

Cisco ASR 1000 Series SPA Interface Processor (SIP)

General

Q. What are the main functions of the Cisco® ASR 1000 Series SPA Interface Processor (SIP)?

A. The SIP provides the physical and electrical termination for the Shared Port Adaptors (SPAs). In addition, it supports ingress packet classification and buffering to allow for oversubscription and provide network clocking distribution from the Routing Processor to the SPAs. The Cisco® ASR 1000 Series SIP does not participate in forwarding decisions.

Q. What interface technologies does the SIP support?

A. ASR1000-SIP supports a wide range of interface types, including Ethernet, ATM, Packet over SONET/SDH (POS), and Serial. Please refer to the Cisco ASR 1000 Series SPA data sheet for the detailed support matrix.

Q. Is the Cisco ASR 1000 Series SIP supported on all of the Cisco ASR 1000 Series routers?

A. Yes. The Cisco ASR 1000 SIP is built into the Cisco ASR 1002 Router chassis. On the Cisco ASR 1004 and ASR 1006 Routers, the Cisco ASR 1000 SIP is supported as a modular component.

Q. What is the bandwidth capacity of the 10-Gbps Cisco ASR 1000 Series SIP and the backplane of the Cisco ASR 1000 Series Router?

A. The Cisco ASR 1000 Series SIP is connected to the Cisco ASR 1000 Series Embedded Services Processor (ESP) through the passive midplane with 10-Gbps point-to-point links. In typical deployments, the SPA interfaces are oversubscribed, so the forwarding capacity is determined by the capacity of the ESP.

Q. What SPA form factors does the Cisco ASR 1000 Series SIP support? Can you mix different form factor SPAs in the same SIP?

A. The Cisco ASR 1000 Series SIP supports both the single-height and double-height SPAs, but the doublewide SPAs are not supported. Mixing and matching of various form factors are allowed in the same Cisco ASR 1000 Series SIP.

Q. What port density does the Cisco ASR 1000 Series SIP support?

A. It supports up to 4 single-height SPAs and 2 double-height SPAs and any combinations in between.

Software

Q. What is the minimum software release to support the Cisco ASR 1000 Series SIP?

A. The minimum software release is Cisco IOS® XE Operating System Release 2.

SPA Support

Q. Which SPAs does the Cisco ASR 1000 Series SIP support at the time of first availability?

A. Please refer to the Cisco ASR 1000 SPA supportability matrix.

Q. Does the Cisco ASR 1000 Series SIP support platform-specific SPAs?

- A.** No. Only the SPAs shared across the Cisco Carrier Routing System platforms are supported. Platform-specific SPAs, such as the Cisco 7304 platform-specific SPAs, are not supported.

Functions**Q. Does the Cisco ASR 1000 Series SIP participate in forwarding decisions?**

- A.** No. All forwarding decisions are made by the Cisco ASR 1000 Series ESP. However, the Cisco ASR 1000 Series SIP supports ingress classification and buffering to allow interface oversubscription.

Q. Will the upgrade of one SPA drivers affect the operations of other SPAs in the same SIP? How about other SPAs in the same platform?

- A.** No. The modular design of the Cisco ASR 1000 Series Aggregation Services Router allows for each SPA driver to operate as an isolated entity. Each driver is individually upgradeable and does not affect other SPAs in the same SIP, nor will it affect other SPAs in the same platform.

Q. Is Online Insertion and Removal (OIR) supported on the SIP?

- A.** Yes. Online Insertion and Removal (OIR) is supported on the SIP as well as on the SPAs housed by the SIP.

For More Information

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



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