



IPSec Manager on Demux of DPC2

- [Feature Summary and Revision History, on page 1](#)
- [Feature Description, on page 1](#)
- [How it Works, on page 2](#)
- [Configuring IPSec Manager on Demux of DPC2, on page 3](#)
- [Monitoring and Troubleshooting, on page 3](#)

Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	IPSec(IKEv1/IKEv2 ACL Mode)
Applicable Platform(s)	ASR 5500(DPC2)
Default Setting	Disabled - Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	• <i>Command Line Interface Reference</i>

Revision History

Revision Details	Release
First introduced.	21.13

Feature Description

With 21.13 release, Crypto processing for Crypto map has moved to Demux Card. As there is no Session Manager spawned in it, the under-utilized cores are used for IPSec traffic processing without affecting user data processing on non-Demux DPC2 cards. A CLI command is available to control the spawning of IPSec Manager in the Demux card.

How it Works

Limitations

This section describes the known limitations for IPSec Manager on Demux of DPC2.

- This feature is supported only for DPC2.
- This feature is applicable for ACL mode for IKEv1, IKEv2-v4, IKEv2-v6.
- CLI command to spawn IPSec Managers on Demux card is available under Crypto Map.
- The CLI(ipsec-on-demux) will not work if Demux on MIO is enabled.
- Each IPSec manager will not serve more than eight crypto maps.
- Maximum IPSec managers supported per CPU is one, and maximum of three at card level for IKEv1 and IKEv2 separately.
- If more than 24 active Crypto maps with the CLI are configured, then fourth IPSec manager and subsequent IPSec manager should be spawned on non-Demux DPC2 card. New IPSec manager will handle original number of Crypto maps (150).
- If a new Crypto map without the CLI is configured, then it will spawn or re-use IPSec managers present in non-Demux DPC2 card. New IPSec manager will not re-use or spawn IPSec managers already running on demux.
- If a new Crypto map with the CLI is configured, then it will spawn or re-use IPSec managers present in Demux DPC2 card. It will not re-use or spawn IPSec managers already running on non Demux card.
- Once the limit of 24 Crypto maps with CLI exceeds, then new subsequent Crypto map (with or without CLI) will be served by IPSec managers present in Demux DPC2 cards.
- If any of the Crypto maps with CLI which is being served by IPSec managers in Demux is removed and then any new or same map is added with CLI again, it will be served by IPSec manager in Demux.
- Once context is removed, IPSec managers are removed as well. This creates room for new crypto map(s) with CLI and IPSec managers with the limit of 24 maps and three IPSec managers on demux card.
- Only one IPSec manager will be spawned in each core of Demux Card, due to this maximum of three IPSec manager will be spawned in DPC2 demux card.
- Each IPSec manager running on Demux card will serve maximum of Eight active Crypto maps.
- Demux on MIO scenario is not supported.
- To spawn IPSec managers on Demux, **ipsec-on-demux** must be configured before associating it with the interface.
- Every new context spawns new IPSec manager if a new Crypto Map is added under it. If there are three contexts, then individual context must not have more than 8 Crypto maps to utilize optimum resources. If an individual context have more than eight Crypto maps then not all 24 Crypto maps will be served by IPSec managers running on Demux card.

- IKEv1 and IKEv2 spawn IPSec managers independently, IPSec managers will share the same resources if it is used in combination. So it is recommended to use either IKEv1 or IKEv2 for Demux card.
- The CLI will be visible in DPC1 platform, but it will not be supported.
- Since each Crypto group spawns two IPSec managers as peers are different in primary and secondary IKEv1 maps, only eight set of Crypto groups are allowed.
- Not more than eight Crypto maps can be used with same SRC and DST IP address, as they needed to be served by same IPSec managers and one IPSec manager on demux has limitation of 8 Crypto maps.

Configuring IPSec Manager on Demux of DPC2

This section provides information on the CLI commands to configure IPSec Manager on Demux of DPC2.

Enabling Spawning of IPSec Manager

Use the following configuration to enable spawning of IPSec manager for this Crypto map on Demux Card.



Important

require demux processing-card and **require session recovery** commands must be configured before **ipsec-on-demux** is configured.

configure

```
context context_name
  crypto map policy_name ipsec-ikev1
    ipsec-on-demux
  end
```

NOTES:

- **noipsec-on-demux**: Disables the spawning of IPSec manager for Crypto map on Demux Card.



Important

If the configuration is removed using **no** option, then this Crypto map must be removed and added again for this configuration to work.

- **ipsec-on-demux**: Enables the spawning of IPSec manager for this Crypto map on Demux Card.

Monitoring and Troubleshooting

This section provides information regarding show commands available to monitor and troubleshoot the MME Disconnecting Gracefully SGs SCTP Association feature.

Show Commands and Outputs

show crypto managers *ipsec_manager_instance*

The following field indicates spawning of IPSec manager for Crypto-Map on Demux Card:

- Demux Card