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

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, and allows for changes to be made to features of a session while it is in progress.

The objective of this document is to show you the configuration of SIP Timer Values on SPA300 and SPA500 series IP phones.

Applicable Devices

• SPA300 Series IP Phone

• SPA500 Series IP Phone

SIP Timer Values Configuration

Note: On the actual SPA300 or SPA500 Series IP Phone set signaling protocol as **SIP**, use navigation keys to go to **Device Administration > Call Control Settings > Signaling Protocol SIP.**

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

SIP Parameters

Max Forward:	70	Max Redirection:	5
Max Auth:	2	SIP User Agent Name:	$VERSION
SIP Server Name:	$VERSION	SIP Reg User Agent Name:	
SIP Accept Language:		DTMF Relay MIME Type:	application/dtmf-relay
Hook Flash MIME Type:	application/hook-flash	Remove Last Reg:	no
Use Compact Header:	no	Escape Display Name:	no
SIP-B Enable:	no	Talk Package:	no
Hold Package:	no	Conference Package:	no
Notify Conference:	no	RFC 2543 Call Hold:	yes
Random REG CID On Reboot:	no	Mark All AVT Packets:	yes
SIP TCP Port Min:	5060	SIP TCP Port Max:	5080
CTI Enable:	no	Caller ID Header:	PAID-RPID-FROM
SRTP Method:	x-sipura	Hold Target Before REFER:	no
Dialog SDP Enable:	no	Keep Referee When REFER Failed:	no
Display Diversion Info:	no		

SIP Timer Values (sec)

SIP T1:	.5	SIP T2:	4
SIP T4:	5	SIP Timer B:	16
SIP Timer F:	16	SIP Timer H:	16
SIP Timer D:	16	SIP Timer J:	16
INVITE Expires:	240	ReINVITE Expires:	30
Reg Min Expires:	1	Reg Max Expires:	7200
Reg Retry Intvl:	30	Reg Retry Long Intvl:	1200
Reg Retry Random Delay:	25	Reg Retry Long Random Delay:	0
Reg Retry Intvl Cap:	35	Sub Min Expires:	10
Sub Max Expires:	7200	Sub Retry Intvl:	10

Response Status Code Handling

SIT1 RSC:		SIT2 RSC:	
SIT3 RSC:		SIT4 RSC:	

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

Step 3. Enter an 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 from 0 to 64 seconds. Default is 4 seconds.

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

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

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

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

Step 8. Enter an RFC-3261 wait time for retransmits in the *SIP Timer D* field. The range is from 0 to 64 seconds. Default is 16 seconds.

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

Step 10. Enter a ReINVITE request Expires header value in the *ReINVITE Expires* field. The range is from 0 to 1999999999999999999999999999999 seconds. If you enter 0, the Expires header is not included in the request. Default is 30 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 from 1 to 268435455 seconds. 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 from 0 to 268435455 seconds. Default is 1200 seconds.

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

Step 16. Enter the retry long random delay in the *Reg Retry Long Random Delay* field. The random delay is 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 from 0 to 268435455 seconds. Default is 0, which disables this feature.

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

Step 19. Enter upper limit of the register in the *Sub Max Expires* field which expires value returned from the proxy server. The range is from 0 to 268435455 seconds. 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 from 0 to 268435455 seconds. Default is 10 seconds.

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