Configure Session Initiation Protocol (SIP) Timer Values (sec) on SPA300/SPA500 Series IP Phone

Objective

Session Initiation Protocol (SIP) is a signaling protocol used to create, manage and terminate sessions in an IP based network. SIP is a mechanism for call management. It also allows for the establishment of user location, provides for feature negotiation so that all of the participants in a session can agree on the features to be supported among them, allows for changing features of a session while it is in progress.

This article explains the configuration of SIP Timer Values on SPA300 and SPA500 series IP Phone.

Applicable Devices

- SPA300 Series IP Phone
- SPA500 Series IP Phone

SIP Timer Values Configuration

Step 1. Use the web configuration utility to choose **Admin Login > Advanced > Voice > SIP** . The *SIP* page opens:

Note: In SPA300 or SPA500 Series IP Phone use **Device Administration > Call Control Settings > Signaling Protocol SIP.**

Step 2. Enter RFC-3261 T1 value in the *SIP T1* field. The range is 0 - 64 seconds. Default is 0.5 seconds.

Step 3. Enter RFC-3261 T2 value in the *SIP T2* field. It is the maximum retransmit interval for non-INVITE requests and INVITE responses. The range is 0 - 64 seconds. Default is 4 seconds.

Step 4. Enter RFC-3261 T4 value in the *SIP T4* field. It is the maximum duration a message remains in the network The range is 0 - 64 seconds. Default is 5 seconds.

Step 5. Enter RFC-3261 INVITE transaction time-out value in the *SIP Timer B* field. The range is 0 - 64 seconds. Default is 16 seconds.

Step 6. Enter RFC-3261 Non-INVITE transaction time-out value in the *SIP Timer F* field. The range is 0 - 64 seconds. Default is 16 seconds.

Step 7. Enter RFC-3261 INVITE final response time-out value for ACK receipt in the *SIP Timer H* field. The range is 0 - 64 seconds. Default is 16 seconds.

Step 8. Enter RFC-3261 wait time for retransmits in the *SIP Timer D* field. The range is 0 - 64 seconds. Default is16 seconds.

Step 9. Enter RFC-3261 wait time for Non-INVITE request retransmits in the *SIP Timer J* field. The range is 0 - 64 seconds. Default is 16 seconds.

Step 11. Enter the minimum registration expiration time allowed from the proxy in the *Reg Min Expires* field. If the proxy returns a value less than this setting, the smallest of the two values is used. Default is 1 second.

Step 12. Enter the maximum registration expiration time allowed from the proxy in the *Reg Max Expires* field. If the value is greater than this setting, the largest of the two values is used. Default is 7200 seconds.

Step 13. Enter the retry interval in the *Reg Retry Intvl* field. It is the interval to wait before the Cisco IP phone retries registration after failing during the previous registration. The range is 1 - 268435455. Default is 30 seconds.

Step 14. Enter the retry long interval in the *Reg Retry Long Intvl* field. When registration fails with a SIP response code that does not match the Retry Reg response status code (RSC) value, the IP phone waits for this length of time before retrying. This value should be much larger than the Reg Retry Intvl value. The range is 0 - 268435455. Default is 1200 seconds.

Step 15. Enter the retry random delay in the *Reg Retry Random Delay* field. Random delay added to the Register Retry Intvl value when retrying REGISTER after a failure. The range is 0 - 268435455. Default is 0, which disables this feature.

Step 16. Enter the retry long random delay in the *Reg Retry Long Random Delay* field. Random delay added to the Register Retry Long Intvl value when retrying register after a failure. Default is 0, which disables this feature.

Step 17. Enter the maximum value of the exponential delay in the *Reg Retry Intvl Cap* field. It starts at the Register Retry Intvl and doubles every retry. The range is 0 - 268435455. Default is 0, which disables this feature.

Step 18. Enter the lower limit of the register in the *Sub Min Expires* field which expires value returned from the proxy server. The range is 0 - 268435455. Default is 10 seconds.

Step 19. Enter the upper limit of the register in the *Sub Max Expires* field which expires value returned from the proxy server. The range is 0 - 268435455. Default is 7200 seconds.

Step 20. Enter the retry interval of the last subscribe request fails in the *Sub Retry Intvl* field. The range is 0 - 268435455. Default is 10 seconds.

Step 21. Click **Submit All Changes** to save the settings.