

# Appendix: Using Web Services

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## Overview

Web Services represent the latest and most convenient way for applications to support programmatic access from other software. This is called a Service Oriented Architecture (SOA) and is enabled by a communications protocol called SOAP.

Introduced in Notes Domino 7, the web services support allows us to make certain functions of the application directly accessible to external programs which have no knowledge of the internals of the system.

The basis of web services is a public definition (called a WSDL) which tells other applications exactly how to communicate with the service.

The WSDL instructions for each of the Web Services is stored in the application database. Anyone with a WSDL compliant tool can extract the WSDL and execute the service.

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## Request Center Web Services

The Request Center web services are contained in a module named "MR\_Request". To access the services descriptions you use the url

**`http://site/database.nsf/MR_Request?OpenWebService`**

This will return a page listing the service names and a link to the WSDL file containing the service definitions. This WSDL file you import into your programming tool (Visual Studio, XMLSpy, Rational Developer, Eclipse) to create code to access the services.

The Request Center application provides the following four web service functions.

- GETVERSION
- CREATEREQUEST
- GETSTATUSOFREQUESTNUMBER
- GETSTATUSOFREQUESTUNID

Using these two services, an external application (such as Help Desk Support) could initiate and track request progress without any modification, or detailed knowledge, of the Request Center Application.

## **Service: GETVERSION**

This service returns a string which contains the date when this web service was last updated.

## **Service: CREATEREQUEST**

This function creates a new request document in the request database. The new request will be in the "Waiting For Scheduling" state and the Request Manager will be notified.

This function takes five arguments and returns a string.

### ***Parameters:***

#### ***DESC***

The Description of the request

#### ***Details***

The expanded details of the requested action

#### ***Requestor***

The name of the requestor. This must be a valid Notes user name.

#### ***RequiredBy***

This is a date in text as it would be entered into a Notes form.

#### ***IDCode***

This is a text code string provided by the user which will become part of the request document.

### ***Return***

The return string will contain two parts separated by semicolon.

The first part will contain "OK" or "ERROR"

#### ***The second part will be of the form***

UNID=32characterHEXString; REQID=decimalnumberstring

## Example of CreateRequest

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <SOAP-ENV:Body>
    <m:CREATEREQUEST xmlns:m="urn:DefaultNamespace" SOAP-
ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
      <DESC xsi:type="xsd:string">Implement New UI for HR Benefits
Acceptance Form</DESC>
      <DETAILS xsi:type="xsd:string">See the specification that was
approved by the HR steering committee on 9/1.</DETAILS>
      <REQUESTOR xsi:type="xsd:string">Laura Jones/Marin
Research</REQUESTOR>
      <REQUIREDBY xsi:type="xsd:string">10/19/2005</REQUIREDBY>
      <IDCODE xsi:type="xsd:string">LJ21</IDCODE>
    </m:CREATEREQUEST>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

## Result of CREATEREQUEST

Request

Home Dashboard Awaiting Action by Date

Description: Implement New UI for HR Benefits Acceptance Form

Identification: Request #2024 created: 09/13/2005 11:26:03 AM  
Status: Waiting for Scheduling

Details:  
See the specification that was approved by the HR steering committee on 9/1.

Requestor	Laura Jones/Marin Research
Required by date:	10/19/2005 12:00:00 AM
Assigned Priority:	Low
Identification Code:	LJ21
Age	0 days

Implementation

History:  
Request Created by WebServices Transaction - CN=Marin7/O=MarinResearch on (9/13/2005 11:26:03 AM) Waiting for Scheduling ->CN=Gary M. Cole/O=MarinResearch

Document Access

## Example of Return String from this create request

OK: UNID=9BD1C89AFFC835788825707B006465BD;REQID=2024

## **Service: GETSTATUSOFREQUESTNUMBER**

### ***Parameter***

A string containing the decimal number of an existing request as returned by the CREATEREQUEST service.

### ***Result***

A string consisting of four parts.

The first part will be OK or ERROR

The second will contain the current status number 1-10

The third will contain the status as text such as "Waiting For Scheduling"

The last will contain details about the status of the implementation of the request, if the request is committed for implementation.

## **Service: GETSTATUSOFREQUESTUNID**

### ***Parameter***

A string containing the 32 character HEX identifier returned by the CREATEREQUEST service.

### ***Result***

Same as for the previous service.