Oracle® Communications Convergent Charging Controller Glossary





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Preface

This guide contains the glossary for Oracle Communications Convergent Charging Controller.

Audience

This guide is intended for all Convergent Charging Controller users.

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Glossary

AAA

Authentication, Authorization, and Accounting. Specified in Diameter RFC 3588.

AC

Application Context. A parameter in a TCAP message which indicates what protocol is conveyed. May indicate, for example, MAP, CAMEL, or INAP. Also usually specifies the particular version of the conveyed protocol, for example, which CAMEL Phase.

access code

A code entered by a caller to gain access to the calling system. You use ACS to configure access codes. You use the Account Code Entry feature node to accept access codes.

account code

See access code.

ACS

See Advanced Control Services (ACS).

ACS_CB

ACS Convergent Billing

activation credit

A credit balance given to a subscriber when the subscriber activates a service.

Advanced Control Services (ACS)

An application used for configuring call-routing, and for managing many Convergent Charging Controller system-related features. For example, you use ACS to assign resources to service providers, manage passwords, and set up geography sets and holiday sets used by service providers.

AIN

Advanced Intelligent Network

AMC

The Advanced Message Control component of Messaging Manager. It provides:

- Real time billing interaction
- Customized Service Control
- SMS "service plan" capability
- Enhanced service support

Note: Also known as "SMS Director".

AMR

The Advanced Message Routing component of Messaging Manager. It provides:

- High speed filtering/switching
- Service logic triggering
- Direct delivery to destination (FDA)
- Alternate delivery options
- Protocol translation.

Note: Also known as "SMS MultiGate".

ANI

Automatic Number Identification - Term used in the USA by long-distance carriers for CLI.

announcement

An announcement played to a caller over the phone; for example, "Enter the number you wish to call." Announcements can be assigned to specific service providers, or available to all service providers.

announcement set

A set of announcements that can be used by a single service provider. You can use announcement sets to organize messages; for example, welcome messages or credit messages.

API

Application Programming Interface



AS

Application Server. The logical entity serving a SUA routing key. An AS is equivalent to an SS7 end point (for example, HLR, MSC,...). An AS contains, at least, one ASP.

ASA

Session message: Abort Session Answer

ASN.1

Abstract Syntax Notation One - a formal notation used for describing data transmitted by telecommunications protocols. ASN.1 is a joint ISO/IEC and ITU-T standard.

ASP

- Application Service Provider, or
- Application Server Process. An IP -based instance of an AS. An ASP implements a SCTP connection between 2 platforms.

ASR

Session message: Abort Session Request

ATI

Any Time Interrogation - this process is used on a GSM network to interrogate the HLR for location and or subscriber information.

AUS

Application Unique String.

AVP

Attribute Value Pair, used in Diameter to represent properties of a particular request or answer.

balance

An amount stored in a subscriber's wallet. A balance can consist of cash, minutes, SMS messages, or other balance types. See also balance type.

balance adjustment

An addition to, or subtraction from, a subscriber's balance.

balance type

The type of balance that can be spent on a service; for example, General Cash or Promotional Cash

balance type cascade

Specifies which balance type to used, in which order, to pay for a call. For example, first use free minutes, then use cash.

balance unit

The type of unit used in balance types; for example, cash, minutes, and SMS messages.

BCSM

Basic Call State Model - describes the basic processing steps that must be performed by a switch in order to establish and tear down a call.

ΒE

See Billing Engine (BE).

BFT

Billing Failure Treatment - the process that is applied if the system has lost all connections to a billing engine. It allows for limited continuation of call processing functions, if configured.

billable event

See named event.

Billing and Revenue Management (BRM) Driver

A Convergent Charging Controller component that allows Convergent Charging Controller to integrate and communicate with BRM. BRM stores the wallet and subscriber data, and you can choose to store vouchers either on the Convergent Charging Controller Voucher and Wallet Server (VWS) or in the BRM database. The CCS software communicates with BRM through the Portal Communication Module (PCM) API.

Billing Engine (BE)

A Convergent Charging Controller server component that runs charging, voucher, wallet, reservation, and subscriber account management functions.



billing period

Controls the rates applied to specific periods of time within a call; for example, 10 cents per minute. For example, you might want to charge a lower rate for the first five minutes of a call and then charge the full rate for the rest. Billing periods are used by CLI-DN tariffs.

BMI

Interworking MSC.

bonus

A balance impact that rewards customers. For example, a recharge amount of \$10 might receive no bonus, but a recharge of \$50 might receive a 10% bonus. You configure bonuses in CCS to define the type of bonus; for example, credit-card recharge, and the balance type to impact; for example, General Cash.

BRM Driver

See Billing and Revenue Management (BRM) Driver.

bucket

An amount of a particular balance type, optionally with an expiration date. For example, a subscriber might have two buckets of the General Cash balance; \$25 and \$15. When you add money or minutes to a balance, you add a bucket to a wallet.

business process logic (BPL) task

A method of executing a predefined set of actions. For example, you can create BPL tasks to run product type swaps, profile updates, voucher recharges, and credit transfers. You run BPL tasks by using Customer Care Portal (CCP).

C7

See SS7.

C7NMS

C7 Network Management System

call context variable

A type of data associated with a call which can be used by control plans for call processing and routing. For example, a termination number is a call context variable that can be used for call routing. Call context variables can be added and modified by control plans as the call is processed. After a call is processed, Convergent Charging Controller deletes the call context variables that it defined, but you can store them permanently in a profile field.



Call Flow

The path that a caller into the system takes to perform various functions. Often represented diagrammatically as a flowchart or tree-like structure. This shows prompts that the user will hear, with decision points or menus represented by call states.

CAMEL

Customized Applications for Mobile network Enhanced Logic

This is a 3GPP (Third Generation Partnership Project) initiative to extend traditional IN services found in fixed networks into mobile networks. The architecture is similar to that of traditional IN, in that the control functions and switching functions are remote. Unlike the fixed IN environment, in mobile networks the subscriber may roam into another PLMN (Public Land Mobile Network), consequently the controlling function must interact with a switching function in a foreign network. CAMEL specifies the agreed information flows that may be passed between these networks.

CAP

CAMEL Application Part

CAP3 Short Message Service (SMS) Gateway

A SLEE application that translates Camel Application Part (CAP) v3 SMS Intelligent Network Application Part (INAP) operations to the CAP v2 equivalent. This application supports charging for SMS messages by using the Short Message Charging Bundle (SMCB).

CBS

Convergent Billing System

CC

Country Code. Prefix identifying the country for a numeric international address.

CCA

Credit-Control-Answer, used in Diameter by the credit-control server to acknowledge a Credit-Control-Request (CCR) from the credit-control client.

CCP

See Customer Care Portal (CCP).



CCR

Credit-Control-Request, used in Diameter by the credit-control client to request credit authorization from the credit-control server.

CCS

See Charging Control Services (CCS).

CDMA

Code Division Multiple Access is a method for describing physical radio channels. Data intended for a specific channel is modulated with that channel's code. These are typically pseudo-random in nature, and possess favourable correlation properties to ensure physical channels are not confused with one another.

CDMA (U-CA-IS41)

A Convergent Charging Controller component that enables the IS-41 protocol to provide phone services to end users on CDMA networks.

CEA

Peer message: Capabilities Exchange Answer

CDR

Call Data Record

Note: The industry standard for CDR is EDR (Event Detail Record).

CER

Peer message: Capabilities Exchange Request

CGI

Common Gateway Interface

chargeable balance

Holds the balance types used to cover charges to subscribers; for example General Cash. These are the only balances which can contribute to expenditure.

Charging Control Services (CCS)

A Convergent Charging Controller application used for setting up and managing rating, subscriber management, and voucher management.



CIC

Used to identify the trunk circuit to be connected and associate ISUP messaging with a particular circuit. It is an 8bit field within an ISUP message.

CID

Call Instance Data

CIMD

Computer Interface to Message Distribution - a proprietary short message service centre protocol developed by Nokia for their Artus SMSC.

CLI

Calling Line Identification - the telephone number of the caller. Also referred to as ANI.

CLI-DN tariff

A tariff based on the originating Calling Line Identifier (CLI) number and the Dialed Number (DN).

closed user group (CUG)

A group of subscribers who can make calls and receive calls only from members within the group. Any other calls are rejected.

CMIP

Common Management Information Protocol

CMISE

Common Management Information Service Element

common task

A business process logic (BPL) task that is part of the Common Tasks panel in Customer Care Portal (CCP).

Connection

Transport level link between two peers, providing for multiple sessions.

context variable

See call context variable.

control plan

A flowchart defining the decisions and actions needed to process and route a call. Control plans are created and maintained using the Control Plan Editor.

Control Plan Editor (CPE)

A graphical user interface used for making control plans.

Convergent

Also "convergent billing". Describes the scenario where post-paid and pre-paid calls are handed by the same service platform and the same billing system. Under strict converged billing, post-paid subscribers are essentially treated as "limited credit pre-paid".

CORBA

Common Object Request Broker Architecture. It is a framework that provides interoperability between objects built in different programming languages, running on different physical machines perhaps on different networks. It specifies an Interface Definition Language, and API that allows client / server interaction with the ORB.

CPE

See Control Plan Editor (CPE).

CPU

Central Processing Unit

credit transfer

Moves credit from one subscriber to another.

credit wallet

A wallet that is rechargeable. Used only for post-paid.

CS/CPS

Carrier Selection/Carrier Pre-Selection

CS1

ETSI INAP Capability Set 1. An International Telecommunication Union standard.

CUI

Character User Interface

customer

See service provider.

Customer Care Portal (CCP)

A customizable application used by Customer Services Representatives (CSRs) to manage subscribers; for example, change subscriber account details, and recharge vouchers.

DAP

See Data Access Pack (DAP).

Data Access Pack (DAP)

An extension module that you can use to communicate with external systems by using SOAP, XML, HPSA, and PIXML. DAP provides the capability to request data or trigger services and subscriptions on Application Service Providers (ASPs).

DB

Database

DCA

See Diameter Control Agent (DCA).

DCD

See Diameter Charging Driver (DCD).

DCF

Default Call Forwarding. A terminating call feature which is relevant specifically to roaming subscribers. Similar to Hunting, except that only a single call forwarding number is configured, whereas hunting supports a list of numbers. DCF is specifically implemented in order to avoid call tromboning in the scenario where a roamer wishes to forward their call to a number in their home network.

DEP

Data Encryption Peripheral

Diameter

A feature rich AAA protocol. Utilizes SCTP and TCP transports.

Diameter Charging Driver (DCD)

An interface that supports prepaid charging by managing authentication, authorization, and accounting (AAA). DCD supports the RFC 3588 and RFC 4006 Diameter protocols.

Diameter Control Agent (DCA)

An interface run in the SLEE that handles Diameter messages. Diameter messages are used for authentication, authorization, and accounting (AAA). You use Diameter to control calls based on the caller's balance; for example, to see if there is enough cash balance to make a call.

Dintmet

Tool to perform capacity planning monitoring and planning for the PTT network.

discount

A percentage by which a tariff is reduced. See discount period.

discount period

The percentage to discount a tariff. For example, you can configure discount periods that apply to 5%, 10%, or 15%. When you create a weekly or holiday tariff, you choose which discount set to apply.

DLE

Destination Local Exchange

DNI

Destination Number Identification - the telephone number of the called party.

domain

A network element that provides Convergent Charging Controller functionality; for example, rating, billing, wallet management, or voucher management. For example, a domain might consist of a pair of Voucher and Wallet Server components.

DP

Detection Point



DPA

Peer message: Disconnect Peer Answer

DPR

Peer message: Disconnect Peer Request

DRA

Destination Routing Address. The parameter in the INAP Connect operation, sent from ACS to the SSP. This is the number the SSP is instructed to connect to.

DTMF

Dual Tone Multi-Frequency - system used by touch tone telephones where one high and one low frequency, or tone, is assigned to each touch tone button on the phone.

DWA

Peer message: Device Watchdog Answer

DWR

Peer message: Device Watchdog Request

E2BE database

The database in the voucher and wallet server.

ECA

See EDR Control Agent (ECA).

ECOM

External COMmunication

EDP

Event Detection Point.

EDR

See event detail record (EDR).

EDR Control Agent (ECA)

A SLEE interface that translates event detail records (EDRs) into initial detail response (IDR) messages. Convergent Charging Controller can use the content of the IDR messages in

control plans. For example, you can find data about calls, such as the SIM that was used, and process the call differently based on the data.

EDR element

Defines how data is shown in field names on the EDR Details for Subscriber window.

EDR type

The type of EDR; for example, regular call, roaming call, recharge, or product type swap. The EDR type is defined as a number in the CDR_TYPE field in the EDR.

EMI

Exchange Message Interface protocol

End-to-End Security

Private security measures implemented between the client and server.

Enhanced Accounting Exchange (EAX)

An ACS extension that provides an interface to an EAX-compatible billing system.

ENUM

E.164 Number Mapping.

ENUM Control Agent

An Convergent Charging Controller component that uses E.164 Number Mapping (ENUM) to translate numbers from the E.164 standard to a Uniform Resource Identifier (URI) or IP address.

ESN

Electronic Serial Number - a 32bit number uniquely identifying the mobile station equipment.

event counter

An ACS feature that counts events; for example, messages, or votes in a televoting program.

event detail record (EDR)

A record of Convergent Charging Controller activity; for example, when a call is processed, an SMS message is sent or received, a recharge is attempted, or a wallet changes state.

expenditure balance type

Balances that accrue daily, weekly, monthly, or annually. Expenditure is calculated based on charges applied to chargeable wallet balance types which have the Contributes to Expenditure Plans flag set.

FCI

Furnish Charging Information. An INAP operation sent from ACS to the SSP to control the contents of EDRs produced by the SSP.

FDA

First Delivery Attempt - the delivery of a short message directly to the SME rather than relaying it through the MC.

feature node

An action point or decision point in a control plan. Each feature node has one input and a number of outputs, with the exceptions of the Start and End feature nodes, which have only one output or one input respectively.

feature node set

A set of feature nodes made available to a service provider. The service provider can use only the feature nodes in their feature node set.

FOX

Fast OSA eXtensions. A TCP/IP billing protocol intended for use with external vendors. Based on OSA, it fills in functional gaps missing in OSA, and defines "combined" OSA operations to increase platform throughput. Uses a non-CORBA transport layer in order to provide enhanced fail-over and connection redundancy.

fraud balance

Holds fraud balance types; for example: Bad Pin balances.

GDMO

Guidelines for a Definition of a Managed Object

geography set

A set of telephone prefix/location mappings assigned to a service provider to support CLI-DN tariff rating, and for call routing. For example, a service provider based in Europe might use a geography set that organizes prefixes by European countries, but a service provider in the United States might use a geography set that organizes by state.

GMLC

The Gateway Mobile Location Centre contains functionality required to support LCS (LoCation Services).

GMSC

Gateway MSC. The first MSC which handles a call. For an MOC, this is the caller's attached MSC. For an MTC, this is the first non-transit MSC in the subscriber's network that receives the inbound call.

GPRS

General Packet Radio Service - employed to connect mobile cellular users to PDN (Public Data Network- for example the Internet).

GSM

Global System for Mobile communication.

It is a second generation cellular telecommunication system. Unlike first generation systems, GSM is digital and thus introduced greater enhancements such as security, capacity, quality and the ability to support integrated services.

GT

Global Title.

The GT may be defined in any of the following formats:

- Type 1: String in the form "1,<noa>,<BCD address digits>"
- Type 2: String in the form "2,<trans type><BCD address digits>"
- Type 3: String in the form "3,<trans type>,<num plan>,<BCD address digits>"
- Type 4: String in the form "4,<trans type>,<num plan>,<noa>,<BCD address digits>"

The contents of the Global Title are defined in the Q713 specification, please refer to section 3.4.2.3 for further details on defining Global Title.

GVNS

Global Virtual Numbering Scheme - When multiple VPNs are in use by a customer, the capability to route calls between these VPNs requires a numbering scheme that uses destination addresses based on a customer id and extension number. These GVNS addresses can then be interpreted to provide inter-VPN operation.

HLR

The Home Location Register is a database within the HPLMN (Home Public Land Mobile Network). It provides routing information for MT calls and SMS. It is also responsible for the maintenance of user subscription information. This is distributed to the relevant VLR, or SGSN

(Serving GPRS Support Node) through the attach process and mobility management procedures such as Location Area and Routing Area updates.

holiday set

A set of holidays assigned to a service provider. You can use holidays to override standard tariffs; for example, to provide a special tariff on New Year's Day.

HPLMN

Home PLMN

HRN

Hidden Reference Number or Human Readable Number

Hunting

A terminating call feature where a subscriber may request a list of alternate destination addresses. If their mobile station is not attached, or does not answer a call, then the service logic should attempt to reach the supplied alternate destinations in sequence.

ICA

InitiateCallAttempt. A CAMEL/INAP operation sent by the SLC to an SSP request that a voice call is started.

IDP

INAP message: Initial DP (Initial Detection Point)

IIS

Interactive Integrated Systems

IMAN

Inventory MANagement.

IMS

IP Multimedia Subsystem (3GPP) enables the use of multimedia services based on and built upon Internet applications, services and protocols. These protocols include SIP, which is used to manage the IP multimedia sessions.

IMSI

International Mobile Subscriber Identifier. A unique identifier allocated to each mobile subscriber in a GSM and UMTS network. It consists of a MCC (Mobile Country Code), a MNC (Mobile Network Code) and a MSIN (Mobile Station Identification Number).

The IMSI is returned by the HLR query (SRI-SM) when doing FDA. This tells the MSC exactly who the subscriber is that the message is to be sent to.

IN

Intelligent Network

In-Roamer

A roaming subscriber entering a mobile phone network.

INAP

Intelligent Network Application Part - a protocol offering real time communication between IN elements.

Inferior Master Replicator

The Inferior Master Replicators are the Master Replicators which run on SLCs. They must have node numbers from 2-255. If the SMS Master Replicator is unavailable, the Inferior Master with the highest node number will take over the role of SMS Master Replicator until it returns.

initab

The initab holds the startup and configuration information for most of the processes used in SMS. The default location is /etc/initab.

Initial DP

Initial Detection Point - INAP Operation. This is the operation that is sent when the switch reaches a trigger detection point.

internal balance

A balance used by the system for internal accounting purposes. Any balance type which is not chargeable, cross, expenditure or fraud should be set to internal.

10

Input/Output



IOR

Inter-operable Object Reference. A reference that is used in the CORBA world that clients can use to send their requests to a particular process executing on a particular machine. Every CORBA based server has an IOR that uniquely identifies it within a distributed computing platform. IOR consists of information such as the IP address of the machine on which the process is executing, or the port number to which it is listening. This IOR is usually exported/sent to some form of central registry when the process is started up. Clients can then retrieve this information, that is, IORs, from the central registry if they want to send a request to a server.

IPC

Interprocess Communication

IPSec

IP Security. Security protocol implemented at the IP layer.

IS-41

Interim Standard 41 is a signaling protocol used in cellular telecommunications systems. It deals with the signalling between the MSC and other network elements for the purpose of handovers and roaming etc.

ISUP

ISDN User Part - part of the SS7 protocol layer and used in the setting up, management, and release of trunks that carry voice and data between calling and called parties.

IVR

Interactive Voice Response - systems that provide information in the form of recorded messages over telephone lines in response to user input in the form of spoken words or, more commonly, DTMF signalling.

LAC

Location Area Code. This is an integer value specified as the third level of detail in the location area information. One LAC contains multiple Cell IDs or SAIs.

LCP

See Location Capabilities Pack (LCP).

LDAP Control Agent

A SLEE interface that maps billing requests between LDAP and Convergent Charging Controller.

limited-credit wallet

A wallet that is rechargeable, used mostly for pre-paid accounts, but including some post-paid facility.

LMSI

The subscriber's Local Mobile Subscriber Identity. When the subscriber is roaming, FDA uses both a LMSI and an IMSI.

LNP

Local Number Portability

Location Capabilities Pack (LCP)

A Convergent Charging Controller service that can be used for finding the location of the caller. This enables a caller who is making a call on a foreign network to establish a roaming call.

LRI

Logical Routing Index

M3UA

MTP3 User Adaptation. The equivalent of MTP in the SIGTRAN suite.

MAP

Mobile Application Part - a protocol which enables real time communication between nodes in a mobile cellular network. A typical usage of the protocol would be for the transfer of location information from the VLR to the HLR.

MASO

Medium AliasCategory Service Operation.

Master Replicator

The SMS Master Replicator is the Master Replicator which runs on the SMS. It is also known as a validator and always has the node number 1.

MC

Message Centre. Also known as SMSC.

MCC

Mobile Country Code. In the location information context, this is padded to three digits with leading zeros. Refer to ITU E.212 ("Land Mobile Numbering Plan") documentation for a list of codes.

MCEF

Mobile-Station-Memory-Capacity-Exceeded-Flag. A part of the MWI to be stored in the HLR. MCEF is a boolean parameter indicating if the address list of MWD contains one or more entries because an attempt to deliver a short message to an MS has failed with a cause of MS Memory Capacity Exceeded. [Refer to GSM 03.40 Version 5.3.0: July 1996]

M-CSI

Mobility CAMEL Subscription Information. A parameter in a mobile subscriber's HLR profile which determines that mobility notification events should be sent to an external entity when this subscriber changes location or attachment status. Sub-fields determine which specific events should be notified.

MDN

Mobile Directory Number

MDSP

Mobile Data Service Management Platform

Messaging Manager

Messaging Manager provides a messaging system for mobile networks. Messaging Manager components operating at the network layer can route traffic and perform protocol translation between different services.

MFile

A file that holds rating data used by the Convergent Charging Controller system. You compile the MFile after you configure tariffs. The MFile is then loaded into memory, which allows faster access than if the data was held in the database.

MGC

Media Gateway Controller



MID

Measurement ID - used in Number Portability, counts the occurrences of an error.

MIN

Mobile Identification Number, also known as an MSID.

MM

See Messaging Manager.

MM4

Multimedia Messaging Reference Point 4 - defines the link between MMS Relay/Server belonging to different MMSE (Multimedia Messaging Service Environment).

MM7

Multimedia Messaging Reference Point 7 - defines the link between the MMS Relay/Server and MMS VAS (Value Added Services) applications.

MNC

Mobile Network Code. The part of an international address following the mobile country code (MCC), or at the start of a national format address. This specifies the mobile network code, that is, the operator owning the address. in the location information context, this is padded to two digits with a leading zero. Refer to ITU E.212 ("Land Mobile Numbering Plan") documentation for a list of codes.

MNP

Mobile Number Portability

MNT

Maintenance Utility component

MO

Mobile Originated

MOC

Managed Object Class



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Managed Object Instance

MOX

Minimal OSA using XDR.

This protocol, based on a modified subset of Parlay/OSA, can be used between the SLC and the Commerce Engine (CE).

MS

Mobile Station

MSC

Mobile Switching Centre. Also known as a switch.

MSID

Mobile Subscriber Identification, also known as an MIN.

MSIN

Mobile Station Identification Number.

MSISDN

Mobile Station ISDN number. Uniquely defines the mobile station as an ISDN terminal. It consists of three parts; the country code, the national destination code (NDC) and the subscriber number.

MSRN

Mobile Station Roaming Number

MSU

Message Signalling Unit

MT

Mobile Terminated



MTC

Mobile Terminated Call. The part of the call associated with a subscriber receiving an inbound call.

MTP

Message Transfer Part (part of the SS7 protocol stack).

MTP3

Message Transfer Part - Level 3.

named event

An activity other than a call that can be charged for; for example, a one-time subscription charge, or sending an SMS. Also called a billable event.

NAS

Network Access Services. Control point for authorising (and restricting) access to a network. Normally located on the network fringe.

NMS

Network and Messaging Service.

NMSI

National Mobile Station Identity. This identifies the MS within its home country. It is part of an IMSI and consists of the MNC and the MSIN.

NOA

Nature Of Address - a classification to determine in what realm (Local, National or International) a given phone number resides, for the purposes of routing and billing.

notification

Any short message sent to a subscriber's handset. Convergent Charging Controller generates notifications about events such as balance expiration, service expiration, and recharges.

NP

Number Portability

NPI

Number Plan Indicator

NRA

Network Routing Address

Number Portability Service Pack

Provides call routing based on number portability. You can configure number portability in control plans.

O-CSI

Originating CAMEL Subscription Information. A parameter in a mobile subscriber's HLR profile which determines that an originating CAMEL trigger should be initiated for MOC made by this subscriber. May be suppressed depending on the VLR.

Octet

Byte - 8 bits.

OLE

Originating Local Exchange

OLO

Other Licensed Operator

Open Services Development (OSD)

A service that enables control plans to read from WSDL files.

ORB

Object Request Broker. Within an Object based communication system, an ORB keeps track of the actual addresses of all defined objects and thus is used to route traffic to the correct destination. The CORBA defines the ORB in a series of standards enabling different platforms to share common information.

OSA

Open Service Access provides a standard interface through which developers can design services that may interact with functions within the network.

OSCI

Open Services Charging Interface - a SLEE application that provides a common front end for a range of billing engines.

OSD

See Open Services Development (OSD).

OSI

Open Systems Interconnection - set of layers in network

Out-Roamer

A roaming subscriber leaving their mobile phone network.

PACUI

Play Announcement and Collect User Information

Parlay/OSA

Defines a set of open, standardised APIs that allow applications to access core network functionality.

The APIs are defined using CORBA IDL which models method calls on remote objects.

PC

Point Code. The Point Code is the address of a switching point.

PCST

See Prepaid Charging Service Template (PCST).

Peer

Remote machine, which for our purposes is capable of acting as a Diameter agent.

periodic charge

A charge that occurs repeatedly at a defined interval. For example, you can define periodic charges for providing a phone service, or for rental of services and equipment.

ΡI

See provisioning interface (PI).



PICS

Protocol Implementation Conformance Statement applicable to the relevant protocol.

PIN

Personal Identification Number

PL/SQL

Oracle's Procedural Language for stored procedures and packages.

PLMN

Public Land Mobile Network

POSREQ

IS-41 Position Request - process used in the IS-41 network to interrogate the HLR for location and subscriber information.

power charge scenario

See scenario.

prefix tree

A data type for a profile tag that holds a list of numbers.

Prepaid Charging Service Template (PCST)

A Convergent Charging Controller product that provides a prebuilt Convergent Charging Controller configuration that you can customize

primary wallet

The primary container for a subscriber's balances. Each subscriber account has one primary wallet.

product catalog

Defines a list of billable events and their overrides. (See billable event.) You assign a product catalog to a tariff plan. The billable events included in the product catalog are then available to all the product types that use that tariff plan.

product type

Defines the services that are available to a subscriber, the tariffs that apply to the subscriber's services, the control plans that are executed when a service is used, and the wallet life cycle policy.

product type swap

Allows subscribers to change product types when they recharge. You define a product type swap by specifying the product type to change from, and the product type to change to.

profile

A method of storing and managing data in Convergent Charging Controller. Profiles contain profile tags, which hold data such as phone numbers. Convergent Charging Controller includes standard profiles, such as a subscriber profiles. Profiles can also be held only in memory, such as in session data, or in temporary profiles used by control plans.

profile tag

A location for data in a profile. For example, a profile tag in a session data profile might hold the originating number.

promotion

A method of rewarding subscribers; for example, give free minutes or a reduced tariff, based on the subscriber's usage. See Promotion Manager.

Promotion Manager

A Convergent Charging Controller service used for setting up promotions; for example, setting up counters to track subscriber usage. See promotion.

provisioning interface (PI)

An API used for manipulating data in the SMF database. You can create custom programs by using the provisioning interface to perform many Convergent Charging Controller functions.

PSTN

Public Switched Telephone Network - a general term referring to the variety of telephone networks and services.

PTT

Postal, Telegraph & Telephone. This is a legacy term which refers to the telephone authority within a country which was often a publicly owned body. The term is also loosely used to describe any large telecommunication company.



RAA

Session message: Re-Auth Answer

RADIUS

Remote Authentication Dial-in User Service - a system of distributed security that secures remote access to networks and network services against unauthorized access.

Radius Control Agent (RCA)

A SLEE interface that enables integration between a Radius server and Convergent Charging Controller. RCA can also provide an integration with Cisco Gateway GGSN.

RAR

Session message: Re-Auth Request

rate

The amount that a call can be charged, based on the defined cost of the event being rated, the length of the call, the maximum cost, and other factors such as location and holidays.

rate table

A way to map CLI-DN tariffs to geography sets and holiday sets, and to specify whether to rate by duration or volume.

rating

Applying a charge to an event, such as a phone call.

RCA

See Radius Control Agent (RCA).

recharge promotion

A promotion given when a subscriber recharges a wallet.

Re-Origination

The action of re-routing a call from one network (or sub-network) to another, and then restarting processing as if it originated from that network. This is usually done by allocating a temporary destination number from a pool in the home network, trunking to that destination number, and then restoring the original call parameters. The process is somewhat similar to that used under GSM roaming with an MSRN.

Re-origination is typically required when the appropriate resources for processing a call (for example, switch features, SRF functions) are not available in one network, and the call must

be transferred to a second network for processing. It is also sometimes done to take advantage from lop-sided regulatory or commercial cross-charging agreements.

Replicator

The concept of replication. This does not describe any single part of replication (that is, ACSMaster of updateLoader), more the fact that information gets sent from one node to another.

reservation

An amount of money paid in advance for pre-paid calls.

reservation chunk

The amount that the Voucher and Wallet Server (VWS) returns in response to a reservation request.

resource

A configuration property that you can assign to service providers, or set as a global resource. Resources include such properties as termination number ranges, number of control plans allowed, holiday sets, geography sets, and announcements.

resource limit

Defines limitations on service providers for such properties as how many control plans they can configure, which feature nodes they can use, and so on.

resource set

The resources made available to a customer; for example, geography sets, announcement sets, and holiday sets.

ReSP

Recharging Service Platform

reward

A method of granting cash or a product type change based on subscriber usage. For example, you can upgrade a product type after a subscriber sends 1000 messages. You use CCS to configure rewards.

RIMS

Routing Information for Mobile Services. Used to cache HLR lookup information.



Note: Now known as "Messaging Manager Navigator".

RMO

Roaming Mobile Originating

Roaming Applications

A set of applications that enable subscribers to make and receive calls while roaming. The applications are Unstructured Supplementary Service Data (USSD), Returned Accounts Procedure (RAP), and TRANS.

RRBCSM

Request Report BCSM.

RTBP-P

Simplified Real Time Billing Protocol Presentation Layer V2.0.

RTBP-T

Simplified Real Time Billing Protocol Transaction Layer 2.0.

RTCC

Real Time Call Control. The real-time SLC function which controls pre-paid (or convergent post-paid) voice calls under guidance from a billing platform.

RTP

Real-time Transport Protocol.

SAI

Service Area Indicator. The 3G equivalent of a Cell ID. The smallest granularity (fourth component) of a location information field.

SAN

Service Access Number

SCA

See Session Control Agent (SCA).

SCCP

Signalling Connection Control Part (part of the SS7 protocol stack).

SCCP Address

Is made up of PC + SSN + GT; or PC +SSN; or GT; or GT + PC.

scenario

A set of balances that a subscriber can choose when redeeming a voucher. For example, one scenario might be 120 free minutes, and another scenario might be 200 free minutes made within 30 days.

SCF

Service Control Function - this is the application of service logic to control functional entities in providing Intelligent Network services.

SCI

Send Charging Information. An INAP operation sent from ACS to the SSP to control real time charging by the SSP.

SCP

Service Control Point. Also known as SLC.

SCS

Service Capability Server (OSA)

SCTP

Stream Control Transmission Protocol. A transport-layer protocol analogous to the TCP or User Datagram Protocol (UDP). SCTP provides some similar services as TCP (reliable, insequence transport of messages with congestion control) but adds high availability.

secondary wallet

A wallet that a subscriber uses differently from the primary wallet. For example, a subscriber might have a primary wallet for business use and a secondary wallet for personal use. Or, a subscriber might have a secondary wallet that is shared with other subscribers.

SEI

See SMS Email Interface (SEI).

service key

A parameter in an incoming INAP message, which identifies the service. (Other parameters include the calling party and the called party.) Convergent Charging Controller runs a specific service loader based on the value of the service key.

service loader

A shared library that is loaded by slee_acs that is responsible for initializing the right service for a call and loading its control plan, profiles, and so on. A service loader also acts as a mediation layer between the inbound SLEE interface and the service, and performs the final manipulation of data that is returned to the network interface when a triggering interface sends back a network event.

Service Logic Execution Environment (SLEE)

The execution environment for Convergent Charging Controller applications and services, including ACS, CCS, and Messaging Manager.

Service Management System (SMS)

The platform that support Convergent Charging Controller applications such as ACS and CCS. The SMS GUI is the primary GUI interface for Convergent Charging Controller. From SMS, you can configure ACS and CSS data, and start the Control Plan Editor.

service number

A number that subscribers call to get customer service.

service provider

A company that has subscribers that are charged and managed by using Convergent Charging Controller. If you an MVNO or MVNE, service providers are your customers. Also called *customer* in the Convergent Charging Controller user interface.

SES

See Subscriber Event Service (SES).

Session

Diameter exchange relating to a particular user or subscriber access to a provided service (for example, a telephone call).

Session Control Agent (SCA)

A SIP transparent back-to-back user agent (B2BUA), redirect server, proxy server and registrar. It provides support for SIP/SIMPLE messaging and integrated triggering capabilities. The SCA enables real-time charging, instant messaging and personal mobility in SIP-based

Next Generation Networks (IETF/ETSI NGNs) and in the IP Multimedia Subsystem (3GPP IMS, 3GPP2 MMD).

session rating

Rating based on duration.

SGP

Signalling Gateway Process

SGSN

Serving GPRS Support Node

Short Message Charging Bundle (SMCB)

A Convergent Charging Controller service that enables billing of SMS messages.

Short Message Services (SMS) Center

A SLEE interface that enables applications to send messages to an SMS center on the network.

SIB

Service Independent Building Block

SIGTRAN Transaction Capabilities Application Part (TCAP) Interface

A SLEE interface that integrates Convergent Charging Controller with a TCAP stack.

SIM

Usually referred to as a SIM card, the Subscriber Identity Module is the user subscription to the mobile network. The SIM contains relevant information that enables access onto the subscripted operator's network.

Sinap

Stratus Intelligent Network Application Platform – set of functions giving access to SS7 or TCAP.

single-use debit wallet

A wallet that can be used once. Used for non-rechargeable pre-paid accounts.

SIP

Session Initiation Protocol - a signaling protocol for Internet conferencing, telephony, event notification and instant messaging. (IETF)

SK

Service Key

SLC

Service Logic Controller (formerly UAS).

SLEE

See Service Logic Execution Environment (SLEE).

SLP

Service Logic Programs

SLPI

Service Logic Program Instance

SLPM

Service Logic Program Manager

SMCB

See Short Message Charging Bundle (SMCB).

SMDPP

SMSDeliveryPointToPoint SM-TL Message.

SME

Short Message Entity - This is an entity which may send or receive short messages. It may be located in a fixed network, a mobile, or an SMSC.

SMF database

The main database on the Service Management System (SMS). This database holds data for Charging Control Services (CCS) and the other Convergent Charging Controller applications.

SMP Service Management Platform (also referred to as SMS). **SMPP** Short Message Peer-to-Peer protocol SMPP+ SM Fee Reduction Protocol (SMPP+ V2.0) between SMSC and SCP. **SMS** See Service Management System (SMS). SMS Email Interface (SEI) Enables sending and receiving email on a mobile phone by using Short Message Service (SMS). **SMSC** See Short Message Services (SMS) Center. SMS-MO Short Message Service Mobile Originated SMS-MT Short Message Service Mobile Terminating SM-TL Short Message Transport Layer. SN Service Number SNE External Serial Number **SNMP** Simple Network Management Protocol. Usually responsible for notifying faults on a network.

SOAP

Simple Object Access Protocol. An XML-based messaging protocol.

SPM

See Subscriber Profile Manager (SPM).

SPR

Signalling Relay Point - used in Europe; the American equivalent is STP.

SQL

Structured Query Language is a database query language.

SRF

Specialized Resource Function – This is a node on an in which can connect to both the SSP and the SLC and delivers additional special resources into the call, mostly related to voice data, for example play voice announcements or collect DTMF tones from the user. Can be present on an SSP or an Intelligent Peripheral (IP).

SRI

Send Routing Information - This process is used on a GSM network to interrogate the HLR for subscriber routing information.

SS7

A Common Channel Signalling system is used in many modern telecoms networks that provides a suite of protocols which enables circuit and non-circuit related information to be routed about and between networks. The main protocols include MTP, SCCP and ISUP.

SSF

Sub Service Field.

SSL

Secure Sockets Layer protocol

SSN

Subsystem Number. An integer identifying applications on the SCCP layer.

For values, refer to 3GPP TS 23.003.

SSP

Service Switching Point

STA

Session message: Session-Termination Answer

STK

SIM Toolkit

STP

Signalling Transfer Point. Telecom equipment routing SS7 signalling messages.

STR

Session message: Session-Termination Request

SUA

Signalling Connection Control Part User Adaptation Layer

subscriber

A person who owns a service, such as a telephone service.

subscriber account

A record in the SMF database that identifies a subscriber.

Subscriber Event Service (SES)

A Convergent Charging Controller service that enables service providers to send text messages to subscribers who roam in and out of the home network. For example, a service provider might greet inbound messages with a welcome message.

Subscriber Profile Manager (SPM)

An SMS application for customizing which elements appear on some SMS windows; for example, the CCP Dashboard Edit Subscriber window, and the Edit Product Type window.

subscription service

A service that is renewed at periodic intervals. See periodic charge.

SVR4 Unix

AT&T Standard Unix. System five, release four.

Switching Point

Anything that can send and receive C7 messages.

System Administrator

The person responsible for the overall set-up and maintenance of the in.

System Parameter

A variable value that can be set up and modified by the person responsible for the set up and control of the system.

tariff code

An ACS resource used for returning charging information to the switch. The information can be sent in a Send Charging Information (SCI) operation or in an Furnish Charging Information operation.

tariff plan

A mapping between product types and rate tables. When initiating a call the service loader finds the product type to use, which points to the tariff plan selector, where tariff plans are mapped to rate tables.

task

See business process logic (BPL) task.

tax plan

Used for calculating taxes for charges and recharges.

TCAP

Transaction Capabilities Application Part – layer in protocol stack, message protocol.

TCR

TC Relay



T-CSI

Terminating CAMEL Subscription Information. A parameter in a mobile subscriber's HLR profile which determines that a terminating CAMEL trigger should be initiated for MTC received by this subscriber. May be suppressed depending on the VLR.

TDMA

Time Division Multiple Access - a communications technique that uses a common channel for communications among multiple users by allocating each a unique time slot.

TDP

Trigger Detection Point.

TER

TERminal (configurator for MTM120 boards and vocal characteristics of UIP).

Termination node

Any node which sends, or can send, an INAP Connect operation to the SSP. in ACS, termination nodes are:

- Unconditional Termination
- Attempt Termination
- Attempt Terminate to Pending TN
- Terminate to Pending TN
- Attempt Terminate to Pending TN With Duration

Termination Number

The final number that a call terminates to. Can be set in control plan nodes such as Attempt Termination and Unconditional Termination for re-routing numbers such as Toll Free or Follow Me numbers.

TFR

TCAP Filter Relay

TLS

Transport Layer Security. Cryptographic protocol used to provide secure communications. Evolved from SSL.

TLV

Tag-Length-Value. Optional parameters introduced in the SMPP protocol since version 3.4.

TMN

Telecommunications Management Network - an interface to provide alarm, system configuration and monitoring information from both:

- ACS and the SLC, or
- SMS-MT and the SLC.

TP-DA

Transport Protocol Destination Address

TP-UD

Transport Protocol User Data containing the short message

Tromboning

A situation where the voice channel for a call is routed from network A, to network B, and back again. This is clearly undesirable, since two inter-network circuits are required for the call duration, where ideally none should be required.

TSAN

Temporary Service Access Number

UBE

Obsolete name, now called Billing Engine (BE).

UCAI

See Universal Call Agent for ISDN User Part (ISUP).

UIS

USSD Interactive Services

U-MS

The Universal Media Server suite provides the functionality required for implementing interactive dialogues over packet switched networks.



It acts as a H.323 end point and is able to perform the playing of both static and dynamic prompts in multiple languages, DTMF recognition and voice recording.

uncommitted reservation

The reservation amount not yet committed for a balance type.

Universal Call Agent for ISDN User Part (ISUP)

A Convergent Charging Controller component that provides intelligent network (IN) functionality by using fixed connections between incoming and outgoing calls. The prevents the need to upgrade or replace non-SS7 capable switches.

Universal Service Management System (USMS)

A component name used in previous releases. Now known as Service Management System (SMS).

U-NMS

Universal Network Mediation Server. A software application specifically to re-originate CAMEL calls from roaming networks back to the home network for the purpose of call control on a home network switch.

Unstructured Supplementary Service Data (USSD) Gateway

A Convergent Charging Controller service that enables USSD messages and International Mobile Subscriber Identity (IMSI) management.

UPC

USSD Portal Components

URI

Uniform Resource Identifier.

URL

Uniform Resource Locator. A standard way of specifying the location of an object, typically a web page, on the Internet.

USMS

See Universal Service Management System (USMS).

USSD

Unstructured Supplementary Service Data - a feature in the GSM MAP protocol that can be used to provide subscriber functions such as Balance Query.

USSD_AS

USSD Additional Services

USSD CB

USSD Callback Roaming

USSD Gateway

See Unstructured Supplementary Service Data (USSD) Gateway .

UUGW

Universal USSD Gateway - used to provide data services using high performance menu-based interactions.

variable announcement rule set

A set of rules that specify which announcement to play based on conditions. For example, a variable announcement rule might specify to play a different version of an announcement based on the amount of messages in a subscriber's balance.

VC

Virtual Circuit

VDDI

Virtual Direct Dial In

Virtual Private Network (VPN) Server

A Convergent Charging Controller service that enables VPN networks on an IN system.

VLR

Visitor Location Register - contains all subscriber data required for call handling and mobility management for mobile subscribers currently located in the area controlled by the VLR.

VMP

Virtual Message Point



VMSC

Visited Mobile Switching Centre

Voice Call

The term "voice call" in this document is intended to denote any call controlled by CAMEL or INAP InitialDP. in practice this also includes fax calls, data-over-voice calls, and also includes 3G voice and video conference calls.

voucher

A recharge number sold to a subscriber to recharge their SIM card with money and to extend the card's availability period. Vouchers are typically sold at retail outlets, such as phone stores run by the mobile operator or by distributors, grocery stores, and gas stations.

Voucher and Wallet Server (VWS)

An Convergent Charging Controller network service that manages vouchers and subscriber wallets.

voucher scenario

See scenario.

voucher type

Defines the voucher properties; for example, the product type it applies to, product type swap rules, balance types, and tax plans.

VPN

See Virtual Private Network (VPN) Server.

VSSP

Virtual SSP

VT-CSI

Similar to a T-CSI, but the CAMEL trigger is sent by the VMSC rather than the GMSC. When a subscriber receives a terminating call when roaming, allows the SCP to control the call at the VSMC point. Some HLR can mask the T-CSI when the VT-CSI is active, avoiding double-handling of terminating calls.

VWS

See Voucher and Wallet Server (VWS).

wallet

A group of balances owned by a subscriber, used for paying for services. Every subscriber has at least one wallet.

wallet life cycle

The states that a wallet can be in; for example, Pre-Use, Active, Dormant, Frozen, Suspended, and Terminated.

wallet state

The state in the wallet life cycle that defines how a wallet can be used. For example, if a wallet is in the Frozen state, all services are disabled.

WAP

Wireless Application Protocol. A standard designed to allow the content of the Internet to be viewed on the screen of a mobile device such as mobile phones, personal organisers and pagers. It also overcomes the processing limitation of such devices. The information and services available are stripped down to their basic text format.

WATER

Web Application Terminal (Web version of TER).

WEMT

Wireless Enhanced Messaging Teleservice

WMT

Wireless Messaging Teleservice

WSDL

Web Services Description Language.

XDR

External Data Representation.

A standard for the description and encoding of data. It is useful for transferring data between different computer architectures.

XDR uses a language to describe data formats. The language can only be used to describe data; it is not a programming language.

XMS

Three letter code used to designate some components and path locations used by the Oracle Communications Convergent Charging Controller Messaging Manager service and the Short Message Service. The published code is MM (formerly MMX).

zone

An area defined by latitude and longitude that can be used for rating. For example, you can define a geographic zone that allows discounted calls.

