GENESYS™

SIP Server HA Deployment Guide

Network Device-Based HA

4/14/2025

Network Device-Based HA

An alternative to software-based Virtual IP interface configurations is a hardware-based Virtual IP configuration that uses an external network device.

Benefits of using a network hardware device include the following:

- Less complex configuration: Alarm Reactions and Alarm Conditions are not required.

- There is no switch flooding, as there might be with a Windows NLB Unicast configuration.

- A single network device can support multiple SIP Server HA pairs.

Disadvantages might include the cost of a network device and the configuration that is required for Secure Network Address Translation (SNAT).

A network device works by presenting a shared Virtual IP address. SIP endpoints and gateways are configured to communicate with this single Virtual IP address. When the network device receives a request at the Virtual IP address, it routes the request to the SIP Server that is running in primary mode.

The SIP Server and the F5 Networks BIG-IP Local Traffic Manager (LTM) integration solution supports this type of HA configuration as shown in the **HA Configuration Using F5 Networks BIG-IP LTM** figure. F5's BIG-IP LTM monitors the primary SIP Server by sending an OPTIONS request to the SIP Server at configured intervals and listening for a response.
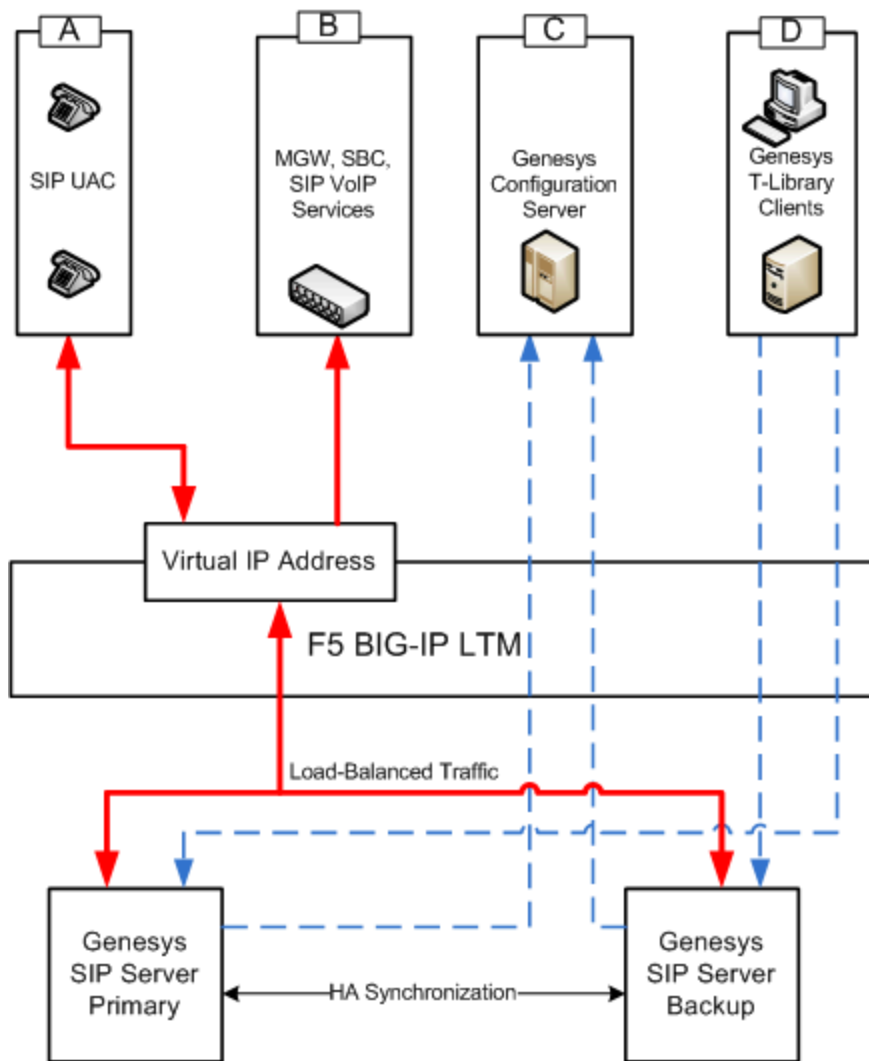
HA Configuration Using F5 Networks BIG-IP LTM

For more information about a SIP Server HA configuration that uses the F5 Networks BIG-IP LTM, refer to the Framework 8.1 SIP Server Integration Reference Manual. This guide describes configuration steps that are required to implement a hot-standby SIP Server HA configuration that runs behind an F5 Networks BIG-IP LTM.