New Rock Technologies, Inc.

## **MX Voice-Fax Gateway Series**

## **High Availability Configuration Guide**

HX4 MX8 MX60 MX120

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Add instruction of load balancing feature

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Add instruction of REGISTER timeout configuration

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# Overview

## **1.1 Function Definition**

In the deployment of VoIP network, New Rock MX-Series VoIP Gateway (referred as *gateway* below) supports **high availability** architecture with **active-standby** mode and **load balancing** mode.

#### Active standby mode

In this mode, one SIP proxy server (referred as SIP server) functions as the primary server while other SIP servers function as standby servers.

Either of the following conditions could trigger the failover operation of the gateway:

- Not receiving response to the OPTIONS message from the current SIP server to which the gateway sends or receives call traffic; or
- Not receiving response to the REGISTER/INVITE message from the current SIP server to which the gateway send or receives call traffic

The administrator can manually switchover the gateway from the current SIP server to the next available one.

The gateway will redirect call traffic to the designated proxy server in responding to the re-INVITE from the server.

#### Load balancing mode

In this mode, the clustered SIP servers are all working in active status. Under the coarse grained scheme all endpoints of a gateway are allowed to register on one of the designated servers and under the fine grained scheme the endpoints of a gateway are allowed to register on multiple servers, according to the administrator's load balancing plan. The following features are supported with load balancing:

- The gateway as a whole or endpoints search for the designated sever in the server cluster (a list of servers) using REGISTER/INVITE message in forward circular scheme.
- Server failure detetion is supported by gateway sending OPTIONS to each servers, on which the gateway or endpoints are registered on.
- Upon the condition of no response to OPTIONS or REGISTER/INVITE, the gateway will search for the next available servers for the gateway or endpoints and move the calls to them accordingly

The gateway will redirect call traffic to the designated proxy server in responding to the re-INVITE from the server.

## 1.2 Server Cluster

The server cluster includes one primary SIP proxy server and up to *five* standby proxy servers under active-standby mode or six active servers under load balancing mode. The address of the SIP server can be configured manually by the administrator or obtained through DNS SRV record. Topology is shown as bellow:

#### Figure 1-1 Server cluster



# **2** Configuring Active-Standby Mode

## 2.1 Enable Active-Standby Feature

Enter the SIP trunk setting page, and click **Basic** > **SIP** > **Primary-Standby configuration** and choose **Active-standby**, then submit.



Basic	Routing	Line	Advanced	Status	Logs	Tools	Info
					<u>Network</u>   <u>Systen</u>		FoIP   Logout
		Signaling port	5060	1-9999,default 5(	060		
	Auto S	IP port selection	Off V 1-10:Local SIP	port will auto select	, based 5060 increas	ing the value	
		Registrar server	10.128.3.90:8989				
		Proxy server	10.128.3.90:8989	e.g. 168.33.134.	50:5060 or www.sip.	com:5060	
	User age	nt domain name		e.g. www.gatewa	ysip.com		
	Re	egistration mode	Per line 🗸 🗸				
		User name					
		Password		You may obtain it	from service provid	er	
	Re	gistration period	15	15-86400(s), def	ault 600		
Filma	ry-Standby configura	High availability	Off Active-Standby Load balancing Subn	vit			

## 2.2 Set Standby SIP Servers

The gateway supports two ways to obtain standby SIP server address:

- IP address
- Domain name

## 2.2.1 Configuring the IP Address of SIP Servers

Note: the IP address of the primary SIP server is configured on the top half of the SIP page.

Here are the steps to configure the IP addresses of the standby SIP servers:

**Step1** Ensure that active-standby feature is enabled.

- **Step2** Fill primary SIP server IP address in **Registrar serve**r, and then submit.
- Step3 Click Add and fill the IP addresses for the standby SIP servers in Standby SIP servers.

Network       SUR       SUR       NGCP       FOR       Control         Signaling port       5060       1-9999,default 5060         Auto SIP port selection       Off v1 1-10:Local SIP port will auto select, based 5060 increasing the value         Registrare server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line         Password       You may obtain it from service provider         Registration period       600         15-86400(s), default 600             Sip server cluster(standby)         SIP proxy server setting         Signaling proxy server 2       192.168.11.106:5060         e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.106:5060         Standby SIP proxy server 2       192.168.11.106:5060         e.g. 168.33.134.53:5060       Standby SIP proxy server 2         Failover       No response to OPTIONS request or OPTIONS request or OPTIONS request or OPTIONS request or OPTIONS request period         OPTIONS request period       1-96400(s)         OPTIONS request period       1-96400(s)         OPTIONS request period       192.168.11.8:5060         Switchover       1000       1000-3200		Routing	Line	Advanced	Status	Logs	Tools	Info
Signaling port       5060       1-9999,default 5060         Auto SIP port selection       Off V       1-10:Local SIP port will auto select, based 5060 increasing the value         Registrar server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line         User name						Network   System	I STP   MGCP	FOIP   LOG
Signaling port       5060       1-9999,default 5060         Auto SIP port selection       Off V 1-10:Local SIP port will auto select, based 5060 increasing the value         Registrar server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line						Hachterit process		
Auto SIP port selection       Off V       1-10:Local SIP port will auto select, based 5060 increasing the value         Registrar server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration name       e.g. www.gatewaysip.com         User name       User name         Password       You may obtain it from service provider         Registration period       600       15-86400(s), default 600         Primary-Standby configuration         SIP proxy server setting       Active-Standby V         SIP proxy server 1       192.168.11.8:5060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.06:5060       e.g. 168.33.134.53:5060         Failover       Fault condition       No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request period       2       1-86400(s)       ONO response to OPTIONS is timed out, switch to the standby server.         Switchover       1000       1000-32000(ms), if the response to OPTIONS is timed out, switch to the standby server.         Switchover       Switchover       Switchover manually to the next available server.			Signaling port	5060	1-9999,default 5	5060		
Registrar server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line         User name		Auto S	SIP port selection	Off ➤ 1-10:Local SIP	port will auto selec	t, based 5060 increasi	ing the value	
Proxy server       192.168.11.4       e.g. 168.33.134.50:5060 or www.sip.com:5060         User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line         User name          Password       You may obtain it from service provider         Registration period       600         15-86400(s), default 600           Primary-Standby configuration    File availability          Active-Standby ∨    SIP proxy server setting          SIP proxy server setting         SIP proxy server 1         192.168.11.8:5060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.8:5060       e.g. 168.33.134.53:5060    Failover          Failover       Fault condition       No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request timeout       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover       Switchover       Switchover manually to the next available server.		<	Registrar server	192.168.11.4				
User agent domain name       e.g. www.gatewaysip.com         Registration mode       Per line         User name			Proxy server	192.168.11.4	e.g. 168.33.134	.50:5060 or www.sip.o	com:5060	
Registration mode       Per line       ✓         User name		User age	ent domain name		e.g. www.gatew	aysip.com		
User name       You may obtain it from service provider         Password       You may obtain it from service provider         Registration period       600       15-86400(s), default 600         Primary-Standby configuration         Migh availability       Active-Standby ▼         SIP server cluster(standby)         SIP proxy sever setting to Add         Standby SIP proxy server 1         Standby SIP proxy server 2         Standby SIP proxy server 2       No response t		Re	egistration mode	Per line 🗸				
Password       You may obtain it from service provider         Registration period       600       15-86400(s), default 600         Primary-Standby configuration         High availability       Active-Standby ✓         SIP server cluster(standby)         SIP proxy sever setting         SIP proxy sever setting         SIP proxy sever setting         SIP of the server of the second s			User name					
Registration period       600       15-86400(s), default 600         Primary-Standby configuration         High availability       Active-Standby ♥         SIP server cluster(standby)         SIP proxy sever setting Active Standby ♥         SIP proxy server 1         SIP server cluster(standby)         SIP proxy server 1         Standby SIP proxy server 1         Standby SIP proxy server 2         Standby SIP proxy server 2         Fault condition         No response to OPTIONS request         No response to OPTIONS request         OPTIONS request timeout         Switchover         Active SIP server         Switchover         Switchover         Switchover			Password		You may obtain	it from service provide	er	
Primary-Standby configuration         High availability       Active-Standby ▼         SIP server cluster(standby)         SIP proxy server setting       Made         Standby SIP proxy server 1       192:158.11.8:5060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.106:5060       e.g. 168.33.134.53:5060         Failover       Fault condition       No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request period       2       1-86400(s)       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover       192.168.11.8:5060       Switchover manually to the next available server.		Re	gistration period	600	15-86400(s), de	fault 600		
SIP proxy sever setting       Add         Standby SIP proxy server 1       192.168.11.8:5060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.106:5060       e.g. 168.33.134.53:5060         Failover       Fault condition       Image: Norresponse to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request period       2       1-86400(s)       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover       192.168.11.8:5060       Switchover manually to the next available server.			High availability	Active-Standby V				
SIP server cluster(standby)         SIP proxy sever setting         SIP proxy sever setting         Standby SIP proxy server 1         192.168.11.8:5060         e.g. 168.33.134.53:5060         Standby SIP proxy server 2         192.168.11.106:5060         e.g. 168.33.134.53:5060         Failover         Fault condition         No response to OPTIONS request         OPTIONS request period         2         186400(s)         OPTIONS request timeout         1000         switch to the standby server.         Switchover         192.168.11.8:5060         Switchover         Switchover         Switchover         Switchover								
SIP proxy sever setting VIA00         Standby SIP proxy server 1         192:108.11.8:5060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.106:5060       e.g. 168.33.134.53:5060         Failover       Failover       Failover         OPTIONS request period 2         0PTIONS request period 2       1-86400(s)         0PTIONS request timeout       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover         Active SIP server         192.168.11.8:5060         Switchover manually to the next available server.			High availability	Active-Standby 💙				
Standby SIP proxy server 1       192.168.11.8:3060       e.g. 168.33.134.53:5060         Standby SIP proxy server 2       192.168.11.106:5060       e.g. 168.33.134.53:5060         Failover       Failover       Fault condition       No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request period       2       1-86400(s)       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover       192.168.11.8:5060       Switchover manually to the next available server.	SIP se	erver cluster(standby	High availability [ y)	Active-Standby 🗸				
Failover       Failover         Failover       Fault condition         OPTIONS request period       0         No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request timeout       1000         OPTIONS request timeout       1000         Switchover       192.168.11.8:5060         Switchover       192.168.11.8:5060	SIP se	erver cluster(standby SIP pro	High availability [ y) bxy sever setting	Active-Standby V	169 22 124	52-5050		
Fault condition         Fault condition       No response to OPTIONS request       No response to REGISTER/INVITE         OPTIONS request period       2       1-86400(s)         OPTIONS request timeout       1000       1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.         Switchover	SIP se	erver cluster(standby SIP pro Standby SI	High availability y) pxy sever setting IP proxy server 1	Active-Standby V	e.g. 168.33.134	.53:5060		
OPTIONS request period     2     1-86400(s)       OPTIONS request timeout     1000     1000-32000(ms),if the response to OPTIONS is timed out, switch to the standby server.       Switchover     192.168.11.8:5060       Switchover manually to the next available server.	SIP se	erver cluster(standby SIP pro Standby SI Standby SI	High availability y) pxy sever setting IP proxy server 1 IP proxy server 2	Active-Standby V Active-Standby V 192.168.11.8:5060 192.168.11.106:5060	e.g. 168.33.134 e.g. 168.33.134	.53:5060		
OPTIONS request period     2     1000-032000(ms),if the response to OPTIONS is timed out, switch to the standby server.       Switchover     192.168.11.8:5060       Switchover     Switchover manually to the next available server.	SIP si	erver cluster(standb SIP pro Standby SI Standby SI ver	High availability y) oxy sever setting IP proxy server 1 P proxy server 2 Fault condition	Active-Standby ↓ Active-Standby ↓ 192:168.11.8:5060 192:168.11.106:5060	e.g. 168.33.134 e.g. 168.33.134	.53:5060 .53:5060	CICTED /INN/ITE	
OPTIONS request timeout         Incomposition of the response to options is timeout, with to the standby server.           Switchover         Active SIP server         192.168.11.8:5060           Switchover         Switchover         Switchover manually to the next available server.	SIP s	erver cluster(standby SIP pro Standby SI Standby SI ver	High availability ( y) oxy sever setting (P proxy server 1 (P proxy server 2 Fault condition	Active-Standby  Active-Standby	e.g. 168.33.134 e.g. 168.33.134 TIONS request ( 1.86400(c)	.53:5060 .53:5060 O No response to RE	GISTER/INVITE	
Switchover         192.168.11.8:5060           Switchover         Switchover	SIP s	erver cluster(standby SIP pro Standby SI Standby SI ver OPTION	High availability    y) pxy sever setting (P proxy server 1 P proxy server 2 Fault condition IS request period	Active-Standby ∨ Active-Standby ∨ 192.168.11.8:5060 192.168.11.106:5060 ● No response to OP 2 1000	e.g. 168.33.134 e.g. 168.33.134 TIONS request ( 1-86400(s)	.53:5060 .53:5060 O No response to RE	GISTER/INVITE	
Active SIP server       192.168.11.8:5060         Switchover       Switchover manually to the next available server.	SIP s	erver cluster(standby SIP pro Standby SI Standby SI ver OPTION OPTIONS	High availability    y) pxy sever setting (P proxy server 1 (P proxy server 2 Fault condition IS request period request timeout	Active-Standby ▼ ■Add 192:168.11.8:5060 192.168.11.106:5060 ● No response to OP 2 1000 switch to the standby s	e.g. 168.33.134 e.g. 168.33.134 TIONS request 1-86400(s) 1000-32000(ms) erver.	.53:5060 .53:5060 O No response to RE ),if the response to OP	GISTER/INVITE	
Switchover Switchover manually to the next available server.	SIP s	erver cluster(standby SIP pro Standby SI Standby SI ver OPTION OPTIONS hover	High availability ( y) pxy sever setting (P proxy server 1 (P proxy server 2 Fault condition (S request period request timeout	Active-Standby ▼ 192:168.11.8:5060 192.168.11.106:5060 No response to OP 2 1000 switch to the standby s	e.g. 168.33.134 e.g. 168.33.134 TIONS request 1.86400(s) 1000-32000(ms erver.	.53:5060 .53:5060 O No response to RE ),if the response to OP	GISTER/INVITE	
	Failov Switc	erver cluster(standby SIP pro Standby SI Standby SI ver OPTION OPTIONS hover	High availability ( y) poxy sever setting (P proxy server 1 (P proxy server 2 Fault condition (S request period request timeout Active SIP server	Active-Standby ∨ 192:168.11.8:5060 192.168.11.106:5060 No response to OP 2 1000 switch to the standby s 192.168.11.8:5060	e.g. 168.33.134 e.g. 168.33.134 TIONS request ( 1-86400(s) 1000-32000(ms erver.	.53:5060 .53:5060 O No response to RE ),if the response to OP	GISTER/INVITE	
	SIP si Failov	erver cluster(standby SIP pro Standby SI Standby SI ver OPTION OPTIONS hover	High availability   y) pay sever setting (P proxy server 1 P proxy server 2 Fault condition IS request period request timeout Active SIP server	Active-Standby ∨ 192:168.11.8:5060 192:168.11.106:5060 No response to OP 2 1000 switch to the standby s 192.168.11.8:5060 Switchover Switch	e.g. 168.33.134 e.g. 168.33.134 TIONS request ( 1-86400(s) 1000-32000(ms erver.	.53:5060 .53:5060 No response to RE ), if the response to OP	GISTER/INVITE PTIONS is timed out, per.	

#### Figure 2-2 Page to set registrar server

#### 2.2.2 Configuring the Domain Name of the Primary Server

In case the primary SIP server is located through the domain name, the steps below should be follows:

- **Step1** Ensure that active-standby feature is enabled.
- Step2 Fill registrar server domain name in Registrar server, then submit.
- **Step3** Click **Basic** > **Network**, check **Enable** in **DNS**, fill IP address in **Primary server**, and then submit.

#### Figure 2-3 Page to set DNS server

Basic	Routing	Line	Advanced	Status	Logs	Tools	Info
					Network   System	n   <u>SIP</u>   <u>MGCP</u>	FoIP   Logout
-							
		Host name A	G-VoIP-GW	Contain letter, nu	mber and "-" but mu	st start with letter	
	eth1		Constant del Santo de La Constante de La Constante del Constante de La Constante de La Constante de La Constant				
		MAC address 00	0:0E:A9:00:31:31				
	IP addr	ess assignment Fi	ixed 🗸				
		IP address 19	92.168.250.81				
		Netmask 25	55.255.0.0				
	Gate	way IP address 19	92.168.2.1				
	DNS						
		Enable 🗸	$\mathbf{D}$				
		Primary server 19	92.168.2.5	e.g. 202.96.209.	5		
	Se	econdary server		e.g. 202.96.209.	133		
	SNTP			n			
		Primary server 19	98.60.22.240				
	Se	econdary server 13	33.100.9.2				
		Time zone ((	GMT+08:00) Beijing	~			
				1.1			
			Subm	it			

## 2.3 Set the Failover Condition

You should choose one of the following conditions:

- No response to OPTIONS message
- No response to REGISTER/INVITE message

#### 2.3.1 No Response to OPTIONS

When this condition is chosen the following timers need to be configured:

- **OPTIONS request period**: The interval between receiving the response (200) from the SIP server to the previous OPTIONS and sending the next OPTIONS.
- **OPTIONS request timeout**: The period since the sending of the last OPTIONS with no response by the SIP server.

#### Figure 2-4 Page to set failover condition

Primary-Standby configuration				
High availability	Active-Standby 🗸			
SIP server cluster(standby)				
SIP proxy sever setting	• Add			
Standby SIP proxy server 1	192.168.11.8:5060	e.g. 168.33.134.53:5060		
Standby SIP proxy server 2	192.168.11.106:5060	e.g. 168.33.134.53:5060		
Failover				
Fault condition	No response to OPT	IONS request O No response to REGISTER/INVITE		
OPTIONS request period	2	1-86400(s)		
OPTIONS request timeout	1000	1000-32000(ms), if the response to OPTIONS is timed out, rver.		
Switchover				
Active SIP server	192.168.11.8:5060			
	Switchover Switch	over manually to the next available server.		
Submit				

#### 2.3.2 No Response to REGISTER/INVITE

When this condition is chosen, the gateway will failover to the standby SIP server if there is no response to the REGISTER or INVITE.

Note

When high availability feature is enabled, the PSTN failover feature in **Advanced > Trunk** should be disabled as shown in Figure 2-6.

Figure 2-5 Page to disable PSIN fallo
---------------------------------------

Basic	Routing Line	Advanced	Status	Logs	Tools	Info
	System   Security   White list	Media stream   SIP   L	ine   <u>Trunk</u>   R	ADIUS   Encryption	Tones   Feature of	odes   Logo
		11				_
_	Gain to I	0(dB) ∨				_
	Gain to PST	-3(dB) 🗸				
	Impedanc	Complex 🗸				
	Outplusing dela	600	0-20000(ms),def	ault 400		
	Ring rela	FXS ring sync with	FXO   FXS ring	independently		
	Busy line handl	🛛 🔿 Voice prompt 🗉	Hand up			
	PSTN failove					
	Caller ID detection mod	After ringing A 🗸				
	The second firms of site bins and	24	10-60(s), default	24. Timeout of collect	cting DTMF on FXO for	1
	Indound first digit timeou	inbound call				
		12	10-60(s), default	12. Also see " Conne	ect signal delay " in	
	Answer dela	page " Line > Trunk "				
	Off-hook for rejectio	1000	500-5000(ms), c	lefault 600		
	On-hook protection tim	400	100-5000(ms), c	lefault 400		
	Polarity detectio					

## 2.4 How to Manually Perform Switchover

On the Wen GUI of the gateway, the **Switchover** button provides a means to manually switchover the call traffic from the current SIP server to the next available SIP server.

# **3** Configuring Load Balancing Mode

## 3.1 Enable Load Balancing Feature

Enter the SIP trunk setting page, and click **Basic** > **SIP** > **Primary-Standby configuration** and choose **Load balancing**, then submit.



Basic	Routing	Line	Advanced	Status	Logs	Tools	Info
$\smile$					Network I System		FOIP   Logout
(					Hochone   Dybean		
		Signaling port 5	060	1-9999,default 50	60		
	Auto S	IP port selection	Off ✓ 1-10:Local SIP	port will auto select,	, based 5060 increas	ing the value	
		Registrar server 1	0.128.3.90:8989				
		Proxy server 1	0.128.3.90:8989	e.g. 168.33.134.5	0:5060 or www.sip.	com:5060	
	User age	nt domain name		e.g. www.gateway	ysip.com		
	Re	egistration mode	Per line 🗸 🗸				
		User name					
		Password		You may obtain it	from service provide	er	
	Re	gistration period 1	5	15-86400(s), defa	ault 600		
Prima	ry-Standby configura	ation					
		High availability	Off Active-Standby				
R2-m			oad balancing				
			Subn	nt			

## **3.2 Set SIP Servers**

Refer to 2.2 Set Standby SIP Servers.

## **3.3 Configure OPTIONS Settings**

In the active balancing mode, the following timers need to be configured:

- **OPTIONS request period**: The interval between receiving the response (200) from the SIP server to the previous OPTIONS and sending the next OPTIONS.
- **OPTIONS request timeout**: The period since the sending of the last OPTIONS with no response by the SIP server.

#### Figure 3-2 Page to configure OPTIONS settings

Primary-Standby configuration					
High availability	Load balancing 🗸				
SIP server cluster(standby)					
SIP proxy sever setting	€ <u>Add</u>				
SIP proxy server1	192.168.11.8:5060	e.g. 168.33.134.53:5060			
SIP proxy server2	192.168.11.106:5060	e.g. 168.33.134.53:5060			
OPTIONS setting					
OPTIONS request period	2	s(rang:1-86400)			
OPTIONS request timeout	1000	ms(rang:1000-32000), if the response to OPTIONS is timed			
OF HONS request timeout	out, switch to the stand	by server.			
REGISTER setting					
REGISTER request timeout	2000	ms(rang:2000-32000), if the response to REGISTER is timed			
REGISTER request timeout	out, switch to the standby server.				
Active server list					
1	192.168.11.8:5060				
Submit					

## **3.4 Configure REGISTER Settings**

In the active balancing mode, the following time need to be configured:

• **REGISTER request timeout**: The period from the sending of the first REGISTER with no response by the previous SIP server to the sending of REGISTER to the next SIP server.

#### Figure 3-3 Page to configure REGISTER settings

Primary-Standby configuration					
High availability	Load balancing V				
SIP server cluster(standby)					
SIP proxy sever setting	()Add				
SIP proxy server1	192.168.11.8:5060	e.g. 168.33.134.53:5060			
SIP proxy server2	192.168.11.106:5060	e.g. 168.33.134.53:5060			
OPTIONS setting					
OPTIONS request period	2	s(rang:1-86400)			
OPTIONS request timeout	1000	ms(rang:1000-32000), if the response to OPTIONS is timed			
	out, switch to the stand	by server.			
REGISTER setting					
REGISTER request timeout	2000	ms(rang:2000-32000), if the response to REGISTER is timed			
out, switch to the standby server.					
Active server list					
1	1 192.168.11.8:5060				
	Subm	it			

## **3.5 Active Server List**

All the SIP servers, on which the gateway or endpoints are registered on, will be listed in active server list.