

Summary

- **Domain:** Oracle Communications Network Charging & Control
- **Duration:** Variable to suit client requirements.
- **Location:** As requested.
- **Attendees:** Maximum of 16 Students (Introductory Courses), 6 Students (Advanced Courses).
- **Level:** Variable to suit client requirements. May include hands-on and programming topics.
- **Suitable For:** Customer Care, Product Managers, Integrators/Installers, Operational Staff, Developers.

Standard Topics

OCNCC is the Oracle real-time telecommunications control platform. The OCNCC platform is a richly featured platform which can support a wide range of telephony services.

The following list describes our standard topics. Additional topics can be created according to your custom requirements. Please contact us to discuss your needs.

Introduction to OCNCC	<i>High-level platform components. Key protocol interfaces (external & internal). Physical distribution of components. Scalability and redundancy. Hardware requirements.</i>
Service Management System	<i>Introduction to SMS. The SMS GUI. Database implementation. Data replication. Security model. Alarm subsystem. Statistics subsystem. SMS scheduled and daemon processes. SMS monitoring and maintenance. Clustering and warm standby. File and DB Backup options.</i>
Advanced Control Services	<i>Introduction to ACS. The ACS Screens. Control plans and the Control Plan Editor. Subscriber Profiles. IVR. Languages. ACS Call Data Records. ACS for Toll Free Services. ACS as a framework for other Value Added Services. ACS security configuration. ACS scheduled and daemon processes. ACS monitoring and maintenance.</i>
Service Logic Execution Environment	<i>Introduction to the SLEE. Interfaces and Applications. SLEE communication. The SS7/TCAP Interfaces. SLEE monitoring and maintenance.</i>
Charging Control Services	<i>Introduction to CCS. The CCS Screens. Control Plans and the UATB node. Voice vs. SMS. Subscribers. Wallets/Accounts. Tariff Plans. Rating. Reservations. Periodic Charges. Promotions and Discounts. Wallet-to-Wallet Transfer. Account Batch Creation. Voucher Life Cycle. Free-Form Recharge. Mid-Call Announcements. Subscriber Notifications. CCS Event Data Records. Friends-and-Family. Black/White Lists. CCS to VWS interaction. Primary/Secondary VWS fail-over and recovery. CCS & VWS scheduled and daemon processes. CCS & VWS monitoring and maintenance.</i>
CCS – Data Services	<i>Inbound/Outbound DIAMETER (DCD & DCA). Content-based charging. Also covers use of CCS in a third-party Billing Engine scenario.</i>
Messaging Manager	<i>Introduction to MM. Terminating and Originating routing control. EMI & SMPP. Control plans for Messaging Manager. MM Event Data Records. MM scheduled and daemon processes. MM monitoring and maintenance.</i>
Number Portability	<i>Introduction to NP. Prefix-routing. Ranged-based routing. NP integration with other services (pre-POR plugin).</i>
USSD Gateway	<i>Introduction to USSD GW. USSD GW Interface. USSD GW Configuration.</i>
SIP User Agent	<i>Introduction to SIP User Agent. Configuration. Management.</i>
Diameter Gateway	<i>Integrating NCC with Oracle Elastic Charging Engine (ECE) & Diameter Gateway (DGW).</i>
Integration Interfaces	<i>Provisioning Interface (PI). Open Services Development (OSD). Data Access Pack (DAP).</i>
Testing Tools	<i>Automated simulation options for INAP/MAP, MAP, Provisioning Interface, EDR, Rating.</i>

Course Options

The following standard Course Options are offered.

1. **Introductory** – A high-level discussion of key features, suitable for Product Managers, Customer Care and casual system users. May include demonstration components, but not hands-on. Maximum 16 Students.
2. **Advanced (Operations & Internals)** – A detailed, intensive course for technical staff, e.g. Architects, Developers, Network Operations, System Engineers, and System Integrators. Includes a mix of lecture, demonstration, and hands-on sessions. Maximum 6 Students.

We are happy to discuss specialist topics, or customisation of topics to meet your needs.

TOPIC	Introductory		Advanced	
	Days	Fee	Days	Fee
Introduction to OCNCC	¼	\$500		
Solaris & Oracle Basics			1	\$2000
Service Management System	¼	\$500	¼	\$500
NCC Run-Time Architecture			¼	\$500
Advanced Control Services	¼	\$500	1	\$2000
CCS – Subscribers & Products	¼	\$500	½	\$1000
CCS – Rating	¼	\$500	½	\$1000
CCS – Control			½	\$1000
CCS – Diameter	¼	\$500	1	\$2000
Messaging Manager	¼	\$500	¾	\$1500
Number Portability			½	\$1000
USSD Gateway	¼	\$500	½	\$1000
SIP User Agent			¼	\$500
Integration PI/OSD/BPL/DAP	½	\$1000	¾	\$1500
Testing Tools	¼	\$500	½	\$1000
NCC Installation			1	\$2000
Software Development Kit	½	\$1000	See Separate Course	

Please note in regard to these topics...

- **NCC Installation:** *NCC Installation is typically presented as a hands-on demonstration of the installation process. Appropriate hardware and disk space will need to be available.*
- **Solaris & Oracle Basics:** *Optional "catch-up" topic covering Solaris and Oracle DB basics. Includes a significant hands-on component, with practical examples specifically relevant to OCNCC.*
- **Software Development Kit (SDK):** *Please see the separate PDF describing our standalone SDK training course. We can include individual SDK topics into general NCC training on request.*

Skills Assessment

On request we can perform a “skills assessment” process for attendees at the conclusion of the training. This will replace part of the demonstration or hands-on component for the course.

Travel Costs

The following fixed-price cost includes for travel time, plus all transportation and expenses.

Location / Course Duration	1-2 days	3-5 days	6-10 days
New Zealand	\$1000	\$1500	\$2000
Australia	\$2000	\$2500	\$3000
Pacific, North America, Europe	\$3000	\$4000	\$5000
Other Locations	\$4000	\$5000	\$6000

Terms

The following terms apply:

- All-inclusive charge is the sum of all “Course Fees” plus “Travel Costs” according to location.
- All charges in US Dollars and are subject to change. Training in New Zealand will attract GST.
- Six weeks notice required. Deposit of 50% is required at reservation, remainder before travel.
- Deposit is non-refundable in the case of client cancellation. Dates may be changed by agreement.

Responsibilities

Client is responsible for providing:

- Suitable training location and facilities.
- Suitable pre-installed OCNCC system for demonstrations, **and/or**
- Reliable high-speed access to N-Squared remote servers.

If practical SDK training is included, Client must provide.

- One computer per attendee with necessary software as specified.

Typical Daily Schedule

Morning (2-3 hours)
Lecture session.

Afternoon (2-3 hours)
Supervised hands-on tasks
(≤ 6 students). Or interactive
presentation (≤ 16 students).

Late Afternoon (1-2 hours)
Review and follow-up discussion
of additional topics based on
student feedback/requests.

About N-Squared

N-Squared is an Oracle Gold Partner based in New Zealand. We provide Telecommunications products and services, with particular expertise in OCNCC service installation, integration and customisation.

We are one of the few Oracle Partners using the OCNCC SDK to provide custom service features to end users.

The consultants who provide our training services all have extensive software development experience with OCNCC internals and service features – including implementation and post-delivery support considerations.

N-Squared can provide training in other aspects of the OCNCC platform on request.

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