



Korištenje web servisa u Oracle Data Integratoru (ODI)

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HrOUG 2011, Rovinj, 18. do 22. listopada 2011.



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Agenda

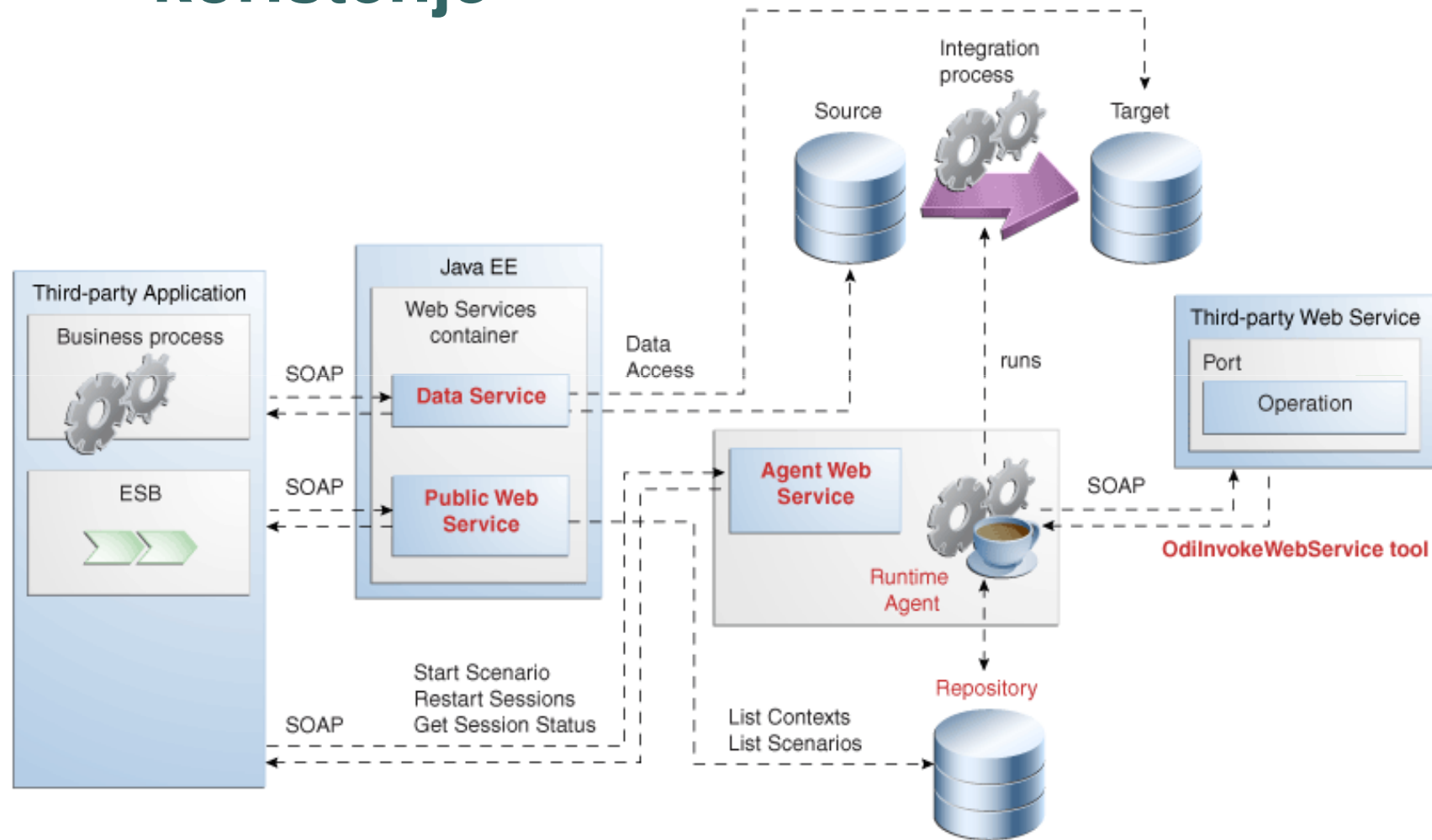
- **Uvod u korištenje web servisa u ODI**
- Preduvjeti
- Podatkovni servisi (Data services)
- Javni web servisi (Public web services)
- Alat OdiInvokeWebService
- Pro i Contra korištenja web servisa u ODI



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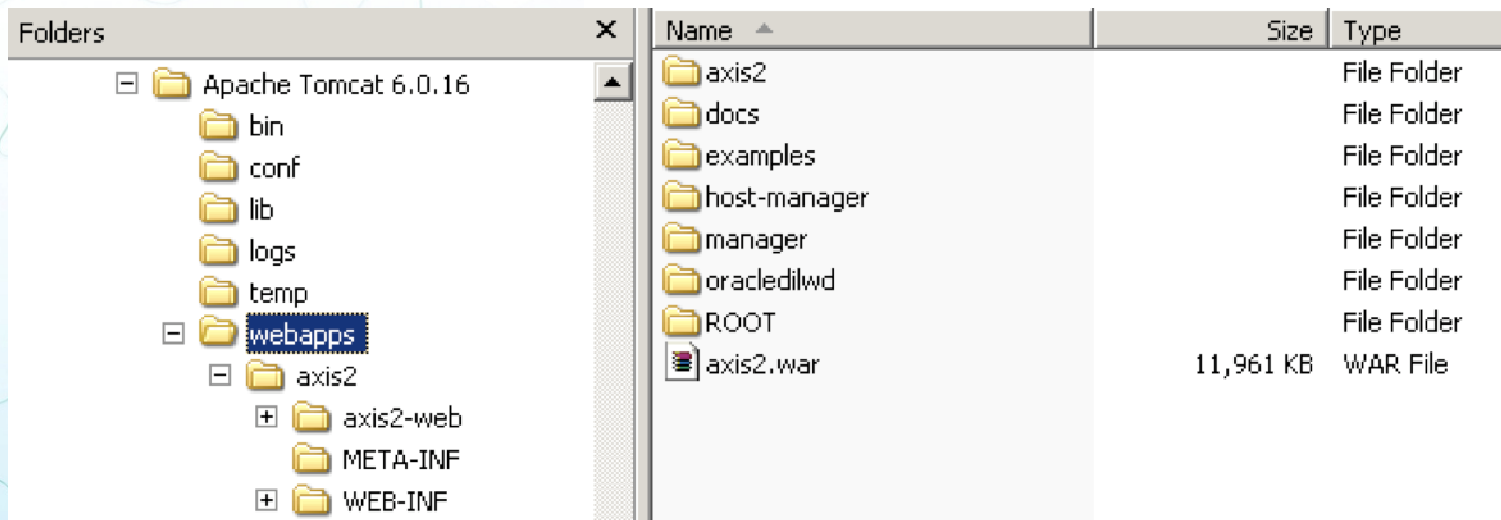
ODI web servisi korištenje





Preuvjeti

- o Java JDK
- o Aplikacijski servis (Tomcat, OC4J,...)
- o Engine za web servise (Axis2,...)





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Podatkovni servisi (Data services)

- Web servis na definiranom DataStore
- Mogućnost dohvata, ažuriranja i brisanja Java JDK
- Automatski generira ODI (wizard)
- Primarni ključ definiran na DataStore-u
- Definiranje konekcije koju koristi servis na aplikacijskom serveru

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Podatkovni servisi (Data services) - primjer

Model: HYPDATA

Definition Reverse Selective Reverse Control Journalizing Journalized Tables Markers **Services** Memo Version Privileges FlexFields

Data Services

Application server

Namespace

Package Name

Name of data source

Name of Data Service

Service KM

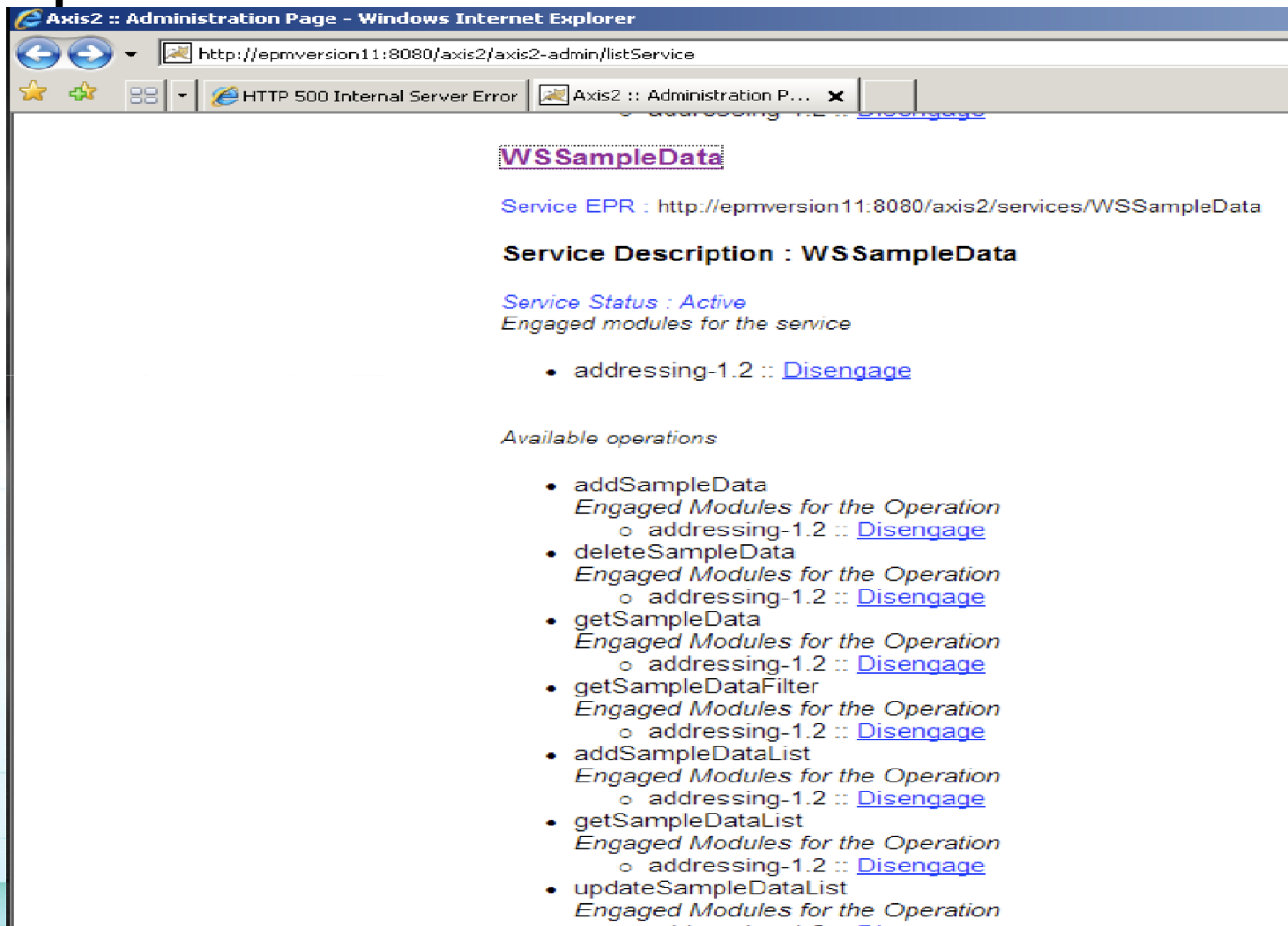
Select your KM

Option	Value

Author: Oracle
 Version: Oracle DI 10.1.3
 Updated: NOV-2006

Description:
 - Service Knowledge Module

Podatkovni servisi (Data services) - primjer



Axis2 :: Administration Page - Windows Internet Explorer

http://epmversion11:8080/axis2/axis2-admin/listService

HTTP 500 Internal Server Error

Axis2 :: Administration P...

WSSampleData

Service EPR : <http://epmversion11:8080/axis2/services/WSSampleData>

Service Description : WSSampleData

Service Status : *Active*
Engaged modules for the service

- addressing-1.2 :: [Disengage](#)

Available operations

- addSampleData
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- deleteSampleData
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- getSampleData
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- getSampleDataFilter
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- addSampleDataList
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- getSampleDataList
Engaged Modules for the Operation
 - addressing-1.2 :: [Disengage](#)
- updateSampleDataList
Engaged Modules for the Operation

Podatkovni servisi (Data services) - primjer

context.xml

```
<?xml version='1.0' encoding='utf-8'?>
<!--
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contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
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    http://www.apache.org/licenses/LICENSE-2.0

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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<!-- The contents of this file will be loaded for each web application -->
<Context>

<Resource name="HYPDATASOURCE" type="javax.sql.DataSource"
    driverClassName="com.microsoft.sqlserver.jdbc.SQLServerDriver"
    url="jdbc:sqlserver://epmversion11:1433;SelectMethod=cursor;databaseName=HYPDATA;integratedSecurity=false"
    username="hypadmin" password="password" maxIdle="2" maxWait="-1" maxActive="4"/>

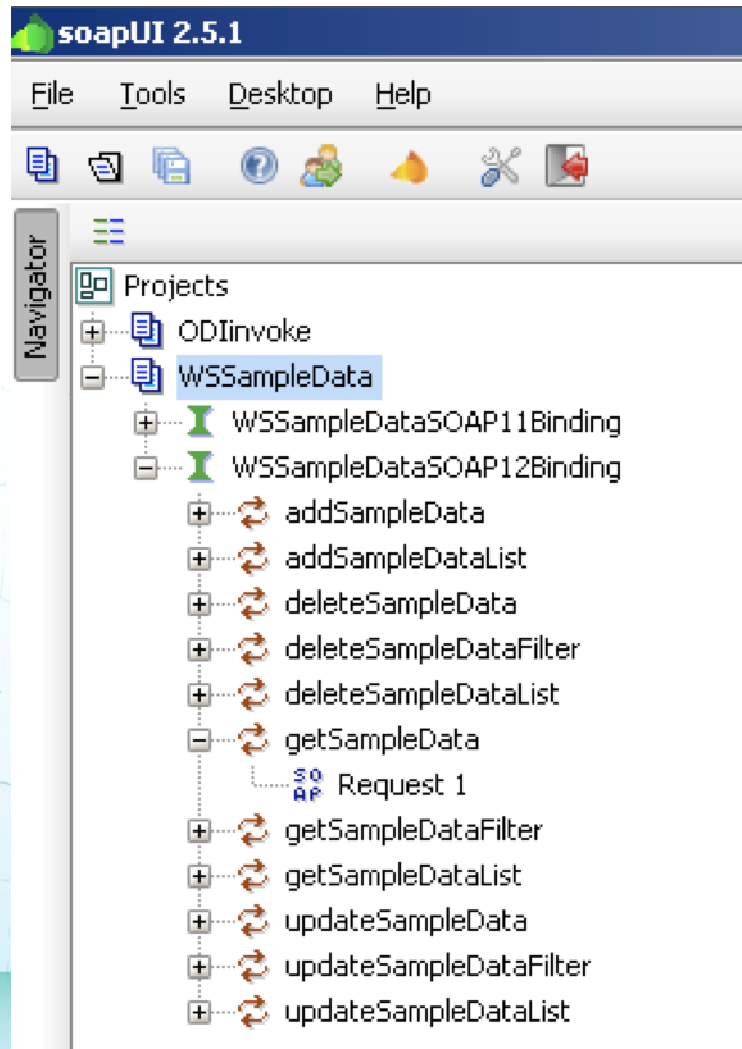
    <!-- Default set of monitored resources -->
    <WatchedResource>WEB-INF/web.xml</WatchedResource>

    <!-- Uncomment this to disable session persistence across Tomcat restarts -->
    <!--
    <Manager pathname="" />
    -->

    <!-- Uncomment this to enable Comet connection tacking (provides events
    on session expiration as well as webapp lifecycle) -->
    <!--
    <Valve className="org.apache.catalina.valves.CometConnectionManagerValve" />
    -->

</Context>
```

Podatkovni servisi (Data services) - primjer



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Podatkovni servisi (Data services) - primjer

Request 1

http://192.168.1.68:8080/axis2/service

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/20/soap-envelope">
  <soap:Header/>
  <soap:Body>
    <sch:SampleData>
      <!--Optional:-->
      <ID?></ID>
      <!--Optional:-->
      <Year?></Year>
      <!--Optional:-->
      <Measures?></Measures>
      <!--Optional:-->
      <Product?></Product>
      <!--Optional:-->
      <Market?></Market>
      <!--Optional:-->
      <Scenario?></Scenario>
      <!--Optional:-->
      <Data?></Data>
    </sch:SampleData>
  </soap:Body>
</soap:Envelope>
```

Request 1

http://192.168.1.68:8080/axis2/se

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/20/soap-envelope">
  <soap:Header/>
  <soap:Body>
    <sch:SampleData>
      <ID>1</ID>
    </sch:SampleData>
  </soap:Body>
</soap:Envelope>
```



Podatkovni servisi (Data services) - primjer

```
<soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
  <soapenv:Body>
    <axis2ns3:SampleData xmlns:axis2ns3="http://john-goodwin.blogspot.com">
      <ID>1</ID>
      <Year>Jan</Year>
      <Measures>Sales</Measures>
      <Product>100-10</Product>
      <Market>Florida</Market>
      <Scenario>Actual</Scenario>
      <Data>100</Data>
    </axis2ns3:SampleData>
  </soapenv:Body>
</soapenv:Envelope>
```

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Javni web servisi (Public Web services)

- Korištenje ODI mogućnosti u SOA
- Pozivanje gotovih scenarija
- Skriptiranje
- ODI axis service datoteka odi-public-ws.aar
- `http://<hostname>:<port>/axis2/services/OdiInvoke?wsdl`
- `listContext`, `listScenario`, `invokeScenario`, `getWebServiceVersion`, `invokeSession`

Javni web servisi (Public Web services) - primjer

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:odi="xmlns.oracle.com/odi/OdiInvoke/">
  <soap:Header/>
  <soap:Body>
    <odi:getWebServiceVersionRequest/>
  </soap:Body>
</soap:Envelope>
```

```
<soapenv:Envelope xmlns:soapenv="http://www.w3.org/2003/05/soap-envelope">
  <soapenv:Body>
    <ns1:getWebServiceVersionResponse
xmlns:ns1="xmlns.oracle.com/odi/OdiInvoke/">
      <ns1:version>10.1.3.5.0</ns1:version>
    </ns1:getWebServiceVersionResponse>
  </soapenv:Body>
</soapenv:Envelope>
```



Javni web servisi (Public Web services) - primjer

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
                  xmlns:odi="xmlns.oracle.com/odi/OdiInvoke/">
  <soapenv:Header/>
  <soapenv:Body>
    <odi:invokeScenarioRequest>
      <odi:RepositoryConnection>
        <odi:JdbcDriver>oracle.jdbc.driver.OracleDriver</odi:JdbcDriver>
        <odi:JdbcUrl>jdbc:oracle:thin:@dbhost:1521:dbname</odi:JdbcUrl>
        <odi:JdbcUser>odi</odi:JdbcUser>
        <odi:JdbcPassword>password</odi:JdbcPassword>
        <odi:OdiUser>SUPERVISOR</odi:OdiUser>
        <odi:OdiPassword>SUNOPSIS</odi:OdiPassword>
        <odi:WorkRepository>Work Repository Name</odi:WorkRepository>
      </odi:RepositoryConnection>
      <odi:Command>
        <odi:ScenName>SCENARIOName</odi:ScenName>
        <odi:ScenVersion>001</odi:ScenVersion>
        <odi:Context>GLOBAL</odi:Context>
        <odi:LogLevel>5</odi:LogLevel>
        <odi:SyncMode>1</odi:SyncMode>
      </odi:Command>
      <odi:Agent>
        <odi:Host>agenthost</odi:Host>
        <odi:Port>20910</odi:Port>
      </odi:Agent>
    </odi:invokeScenarioRequest>
  </soapenv:Body>
</soapenv:Envelope>
```


Javni web servisi (Public Web services) - primjer

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <nsl:invokeScenarioResponse xmlns:nsl="xmlns.oracle.com/odi/OdiInvoke/">
      <nsl:Ok>true</nsl:Ok>
      <nsl:SessionNumber>75001</nsl:SessionNumber>
      <nsl:ErrorMessage/>
    </nsl:invokeScenarioResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

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● ● ● | OdiInvokeWebService alat

- Pozivanje third-party web servisa
- Spremanje odgovora u XML datoteku
- Procesiranje u ODI
- Alat je dostupan pri kreiranju package-a

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OdiInvokeWebService alat

The screenshot displays the Oracle Data Integrator (ODI) interface for configuring a step named "OdiInvokeWebService 1". The interface includes a menu bar (Definition, Diagram, Execution, Scenarios, Markers, Memo, Version, Privileges, FlexFields), a toolbar, and a toolbox on the left. The toolbox lists various ODI components, including "OdiInvokeWebService".

The main workspace shows the "OdiInvokeWebService 1" step icon. Below it, the "Properties" panel is open, showing the "General" tab. The "Step name" is "OdiInvokeWebService 1". An "Advanced..." button is visible below the step name.

The "Advanced" tab is selected, displaying a table of parameters for the "OdiInvokeWebService" step:

Parameter	Val
WSDL URL	
Port Type	
Operation	
XML Request	
Request File	
Storage Mode for Response File	
File Encoding for Response File	
XML Encoding for Response File	
Response File	
HTTP User	
HTTP Password	

OdiInvokeWebService alat - primjer

Properties

General Command Advanced Memo Version Privileges

OdiInvokeWebService
Select a parameter for more information about it.

Step name
CreateSession

Advanced...

Parameter	Value
WSDL URL	http://epmversion11/hyperion-bpma-server/Sessions.asmx?wsdl
Port Type	SessionsSoap
Operation	CreateSession
XML Request	<CreateSessionRequest> ...
Request File	
Storage Mode for Response File	NEW_FILE
File Encoding for Response File	ISO8859_1
XML Encoding for Response File	ISO-8859-1
Response File	E:\FileDrop\sessionOutput.xml

Definition Diagram Execution Scenarios Markers Memo Version Privileges FlexFi

ok ko

Toolbox

- All
- Changed Data Capture
- Event Detection

CreateSession → ok → XML_SESSION_ID



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Pro i Contra

- o Pro

- o Mogućnost pozivanja ODI scenarija (integracijskog procesa)
- o Manipulacija velikog seta podataka (master data management)



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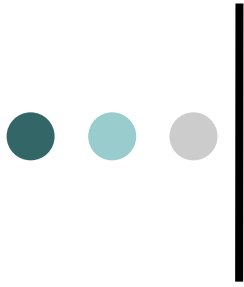


Pro i Contra

- Contra
 - Web servis kao izvor podataka nije "ravnopravan" s ostalim izvorima u heterogenim sustavima
 - Potrebno odatno procesiranje XMLa
 - HTTP zahtjevi – vrijeme dohvata – usporavanje procesa



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???

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Korištenje web servisa u Oracle Data Integratoru

H V A L A !

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