
IP Tunnel Command Reference

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Configuration Commands

Hardware Commands

```

config
  — card slot-number
     — mda mda-slot
        — mda-type isa-tunnel
        — no mda-type

```

ISA Commands

```

config
  — isa
     — tunnel-group tunnel-group-id [create]
     — no tunnel-group tunnel-group-id
        — active-mda-number [1..16]
        — no active-mda-number
        — backup mda-id
        — no backup
        — description description-string
        — no description
        — [no] ipsec-responder-only
        — mda mda-id
        — [no] mda
        — multi-active
        — primary mda-id
        — no primary
        — reassembly [wait-msecs]
        — no reassembly
        — [no] shutdown

```

IPSec Commands

```

config
  — ipsec
    — ike-policy ike-policy-id [create]
    — no ike-policy ike-policy-id
      — auth-algorithm auth-algorithm
      — no auth-algorithm
      — auth-method {psk | plain-psk-xauth | cert-auth | psk-radius | cert-radius | eap}
      — no auth-method
      — description description-string
      — no description
      — dh-group {1 | 2 | 5 | 14 | 15}
      — no dh-group
      — dpd [interval interval] [max-retries max-retries] [reply-only]
      — no dpd
      — encryption-algorithm {des | 3des | aes128 | aes192 | aes256}
      — no encryption-algorithm
      — ike-mode {main | aggressive}
      — no ike-mode
      — ike-version [1..2]
      — ipsec-lifetime ipsec-lifetime
      — no ipsec-lifetime
      — isakmp-lifetime isakmp-lifetime
      — no isakmp-lifetime
      — [no] match-peer-id-to-cert
      — nat-traversal [force] [keep-alive-interval keep-alive-interval] [force-keep-alive]
      — no nat-traversal
      — own-auth-method {psk | cert | eap-only}
      — no own-auth-method
      — pfs [dh-group {1 | 2 | 5}]
      — no pfs

config
  — ipsec
    — ipsec-transform transform-id [create]
    — no ipsec-transform transform-id
      — esp-auth-algorithm {null | md5 | sha1 | sha256 | sha384 | sha512}
      — no esp-auth-algorithm
      — esp-encryption-algorithm {null | des | 3des | aes128 | aes192 | aes256}
      — no esp-encryption-algorithm

config
  — ipsec
    — [no] static-sa sa-name
      — authentication auth-algorithm ascii-key ascii-string
      — authentication auth-algorithm hex-key hex-string [hash|hash2]
      — no authentication
      — description description-string
      — no description
      — direction ipsec-direction
      — no direction
      — protocol ipsec-protocol
      — no protocol
      — spi spi
      — no spi

```

```
config
— ipsec
  — tunnel-template ipsec template identifier [create]
  — no tunnel-templateipsec template identifier
    — description description-string
    — no description
    — replay-window {32 | 64 | 128 | 256 | 512}
    — no replay-window
    — [no] sp-reverse-route
    — transform transform-id [transform-id...(up to 4 max)]
    — no transform
```

Service Configuration Commands

```

config
  — service
    — vprn service-id [customer customer-id]
    — no vprn service-id
      — ipsec
        — security-policy security-policy-id [create]
        — no security-policy security-policy-id
          — entry entry-id [create]
          — no entry entry-id
            — local-ip {ip-prefix/prefix-length | ip-prefix netmask | any}
            — remote-ip {ip-prefix/prefix-length | ip-prefix netmask | any}

```

Interface Tunnel Commands

```

config
  — service
    — ies service-id [customer customer-id] [vpn vpn-id]
      — [no] interface ip-int-name [tunnel]
        — dynamic-tunnel-redundant-next-hop ip-address
        — no dynamic-tunnel-redundant-next-hop
        — static-tunnel-redundant-next-hop ip-address
        — no static-tunnel-redundant-next-hop
        — [no] sap sap-id [create]
          — ip-tunnel ip-tunnel-name [create]
            — backup-remote-ip ip-address
            — no backup-remote-ip
            — [no] clear-df-bit
            — delivery-service {service-id | svc-name}
            — no delivery-service
            — description description-string
            — no description
            — dscp dscp-name
            — no dscp
            — [no] dest-ip ip-address
            — [no] gre-header
            — ip-mtu octets
            — no ip-mtu
            — reassemble [wait-msecs]
            — no reassemble
            — remote-ip ip-address
            — no remote-ip
            — [no] shutdown
            — source ip-address
            — no source
          — [no] ipsec-gw
            — cert
              — cert filename
              — no cert
              — key filename
              — no key

```

- **trust-anchor** *ca-profile-name*
- **no trust-anchor**
- **default-secure-service** *service-id ipsec-interface ip-int-name*
- **no default-secure-service**
- **default-tunnel-template** *ipsec template identifier*
- **no default-tunnel-template**
- **ike-policy** *ike-policy-id*
- **no ike-policy**
- **local-gateway-address** *ip-address*
- **no local-gateway-address**
- **local-id** {**ipv4** | **fqdn**} [**value** [255 chars max]]
- **no local-id**
- [**no**] **shutdown**
- **vprn** *service-id [customer customer-id]*
- **no vprn** *service-id*
 - [**no**] **interface** *ip-int-name [create] [tunnel]*
 - **dynamic-tunnel-redundant-next-hop** *ip-address*
 - **no dynamic-tunnel-redundant-next-hop**
 - **static-tunnel-redundant-next-hop** *ip-address*
 - **no static-tunnel-redundant-next-hop**
 - [**no**] **sap** *sap-id [create]*
 - **ip-tunnel** *ip-tunnel-name [create]*
 - **backup-remote-ip** *ip-address*
 - **no backup-remote-ip**
 - [**no**] **clear-df-bit**
 - **delivery-service** {*service-id* | *svc-name*}
 - **no delivery-service**
 - **description** *description-string*
 - **no description**
 - **dscp** *dscp-name*
 - **no dscp**
 - **dest-ip** *ip-address*
 - [**no**] **gre-header**
 - **ip-mtu** *octets*
 - **no ip-mtu**
 - **reassemble** [*wait-msecs*]
 - **no reassemble**
 - **remote-ip** *ip-address*
 - **no remote-ip**
 - [**no**] **shutdown**
 - **source** *ip-address*
 - **no source**
 - [**no**] **ipsec-gw**
 - **cert**
 - **cert** *filename*
 - **no cert**
 - **key** *filename*
 - **no key**
 - **trust-anchor** *ca-profile-name*
 - **no trust-anchor**
 - **default-secure-service** *service-id ipsec-interface ip-int-name*
 - **no default-secure-service**
 - **default-tunnel-template** *ipsec template identifier*

- **no default-tunnel-template**
- **ike-policy** *ike-policy-id*
- **no ike-policy**
- **local-gateway-address** *ip-address*
- **no local-gateway-address**
- **local-id** {*ipv4* | *fqdn*} [*value* [255 chars max]]
- **no local-id**
- [no] **shutdown**
- **ipsec-tunnel** *ipsec-tunnel-name* [create]
- **no ipsec-tunnel** *ipsec-tunnel-name*
 - [no] **bfd-designate**
 - **bfd-enable** **service** *service-id* **interface** *interface-name* **dst-ip** *ip-address*
 - [no] **clear-df-bit**
 - **description** *description-string*
 - **no description**
 - [no] **dynamic-keying**
 - [no] **auto-establish**
 - **cert**
 - **cert** *filename*
 - **no cert**
 - **key** *filename*
 - **no key**
 - **status-verify**
 - **default-result** {revoked|good}
 - **no default-result**
 - **primary** {ocsp|crl}
 - **no primary**
 - **secondary** {ocsp|crl}
 - **no secondary**
 - **trust-anchor** *ca-profile-name*
 - **no trust-anchor**
 - **ike-policy** *ike-policy-id*
 - **no ike-policy**
 - **local-id** {*ipv4* | *fqdn*} [*value* [255 chars max]]
 - **no local-id**
 - **pre-shared-key** *key*
 - **no pre-shared-key**
 - **transform** *transform-id* [*transform-id*...(up to 4 max)]
 - **no transform**
 - **ip-mtu** *octets*
 - **no ip-mtu**
 - **local-gateway-address** *ip-address* **peer** *ip-address* **delivery-service** *service-id*
 - **no local-gateway-address**
 - [no] **manual-keying**
 - **security-association** *security-entry-id* **authentication-key** *authentication-key* **encryption-key** *encryption-key* **spi** *spi* **transform** *transform-id* **direction** {inbound|outbound}
 - **no security-association** *security-entry-id* **direction** {inbound|outbound}

- **replay-window** *replay-window-size*
- **no replay-window**
- **security-policy** *security-policy-id*
- **no security-policy**

IPSec Mastership Election Commands

- configure
 - redundancy
 - **multi-chassis**
 - **peer** *ip-address* [**create**]
 - **no peer** *ip-address*
 - **[no] mc-ipsec**
 - **[no] bfd-enable**
 - **discovery-interval** *interval-secs* [**boot** *interval-secs*]
 - **no discovery-interval**
 - **hold-on-neighbor-failure** *multiplier*
 - **no hold-on-neighbor-failure**
 - **keep-alive-interval** *interval*
 - **no keep-alive-interval**
 - **tunnel-group** *tunnel-group-id* [**create**]
 - **no tunnel-group** *tunnel-group-id*
 - **peer-group** *tunnel-group-id*
 - **no peer-group**
 - **priority** *priority*
 - **no priority**
 - **[no] shutdown**

Related Commands

- config
 - router
 - policy-options
 - policy-statement
 - entry
 - from
 - **protocol** *protocol* [**all** | **instance** *instance*]
 - **no protocol**
 - **state** *state*
 - **no state**
 - config
 - redundancy
 - multi-chassis
 - peer
 - sync
 - **[no] ipsec**
 - **tunnel-group** *tunnel-group-id* **sync-tag** *tag-name* [**create**]
 - **no tunnel-group** *tunnel-group-id*

Show Commands

```

show
  — ipsec
    — gateway name name
    — gateway [service service-id]
    — gateway tunnel [ip-address:port]
    — gateway name name tunnel ip-address:port
    — gateway name name tunnel
    — gateway tunnel count
    — gre
      — tunnel [gre-tunnel-name]
    — ike-policy ike-policy-id
    — ike-policy
    — security-policy service-id [security-policy-id]
    — security-policy
    — static-sa
    — static-sa name sa-name
    — static-sa spi spi
    — transform [transform-id]
    — tunnel ipsec-tunnel-name
    — tunnel
    — tunnel-template [ipsec template identifier]
    — tunnel-group
  — redundancy
    — multi-chassis
      — mc-ipsec peer ip-address tunnel-group tunnel-group-id
      — mc-ipsec peer ip-address
  
```

Debug Commands

```

debug
  — ipsec
    — [no] gateway name name tunnel ip-address[:port]
    — tunnel ipsec-tunnel-name [detail]
    — no tunnel ipsec-tunnel-name
  
```

Tools Commands

```

tools
  — perform
    — redundancy
      — multi-chassis
        — mc-ipsec
          — force-switchover tunnel-group local-group-id [now][to
            {master|standby}]
  
```