



IPv6

# Nokia IPv6 and Platforms

Nicholas Ellenden

Business Development Manager

Nokia Internet Communications



# NOKIA IPv6 VIEW

- IPv6 is required to support vast numbers of new Internet devices
- IPv6 is required as a foundation for Global IP Mobility
- IPv6 allows for equitable worldwide assignment of addresses

# NOKIA IPRG PLATFORMS

- Nokia IP 110
  - Entry level security appliance
  - High end security in a compact package
- Nokia IP330
  - Fully featured firewall / router platform
  - WAN connectivity
  - Ideal for small and medium enterprises
- Nokia IP440
  - Flexible, scalable
  - Interface density
  - Ideal for medium sized enterprises
- Nokia IP650
  - Carrier-class serviceability
  - Redundant power supplies and fans
  - Hot swappable interface cards





IPv6

# Nokia Promised ....



IPv6

# FIRST NOKIA IPv6 PRODUCT ANNOUNCEMENT

- Nokia IPRG Product Family
- IPv6 included in IPSO 3.3 Release
  - Shipping product since November 2000
  - Run on IP110, IP330, IP440, and IP650 products
- Used as platform for Nokia 3G products
  - GPRS, SGSN, and GGSN



IPv6

# Nokia Delivered ....

# IPv6 IPSO 3.3 RELEASE FEATURES

- Kernel
  - IPv6 (RFC2460)
  - ICMPv6 (RFC2463)
  - Neighbor Discovery (RFC2461)
    - Router only
  - IPv6 TCP support
  - IPv6 over IPv4 tunnel
  - IPv6 over
    - Ethernet (RFC2464)
    - FDDI (RFC2467)
    - PPP (RFC2472)
    - ATM (RFC2492, PVC only )
    - ARCNET (RFC2497)
    - Token ring (RFC2470)
- IPv6 over IPv4 Tunnel (RFC2529)
- IPv6 to IPv4 (6\_to\_4 ID)
- Generic Packet Tunneling (RFC 2460)
  - IPv4 thru IPv6 only
- Basic IPv6 Socket Interface (RFC 2553) except
  - Compatibility with IPv4 nodes
  - Translation of nodename to address
  - Translation of address to nodename
  - Socket address structure to node name and service name

# IPv6 IPSO 3.3 FEATURES (CON

- Routing
  - Router Discovery
    - Subset of Neighbor Discovery (RFC 2461)
  - RIPng for IPv6
  - Static routes
  - Route aggregation
  - Route redistribution
- User
  - IPv6 inetd
  - IPv6 Telnet client and server
  - IPv6 FTP client and server
- Utilities
  - ping, netstat, tcpdump, ndp
- NMS
  - Voyager web configuratio



## The Future ...

- Strong support for IPv6 Migration
- Intensive and close co-operation with suppliers to bring IPv6 into full solution offering
- Expansion of IPv6 support from IPRG solutions to Nokia VPN and Internet Commerce Enhancement solutions



IPv6

# Thank you

[nicholas.ellenden@nokia.com](mailto:nicholas.ellenden@nokia.com)

[www.nokia.com/ipv6](http://www.nokia.com/ipv6)