

제 3 부 [기술강연]

발 표 (1)

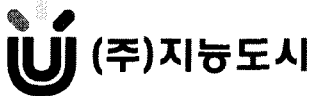
U-City 서비스 개발과 통합기술

- (주) 지능도시 강신동 대표이사 -

한국컴퓨터정보학회

U-City 서비스 개발과 통합기술

ujava.org



(주)지능도시

강신동 대표이사

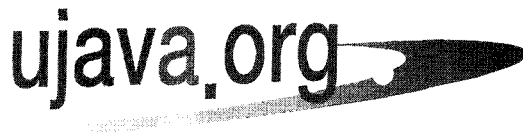
㈜ 지능도시

<http://www.idosi.com>

Email: mobilemania@naver.com

<http://www.ujava.org>

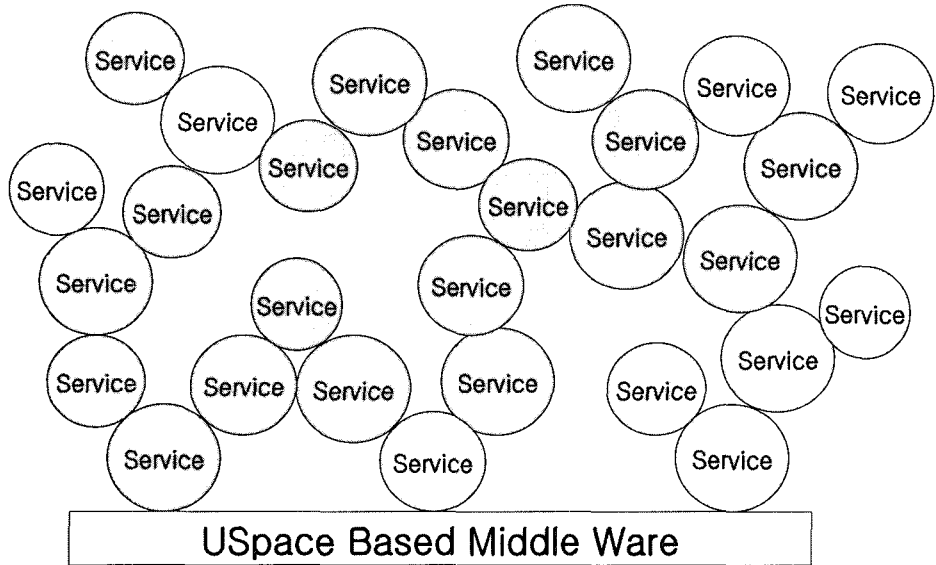
www.ujava.org ㈜지능도시 Ubiquitous Solutions Provider www.idosi.com 1



Architecture Strategy for Intelligent City Service Systems

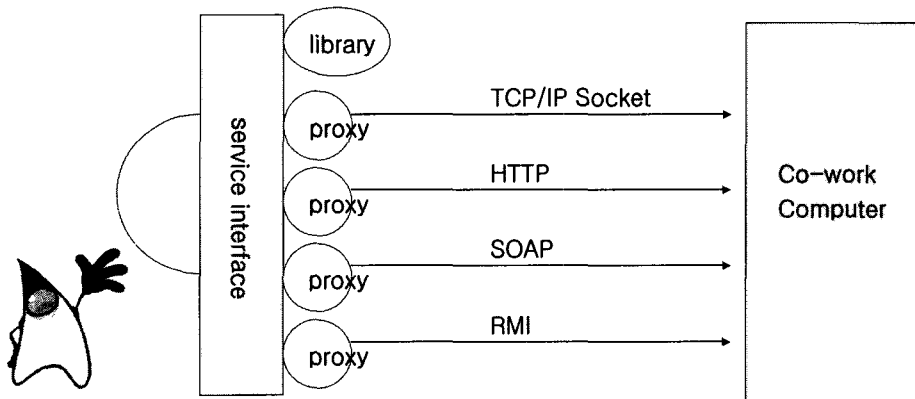
www.ujava.org ㈜지능도시 Ubiquitous Solutions Provider www.idosi.com 2

Building Complex Service with ujava.org interface



SOA based Integration

□ SOA (Service Oriented Architecture)

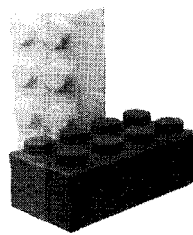




추상화된 Java interface를 이용하여 시스템을 구성할 경우 실제로 구현하는 방법에는 개의치 않고 통합될 수 있습니다.

ujava.org 

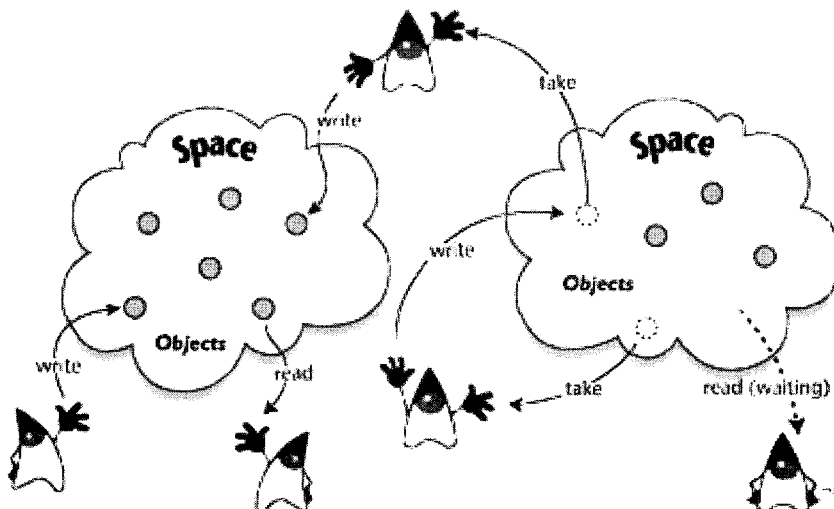
USpace



(U-City Service Middleware Platform)



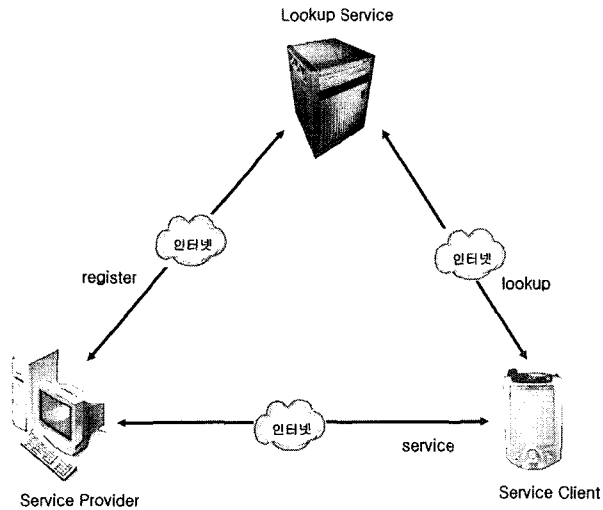
www.ujava.org   Ubiquitous Solutions Provider www.idosi.com 5

Using Service with USpace

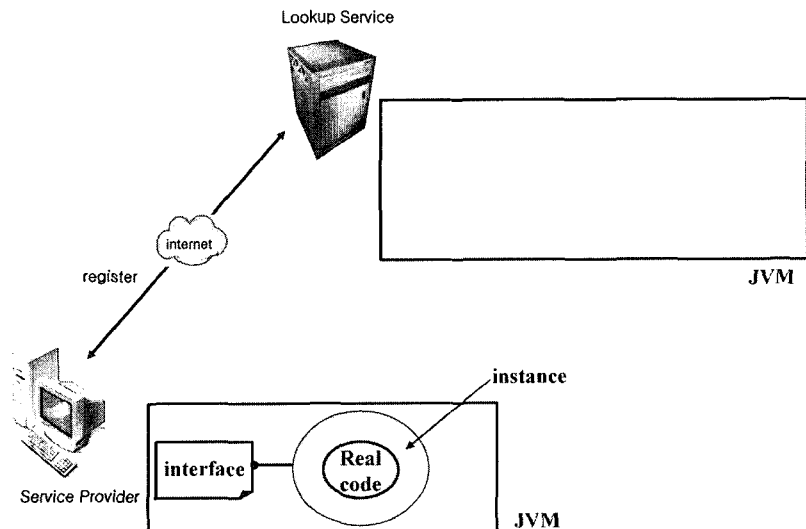


www.ujava.org   Ubiquitous Solutions Provider www.idosi.com 6

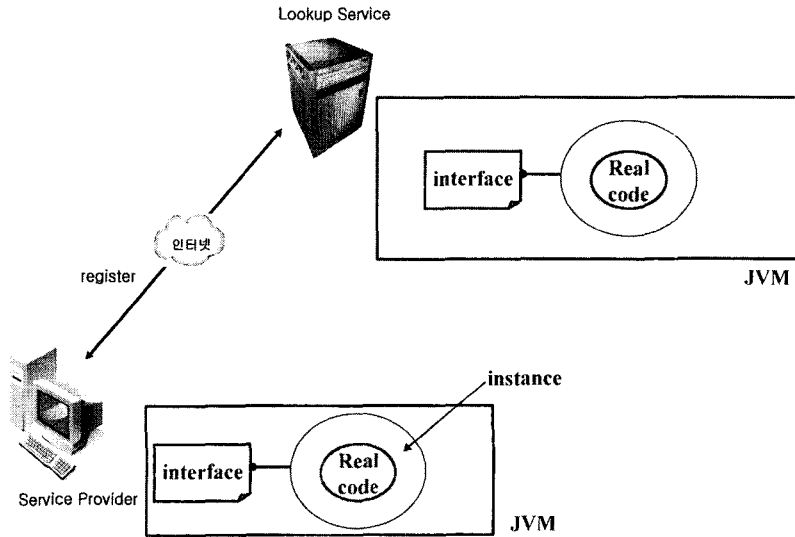
Basic Concept of USpace



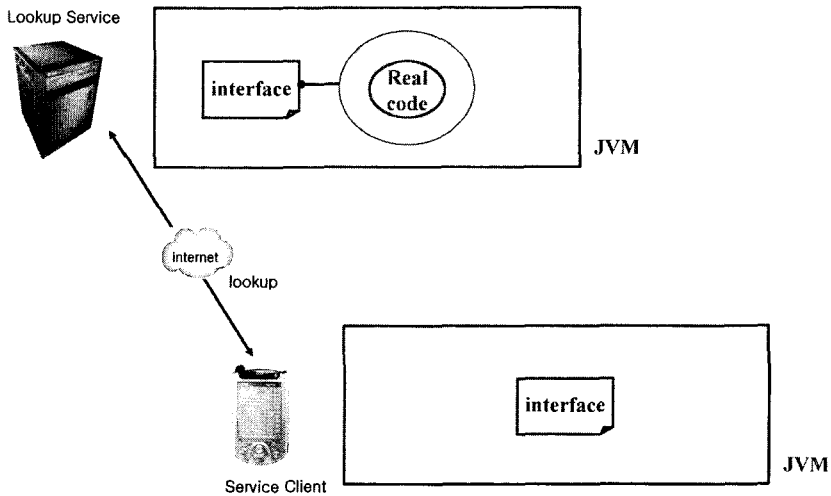
Register Step of USpace 1/2

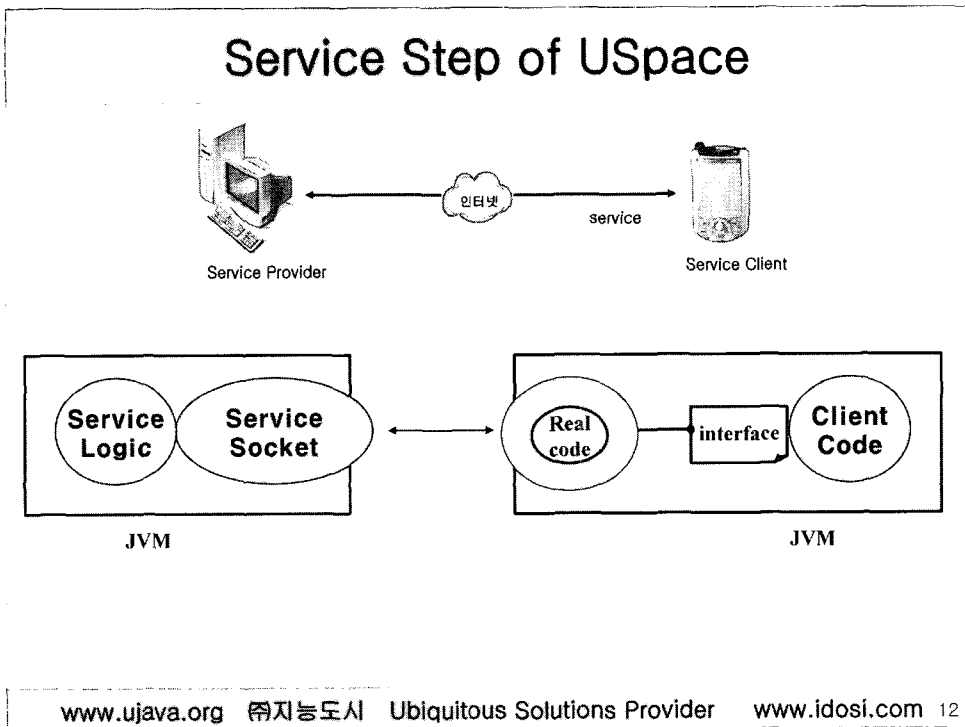
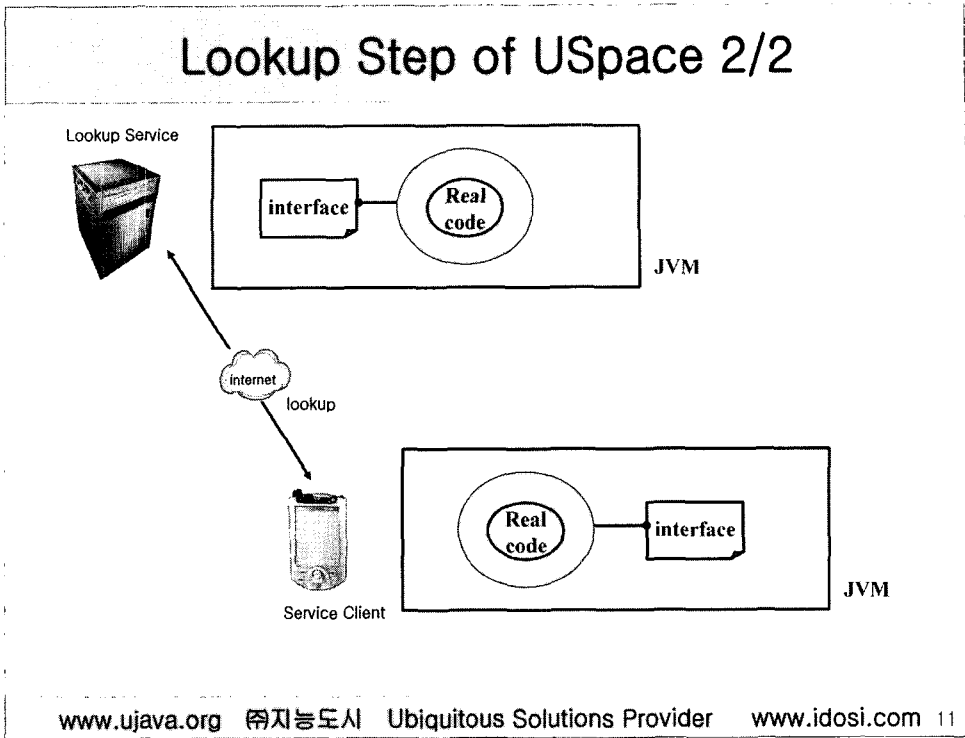


Register Step of USpace 2/2

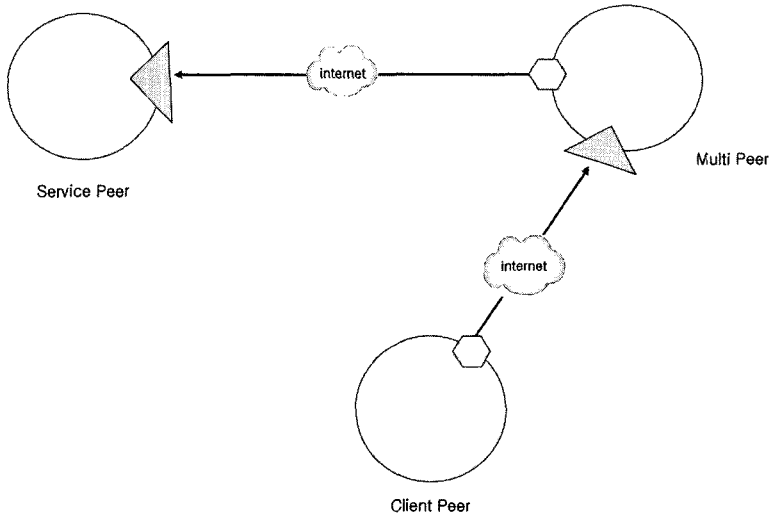


Lookup Step of USpace 1/2



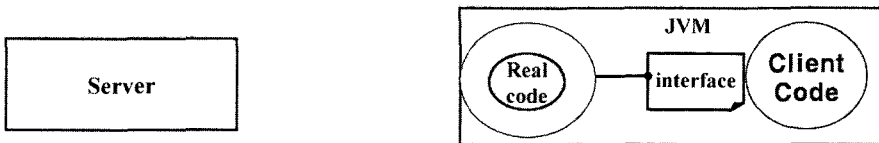


Peer 종류

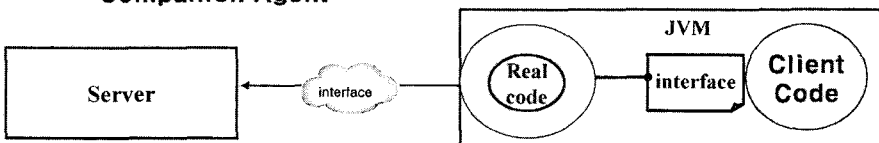


Mobile Agent Classification

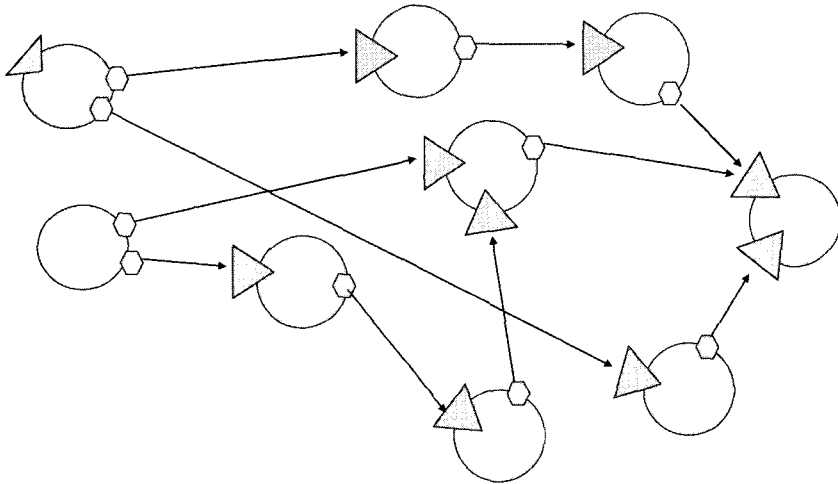
Stand-alone Agent



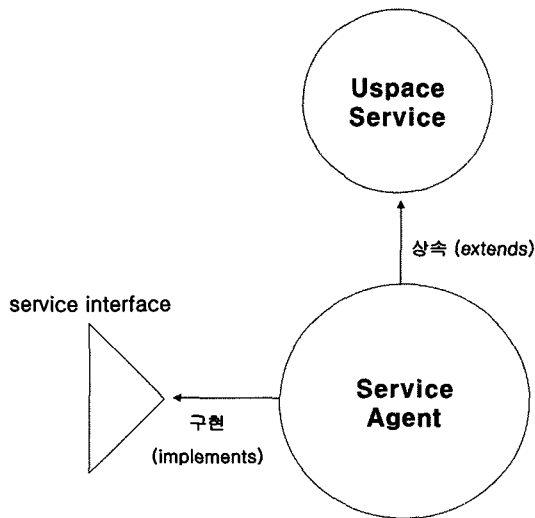
Companion Agent



Building New Service



Agent 코드 작성 구조



Service interface

```
package org.ujava.selflowerservice;

public interface SelfLowerService
{
    public String getLowerCase(String s);
}
```

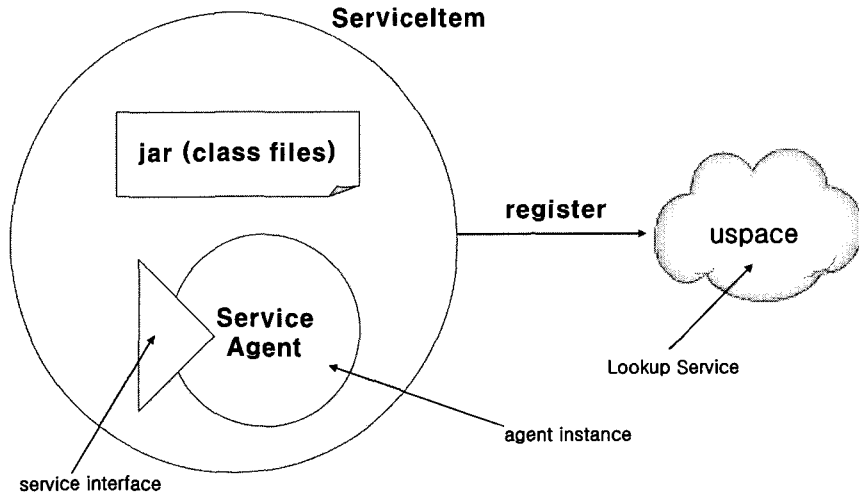
LowerService coding

```
package com.idosi.selflowerservice;

import org.ujava.selflowerservice.SelfLowerService;
import org.ujava.uspace.UspaceService;

public class SelfLowerServiceAgent extends UspaceService
    implements SelfLowerService
{
    public String getLowerCase(String s)
    {
        return s.toLowerCase();
    }
}
```

Agent instance의 등록



Agent instance를 등록하는 코드

```

package com.idosi.selflowerprovider;

import org.ujava.selflowerservice.SelfLowerService;
import com.idosi.selflowerservice.SelfLowerServiceAgent;

public class SelfLowerServiceProvider
{
    public static void main(String[] args) throws Exception
    {
        SelfLowerService service = new SelfLowerServiceAgent();

        LookupDiscovery discovery = new LookupDiscovery();
        String codebase = discovery.getAgentCodebase(service);

        System.setProperty("java.rmi.server.codebase", codebase);
        System.setSecurityManager(new RMISecurityManager());
        LookupService lookup = discovery.getLookupService();

        File agentJar = new File("selflower-dl.jar");
        ServiceItem serviceltem = new ServiceItem(service, agentJar);
        RegistrationResult result = lookup.register(serviceltem);
        System.out.println("service serial=" + result.getSerialNumber());
    }
}

```

LowerService를 이용하는 client

```

package com.idosi.selflowerclient;

import java.rmi.RMISecurityManager;
import org.ujava.selflowerservice.SelfLowerService;
import org.ujava.uspace.lookup.LookupDiscovery;
import org.ujava.uspace.lookup.LookupService;

public class SelfLowerServiceClient
{
    public static void main(String[] args) throws Exception
    {
        LookupDiscovery discovery = new LookupDiscovery();
        String codebase = discovery.getInterfaceCodebase();
        System.setProperty("java.rmi.server.codebase", codebase);
        System.setSecurityManager(new RMISecurityManager());

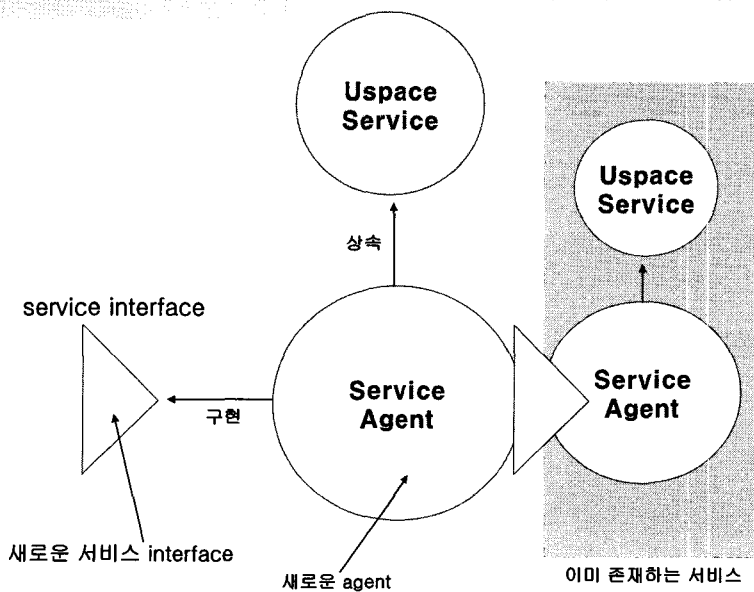
        LookupService lookup = discovery.getLookupService();

        SelfLowerService service = (SelfLowerService)
            lookup.lookup(SelfLowerService.class);
        String s = service.getLowerCase("WWW.IDOSI.COM");
        System.out.println(s);
    }
}

```

www.ujava.org ㈜지능도시 Ubiquitous Solutions Provider www.idosi.com 21

기존 서비스이용 새로운 서비스 개발



www.ujava.org ㈜지능도시 Ubiquitous Solutions Provider www.idosi.com 22

새 service 만드는 코드



```

package com.idosi.selfreverseservice;

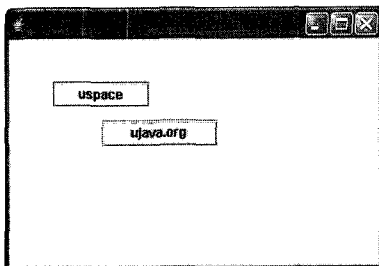
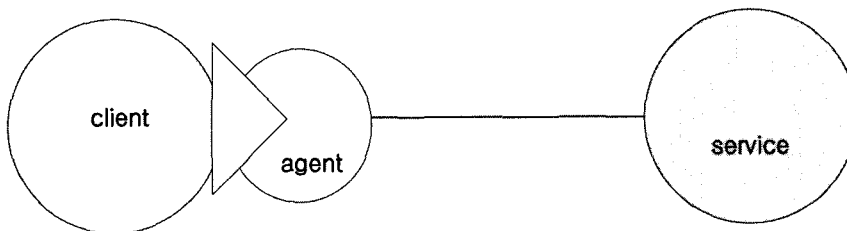
import org.ujava.selfowerservice.SelfLowerService;
import org.ujava.selfreverseservice.SelfReverseService;
import org.ujava.uspace.UspaceService;



public class SelfReverseServiceAgent extends UspaceService
    implements SelfReverseService
{
    public String getReversedString(String s) throws Exception
    {
        SelfLowerService service = (SelfLowerService)
            lookup.lookup(SelfLowerService.class);
        String s2 = service.getLowerCase(s);
        StringBuffer sb = new StringBuffer(s2);
        return sb.reverse().toString();
    }
}

```

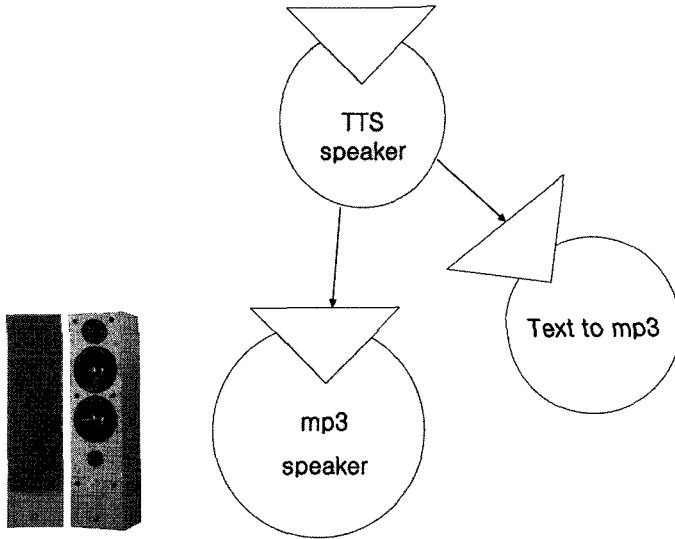
www.ujava.org   Ubiquitous Solutions Provider www.idosi.com 23

서비스 제어 GUI를 제공하는 서비스



www.ujava.org   Ubiquitous Solutions Provider www.idosi.com 24

Network speaker & TTS speaker



www.ujava.org (주)지능도시 Ubiquitous Solutions Provider www.idosi.com 25

Contact Information


 (주)지능도시
www.idosi.com
 대표이사 강신동
mobilemania@naver.com

ujava.org

www.ujava.org (주)지능도시 Ubiquitous Solutions Provider www.idosi.com 26