GAJSHIELD INFOTECH PVT LTD

WAN Fail-Over for Internet Browsing

Administrative Guide

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Configuring ISP Fail-Over for Internet Browsing

You will learn to configure ISP Fail-Over for Internet Browsing with GajShield UPTM in this guide.

This section is used to make settings for enabling the link failover function. We are assuming that you had already configured the ISP1 as a default gateway for GajShield UPTM and ISP2 as a secondary ISP. Now we will learn how to configure Internet Browsing Failover in Transparent as well as in Proxy mode.

For this click on NETWORK - Advance - WAN Failover

Here, we have to give target IP's to which firewall will send request (ping) continuously from both ISP's. When ISP1 down then it will wait for 2 sec and same request will pass to another ISP. Make sure that whatever target ip's you are configuring that should be ping from all the ISP's which you are configuring on GajShield UPTM.

(Note: Third Target IP is optional)

🔘 GajShiel	d SecureGate v5		SC2
Firewall M	anagement		
	Bridge HA WAN Failover VLAN		
NETWORK			
Basic			
Advanced			0
FIREWALL	WAN	Failover Start/Stop	
USERS		Failover Serv	vice is Running
VPN			
ANTISPAM	AWW	Failover Settings	
ANTIGRAM	Primary Target IP	4.2.2.2	
SYSTEM	Secondary Target IP	4.2.2.3	
ADMIN	Third Target IP		
REPORT	Check Interface Every (in sec)	2	
BROWSING	Deactivate Interface After (missed intervals)	1	
IDS	Reactivate Interface After (successful intervals)	1	
	No of Packets to Send	2	
TRAFFIC CHART		Update	
IM PROFILE			
LOGOUT			
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Admin->Utility->Debug Network

The Debug Network option provides a rudimentary set of network tools that can be used from the web interface which includes ping, traceroute and ARP. The results displayed helps checking network connectivity For ping DNS hostname or IP address and click Start. If you simply click on ARP it shows the ARP cache and for getting ARP of a specific system provides the IP address of that machine.

To check the target ip's which we had configured in NETWORK - Advance - WAN Failover are pinging or not from both the IPS's i.e. in our e.g. first we will check the ping to 4.2.2.2 ip from the ISP VSNL

Patch Dabug Natwork			
Datch Dohug Notwork			
Debug Network			
			0
	Debug Network Options		
Querry Interfaces	LAN		querry
Ping	4.2.2.2	None 💌	ping
Traceroute		None LAN	traceroute
Arp		VSNL	arp
		MTNL	
	Debug Network Querry Interfaces Ping Traceroute Arp	Debug Network Debug Network Querry Interfaces Ping 4.2.2.2 Traceroute Arp	Debug Network Querry Interfaces Ping 4.2.2.2 None Arp VSNL MTNL

🔘 GajShiel	ld Secure	eGate v	/5				S00
Firewall M	lanagemen	t					
	Backup	Patch	Debug Network				
NETWORK							
FIREWALL							
USERS							0
VPN				Debug 1	etwork Option	IS	1000
ANTISPAM			Querry Interfaces	LA	N 💌		querry
SYSTEM			Ping	4.2	.2.2	None 💌	ping
ADMIN			Traceroute			None	traceroute
Administration			Arp			VSNL	arp
Settings						MTNL	
> Utility							
License							
REPORT							
BROWSING							
IPS							
TRAFFIC CHART							
IM PROFILE							
Logout							
			Copyright © Gaj	Shield Infotech (I) Pvt. Lt	d. All rights reserved		

And then check the ping to 4.2.2.2 ip from the ISP MTNL

Other target ip ping you can check by following the above procedure.

Admin->Settings->Email

Now we will configure the email alerts for WAN Failover i.e. whenever any ISP goes down GajShield UPTM will sends the email alerts to the email id's which you had configured in Email Settings

Configure Email Settings:

Default Admin Email ID: In this option configure Email addresses where the alerts should be send

SMTP Server IP: to which server these alerts should be sent. SMTP server i.e. mail server can be local or hosted on internet (recommended mail server is Local Mail server).

Email ID For Service Alerts: From which email id alerts will come

SMTP Server Login: If your outgoing mails requires authentication then you have to provide login name and password information.

SMTP Server Password: Password of the user which created on the mail server for GajShield UPTM.

🙆 GajShie	d SecureGate v5		SC3
Firewall N	anagement		
	System Settings Email Settings Misc Options Defa	ault Settings Date and Time	
NETWORK			
FIREWALL			
Users			0
VPN	a	Configure Email Settings	
ANTISPAM	Default Admin Email ID	admin@gajshield.com	
System	SMTP Server IP	192.168.2.3	
ADMIN	Email ID For Service Alerts	alerts@gajshield.com	
Administration	SMTP Server Login	admin	
 Settings 	Smith Server Password		
Utility License		Update	
REPORT			
BROWSING			
IPS			
TRAFFIC CHART			
LOGOUT			
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Proxy authentication with local users [with Wan Fail-over] :

In this section we will learn how to configure your proxy authentication on GajShield UPTM. For same you need to select local in Proxy Authentication Scheme.

Click on local authentication Proxy Authentication Scheme as you can see in below screenshot:

🔘 GajShiel	d SecureGate v5			000
Firewall M	anagement			
	Browsing Options Start Pr	oxy Restart ICAP Restart Pr	oxyLog	
NETWORK				
FIREWALL				
USERS				0
VPN			Browsing Setup	
ANTISPAM		Enter Proxy Port	8080	
SYSTEM		URL Blocker Instance	10	
ADMIN		Enforce Strict Search on	Google Images : TYahoo Images : T	
REPORT		Virus Scanning		
BROWSING		Selec	t Proxy Authentication Scheme	
DROWSING			User (Login/Password) Authentication	
Users Setting				
Site Policy		ſ	C TAGAGO	
мітероїсу			(IACACS+	
Category				
IDe		0	No User Authentication	
IPS		C	Transparent Mode	
TRAFFIC CHART			Setup	
IM PROFILE				
LOGOUT				
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You need to create user on GajShield UPTM, as user authenticate we had selected as **Local** while configuring proxy settings.

To do this follow below procedure to create user please follow the screenshots below and after then you need to restart your proxy service.

To restart the proxy service on GajShield UPTM click on BROWSING - Setup – Start Proxy and click on restart button.

🔘 GajShiel	d SecureGate v5		S00
Firewall M	anagement		
	Users User Groups		
NETWORK			
FIREWALL			
USERS			0
VPN		Add Users	
ANTISPAM	Login ID	gajshield	
Svottu	Password	*****	
STSIEM	First Name	gajshield	
ADMIN	Last Name	infotech	
REPORT		Add	
BROWSING			
• Users Setting			
Site Policy MimoRoliay			
Category			
• Setup			
IPS			
TRAFFIC CHART			
LOGOUT			
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Below are the policies which will require for configuring GajShield UPTM in Proxy Mode with the WAN Failover.

Firewall Management Quick Setup Rules Bandwidth Install Policies Backup Rules Admin Ips NETWORK Firewall Firewall Status Admin Ips Image: Colspan="2">Image: Colspan="2">Admin Ips Ven AntiSPAM System Admin I LAN fwip-USNL Athp any accept yes active default Always On no VSNL-59.163.43.145 Image: Colspan="2">Image: Colspan="2" System ADMIN Report BRowsing any accept yes active default Always On no VSNL-59.163.43.145 Image: Colspan="2">Image: Colspan="2" Iss Traffic CHART Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Admin Resource Image: Colspan="2"	Firewall Management Quick Setup Rules Bandwidth Install Policies Backup Rules Admin 1ps NETWORK Firewall Firewall Image: Construction of the second	👩 GajShie	eld Secure	Gate	v5										500
Quick Setup Rules Bandwidth Install Policies Backup Rules Admin Ips NETWORK Firewall Etworks Image: Constraint of the state of the s	Quick Setup Rules Bandwidth Install Policies Backup Rules Admin Ips Prices Firstwall Image: Control of the second secon	Firewall	Management												
NETWORK FIREWALL Petworks Forces Show All Rules USERS VPN ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT	NETWORK FIREWALL etworks bindies USERS VPN ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT		Quick Set	JP R	ules Ban	dwidth	Install I	Policies	B	ackup R	ules	Admin Ips)		
FIREWALL etworks ervices USERS USERS VPN ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT	Firewall etworks etworks Users VPN ANTISPAM System ADMIN Report Browsing IPS Traffic CHart IM PRofile Logout	NETWORK													
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AntiSPAM AntiSPAM System Admin Report Browsing IPS Traffic Chart IM PRofiLe Logout	Antrispan System Antrispan 2 Any fwip-VSNL https Abmin Report Browsing IPS Traffic CHART IM PROFILE Logout	etworks													00
No. Dr. Src. Serv. Dest. Action Log Status Queue Schedule Ld. Bal. Route-Failover Tasks No. Dr. Src. Serv. Dest. Action Log Status Queue Schedule Ld. Bal. Route-Failover Tasks ANTISPAM 1 to fwnet-LAN squid fwip-LAN accept yes active default Always On no none Image: Comparison of the second of the seco	No. Dr. Src. Serv. Dest. Action Log Status Queue Schedule Ld.al. Route-Failover Tasks No. Dr. Src. Serv. Dest. Action Log Status Queue Schedule Ld.al. Route-Failover Tasks ANTISPAM System A Antispan System A Antispan Accept yes Active default Always On No VSNL-59.163.43.145 Image: Antispan Image: Antispan Image: Antispan Antispan <t< td=""><td>rvices</td><td>st</td><td>iow All</td><td>Rules</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	rvices	st	iow All	Rules	-									
Volume 1 LAN to LAN squid fwip-LAN accept yes active default Always On no none Image: Constraint of the state of the st	USERS VPN ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE Logout	llospe	N). Dr.	Src.	Serv.	Dest.	Action	Log	Status	Queue	Schedule	Ld. Bal.	Route-Failover	Tasks
ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART M PROFILE LOGOUT	ANTISPAM SYSTEM ADMIN REPORT BROWSING IPS TRAFFIC CHART M PROFILE LOGOUT	VPN	1	LAN to	fwnet-LAN	squid	fwip-LAN	accept	yes	active	default	Always On	no	none	dê.
ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT	ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT		2	Any	fwip-VSNL	dnsudp http	any	accept	yes	active	default	Always On	no	VSNL-59.163.43.145 MTNL-192.168.1.1	
ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT	ADMIN REPORT BROWSING IPS TRAFFIC CHART IM PROFILE LOGOUT	SYSTEM				nups									
		BROWSING IPS TRAFFIC CHART IM PROFILE													
		Logout													

1st rule created is for your local network access GajShield UPTM local LAN ip on the proxy port (Port which you had configured in BROWSING – Setup – Browsing Options)

 2^{nd} rule created is for ports which normally require i.e. https, http and dnsudp ports to allow from GajShield UPTM to the Internet in this rule we had also configure Failover by selecting Link 1 as VSNL and if VSNL link goes down then all Internet browsing traffic shift to the ISP MTNL and once VSNL link comes up the Internet Browsing traffic shifts back to the VSNL ISP.

Click on Install Polices once you created above two rules to apply on GajShield UPTM.

NOTE:-- In local authenticate mode you need to do proxy setting in client's browser.

Transparent mode with proxy [with WAN Fail-over]:

In Transparent proxy mode all Internet traffic flow through the GajShield UPTM. In transparent proxy mode user authentication not possible, authentication is purely IP based. So in this mode you don't need to create local user or you don't need to do browsing setting on client's browser. Configure rules in policies and configure firewall ip address as a gateway in local system. On firewall in Browsing --- users setting --- users , you need to provide IP 's in your network, so you can achieve ip based authentication and imposed the Site and MIME Blocking policies.

Below screenshot explains the policies which will require to configure Transparent mode proxy with WAN Failover

🔘 GajShiel	ld SecureG	iate	v5									SC	?
Firewall M	lanagement							<u>.</u>					
	Quick Setur	R	tules Ba	ndwidth Install Po	licies	Backup	Rule	5 Adn	nin Ips]			
NETWORK													
FIREWALL													
Networks													•••
Policies	Sho	w Al	l Rules	-									
LISEDS	No.	Dr.	Src.	Serv.	Dest.	Action	Log	Status	Queue	Schedule	Ld. Bal.	Route-Failover	Tasks
VPN	1	LAN to Any	fwnet-LAN	dnsudp http-transparent-proxy https	any	accept	yes	active	default	Always On	no	VSNL-59.163.43.145 MTNL-192.168.1.1	d đo
ANTISPAM	2	Any	fwip-VSNL	dnsudp	any	accept	yes	active	default	Always	no	VSNL-59.163.43.145 MTNL-192.168.1.1	d
System		LAN		1						Always		THE EVENDORIE	
Admin	3	LAN	twnet-LAN	ansuap	TWIP-LAN	accept	yes	active	default	On	no	none	
REPORT													
BROWSING													
IPS													
TRAFFIC CHART													
IM PROFILE													
LOGOUT													
	4												
		_		Convright@GaiShield	Infotech (I) B	NA LEA AL	Leighte	received					

Here in first rule we had opened http-transparent-proxy, https and dnsudp ports from local network to the Internet with WAN Failover

And in second rule created is for to allow GajShield UPTM to resolve dns on the Internet with WAN failover.

Note: In Transparent mode Internet access users have to use GajShield UPTM Local LAN ip as the gateway and DNS server entries provided by the ISP. If you don't want to use ISP DNS then you can use GajShield UPTM Local LAN ip as a DNS server but for this you need to configure **third rule** (which is already configured on above screenshot).