

## Summary

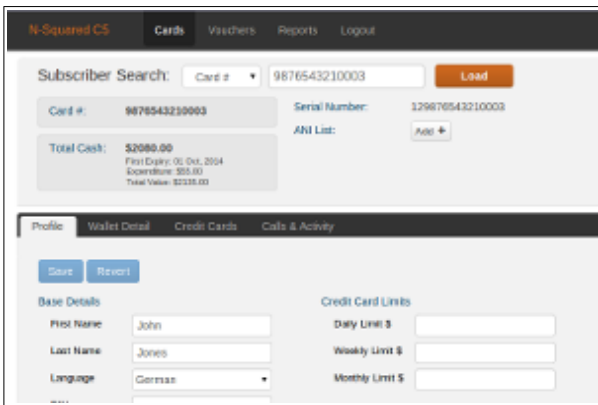
The Oracle Communications Network Charging Control Services (OCNCC CCS) product is a popular Telecommunications platform for implementing Mobile Pre-Paid, Fixed-Line Calling Card, Voucher Management and real-time charging control.

The *N-Squared Charging & Control Customer Care Console* (N2C5)<sup>1</sup> screens provide a supplementary CCS User Interface for effective Subscriber and Voucher management by Customer Service Agents.

Note that the N2C5 screens are not a complete replacement for the entire CCS administration interface. The role of N2C5 is provide a secure, controlled, and highly efficient user interface experience specifically to facilitate day-to-day subscriber management for service teams dealing directly with the end-customer.

## User Interface

The N2C5 user interface collects together the relevant CSA administration functions from multiple sources within the various sub-components of OCNCC. The relevant subscriber data is re-formatted, re-structured, filtered, clarified, validated, and presented in a secure, easy-to-use, standalone web page.



## Key Advantages:

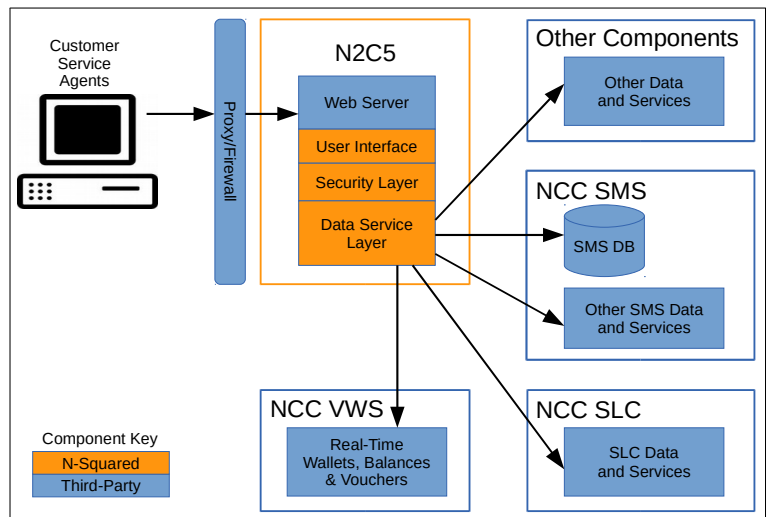
- Customisable layout and structure for fields/values
- De-cluttered screen removes irrelevant features
- Formatted and optimised specifically for CSA
- Streamlined access gives improved screen load times
- Customise with site-specific CSS & graphics
- Subscriber, wallet & voucher management
- Fine-grained access control integrated with OCNCC

## Infrastructure Advantages

The N2C5 infrastructure is provided via a 100% web-based interface which can operate in any modern browser. No additional plug-ins or technologies are required.

Specifically, the N2C5 can be run securely and simply without any need for third-party legacy components such as Java JRE, Java JDK, Flash, or Citrix.

Note that all N2C5 remote data access passes through a single HTTP/S gateway. Standard SSL certificates and additional protection can be implemented with standard tools and existing proxy technologies.



**Pure Web-Browser**  
**Zero Client Install**  
**No Additional Licences**

**100% Server-Secured**  
**HTTPS Protection**  
**Proxy Access Control**

**Linux Servers**  
**Cloud/VM Friendly**  
**Fully Redundant Options**

<sup>1</sup> N2C5 is independent software and is not licensed or authorised by Oracle.

## Subscriber Management

The N2C5 screens implements the full suite of day-to-day subscriber management features.

The screenshot shows a 'Profile' tab with 'Save' and 'Revert' buttons. Under 'Base Details', there are input fields for First Name (John), Last Name (Jones), Language (German), and PIN (\*\*\*\*). To the right, 'Credit Card Limits' includes fields for Daily, Weekly, and Monthly limits. Below are expandable sections for Speed Dials, Originating Filters, and Terminating Filters.

- **Subscriber State, Account Expiry**
- **Product Types and Linked-Account Details**
- **CRM Fields - Name & Address, etc.**
- **Speed Dials, Filter Lists, Names, Language, PIN**
- **Account Limits, Service Flags**
- **Site-Specific Custom Fields**

## Wallet Management

The screenshot shows a 'Wallet Detail' tab with 'Change' and 'Balance Adjustment' buttons. It displays 'Initial Activation Date' (04 Mar, 2013) and 'Activation Date' (16 Sep, 2013). Under 'Balance Details', there are checkboxes for 'Chargeable', 'Dependence', 'Fraud', and 'Other'. A table lists 'General Cash' and 'Promotional Cash' with their respective values and expiration dates.

- **Summary by Balance Type**
- **Detailed Balance/Bucket Expiry**
- **Policy-Controlled Balance Adjustment Actions**
- **Multi Time-Zone & Multi-Currency**
- **Wallet Activation & Termination Details**
- **Integrated with Third-Party Platform Services**

## Vouchers, Call Records & More

The screenshot shows a 'Voucher Search' interface with a 'Load' button. It displays 'Voucher State: ACTV (Active)', 'Voucher #', 'Serial Number', 'Voucher Type', and 'Partition Name'. Below is a table of call records with columns for Date/Time, Value, and Description.

Date/Time	Value	Description
07 Oct, 2013 - 11:57 am	-\$0.58	94882960 (LA) to 00639055785938 (PHILIPPINES MOBILE) for 1m 18s.
03 Oct, 2013 - 1:42 pm	-\$1.15	94882960 (LA) to 00639055785938 (PHILIPPINES MOBILE) for 2m 40s.
02 Oct, 2013 - 10:25 pm	-\$0.29	94416142 (LA) to 00639055785938 (PHILIPPINES MOBILE) for 1s.
02 Oct, 2013 - 8:25 pm	-\$3.48	94416142 (LA) to 00639055785938 (PHILIPPINES MOBILE) for 11m 55s.
02 Oct, 2013 - 8:19 pm	\$5.50	CCF: *****9023
02 Oct, 2013 - 8:18 pm	\$5.50	CCF: *****9023
01 Oct, 2013 - 10:00 pm	-\$5.51	94416142 (LA) to 00639055785938 (PHILIPPINES MOBILE) for 15m 0s.

- **Voucher Search & Management**
- **Redeem Vouchers On Subscriber's Behalf**
- **Manage Subscriber Credit Cards**
- **View Subscriber's Call, Charge, Recharge History**
- **On-The-Fly Called/Caller Geographic Lookup**
- **Internal Values Mapped to User-Friendly Labels**

## Hardware & Operating System

N-Squared Charging & Control Customer Care Console for CCS is currently offered for Intrepid, Luna and Nova NCC releases. The service runs on Linux (Ubuntu, Oracle, RHEL), and is available in single or redundant configuration for x86-64 hardware in physical or virtual servers.

## About N-Squared

N-Squared is an Oracle Gold Partner based in New Zealand. We are specialist providers of products and services for the Telecommunications domain.

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