TSG GTP Firewall

TSG GTP Firewall is a high-end security solution built to protect mobile networks from potential risks associated with GTP. This firewall, a vital part of our Telecom Security Guard (TSG) platform, provides robust security for all generations - 5G to 2G networks, maintaining secure and seamless telecom services.

Standalone Solution Firewall can be used as a standalone solution, and even higher efficiency is achieved by synergizes with other TSG platform modules to cross-check threats across other protocols like SS7, Diameter, and HTTP/2. Comprehensive security solution uses same smooth, user-friendly interface across all modules.

Compliance is key in security, and our Firewall aligns with the GSMA FS.20 guidelines, protecting your network from GSMA Category 1, 2, and 3 threats. The firewall's unique feature to query actual subscriber location information to resist Category 3 attacks adds another layer of security.

Effective Security and Stable Network Performance Firewall effectively blocks unauthorized data tunnels by monitoring GTP-C traffic, leaving GTP-U traffic to flow freely, ensuring an efficient network operation. With its diverse types of integration, it seamlessly fits into your network with minimal configuration changes, making the deployment and maintenance smooth. This way, you get high-grade security without compromising on network performance.

More Than Just a Firewall

SecurityGen's expert team

Performs an extensive number of GTP network security assessments annually. This hands-on approach helps us identify emerging vulnerabilities and stay ahead of hackers' evolving tactics and techniques.

Our insights and findings

Don't just update the knowledgebase of the Artificial Cybersecurity Expert and TSG Intrusion Detection System, but also help update firewall rules.

Comprehensive coverage

Our customers are not just equipped with GSMA recommendations but also benefit from SecurityGen's essentials - our expertly provided firewall rules that come from careful study and hands-on experience.

Why SecurityGen GTP FW

- **GTP Message Filtering:** Analyses and filters GTP-C (control) messages for enhanced security

- **GTP Version Compatibility:** Supports GTPv1 (used in 2G/3G networks) and GTPv2 (used in 4G, 5G NSA networks), future-proofed for compatibility with 5G

- **Cross-checking the attacks:** Across other protocols such as SS7, Diameter and HTTP/2

- **Location verification for:** Handling of Category 3 attack attempts

- **Threat Protection:** Defends against common GTP-specific threats, GTP flooding, and GTP session hijacking

- **GTP Tunnel Management:** Inspects and manages GTP tunnels to protect from rogue tunnel creation and misuse

- **Session Management:** Provides intelligent session gathering mechanism for subscriber identification

- **Logging and Reporting:** Detailed real-time and historical reporting for visibility and compliance

- **Compliance with the GSMA:** FS.20 document and protection of the network from GSMA Categories 1, 2 and 3 attacks

How GTP Firewall Works?

External GTP Network · SG GTP-C · SG GTP-C · Home GTP Network (IP Backbone)
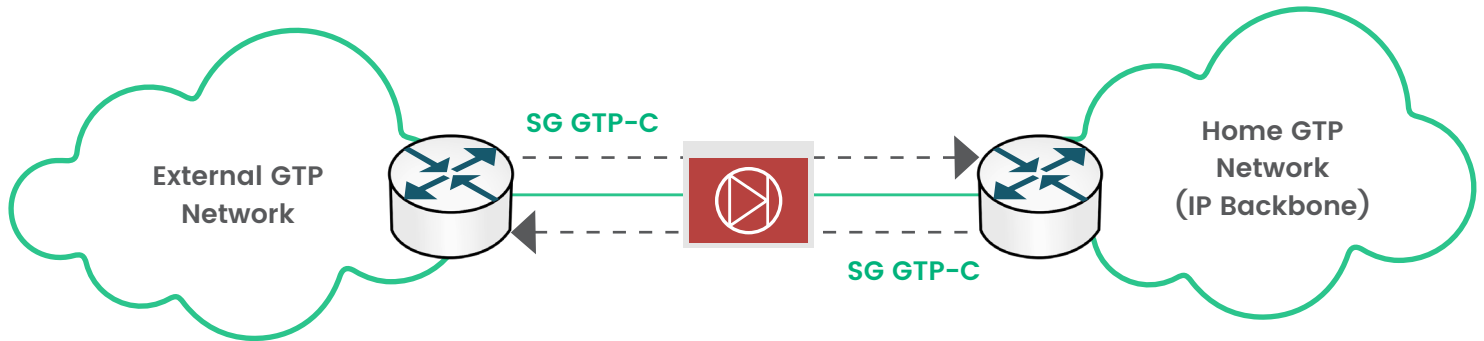
Use Cases

Mobile Network Operators (MNOs): Can use the Firewall for GTP to ensure the secure and reliable operation of their vast network infrastructure. This firewall provides robust protection against vulnerabilities that can arise due to the use of the GTP in 3G, 4G, and 5G networks. It aids MNOs in offering secure and uninterrupted services to their users, enhancing their reputation and customer trust.

Mobile Virtual Network Operators (MVNOs): Who rely on the infrastructure of existing mobile network operators, can use the Firewall for GTP to ensure the secure transmission of data over GTP. This product helps MVNOs manage and mitigate risks related to the use of GTP in their network operations.

Private Network Owners: Private networks, often used by businesses and organizations, can leverage the Firewall for GTP to protect their communication data. The firewall ensures secure data transmission and protects the network from vulnerabilities associated with the use of GTP protocol.

Benefits and Value Proposition

- **Enhanced Protection:** SG GTP Firewall significantly reduces the risk of cyberattacks, ensuring network integrity and customer data protection.

- **Comprehensive Security:** Designed to defend against a wide range of threats across all generations of mobile networks, including cross-protocol verification of SS7, Diameter, and HTTP/2.

- **Operational Efficiency:** By managing traffic security policy and preventing network exploitation, this firewall ensures efficient network operations.

- **Streamlined User Experience:** If you're familiar with SecurityGen's signaling firewalls, you'll appreciate the user-friendly interface, designed for simplicity and efficiency.

- **Simple Integration:** With its diverse types of integration, our Firewall seamlessly fits into your network architecture with minimal configuration changes, ensuring an easy and straightforward deployment process. It's high-grade security without the hassle.

- **Future-Proofed:** With broad GTP version compatibility, this firewall is a long-term solution compatible with current and future network technologies.

- **Compliance:** Helps telecom operators adhere to stringent telecom security regulations and standards.

Flexible Deployment

• The GTP Firewall can be deployed as virtual network function of bare metal appliance.
• It can act as standalone network function or part of the full TSG platform.
• Both on-premise and cloud deployment options are supported, allowing for maximum flexibility.

Technical Specifications

• **Protocol support:** GTPv1, GTPv2
• **Mobile generations support:** 5G, LTE, UMTS, GSM
• **Types of mobile networks supported:** Public networks, Virtual networks, Private Networks
• **Deployment:** On-premise hardware or virtual machine; cloud (private/public)
• **Redundancy options:** Active redundancy, Pathway redundancy, Geographic redundancy
• **Throughput:** Varies by deployment model
• **Logging and Reporting:** Real-time and historical; exportable logs; SIEM integration
• **Hardware/Software Requirements:** Details would depend on specific deployment model

Compliance and References

• GSMA FS.20 GPRS Tunnelling Protocol (GTP) Security
• ENISA 5G Security Controls Matrix
• IR.88 LTE and EPC Roaming Guidelines

About SecurityGen

SecurityGen is a global company focused on cybersecurity for telecom security. We deliver a solid security foundation to drive secure telecom digital transformations and ensure safe and robust network operations. Our extensive product and service portfolio provides complete protection against existing and advanced telecom security threats.

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