

Policy and Charging Rules Function (PCRF)

ABOUT PHAROS POLICY ENGINE

The **Pharos Policy Engine (PPE)** is a **PCRF** that complements and enhances the capabilities of existing network elements, such as the PGW, OCS, and IMS Core.

The system enables you to deliver innovative and differentiated mobile data service products that are unattainable solely through an OCS.

It lets you create products with policies that manage the network resources subscribers can use for each service. These policies can be tailored based on various criteria, such as the data products subscribers have purchased, their locations, device types, selected APNs, radio access network types, and times of usage, among other things.

PPE helps network operators ensure efficient resource allocation, quality service delivery, and differentiated services.



Special Features

- ✓ Craft new products with Application Service Modules (ASMs)
- ✓ Launch innovative products:
 - Geo-charging
 - Smart Fair Usage Policies
 - Zero-rated resources
- ✓ Implement policies without reliance on the OCS
- ✓ Start data sessions immediately, despite slow OCS responses
- ✓ Provide policy control to multiple wholesale tenants



Existing
OCS



(Policy Controller)

PPE



FUNCTIONS OF PPE

The PPE is a crucial system for managing data traffic within the network. It is the central point in the network that controls and manages the flow of data traffic in real-time with policies that allocate network resources and apply differential service charges.

PPE is designed to deliver exceptional carrier-grade performance, scalability, and reliability. The field-proven system handles tens of millions of concurrent subscribers and scales to meet the growing demand for mobile internet access. It ensures 99.999% uptime through failover, load balancing, and redundancy mechanisms.

On top of this, the system helps you monetise your data network and is key to delivering quality services and controlling costs.

Generate Revenue

Generate additional income from ready-made Application Service Modules in these categories:

1

Differential Service-Charging

Optimise your revenue with customised charging rules that apply varying rates based on each subscriber's profile, traffic types, and purchased products.

2

Flexible Product Offerings

Achieve the agility and flexibility to create products based on market needs instead of products defined by technical limitations.

3

Bundled Data Services

Offer bundled data products designed to promote the use of specific services that are most appealing to subscribers, ultimately leading to increased revenue.

4

Multi-Tenant

Offer PCRF-as-a-Service to wholesale customers, lowering their entry costs and generating recurring revenue for your network.

Service Quality

Provide real-time data control to ensure subscribers receive paid-for service levels:

1

Make your Network Efficient

Prioritise and allocate network resources effectively, based on subscribers' usage patterns, service plans, and network conditions.

2

Quality of Service and Charging

Set up data services with specific speeds, priorities, and rates. This way, you can put rules in place, such as a those that define a Fair Use Policy.

3

Customer Retention and Satisfaction

Retain customers and increase customer satisfaction by offering differentiated services and advanced data bundle products.

Control Costs

A single PCRF system can manage policy control for multiple tenants and reduce network costs:

1

Zero-Rated Services

Mitigate the risk associated with offering zero-rated services by implementing well-defined policies that govern their usage.

Multi-Tenant

PPE is a Multi-Tenant system that lets you run separate PCRF instances for each of your wholesale customers.

2

Ensure equitable and reasonable usage of data services by customers with or without an

3

Fair Use Policy

FLEXIBLE PRODUCT OFFERINGS

Achieve the agility and flexibility to create products based on market needs instead of products defined by technical limitations:

Distinctive Offerings

Craft distinctive product offerings that provide customers with a diverse range of solutions within a single subscription.

"No OCS-Required" Products

Create products that do not require an account on your OCS, such as stand-alone Fair Usage Policies.

VoLTE GUARANTEED BITRATES

Offer guaranteed high-quality voice calling services on your LTE network. The main reason for adopting VoLTE is to phase out 2G and 3G networks. VoLTE allows voice calls to continue over the data network.

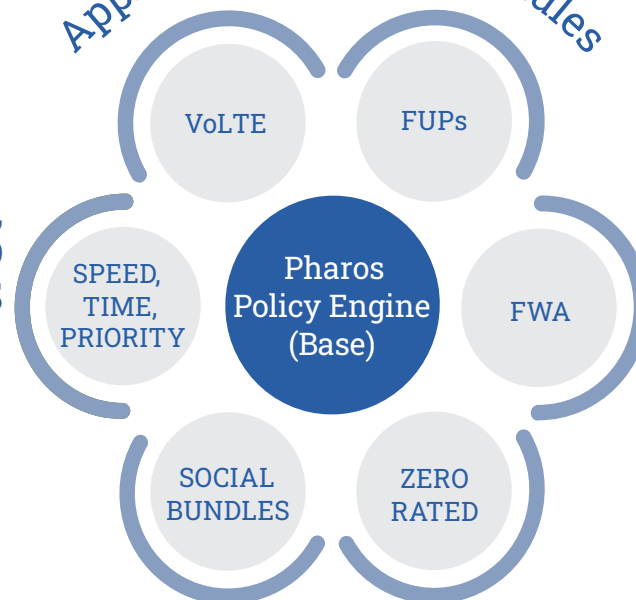
SPEED-, TIME-, PRIORITY-BASED SERVICES

Set the line speed to specific uplink—downlink bitrates, offer time-of-day usage to monetise unused network capacity, and charge a premium for high-priority data services, such as gaming and business conference videos.

SOCIAL BUNDLES

Define which social networks to sell to subscribers as bundled products. This provides subscribers with cost-effective access to social media platforms and enhances their network experience.

Application Service Modules



FAIR USAGE POLICIES

Create and enforce Fair Usage Policies for uncapped subscribers. Doing so ensures equitable distribution of your network resources, prevents network abuse, and maintains a consistent quality of service for all users.

FIXED WIRELESS ACCESS

Provide subscribers with a fantastic service experience through automatic service activations and reactivations, personalised communications, and no service interruptions when entering and exiting their geofences.

ZERO-RATED SERVICES

Provide subscribers with free access to apps, websites, and streaming services. Doing so enhances subscriber satisfaction. Also protect data revenue by limiting free data consumption to limits that you set.

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.

To find out more, please visit us at www.pharos-corp.com or reach out to us personally at our office in South Africa:

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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.