

USSi Gateway

USSD for your IMS-LTE Network

About USSi Gateway

The Pharos **USSD over IP Multimedia Subsystem (USSi) Gateway** lets you provide your LTE network subscribers with fast and responsive USSD services. It does so by expanding the USSD capabilities provided by your existing SS7 networks to your newer IMS-LTE networks; without you needing to make any changes to your existing USSD services or infrastructure.

Functionally, the gateway enables subscribers with IMS capable smartphones and tablets to seamlessly use your existing USSD services over LTE.

Technically, the gateway is a 3GPP-compliant SIP-to-MAP interworking function that performs intelligent domain selection. It provides seamless USSD interworking between subscribers' SIP-based handsets and your MAP-based SS7 network.

USSi Gateway eliminates the need to switch subscribers over to your 2G or 3G network to use USSD services, which frees-up your network signalling and radio resources. As a result, it provides subscribers with the same fast and fluid USSD user experience to that provided by your legacy mobile networks.

On top of this, USSi Gateway protects and extends the investment of your existing SS7-based USSD services and infrastructure because it allows you to provide a great USSD experience to all subscribers.



Benefits

- ✓ Enable LTE subscribers to use USSD.
- ✓ Give your LTE subscribers a fast and fluid USSD experience.
- ✓ Free-up your network's signalling and radio resources by eliminating Circuit Switched Fallbacks.
- ✓ Protects and extends your existing investments in USSD services and infrastructure (no changes needed).

Key Features

- ✓ **Core Functionality:** IMS Application Server that enables LTE subscribers to use 2G and 3G USSD services.
- ✓ **Automatic Domain Selection:** USSi Gateway determines the correct domain (circuit or packet) on which to establish each subscriber's Network Initiated USSD session.
- ✓ **Supported USSD Services:** USSD Pull (Mobile Initiated) and USSD Push (Network Initiated).
- ✓ **Software Deployment:** Cloud-based virtualised servers or on-premises bare metal servers.
- ✓ **Redundancy and Availability:** Dual redundant active-active servers provide 99.999% carrier-grade availability.
- ✓ **Scalability:** Scales horizontally to accommodate the heaviest demands for USSD.

Why USSi Gateway?

USSD is the primary channel that 2G and 3G subscribers use to consume value-providing mobile services like:

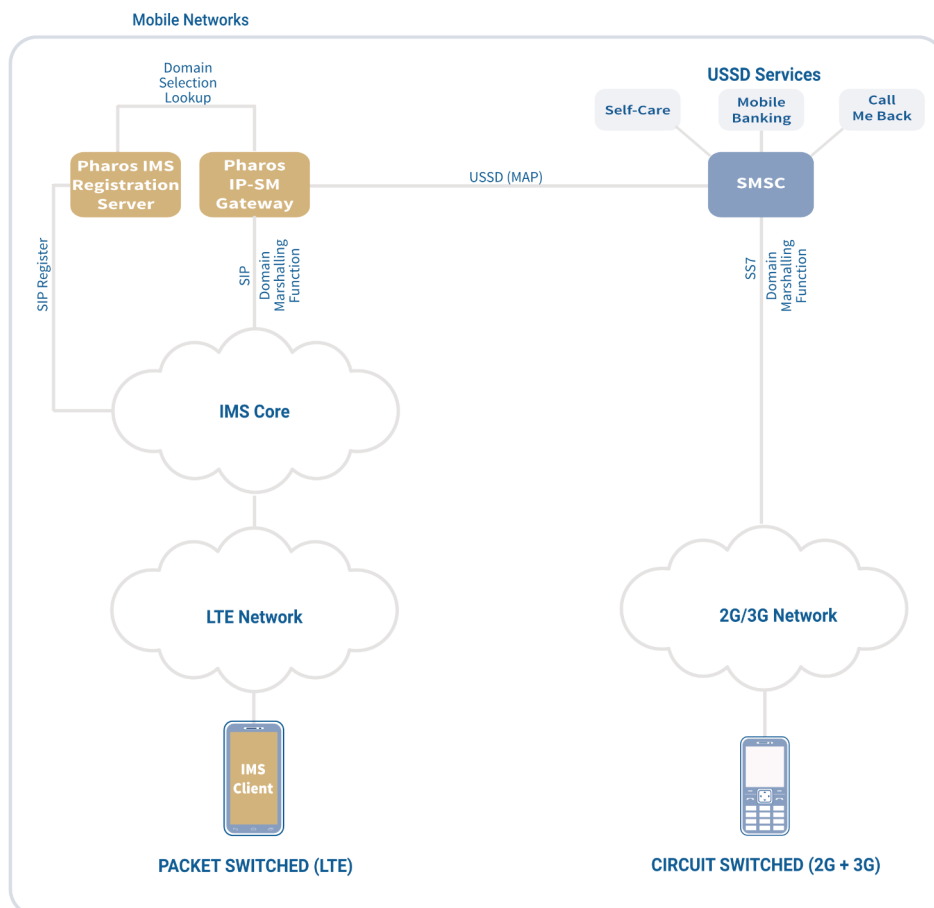
- **Self-Care Services:** Airtime and data purchases, balance enquiries, price-plan changes, airtime loans and transfers, and more
- **Payment Services:** Mobile banking, bill payments, payment authorisations, OTP requests
- **Call Me Back Service:** Enable subscribers with depleted credit to request call-backs from other subscribers

In spite of the great value that USSD provides, today's LTE networks do not natively support USSD!

As a workaround to enable LTE subscribers to use USSD, some operators resort to Circuit Switched Fallback (CSFB). This involves switching subscribers between LTE and 2G/3G circuit-switched networks, which proves inefficient due to the high loads that CSFB places on signalling and radio resources. Consequently, LTE subscribers will experience slower and less responsive USSD service interactions compared to native 2G or 3G. This frustration will, inevitably, lead to dissatisfied customers.

The Pharos USSi Gateway solves this problem. In addition, the gateway is also essential if you want to sunset your 3G or 2G networks or both but still want to continue benefiting from USSD.

Expanding USSD 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.