231
DBMS_XDBZ

The DBMS_XDBZ package controls the Oracle XML DB repository security, which is based on Access Control Lists (ACLs).

This chapter contains the following topics:

- Security Model
- Constants
- Summary of DBMS_XDBZ Subprograms

> ✎ **See Also:**
>
> *Oracle XML DB Developer's Guide*

DBMS_XDBZ Security Model

Owned by `XDB`, the `DBMS_XDBZ` 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_XDBZ Constants

The `DBMS_XDBZ` package defines several constants that can be used for specifying parameter values.

The package uses the constants shown in following tables.

Table 231-1   *DBMS_XDBZ Constants* - Name Format

Constant	Type	Value	Description
NAME_FORMAT_SHORT	PLS_INTEGER	1	DB user name or LDAP nickname
NAME_FORMAT_DISTINGUISHED	PLS_INTEGER	2	LDAP distinguished name

Table 231-2   *DBMS_XDBZ Constants* - Enable Option

Constant	Type	Value	Description
ENABLE_CONTENTS	PLS_INTEGER	1	Enables hierarchy for contents and is used by users when calling the ENABLE_HIERARCHY Procedure

Table 231-2   (Cont.) *DBMS_XDBZ Constants* **- Enable Option**

Constant	Type	Value	Description
ENABLE_RESMETADATA	PLS_INTEGER	2	Enables hierarchy for resource metadata, that is, this table will store schema based custom metadata for resources

Table 231-3   *DBMS_XDBZ Constants* - Enable Option Exercised

Constant	Type	Value	Description
IS_ENABLED_CONTENTS	PLS_INTEGER	1	If hierarchy was enabled for contents, that is, the ENABLE_HIERARCHY Procedure was called with `hierarchy_type` as ENABLE_CONTENTS
IS_ENABLED_RESMETADATA	PLS_INTEGER	2	If hierarchy was enabled for resource metadata, that is, the ENABLE_HIERARCHY Procedure was called with `hierarchy_type` as ENABLE_RESMETADATA

Summary of DBMS_XDBZ Subprograms

This table lists the DBMS_XDBZ subprograms and briefly describes them.

Table 231-4   *DBMS_XDBZ Package Subprograms*

Method	Description
DISABLE_HIERARCHY Procedure	Disables repository support for the specified XMLTYPE table or view
ENABLE_HIERARCHY Procedure	Enables repository support for the specified XMLType table or view
GET_ACLOID Function	Retrieves the ACL Object ID for the specified resource
GET_USERID Function	Retrieves the user ID for the specified user
IS_HIERARCHY_ENABLED Function	Determines if repository support for the specified XMLType table or view is enabled
PURGELDAPCACHE Function	Purges the LDAP nickname cache

CREATENONCEKEY Procedure

This procedure generates a nonce value for use in digest authentication.

Syntax

```
DBMS_XDBZ.CREATENONCEKEY;
```

DISABLE_HIERARCHY Procedure

This procedure disables repository support for a particular XMLType table or view.

Syntax

```
DBMS_XDBZ.DISABLE_HIERARCHY(
   object_schema IN VARCHAR2,
   object_name   IN VARCHAR2);
```

Parameters

Table 231-5   DISABLE_HIERARCHY Procedure Parameters

Parameter	Description
object_schema	Schema name of the XMLType table or view
object_name	Name of the XMLType table or view

ENABLE_HIERARCHY Procedure

This procedure enables repository support for a particular XMLType table or view. This allows the use of a uniform ACL-based security model across all documents in the repository.

> **See Also:**
>
> *Oracle XML DB Developer's Guide* for more information about

Syntax

```
DBMS_XDBZ.ENABLE_HIERARCHY(
   object_schema   IN   VARCHAR2,
   object_name     IN   VARCHAR2,
   hierarchy_type  IN   PLS_INTEGER := DBMS_XDBZ.ENABLE_CONTENTS);
```

Parameters

Table 231-6   ENABLE_HIERARCHY Procedure Parameters

Parameter	Description
object_schema	Schema name of the XMLType table or view
object_name	Name of the XMLType table or view

Table 231-6   (Cont.) ENABLE_HIERARCHY Procedure Parameters

Parameter	Description
hierarchy_type	How to enable the hierarchy. • ENABLE_CONTENTS - enable hierarchy for contents, that is, this table will store contents of resources in the repository • ENABLE_RESMETADATA - enable hierarchy for resource metadata, that is, this table will store schema based custom metadata for resources If this subprogram is called on a table, another call will have no effect. Note that you cannot enable hierarchy for both contents and resource metadata.

GET_ACLOID Function

This function retrieves the ACL Object ID for the specified resource, if the repository path is known.

Syntax

```
DBMS_XDBZ.GET_ACLOID(
   aclpath   IN   VARCHAR2,
   acloid    OUT  RAW)
 RETURN BOOLEAN;
```

Parameters

Table 231-7   GET_ACLOID Function Parameters

Parameter	Description
aclpath	ACL resource path for the repository
acloid	Returned Object ID

Return Values

Returns TRUE if successful.

GET_USERID Function

This function retrieves the user ID for the specified user name. The local database is searched first, and if found, the USERID is returned in 4-byte database format. Otherwise, the LDAP directory is searched, if available, and if found, the USERID is returned in 4-byte database format.

Syntax

```
DBMS_XDBZ.GET_USERID(
   username IN  VARCHAR2,
   userid   OUT RAW,
   format   IN  BINARY_INTEGER := NAME_FORMAT_SHORT)
 RETURN BOOLEAN;
```

Parameters

Table 231-8   GET_USERID Function Parameters

Parameter	Description
username	Name of the database or LDAP user.
userid	Return parameter for the matching user id.
format	Format of the specified user name; valid options are: • `DBMS_XDBZ.NAME_FORMAT_SHORT` (default) -- DB user name or LDAP nickname • `DBMS_XDBZ.NAME_FORMAT_DISTINGUISHIED` -- LDAP distinguished name.

Return Values

Returns `TRUE` if successful.

IS_HIERARCHY_ENABLED Function

This function determines if repository support for the specified `XMLType` table or view is enabled.

Syntax

```
DBMS_XDBZ.IS_HIERARCHY_ENABLED(
   object_schema   IN   VARCHAR2,
   object_name     IN   VARCHAR2,
   hierarchy_type  IN   PLS_INTEGER := IS_ENABLED_CONTENTS)
 RETURN BOOLEAN;
```

Parameters

Table 231-9   IS_HIERARCHY_ENABLED Function Parameters

Parameter	Description
object_schema	Schema name of the `XMLType` table or view
object_name	Name of the `XMLType` table or view
hierarchy_type	Type of hierarchy to check for: • `IS_ENABLED_CONTENTS` - if hierarchy was enabled for contents, that is, the ENABLE_HIERARCHY Procedure was called with `hierarchy_type` as `ENABLE_CONTENTS` • `IS_ENABLED_RESMETADATA` - if hierarchy was enabled for resource metadata, that is, the ENABLE_HIERARCHY Procedure was called with `hierarchy_type` as `ENABLE_RESMETADATA`

Return Values

Returns `TRUE` if the given XMLTYPE table or view has the XDB Hierarchy enabled with the specified type.

PURGELDAPCACHE Function

This function purges the LDAP nickname cache.

It returns `TRUE` if successful.

Syntax

```
DBMS_XDBZ.PURGELDAPCACHE
 RETURN BOOLEAN;
```