

Wireless Edition
Oracle9i
APPLICATION SERVER

최적의 무선인터넷 환경을 위한
**Oracle Wireless Internet
Mobile Solution**

한국오라클(주)
Mobile Lab.
최 윤석

ORACLE®

오라클 모바일 솔루션 소개



국내 모바일 시장 동향

오라클 모바일 컴퓨팅 전략

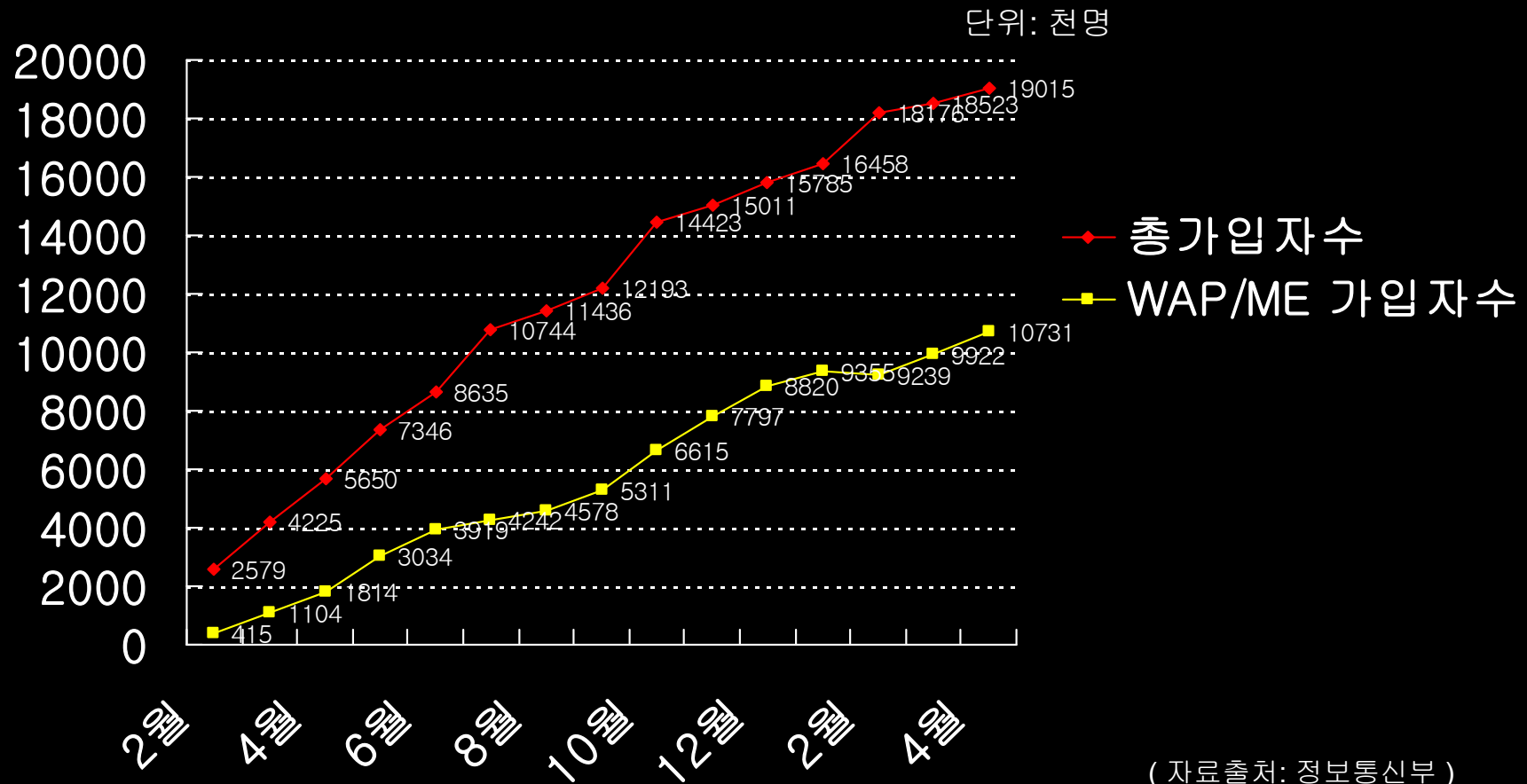
오라클 9iAS Wireless Edition 소개

국내외 reference

해외 협력업체

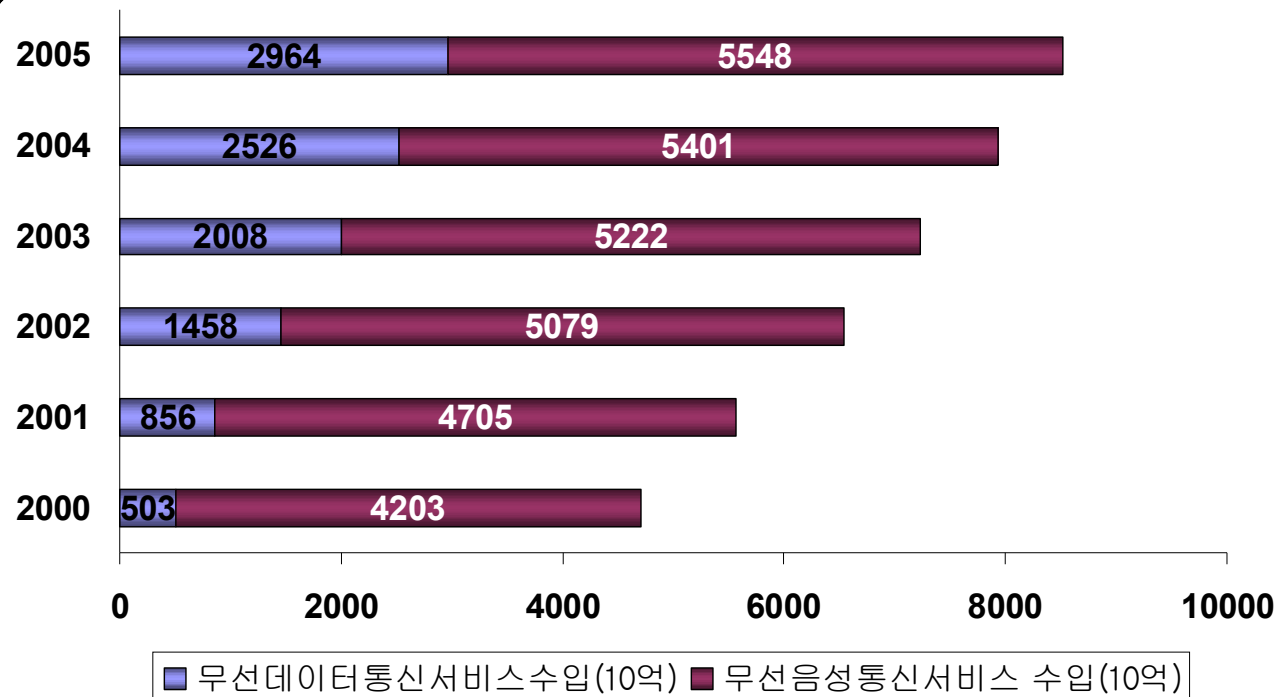
모바일 시장 동향

2000년 2월~2001년 4월 국내 무선인터넷 가입자 수



(자료출처: 정보통신부)

국내 무선 인터넷 발전 전망



	무선데이터	무선음성통신	총 무선통신
평균성장률 (%)	44.3	5.8	12.7

(자료 출처 : ETRI)

오라클 모바일 솔루션 소개



국내 모바일 시장 동향

오라클 모바일 컴퓨팅 전략

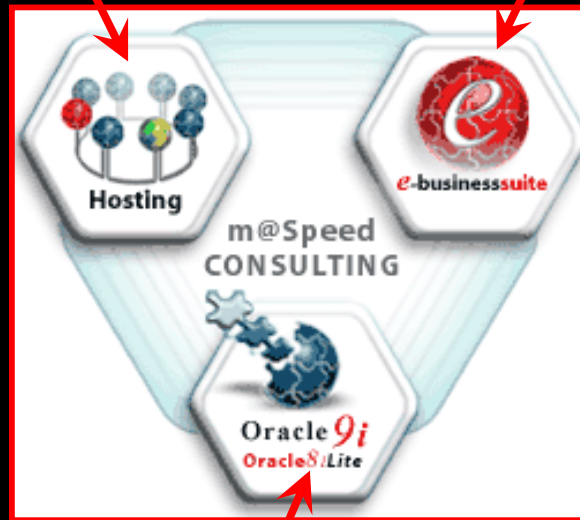
오라클 9iAS Wireless Edition 소개

국내외 reference

해외 협력업체

오라클 모바일 컴퓨팅 전략

무선 어플리케이션
호스팅 서비스
OracleMobile.com



Oracle **e** - business
suite의 무선화
Oracle salesonline.com

무선 어플리케이션을
작성하고 서비스할 수 있는
Tool과 **Server**

OracleMobile.com Architecture

3rd Party Content Modules (Optional)



OracleMobile Modules (Optional)

PIM



Speech
Recognition



Standard Platform Features

Personalization
Engine

Links to Other
Services

Location
Awareness

OLAP/Data
Warehouse Tools

Oracle8i

OracleMobile Framework

iAS Wireless

오라클 모바일 솔루션 소개



국내 모바일 시장 동향

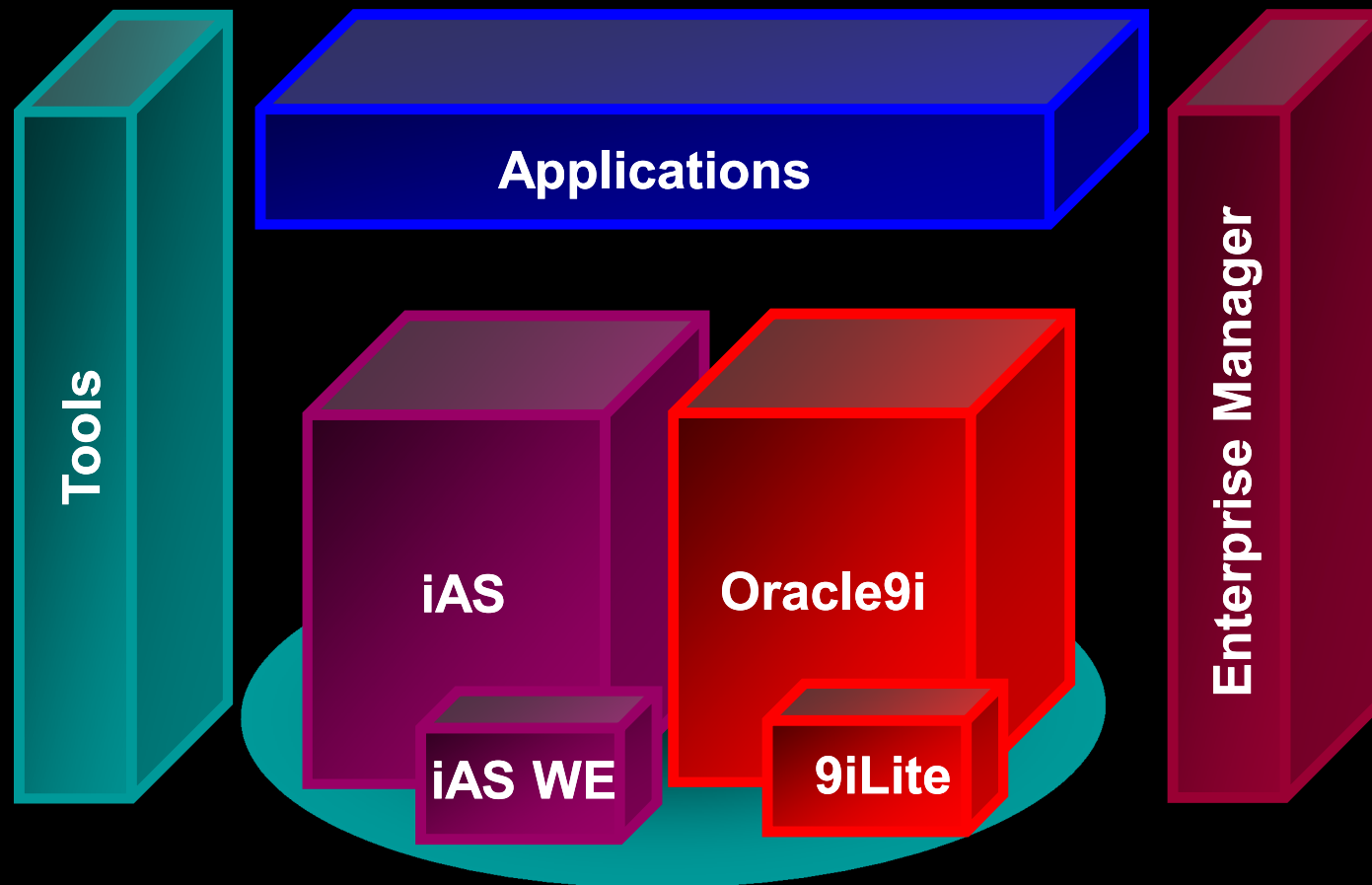
오라클 모바일 컴퓨팅 전략

오라클 9iAS Wireless Edition 소개

국내외 reference

해외 협력업체

Oracle Internet Platform

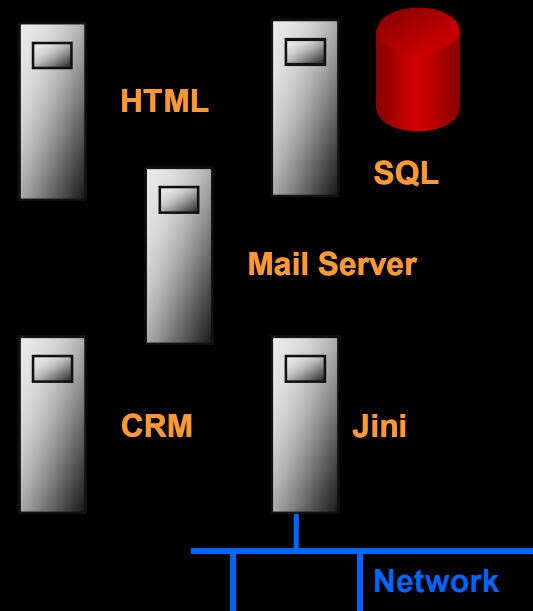


모바일 환경을 위한 Oracle Products

- Off-line Mobility – Oracle9i Lite
 - Oracle Lite 5.0: Win95/98/NT/2000, WinCE, PalmOS, EPOC 등 지원
 - iConnect
 - Net8
 - http
 - Consolidator
 - Web-to-Go: 클라이언트 단말기에 별도의 설치나 관리가 전혀 필요 없는 모바일 인터넷 컴퓨팅의 구현을 가능하게 하는 구성요소로, 웹 환경의 애플리케이션을 오프라인 상태에서도 사용 가능하도록 함.
- On-line Mobility – 9iAS WE
 - 네트워크 연결이 가능한 모든 장비, 즉 휴대폰, 스마트 폰, 각종 PDA, 노트북 등에서 기업의 DB 및 웹 애플리케이션을 통해 접근 가능한 정보를 실시간으로 조회 및 변경 가능

Many Information Sources

- Existing Web Sites
 - HTML
 - WML
 - HDML...
- Databases
- Mails Servers
- ERPs, CRMs,
- Home Appliances

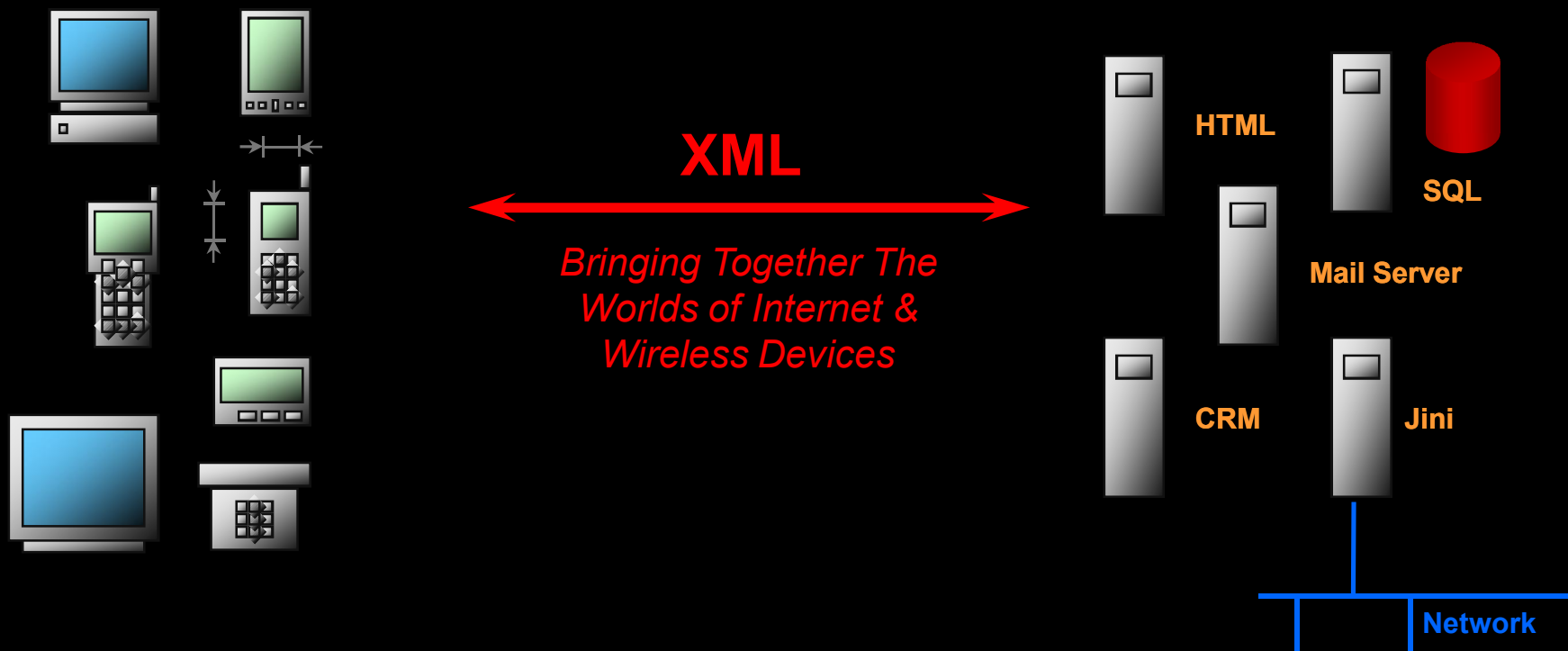


Many Devices

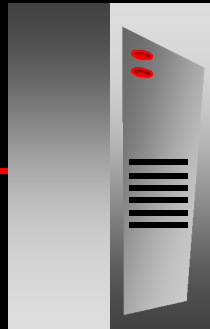


- Smartphones
 - HDML
 - WMLs...
 - Nokia 7110
 - Motorola P7389
 - CHTML
- Pagers
- Palms
- PC / HTML
- Regular phones

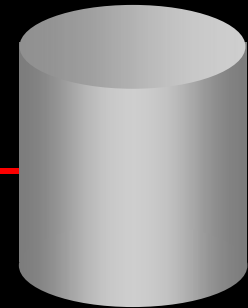
Wireless Edition Oracle⁹ⁱ APPLICATION SERVER



Oracle9iAS Wireless Edition



**Oracle9i AS
Wireless
Edition**



Any Device

- Nokia
- Motorola
- Ericsson
- Palm
- RIM Pagers
- Any Network
-

Any Browser

Any Gateway

- Nokia
- Motorola
- Ericsson
- Phone.com
- CMG
- Tantau
- Infinity
- ...

Any Markup

- HTML
- XML
- HDML
- WML
- TinyHTML
- TTML
- cHTML
- sHTML
- VoXML
- VoiceXML
-

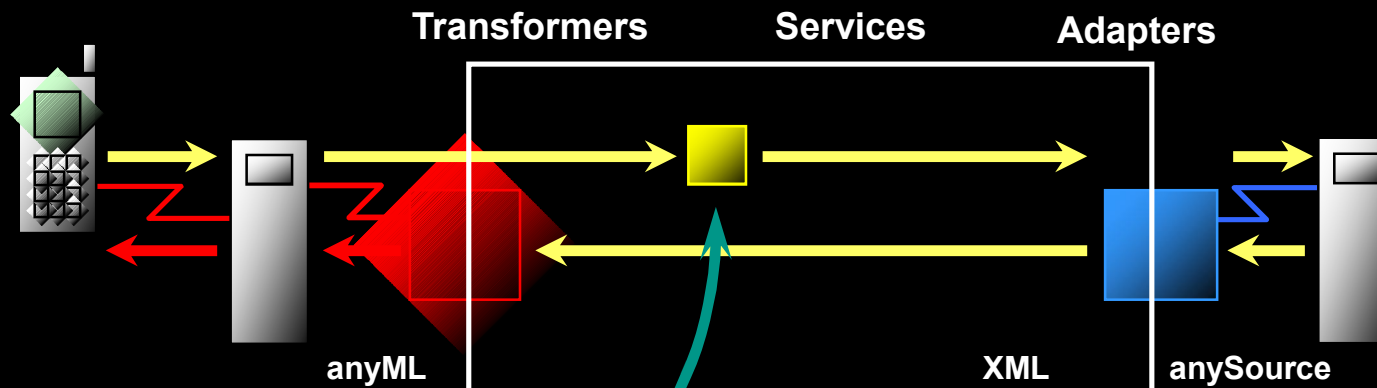
Personalized

- By User
- By Group
- By Device
- By Location
- By Language
- ...

Any Content

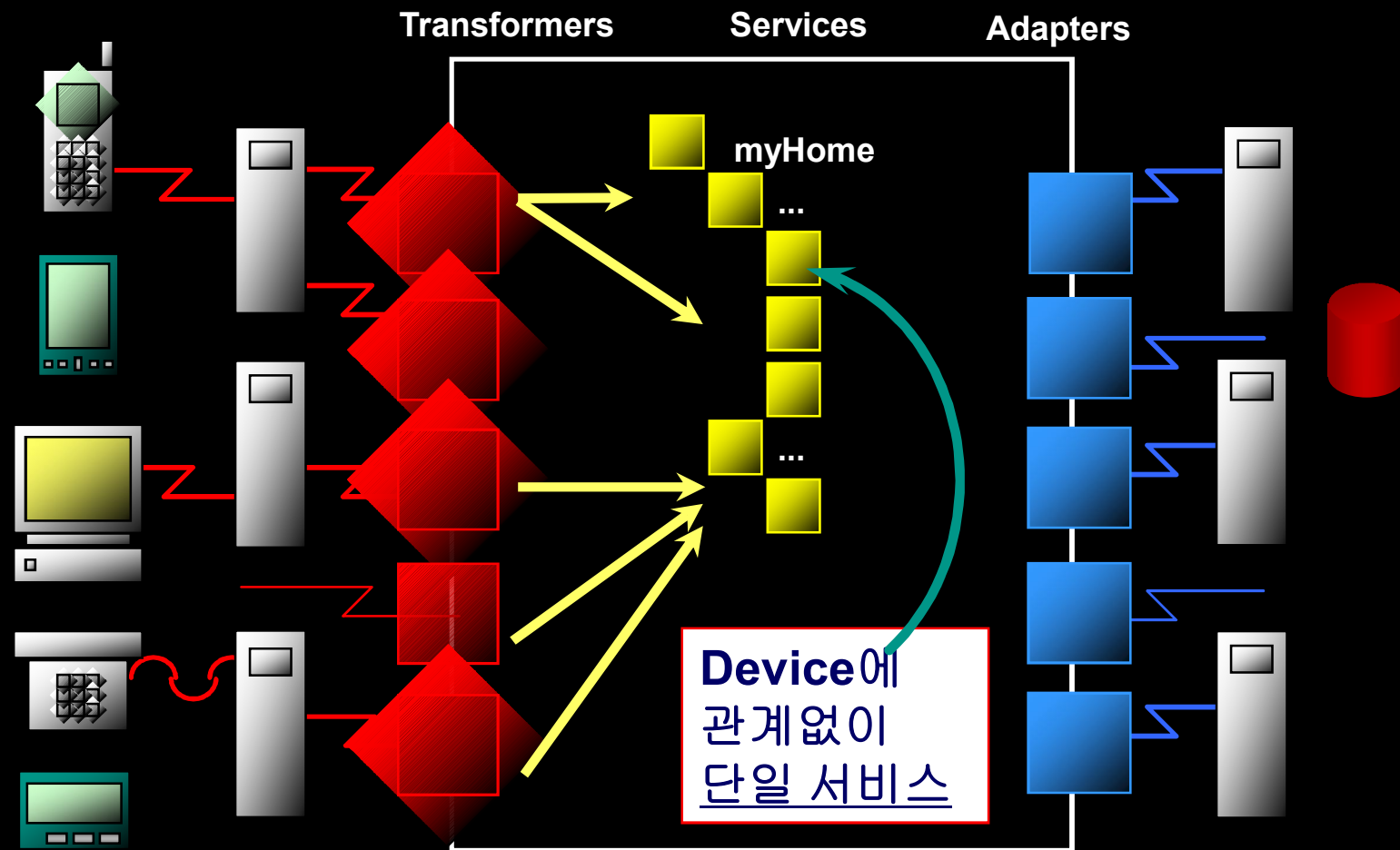
- Any Web Site
- Any HTML Page
- Any XML Page
- Any Database
- Any servlet
- Any JSP
- Any XSP
- Any e-mail
- ...

iAS WE 기본 개념

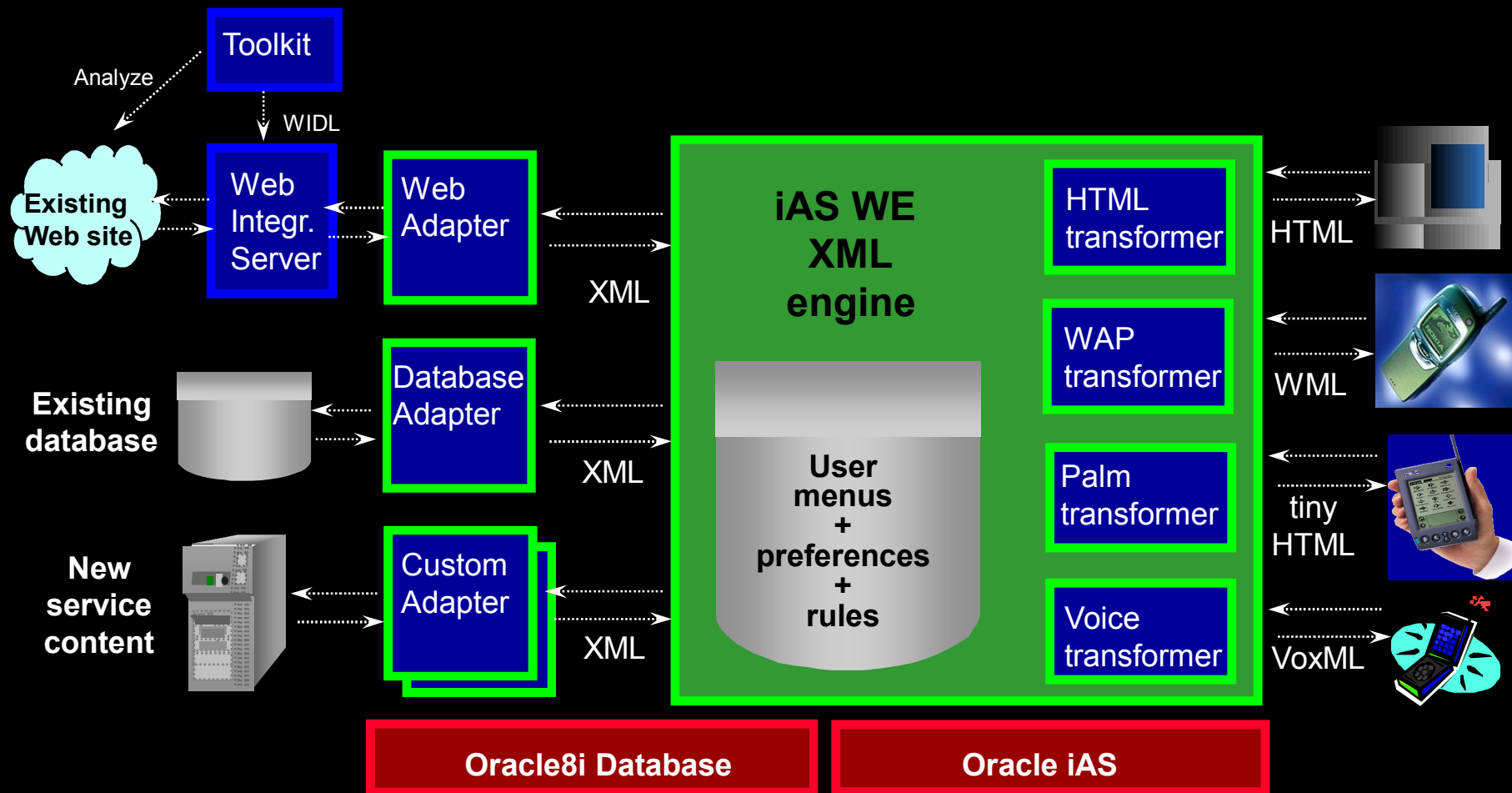


“**Services**”는 정보로부터 콘텐츠 소스와 그 표현 서식을 추상화

iAS WE 기본 개념

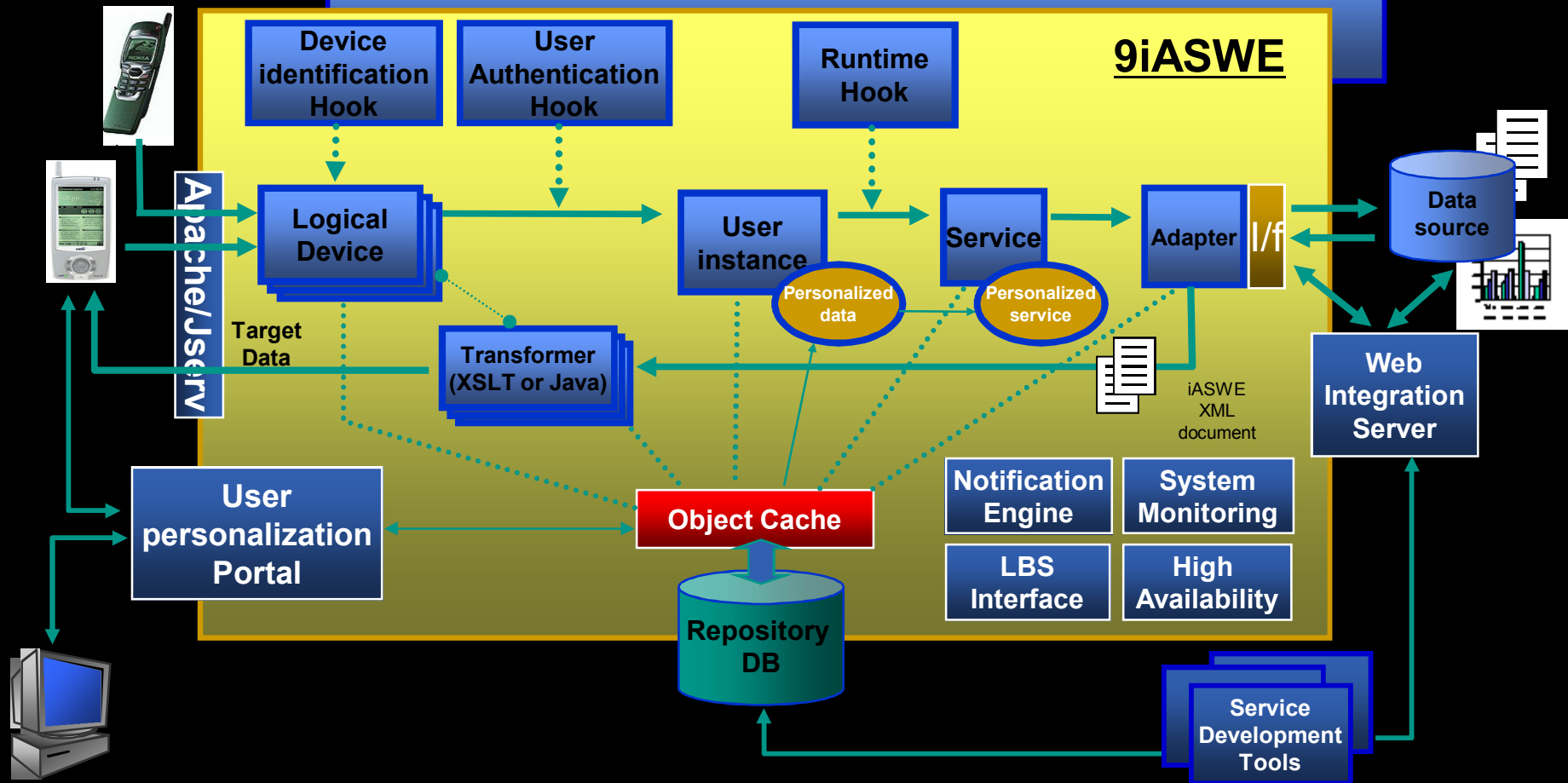


iAS WE Architecture



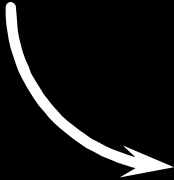
Overall architecture of 9iASWE

9i Application Server/ *e*-business **suites**



From SQL to XML

```
SELECT empno, ename FROM emp
```



```
<SimpleResult>
  <SimpleTable>
    <SimpleTableHeader>
      <SimpleCol>EMPNO</SimpleCol>
      <SimpleCol>ENAME</SimpleCol>
    </SimpleTableHeader>
    <SimpleTableBody>
      <SimpleRow>
        <SimpleCol>7369</SimpleCol>
        <SimpleCol>SMITH</SimpleCol>
      </SimpleRow>
    </SimpleTableBody>
  </SimpleTable>
</SimpleResult>
```

HTML stylesheet: XSL_{HTML}

```
<xsl:template match="SimpleTable">
  <table border="1" bgcolor="#FFFFFF"
        cellpadding="1" width="100%">
    <xsl:apply-templates/>
  </table>
</xsl:template>
<xsl:template match="SimpleTableHeader">
  <tr>
    <xsl:for-each select="./SimpleCol">
      <td><strong><xsl:value-of
        select="."/></strong></td>
    </xsl:for-each>
  </tr>
  ...

```

XSL processing:

$\text{XSL}_{\text{HTML}} + \text{XML} > \text{HTML}$

```
<xsl:template match="SimpleTable">
  <table border="1" bgcolor="#FFFFFF"
        cellpadding="1" width="100%">
    <xsl:apply-templates/>
  </table>
</xsl:template>
<xsl:template match="SimpleTableHeader">
  <tr>
    <xsl:for-each select="SimpleTableHeader/SimpleCol">
      <td><strong><xsl:value-of select="."/></strong></td>
    </xsl:for-each>
  </tr>
  ...
</xsl:template>
```

```
<table border="1" bgcolor="#FFFFFF"
        cellpadding="1" width="100%">
  <tr>
    <td><strong>EMPNO</strong></td>
    <td><strong>ENAME</strong></td>
  </tr>
  <tr>
    <td valign="top">7369</td>
    <td valign="top">SMITH</td>
  </tr>
</table>
```

```
<SimpleResult>
  <SimpleTable>
    <SimpleTableHeader>
      <SimpleCol>EMPNO</SimpleCol>
      <SimpleCol>ENAME</SimpleCol>
    </SimpleTableHeader>
    <SimpleTableBody>
      <SimpleTableRow>
        <SimpleTableCell>7369</SimpleTableCell>
        <SimpleTableCell>SMITH</SimpleTableCell>
      </SimpleTableRow>
    </SimpleTableBody>
  </SimpleTable>
</SimpleResult>
```

HTML result

EMPNO	ENAME
7369	SMITH
7499	ALLEN
7521	WARD

```
<table border="1" bgcolor="#FFFFFF"
      cellspacing="1" width="100%">
  <tr>
    <td><strong>EMPNO</strong></td>
    <td><strong>ENAME</strong></td>
  </tr>
  <tr>
    <td valign="top">7369</td>
    <td valign="top">SMITH</td>
  </tr>
```

XSL processing:

$XSL_{WML} + XML > WML$

```
...  
<xsl:template match="SimpleTable">  
  <table columns="2">  
    <xsl:apply-templates/>  
  </table>  
</xsl:template>  
<xsl:template  
  match="SimpleTableHeader">  
  <tr>  
    <xsl:for-each>  
      <td><xsl:value-of/>  
    </xsl:for-each>  
  </tr>  
</xsl:template>  
...
```

```
<template><do type="prev"  
  label="Back"><prev/></do></template>  
<card title=""><p>  
  <table columns="2">  
    <tr><td>EMPNO</td><td>ENAME</td></tr>  
    <tr><td>7369</td><td>SMITH</td></tr>  
  </table>  
</card>  
...
```

```
<SimpleResult>  
  <SimpleTable>  
    <SimpleTableHeader>  
      <SimpleCol>EMPNO</SimpleCol>  
      <SimpleCol>ENAME</SimpleCol>  
    </SimpleTableHeader>  
    <SimpleTableBody>  
      <SimpleRow>  
        <SimpleCol>7369</SimpleCol>  
        <SimpleCol>SMITH</SimpleCol>  
      </SimpleRow>  
    </SimpleTableBody>  
  </SimpleTable>  
</SimpleResult>
```

WML result

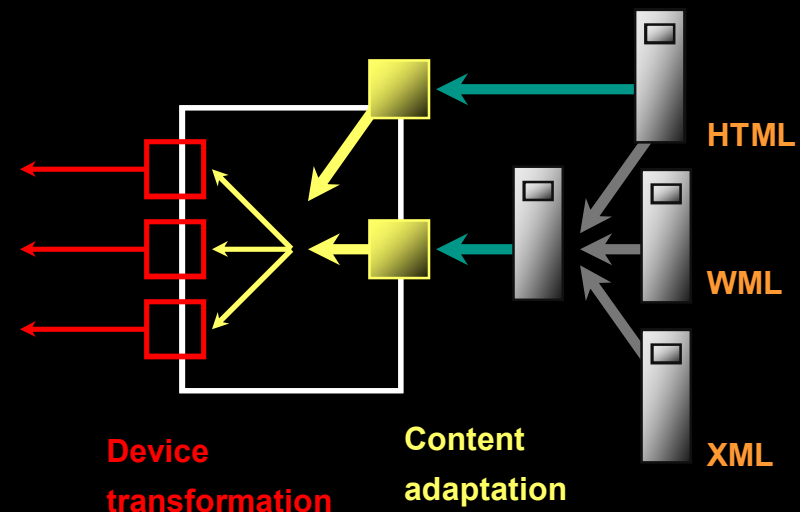
EMPNO	ENAME
7369	SMITH
7499	ALLEN
7521	WARD

OK

```
<template><do type="prev"
  label="Back"><prev/></do></template>
<card title=""><p>
  <table columns="2">
    <tr><td>EMPNO</td><td>ENAME</td></tr>
    <tr><td>7369</td><td>SMITH</td></tr>
    ...
  </table>
</card>
...
```

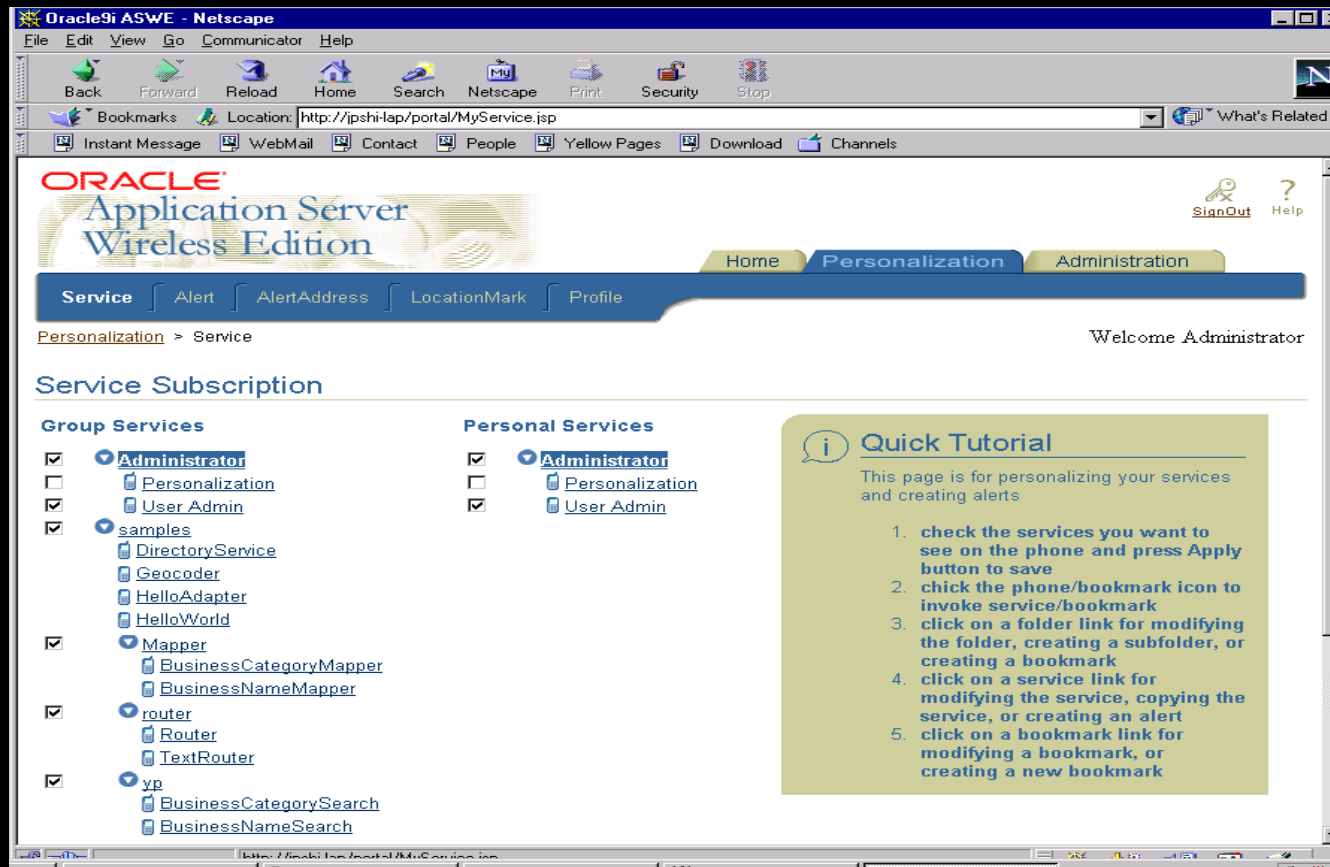

iAS Wireless Edition Adapters

- SQL Adapter
 - SQL, PL/SQL
- LDAP Adapter
 - Directory services
 - JNDI
- Mail Adapter
 - POP3 / IMAP4
 - read/send/delete/forward/reply
- URL Adapter
 - Supports parameterization, cookies
 - Integrate with Java, JSP, XML
- Servlet Adapter
 - Integrate servlets
 - Runs locally on 9iAS WE
- Spatial Adapters
- Custom Adapter
 - custom adapter APIs - Java, XML
- Provisioning Adapter

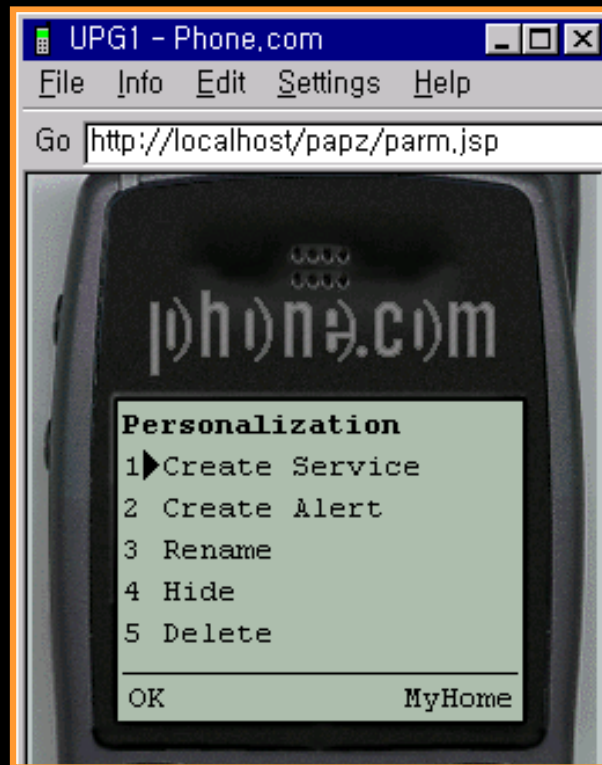


9iAS Wireless Edition

Personalization Portal 제공



모바일 단말기를 이용한 Personalization

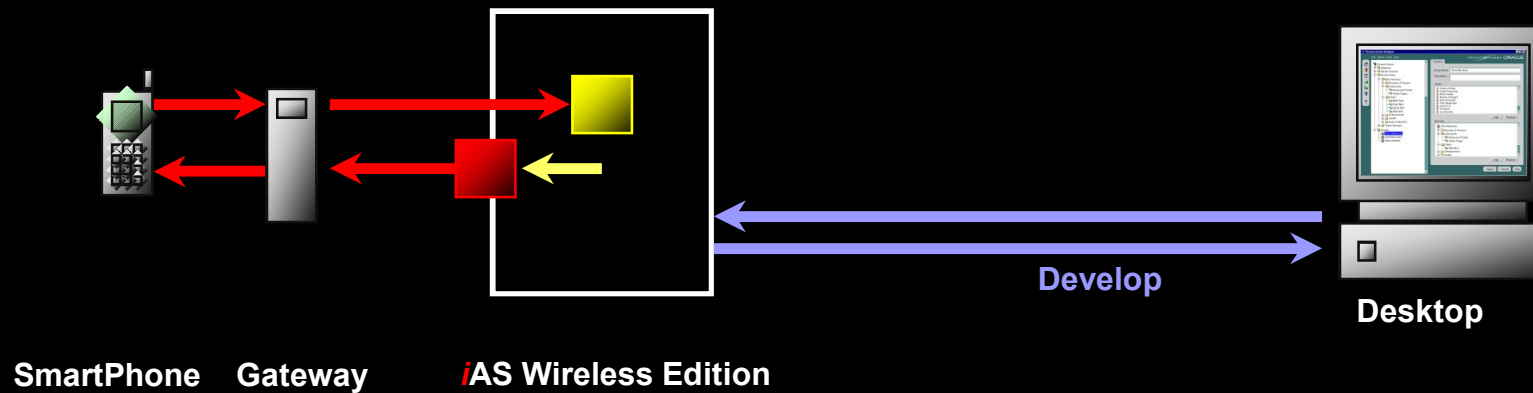
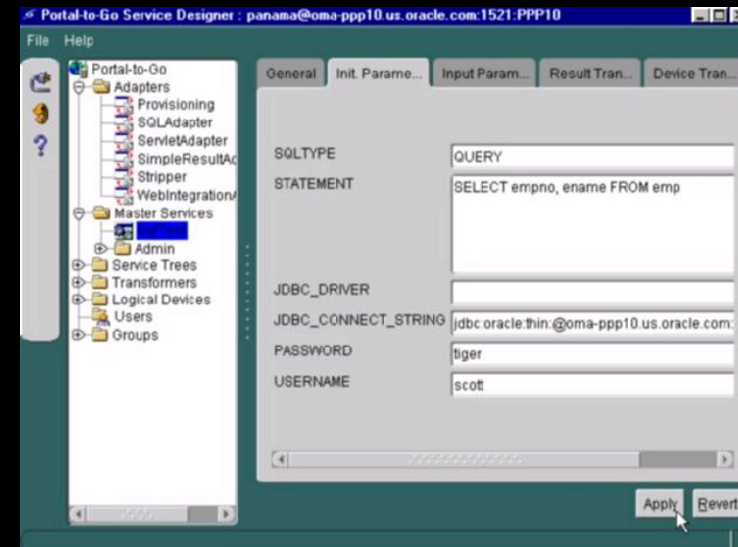


Papz Lite

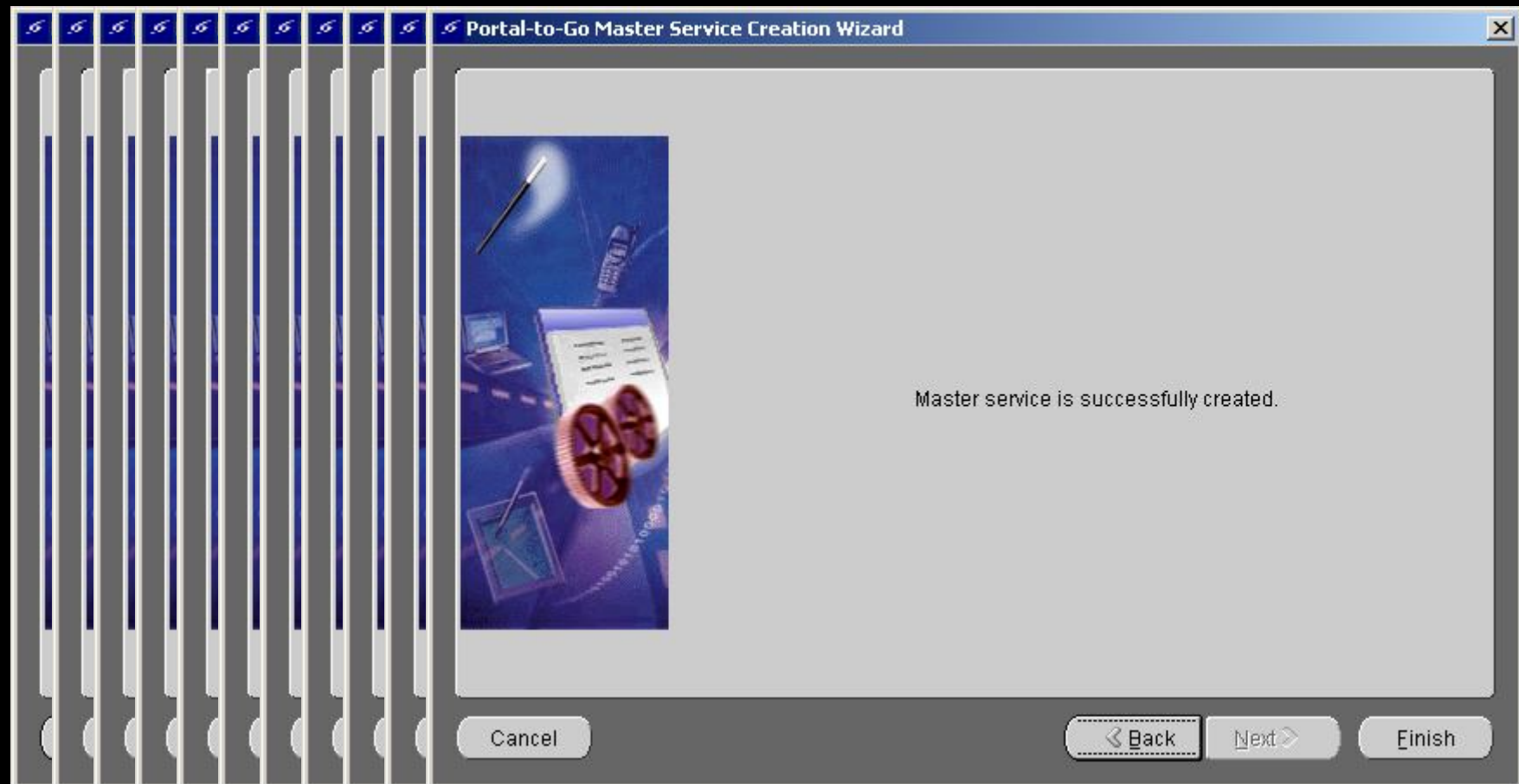
- 웹을 통한 기능과 동일
- 그룹/개인 소유 서비스
- 폴더
 - 생성/편집/삭제/재정렬
 - Show / Hide
- 서비스
 - 복사/값 저장 /이동 /편집 /삭제
 - Show / Hide
- Alert / Alert Address
- Location Mark
- Profile 편집

Service Designer

- PASD
 - 서비스 개발 및 관리기능 수행



Master Service Creation Wizard



Transformer Tester Tool

service 선택

Logical Device 선택

User Agent 적용

실행 !

Transformer Testing Tool

File

Service: Personalization [Browse]

Logical Device: Ericsson [Run]

User Agent: R380

Name	Caption	Comment	User Customi
Input Parameters ?			

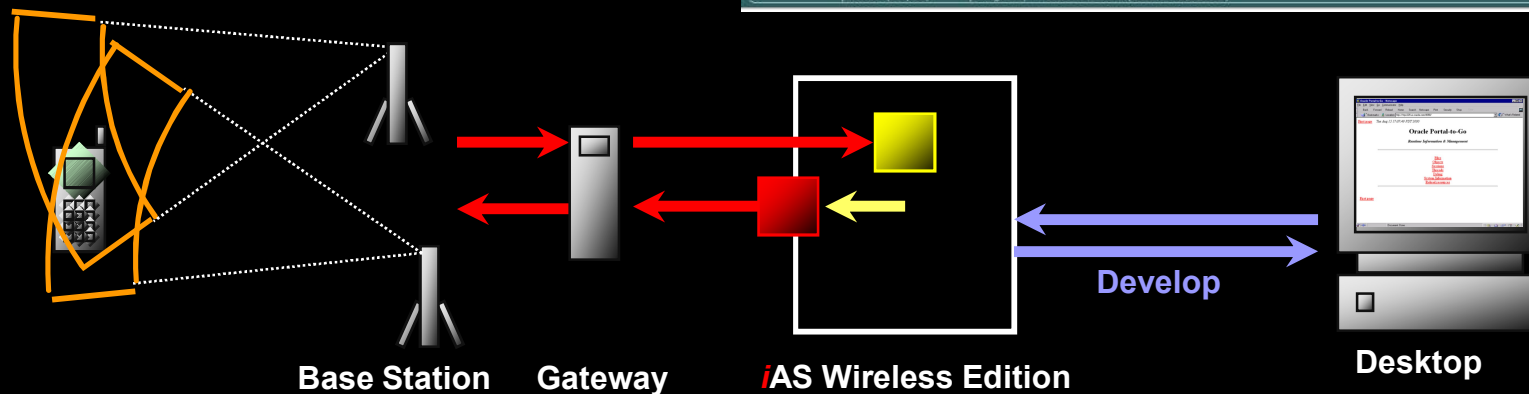
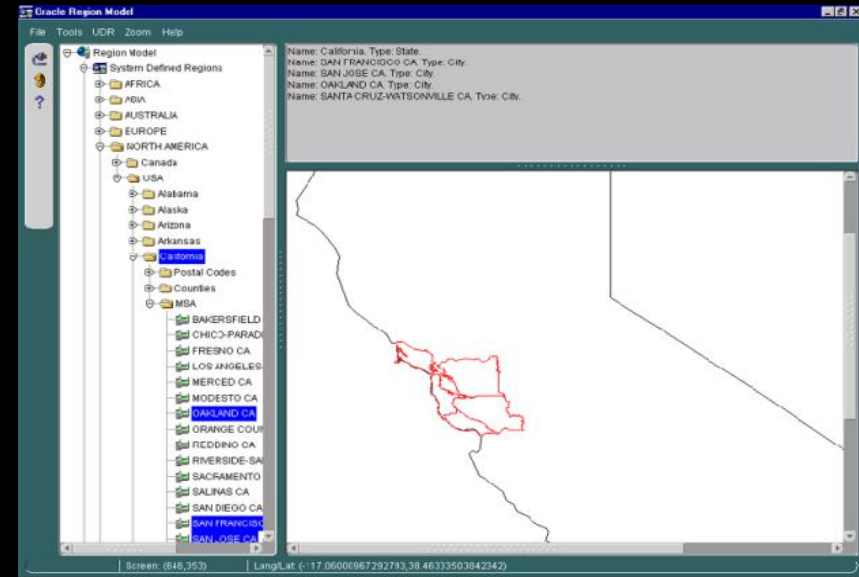
Add Delete Reset

Adapted Result ResultTransformer SimpleResult DeviceTransformer TargetResult

```
<?xml version = '1.0' encoding = 'UTF-8'?>
<SimpleResult>
  <SimpleContainer name="papzm">
    <SimpleText>
      <SimpleTextItem name="">Edit</SimpleTextItem>
    </SimpleText>
    <SimpleMenu name="" title="">
      <SimpleMenuItem
target="/ptg/rm?PAid=EvXxc&#38;Packey=0!&#38;JServSessionIdroot=ldd7jcosv4">[. ]Home</SimpleMenuItem>
      <SimpleMenuItem
target="/ptg/rm?PAid=EvXxc&#38;Packey=1!&#38;JServSessionIdroot=ldd7jcosv4">Personalization</SimpleMenuI
tem>
      <SimpleMenuItem
target="/ptg/rm?PAid=EvXxc&#38;Packey=2!&#38;JServSessionIdroot=ldd7jcosv4">[SQL
Services]</SimpleMenuItem>
      <SimpleMenuItem
```

LBS / Service Designer

- 지리정보에 근간한
이용가능 서비스를
Region Modeling
Tool을 이용하여 설정



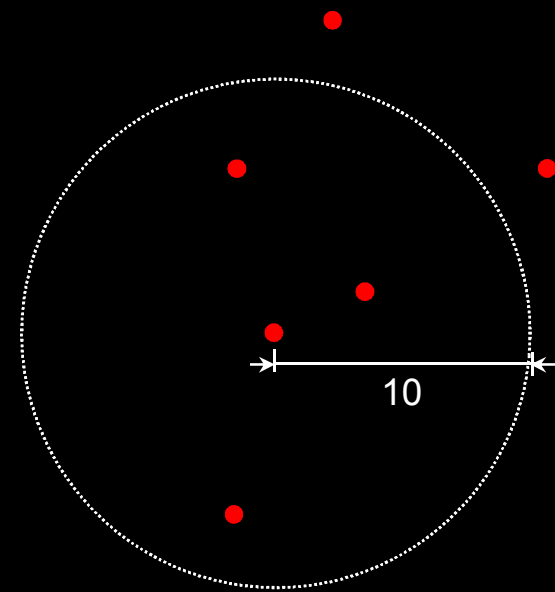
LBS를 위한 주요 구성요소

- Oracle Spatial database
- Region Modeling Tool
- Geo-coding Adapter
- Routing Adapter
- Yellow Page Adapter

Oracle Spatial Database

- 지리 정보 시스템의 기초
 - function과 procedure의 통합 세트
- 공간 데이터의 다양한 처리 가능
 - 저장, 검색, 분석
 - 점, 선, 다각형, 원, 원호, 혼합
- 이용 예:
 - “...를 위한 근접 지역 검색”

```
SELECT A.GID FROM POLYGONS A
WHERE SDO_WITHIN_DISTANCE
(A.Geometry,:aGeom,'distance=10')='TRUE';
```



LocationMark

The screenshot shows a Netscape browser window titled "Oracle9i ASWE - Netscape". The address bar displays "http://jpshi-lap/portal/MyLandmark.jsp?". The page header includes the Oracle logo and "Application Server Wireless Edition". Navigation tabs include "Home", "Personalization", and "Administration". A sub-navigation bar shows "Service", "Alert", "AlertAddress", "LocationMark", and "Profile". The "LocationMark" tab is active, and the page content is titled "LocationMark List".

For Selected LocationMark

Select	LocationMark Name	LocationMark Description	Default
☒	MyHome		true
☐	MyOffice		false

Create

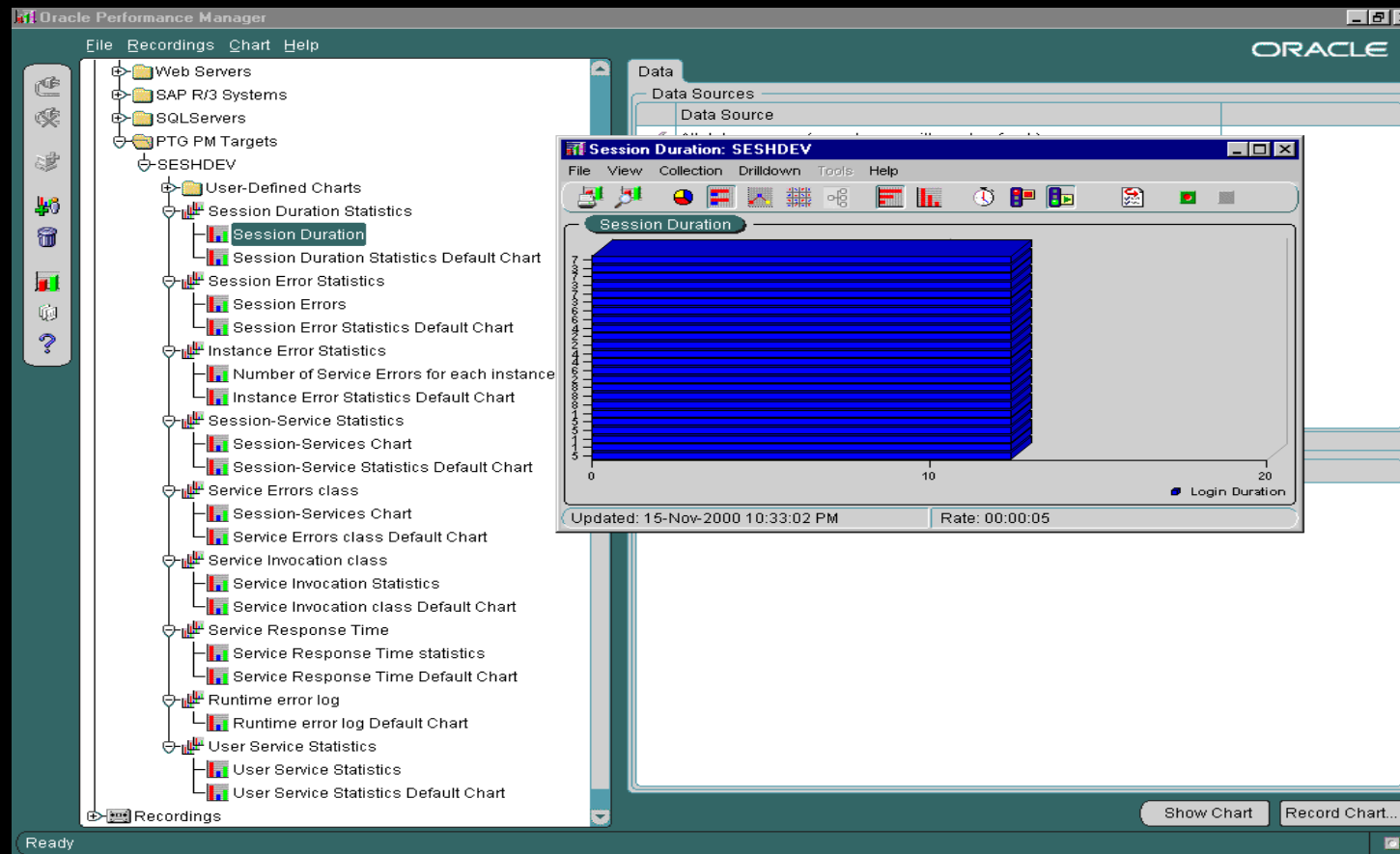
Quick Tutorial
This page is for personalizing your location marks

1. click on Create button to create a location mark
2. select an location mark and press Edit button to update the information
3. select an location mark and press Delete button to remove the location mark
4. select an location mark and press SetDefault button to set the default location mark

Oracle Enterprise Manager와 통합

- Performance Monitoring
 - session duration, session error, instance error, service, service error, service invocation, service response, runtime error, user 등 다양한 항목 확인 가능
- Fault Management
 - PTG Server Error 감지 및 통보
 - 일정수준의 Performance 한계치 감시
- Configuration Management
 - connection pool 관리, debug on/off
- OEM 2.2에서 사용가능

Performance Monitoring



Fault Management

The screenshot displays the Oracle Enterprise Manager Console Administrator interface. The title bar indicates the connection to 'SYSMAN Management Server:sevenkat-sun.us.oracle.com'. The interface is divided into several sections:

- Navigator:** A tree view on the left showing the hierarchy of components. Under 'Network', the following items are listed: Databases, Groups, Listeners, Nodes, Portal-to-go, PTG1 (with sub-items: Connection Pool, Dispatcher Pool, Requestor Pool, Runtime Trace), PTG2, Web Servers, and Developer Servers.
- Group:** A dropdown menu showing 'SYSDBA'.
- Jobs:** A section with 'Active' and 'History' tabs. The 'Active' tab is currently selected, showing a table with columns 'Name' and 'Destination'.
- Events:** A section with 'Alerts', 'Registered', and 'History' tabs. The 'Registered' tab is selected, displaying a table of registered events.

The 'Events' table contains the following data:

Severity	Event	Target	Target Type	Date/
	unsol_evt1	agenttest	Database	30-O
	unsol_evt3	agenttest	Database	30-O
	newNodeEvent	dlsun1795.us.oracle.com	Node	07-N
	mynodeevent	sevenkat-sun	Node	08-N
	newNodeEvent	sevenkat-sun	Node	08-N
	Nov10Event	sevenkat-pc.us.oracle.com	Node	10-N
	try threshold	sevenkat-pc.us.oracle.com	Node	15-N

Configuration Management

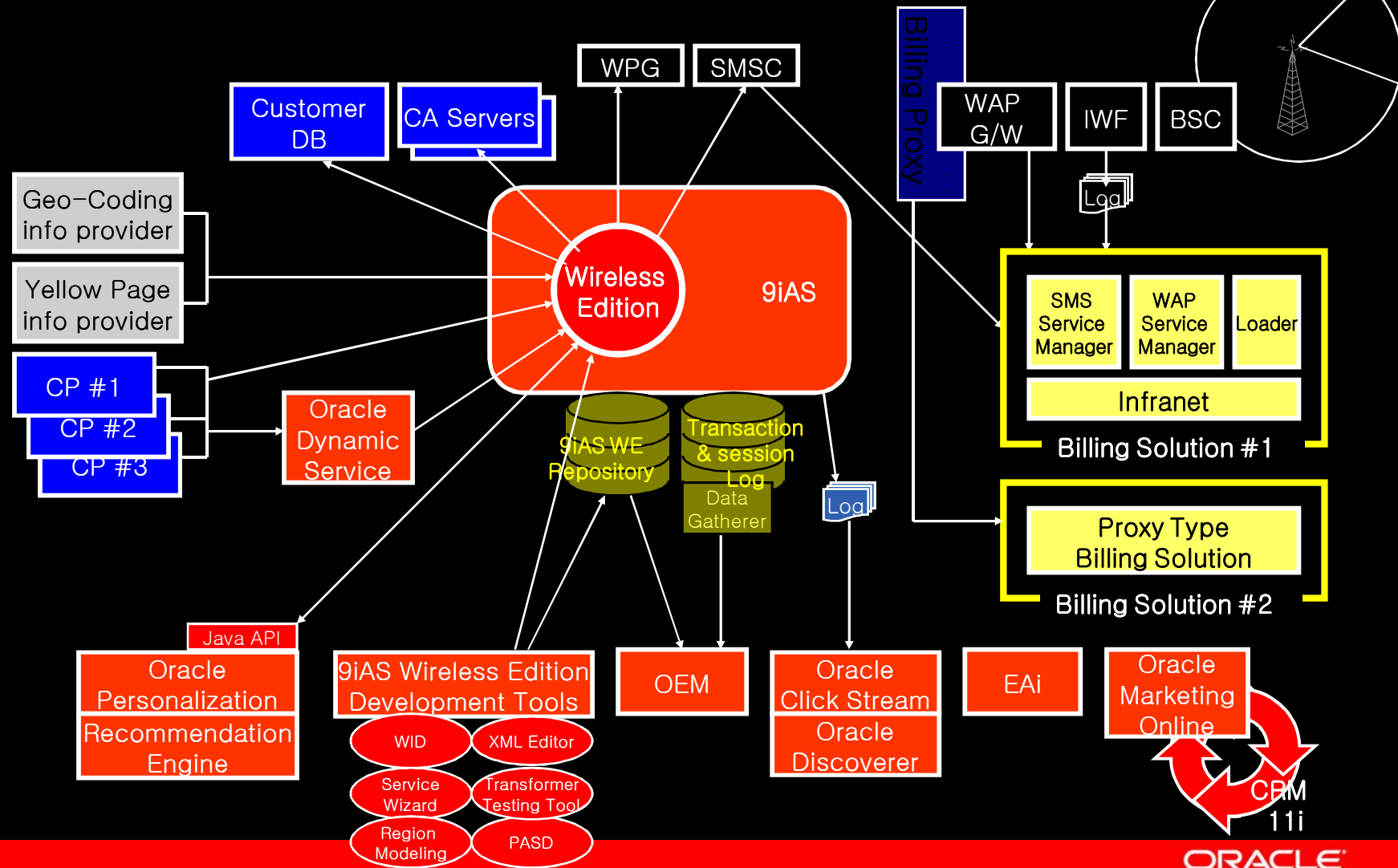
The screenshot displays the Oracle Enterprise Manager Console interface. The title bar indicates the user is the SYSMAN Management Server. The main window is divided into several sections:

- Navigator:** A tree view on the left showing the database hierarchy. The 'Dispatcher Pool' is selected under the 'PTG1' node.
- Increment Pool Size Dialog:** A small dialog box is open, showing 'Increment By: 5' and a 'Submit' button.
- Jobs:** A table at the bottom left with columns: Name, Destination, Destination Type, and Owner.
- Events:** A table at the bottom right with columns: Severity, Event, and Target.

The 'Events' table contains the following data:

Severity	Event	Target
	unso_evt1	agenttest
	unso_evt3	agenttest
	newNodeEvent	disun1795.us.or
	mynodeevent	sevenkat-sun
	newNodeEvent	sevenkat-sun
	Nov10Event	sevenkat-pc.us.c
	try threshold	sevenkat-sun

System Architecture using iASWE



오라클 모바일 솔루션 소개



국내 모바일 시장 동향

오라클 모바일 컴퓨팅 전략

오라클 9iAS Wireless Edition 소개

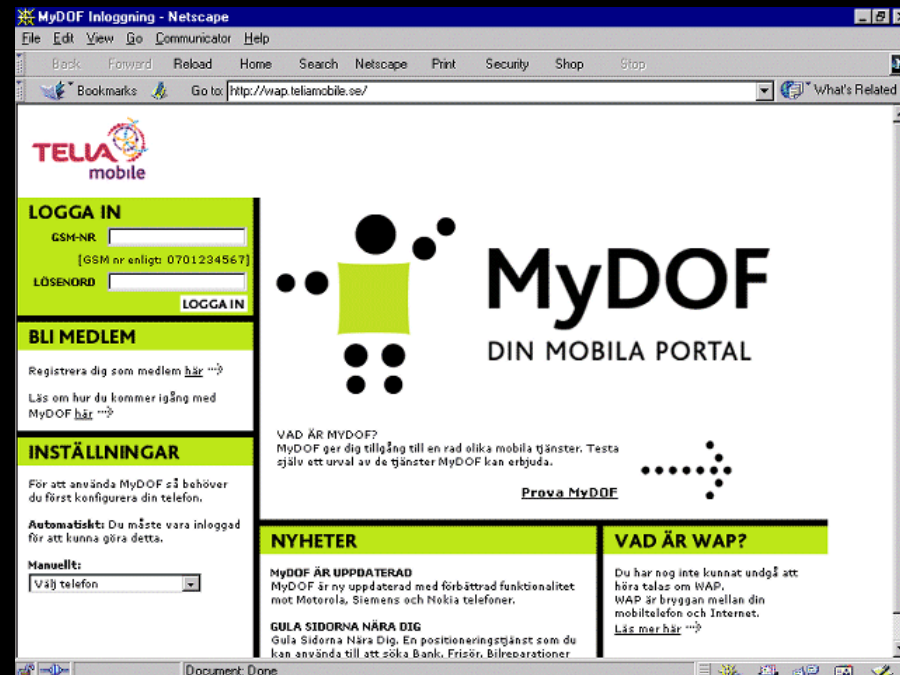
국내외 reference

해외 협력업체

References: Telcos

- TELIA MOBILE
 - SWEDEN
 - Telecom company

- www.telia.se



References: Telcos

- VIZZAVI

- FRANCE
- Telecom company
- Vodafone / Vivendi
- Started June, 2000
- 1 Million users by the end of the year
- 200 services

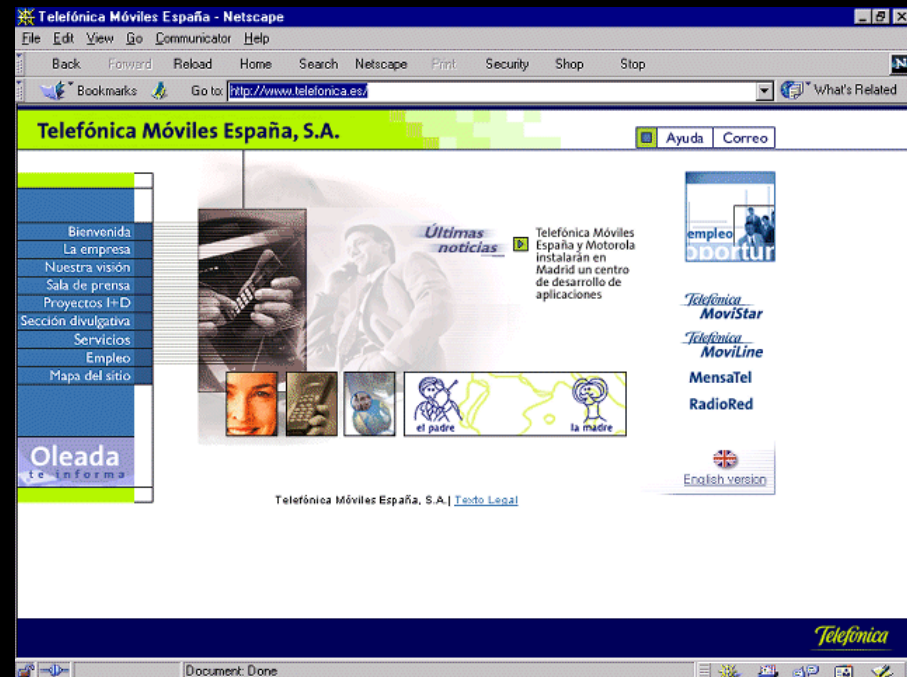
- www.vizzavi.fr



References: Telcos

- TELEFÓNICA MÓVILES
 - SPAIN
 - Telecom company

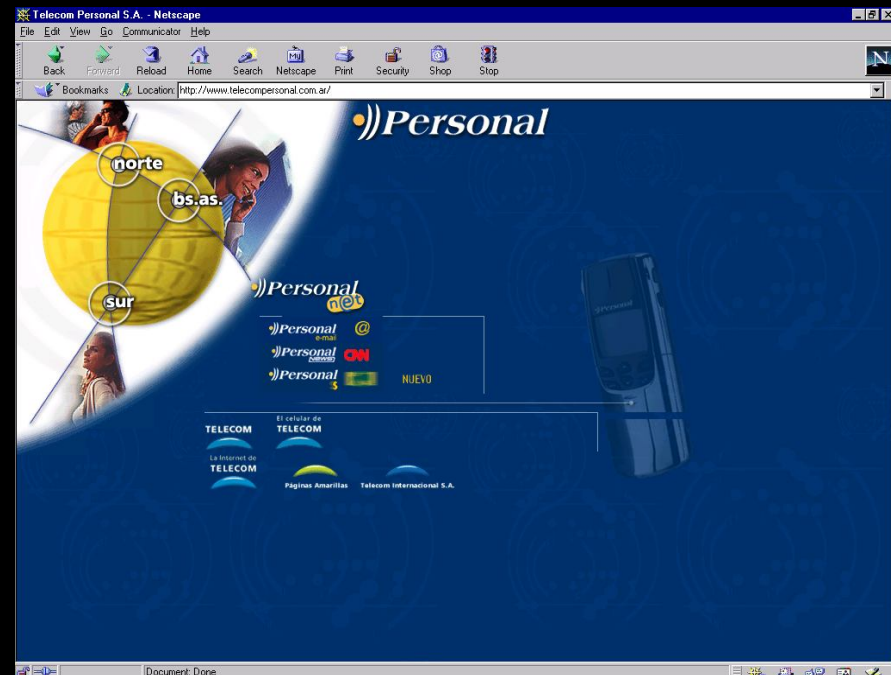
- www.telefonica.es



References: Telcos

- TELECOM PERSONAL
 - Argentina
 - Telecom company

- www.telecompersonal.com.ar



References: Services

- GO AMERICA
 - USA
 - Online services
- www.goamerica.net



References: Services

- iBAZAR
- www.ibazar.fr

- FRANCE
- On-line auctions

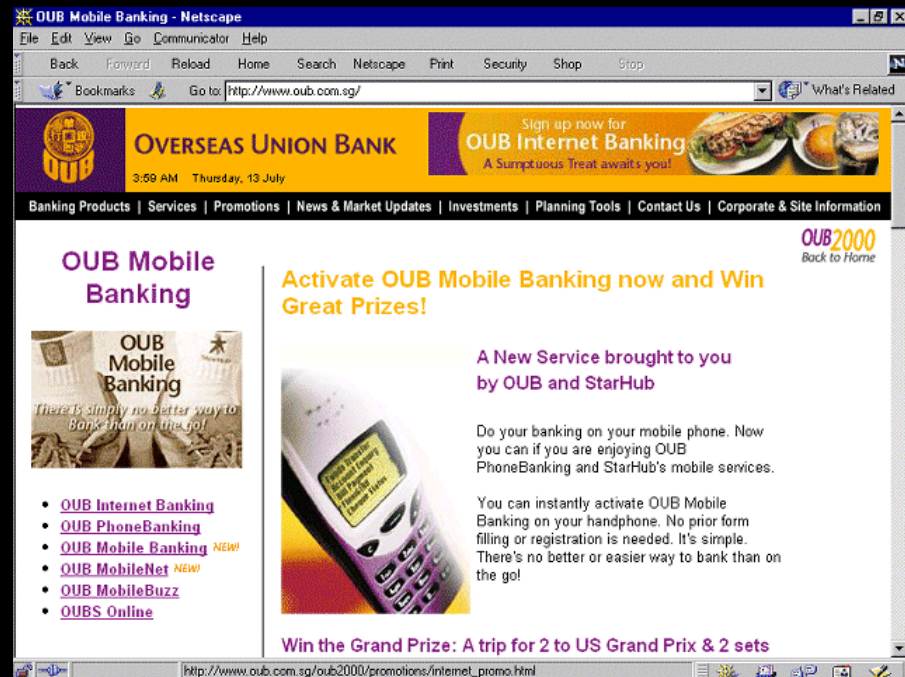


References: Banks

- OVERSEAS
UNION BANK
– SINGAPORE

www.oub.com.sg

- www.oub.com.sg



References: Dot coms

- DRUG EMPORIUM
 - USA
 - Dot Com company
- www.drugemporium.com



References: Portals

- LYCOS ASIA
 - SINGAPORE
 - Web portal
 - First major portal in Asia to bring the Internet on mobile phones.

- www.lycosasia.com.sg



References: Public portals

- HALEBOP

- SWEDEN
- Public Portal

- www.halebop.com



References: Public portals

- ORACLEMOBILE.COM

- USA
- Public portal

- www.oramobile.com

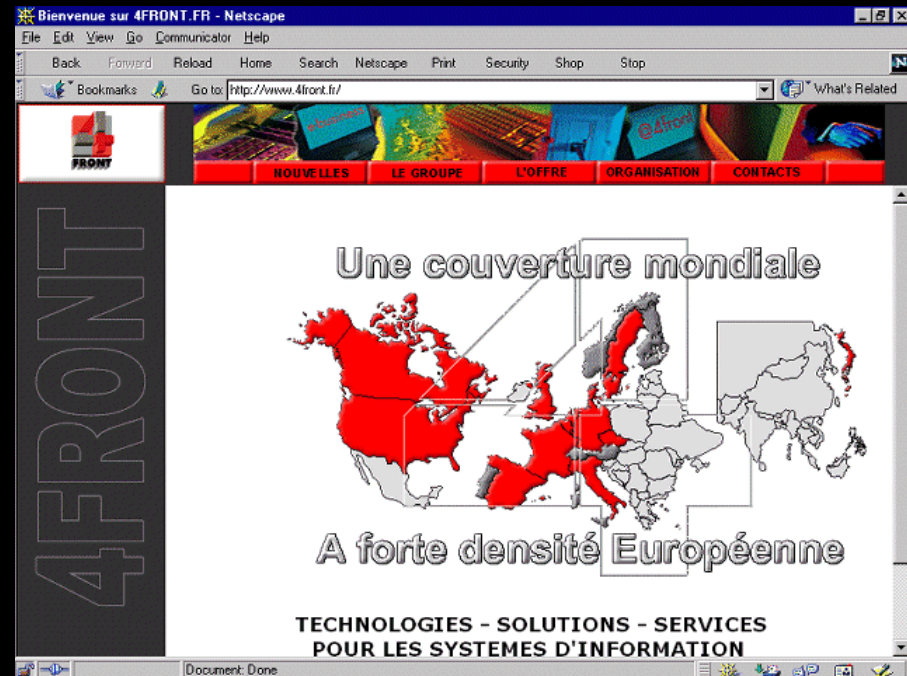


References: Corporate

- 4FRONT

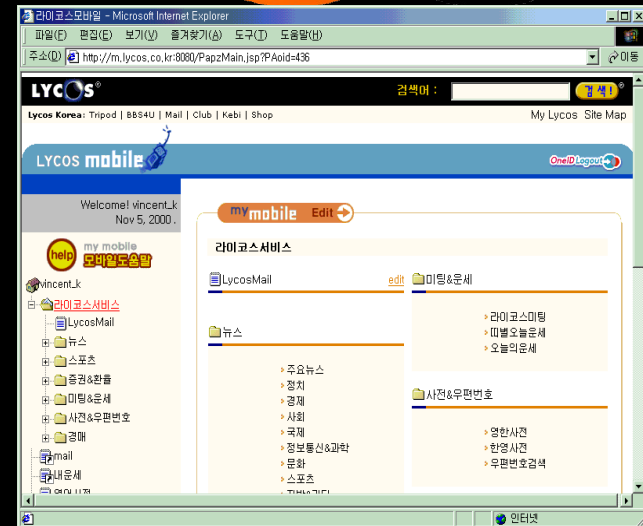
- FRANCE
- Field Services Apps.
CLARIFY CRM
- 200 mobile users
- Nokia, Micropole

- www.4front.fr



국내 Reference : LYCOS KOREA

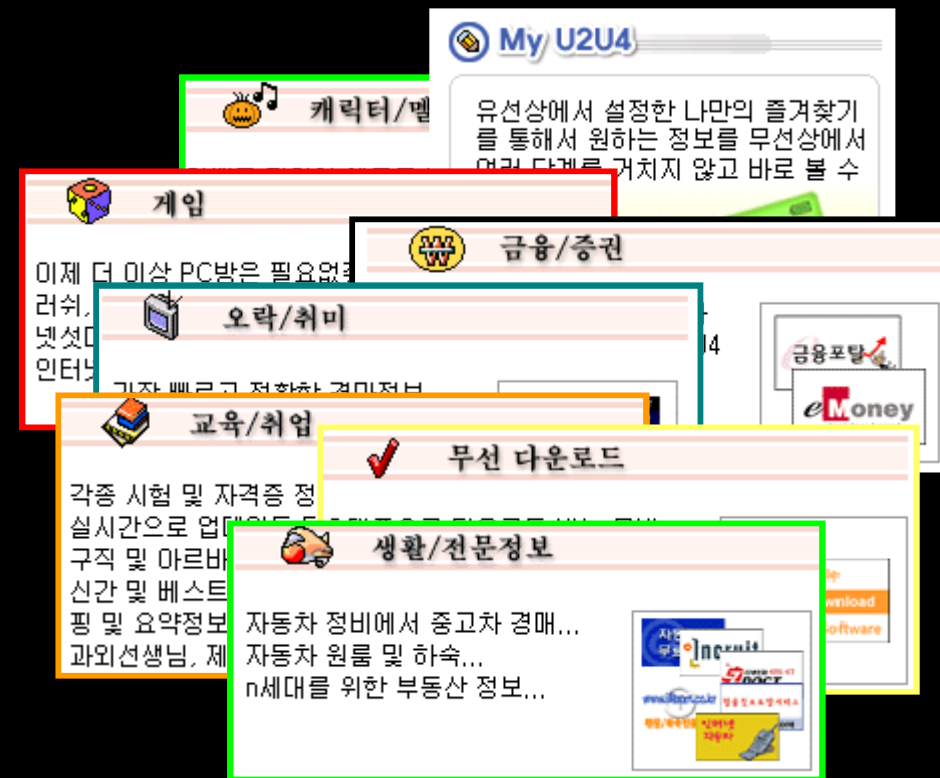
- Project기간
 - 2000년 7월 ~ 9월
 - 투입인원 : 2명
- 장비 및 Software
 - Oracle 8.1.6 DB
 - 9iAS (ver. 1.0.2.0)
 - 9iAS Wireless Edition (ver. 1.0.2.1)
 - Sun Solaris 2.7
- 개발 내용
 - Lycos One ID 연동
 - 메일, 커뮤니티, 게시판, 증권, 날씨, 운세 등 다수
 - Personalization Portal
 - 전화번호를 이용한 로그인



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국내 Reference : U2U4

- Project기간
 - 2000년 10월 ~ 11월
 - 투입인원 : 2명
- 장비 및 Software
 - Oracle 8.1.6 DB
 - OSDK (ver.2, build 44)
 - portal-to-go 1.0.2.2.0
 - Compaq Digital 4.0F
- 개발 내용
 - Single Sign On
 - CP별 인증 구현
 - 예약/쇼핑, 게임, 오락/취미, 캐릭터/멜로디 등
 - Personalization Portal



국내 Reference : 제일제당 Groupware

- Project기간
 - 2001년 2월
 - 투입인원 : 3명(제일제당 개발자)
- 장비 및 Software
 - Oracle 8.1.6 DB
 - 9iAS (ver.1.0.2.0)
 - 9iAS Wireless Edition 1.0.2.2.0
 - Sun Solaris 2.6
- 개발 내용
 - Single Sign On
 - 각종 결재 및 게시판, 메일 등 그룹웨어 기능
 - 주 Target Device인 PDA (Compaq iPAQ)를 위한 Transformer 작업
 - Personalization Portal



국내 Reference : KOREA.COM

- Project기간
 - 2001년 3월 26 ~ 30일 pilot project
 - 2001년 5월 28일 ~ 6월 30일
 - 투입인원 : 2명
- 장비 및 Software
 - Oracle 8.1.6 DB
 - 9iAS (ver.1.0.2.0)
 - 9iAS Wireless Edition 1.0.2.2.0
 - Windows 2000 Advanced Server
- 개발 내용
 - Single Sign On 구현
 - 메일 (Exchange 2000의 XML Mail contents)
 - 주소록 (SQL server 7)
 - 일정 관리



국내 Reference : UNITEL pilot

- Project기간
 - 2000년 12월 6일 ~ 28일
 - 투입인원 : 2명
- 장비 및 Software
 - Oracle 8.1.6 DB
 - OSDK
 - 9iAS Wireless Edition 1.0.2.2.0
- 개발 내용
 - www.unimerce.com 컨텐츠 변환
 - www.uniepay.com 컨텐츠 변환
 - www.auctrader.com 컨텐츠 변환
 - www.ecatalogue.com 컨텐츠 변환
 - mail (pop3, imap) 연동
 - weppy 주소록

[Unimerce 서비스]

1. NewsRoom
2. Board
3. UniEPay
4. Aucrader
5. eCatalogue
6. Mail
7. Address
8. Contact

오라클 모바일 솔루션 소개



국내 모바일 시장 동향

오라클 모바일 컴퓨팅 전략

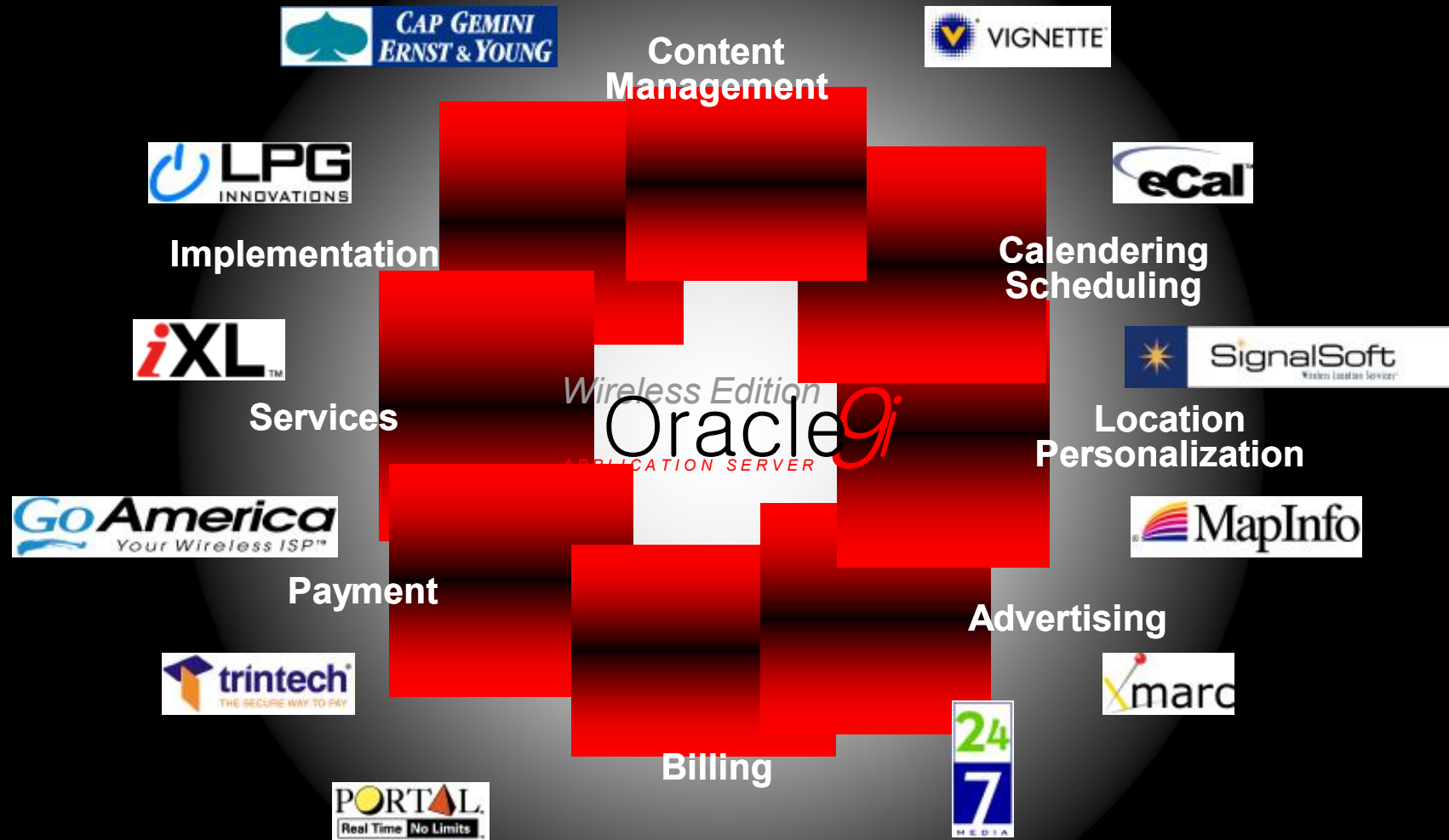
오라클 9iAS Wireless Edition 소개

국내외 reference

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