

## DBMS\_XDB\_CONFIG

The `DBMS_XDB_CONFIG` package provides an interface for configuring Oracle XML DB and its repository.

This chapter contains the following topics:

- [Overview](#)
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- [Summary of DBMS\\_XDB\\_CONFIG Subprograms](#)



### See Also:

*Oracle XML DB Developer's Guide*

## DBMS\_XDB\_CONFIG Overview

PL/SQL package `DBMS_XDB_CONFIG` is the Oracle XML DB resource application program interface (API) for PL/SQL for DBAs to configure their system.

This API provides functions and procedures to access and manage Oracle XML DB Repository resources using PL/SQL. It includes methods for managing resource security and Oracle XML DB configuration.



### Note:

The Oracle XML DB Repository is deprecated with Oracle Database 23ai.

Oracle recommends that you replace any functionality used in XML DB Repository with alternative technologies. As a result of this deprecation, all XML DB Repository interfaces (for example Repository-specific Java classes `oracle.xdb.servlet`, `oracle.xdb.event`, and `oracle.xdb.spi`) are consequently deprecated as well.

Oracle XML DB Repository is modeled on XML, and provides a database file system for any data. The repository maps path names (or URLs) onto database objects of XMLType and provides management facilities for these objects.

PL/SQL package `DBMS_XDB_CONFIG` is an API that you can use to manage all of the following:

- Oracle XML DB resources
- Oracle XML DB security based on access control lists (ACLs). An ACL is a list of access control entries (ACEs) that determines which principals (users and roles) have access to which resources.

- Oracle XML DB configuration

## DBMS\_XDB\_CONFIG Security Model

Owned by XDB, the DBMS\_XDB\_CONFIG package must be created by SYS or XDB. The EXECUTE privilege is granted to PUBLIC. Subprograms in this package are executed using the privileges of the current user.

## DBMS\_XDB\_CONFIG Constants

The DBMS\_XDB\_CONFIG package defines several enumerated constants that should be used for specifying parameter values.

These constants are shown in the following table.

**Table 226-1 DBMS\_XDB\_CONFIG Constants**

Constant	Type	Value	Description
XDB_ENDPOINT_HTTP	NUMBER	1	Defining listener for first HTTP port
XDB_ENDPOINT_HTTP2	NUMBER	2	Defining listener for second HTTP port
XDB_ENDPOINT_RHTTP	NUMBER	3	Defining listener for a remote HTTP port
XDB_ENDPOINT_RHTTPS	NUMBER	4	Defining listener for a remote HTTPS port
XDB_PROTOCOL_TCP	NUMBER	1	Defining listener for HTTP protocol
XDB_PROTOCOL_TCPS	NUMBER	2	Defining listener for HTTPS protocol

## Summary of DBMS\_XDB\_CONFIG Subprograms

The DBMS\_XDB\_CONFIG package uses subprograms for configuring Oracle XML DB and its repository.

These subprograms are listed in the following table.

**Table 226-2 DBMS\_XDB\_CONFIG Package Subprograms**

Subprogram	Description
<a href="#">ADDHTTPEXPIREMAPPING Procedure</a>	Adds to XDB\$CONFIG a mapping of the URL pattern to an expiration date. This will control the Expire headers for URLs matching the pattern.
<a href="#">ADDMIMEMAPPING Procedure</a>	Adds a mime mapping to XDB configuration
<a href="#">ADDSCHEMALOCMAPPING Procedure</a>	Adds a schema location mapping to the XDB configuration
<a href="#">ADDSERVLET Procedure</a>	Adds a servlet to XDB configuration
<a href="#">ADDSERVLETMAPPING Procedure</a>	Adds a servlet mapping to XDB configuration
<a href="#">ADDSERVLETSECROLE Procedure</a>	Adds a security role REF to a specified servlet in XDB configuration
<a href="#">ADDXMLEXTENSION Procedure</a>	Adds adds the following XML extension to the XDB configuration under <xml-extensions>: <extension>extension</extension>

**Table 226-2 (Cont.) DBMS\_XDB\_CONFIG Package Subprograms**

Subprogram	Description
<a href="#">CFG_GET Function</a>	Retrieves the session's configuration information as an <code>XMLType</code> instance
<a href="#">CFG_REFRESH Procedure</a>	Refreshes the session's configuration information to the latest configuration
<a href="#">CFG_UPDATE Procedure</a>	Updates the configuration information and commits the change.
<a href="#">DELETEHTTPEXPIREMAPPING Procedure</a>	Deletes from <code>XDB\$CONFIG</code> all mappings of the URL pattern to an expiration date
<a href="#">DELETEMIMEMAPPING Procedure</a>	Deletes the mime mapping for a specified extension from the XDB configuration
<a href="#">DELETESCHEMALOCMAPPING Procedure</a>	Deletes the schema location mapping for a specified schema URL from the XDB configuration
<a href="#">DELETESERVLET Procedure</a>	Deletes a servlet from the XDB configuration
<a href="#">DELETESERVLETMAPPING Procedure</a>	Deletes the servlet mapping for a specified servlet name from the XDB configuration
<a href="#">DELETESERVLETSECROLE Procedure</a>	Deletes the specified role from a servlet in the XDB configuration
<a href="#">DELETXMLEXTENSION Procedure</a>	Deletes the specified XML extension from the XDB configuration
<a href="#">ENABLEDIGESTAUTHENTICATION Procedure</a>	Enables enables digest authentication
<a href="#">GETFTPSPORT Function</a>	Gets the value of the current FTP port
<a href="#">GETHTTPSPORT Function</a>	Gets the value of the current HTTP port
<a href="#">GETHTTPCONFIGREALM Function</a>	Gets the realm name
<a href="#">GETHTTPSSPORT Function</a>	Gets the value of the current HTTPS port
<a href="#">GETLISTENERENDPOINT Procedure</a>	Gets the parameters of a listener end point corresponding to the XML DB HTTP server
<a href="#">GETREMOTEHTTPSPORT Function</a>	Gets the value of a remote HTTP port
<a href="#">GETREMOTEHTTPSSPORT Function</a>	Gets the value of a remote HTTPS port
<a href="#">ISGLOBALPORTENABLED Function</a>	Returns the value of the <code>DBMS_XDB_CONFIG.SETGLOBALPORTENABLED</code> procedure setting
<a href="#">SETFTPSPORT Procedure</a>	Sets the FTP port to a new value
<a href="#">SETHTTPSPORT Procedure</a>	Sets the HTTP port to a new value
<a href="#">SETHTTPCONFIGREALM Procedure</a>	Sets the realm to a new value
<a href="#">SETHTTPSSPORT Procedure</a>	Sets the HTTPS port to a new value
<a href="#">SETLISTENERENDPOINT Procedure</a>	Sets the parameters of a listener end point corresponding to the XML DB HTTP server
<a href="#">SETLISTENERLOCALACCESS Procedure</a>	Restricts all listener end points of the XML DB HTTP server to listen either only on the localhost interface (when <code>l_access</code> is set to <code>TRUE</code> ) or to listen on both localhost and non-localhost interfaces (when <code>l_access</code> is set to <code>FALSE</code> )

**Table 226-2 (Cont.) DBMS\_XDB\_CONFIG Package Subprograms**

Subprogram	Description
<a href="#">SETREMOTEHTTPPORT Procedure</a>	Sets the remote HTTP port to a new value
<a href="#">SETREMOTEHTTPSSPORT Procedure</a>	Sets the remote HTTPS port to a new value
<a href="#">USEDPORT Procedure</a>	Obtains the port numbers used by other pluggable databases in the same consolidation database

## ADDHTTPEXPIREMAPPING Procedure

This procedure adds to `XDB$CONFIG` a mapping of the URL pattern to an expiration date. This will control the Expire headers for URLs matching the pattern.

### Syntax

```
DBMS_XDB_REPOS.ADDHTTPEXPIREMAPPING (
    pattern    IN    VARCHAR2,
    expire     IN    VARCHAR2);
```

### Parameters

**Table 226-3 ADDHTTPEXPIREMAPPING Procedure Parameters**

Parameter	Description
pattern	URL pattern (only * accepted as wildcards)
expire	Expiration directive, follows the ExpireDefault in Apache's mod_expires: base [plus] (num type)* -- base: now   modification -- type: year years month months week weeks day days  minute minutess second seconds

### Examples

```
DBMS_XDB_REPOS.ADDHTTPEXPIREMAPPING ('/public/test1/*', 'now plus 4 weeks');
DBMS_XDB_REPOS.ADDHTTPEXPIREMAPPING (
    '/public/test2/*', 'modification plus 1 day 30 seconds');
```

## ADDMIMEMAPPING Procedure

This procedure adds the following mime mapping to XDB configuration:

```
<mime-mapping>
<extension>extension</extension>
<mime-type>mimetype</mime-type>
</mime-mapping>
```

### Syntax

```
DBMS_XDB_CONFIG.ADDMIMEMAPPING(
    extension  IN    VARCHAR2,
    mimetype   IN    VARCHAR2);
```

## Parameters

**Table 226-4** *ADDMIMEMAPPING Procedure Parameters*

Parameter	Description
extension	Extension for which a mime type is being added
mimetype	Mime type

## ADDSCHEMALOCMAPPING Procedure

This procedure adds the following schema location mapping to the XDB configuration:

```
<schemaLocation-mapping>
  <namespace>namespace</namespace>
  <element>element</element>
  <schemaURL>schemaURL</schemaURL>
</schemaLocation-mapping>
```

### Syntax

```
DBMS_XDB_CONFIG.ADDSCHEMALOCMAPPING (
  namespace    IN    VARCHAR2,
  element      IN    VARCHAR2,
  schemaURL    IN    VARCHAR2);
```

## Parameters

**Table 226-5** *ADDSCHEMALOCMAPPING Procedure Parameters*

Parameter	Description
namespace	Namespace
element	Element
schemaURL	Schema URL

## ADDSERVLET Procedure

This procedure adds a servlet to XDB configuration.

IT adds the following servlet:

```
<servlet>
  <servlet-name>name</servlet-name>      <servlet-language>language</servlet-language>
  <display-name>dispname</display-name>
  <description>descript</description>
  <servlet-class>class</servlet-class>
  <servlet-schema>schema</servlet-schema>
</servlet>
```

### Syntax

```
DBMS_XDB_CONFIG.ADDSERVLET (
  name         IN    VARCHAR2,
  language     IN    VARCHAR2,
  dispname     IN    VARCHAR2,
```

```
icon      IN  VARCHAR2 := NULL,  
descript  IN  VARCHAR2 := NULL,  
class     IN  VARCHAR2 := NULL,  
jspfile   IN  VARCHAR2 := NULL,  
plsql     IN  VARCHAR2 := NULL,  
schema    IN  VARCHAR2 := NULL);
```

### Parameters

**Table 226-6 ADDSERVLET Procedure Parameters**

Parameter	Description
name	Servlet name
language	Must be one of "C", "Java", "PL/SQL"
dispname	Display name
icon	Icon
descript	Description
class	The class / jspfile / plsql function corresponding to this servlet. The first non-NULL argument amongst these three is chosen, and the others are treated as NULL.
jspfile	This parameter is not supported. Always provide NULL value for this parameter. System throws an error if the value is not NULL.
plsql	The class / jspfile / plsql function corresponding to this servlet. The first non-NULL argument amongst these three is chosen, and the others are treated as NULL.
schema	Schema is used to specify <code>servlet-schema</code> xml element name in <code>xdbconfig.xml</code> . It indicates the Oracle schema in which the Java class is loaded.  If you do not specify any value, then the schema is searched using the default resolver specification.

## ADDSERVLETMAPPING Procedure

This procedure adds a servlet mapping to XDB configuration.

It adds the following servlet mapping:

```
<servlet-mapping>  
  <servlet-pattern>pattern</servlet-pattern>  
  <servlet-name>name</servlet-name>  
</servlet-mapping>
```

### Syntax

```
DBMS_XDB_CONFIG.ADDSERVLETMAPPING(  
  pattern IN VARCHAR2, name IN VARCHAR2);
```

### Parameters

**Table 226-7 ADDSERVLETMAPPING Procedure Parameters**

Parameter	Description
pattern	Sservlet pattern
name	Servlet name

# ADDSERVLETSECROLE Procedure

This procedure adds the security role `REF` to a specified servlet in XDB configuration.

It adds the following security role as shown in the following:

```
<security-role-ref>
  <role-name>rolename</role-name>
  <role-link>rolelink</role-link>
  <description>descript</description>
</security-role-ref>
```

## Syntax

```
DBMS_XDB_CONFIG.ADDSERVLETSECROLE(
  servname IN VARCHAR2, rolename IN VARCHAR2, rolelink IN
  VARCHAR2, descript IN VARCHAR2 := NULL);
```

## Parameters

**Table 226-8**    *ADDSERVLETSECROLE Procedure Parameters*

Parameter	Description
<code>servname</code>	Sservlet name
<code>rolename</code>	Role name
<code>rolelink</code>	Role link
<code>descript</code>	Description

# ADDXMLEXTENSION Procedure

This procedure adds an XML extension to the XDB configuration under `<xml-extensions>`.

It adds the following XML extension to the XDB configuration, under `<xml-extensions>`:

```
<extension>extension</extension>
```

## Syntax

```
DBMS_XDB_CONFIG.ADDXMLEXTENSION(
  extension IN VARCHAR2);
```

## Parameters

**Table 226-9**    *ADDXMLEXTENSION Procedure Parameters*

Parameter	Description
<code>extension</code>	XML extension to be added

## CFG\_GET Function

This function retrieves the session's configuration information as an `XMLType` instance.

### Syntax

```
DBMS_XDB_CONFIG.CFG_GET
RETURN SYS.XMLType;
```

## CFG\_REFRESH Procedure

This procedure refreshes the session's configuration information to the latest configuration.

### Syntax

```
DBMS_XDB_CONFIG.CFG_REFRESH;
```

## CFG\_UPDATE Procedure

This procedure updates the configuration information and commits the change.

### Syntax

```
DBMS_XDB_CONFIG.CFG_UPDATE (
    xdbconfig IN SYS.XMLTYPE);
```

### Parameters

**Table 226-10** CFG\_UPDATE Procedure Parameters

Parameter	Description
<code>xdbconfig</code>	The new configuration data

## DELETEHTTPEXPIREMAPPING Procedure

This procedure deletes from `XDB$CONFIG` all mappings of the URL pattern to an expiration date.

### Syntax

```
DBMS_XDB_REPOS.DELETEHTTPEXPIREMAPPING (
    pattern IN VARCHAR2);
```

### Parameters

**Table 226-11** DELETEHTTPEXPIREMAPPING Procedure Parameters

Parameter	Description
<code>pattern</code>	URL pattern (only * accepted as wildcards)



## DELETEMIMEMAPPING Procedure

This procedure deletes the mime mapping for a specified extension from the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETEMIMEMAPPING(  
    extension    IN    VARCHAR2);
```

### Parameters

**Table 226-12** *DELETEMIMEMAPPING Procedure Parameters*

Parameter	Description
extension	Extension for which a mime type is to be deleted

## DELETESCHEMALOCMAPPING Procedure

This procedure deletes the schema location mapping for a specified schema URL from the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETESCHEMALOCMAPPING(  
    schemaURL    IN    VARCHAR2);
```

### Parameters

**Table 226-13** *DELETESCHEMALOCMAPPING Procedure Parameters*

Parameter	Description
schemaURL	Schema URL

## DELETESERVLET Procedure

This procedure deletes a servlet from the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETESERVLET(  
    name          IN    VARCHAR2);
```

### Parameters

**Table 226-14** *DELETESERVLET Procedure Parameters*

Parameter	Description
name	Servlet name

## DELETESERVLETMAPPING Procedure

This procedure deletes the servlet mapping for a specified servlet name from the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETESERVLETMAPPING(  
    name          IN    VARCHAR2);
```

### Parameters

**Table 226-15** *DELETESERVLETMAPPING Procedure Parameters*

Parameter	Description
name	Servlet name

## DELETESERVLETSECROLE Procedure

This procedure deletes the specified role from a servlet in the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETESERVLETSECROLE(  
    servname      IN    VARCHAR2,    rolename    IN    VARCHAR2);
```

### Parameters

**Table 226-16** *DELETESERVLETSECROLE Procedure Parameters*

Parameter	Description
servname	Servlet name
rolename	Name of the role to be deleted

## DELETEXMLEXTENSION Procedure

This procedure deletes the specified XML extension from the XDB configuration.

### Syntax

```
DBMS_XDB_CONFIG.DELETEXMLEXTENSION(  
    extension     IN    VARCHAR2);
```

### Parameters

**Table 226-17** *DELETEXMLEXTENSION Procedure Parameters*

Parameter	Description
extension	XML extension to be deleted

## ENABLEDIGESTAUTHENTICATION Procedure

This procedure enables digest authentication. It will list digest as the first authentication mechanism to be used by the XML DB HTTP server.

### Syntax

```
DBMS_XDB_CONFIG.ENABLEDIGESTAUTHENTICATION;
```

## GETFTPSPORT Function

This procedure gets the value of the current FTP port.

### Syntax

```
DBMS_XDB_CONFIG.GETFTPSPORT  
RETURN NUMBER;
```

## GETHTTPCONFIGREALM Function

This function gets the realm name. Definition of a realm is referenced in IETF's RFC2617.

### Syntax

```
DBMS_XDB_CONFIG.GETHTTPCONFIGREALM  
RETURN VARCHAR2;
```

## GETHTTPSPORT Function

This function gets the value of the current HTTP port.

### Syntax

```
DBMS_XDB_CONFIG.GETHTTPSPORT  
RETURN NUMBER;
```

## GETHTTPSPORT Function

This procedure gets the value of the current HTTPS port.

### Syntax

```
DBMS_XDB_CONFIG.GETHTTPSPORT  
RETURN NUMBER;
```

### Usage Notes

Returns `NULL` if no port has been configured

# GETLISTENERENDPOINT Procedure

This procedure retrieves the parameters of a listener end point corresponding to the XML DB HTTP server. The parameters of both HTTP and HTTP2 end points can be retrieved by invoking this procedure.

## Syntax

```
DBMS_XDB_CONFIG.GETLISTENERENDPOINT (
    endpoint IN    NUMBER,
    host      OUT  VARCHAR2,    port      OUT  NUMBER,
    protocol  OUT  NUMBER);
```

## Parameters

**Table 226-18** GETLISTENERENDPOINT Procedure Parameters

Parameter	Description
endpoint	End point to be retrieved. Its value can be XDB_ENDPOINT_HTTP or XDB_ENDPOINT_HTTP2.
host	Interface on which the listener end point listens
port	Port on which the listener end point listens
protocol	Transport protocol accepted by the listener end point

# GETREMOTEHTTPPORT Function

This function gets the value of a remote HTTP port.

## Syntax

```
DBMS_XDB_CONFIG.GETREMOTEHTTPPORT
RETURN NUMBER;
```

# GETREMOTEHTTPSPORT Function

This function gets the value of a remote HTTPS port.

## Syntax

```
DBMS_XDB_CONFIG.GETREMOTEHTTPSPORT
RETURN NUMBER;
```

# ISGLOBALPORTENABLED Function

This procedure returns the value of the GlobalPortEnabled setting.

## Syntax

```
DBMS_XDB_CONFIG.ISGLOBALPORTENABLED RETURN BOOLEAN;
```

**Usage Notes**

- This procedure returns `TRUE` if `GlobalPortEnabled` has been set to `TRUE`; otherwise it returns `FALSE`.
- In a multitenant environment, you can execute this function in both the CDB root and PDBs.

## SETFTPSPORT Procedure

This procedure sets the FTP port to a new value.

**Syntax**

```
DBMS_XDB_CONFIG.SETFTPSPORT(  
    new_port IN NUMBER);
```

**Parameters**

**Table 226-19 SETFTPSPORT Procedure Parameters**

Parameter	Description
<code>new_port</code>	Value to which the FTP port is set

## SETHHTPPORT Procedure

This procedure sets the HTTP port to a new value.

**Syntax**

```
DBMS_XDB_CONFIG.SETHHTPPORT(  
    new_port IN NUMBER);
```

**Parameters**

**Table 226-20 SETHHTPPORT Procedure Parameters**

Parameter	Description
<code>new_port</code>	Value to which the HTTP port is set

## SETHHTTPCONFIGREALM Procedure

This procedure modifies the realm value.

**Syntax**

```
DBMS_XDB_CONFIG.SETHHTTPCONFIGREALM(  
    realm IN VARCHAR2);
```

## Parameters

**Table 226-21 SETHTTPPORT Procedure Parameters**

Parameter	Description
realm	Realm as defined in IETF's RFC2617

## SETHTTPSPORT Procedure

This procedure sets the HTTPS port to a new value.

### Syntax

```
DBMS_XDB_CONFIG.SETHTTPSPORT(  
    new_port IN NUMBER);
```

## Parameters

**Table 226-22 SETHTTPSPORT Procedure Parameters**

Parameter	Description
new_port	Value to which the HTTPS port is set

## SETLISTENERENDPOINT Procedure

This procedure sets the parameters of a listener end point corresponding to the XML DB HTTP server.

Both HTTP and HTTP2 end points can be set by invoking this procedure.

### Syntax

```
DBMS_XDB_CONFIG.SETLISTENERENDPOINT (  
    endpoint IN NUMBER,  
    host     IN VARCHAR2,    port     IN NUMBER,  
    protocol IN NUMBER);
```

## Parameters

**Table 226-23 SETLISTENERENDPOINT Procedure Parameters**

Parameter	Description
endpoint	End point to be set. Its value can be XDB_ENDPOINT_HTTP or XDB_ENDPOINT_HTTP2.
host	Interface on which the listener end point is to listen. Its value can be 'LOCALHOST,' NULL, or a hostname. If its value is 'LOCALHOST' the listener end point is permitted to only listen on the localhost interface. If its value is NULL or hostname, the listener end point is permitted to listen on both localhost and non-localhost interfaces.
port	Port on which the listener end point is to listen

**Table 226-23 (Cont.) SETLISTENERENDPOINT Procedure Parameters**

Parameter	Description
protocol	Transport protocol that the listener end point is to accept. Its value can be XDB_PROTOCOL_TCP or XDB_PROTOCOL_TCPS

## SETLISTENERLOCALACCESS Procedure

This procedure restricts all listener end points of the XML DB HTTP server to listen either only on the localhost interface (when `l_access` is set to `TRUE`) or to listen on both localhost and non-localhost interfaces (when `l_access` is set to `FALSE`).

### Syntax

```
DBMS_XDB_CONFIG.SETLISTENERLOCALACCESS (
    l_access    BOOLEAN);
```

### Parameters

**Table 226-24 SETLISTENERLOCALACCESS Procedure Parameters**

Parameter	Description
<code>l_access.</code>	<code>TRUE</code> or <code>FALSE</code> .

## SETREMOTEHTTPPORT Procedure

This procedure sets a remote HTTP port to a new value.

### Syntax

```
DBMS_XDB_CONFIG.SETREMOTEHTTPPORT (
    new_port    IN    NUMBER);
```

### Parameters

**Table 226-25 SETREMOTEHTTPPORT Procedure Parameters**

Parameter	Description
<code>new_port</code>	Value to which the remote HTTP port is set

## SETREMOTEHTTPSPORT Procedure

This procedure sets a remote HTTPS port to a new value.

### Syntax

```
DBMS_XDB_CONFIG.SETREMOTEHTTPSPORT (
    new_port    IN    NUMBER);
```

## Parameters

**Table 226-26 SETREMOTEHTTPSPORT Procedure Parameters**

Parameter	Description
<code>new_port</code>	Value to which the remote HTTPS port is set

## USEDPORT Function

This function obtains the port numbers used by other pluggable databases in the same consolidation database.

### Syntax

```
DBMS_XDB_CONFIG.USEDPORT RETURN XMLTYPE;
```