



network solutions for hp-ux 11i: IPv6



solution brief

make the right connections with hp and the next-generation Internet protocol

The unprecedented growth of the Internet over the last several years has changed our world in ways we might never have imagined—how we work, how we play, how we live.

On the network connectivity front, this explosive growth has resulted in the rapid depletion of available address space, forcing many organizations to develop complex addressing schemes—just to make a simple connection to the Internet. Our demand for connectivity already exceeds supply in our hardwired world. And just around the corner is the need for distinct IP addresses for devices such as mobile phones, PDAs, laptops, cars—even devices such as printers and refrigerators.

This phenomenal growth is challenging current paradigms on ease of use and administration complexity, and it's forcing an evolution of the TCP/IP protocol, one of the most significant technology enablers for the Internet.

The bottom line? In this age of the Internet it's all about making connections. And with the next wave of technology upon us, a new model that can scale with this exponential growth is imperative.

Internet protocol version 6—the next wave of Internet device connectivity

Momentum is already mounting behind the next-generation Internet Protocol version 6, also known as "IPng" or "IPv6." IPv6 was designed by the Internet Engineering Task Force (IETF) to improve upon the scalability, security, ease of configuration, and network management capabilities of the current Internet protocol, IPv4.

IPv6 represents the new standard, providing the infrastructure to enable the next wave of Internet devices such as PDAs, mobile phones, and appliances. It also provides greater connectivity for existing devices such as laptops. IPv6 is the way to make the right connections in our hardwired and wireless world.

comprehensive networking for mission-critical and enterprise needs with hp's IPv6

The IPv6 protocol is only as robust as the operating system it is deployed on. Once again, technology leader HP is at the forefront with a fully supported version of IPv6 for our highly secure, available, and manageable HP-UX 11i, the UNIX® operating environment that powers e-services and HP-UX servers on both PA-RISC and Itanium™ processor families.

HP is committed to supporting IPv6 to enable your always-on Internet infrastructure. HP-UX 11i's implementation of IPv6 offers a greatly expanded number of Internet addresses, more complete security and authentication, and greater ease of manageability and configuration. IPv6 runs on all HP-UX 11i systems. We offer a complete IPv6 solution at the transport level that enables new features and also includes many of the products and technologies that our customers have come to rely on in their IPv4 networks.

hp IPv6 meets the connectivity demands of the next wave of computing

- IP address size is increased from 32 bits to 128 bits, supporting many more addressable nodes and levels of addressing hierarchy.
- Dual stacks allow applications to run on both IPv4 and IPv6 stacks. Existing applications will continue to run on IPv4 seamlessly.
- End-to-end encryption at the network layer ensures data confidentiality.

hp-ux 11i IPv6 features and benefits

- **smooth transition from IPv4 to IPv6**—Dual stacks facilitate IPv6 deployment, allowing existing applications to coexist on both IPv4 and IPv6 networks. Application modification is required only when the application needs to take advantage of the new IPv6 features.
- **plug-and-play address autoconfiguration**—A “link local” IP address is automatically configured to allow immediate communication with directly connected hosts, printers, or other devices.
- **security at the IP layer**—IPv6 has built-in IP security extensions for authentication, data integrity, and data confidentiality ensured by a standard header extension for end-to-end encryption at the network layer.
- **Ethernet links supported**—HP-UX 11i IPv6 supports Ethernet links on HP-UX 11i.
- **growing list of IPv6 partners**—Partners include SAM, Java™ Virtual Machine, Apache, IPSec, and technologies such as BIND 9.2 and DHCPv6.
- **IPv6 protocol stack**—IPv6 supports stateless address auto-configuration; neighbor discovery; router discovery; duplicate address detection; automatic and configured tunnels; and TCP and UDP over IPv6, PMTUv6, and ICMPv6.

choose a partner with the vision for the future— and the technology roadmap to back it up

HP is a leading vendor for next-generation technologies such as IPv6, with the vision and the know-how to make it happen. Unlike other vendors' versions, HP-UX 11i IPv6 is a fully supported product and is fully standards compliant—with a growing number of IPv6 partners and a wealth of applications ready to go.

HP is ready to help you make the connection with HP-UX 11i IPv6.

IPv6 is available to you now via a free-of-charge download from HP's software depot.

for more information

For more information about the HP-UX 11i operating system, visit: www.hp.com/go/hpux

For more information about HP-UX 11i IPv6 and to download the product, visit:

[www.hp.com/products1/unixserverconnectivity/
software/ipv.html](http://www.hp.com/products1/unixserverconnectivity/software/ipv.html)

For more about products and technologies that support HP-UX's IPv6, visit:

[www.hp.com/products1/unixserverconnectivity/
software/IPv6_partners.html](http://www.hp.com/products1/unixserverconnectivity/software/IPv6_partners.html)

For more information about HP-UX's mobile infrastructure, visit: [www.hp.com/products1/unix/operating/
internet/mobile_infrastructure.html](http://www.hp.com/products1/unix/operating/internet/mobile_infrastructure.html)

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