.0.0/16 : 128.223.60.0/23 [refresh] [edit] [range] [delete]

Address: 128.223.60.0/23	Owner: University of Oregon (3582) [edit]
Status: <b>Subnet</b>	Used by: Network Services
First Created 2005-06-06 19:38:11	Netmask: 255.255.254.0
Last Modified 2010-01-20 17:54:03	Broadcast: 128.223.61.255
Vlan: 60	Usable Addresses: 510 (128.223.60.1-128.223.61.254)
Description: ns-60	Utilization: <div style="width: 15%;"></div>
Info: Building: Computing Center (Network Services)	Used: 429 of 510 Available: 81 (15%)

DHCP Scope		Type
Name	128.223.60.0 netmask 255.255.254.0	subnet

Sites		
Subnet	128.223.60.0/23	Computing Center (39)
	128.223.60.0/23	Oregon Hall (42)

DNS Zones [edit] [add]

Choose an Address	Legend: Available Discovered Dynamic Static Reserved																				[List View]
60.0	60.1	60.2	60.3	60.4	60.5	60.6	60.7	60.8	60.9	60.10	60.11	60.12	60.13	60.14	60.15						
60.16	60.17	60.18	60.19	60.20	60.21	60.22	60.23	60.24	60.25	60.26	60.27	60.28	60.29	60.30	60.31						
60.32	60.33	60.34	60.35	60.36	60.37	60.38	60.39	60.40	60.41	60.42	60.43	60.44	60.45	60.46	60.47						
60.48	60.49	60.50	60.51	60.52	60.53	60.54	60.55	60.56	60.57	60.58	60.59	60.60	60.61	60.62	60.63						
60.64	60.65	60.66	60.67	60.68	60.69	60.70	60.71	60.72	60.73	60.74	60.75	60.76	60.77	60.78	60.79						
60.80	60.81	60.82	60.83	60.84	60.85	60.86	60.87	60.88	60.89	60.90	60.91	60.92	60.93	60.94	60.95						
60.96	60.97	60.98	60.99	60.100	60.101	60.102	60.103	60.104	60.105	60.106	60.107	60.108	60.109	60.110	60.111						
60.112	60.113	60.114	60.115	60.116	60.117	60.118	60.119	60.120	60.121	60.122	60.123	60.124	60.125	60.126	60.127						
60.128	60.129	60.130	60.131	60.132	60.133	60.134	60.135	60.136	60.137	60.138	60.139	60.140	60.141	60.142	60.143						
60.144	60.145	60.146	60.147	60.148	60.149	60.150	60.151	60.152	60.153	60.154	60.155	60.156	60.157	60.158	60.159						
60.160	60.161	60.162	60.163	60.164	60.165	60.166	60.167	60.168	60.169	60.170	60.171	60.172	60.173	60.174	60.175						
60.176	60.177	60.178	60.179	60.180	60.181	60.182	60.183	60.184	60.185	60.186	60.187	60.188	60.189	60.190	60.191						
60.192	60.193	60.194	60.195	60.196	60.197	60.198	60.199	60.200	60.201	60.202	60.203	60.204	60.205	60.206	60.207						
60.208	60.209	60.210	60.211	60.212	60.213	60.214	60.215	60.216	60.217	60.218	60.219	60.220	60.221	60.222	60.223						
60.224	60.225	60.226	60.227	60.228	60.229	60.230	60.231	60.232	60.233	60.234	60.235	60.236	60.237	60.238	60.239						
60.240	60.241	60.242	60.243	60.244	60.245	60.246	60.247	60.248	60.249	60.250	60.251	60.252	60.253	60.254	60.255						
61.0	61.1	61.2	61.3	61.4	61.5	61.6	61.7	61.8	61.9	61.10	61.11	61.12	61.13	61.14	61.15						
61.16	61.17	61.18	61.19	61.20	61.21	61.22	61.23	61.24	61.25	61.26	61.27	61.28	61.29	61.30	61.31						
61.32	61.33	61.34	61.35	61.36	61.37	61.38	61.39	61.40	61.41	61.42	61.43	61.44	61.45	61.46	61.47						
61.48	61.49	61.50	61.51	61.52	61.53	61.54	61.55	61.56	61.57	61.58	61.59	61.60	61.61	61.62	61.63						
61.64	61.65	61.66	61.67	61.68	61.69	61.70	61.71	61.72	61.73	61.74	61.75	61.76	61.77	61.78	61.79						
61.80	61.81	61.82	61.83	61.84	61.85	61.86	61.87	61.88	61.89	61.90	61.91	61.92	61.93	61.94	61.95						
61.96	61.97	61.98	61.99	61.100	61.101	61.102	61.103	61.104	61.105	61.106	61.107	61.108	61.109	61.110	61.111						
61.112	61.113	61.114	61.115	61.116	61.117	61.118	61.119	61.120	61.121	61.122	61.123	61.124	61.125	61.126	61.127						
61.128	61.129	61.130	61.131	61.132	61.133	61.134	61.135	61.136	61.137	61.138	61.139	61.140	61.141	61.142	61.143						
61.144	61.145	61.146	61.147	61.148	61.149	61.150	61.151	61.152	61.153	61.154	61.155	61.156	61.157	61.158	61.159						
61.160	61.161	61.162	61.163	61.164	61.165	61.166	61.167	61.168	61.169	61.170	61.171	61.172	61.173	61.174	61.175						
61.176	61.177	61.178	61.179	61.180	61.181	61.182	61.183	61.184	61.185	61.186	61.187	61.188	61.189	61.190	61.191						
61.192	61.193	61.194	61.195	61.196	61.197	61.198	61.199	61.200	61.201	61.202	61.203	61.204	61.205	61.206	61.207						
61.208	61.209	61.210	61.211	61.212	61.213	61.214	61.215	61.216	61.217	61.218	61.219	61.220	61.221	61.222	61.223						
61.224	61.225	61.226	61.227	61.228	61.229	61.230	61.231	61.232	61.233	61.234	61.235	61.236	61.237	61.238	61.239						
61.240	61.241	61.242	61.243	61.244	61.245	61.246	61.247	61.248	61.249	61.250	61.251	61.252	61.253	61.254	61.255						

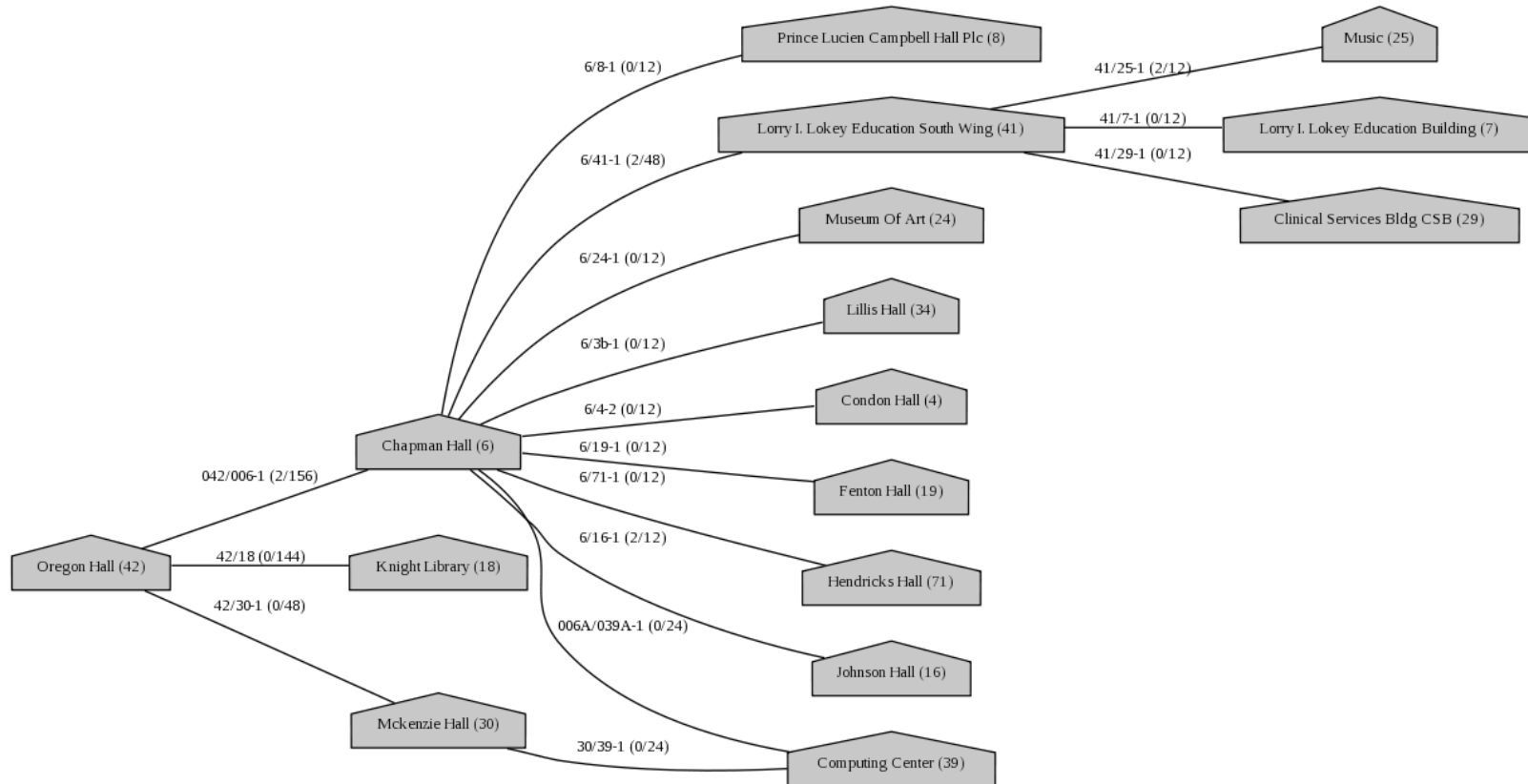


# Cable Plant

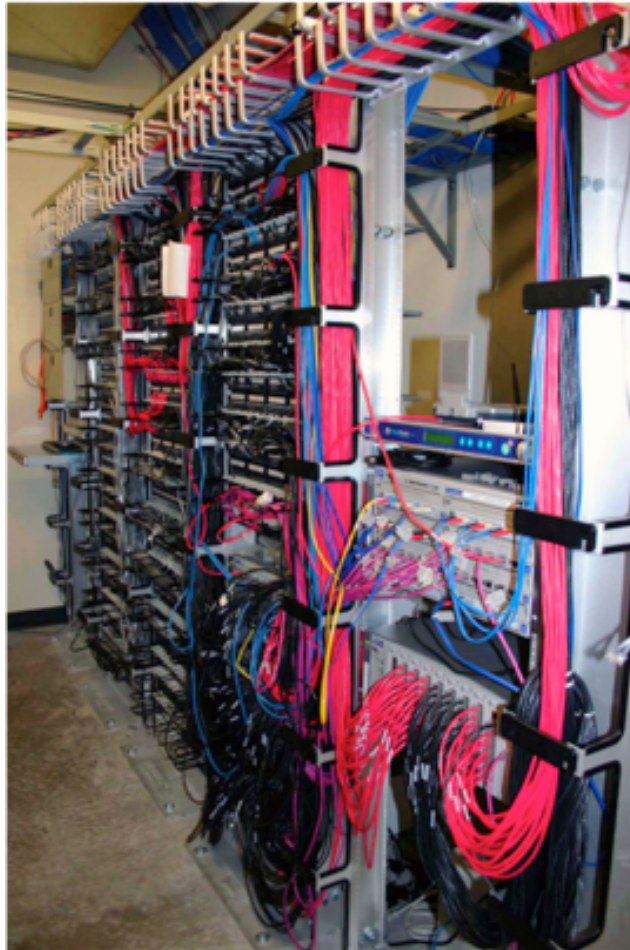
- Backbone Fiber
- In-building Fiber and Copper
  - Floors,
  - Rooms,
  - Jacks
  - Closets
- Circuits



# Backbone Cable Plant

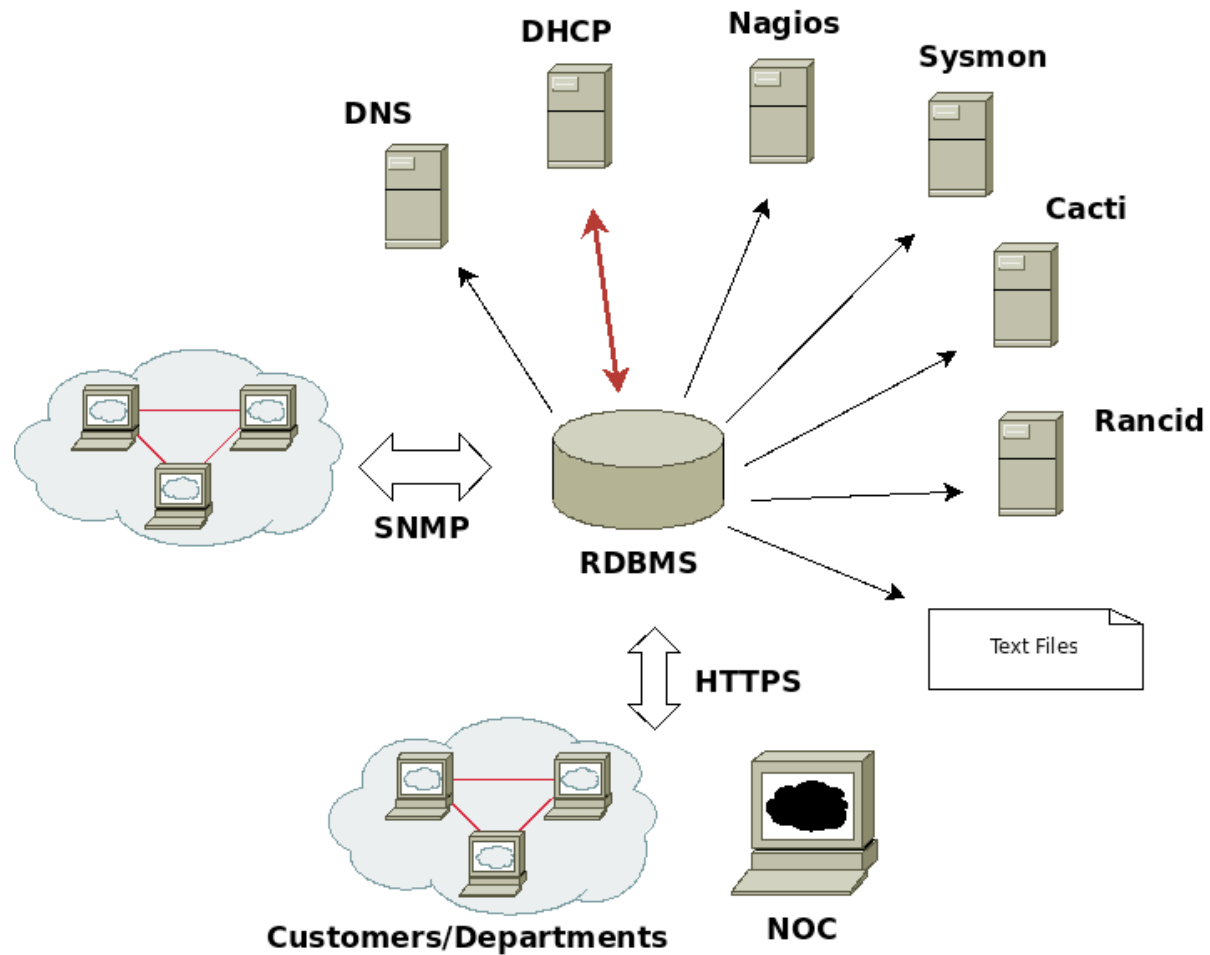


# Closet Pictures



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# Configuration Export



# It's Open Source!

- <http://netdot.uoregon.edu>

