

Technology Cooperation Office of the Presidency



International Department

By introducing the Bulletins of “Iran Technological Potential” provided by Technology Cooperation Office of the Presidency (TCO), we intend to encourage international cooperation aiming at sharing technological resources with other countries. We will put forward more publications of such bulletins in different areas of Science and Technology in near future.

As a matter of fact, Science and Technology has a global rather than local or even national nature; therefore, geographic boundaries have been crossed and exchange of ideas and maintaining joint research activities have become crucial for many scientists and researchers all over the world. In addition, developments of electronic communication tools as well as IT advancements facilitate this process as never before.

The main objective of these bulletins is to inform the international community about recent advances and achievements of Iran capacities and capabilities in Science and Technology field and to facilitate technological collaborations with other countries.

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Pardis Technology Park

Pardis Technology Park (PTP) is located in Pardis area in the north east of Tehran. PTP was established in 2001, on government initiative, by Technology Cooperation Office (TCO) of Islamic Republic of Iran Presidency.

PTP is intended to create an environment for researchers and companies with similar requirements and goals, in order to develop High-Tech industries and to increase employments. Its Mission is to encourage and support the technological companies to increase their ability to compete in international world market. Some of Pardis Technology Park main Objectives are: to intensify High-tech industries development, to promote Cooperation between industries and academic institutions and research centers, to create synergy between private and state sectors, to commercialize know-how and innovations generated by research centers, and to promote research and development activities in private sector.

The Sharif SecureWare Company cooperates with Pardis Technology Park (PTP) to promote its High-Tech products quality.



Sharif SecureWare Company Profile

The Sharif SecureWare Company (In Persian: AmnAfzar Gostar-e Sharif) was founded in 2002, aiming to fulfill the security requirements of enterprise and medium level organizations. The founders of **Sharif SecureWare** bring more than a decade of academic and technical background in related disciplines, which combined with the added knowledge and industry specific experience of its engineers, make the company a focused, professional and trusted partner for all cyber space security requirements.

Sharif SecureWare is proud of being an active player in the development of security products based on sophisticated and detailed requirement analysis for Iranian and regional clients. As a result, **Sharif SecureWare**

and services requirements analysis.

Success in these projects has promoted Sharif SecureWare from a startup in 2002 into one of the top technical companies in Iran in the discipline of cyber space security.

Sharif SecureWare Company potentials:

Sharif SecureWare Co. started security products production since 2002 in different categories simultaneously. Various products and services consist:

- ParsGate Firewalls
- Separ Web Filter
- PKI Solutions
- ISMS
- Safe E-Mail (Safir)
- Network Safety

All of this company products and services were installed and were putting into operation in various organizations. Presentation and production of standard security products and services in different fields in relation to cyber environment is feasible and possible.

Products and Services

Encompass two categories:

1- Security products

1-1 Separ web filter

Sarand web filter

Squid Escort web filter

Alak web filter

1-2 ParsGate Fire wall

1-3 URL Database

1-4 foundation of digital certificate on the basis of PKI (Pars sign)

1-5 Secure E-Mail (Safir)

2- Consulting, Training and security Services for large networks and consulting for Foundation of ISMS in organizations

Expanding the activities

The Sharif SecureWare Company attempting to fulfill these items to develop quality and quantity of its products and services:

- Human resource development and training in network security field
- Research on Gate ways, high speed filters ad deepening of URL addresses Categorization
- Cooperation with ICPs, ISPs, public and private organizations in network security at intra organization level

Achievements and honors

- Link to one of the best technical and scientific human resources in Iran
- One of the pioneers in computer network security wares in Iran
- Provider of URL-Database services (first in Iran)
- Internet filters for ISPs, local networks and home use
- Foundation of first center of digital certificate services
- Concentration on Research and Development (R&D) and pioneer in up to date knowledge in all related fields

This bulletin explains all general and technical features about ParsGate firewall 400:

About ParsGate Firewall Overview



The ParsGate firewalls are dedicated security appliances, offering comprehensive security to enterprise networks. ParsGate appliances provides complete network protection with integrating firewall, VPN, intrusion detection and prevention, traffic authentication, content filtering and bandwidth management.

Various models of ParsGate security gateway are different in system performance, physical interfaces and hardware specification. The ParsGate security gateway, which includes the ParsGate-100, 240, 280, 400, and 800 models, meets small to large enterprise-class requirements for performance, availability and reliability. With a unique traffic authentication mechanism, ParsGate provides integrated security policies with reliable user credential. The failover capability of ParsGate releases the problem of high reliability in case of power or hardware failures.

Key Features and Benefits

Firewall

- Powerful Stateful inspection
- NAT/PAT/MAT
- IP publishing
- Defining Policies based on schedule and security zones
- Preventing DoS and flooding attacks
- Protecting against Network attacks
- Hiding internal network topology

- Secure and full DMZ support

Virtual Private Network (VPN)

- Supporting IPSec, L2TP, PPTP
- Split tunneling
- Integrated with firewall policies
- Using a private network over public internet
- Securing communications between organization branches
- Securing user communications to organization network

Intrusion prevention system (IPS)

- Detecting and preventing over 800 known attacks
- Configurable intrusion detection thresholds
- Misuse and Anomaly Detecting
- Supporting customized and new attack signatures
- Automatic update on signature database
- Minimizing “false positives”
- Real-time intrusion prevention
- Applying customer policies for intrusion prevention
- Sending various alerts upon detecting an intrusion

Traffic authentication

- Traffic authentication independent than application layer
- Using SSL channels to transfer authentication cre

- denial Local and remote user authentication database
- Radius, LDAP and MS Active Directory support
- Defining policies based on user and groups
- Traffic logging and tracing for each user
- Full Access control for Network resources

Web content filtering

- 15 predefined content categories in URL database
- Extendable content categories
- Automatic update on categorized URL database
- Full HTTP traffic logging
- Additional filtering based on file type, black lists and white lists
- Integrated policies for firewall and content filtering
- Enhancing Bandwidth usage
- Stopping non-required web surfing during working hours
- Providing analytical reports about internet usage

Bandwidth management

- Maximum bandwidth limitation for interfaces
- Maximum limit and guaranteed bandwidth
- Applying traffic priorities
- Traffic Accounting

- Preventing DoS attacks on network edge
- Changing traffic priorities on emergency

ParsGate-400



ParsGate-400 is a powerful firewall and security gateway which incorporates a mixture of security mechanisms to be deployed in large scale networks. ParsGate-400 integrates stateful inspection, VPN, intrusion detection and prevention, traffic authentication, web-content filtering, and bandwidth management in a single device and enable easy yet powerful central management and configuration through CLI and WUI user-friendly interfaces. The device provides ten 10/100/1000(including two SFP port) network interfaces and its high processing power makes it fully functional in high-traffic network segments. The Failover capability of ParsGate-400 releases the problem of high reliability in case of power or hardware failures.

Security Services

- Stateful Inspection
- NAT/PAT/MAT
- VPN (PPTP, IPSec, L2TP over IPSec)
- Traffic Authentication (Local, Active directory, Radius, LDAP)
- Content Filtering
- Bandwidth Management
- High Availability

System Performance and Capacity

- Concurrent sessions: 700000
- New sessions/second: 18000
- Firewall throughput: 1.8Gbps
- 168-bit triple-DES throughput: 300 Mbps

Interfaces

- 8 10/100/1000 Ethernet ports in ParsGate-400F
- 10 10/100/1000 Ethernet ports in ParsGate-400
- 2 SFP port in ParsGate-400F
- 1 Consol ports
- 2 USB ports

ParsGate 400 Powerful Firewall/VPN for Large Enterprises

Specification

Interfaces

10/100 Ethernet ports

10/100/1000 GBE ports

Configurable LAN/DMZ/WAN ports

SFP ports

Console port (RJ45)

COM ports

- 10 (ParsGate 400) 8 (ParsGate 400F)

Yes

2 (Only ParsGate 400F)

1 (Front)



USB ports 2 (Front)
LCD panel Yes

System Performance and Capacity

ParsGateOS version support	ParsGateOS 3.x
Concurrent sessions	700,000
New sessions/second	18,000
Firewall throughput	1.8 Gbps
168-bit triple-DES throughput	300 Mbps
Users	Unrestricted
Policies	Unrestricted
VPN tunnels	Unrestricted

Firewall Modes and Features

Layer 2 (Transparent/Bridge Mode)	Yes
Layer 3 (/Route Mode)	Yes
NAT (Network Address Translation)	Yes
PAT (Port Address Translation)	Yes
MAT (MAC Address Translation)	Yes
Zone-based policy	Yes
Policy-based source and destination NAT	Yes
Access Scheduling	Yes

IP/MAC address binding	Yes	Yes
IP publishing	Yes	Yes
Policy-based NAT	Yes	
DoS attack protection	Yes	
VPN		
PPTP, L2TP, and IPSec	Yes	
3DES, DES, AES encryption	Yes	
MD-5 and SHA-1 authentication	Yes	
Manual Key, IKE, PKI (X.509)	Yes	
Perfect forward secrecy (DH Groups)	Yes	
Prevent replay attack	1, 2, 5	
L2TP within IPSec	Yes	
Dead peer detection	Yes	
IPSec NAT traversal	Yes	
Redundant VPN gateways	Yes	
User authentication	Local, Radius and LDAP	
VPN tunnel monitor	Yes	
Intrusion Detection and Prevention		
Intrusion prevention for over 800 attacks	Yes	
Protocol anomaly detection		Yes

User-defined signatures	Yes	Yes
Stateful signatures	Yes	Yes
Multi-layer signatures	Yes	Yes
PortScan detection	Yes	Yes
Integrated IPS and firewall policies	Yes	Yes
Content Filtering		
Built-in categorized URL database	Yes	Yes
URL, keyword, file type filtering	Yes	Yes
No. of URL categories	15+	Yes
Custom categories	Yes	Yes
White/Black list	Yes	Yes
Automatic updating for URL database	Yes	Yes
Content protection profile	Yes	Yes
Custom block page per profile	Yes	Yes
Logging permitted and blocked requests	Yes	Yes
Filtering URL in URL	Yes	Yes
Bandwidth Management		
Guaranteed/Maximum/Priority bandwidth	Yes	Yes
Maximum bandwidth per interface	Yes	Yes
Policy-based traffic shaping	Yes	Yes

DiffServ setting	Yes	Yes
User based bandwidth management	Yes	Yes
IP and network based Accounting	Yes	
User-based Traffic Authentication		
User and group based access control	Yes	
Web and SSL based authentication	Yes	
Idle and fix mode for timeout	Yes	
Customizable certificate for SSL	Yes	
Local and remote credential database	Yes	
3rd Party user authentication	Radius and LDAP	
Windows active directory support	Yes	
PKI Support		
PKI certificate requests (PKCS 7)	Yes	
Self signed certificates	Yes	
Key generation algorithms	RSA and DSA	
High Availability		
Active/Passive HA	Yes	
Device failure detection	Yes	Yes
Link status monitor		Yes

Automatic and manual synchronization Yes

Networking

Multi-zone support Yes

Multiple WAN link support Yes

Static and policy-based routing Yes

Secondary IP support Yes

Network utilities (ping, traceroute, ...) Yes

IP Address Assignment

Static Yes

DHCP client Yes

Internal DHCP server Yes

DHCP Relay Yes

System Management

WebUI (HTTP and HTTPS) Yes

Command Line Interface (console) Yes

Command Line Interface (SSH) Yes

SNMP Full Custom MIB Yes

Rapid Deployment Yes

Administration

Local administrators database	Yes
External administrator database	Radius and LDAP
Restricted administrative networks	Yes
Multiple administrators and user levels	Yes
Configuration Roll-back	Yes

Logging/Monitoring

Internal Flash	Yes
Log to remote Syslog server	Yes
SNMP (read only)	Yes
Email notification of events and attacks	Yes
Active session monitor	Yes
Active session disconnection	Yes
Log monitor per policy	Yes
Counting bytes and packets per policy	Yes
LCD panel for monitoring	Yes
Default policy logging	Yes
Graphical real-time and historical monitoring	Yes

Dimensions

Height	427 mm
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Width	458 mm
Length	44 mm
Weight	13 kg
Rack mountable	1U Rackmount

Power

AC input voltage	90~264v
AC input current	8.4A
Frequency	47-63 Hz
Power Dissipation	460Watts
Redundant power supply	-

Environment

Operating temperature	0°C to 40°C
Storage temperature	-20°C to 80°C
Relative humidity (non condensing)	10% to 90%

Advantages in comparison with foreign similar products and services:

Sharif SecureWare Company's Firewall named ParsGate is able to compete with the best similar foreign ones. This is due to possibility of upgrading and additional potentials according to customer demands. Separ web filter is designed in accordance with special national policies by using search robots in internet addresses, then categorize in one of the 15 categories. Other products are similar to foreign products.

Opportunities for cooperation:

Firewall and web Filters have installed and launched in different countries via intermediate companies. Sharif SecureWare Co. is eager to cooperate with national and international companies and conducting Joint marketing.