

# [Failover on Resilient SIP Designs](#)

Below describes what will cause a resilient SIP Trunks solution to failover to alternative sites.

## **Destination is unreachable.**

Failover is initiated when Gamma concludes that an SIP endpoint cannot be reached. This happens in two ways:

Gamma receives an ICMP unreachable message in response to the INVITE message that it sends out to the endpoint. This could indicate that there is no network route to that destination (i.e. the access method has failed) or the destination is temporarily out of service.

Outgoing INVITEs are retransmitted from Gamma 3 times. If that limit is reached, Gamma will stop trying that endpoint and initiate failover to another endpoint.

## **SIP Ping failure.**

If SIP Ping is enabled at both Gamma and the endpoint and SIP Ping fails to respond favourably. Gamma will send a SIP Ping every 60 seconds. If Gamma does not receive a response within 3 pings, the endpoint will be removed from service. SIP Pings will still be sent out every 60 seconds and as soon as a single correct response is received the endpoint will be brought back into service.

## **SIP Response Codes**

Generally, when Gamma receives a Final Response code in reply to one of its own initial INVITE messages, failover will be initiated. See our [SIP Response Codes](#) table for full information.