

Cisco Prime IP Express

Deliver reliable, automated, core enabling IP services

Demands on today's business networks are extensive - from the increasing number of connected users and devices, requirements for anytime, anywhere network access, and ongoing security concerns, to transitions to virtualized environments and IPv6. And these demands are placing stress on two core enabling IP services, Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP).

Without a fast, reliable, and secure DNS service, broadband Internet access will be compromised. If DNS fails, the Internet will fail. High-performing, reliable, scalable, and secure DNS is mission-critical in today's networks.

DHCP is a core network access technology - every device must be assigned a unique address when connected to the network, a virtually impossible task to undertake manually. Automating the tracking and controlling of users and devices with a high capacity, reliable DHCP server is imperative.

Compounding these demands is the bring-your-own-device (BYOD) movement - users expect to be able to bring their personal mobile devices to work. Self-provisioning these devices securely and cost effectively requires a BYOD interface that integrates with a secure external authentication service like Microsoft Active Directory (AD).

Today's complex networks also require a full-featured, automated IP Address Management (IPAM) solution. Enterprises face huge challenges with IP address management given the continual deployment of new IP services and technologies and the explosive growth in connected devices. Current operational processes, largely manual, simply do not scale. Enterprises require integrated, standards-compliant, and comprehensive solutions to simplify management of IP addresses and prepare their networks for the new demands being placed upon them.

Product Overview

Cisco Prime™ IP Express is a high-performance, reliable, dual-stack capable, cost-effective DNS, DHCP, and IPAM (DDI) solution designed for the enterprise market. It includes the following integrated components and their respective services - all supporting both IPv4 and IPv6:

- DNS services for IP address translation and service delivery
- A DNS caching server that supports forwarding, DNS recursion, and DNS Security Extensions (DNSSEC) to prevent cache poisoning and other attacks
- DHCP services for device network access
- A powerful, comprehensive IPAM system to automate and manage all IP address requirements

Features and Benefits

Cisco Prime IP Express provides:

- **Comprehensive, automated, IP address management and visibility:** Cisco Prime IP Express IPAM provides easy, integrated management of IPv4 and IPv6 address space as well as multivendor DHCP and DNS configurations - all in one solution. With the ability to discover, track, allocate, assign, and reclaim IP addresses automatically and tools to model IP data, network administrations can significantly improve operational efficiencies and shrink workloads from days and hours to minutes. In addition, automation of these tasks helps eliminate IP conflicts and configuration errors, reducing downtime of DHCP and DNS services and lowering network operating costs.

Dashboards provide real-time visibility into IPv4 and IPv6 networks and device connections for faster troubleshooting. Network-operator-defined thresholds and alerts provide notification of impending address depletion and other potential address space inventory issues.

Granular, role-based IPAM delegation of functional and logical access, visibility, and control allows tiered administration, such that multiple administrators can manage the system with different rights and sign-off privileges. In addition, IPAM support for (and seamless integration with) Microsoft DNS and DHCP services reduces management complexity and allows enterprises to protect their existing investments.

- **DNS:** Cisco Prime IP Express DNS is standards compliant, supports both IPv4 and IPv6, and is reliable with support for high availability DNS. High performance delivers query throughput that far exceeds competitive solutions. A separate, extremely fast caching-only server performs DNSSEC validation and helps to protect resource records against common DNS vulnerabilities for enhanced security. Built-in support for domain redirect and NXDomain redirect helps administrators optimize the user experience by helping avoid “risky” websites and assist users when they query an invalid domain name.
- **DHCP:** Cisco Prime IP Express DHCP is scalable, fast, and powerful to meet the demands of complex networks and to support millions of devices. Exceptional performance capabilities help ensure that the DHCP server can handle particularly heavy loads, including the surge of demand that typically follows a power failure. In addition, the solution includes support for DHCPv4 and DHCPv6 failover and a patent-pending discriminating rate limiter for avalanche protection to limit downtime after network outages.
- **BYOD and Microsoft AD support:** Cisco Prime IP Express provides an integrated, easy-to-use BYOD portal that allows for self-service device registration and management. Employees can use their own mobile devices for business communications in a managed way - with the correct IP addresses and network settings. It provides terms of use and branding and identity confirmation that all lead to an in-house provisioning experience that will lower operating expenses (OpEx) while satisfying administrators and end users. The solution is also compatible with Microsoft Active Directory for external authentication, supporting the growing prevalence of AD and lowering operating expenses.
- **Support for IPv6 and virtualization:** Cisco Prime IP Express includes integrated, full lifecycle management for IPv4 and IPv6 (including US Government IPv6 certification) and allows dual-stack deployments on a single server to ease the transition to next generation IP networking. And extensive support for virtual machines and the related provisioning and administration of IP addresses helps enterprises manage the transition to virtualized environments.
- **Deployment options:** Cisco Prime IP Express is available as a virtual appliance, offering fast startup and rapid time to value.

About Cisco Prime

The Cisco Prime portfolio of IT and service provider management offerings empowers organizations to more effectively manage their networks and the services they deliver. Built on a service-centered foundation, Cisco Prime supports integrated lifecycle management through an intuitive workflow-oriented user experience, providing A-to-Z management for evolved programmable networks, mobility, video, cloud, and managed services.

Service and Support

Using the Cisco® lifecycle services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

For More Information

For more information about Cisco Prime IP Express, visit <http://www.cisco.com/go/prime-ipexpress>, contact your local account representative, or send an email to prime-ipexpress@cisco.com.



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