NGN
Service PF solutions and applications

Kaoru Kenyoshi,
Chief Manager
NEC corporation
### Advanced NGN/IMS solutions

<table>
<thead>
<tr>
<th>Advanced solutions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XaaS</strong> (X as a Service)</td>
<td>Service Provider can launch a variety of applications rapidly on a common platform.</td>
</tr>
<tr>
<td><strong>DM</strong> (Device Management)</td>
<td>Device Management Solution realizes various services by using enablers on DM Core Engine (NC7000-DM:Server/Client)</td>
</tr>
</tbody>
</table>

XaaS is a coined word which is the general name of SaaS/PaaS/CaaS. NC7000: NEC’s SDP (service delivery platform) solution
XaaS solutions

Expand NW Business on NEC’s XaaS Solution

SynerboSpace

SaaS Software as a Service

Synerbo = Synergy + Collaboration

CaaS Communication as a Service

UC Centrex

PaaS Platform as a Service

VPCC

Colombo, Sri Lanka, 7-10 April 2009
Overview of SaaS

- **Cost Reduction**
  CAPEX/OPEX is greatly reduced due to subscription based payment, with no upfront fee

- **Flexible Use**
  On-demand use, stop anytime, number of users and its period can be changed easily

---

**Example of Application**
- Voice: Unified Communication
- Movie: Web Conference, TV Conference
- IT: CRM, Sales Assistance, Groupware

SaaS: Software as a Service
ISV: Independent Software Vendor
Aggregation type of SaaS

Aggregation type enables service providers to meet wide ranges of market requirements of applications as well as to reduce cost by providing number of applications on the same platform (SaaS-PF).

Legacy boutique type of SaaS (e.g. salesforce.com)

Aggregation type of SaaS (New business model)

Payments and contracts need to be arranged respectively thus makes it complex for end users.

Difficult & complex!

Payment and contract are simple through single contact point for varieties of applications.

Easy & simple!
Overview of CaaS (UC Centrex)

UC Centrex provides various PBX functions through network and provides API to collaborate with other service.

- **Open API**
  - Offer various applications on top of API of UC Centrex.

- **Multi-tenant**
  - Share resources with multi-tenant function and efficient use of UC Centrex Platform.

- **Anywhere**
  - Apply to Fixed/Mobile Network by using SIP.

- **SME**
  - IP Phone and existing PBX
Use case of CaaS (1/3): Business Continuity

Provide long-tail application (killer 10) in addition to legacy IP-PBX function
Killer 10: UC services based on the needs of major companies from Fortune 500 in the USA

Killer 10 service example: Business Continuity

- Collect worker's safety information and report to the headquarters.
- Initiate safety inquiry calls to each worker, which calls are triggered by a disaster.
- Report their safety information according to the audio guidance.
- Report to headquarters

Long-tail Applications

[List of Killer 10 service]
- Voice Drop
- Outbound Dialer
- Click to Call
- Broadcast
- Two Factor Authentication
- Incident Management
- Dynamic Conferencing
- Business Continuity
- Voice Recording
- Social Networking (SNS)
Use Case of CaaS (2/3): User friendly personalization tool for sales persons

A sales person is able to configure wide range of services (e.g. follow-me service) from WEB browser according to his/her own needs.

Advantage of End-Users
- Easy web-based Centrex Service Personalization
- Follow-me feature allowing work efficiency

Advantage of network carriers
- Differentiation by providing User-Friendly Personalization tools
Use Case of CaaS (3/3): Communication enhancement of helplines

- Web UC service provides various UC services such as voice, text, document sharing and file delivery.
- All UC service is provided via a web browser and a normal phone (fixed, mobile), so no additional software is required for the client PC.
Overview of PaaS (VPCC: Virtual PC Center)

VPCC provides the secured environment by saving all data on the PC Center not on local PC disc.

- Easy to carry with small size
- Easy to deploy by SME
- Eliminate the risk of information leakage
Overview of DM (Device Management)

Just as self-explained, DM studies and solves the problem of “how to manage various devices effectively and conveniently with relatively low costs”

Features of device management

- Device information is remotely collected.
- Update software is remotely delivered to each devices and it realizes long life cycle for devices.
- Device functions such as lock and restriction are remotely controlled.
- Customer information on a device is remotely operated for backup, customize, etc.
Use case of DM (1/3): Blind Zone Detection

Blind Zone Detection solution fixes blind zone problem of network quality.

Detection

- DM collects blind zone data periodically.

BTS: Base Transceiver Station

Radio signal

BTS

Blind Zone Detection

Analysis

NW Quality Enhancement

Order

- Order equipment (e.g. BTS) or adjust radio signal.

Direction/Level adjustment of radio signal

Operator

NW equipment delivery

Colombo, Sri Lanka, 7-10 April 2009
Device Security Control solution fixes security problem of mobile devices for enterprise user.

Use case of DM (2/3): Device Security Control

Carrier

Enterprise administrator of A corporation

Policy Application
- Lock Camera/Music

Mobile Phone of A corporation
Use case of DM (3/3): Event Collection

Event collection solution enables carrier to know device events (e.g. played game name, watched Mobile TV program and view time) and carrier uses device events as marketing data.
Conclusion

- NEC provides Advanced NGN/IMS solutions as commercial services to mobile and fixed network service providers in Japan.
- NEC’s NGN/IMS products are compliant to the ITU-T/3GPP/TISPAN standards and support standardized interfaces to assure the NGN interoperability.
- NEC’s IMS and SDP solution provides Advanced NGN/IMS services such as XaaS and DM on NGN. Some of them have already been launched in Japan.
Acronyms

- CaaS  Communication as a Service
- CAPEX  Capital expenditure
- DM  Device Management
- DMC  Device Management Client
- DMS  Device Management Server
- ERP  Enterprise Resource Planning
- ISV  Independent Software Vendor
- OPEX  Operation expenditure
- PaaS  Platform as a Service
- SaaS  Software as a Service
- SFA  Sales Force Automation
- SME  Small and Medium-sized Enterprise
- UC  Unified Communication
- VPCC  Virtual PC Center
- XaaS  X as a Service
Empowered by Innovation

NEC