

IP-SM Gateway

SMS for IP Networks

About IP-SM Gateway

Pharos' carrier-grade 3GPP-based **IP Short-Message Gateway (IP-SM-GW)** enables your network subscribers with IMS-capable devices to send and receive SMS over the internet. It does so by expanding the existing capabilities provided by your SMSC to support SMS over IP; without you needing to replace or make changes to your existing SMSC infrastructure.

Functionally, the gateway enables subscribers with IMS-capable smartphones and tablets to seamlessly use your existing Short Message Services. This means that your subscribers will be able to:

- Send and receive SMS over any IP-based networks (Wi-Fi, satellite, ethernet, DSL, fibre, LTE, 5G).
- Use SMS without cellular connections, thereby expanding SMS' reach—for instance, this will enable subscribers, who are using inflight Wi-Fi, to receive SMS-based OTPs from their banks.

Technically, the gateway is a 3GPP-compliant SIP-to-MAP interworking function that performs intelligent domain selection. It provides seamless SMS interworking between subscribers' SIP-based handsets and your MAP-based SS7 network. As a result, it provides your IMS subscribers with the same existing Short Message Services to those provided by your legacy mobile networks.



Benefits

- ✓ Enable subscribers to use SMS over any IP-based network.
- ✓ Protect existing SMS revenue.
- ✓ Get a cost-effective SMS over IP solution (instead of using high-priced core MME-based SGd + HSS-based S6d Diameter licenses).
- ✓ Satisfy subscribers by giving them the flexibility to send and receive Short Messages over multiple network types (2G, 3G, and IP).

Key Features

- ✓ **IMS Interworking:** Provides 3GPP-compliant SMS transport level and service level interworking between 2G/3G circuit-switched and LTE/5G packet-switched networks.
- ✓ **Short Message Routing:** Routes A2P (MT) and P2P/P2A (MO) Short Messages.
- ✓ **Signalling Interfaces:** MAP and SIP; Diameter is optional.
- ✓ **Deployment Options:** Deploys on bare-metal or on virtualised infrastructure.
- ✓ **Redundancy and Availability:** Dual redundant active-active servers provide 99.999% carrier-grade availability.
- ✓ **System Functionality:**
 - **UE Registration & SMS Home Routing:** Registers subscribers' devices on the IP-SM-GW and processes SMS traffic redirected by HLR/HSS for termination.
 - **Domain Selection & Security:** Routes messages to the correct domain using SIP or MAP and blocks unsolicited off-net SMS, hides IMSI numbers and network topology.
 - **First Delivery Attempt (FDAP):** Attempts direct SMS delivery; undelivered messages are forwarded to the SMSC for retry.
- ✓ **Scalability:** Scales horizontally to accommodate the heaviest demands for SMS.

Why IP-SM GAateway?

SMS is indispensable to Mobile Network Operators because it is the most ubiquitous and far-reaching channel in the world for communicating textual content to customers.

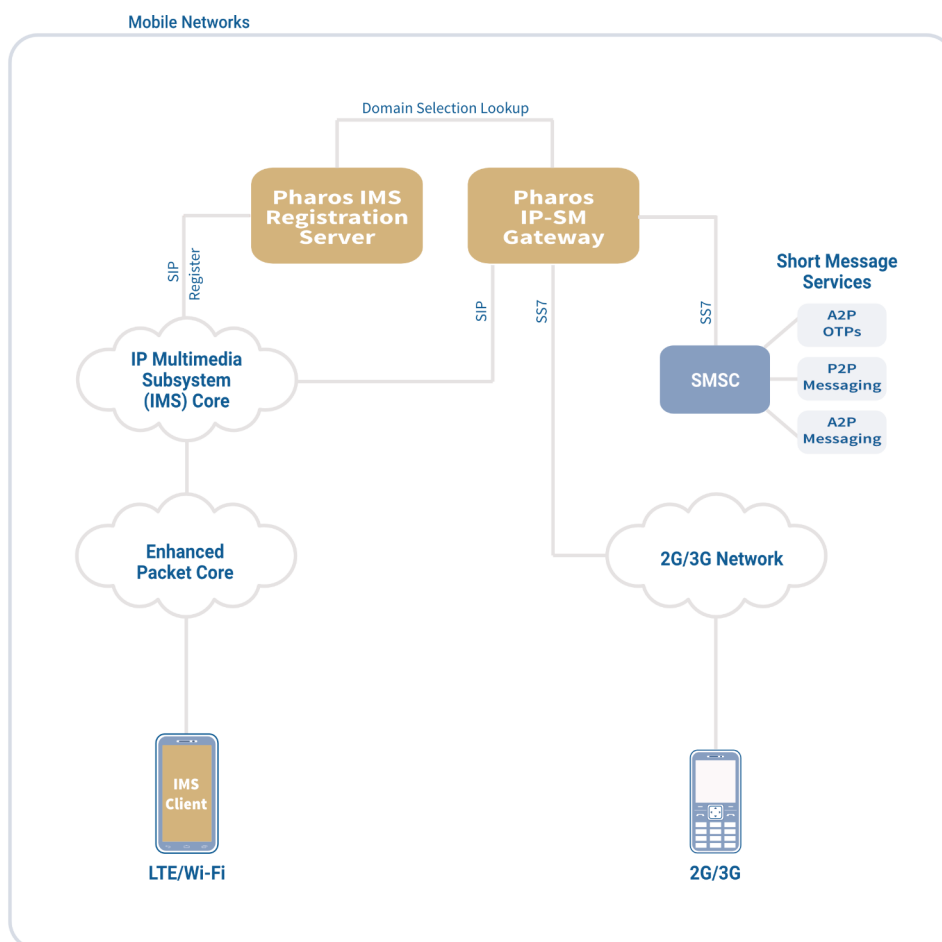
SMS communication provides you—as an operator—with a major source of revenue. In addition, SMS is the messaging service that subscribers trust and rely on for obtaining notifications about purchases and payments; appointment reminders; booking confirmations; tracking notices; claim and case-logging confirmations; and a great deal more.

It is a certain that SMS will remain a popular and profitable service due to its universal compatibility with all mobile phones, independence from needing apps or data connections, and its broad role in operator messaging services.

In light of this, you need an IP-SM-GW if you have or plan to deploy IMS (IP Multimedia Subsystem) in your core network and want to provide SMS continuity to your customers.

It's particularly necessary to obtain this gateway if you've invested considerably in A2P messaging, such as SMS integrations with banks, insurance companies, and WASPs.

Expanding SMS Capabilities to IP-Based Networks



Why Pharos?

Our formula for your success:

- ✓ We craft fully functional solutions to address technical challenges using people with deep knowledge of multiple technologies.
- ✓ We use our vast telecom expertise to distill complex requirements and technologies into effective solutions.

Telco Expertise

Since 1997, we have been actively engaged in the telecom industry, acquiring extensive expertise and knowledge in telco networks and technologies.

History Of Innovation

Our history reflects a strong record of delivering innovative solutions through our mature technology framework, custom-tailored to meet the specific needs of our customers.

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In-House Technology

We believe technology should support business needs. With a broad technology portfolio and industry experience, we craft solutions tailored to your requirements.