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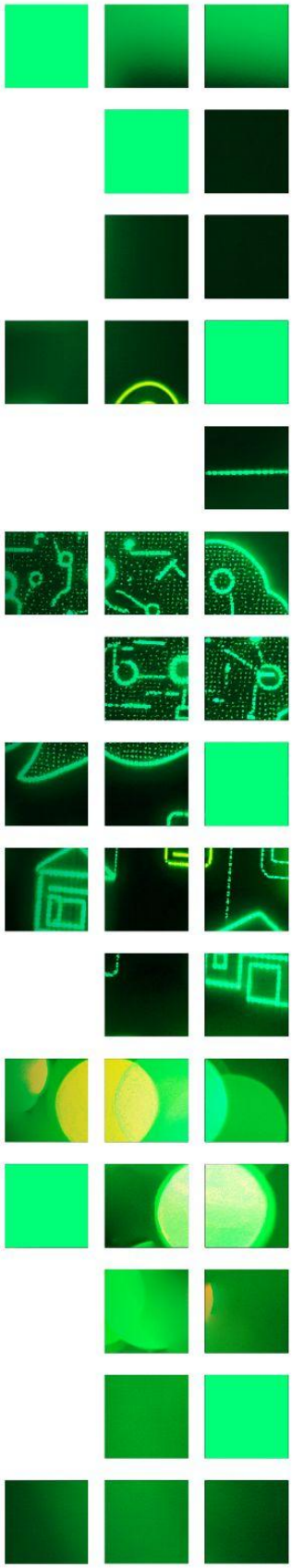
Charging Interworking Function



The Charging Interworking Function (CHF-IWF) is a powerful enabler for fast and easy mediation of real-time control of calls in fixed and mobile networks using INAP, CAMEL, DIAMETER or HTTP2. The CHF-IWF supports real-time billing for users in home and roaming networks. It can be configured to connect to any billing system via DIAMETER or CAMEL interfaces in order to perform real-time checks of customer balances, calculate charges for consumed services (like phone calls, sms or gprs sessions), and prevent any unauthorized usage or balance overdrafts. The CHF-IWF is commonly used to harmonize and mediate between the network elements and the online charging system (OCS).

Features & Benefits

Handling of simultaneous conversion schemes	■ Supports **conversion mode** for any to any simultaneous conversion schemes for CAP, INAP, DIAMETER CC and HTTP2 N28/N40/Nchf or **proxy mode** for same protocol mediation. (E.g. CAPv1 to CAPv2)
Cross-technology billing	■ Enables sending CAP and INAP signals to the same DIAMETER element, allowing two networks with different technologies to operate with one single billing system (OCS).
Programmable via a simple scripting	■ Provides ability to quickly and easily implement conversion and mediation call flows using simple scripting language to shorten time-to-market.
Real-time control using the DIAMETER protocol	■ Extends standard DIAMETER Credit Control AVP set to enables complete call control by any connected OCS to the southbound protocols.

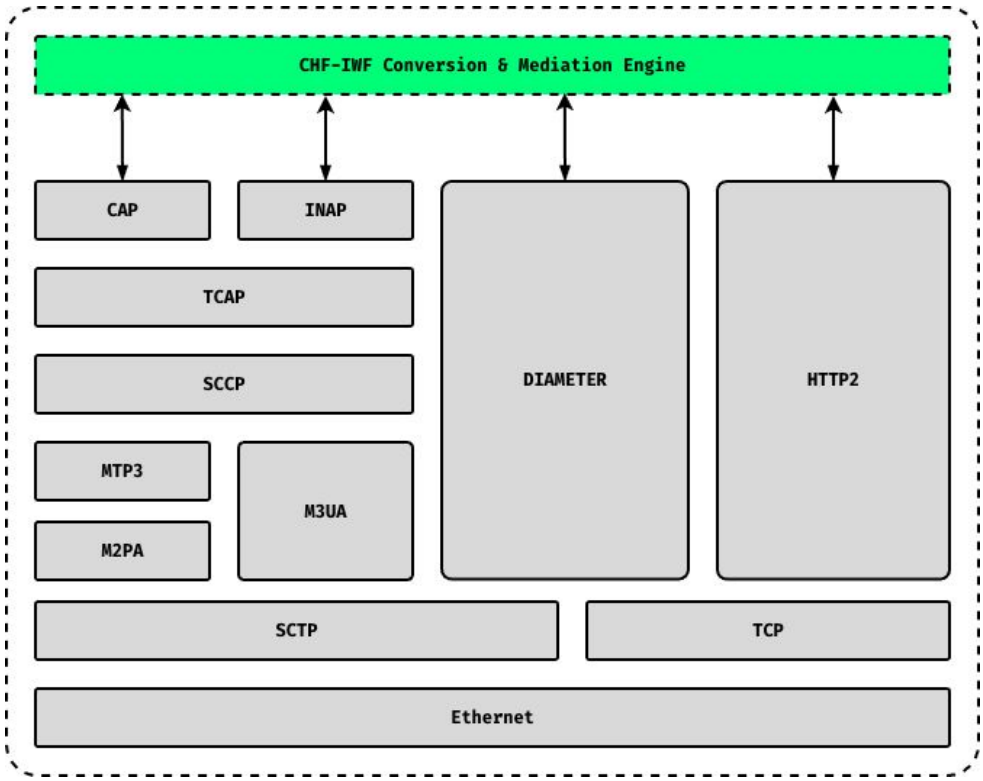
Interworking Functions

Product Sheet

What makes CHF-IWF unique is its support for simultaneous conversion of both technologies within the same CAMEL SCP, and unifying the converted signaling to the same billing server (OCS). This enables operators managing multitechnology and multi-generational networks to use one billing system for all of their different network infrastructures, saving huge expenditures on upgrading entire network infrastructures or purchasing entirely new billing systems.

Another features that make the CHF-IWF special is the ability to customize the scenarios and the interfaces involved in a specific call flow. For example, you could easily translate an IDP message (service request) into a DIAMETER request towards a third-party system.

This approach is much more flexible in comparison with traditional SCP architecture because the solution provider receives a powerful and flexible tool for creating new services without creating any constraint on the development environment he is familiar with. The manufacturer can dramatically decrease time to market while deploying innovative services that will enrich its offering and strengthen competitive standing.



Technical specifications

SCTP	■	RFC2960 • RFC3309
MTP	■	ITU-T Q.700 through Q.707, Q.781, Q.782, Q.791
M3UA	■	RFC3332
SCCP	■	ITU-T Q.711 through Q.a714 Connectionless Class 0 & 1
TCAP	■	ITU-T Q.700 through Q.707, Q.781, Q.782, Q.791
INAP	■	ETSI ETS 300 374-1 • ITU-T Q.1218 CS-1R
HTTP2	■	RFC9113 • RFC7541
CAP	■	GSM 09.78 (ETSI TS101 046 - V5.6.0) CAMEL Phase 1 • GSM 09.78 (ETSI TS101 046 - V6.3.0) CAMEL Phase 2 • GSM 09.78 (ETSI TS129 078 - V4.6.0) CAMEL Phase 3 • 3GPP TS 29.078 V7.3.0 R7, 3GPP TS 29.278 V7.0.0 R7 (IMS) CAMEL Phase 4
DIAMETER	■	RFC 4006 - Diameter Credit-Control Application • RFC 3588 / 6733 - Diameter base Protocol • 3GPP TS 32.299 - Telecommunication management; Charging management; Diameter charging applications.