

Address Space Management (IPAM)

NOC is an mature open-source IP Address Management (IPAM) solution, organizing the process of IP address space tracking. Distinctive features of NOC's IPAM are:

- Multi-VRF: NOC can handle unlimited number of independent, possible overlapping, address spaces
- IPv4 and IPv6 management
- Classless allocation
- Allocated prefixes are organized in tree-fashion
- Optimized for speed
- Clean web interface
- Different kinds of blocks and IP addresses can be marked with distinctive visual styles
- Hierarchical access delegation. NOC supports up-to-down access delegation, permitting to allocate larger blocks at the upper level, and fully delegate the management of smaller blocks to appropriate business units
- DNS integration
- Quick online pinging of selected prefix, directly showing hosts availability in the hosts list
- Automatically searching of free IP addresses
- Quick view of free addresses in the block
- Free blocks suggestion during block allocation
- [VC Management](#) integration
- [Service Activation](#) integration
- Support for temporary allocations, offering to reclaim the resources that considered to be freed upon a time
- Reporting tools
- Scripting for enterprise workflow integration

NOC's IPAM is successively used in large ISP networks, datacenters and in high-load online projects.

The screenshot displays the NOC web interface for 'Assigned Addresses'. The left sidebar shows a navigation menu with categories like Main, Project Management, Workflow, GIS, Inventory, Service Activation, Fault Management, Performance Management, Configuration Management, and Address Space Management. The main content area shows the 'Assigned Addresses' page with a breadcrumb trail: 'Начало > Address Space Management > Assigned Addresses'. The page displays the current VRF as 'default' and IPv4. The address space is shown as '0.0.0.0/0 Root'. Below this, there is a table of 'Allocated Prefixes' with columns for Prefix, State, Project, VC, Description, TT, and Tags. The table lists several allocated prefixes, all in 'ALLOCATED' state.

Prefix	State	Project	VC	Description	TT	Tags
10.0.0.0/8	ALLOCATED					
27.20.121.0/30	ALLOCATED			UPSTREAM-MEGAFON-1		
17.100.0.0/24	ALLOCATED			PEERING_YARTT		
46.10.21.129/28	ALLOCATED			PEERING_YARIX		
46.140.0.0/29	ALLOCATED			10.0.0.0/24 - reserved		
16.140.0.0/28	ALLOCATED			10.0.0.0/24 - reserved		
10.0.0.0/30	ALLOCATED			BGW01_ae2.436_CSW10		
16.140.0.0/30	ALLOCATED			BGW01_ae3.437_CSW20		
16.140.128.44/30	ALLOCATED			BGW01_ae3.438_CSW20		