

제 2 부 [기술강연]

발 표 [2]

u-city 미들웨어플랫폼

- ujava.org포럼 대표, (주)지능도시 대표이사 강신동 -

한국컴퓨터정보학회

U-City Middleware Platform

ujava.org 

 (주)지능도시

강신동 대표이사
㈜ 지능도시
<http://www.idosi.com>
Email: mobilemania@naver.com
<http://www.ujava.org>

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ujava.org 

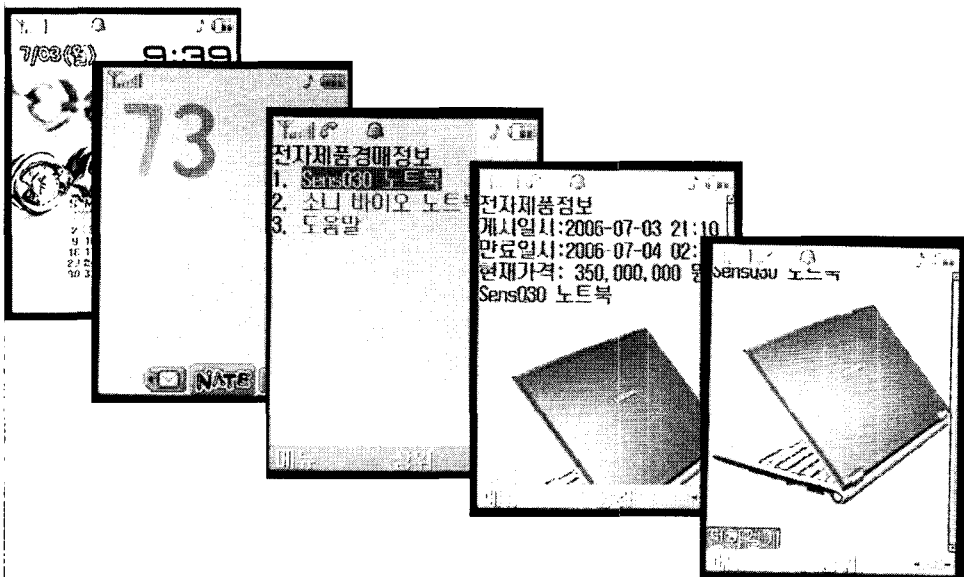
서비스 데모

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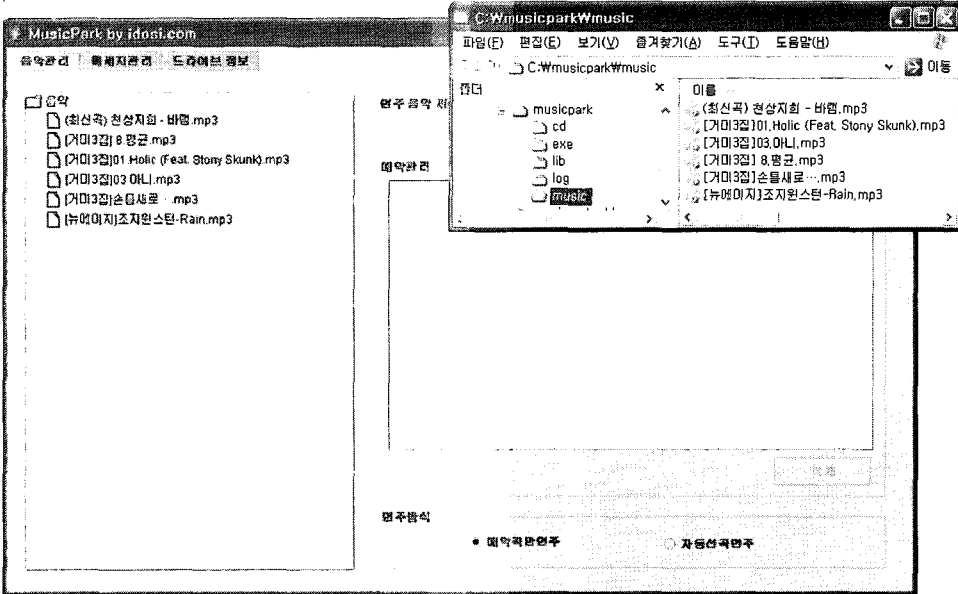
Ubiquitous Memo Screen System Demo



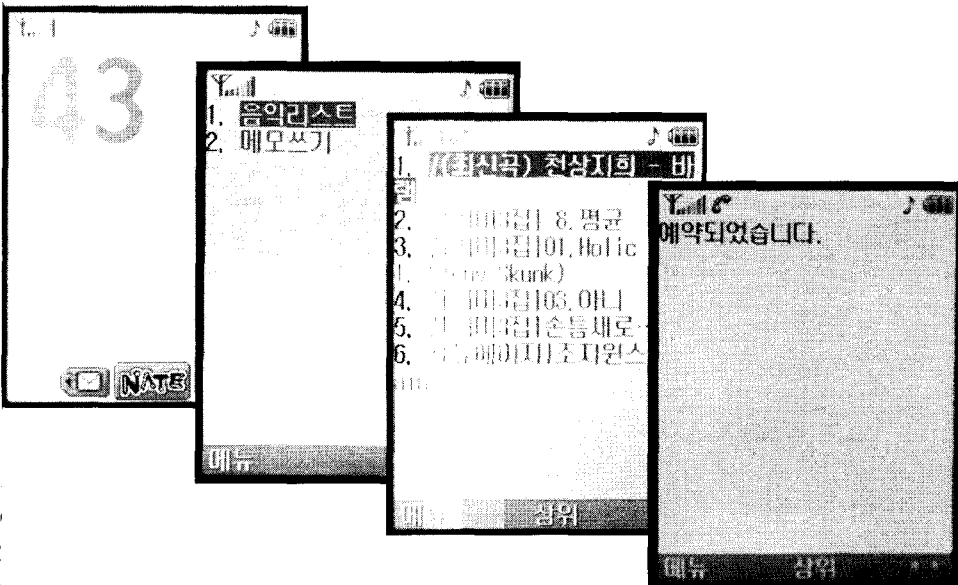
휴대폰 기반 경매 사이트 데모



Ubiquitous Music Park System Demo 1/2



Ubiquitous Music Park System Demo 2/2



Mobile Stepway Service Demo 1/2

Stepway by (주)지능도시

WINC phone access 76

http://stepway.idosi.net

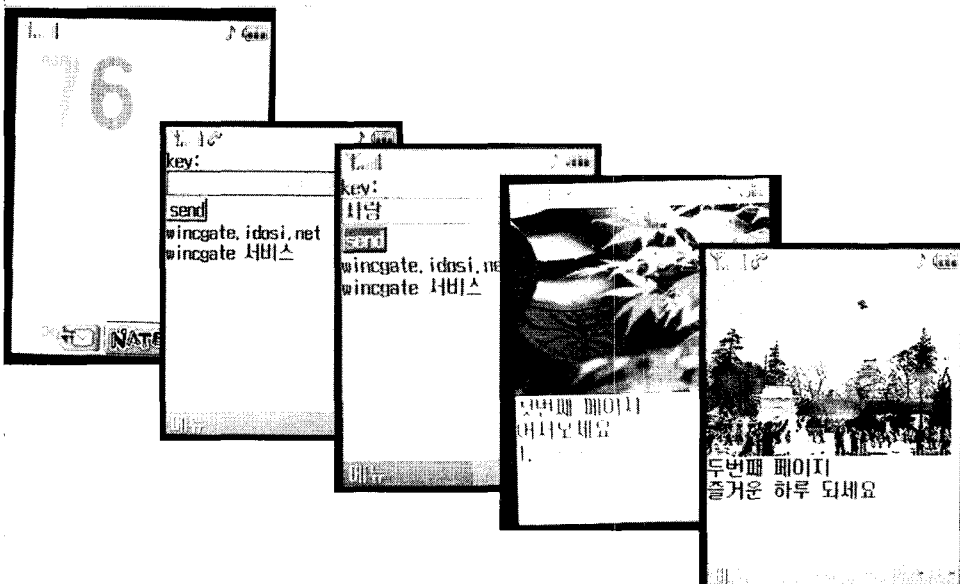
ID

Password

Keyword

Data folder

Mobile Stepway Service Demo 2/2

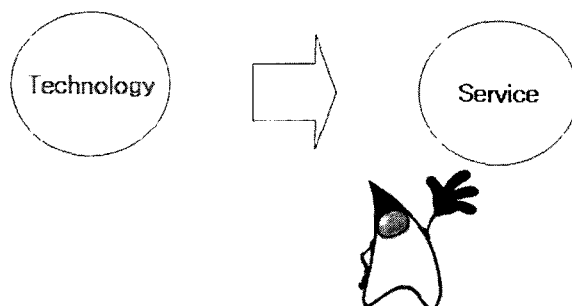


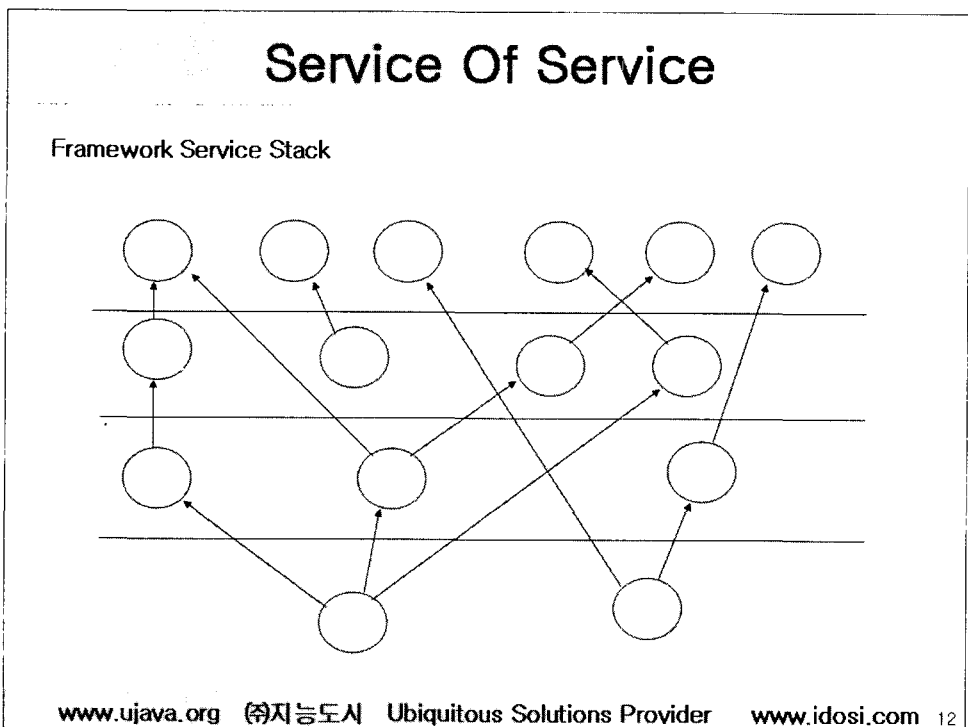
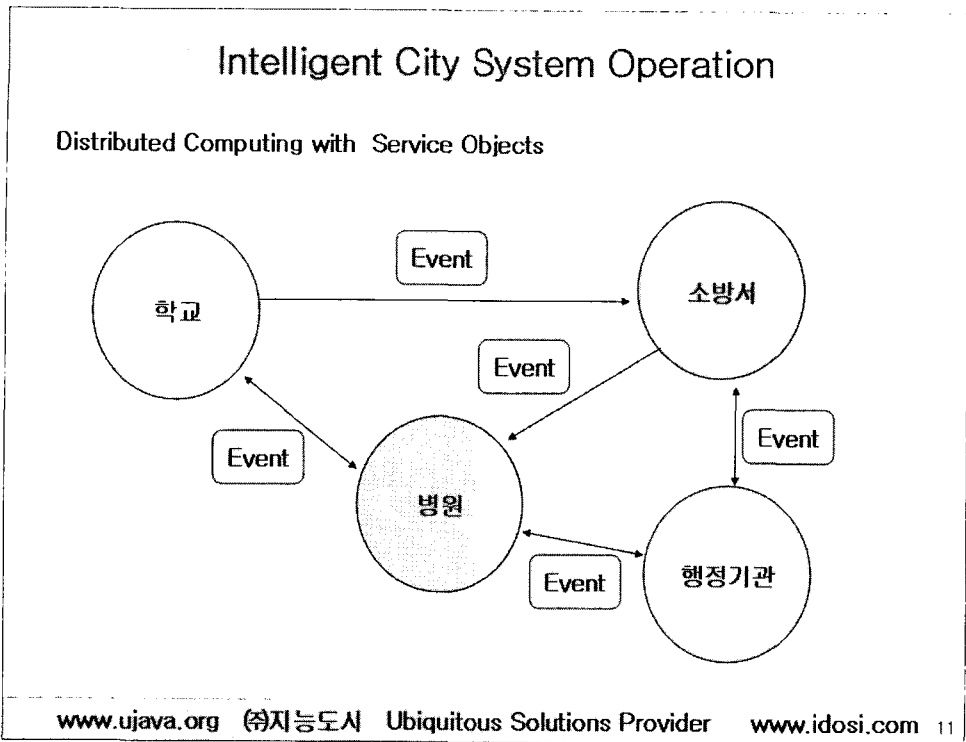


Architecture Strategy for Intelligent City Service Systems

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Value Shift for Human Life



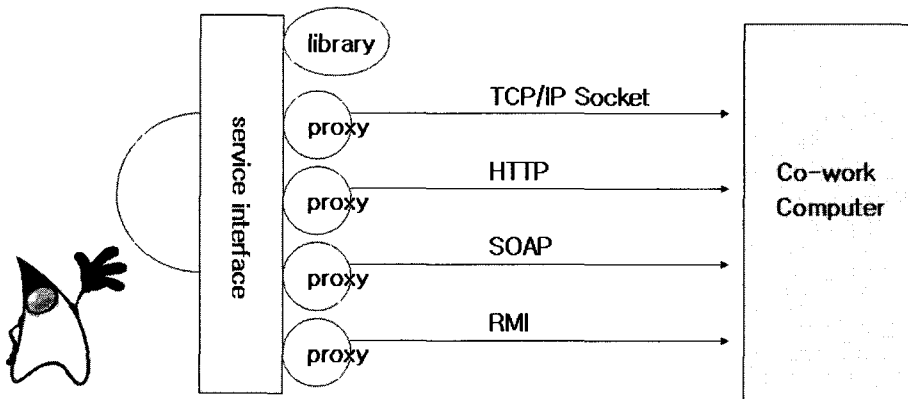


Service Interace Type의 표준화

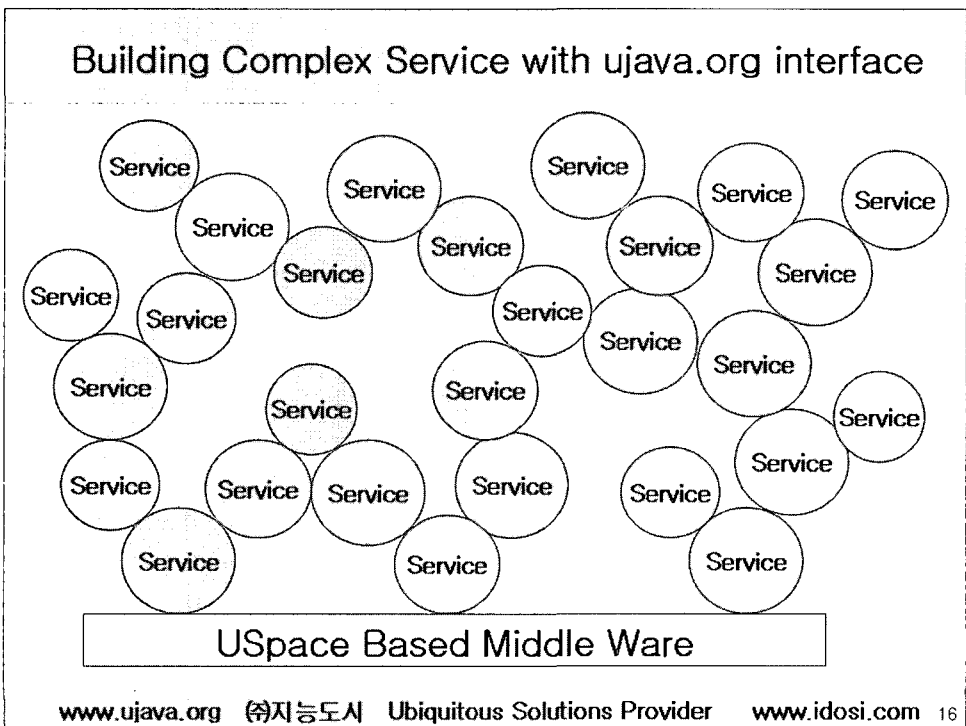
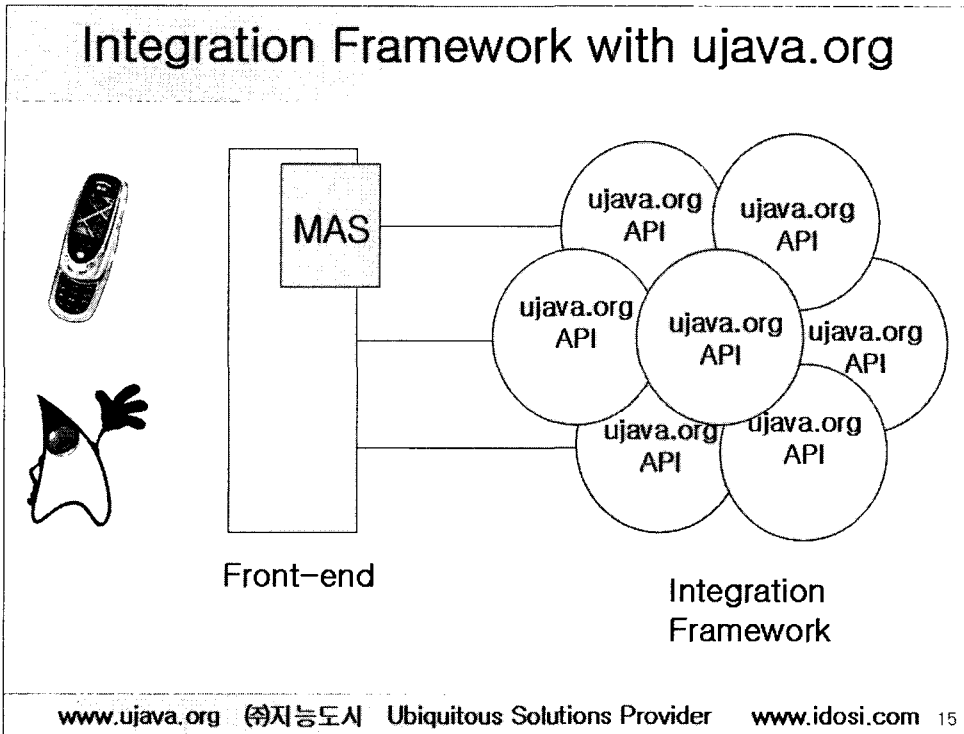
- 동일한 서비스를 제공하는 것은 동일한 interface를 implementation 하도록 표준화
- 레고 블록 쌓기처럼 쉽고 신속하게 대규모 서비스를 만들 수 있다.
- USpace, RMI, OSGi & Jini & Middleware & ...
- ujava.org 개발사 간 경쟁보다 시너지
ex) org.ujava.mobile

SOA based Integration

- SOA (Service Oriented Architecture)



Java interface를 이용하여 시스템을 구성할 경우 추상화된 interface를 실제로 구현하는 방법에는 개의치 않고 통합될 수 있습니다.



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Utopia-MAS (Mobile Application Server)

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WINC (윙크)


무선인터넷진흥원

무선인터넷 이용자들의 이용환경을 개선시키고자
국가 인터넷주소 자원관리기관인 한국인터넷진흥원(NIDA)에서
국내 이동통신 3사(SKT, KTF, LGT)와 공동으로 주관하여
복잡한 URL 입력대신 번호를 통해 무선인터넷 콘텐츠에 접속하도록
실시하는 정부주도 공공서비스입니다.

한국인터넷진흥원과 이동통신3사(SKT, KTF, LGT)가 무선인터넷 이용환경
개선을 위해 2002년 7월부터 공동으로 제공 중임

 SK Telecom

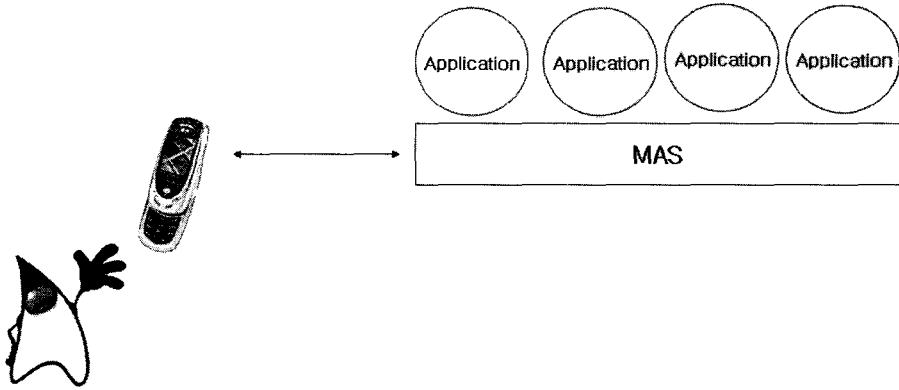
 KTF

 LG Telecom

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Mobile Application Server (MAS)

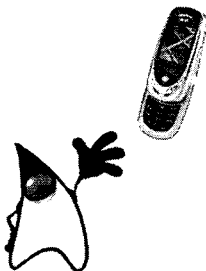
모바일 분야에서 나타날 수 있는 여러 분야를 처리할 수 있도록 응용 프로그램을 올릴 수 있게 설계된 미들웨어 소프트웨어



ujava.org MAS API

ujava.org MAS API specification implementation

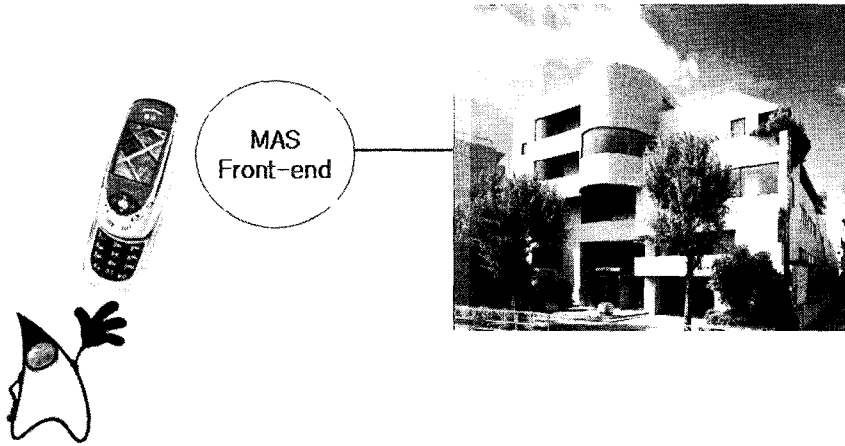
org.ujava.mobile package name



The screenshot displays the Javadoc documentation for the 'org.ujava.mobile' package. The page title is 'Package org.ujava.mobile'. It includes sections for 'Interface Summary' and 'Class Summary'. The 'Interface Summary' lists several interfaces: 'MaxConnectorDataSource', 'MaxContext', 'MaxPackage', and 'MobileDevice'. The 'Class Summary' lists classes: 'Context', 'ContextFactory', 'ContextFactoryImpl', 'ContextImpl', 'ContextProvider', 'ContextProviderImpl', 'ContextProviderImpl2', 'ContextProviderImpl3', 'ContextProviderImpl4', 'ContextProviderImpl5', 'ContextProviderImpl6', 'ContextProviderImpl7', 'ContextProviderImpl8', 'ContextProviderImpl9', 'ContextProviderImpl10', 'ContextProviderImpl11', 'ContextProviderImpl12', 'ContextProviderImpl13', 'ContextProviderImpl14', 'ContextProviderImpl15', 'ContextProviderImpl16', 'ContextProviderImpl17', 'ContextProviderImpl18', 'ContextProviderImpl19', 'ContextProviderImpl20', 'ContextProviderImpl21', 'ContextProviderImpl22', 'ContextProviderImpl23', 'ContextProviderImpl24', 'ContextProviderImpl25', 'ContextProviderImpl26', 'ContextProviderImpl27', 'ContextProviderImpl28', 'ContextProviderImpl29', 'ContextProviderImpl30', 'ContextProviderImpl31', 'ContextProviderImpl32', 'ContextProviderImpl33', 'ContextProviderImpl34', 'ContextProviderImpl35', 'ContextProviderImpl36', 'ContextProviderImpl37', 'ContextProviderImpl38', 'ContextProviderImpl39', 'ContextProviderImpl40', 'ContextProviderImpl41', 'ContextProviderImpl42', 'ContextProviderImpl43', 'ContextProviderImpl44', 'ContextProviderImpl45', 'ContextProviderImpl46', 'ContextProviderImpl47', 'ContextProviderImpl48', 'ContextProviderImpl49', 'ContextProviderImpl50', 'ContextProviderImpl51', 'ContextProviderImpl52', 'ContextProviderImpl53', 'ContextProviderImpl54', 'ContextProviderImpl55', 'ContextProviderImpl56', 'ContextProviderImpl57', 'ContextProviderImpl58', 'ContextProviderImpl59', 'ContextProviderImpl60', 'ContextProviderImpl61', 'ContextProviderImpl62', 'ContextProviderImpl63', 'ContextProviderImpl64', 'ContextProviderImpl65', 'ContextProviderImpl66', 'ContextProviderImpl67', 'ContextProviderImpl68', 'ContextProviderImpl69', 'ContextProviderImpl70', 'ContextProviderImpl71', 'ContextProviderImpl72', 'ContextProviderImpl73', 'ContextProviderImpl74', 'ContextProviderImpl75', 'ContextProviderImpl76', 'ContextProviderImpl77', 'ContextProviderImpl78', 'ContextProviderImpl79', 'ContextProviderImpl80', 'ContextProviderImpl81', 'ContextProviderImpl82', 'ContextProviderImpl83', 'ContextProviderImpl84', 'ContextProviderImpl85', 'ContextProviderImpl86', 'ContextProviderImpl87', 'ContextProviderImpl88', 'ContextProviderImpl89', 'ContextProviderImpl90', 'ContextProviderImpl91', 'ContextProviderImpl92', 'ContextProviderImpl93', 'ContextProviderImpl94', 'ContextProviderImpl95', 'ContextProviderImpl96', 'ContextProviderImpl97', 'ContextProviderImpl98', 'ContextProviderImpl99', 'ContextProviderImpl100'. The page also includes a 'Description' section and a 'See' section.

Ubiquitous School Interaction

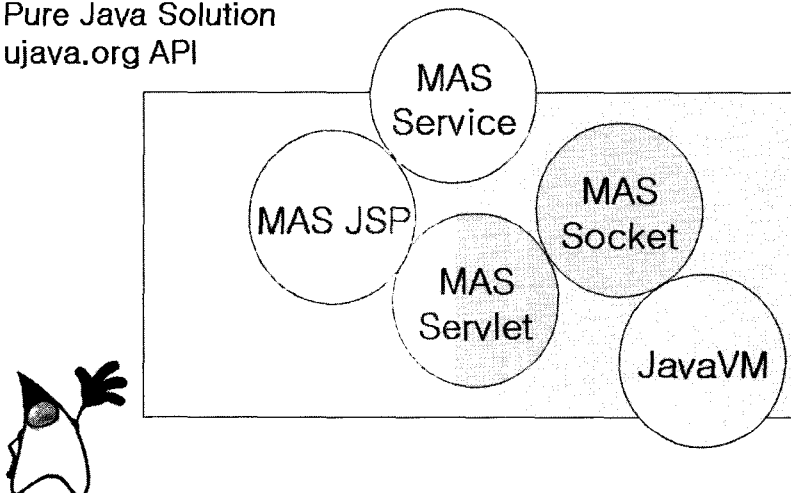
학교 업무나 교사와 학부모가 휴대폰을 이용하여 서로 연동될 수 있습니다.



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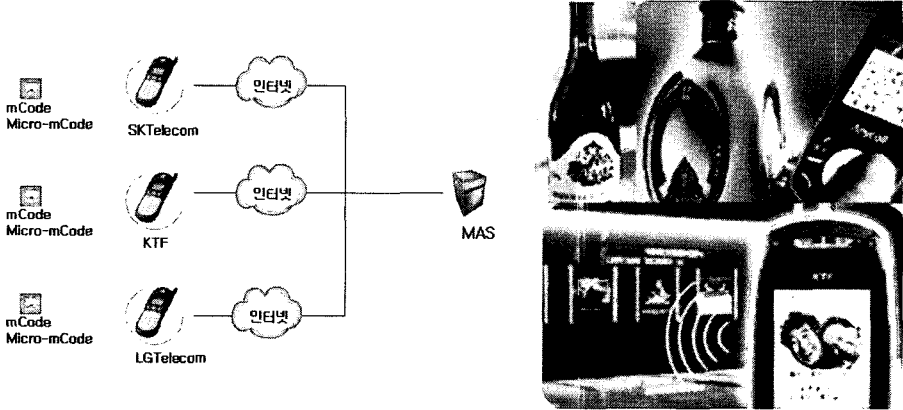
Stand-alone MAS Engine

For The Simple Embedding
Pure Java Solution
ujava.org API



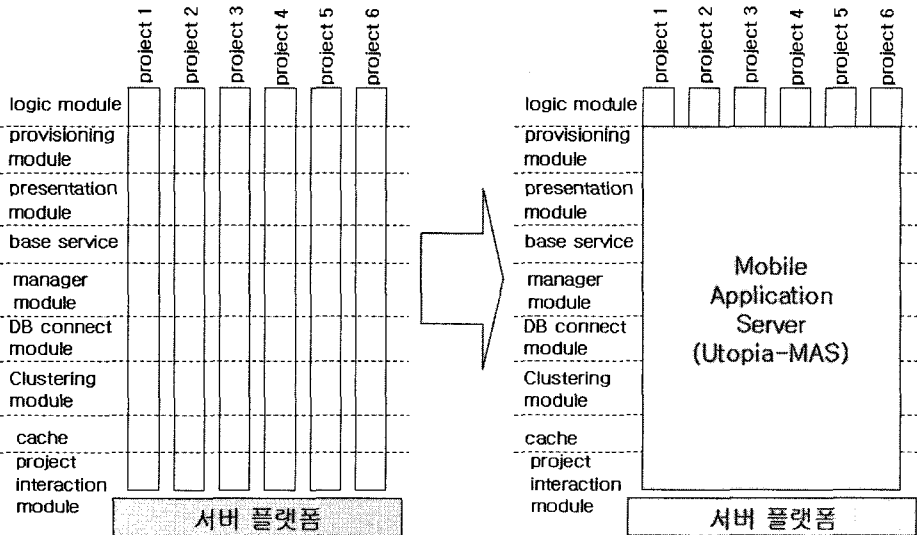
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Mobile RFID 연동지원



mCode와 micro-mCode의 urn에 정의된 하나의 주소로 동시에 모든 이동통신사에 대해서 서비스를 제공할 수 있습니다.

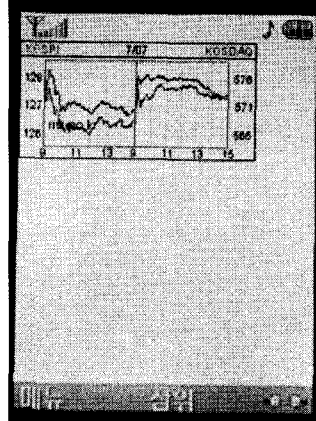
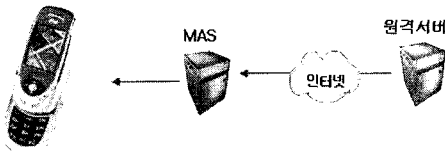
MAS 사용의 필요성



Using a remote image

인터넷으로 연결된 원격지의 이미지를 동적으로 쉽게 이용할 수 있다.

```
MobileRequest req = (MobileRequest) request;
MobilePage mp = new MasPage();
MobileImage mi = new RemoteMobileImage("http://stocktest.co.kr/stock.jsp");
mp.addMobileImage(mi);
mp.setSoftkey(new Softkey("상위", "index.jsp"));
out.print(mp);
```

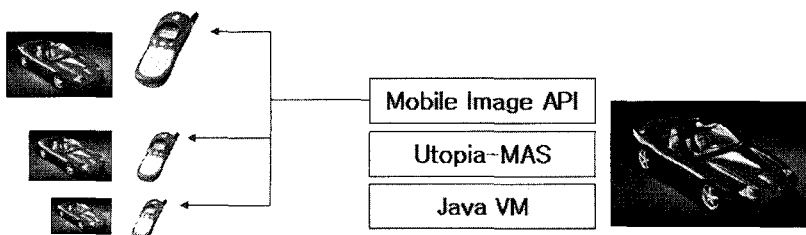


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LCD 사이즈에 맞는 모바일 이미지의 자동생성과 캐싱

3개 이동통신사의 휴대폰의 LCD 사이즈에 맞는 사이즈와 포맷으로 실시간 이미지 컨버팅 기능을 제공합니다. 모바일 이미지의 캐싱 모듈을 제공하여 신속한 이미지를 제공할 수 있습니다.

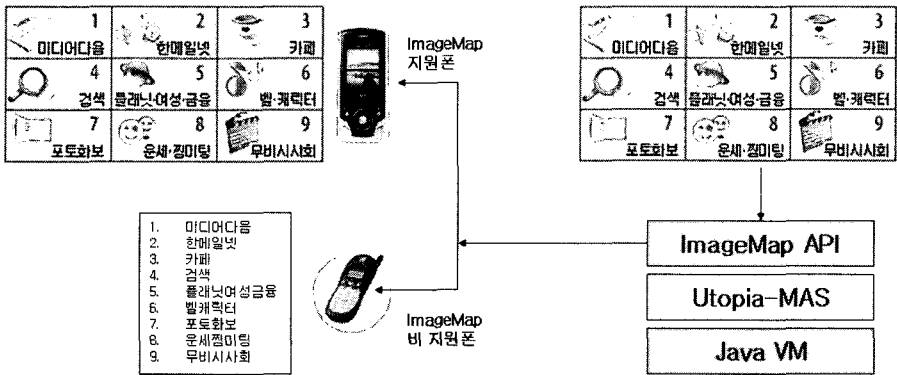
```
MobilePage p = new MasPage();
MobileImage image = new MobileImage(new File("test.jpg"));
p.setMobileImage(image);
out.println(p);
```



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ImageMap 메뉴의 자동 텍스트 메뉴화

ImageMap을 사용하는 메뉴의 경우 ImageMap 만의 페이지를 생성하면 ImageMap을 지원하지 않는 단말기에 대해서는 Text기반 메뉴로 자동생성 되어 모바일 페이지 개발이 매우 편리하고 간략하게 통합됩니다.

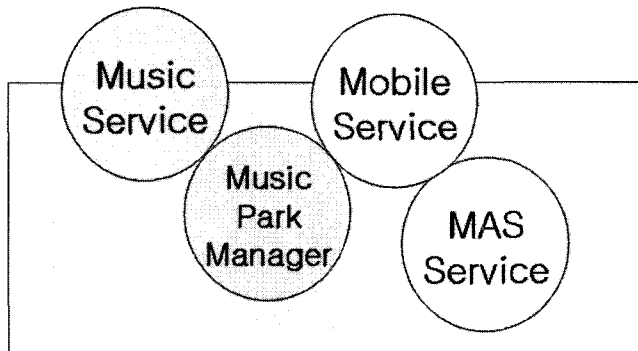


Utopia-MAS in MusicPark System

```

MusicParkSystem park = new MusicParkSystem();

MasManager mas = new MasServer();
HttpServlet servlet = new MusicParkIndexServlet(park);
mas.addPathBinding("/", servlet);
mas.addPathBinding("/musiclist.jsp", new MusicListServlet(park));
    
```



ujava.org 

USpace

(U-City Service Middleware Platform)

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USpace Information

Pure Java Middleware System

Distributed Service Object Integration


Service Oriented Architecture with service interface

Dynamic Transfer of Service Proxy Instance

Central Control and Monitoring of Overall Systems

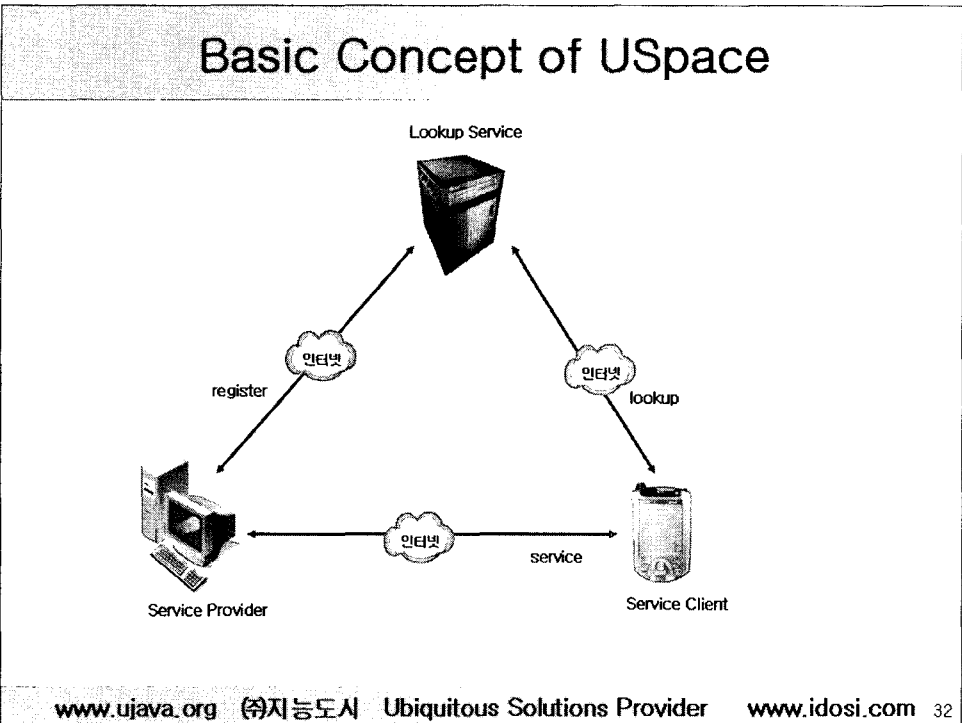
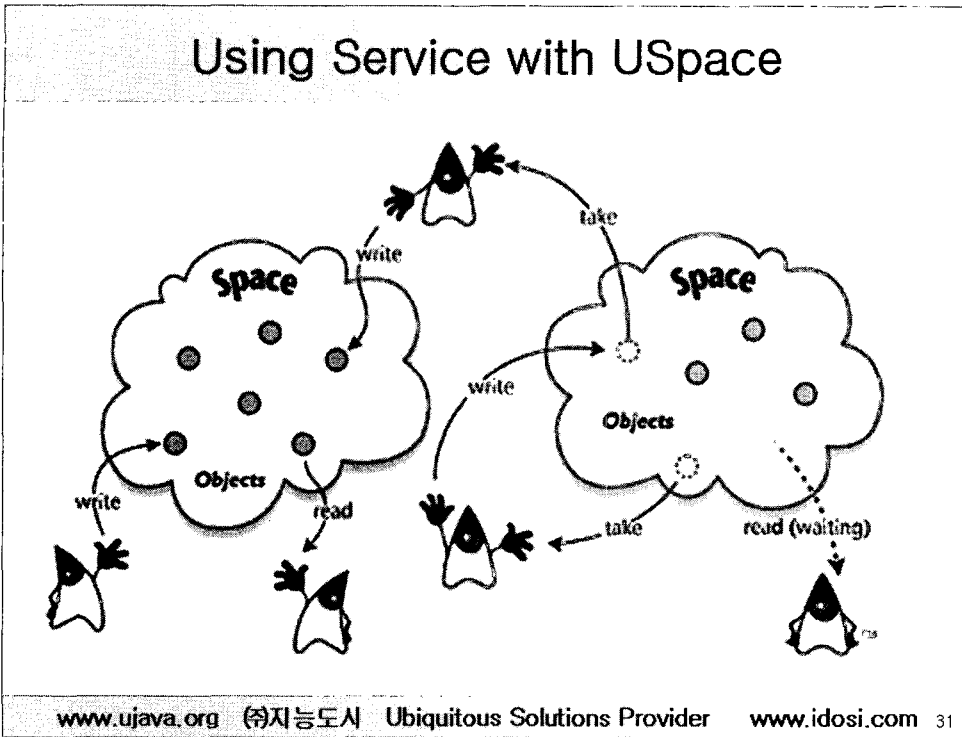
ujava.org 

Open Standard Interface API with ujava.org

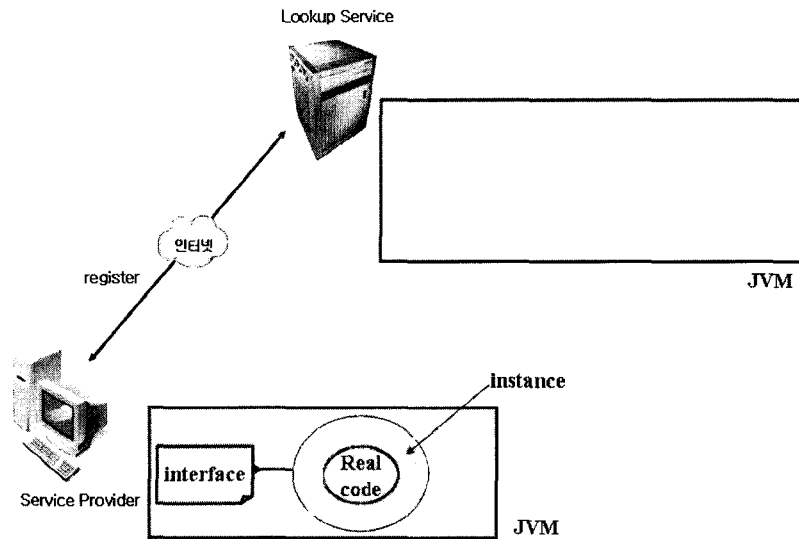
 (주)지능도시

U-City Service Middleware Platform Solution

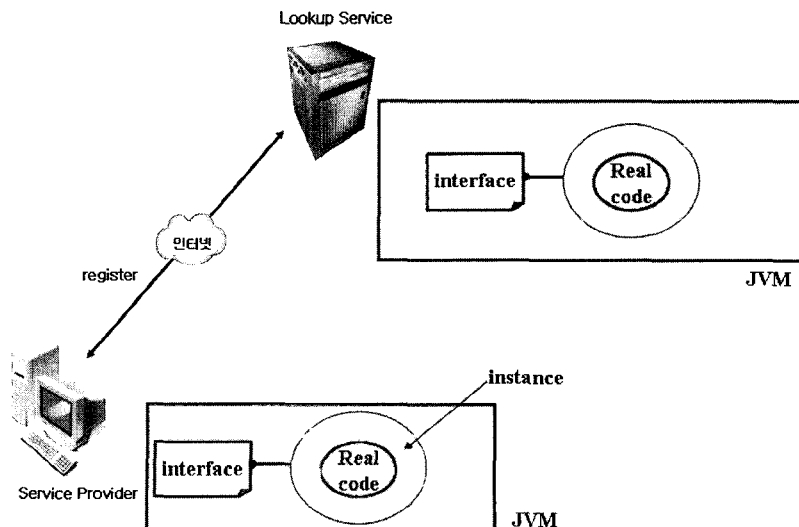
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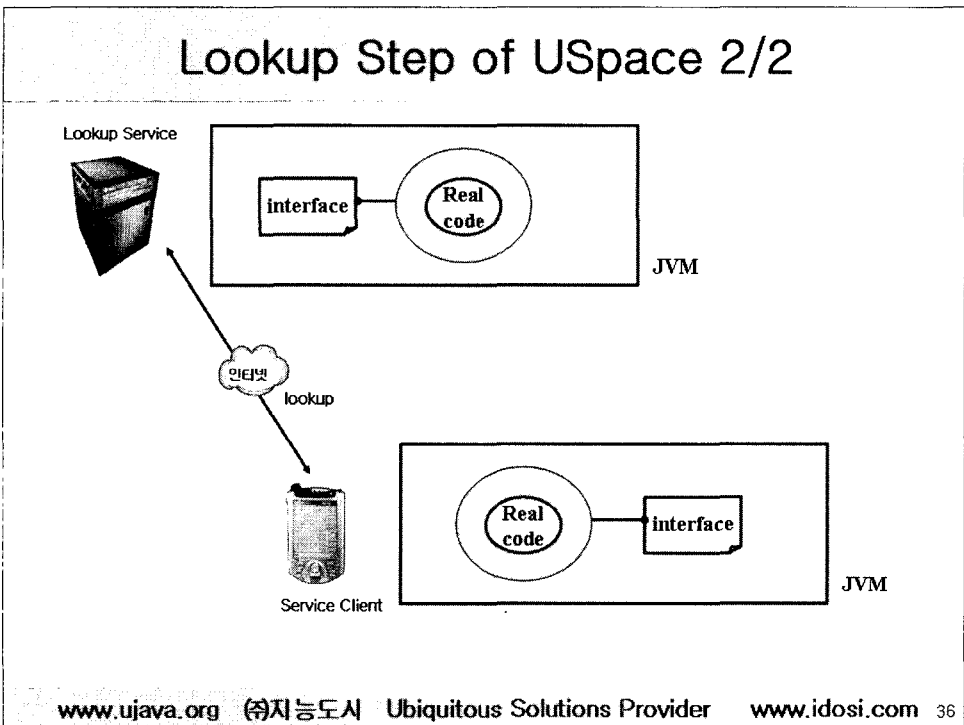
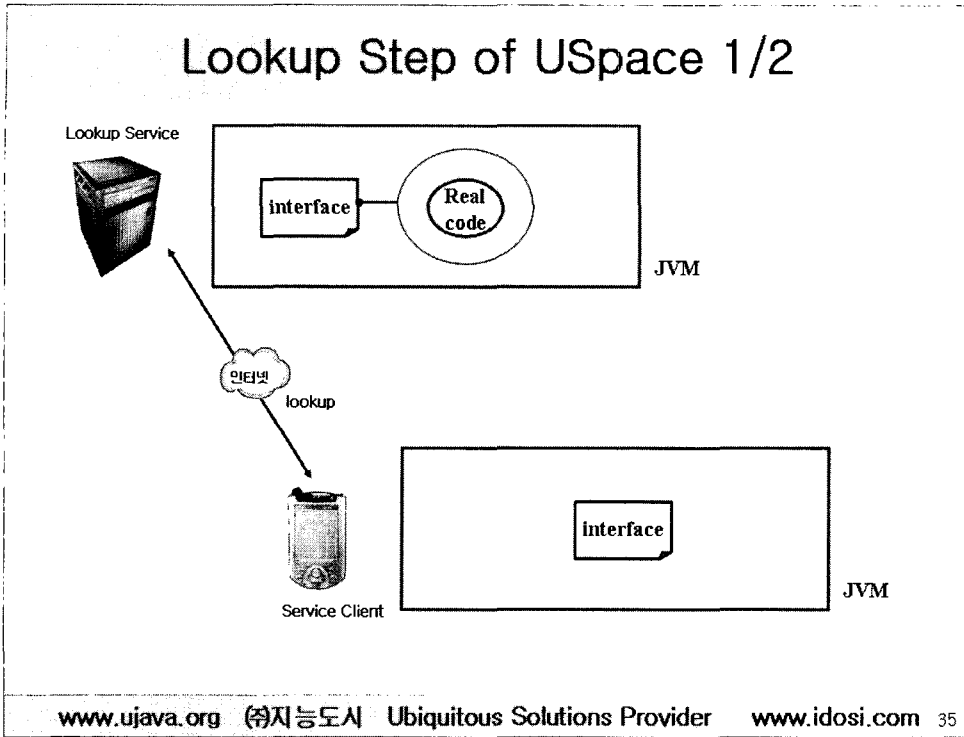


Register Step of USpace 1/2

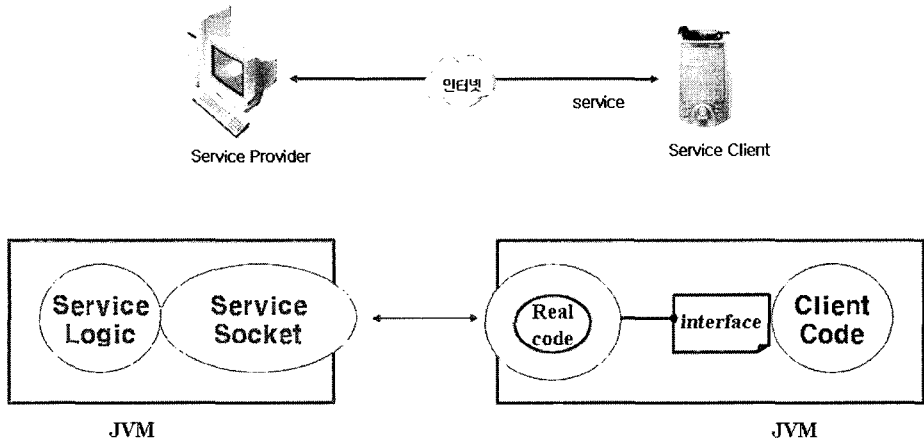


Register Step of USpace 2/2

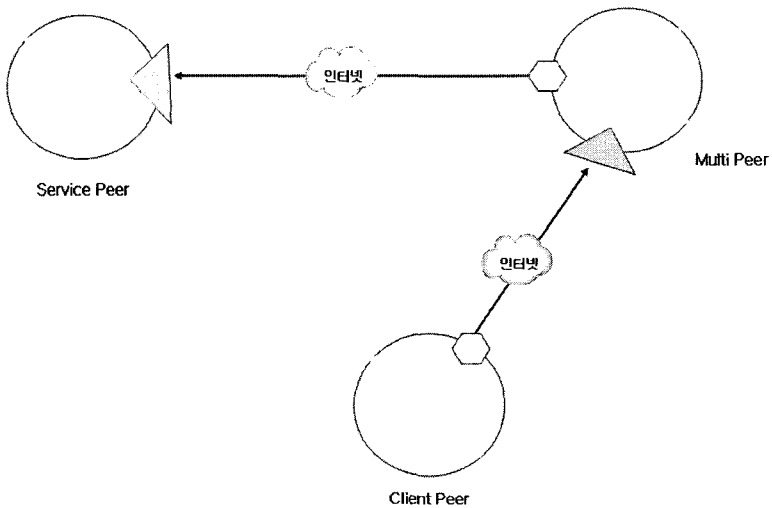


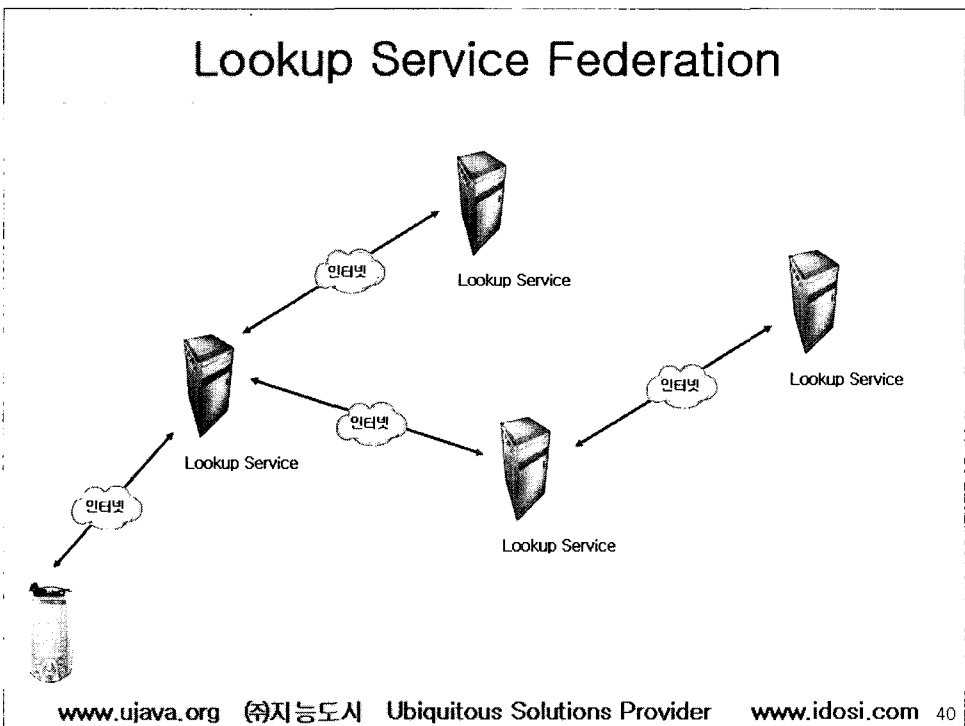
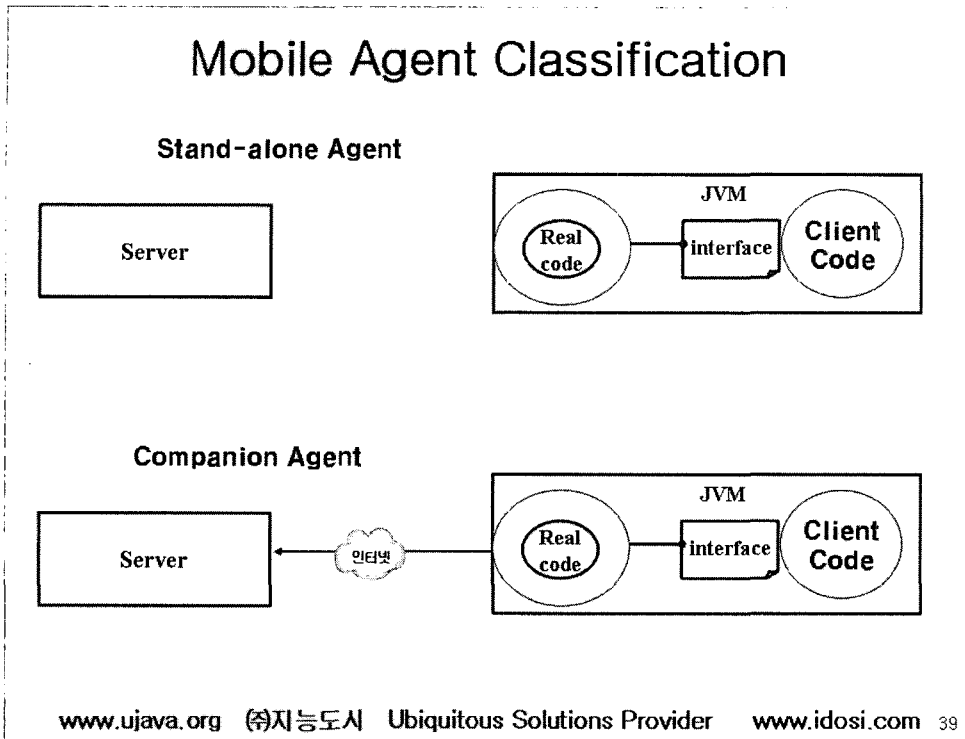


Service Step of USpace

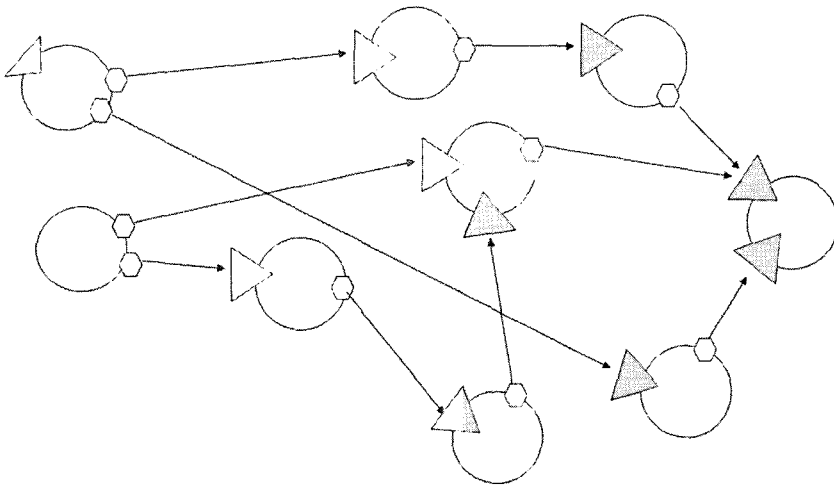


Peer 종류

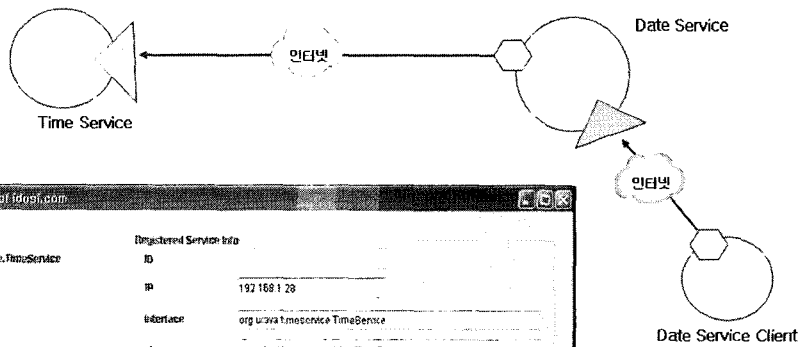




Building New Service



Dynamic Service Notification 1/2



Dynamic Service Notification 2/2

The diagram illustrates a dynamic service notification scenario. On the left, a circle with a triangle pointing right represents the 'Time Service'. On the right, a shaded circle with a triangle pointing left represents the 'Date Service'. A cloud labeled '인터넷' (Internet) connects them. Below the Date Service, another cloud labeled '인터넷' connects to a circle with a triangle pointing left, representing the 'Date Service Client'.

The screenshot shows the 'Uspace Manager of idosi.com' interface. It features a 'Service List' on the left with two entries: '5 org.ujava.timeservice.TimeService' and '7 org.ujava.timeservice.DateService'. The 'Registered Service Info' section on the right displays the following details:

- ID: []
- IP: 192.168.1.20
- Interface: org.ujava.timeservice.DateService
- Class: com.idosi.timeservice.idosi.DateService

Below the info section is a terminal window showing the command 'start-dateservice-autoclient' and its execution output:

```
C:\data\thispace>start-dateservice-autoclient
C:\data\thispace>.java -cp .\classes\# -Dlookuptool=80 -Djava.security.policy=all.policy com.idosi.timeservice.DateServiceAutoClient
static load timeservice
date-2006-11-29 15:41:11
```

At the bottom of the screenshot are buttons for 'Remove Service' and 'Monitor memory'.

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Dynamic Service Replacement

The diagram illustrates dynamic service replacement. A central circle with a triangle pointing left represents the 'Time Client'. Two circles with triangles pointing right represent 'Time Service' and 'Time Service2'. Two clouds labeled '인터넷' (Internet) connect the Time Client to both service nodes, indicating that the client can dynamically switch between the two services.

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Contact Information



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