

# Cisco ASR 1000 Series SPA Interface Processor

PB443180

The Cisco® ASR 1000 Series SPA Interface Processor (SIP), based on the Cisco I-Flex design, combines shared port adapters (SPAs) and SPA interface processors (SIPs), taking advantage of an extensible design that facilitates service prioritization for voice, video, and data (triple-play) services. Enterprise and service provider customers can take advantage of improved slot economics resulting from modular port adapters that are interchangeable across Cisco routing platforms.

The Cisco ASR 1000 Series SIP accepts up to 4 half-height Cisco SPAs, including Ethernet, ATM, Packet over SONET/SDH (POS), and Serial SPAs, providing up to 10-Gbps (SIP10) or 40-Gbps (SIP40) connection to the system backplane with an ability to differentiate traffic based on Layer 2 or Layer 3 header information.

## New Features

The Cisco ASR 1000 Series SIP offers the following new features:

- **Quality of Service (QoS):** Provides ingress and egress buffering and the ability to classify traffic based on Layer 2 or Layer 3 header information for oversubscription management
- **Clocking Distribution:** Provides Stratum-3 clock reference and recovers line clock for distribution to SPAs
- **Online Insertion and Removal (OIR):** Increases availability and provides operational ease of use
- **Software High Availability:** Provides ability to upgrade and downgrade individual SPA drivers without operationally affecting other SPAs within the same SIP or same Chassis
- **Modularity:** Allows reuse of SPAs across the Cisco router portfolios and provides high-density aggregation, with a combination of interface types and the capability to invest as business needs grow

## Compatibility and Support

The Cisco ASR 1000 Series supports the 10-Gbps Cisco ASR 1000 Series SIP Carrier Card and 40-Gbps Cisco ASR1000 Series SIP Carrier Card. 10-Gbps SIP is built into the Cisco ASR 1001 Router chassis and the Cisco ASR 1002 Router Chassis. 10-Gbps Cisco ASR 1000 Series SIP Carrier Card and 40-Gbps Cisco ASR1000 Series SIP Carrier Card are available as a modular option for the Cisco ASR 1004 and Cisco ASR 1006 chassis. 40-Gbps Cisco ASR1000 Series SIP Carrier Card is available as a modular option for the Cisco ASR 1013 chassis.

## Upgrade Paths

Refer to the Cisco Technology Migration Program (TMP), <http://www.cisco.com/go/TMP> or contact your local Cisco account representative for information about upgrades.

## Availability

The minimum software release for the first generation of the Cisco ASR 1000 Series SIP (ASR1000-SIP10) is the Cisco IOS® XE Operating System Release 2.

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The minimum software release for the Cisco ASR 1000 Series 40-Gbps SIP (ASR1000-SIP40) is the Cisco IOS® XE Operating System Release 3.1 on ASR1006 and ASR1013.

The minimum software release for the Cisco ASR 1000 Series 40-Gbps SIP (ASR1000-SIP40) is the Cisco IOS® XE Operating System Release 3.2 on ASR1004.

## Ordering Information

To place an order, visit the Cisco Ordering Home Page at <http://www.cisco.com/en/US/ordering/index.shtml> and refer to Table 1.

To download software, visit the Cisco Software Center at <http://www.cisco.com/kobayashi/sw-center>.

**Table 1.** Ordering Information

Product Name	Part Number
Cisco ASR1000 Series SPA Interface Processor 10G	ASR-1000-SIP10
Cisco ASR1000 Series SPA Interface Processor 10G, Spare	ASR-1000-SIP10=
Cisco ASR1000 Series SPA Interface Processor 40G	ASR-1000-SIP40
Cisco ASR1000 Series SPA Interface Processor 40G, Spare	ASR-1000-SIP40=

## Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, refer to [Cisco Technical Support Services](#) or [Cisco Advanced Services](#).

## For More Information

For more information about the Cisco ASR 1000 Series Router and the Cisco ASR 1000 Series SIP, visit <http://www.cisco.com/go/asr1000> or contact your local Cisco account representative.



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