



Carrier Grade IP Address Management

IP Address Management (IPAM) & Provisioning

AX DHCP server is a clusterable carrier-grade DHCP/IPAM (IP Address Management) solution that can be seamlessly integrated within given provisioning platforms.

- Fast and reliable IPv4 and IPv6 address management
- Zero-touch network element configuration
- Comprehensive modeling of complex IP address plans
- Complete IP life-cycle management
- Carrier-grade performance and security levels
- Operations support system (OSS) integration
- End-to-end (E2E) provisioning
- Seamless north-, south-, westbound integration
- High availability is provided (active-active and active-standby)
- Designed and implemented for carrier-grade networks

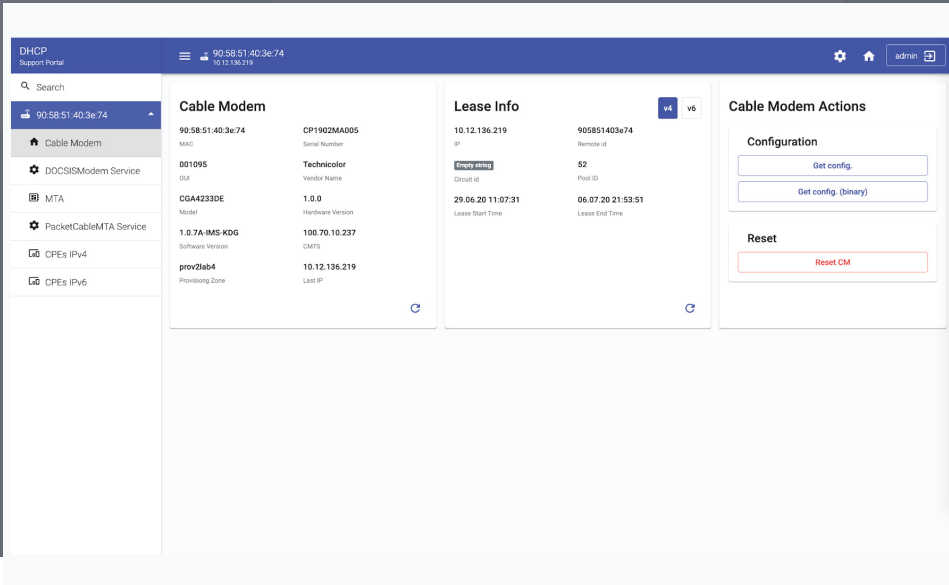
The screenshot shows the DHCPv4 lease overview interface. The left sidebar contains navigation options: Services, Search Sites, prov2lab4, prov2lab4 DHCPv4, Leasing, Blacklists, Groups, Pools, History, Pool Load, prov2lab4 DHCPv6, Leasing, Blacklists, Groups, Pools, History, and Pool Load. The main content area displays a table of leases with the following columns: State, Pool ID, IP, MAC, Remote ID, Circuit ID, Lease Start Time, Lease End Time, Vendor ID, and CM MAC. The table contains several rows of lease data, including details like lease start and end times, vendor names (e.g., AVM GmbH, Thomson, Technicolor, Compal, Thomson, Technicolor, ARRIS Group), and circuit IDs.

DHCPv4 lease overview

The screenshot shows the DHCPv6 lease overview interface. The left sidebar is identical to the DHCPv4 view. The main content area displays a table of leases with the following columns: State, Pool ID, Group ID, IP, IATYPE, IAID, Prefix length, MAC, Lease End Time, Interface ID, and Range ID. The table contains several rows of lease data, including details like lease end times, interface IDs, and range IDs.

DHCPv6 lease overview

Designed to Benefit Carrier-Grade Networks



AX DHCP Support Portal DOCSIS

DDI (DNS - DHCP - IPAM)

The Flexibility to hit Moving Targets

- Customizable DHCP request handling for parsing and synthesis of static and dynamic information
- Exchange of arbitrary and vendor specific options via DHCP
- Parsing the complete DHCP information stream and accessing the complete information set within the DHCP stream
- Scalability: distributed architecture that supports millions of subscribers
- Freely programmable IP provisioning logic - no limitations through hard coded functionality
- Application containerization support
- Web browser based user interface that provides simple access to all settings and configurations

Seamless North-, South-, Westbound Integration

- Transcending business logic between your OSS/BSS, databases and subscriber devices
- External interfaces adaptable at deployment time to fit operators' needs
- Information PUSH / PULL from and to northbound backend systems via OpenAPI
- Databases supported: MySQL, PostgreSQL

End-to-end (E2E) Provisioning

- Configurable caching of responses
- IP calculation from Option 82 information
- Management and configuration of subscriber devices in DOCSIS based access networks
- TR-069 inform generation directly from DHCP process
- Dynamic TFTP or HTTP server forwarding to CPE