

Multitenant internals

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The biggest change in multitenant architecture is the separation of dictionaries: system metadata in CDB\$ROOT and user metadata in Pluggable Database. This session explains how it is implemented internally, with object links and data links.

All the research about internals is documented in my blog, then here are the links.

The dictionary separation, METADATA LINK and OBJECT LINK (now called DATA LINK):

<http://blog.dbi-services.com/multitenant-dictionary-what-is-stored-only-in-cdbroot/>
<http://blog.dbi-services.com/oracle-12c-cdb-metadata-a-object-links-internals/>
<http://blog.dbi-services.com/oracle-multitenant-dictionary-metadata-links/>
<http://blog.dbi-services.com/oracle-multitenant-dictionary-object-links/>
<http://blog.dbi-services.com/multitenant-internals-how-object-links-are-parsedexecuted/>
<http://blog.dbi-services.com/multitenant-internals-object-links-on-fixed-tables/>

An exemple with the AWR views in 12cR1 and 12cR2:

<http://blog.dbi-services.com/12c-multitenant-internals-awr-tables-and-views/>
<https://blog.dbi-services.com/oracle-12cr2-awr-views-in-multitenant/>

How the upgrades should work:

<http://blog.dbi-services.com/oracle-multitenant-dictionary-upgrade/>

What about shared pool rowcache and library cache:

<http://blog.dbi-services.com/oracle-multitenant-dictionary-rowcache/>
<http://blog.dbi-services.com/12c-multitenant-cursor-sharing-in-cdb/>

And how to see when session switches to CDB\$ROOT:

http://blog.dbi-services.com/oracle-12cr2-multitenant-containers-in-sql_trace/

The V\$ views using VPD-like row level security:

<https://blog.dbi-services.com/12c-multitenant-internals-vpd-for-v-views/>

Implementation of Application Containers in 12cR2:

<https://blog.dbi-services.com/12cr2-needs-to-connect-with-password-for-cross-pdb-dml/>
<https://blog.dbi-services.com/12cr2-cross-container-dml-insert-into-container/>
<https://blog.dbi-services.com/12cr2-application-containers-and-foreign-keys/>