
OASIS WSIA Technical Committee

**Business Scenario Document
Information Sharing between Portal Servers**

Version 1..01

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Revision History

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Information Sharing between Portal Servers

1. Web Services for Remote Portals

1.1 Description

LargeCompany is an enterprise that operates worldwide. It manages its internal information and services (e.g. backend access to legacy time management system) using portal servers. There exist several portal server clusters within the company at different locations.

LargeCompany would like to make it possible to share content between multiple portal server installations with a minimum of maintenance and administration effort. The services to share are visual, user-facing and should integrate seamlessly into each portal in which they appear.

In the current scenario LargeCompany would like to share a portlet that displays the company's current stock price and a "tip-of-the-day" message with all other company portals. The visual design and content of this portlet are to be managed centrally. The layout of the portlet may change frequently which means changes in either the portlet's code or in the JSPs which render the portlet's content. It is important that such modifications are immediately visible on all client portals.

For security reasons there must not be the need to install code on the consuming portal servers.

The subject scenario pertains to visual, user-facing web services that enable portals to share content with each other. This approach is not limited to sharing content between portal servers of the same type but only requires that the portals export their portlets adhering to the WSRP interface. This document will focus specifically on the exchange of visual, user-facing web services by portal servers.

2. Participants

2.1.1 CentralPortalServer

2.1.2 Role

The CentralPortalServer is a portal server that hosts the local TipOfTheDay portlet. It provides not only access to data stored on the server but also implements the visual design of the portlet. This visual design may change on a per-day basis.

2.1.3 Relationships

CentralPortalServer exposes the TipOfTheDay as a WSRP service and publishes it in the corporate's private UDDI directory.

2.1.4 Business Objectives

CentralPortalServer wants to share TipOfTheDay information with all the company's end users regardless which local portal server they are using. The effort to integrate the portlet into each portal server should be as simple as possible. As the portlet's visual content often changes it should be managed centrally without any further interaction.

2.1.5 Solution Requirements

- *Easy Integration:* Allow local portal administrators to find and bind to the TipOfTheDay portlet with just a few mouse-clicks in their portal server's administration UI.
- *Caching:* Appropriate caching must be used at client portals to optimize response times for the end users and avoid excessive load on the CentralPortalServer.
- *Remote Access:* Allow portals all over the company to access the presentation markup of the TipOfTheDay portlet via the intranet.

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- *Request parameters:* The user may enter data in input fields of the TipOfTheDay. These parameters must be transferred to the CentralPortalServer for processing.
- *User data:* To personalize the content of the portlet the client may send parts of its user profile to the remote portlet.
- *Markup type:* Portal users may connect to their local portal using a variety of different devices (browser, PDA, phone, etc). The content of the remote TipOfTheDayPortlet must take this into account and render its content depending on the requested markup type.
- *Language:* LargeCompany is spread all over the world. Users want to connect to their local portals and get information in their preferred language. This is also true for the remote TipOfTheDayPortlet which must either be able to render its content in the requested language or to provide markup in a default language.

2.1.5.1 Technology Requirements

- *Standard Directory Infrastructure.* A central directory, accessible in a standardized manner for publication and finding of services must exist.
- *Standard, pluggable Invocation Interfaces and Protocols.* This is key for an architecture in which remote content can be plugged into an existing portal without installing, writing, or modifying code. Because the interfaces are the same for all possible portlets, clients can use a generic local proxy to connect to the remote service.
- *Transfer of user data and preferences:* The user of the local portlet may request different markup types and/or languages depending on his location and device. This information must be transmitted to the remote portlet with each request.
- *Binding:* Prior to accessing the TipOfTheDay portlet remotely client portal servers must authenticate themselves to make sure that the portlet is only shared within LargeCompany. This step is required only once per portal by establishing a persistent binding between the two.
- *Persistent instances:* Each user may integrate the remote portlet on a page in his portal server and configure personally. Such a configuration must be persistent both on the client and on the server side. If the user deletes the portlet locally the configuration information on the remote side may be deleted as well. This implies the need for life cycle management of portlet instances between the local and the remote server.

2.1.5.2 Functionality

Here are the main functionality use cases that are required in this scenario:

- Development and Publication
 - Develop an inspiring TipOfTheDay portlet with useful up-to-date information.
 - Publish this portlet to a directory that can be accessed by all portals belonging to the company, along with metadata describing the portlet's configuration properties.

2.1.5.3 Usability

2.1.5.4 Constraints

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2.2 Client Portal

2.2.1 Role

LargeCompany has portal servers throughout the world at many different locations. However there exists content that is of interest to the whole company and should be made available to all employees (e.g. the TipOfTheDay portlet). The client portal's administrator would like to make this portlet available to his users without making them notice that it comes from a remote server.

2.2.2 Relationships

Administrators for client portals locate the remote TipOfTheDay portlet in a UDDI directory and import it into their portal server. Users of the client portal can integrate the imported portlet into their pages and view markup rendered by the CentralPortalServer.

2.2.3 Business Objectives

Allow information consumption from a central point across portal boundaries. In particular modifications of the TipOfTheDay portlet must not impose management costs on the client portal's administrator.

The remote portlet should look exactly like any other portlet on the server (remote or local) and can be placed onto portal pages by users.

Once the administrator has imported the remote portlet, no further action by the administrator is required to keep the portlet up-to-date.

2.2.4 Solution Requirements

- *Easy Integration:* Allow the client portal administrators to find and bind to visual, user facing web services of other portal servers with just a few mouse-clicks in their portal server's administration UI.
- *Caching:* Appropriate caching must be used to optimize response times for the users of the client portal.

2.2.4.1 Technology Requirements

- *Standard Directory Infrastructure.* A central directory, accessible in a standardized manner for publication and finding of services must exist.
- *Standard, pluggable Invocation Interfaces and Protocols..*

2.2.4.2 Functionality

Here are the main functionality use cases that are required in this scenario:

- Finding and Binding
 - Find suitable remote portlets in a directory using appropriate portal admin UIs
 - Automatically integrate them into the portal as portlets (e.g. through portlet proxies)
 - Allow portal users to select portlet proxies representing remote portlets as local portlets
- Run-Time Invocation
 - Invoke remote portlets as appropriate