efficient iP™

Device Manager

IT Topology Design and Management

Executive Summary

The continuous growth of devices, applications, or VLANs, coupled with virtualization and mobility has dramatically increased the complexity of the IT infrastructure, complicating management, visibility, control and reliability. To meet the challenges of a constantly changing IP-based environment, network infrastructure and device management must rely on consistent, unified and streamlined processes.

EfficientIP's Device Manager is a fully integrated solution to SOLIDserver™ DDI appliance suite, VLAN Manager and NetChange. It delivers a unified management of devices and network interfaces with DNS/DHCP/IPAM and VLANs/VRF in a single process. EfficientIP's DDI appliance defines and manages the complex relationships among IPs related resources. This holistic solution provides a consistent, accurate and dynamic inventory information and process automation. Device Manager unique end-to-end approach strengthens the network foundation, mitigates network downtime risk, cuts operating costs and reinforces infrastructure security.

Dynamic Devices & Network Interfaces Repository

SOLIDserver™ Device manager repository delivers comprehensive enterprise wide visibility of all hardware and virtual device types (switch, server, router, printer, IP phone, etc.) and their metadata (name, number/interface type, OS, serial number).

NetChange-IPLocator™ network discovery tool automatically gathers information and builds-up the Device Manager's inventory for fast and easy setup. Manual adds and bulk device imports are also supported. Device Manager is designed to dynamically interoperate with existing IT asset management solutions (ITAM) to unify IT repositories and processes.

Device manager is the ideal solution within the DDI to store information related to devices of all types. It can contain physical servers, but also virtual machines and even containers inside virtual environments like Kubernetes. As long as the device uses a network interface it is the best place to store metadata related to the device in addition to its interface or its IP address. The automatic topology link between device and IPAM entries based on the MAC address unique identifier allows global visibility.

Design, Control and Streamline Network Interface Allocation

The web-based User Interface enables the user to design and to visualize connections between different devices dramatically speeding the process of resource provisioning, planning, and quality assurance.

- Organize network interface with metadata (backup, production, admin etc.) and naming conventions streamlining allocation
- Define network interface connections between devices (i.e. server-switch) strengthening your network architecture and mitigating downtime risk
- Control and leverage infrastructure investment by planning and anticipating your capacity requirements
- Delegate device deployments through wizard-driven processes

Unify and Automate DDI and VLAN deployments with your Network Topology

Device Manager is fully integrated to SOLIDserver™ DDI appliances, bringing an unparalleled ability to manage in a single process the complete chain of resource allocations, from IP address, VLAN and DNS to devices and network interfaces.

- Comprehensive visibility of all IP-related resources
- End-to-end network deployment consistency control
- Advanced management automation saving time and preventing network downtime
- Dual Stack Management delivers a unified view and provisioning of IPv4-IPv6 addresses allocated to network interfaces and devices
- Best practices enforcement through policy-driven deployment

Device Manager's repository is the foundation of our SMART DDI solution; strengthening and unifying the entire supply chain management of your IP-based resources.

Sizing Recommendations

For best performances and real time ability to update the device and IPAM database, it is recommended to limit the number of devices in the database to the following values per appliance family.

SOLIDserver IPAM Model	Device Manager Nodes
SDS-50	not applicable
SDS-270	5,000
SDS-570	20,000
SDS-1170	150,000
SDS-2270	500,000
SDS-3370	5,000,000
SDS-7070	50,000,000
BLAST-4070 / BLAST-5070 / BLAST-5570	not applicable

End-to-End Reconciliation Management

Device Manager is an essential complementary solution to Net-Change-IPLocator™, EfficientIP's network discovery tool. For each IP and MAC address discovered, NetChange-IPLocator™ will identify the following key information: switch name, switch slot, switch port, switch description, switch OS version, VLAN number, switch status, port speed, link status, first seen and last seen. NetChange-IPLocator™ enables you to compare the theoretical IP address locations defined in SOLIDserver™ IPAM repository with discovered information and identify inconsistencies.

Thanks to SOLIDserver's intelligent technology, the network is truly visible, easily analyzed and compared with unified DDI, VLAN, and Device Manager repositories. EfficientIP delivers a true and complete reconciliation capability inclusive of IP address connections to network device interfaces and VLANs.