

LCN Compass Sy Interface



Effective policy control of the network allows operators to introduce customized service offerings. But monetization of these services is critical, considering the challenges faced by the operators.

Diameter protocol in the control plane has speeded the development of sophisticated policy control and billing applications. However, integration of policy and billing domains has been a challenge, without a well-defined interface between them. 3GPP has responded by defining Sy interface between the policy control application (PCRF) and the online billing system (OCS).

LCN offers an implementation of Sy Diameter interface. In addition to this, LCN offers other interfaces like Gx, Gxx, Rx, S9, Gy (Ro) and Gz for building complete policy control and charging applications. LCN Compass Sy implements 3GPP TS 29.219, v11.2.0.

Policy Control and Charging Interfaces

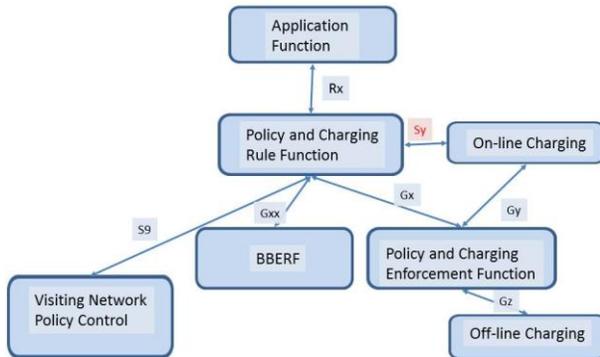


Figure 1 Sy with other PCC interfaces available from LCN

Sy Functionality

Sy allows the policy manager to take policy decisions based on real-time information from the billing system. As an example, quality of service (QoS) offered to a subscriber can be downgraded when his balance falls below a limit, or can be upgraded on recharging. Specific functionality offered by the interface:

- Policy manager (PCRF) can query billing subscriber related information (“policy counters”) from OCS in real-time.
- OCS can notify PCRF about changes in “policy counters” in real-time.

Product Features

- Simple APIs hiding protocol details and complexity
- Customizable call-back mechanism
- Server and client side implementation
- Thread safety for scalable application development

Advantages

Compass family of products offers standard interfaces as building blocks to OEMs building 3GPP functional elements. These interfaces are available as simple C-callable APIs. These have been built over LCN’s standard compliant diameter implementation. With these APIs, OEMs can focus on building their core functionality. Advantages are,

- ✓ Reduced complexity of the development project
- ✓ Reduced time-to-market
- ✓ Considerable cost savings
- ✓ Reduced interoperability issues with other products

Specifications and Standards

Compliance

RFC 3588, Diameter Base Protocol

RFC 3539, AAA Transport Profile

3GPP TS 29.219 Rel 11, Spending Limit Reporting Over Sy Reference Point

Transport: TCP/SCTP

Protocol: IPv4/IPv6

Contact

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