

ORACLE®



Oracle Database **Exadata Express** Cloud Service

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Marc Sewtz

Senior Software Development Manager Oracle Application Express / Database Tools

- ◉ Joined Oracle Consulting in Hamburg, Germany in 1998
- ◉ Moved to Oracle in New York in 1999
- ◉ Developed first “APEX” app in 2001
- ◉ Joined Database Tools group in 2002

- ◉ Twitter: **@msewtz**
- ◉ APEX on Twitter: **#ORCLAPEX**
- ◉ Blog: <http://marcsewtz.blogspot.com>

Video

<https://www.youtube.com/watch?v=PPY7JSYnhqk>

Oracle Database **Exadata Express** Cloud Service

A Fully Managed Experience for Small-to-Medium Sized Cloud Databases

- Launch platform for Oracle's newest release – **Oracle Database 12c Release 2**
- Runs on the world's #1 engineered system – **Oracle Exadata**
- Packed with features for **modern application development**
- Perfect for **line-of-business apps, dev & test environments** and more
- Simple all-inclusive prices starting at only **\$175 / month**



Target Use Cases



Express CS



Database CS

Elastic Compute or Bare Metal



Exadata CS

DB Development, Test, Evaluation



SMB, Departmental Apps, Collaboration



Enterprise Applications



Highest Availability, Scalability, Performance

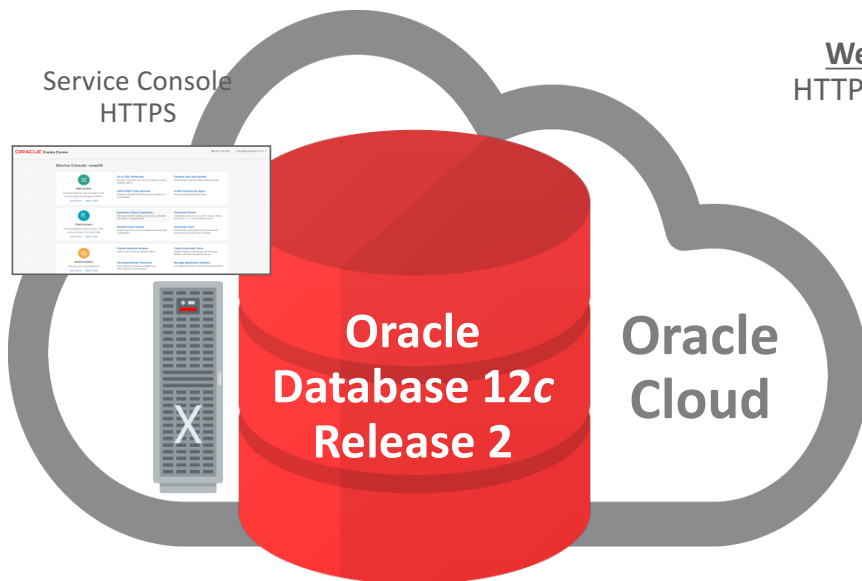


Cloud @ Customer Choices

Cloud Machine

Exadata Cloud Machine

Summary of Capabilities



- Enterprise Edition
- With options
- Exadata X5-2
- Containerized, PDBs

Web Interface
HTTPS – HTML/CSS



- SQL Workshop
- Rapid web development using Application Builder (desktop and mobile)
- Gallery of productivity apps
- *And more!*

SQL Interface
SQL*Net (SSL/TLS)



- Drivers: Java, .NET, Python, PHP, node.js, Ruby, C/C++...
- IDEs: SQL Developer, Data Modeler, JDeveloper...
- Tools: SQL*Plus, SQLcl...

REST Interface
HTTPS – REST/JSON



- Data access via REST APIs
- OAuth2 or simple authentication
- Optional schema-less documents & collections

The Service Console

The screenshot shows the Oracle Exadata Express Service Console. At the top, the Oracle logo and 'Exadata Express' are on the left, and the user ID 'IDM: [redacted]' and email '[redacted]@oracle.com' are on the right. The main content area is titled 'Service Console: demo' and contains a grid of service tiles. Each tile has an icon, a title, a brief description, and links for 'Learn More' and 'Watch Video'.

Category	Service Name	Description
Web Access	Go to SQL Workshop	Run SQL commands, execute SQL scripts and browse database objects
	Develop with App Builder	Declaratively develop and deploy data-driven apps
	Install Productivity Apps	Browse and install productivity apps
Client Access	Define REST Data Services	Create and manage RESTful web service interfaces to your database
	Download Client Credentials	Download a zip file containing your security credentials and network configuration files
	Download Drivers	Get database drivers for Java, .NET, Node.js, Python, PHP, Ruby, C, C++, Instant Client and more
Administration	Disable Client Access	Disable SQL*Net access and invalidate all existing client credential files
	Download Tools	Get SQL*Plus command-line and developer tools including SQL Developer and JDeveloper
	Create Database Schema	Create a new schema for database objects

Pricing and Shapes

Oracle Database Exadata Cloud Machine Exadata Express Service Database Schema Service

US Dollar

Non-Metered Service [Buy Now](#)

Product	Price	Database Storage Maximum	Database Memory Maximum	Data Transfer Maximum
Exadata Express - X20	\$175.00 / Month	20GB	3GB PGA, 3GB SGA	120GB / Month
Exadata Express - X50	\$750.00 / Month	50GB	5GB PGA, 5GB SGA	300GB / Month
Exadata Express - X50IM	\$950.00 / Month	50GB	5GB PGA, 10GB SGA, 5GB RAM for use with Database In-Memory Column Store	300GB / Month

Each Exadata Express account provides 1 managed Pluggable Database (PDB) of Oracle Database Enterprise Edition, plus relevant options, running on Exadata in Oracle Cloud. Oracle Database client tools and drivers can connect to the cloud PDB via Oracle Net (SQL*Net). The service also includes data access using Oracle REST Data Services (ORDS) and Simple Oracle Document Access (SODA) as well as rapid web application development using pre-configured Oracle Application Express (APEX). Note the X50IM shape includes an additional 5GB of RAM for use with Oracle Database In-Memory Column Store.

Demo

Simple Administration



Service Details: Oracle Database Exadata Express Cloud Service

Overview

1 provisioned instances

Billing Metrics

Resource Quotas
configure alerts

Business Metrics

Documents

Status

Additional Information

Plan: Oracle Database Exadata Exp...	Data Jurisdiction: US Commercial 2
Service Start Date: 10-Oct-2016	Identity Domain Name: b012345
Subscription ID: 987654321	Identity Domain Id: b012345
Service Instance ID: 0123456789	Status: Active
Customer Account: DEV Exadata Express (US)	
CSI Number: 555554444333	

Service Instances

Create Service Instance



Show: Active

[Open Service Console](#)



demo

Service Type: Exadata Express	Administrator: sample.user@oracle.com
Instance Id: 765409812	Requested By: sample.user@oracle.com
Status: Active	Service Instance URL: https://demo-b012345...
Plan: Oracle Database Exadata Express Clo...	

Oracle Cloud
My Services

Service Console: demo



Web Access

Develop database and web apps using Oracle Application Express (APEX)

[Learn More](#) [Watch Video](#)

Go to SQL Workshop

Run SQL commands, execute SQL scripts and browse database objects

Define REST Data Services

Create and manage RESTful web service interfaces to your database

Develop with App Builder

Declaratively develop and deploy data-driven apps

Install Productivity Apps

Browse and install productivity apps



Client Access

Enable database client access, then connect using drivers and tools

[Learn More](#) [Watch Video](#)

Download Client Credentials

Download a zip file containing your security credentials and network configuration files

Download Drivers

Get database drivers for Java, .NET, Node.js, Python, PHP, Ruby, C, C++, Instant Client and more

Disable Client Access

Disable SQL*Net access and invalidate all existing client credential files

Download Tools

Get SQL*Plus command-line and developer tools including SQL Developer and JDeveloper



Administration

Manage your cloud database

[Learn More](#) [Watch Video](#)

Create Database Schema

Create a new schema for database objects

Create Document Store

Enable or disable a schema-less document-style interface, with JSON storage and access

Set Administrator Password

Set or reset your database's privileged user (PDB_ADMIN) account password

Manage Application Express

Use Application Express (APEX) administrative options

Exadata
Express Service
Console

Database Web Access with APEX

SQL Commands

Schema MYDEFAULT

Rows 10 Clear Command Find Tables

Save Run

```
select * from emp;
```

Results Explain Describe Saved SQL History

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20
7902	FORD	ANALYST	7566	12/03/1981	3000	-	20
7369	SMITH	CLERK	7902	12/17/1980	800	-	20
7499		SALESMAN	7698	02/20/1981	1600	300	30
7521		SALESMAN	7698	02/22/1981	1250	500	30
7654		SALESMAN	7698	09/28/1981	1250	1400	30



More rows selector to view more rows.

10 rows returned in 0.01 seconds Download

Rendering

1 2 3

Page 1: Home

- Pre-Rendering
- Regions
 - Breadcrumb Bar
 - Breadcrumbs
 - Attributes
 - Content Body
 - Post-Rendering

Grid Layout Messages Page Search Help

Home

PAGE HEADER

PAGE NAVIGATION

BREADCRUMB BAR

- Breadcrumbs
 - ITEMS
 - REGION CONTENT
 - SUB REGIONS
 - PREVIOUS CLOSE DELETE HELP CHANGE EDIT COPY CREATE NEXT

CONTENT BODY

FOOTER

INLINE DIALOGS

Page

Identification

Name Home

Page Alias

Title Home

Page Group - Select -

Appearance

User Interface Desktop

Page Mode Normal

Page Template Theme Default

Template Options Use Template Defaults

CSS Classes

Media Type

Navigation Menu

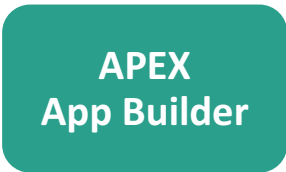
Override User Interface Level Yes No

Navigation

Cursor Focus Do not focus cursor

JavaScript

File URLs



Regions Items Buttons

Breadcrumb Calendar Chart Classic Report Classic Report (based on Function) Help Text Interactive Report Legacy Calendar List

Map Chart PL/SQL Dynamic Region Display Static Content Tabular Form Tree URL

🔍 search

Productivity Apps Sample Apps



APEX Application Archive
Software Development



Checklist Manager
Tracking, Team Productivity



Data Reporter
Knowledge Management, Tracking, Project Management



Feedback
Software Development



Incident Tracking
Software Development, IT Management



Opportunity Tracker
Tracking, Team Productivity



Use Case Status



Application Standards Tracker
Tracking, Knowledge Management



Community Requests
Software Development, Community



Decision Manager
Team Productivity, Tracking



Go Live Checklist
Project Management



Live Poll
Marketing, Tracking



P-Track
Project Management, Team Productivity, Tracking



Bug Tracking
Software Development, Tracking



Customer Tracker
Tracking, Marketing



Expertise Tracker
Tracking, Knowledge Management



Group Calendar
Team Productivity



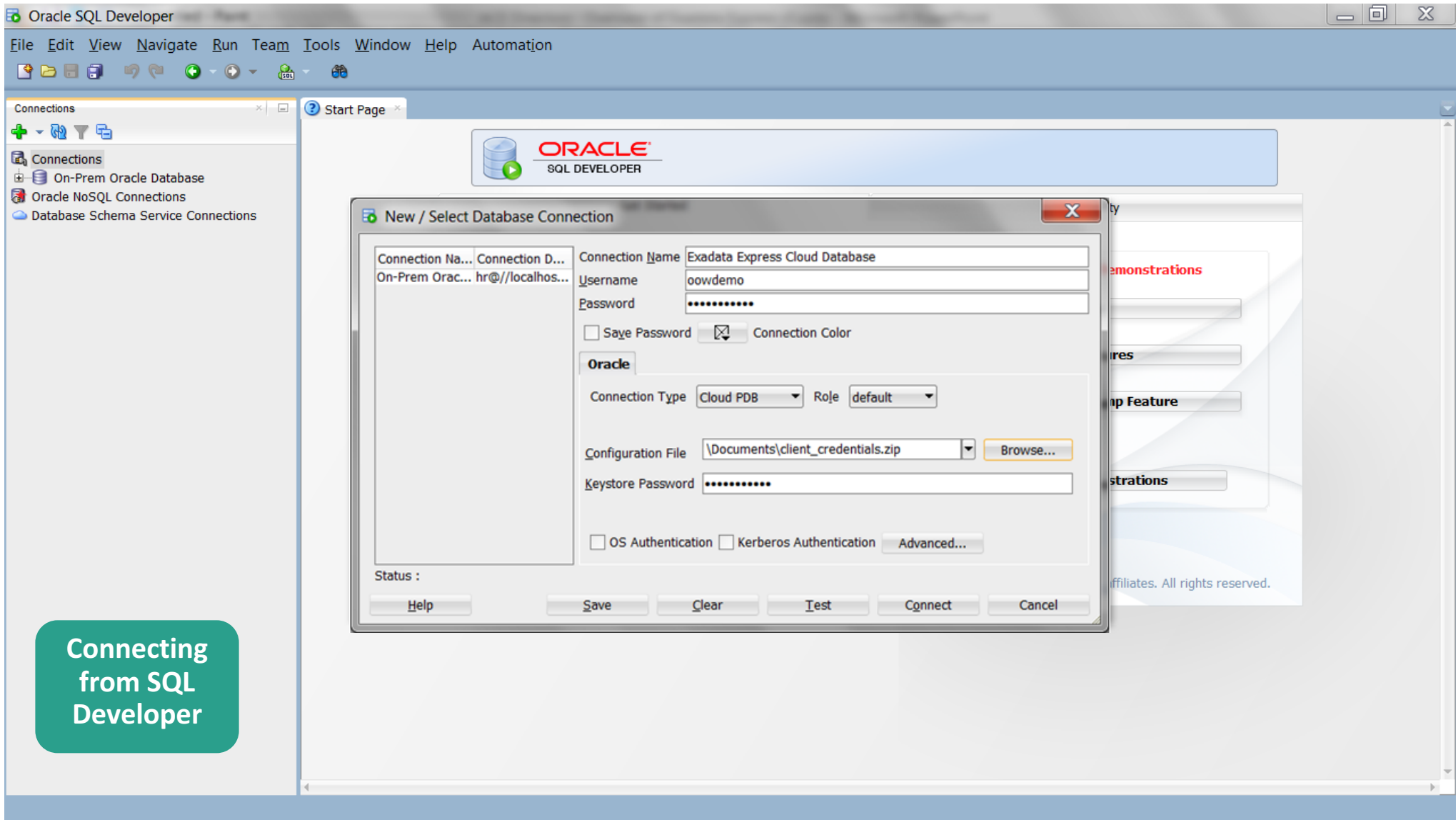
Meeting Minutes
Tracking, Team Productivity



Survey Builder
Knowledge Management, Marketing, Tracking

**APEX
Productivity
Apps**

Database Client Access with SQL Developer



Connecting from SQL Developer



Connections

- Connections
- Exadata Express Cloud Database
- On-Prem Oracle Database
- Oracle NoSQL Connections
- Database Schema Service Connections

Now Connected

Start Page Exadata Express Cloud Database

Worksheet Query Builder

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help Automation

Connections

- Exadata Express Cloud Database
 - Tables (Filtered)
 - Other Users
- On-Prem Oracle Database
 - Tables (Filtered)
 - COUNTRIES
 - DEPARTMENTS
 - EMPLOYEES**
 - JOB_HISTORY
 - JOBS
 - LOCATIONS
 - REGIONS
 - Other Users
- Oracle NoSQL Connections
- Database Schema Service Connections

Start Page | Exadata Express Cloud Database | On-Prem Oracle Database | EMPLOYEES

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Actions...

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 EMPLOYEE_ID	NUMBER(6,0)	No	(null)		1 Primary key of employees table.
2 FIRST_NAME	VARCHAR2(20 BYTE)	Yes	(null)		2 First name of the employee. A not null column.
3 LAST_NAME	VARCHAR2(25 BYTE)	No	(null)		3 Last name of the employee. A not null column.
4 EMAIL	VARCHAR2(25 BYTE)	No	(null)		4 Email id of the employee
5 PHONE_NUMBER	VARCHAR2(20 BYTE)	Yes	(null)		5 Phone number of the employee; includes country code and area code
6 HIRE_DATE	DATE	No	(null)		6 Date when the employee started on this job. A not null column.
7 JOB_ID	VARCHAR2(10 BYTE)	No	(null)		7 Current job of the employee; foreign key to job_id column of the jobs table. A not null column.
8 SALARY	NUMBER(8,2)	Yes	(null)		8 Monthly salary of the employee. Must be greater than zero (enforced by constraint emp_salary_min).
9 COMMISSION_PCT	NUMBER(2,2)	Yes	(null)		9 Commission percentage of the employee; Only employees in sales department eligible for commission.
10 MANAGER_ID	NUMBER(6,0)	Yes	(null)		10 Manager id of the employee; has same domain as manager_id in departments table. Foreign key to employee_id column of the employees table.
11 DEPARTMENT_ID	NUMBER(4,0)	Yes	(null)		11 Department id where employee works; foreign key to department_id column of the departments table.

Identify On-Premises Data to Migrate

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help Automation

Connections

- Exadata Express Cloud Database
 - Tables (Filter)
 - Other Users
- On-Prem Oracle Database
 - Tables (Filtered)
 - COUNTRIES
 - DEPARTMENTS
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Start Page | Exadata Express Cloud Database | On-Prem Oracle Database | EMPLOYEES

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4	EMAIL	VARCHAR2 (25 BYTE)	No	(null)		4 Email id of the employee
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6	HIRE_DATE	DATE	No	(null)		6 Date when the employee started on this job. A not null column.
7	JOB_ID	VARCHAR2 (10 BYTE)	No	(null)		7 Current job of the employee; foreign key to job_id column of the jobs table. A not null column.
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10	MANAGER_ID	NUMBER (6, 0)	Yes	(null)		10 Manager id of the employee; has same domain as manager_id in departments table. Foreign key to employee_id column of the employees table.
11	DEPARTMENT_ID	NUMBER (4, 0)	Yes	(null)		11 Department id where employee works; foreign key to department_id column of the departments table.

Drag-N-Drop from On-Premises

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help Automation

Connections

- Exadata Express Cloud Database
 - Tables (Filtered)
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Start Page | Exadata Express Cloud Database | On-Prem Oracle Database | EMPLOYEES

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

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10 MANAGER_ID	NUMBER(6,				the employee; has same domain as manager_id in departments table. Forei
11 DEPARTMENT_ID	NUMBER(4,				where employee works; foreign key to department_id column of the depart

Copying

Copying (Running)

[00:02] Reconciling Referential Constraints

Run in Background Cancel Task

Data Uploading

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help Automation

Connections

- Exadata Express Cloud Database
 - Tables (Filtered)
 - EMPLOYEES
 - Other Users
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 - Tables (Filtered)
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 - DEPARTMENTS
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Data Now Available in Exadata Express

| Exadata Express Cloud Database | OOWDEMO | EMPLOYEE

Q&A

Online Resources

Learn

cloud.oracle.com/database

Buy

shop.oracle.com

Integrated Cloud

Applications & Platform Services

ORACLE®