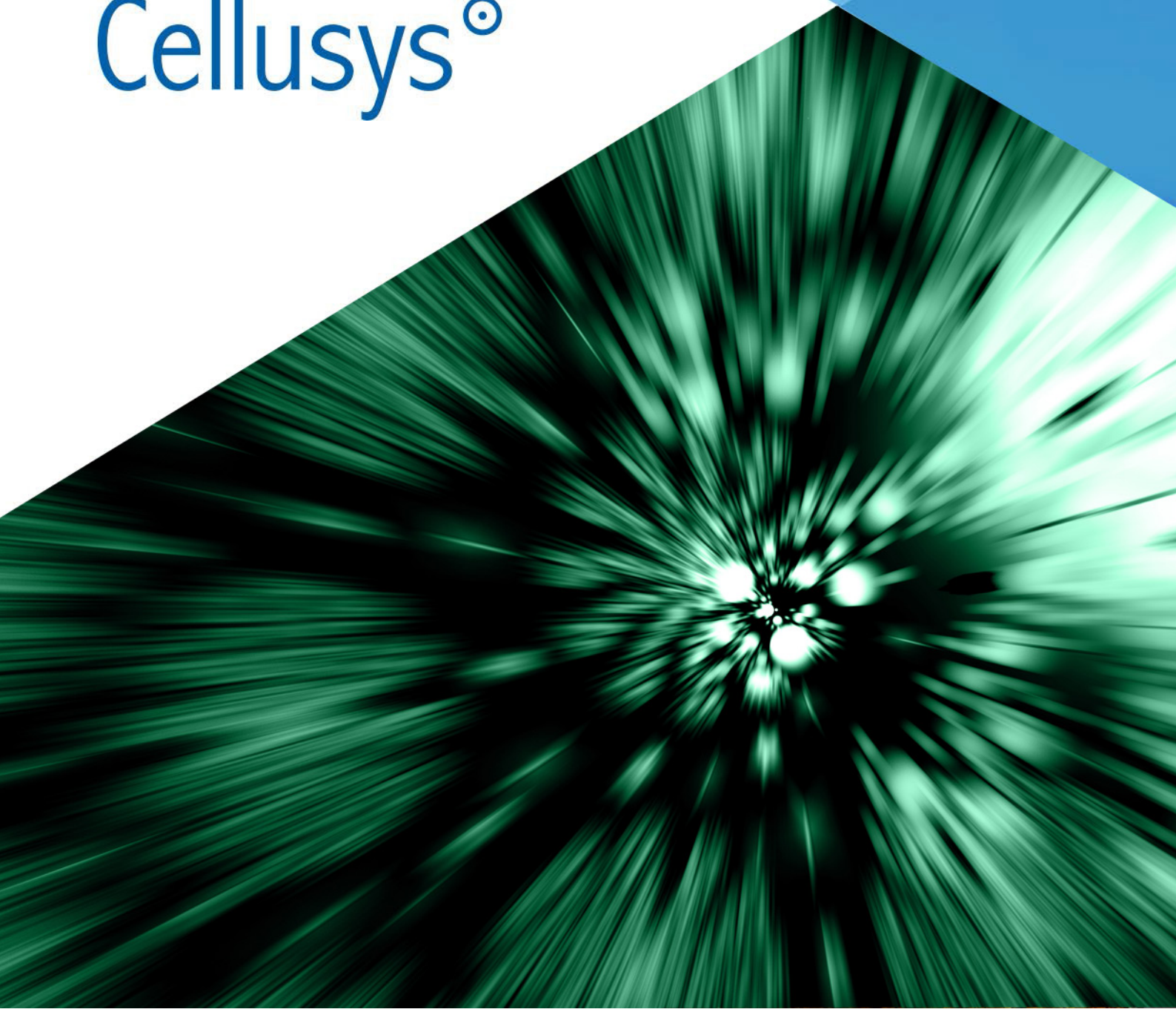


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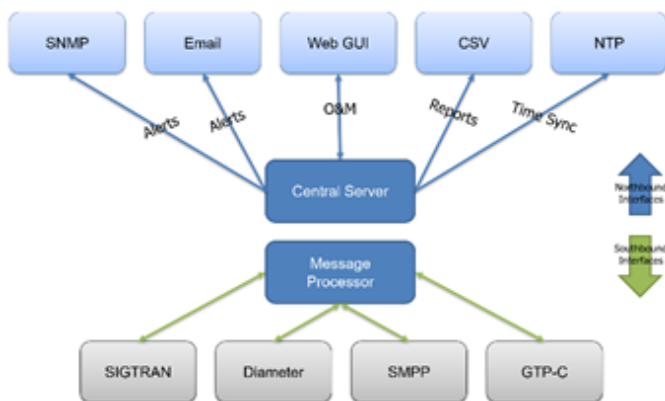


GTP Signalling Firewall

Protect Your Network

Overview

The Cellusys Signalling Firewall system protects a mobile operator's network by sitting on its external links to other networks and filtering messages from reaching the network, ensuring threats from individual messages, flooding or other issues are prevented from reaching the network and causing issues. It intercepts GTP-C messages on the IP layer that pass over an IP connection.



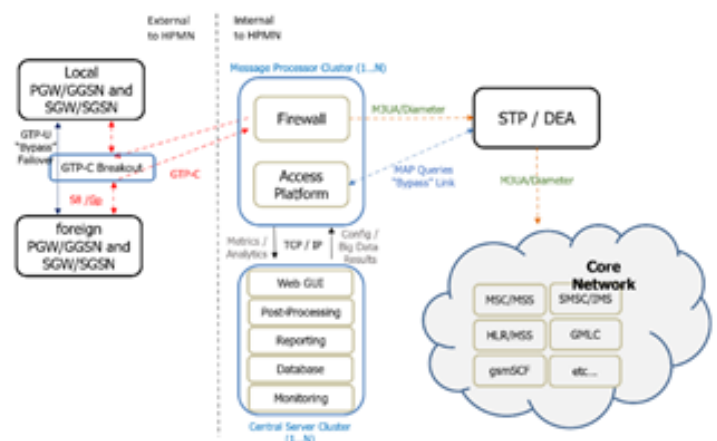
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Features

GTP Firewall provides full control over the signalling stack from IP to GTP. Base for the GTP integration into the Cellusys Signalling Firewall is the FS.20 standard – with focus on roaming traffic. The Signalling Firewall will apply pre-defined (FS.20) and user-defined policies to this GTP-C traffic. As for all rules, they can be customized by the user using the same rule definitions known from SS7, Diameter etc. Every GTP-C parameter is exposed and available for query and policy enforcement. Due to internal correlation, each rule has access to relevant fields of the GTP-C messages even if the field is not present in the original message (such as IMSI in PDP-Context-Delete Messages).

In-line Architecture GTP-C

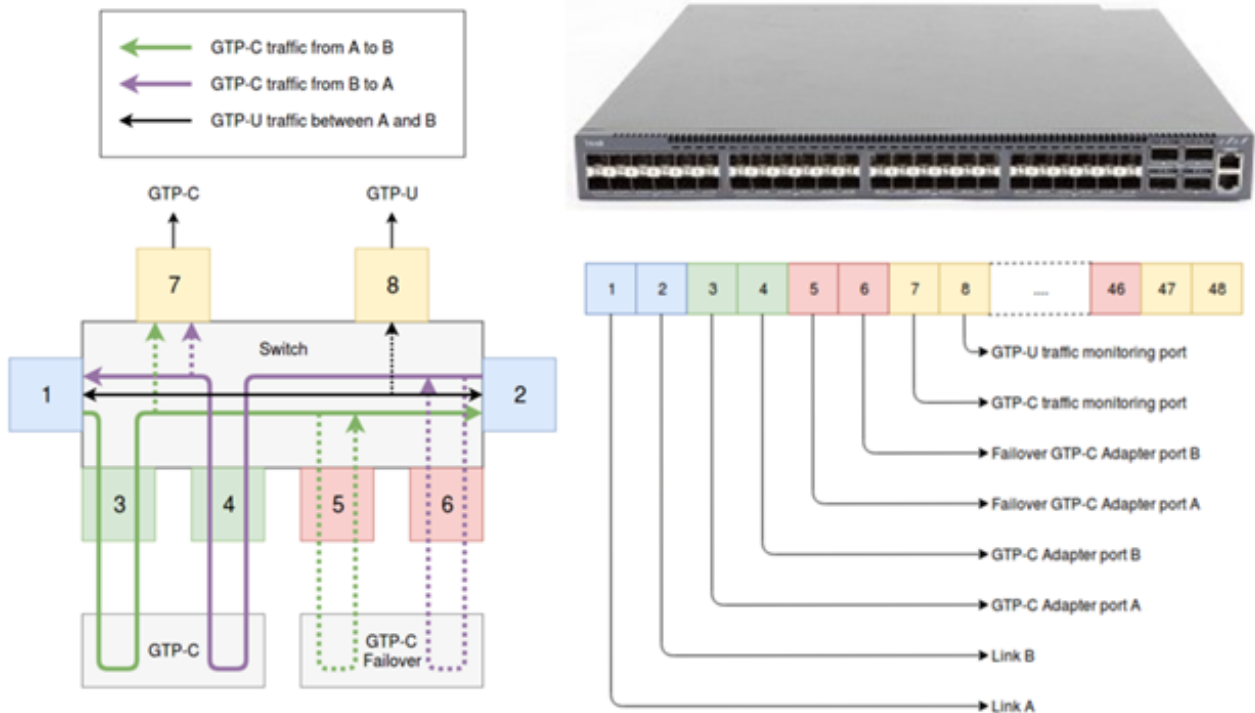


Signalling Firewall can drop GTP-C packets, modify message attributes or generate error messages and return these to the message source. Also, it can rate limit messages from a given source / range of sources or on any message attribute. In order to apply additional checks, the firewall can send external queries to determine real subscriber location based on a source of GTP-C packet.

Network integration

Integration of GTP is done inline: physical links carrying roaming GTP traffic will be connected to the GTP firewall switch. Using BISDN-OS as platform this switch extracts relevant GTP-C messages bidirectional and forwards them to the firewall message processor, while all other traffic is transparently bypassed. The integration supports all current physical interfaces using SFPs (100MBps – 100Gbps). Up to 8 links can be connected using one GTP firewall switch. Also mirror ports are available to connect other Cellusys products such as Mobile Broadband Monitoring. Permanent port monitoring of the GTP firewall switch supports switching to other firewall instances or completely bypass all traffic (transparent mode).

Specifically, due to the inline mode, no network configuration on PS nodes is required. This simplifies the integration dramatically.



Cellusys^o

Cellusys founded in 2004 is a privately held company, based in Dublin, Ireland. It provides leading edge solutions for mobile networks including comprehensive Data Solutions, Security Solutions and Roaming Management Solutions.



Dublin, Ireland

- Research & Development
- Signalling Solution & Circuit Switched Engineering



Berlin, Germany

- Research & Development
- Mobile Broadband & Pocket Switched Solutions Engineering



Bangkok, Thailand

- Sale & Technical Support Asia Pacific



Atlanta, USA

- Sales & Technical Presales



Dubai, UAE

- Sales & Technical Presales