Summary

The Oracle Communications Network Charging & Control (OCNCC) product is a popular telecommunications platform for real-time call routing and interaction control in INAP, CAMEL and SIP-based networks. The OCNCC platform provides a powerful suite of call control features for Automated Call Distribution including Toll-Free, Premium Rate, Televoting, and Universal Access Number.

The *N-Squared Flow Editor* (N2FE)[1] solution provides an enhanced set of user interface features for the management of these services. The N2FE user interface offers:
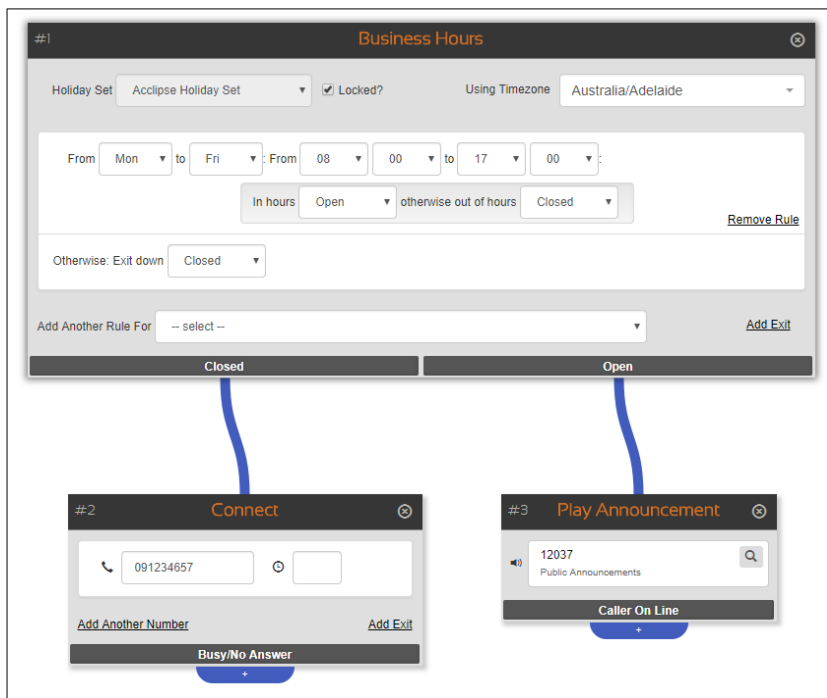
- A modern pure-web service call-flow designer for TF/PRM/UAN/TVT.
- Secure customer access to Call Data Records (CDRs) and tele-vote history.

The N2FE product also offers two features that upgrade OCNCC to add brand-new capabilities:

- In-network call queueing.
- Enhanced tele-voting.

Enhanced Flow Editor & Services Management Interface

The Flow Editor provides a pure-web tool for creation and management of Toll-Free services in OCNCC.

N2FE Interface Advantages:
- **Pure Web, no Java/Flash/Citrix**
- **Integrates with Client Portals**
- **Enhanced Security**
  - **SSL/Firewall/Proxy/IP Control**
  - **Certificates, reCAPTCHA**
  - **LDAP/Active Directory Support**
- **Simplified, Guided Design Tool for:**
  - **Customer Service Agents**
  - **Subscriber Self-Management**
- **Custom Telco & Reseller Branding**
- **Service & Schedule Management**
- **Resource Management**
- **View/Export Call Records (CDRs)**

In-Network Call Queuing

The new Call Queue Manager (CQM) feature within N2FE provides a central orchestration agent enabling the OCNCC service logic to perform in-network queuing.

How it Works...

OCNCC service logic contacts CQM to request queue placement. CQM returns with either a currently-free destination address, or a "please wait" queue ticket.

The OCNCC SLC bounces the call to the IVR for e.g. 30 seconds during this wait time, then returns at the end of the announcement to re-check for a free slot.

Call Queue Management Features	
Queue Structure	**Assignment Logic**
\<Single-Destination\>	\<First-Free\>
\<Multi-Destination\>	\<Quota-Based\>
\<Time-Based Quota\>	\<VIP Queue-Jump\>
\<Call-Count Quota\>	\<Reject Overflow\>

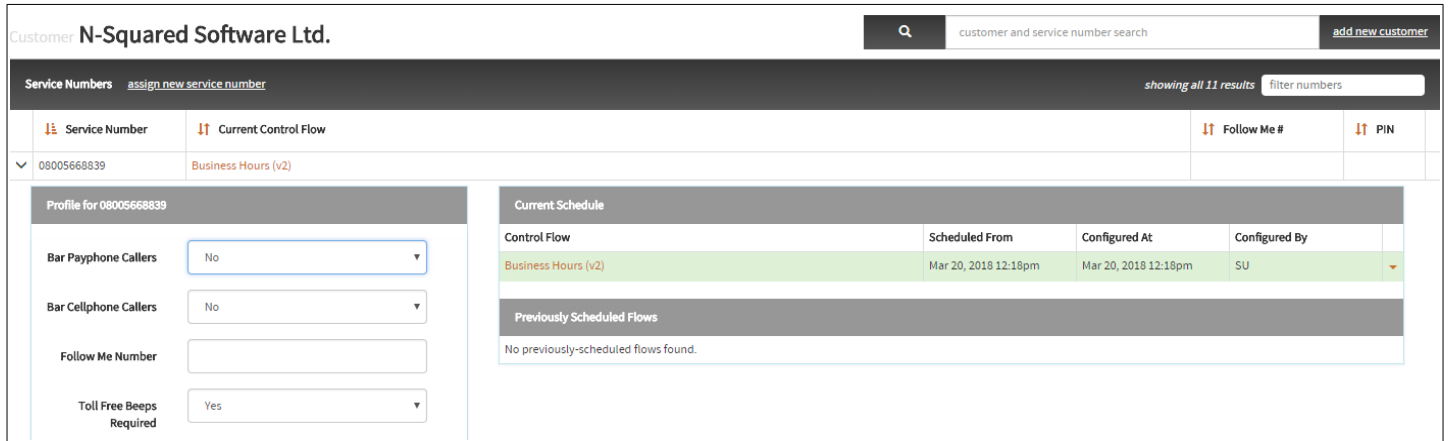1   N2FE is independent software and is not licensed or authorised by Oracle.

Enhanced Tele-Voting

The N2FE Tele-Voting feature improves the simple OCNCC "anonymous vote counters" with a tracked-voting system offering several key enhancements:

- Ability to Audit historical voting results.
- User Screen for the real-time display of vote counts.
- Ability to set a threshold on the number of votes permitted by any individual MSISDN/CLI.

All-In-One Self-Management

The N2FE screens provide access to all OCNCC Toll-Free Customer and Number Management features.

Infrastructure Notes

The N2FE UI uses a modern Model/View/Controller architecture. Security and data validation is performed on the server. Transport is HTTP/S and Ajax.

This allows for intermediate SSL authentication, and permits proxy/frame embedding for portal integration.
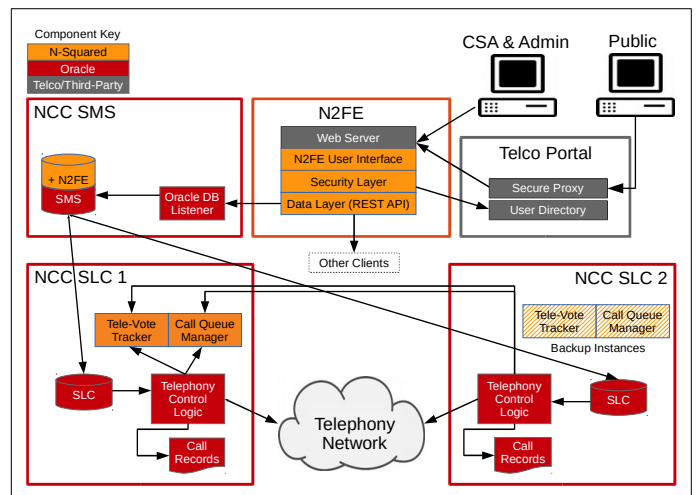
N2FE does not require Java JRE, JDK, Flash, or Citrix.

The service runs on most modern Linux distributions, on physical server, VM, or co-located on the OCNCC SMS.

Note that N2FE provides only CSA and Service-Owner access for Toll-Free, Premium Rate, UAN and Tele-Vote services. The standard OCNCC interface is still required to perform back-end administration functions.

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.

Web: http://www.nsquaredsoftware.com/

Email: info@nsquaredsoftware.com