



## End-of-Sale and End-of-Life Announcement for the Cisco 6400 Universal Access Concentrator

**Cisco Systems® announces the end of sale and end of life of Cisco® 6400 Universal Access Concentrator (UAC). The last day to order Cisco 6400 UAC is July 19, 2004. Customers will continue to receive support from the Cisco Technical Assistance Center (TAC) until July 19, 2009. Table 1 describes the end-of-life milestones, definitions, and dates for Cisco 6400 UAC.**

Customers are encouraged to migrate to Cisco 7200 Series Router, Cisco 7301 Router, Cisco 7600 Series Router, or Cisco 10000 Series Router for broadband service deployments. The Cisco 10000 Series Router is recommended for service provider DSL networks. Information about these products can be found at:

<http://www.cisco.com/en/US/products/hw/routers/index.html>

Table 3 provides relevant information for migrating from Cisco 6400 UAC to the Cisco 7200 Series, Cisco 7301, Cisco 7600 Series, or Cisco 10000 Series products.

- *Cisco 7200 Series Router*—The most widely deployed broadband aggregation solution in the industry comes in a compact 3-rack-unit (3-RU), modular universal router that supports a range of interfaces and Cisco IOS® Software broadband feature set. Support for up to 16,000 simultaneous subscriber sessions is available using Cisco 7200 NPE-G1 processor.
- *Cisco 7301 Router*—The highest-performing single-rack-unit (1-RU) router in the industry with three built-in Gigabit Ethernet interfaces. Supports a robust Cisco IOS Software broadband feature set and up to 16,000 simultaneous subscriber sessions.
- *Cisco 7600 Series Router*—High-performance Ethernet subscriber services are supported by the Multiprocessor WAN Applications Module (MWAM) for Cisco 7600 Series. Support for up to 32,000 Point-to-Point Protocol over Ethernet (PPPoE) sessions, 16,000 Layer 2 Tunneling Protocol (L2TP) tunnels, and 16,000 Service Selection Gateway (SSG) subscribers per MWAN module. The Cisco 7600 Series offers integrated high-density Ethernet switching and carrier-grade IP/Multiprotocol Label Switching (MPLS) routing with broadband reliability, availability, and serviceability (RAS) functions.
- *Cisco 10000 Series Router*—Carrier-class delivery of up to 61,500 simultaneous subscriber sessions tightly coupled with a proven high availability and a rich service-enabling feature set. Ideal for ATM Layer 2 Tunneling Protocol access concentrator (LAC) or PPP termination aggregation (PTA) environments with robust ATM interfaces, high-density ATM virtual circuit support and patent-pending auto-virtual circuit creation and provisioning capabilities.



Table 1 End-of-Life Milestones and Dates for the Cisco 6400 Universal Access Concentrator

Milestone	Definition	Date
<b>End-of-life announcement date</b>	The date the end-of-sale and end-of-life announcement is distributed to the general public.	January 19, 2004
<b>End-of-sale date</b>	The last date to order the product through Cisco point-of-sale mechanisms. The product is no longer for sale after this date.	July 19, 2004
<b>Last shipment date</b>	The last possible date that Cisco and/or its contract manufacturers will ship the affected product. Actual ship date is dependent on lead-time.	October 19, 2004
<b>End of software maintenance releases date</b>	The last date that Cisco Engineering may release any final software maintenance releases or bug fixes. After this date, Cisco Engineering will no longer develop, repair, maintain, or test the product software.	July 19, 2005
<b>End of Routine failure analysis date</b>	The last possible date a routine failure analysis may be performed to determine the cause of product failure or defect.	July 19, 2005
<b>End of new service attachment date</b>	For equipment and software that is not covered by a service-and-support contract, this is the last date to order a new service-and-support contract or add the equipment and/or software to an existing service-and-support contract.	July 19, 2005
<b>End of service contract renewal date</b>	The last date to extend or renew a service contract for the product. The extension or renewal period cannot extend beyond the last date of support.	April 19, 2008
<b>Last date of support</b>	The last date to receive service and support for the product. After this date, all support services for the product are unavailable, and the product becomes obsolete.	July 19, 2009

Table 2 Product Part Numbers Affected by This Announcement

End-of-Sale Product Part Number	Product Description
<b>CISCO6400</b>	Cisco 6400 Universal Access Concentrator
<b>C6400-CHAS-DC</b>	Cisco 6400 Chassis with DC Power Entry Module (PEM)
<b>C6400-CHAS-DC/R</b>	Cisco 6400 Chassis with redundant DC PEMs
<b>C6400-CHAS-AC</b>	Cisco 6400 Chassis with AC PEM
<b>C6400-CHAS-AC/R</b>	Cisco 6400 Chassis with redundant AC PEMs
<b>C6400-23ADPT-SET</b>	Cisco 6400 23" Rack Adaptor Set
<b>C6400-NSP-CVR</b>	Cisco 6400 Full Height Node Switch Processor (NSP) Cover
<b>C6400-NLC-CVR</b>	Cisco 6400 Half Height Node Line Code (NLC) Cover
<b>C6400-NRP-CVR</b>	Cisco 6400 Full Height Node Route Processor (NRP) Cover
<b>C6400-PEM-CVR</b>	Cisco 6400 Half Height PEM Cover
<b>C6400-NSP-1</b>	Cisco 6400 Node Switch Processor
<b>C6400-NSP-1/R</b>	Cisco 6400 Node Switch Processor/Redundant (2)
<b>C6400-NSP-S3B</b>	Cisco 6400 Node Switch Processor with Stratum 3/Building Integrated Timing Supply (BITS)



Table 2 Product Part Numbers Affected by This Announcement (Continued)

End-of-Sale Product Part Number	Product Description
<b>C6400-NSP-S3B/R</b>	Cisco 6400 NSP with Stratum 3/BITS/Redundant (2)
<b>MEM-NSP-64M</b>	NSP 64 MB DRAM (Default)
<b>MEM-NSP-128M</b>	NSP 128 MB DRAM (Option)
<b>MEM-NSP-FD32M</b>	NSP 32 MB Flash Disk (Default)
<b>MEM-NSP-FD350M</b>	NSP 350 MB Flash Disk (Option)
<b>C6400-CARRIER</b>	Cisco 6400 Carrier Module
<b>NLC-2DS3-BNC</b>	2 port DS3 NLC Module
<b>NLC-2OC3-SM</b>	2 port OC-3/Synchronous Transfer Mode (STM)-1 Single Mode
<b>NLC-2OC3-MM</b>	2 port OC-3/STM-1 Multimode
<b>NLC-1OC12-SM</b>	1 port OC-12/STM-4 Single Mode
<b>C6400-NRP-1</b>	Cisco 6400 Node Route Processor 1st Generation
<b>C6400-NRP-1/R</b>	Cisco 6400 Node Route Processor 1st Generation/Redundant
<b>C6400-NRP-2</b>	Cisco 6400 Node Route Processor 2nd Generation
<b>C6400-NRP-2/R</b>	Cisco 6400 Node Route Processor 2nd Generation/Redundant
<b>C6400-NRP-2SV</b>	Cisco 6400 Node Route Processor 2nd Generation with Shape virtual circuits
<b>C6400-NRP-2SV/R</b>	Cisco 6400 Node Route Processor 2nd Generation with Shaped virtual circuits/Redundant
<b>MEM-NRP-64M</b>	NRP 64 MB DRAM (Default NRP-1)
<b>MEM-NRP-128M</b>	NRP 128 MB DRAM (Option NRP-1)
<b>MEM-NRP-256M</b>	NRP 256 MB DRAM (Default NRP-2/NRP-2SV)
<b>MEM-NRP-512M</b>	NRP 512 MB DRAM (Option NRP-2/NRP-2SV)
<b>MEM-NRP-FS8M</b>	NRP 8 MB Flash Memory (Default)
<b>MEM-NRP-FS16M</b>	NRP 16 MB Flash Memory (Option)
<b>S64J4-12213T</b>	Cisco 6400 IOS Software for NSP
<b>S64J3-12213T</b>	Cisco 6400 IOS for NRP-1—Base, Label Switch Controller (LSC), or MPLS VPN
<b>S64J31-12213T</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Base, LSC, or MPLS VPN
<b>S64J5-12213T</b>	Cisco 6400 IOS for NRP-1—Multidomain
<b>S64J51-12213T</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Multidomain
<b>S64J6-12213T</b>	Cisco 6400 IOS for NRP-1—Web Selection
<b>S64J61-12213T</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Web Selection
<b>S64J4-12202B</b>	Cisco 6400 IOS for NSP



Table 2 Product Part Numbers Affected by This Announcement (Continued)

End-of-Sale Product Part Number	Product Description
<b>S64J3-12202B</b>	Cisco 6400 IOS for NRP-1—Base, LSC, or MPLS VPN
<b>S64J31-12202B</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Base, LSC, or MPLS VPN
<b>S64J5-12202B</b>	Cisco 6400 IOS for NRP-1—Multidomain
<b>S64J51-12202B</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Multidomain
<b>S64J6-12202B</b>	Cisco 6400 IOS for NRP-1—Web Selection
<b>S64J61-12202B</b>	Cisco 6400 IOS for NRP-2/NRP-2SV—Web Selection
<b>LL64J3</b>	Cisco 6400 IOS for NRP—Base, LSC, or MPLS VPN
<b>LL64J4</b>	Cisco 6400 IOS for NSP
<b>LL64J5</b>	Cisco 6400 IOS for NRP—Multidomain
<b>LL64J6</b>	Cisco 6400 IOS for NRP—Web Selection
<b>C6400-FRAME=</b>	Cisco 6400 Frame/Chassis
<b>C6400-BLOWER=</b>	Cisco 6400 Blower Assembly Spare
<b>C6400-FLTR=</b>	Cisco 6400 Air Filter Spare
<b>PEM-PWR-DC=</b>	Cisco 6400 DC PEM
<b>PEM-PWR-AC=</b>	Cisco 6400 AC PEM
<b>C6400-23ADPT-SET=</b>	Cisco 6400 23
<b>C6400-NSP-1=</b>	Cisco 6400 Node Switch Processor
<b>C6400-NSP-S3B=</b>	Cisco 6400 Node Switch Processor with Stratum 3/BITS
<b>MEM-NSP-64M=</b>	NSP 64 MB DRAM (Spare)
<b>MEM-NSP-128M=</b>	NSP 128 MB DRAM
<b>MEM-NSP-FD32M=</b>	Cisco 6400 NSP 32 MB Flash Disk-Spare
<b>MEM-NSP-FD350M=</b>	Cisco 6400 NSP 350 MB Flash Disk
<b>C6400-CARRIER=</b>	Cisco 6400 Carrier Module
<b>NLC-2DS3-BNC=</b>	2 port DS3 NLC
<b>NLC-2OC3-MM=</b>	2 port OC-3/STM-1 Multimode
<b>NLC-2OC3-SM=</b>	2 port OC-3/STM-1 Single Mode
<b>NLC-1OC12-SM=</b>	1 port OC12/STM4 Single Mode
<b>C6400-NRP-1=</b>	Cisco 6400 Node Route Processor 1st Generation
<b>C6400-NRP-2=</b>	Cisco 6400 Node Route Processor 2nd Generation
<b>C6400-NRP-2SV=</b>	Cisco 6400 Node Route Processor 2nd Generation with Shape virtual circuits



Table 2 Product Part Numbers Affected by This Announcement (Continued)

End-of-Sale Product Part Number	Product Description
<b>MEM-NRP-64M=</b>	NRP 64 MB DRAM (Default NRP-1)
<b>MEM-NRP-128M=</b>	NRP 128 MB DRAM (Option NRP-1)
<b>MEM-NRP-256M=</b>	NRP 256 MB DRAM (Default NRP-2/NRP-2SV)
<b>MEM-NRP-512M=</b>	NRP 512 MB DRAM (Option NRP-2/NRP-2SV)
<b>MEM-NRP-FS8M=</b>	NRP 8 MB Flash Memory (Default)
<b>MEM-NRP-FS16M=</b>	NRP 16 MB Flash Memory (Option)
<b>C6400-NSP-CVR=</b>	Cisco 6400 Full Height NSP Cover
<b>C6400-NLC-CVR=</b>	Cisco 6400 Half Height NLC Cover
<b>C6400-NRP-CVR=</b>	Cisco 6400 Full Height NRP Cover
<b>C6400-PEM-CVR=</b>	Cisco 6400 Half Height PEM Cover
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<b>S64J6-12213T=</b>	Cisco 6400 IOS Software for NRP-1—Web Selection
<b>S64J61-12213T=</b>	Cisco 6400 IOS Software for NRP-2/NRP-2SV—Web Selection
<b>S64J4-12202B=</b>	Cisco 6400 IOS Software for NSP
<b>S64J3-12202B=</b>	Cisco 6400 IOS Software for NRP-1—Base, LSC, or MPLS VPN
<b>S64J31-12202B=</b>	Cisco 6400 IOS Software for NRP-2/NRP-2SV—Base, LSC, or MPLS VPN
<b>S64J5-12202B=</b>	Cisco 6400 IOS Software for NRP-1—Multidomain
<b>S64J51-12202B=</b>	Cisco 6400 IOS Software for NRP-2/NRP-2SV—Multidomain
<b>S64J6-12202B=</b>	Cisco 6400 IOS Software for NRP-1—Web Selection
<b>S64J61-12202B=</b>	Cisco 6400 IOS Software for NRP-2/NRP-2SV—Web Selection

### Product Migration Options

The recommended replacement for Cisco 6400 UAC is Cisco 10000 Series Router with its PRE2 (Performance Routing Engine) and broadband Cisco IOS Software. Cisco 7200 Series Router, Cisco 7301 Router, and Cisco 7600 Series Router are potential replacement products, depending on customer requirements.

The Cisco 10000 Series Router combines superior packet-processing and forwarding performance with integrated broadband and private line feature support for up to 61,500 simultaneous broadband subscriber sessions in a product that meets the stringent requirements of Carrier-Class Network deployments. It is ideal for most Cisco 6400 Series Router migration,



because it provides support for the requisite broadband features plus it delivers the advancements and benefits of next generation of Broadband Remote Access Servers (BRAS). In addition, the product supports the array of Ethernet, packet over SONET (POS) and ATM interfaces with high-density ATM virtual circuit support and a patent-pending auto-virtual circuit creation feature to ease provisioning in the DSL environment (Table 3).

Table 3 Cisco 6400 UAC to Cisco 10000 Migration Features

Access Protocols
ATM Virtual Circuit Traffic Shaping
Integrated Routing and Bridging (IRB)
Multilink PPP
PPP IP Control Protocol (IPCP) Subnet Negotiation
PPP over ATM (PPPoA) Terminated
PPP over Ethernet (PPPoE) Terminated
PPPoA/PPPoE Autosense Subnetwork Access Protocol (SNAP)
Routed Bridge Encapsulation (RBE)
RBE Subinterface Grouping
RBE Unnumbered Dynamic Host Configuration Protocol (DHCP)
RBE with DHCP
RBE with DHCP Option 82
RFC 1483 Bridging
RFC 1483 Routing
Aggregation and VPNs
L2TP MultiHop
L2TP Remote Access into MPLS VPN
L2TP Tunnel Service Authorization Enhancement
L2TP Tunnel Sharing
L2TP Tunnel Switching
MPLS Edge Label Switch Router (Edge LSR)
MPLS Label Distribution Protocol
MPLS LSC for Cisco BPX <sup>®</sup> switch
MPLS VPNs
PPPoA Tunneled into L2TP
PPPoE Tunneled into L2TP
PPPoA/PPPoE Remote Access into MPLS VPN
RFC 1577
VLAN (ISL)
VLAN (802.1q)
Configuration and Monitoring
ATM Permanent Virtual Circuit (PVC) Range Command
Permanent—Virtual Circuit Error Display
Hardware Support



Table 3 Cisco 6400 UAC to Cisco 10000 Migration Features (Continued)

Fast Ethernet Interface
Gigabit Ethernet Interface
Network Management Ethernet (NME)
Route Processor Redundancy (1+1)
Optical Line Automatic Protection Switching (APS) (1+1)
<b>IP and Routing</b>
Address Resolution Protocol (ARP)
Border Gateway Protocol (BGP) <sup>4</sup>
Enhanced Interior Gateway Routing Protocol (EIGRP)
Generic Routing Encapsulation (GRE)
Internet Group Management Protocol (IGMP)
IP Forwarding
IP Multicast
IP Quality of Service (QoS)—Policing, Marking, and Classification
Intermediate System-to-Intermediate System (IS-IS) Protocol
NetFlow
Open Shortest Path First (OSPF) Protocol
Protocol Independent Multicast (PIM) Dense Mode and Sparse Mode
Routing Information Protocol (RIP)/RIP version 2
TCP/IP
Telnet
Trivial File Transfer Protocol (TFTP)
<b>Service Selection Gateway</b>
PPPoE, PPPoA, Terminated to IP sessions
IPoATM (RFC 2684) and RBE—one source IP Address/Subscriber per Virtual Circuit
PTA Multidomain (PTA-MD)—No Network Address Translation (NAT)
Captive Portal
Transparent Pass-Through Service
Open Garden
Domain Name System (DNS) Redirection (on per Virtual Routing Function basis)
Access Control Lists (ACLs)
Hierarchical Policing
Service Profiles and Cached Services Profiles
Network Access Server (NAS) Port ID for RFC 1483
Service Defined Cookie
Server Groups for Proxy RADIUS
Multicast

Customers can use the Cisco Technology Migration Plan (TMP) to trade in products and receive credit toward the purchase of new Cisco equipment. For more information about Cisco TMP, go to:

<http://www.cisco.com/go/tradein/>

The Cisco TMP application requires all users to have a Cisco.com user ID.

#### Additional Information

For more information about Cisco products, contact your Cisco account manager or Cisco Channel Partner.

For more information about the Cisco End-of-Life Policy, go to:

[http://www.cisco.com/en/US/products/prod\\_end\\_of\\_life.html](http://www.cisco.com/en/US/products/prod_end_of_life.html)

To subscribe to receive EOL/EOS information go to:

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