



The Oracle Bare Metal Cloud

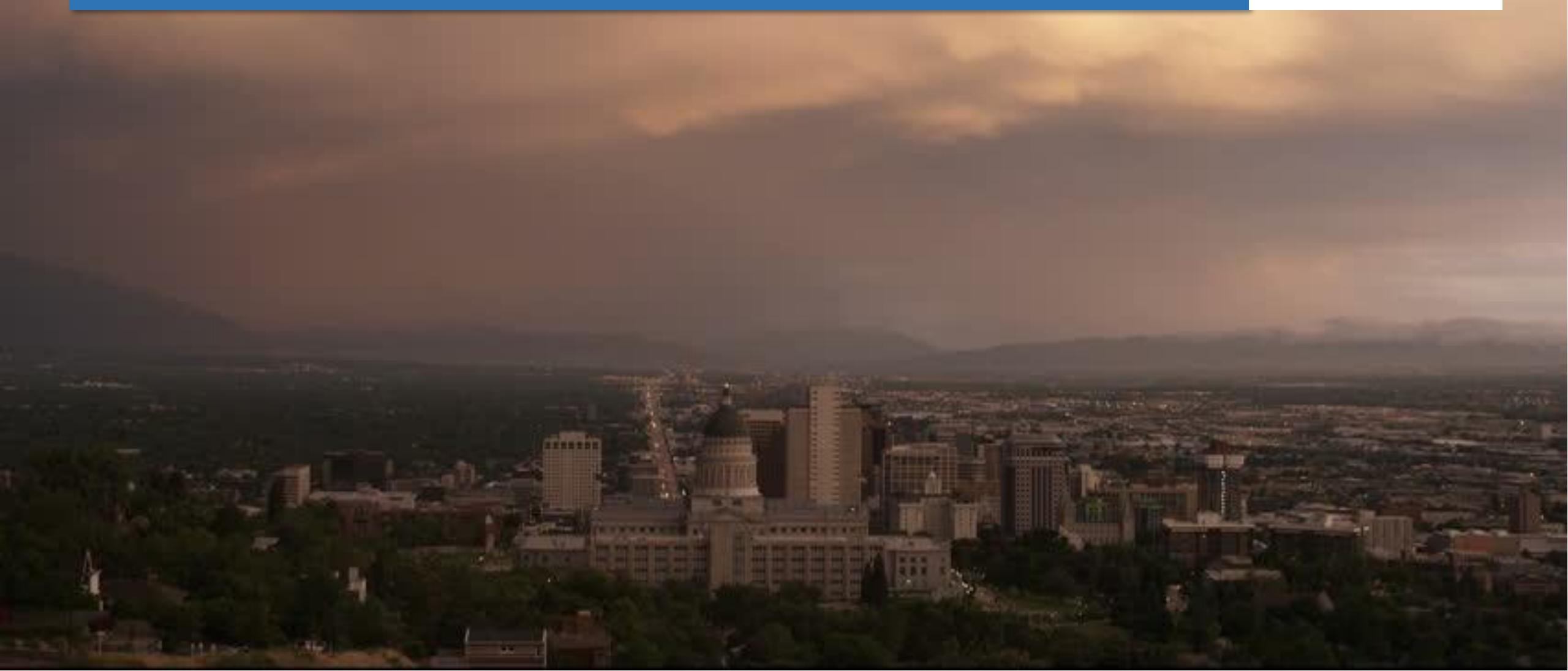
... why you should care

Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: damorgan11g
twitter: [@meta7solutions](https://twitter.com/meta7solutions)



Today's Forecast

CLOUDY, WITH A CHANCE OF...



Unsafe Harbor

- This room is an unsafe harbor
- You can rely on the information in this presentation to help you protect your data, your databases, your organization, and your career
- No one from Oracle has previewed this presentation
- No one from Oracle knows what I'm going to say
- No one from Oracle has supplied any of my materials
- Everything I will present is existing, proven, functionality



Sign In/Register Help Country ▾ Communities ▾ I am a... ▾ I want to... ▾ Search 

Products Solutions **Downloads** Store Support Training Partners About OTN

Oracle Technology Network

Welcome to the world's largest community of developers, admins, and architects using industry-standard technologies in combination with Oracle products.

[Join today or learn more ▾](#)



What's New  Oracle Code: Free event series for developers is coming to your town. Register now!

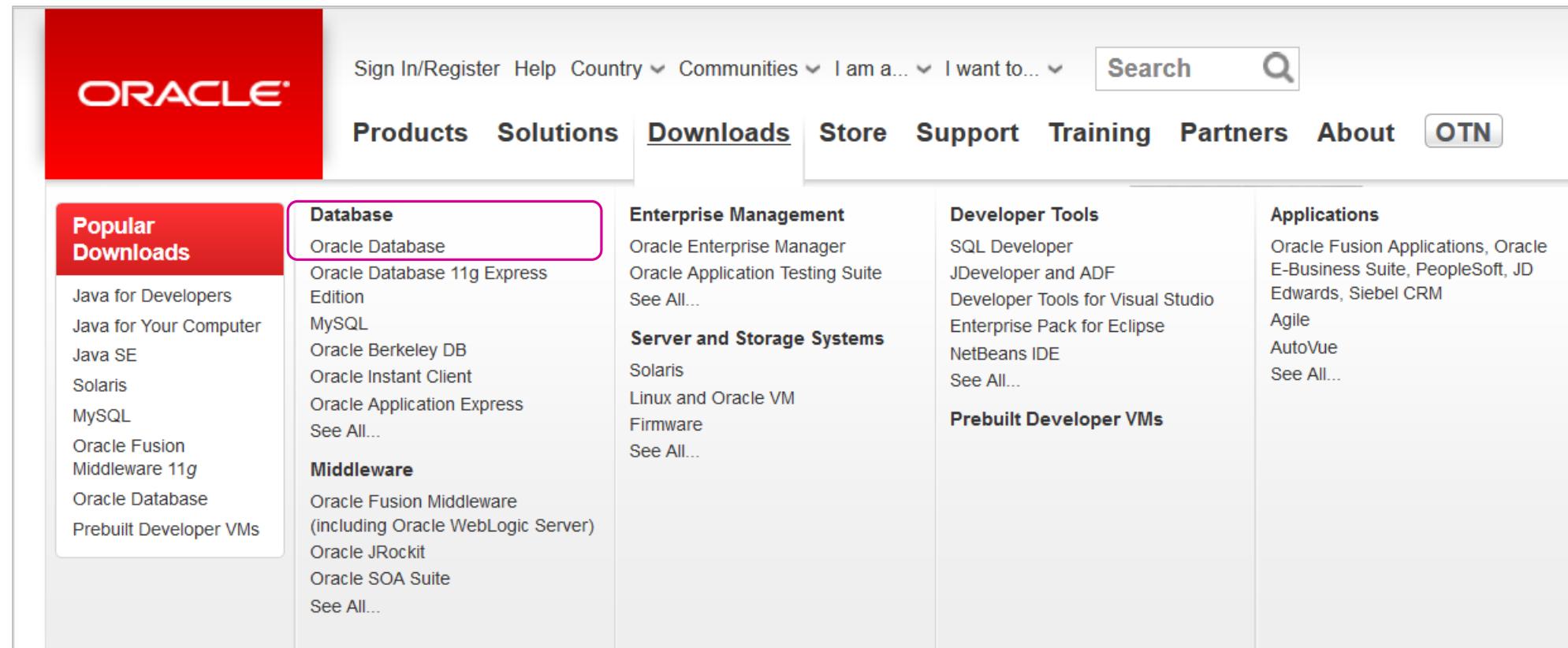
 Java Developers	 Database Admins and Developers	 System Admins and Developers	 Solution Architects
What's New ▾	What's New ▾	What's New ▾	What's New ▾

Essential Links **Recently Articles** Stay Connected:    #OTNDBDev

<http://otn.oracle.com>



Get Database 12.2 Today (2:3)

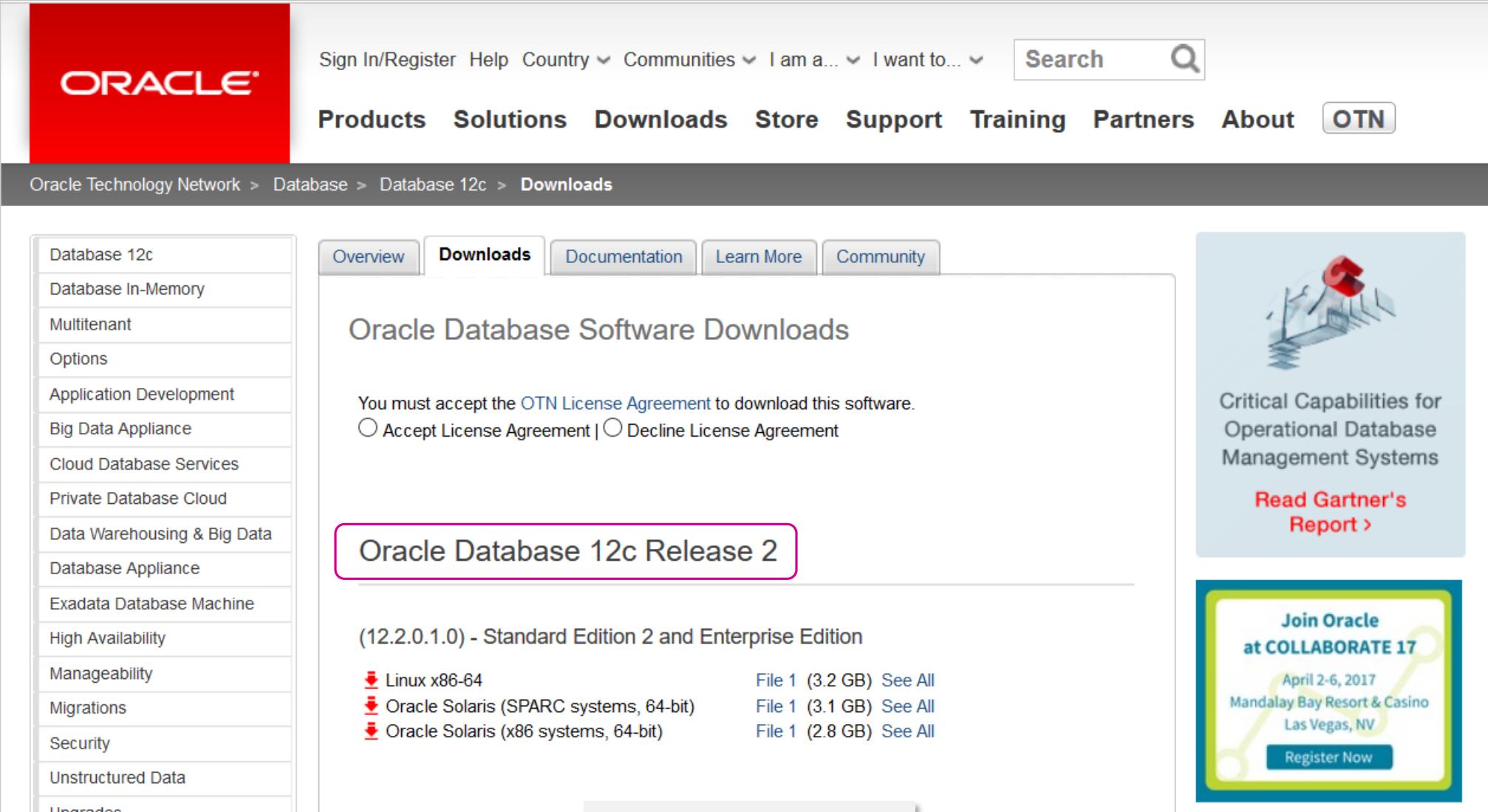


The screenshot shows the Oracle OTN website. The top navigation bar includes links for Sign In/Register, Help, Country, Communities, I am a..., I want to..., a search bar, and menu items for Products, Solutions, Downloads (underlined), Store, Support, Training, Partners, About, and OTN. A red sidebar on the left is titled 'Popular Downloads' and lists Java for Developers, Java for Your Computer, Java SE, Solaris, MySQL, Oracle Fusion Middleware 11g, Oracle Database, and Prebuilt Developer VMs. The main content area is divided into several sections: 'Database' (highlighted with a pink border), 'Enterprise Management', 'Developer Tools', and 'Applications'. The 'Database' section contains links for Oracle Database, Oracle Database 11g Express Edition, MySQL, Oracle Berkeley DB, Oracle Instant Client, Oracle Application Express, and a 'See All...' link. The 'Enterprise Management' section includes Oracle Enterprise Manager, Oracle Application Testing Suite, and a 'See All...' link. The 'Developer Tools' section lists SQL Developer, JDeveloper and ADF, Developer Tools for Visual Studio, Enterprise Pack for Eclipse, NetBeans IDE, and a 'See All...' link. The 'Applications' section lists Oracle Fusion Applications, Oracle E-Business Suite, PeopleSoft, JD Edwards, Siebel CRM, Agile, AutoVue, and a 'See All...' link. The 'Middleware' section in the Database category lists Oracle Fusion Middleware (including Oracle WebLogic Server), Oracle JRockit, Oracle SOA Suite, and a 'See All...' link.

<http://otn.oracle.com>



Get Database 12.2 Today (3:3)



The screenshot shows the Oracle Technology Network (OTN) website. The top navigation bar includes links for Sign In/Register, Help, Country, Communities, I am a..., I want to..., a search bar, and menu items for Products, Solutions, Downloads, Store, Support, Training, Partners, and About. The OTN logo is in the top right. The page title is "Database 12c > Downloads". On the left, a sidebar lists various database categories. The main content area shows "Oracle Database Software Downloads" with a note about accepting the OTN License Agreement. A "Downloads" tab is selected. A section for "Oracle Database 12c Release 2" is highlighted with a pink border. It lists "Standard Edition 2 and Enterprise Edition" (12.2.0.1.0) for Linux x86-64, Oracle Solaris (SPARC systems, 64-bit), and Oracle Solaris (x86 systems, 64-bit), each with a download link and "See All" option. To the right, there's a "Critical Capabilities for Operational Database Management Systems" section with a "Read Gartner's Report" link, and a "Join Oracle at COLLABORATE 17" advertisement for April 2-6, 2017, in Las Vegas.

Sign In/Register Help Country Communities I am a... I want to... Search

Products Solutions Downloads Store Support Training Partners About OTN

Oracle Technology Network > Database > Database 12c > Downloads

Database 12c Database In-Memory Multitenant Options Application Development Big Data Appliance Cloud Database Services Private Database Cloud Data Warehousing & Big Data Database Appliance Exadata Database Machine High Availability Manageability Migrations Security Unstructured Data

Overview Downloads Documentation Learn More Community

Oracle Database Software Downloads

You must accept the OTN License Agreement to download this software.

Accept License Agreement | Decline License Agreement

Oracle Database 12c Release 2

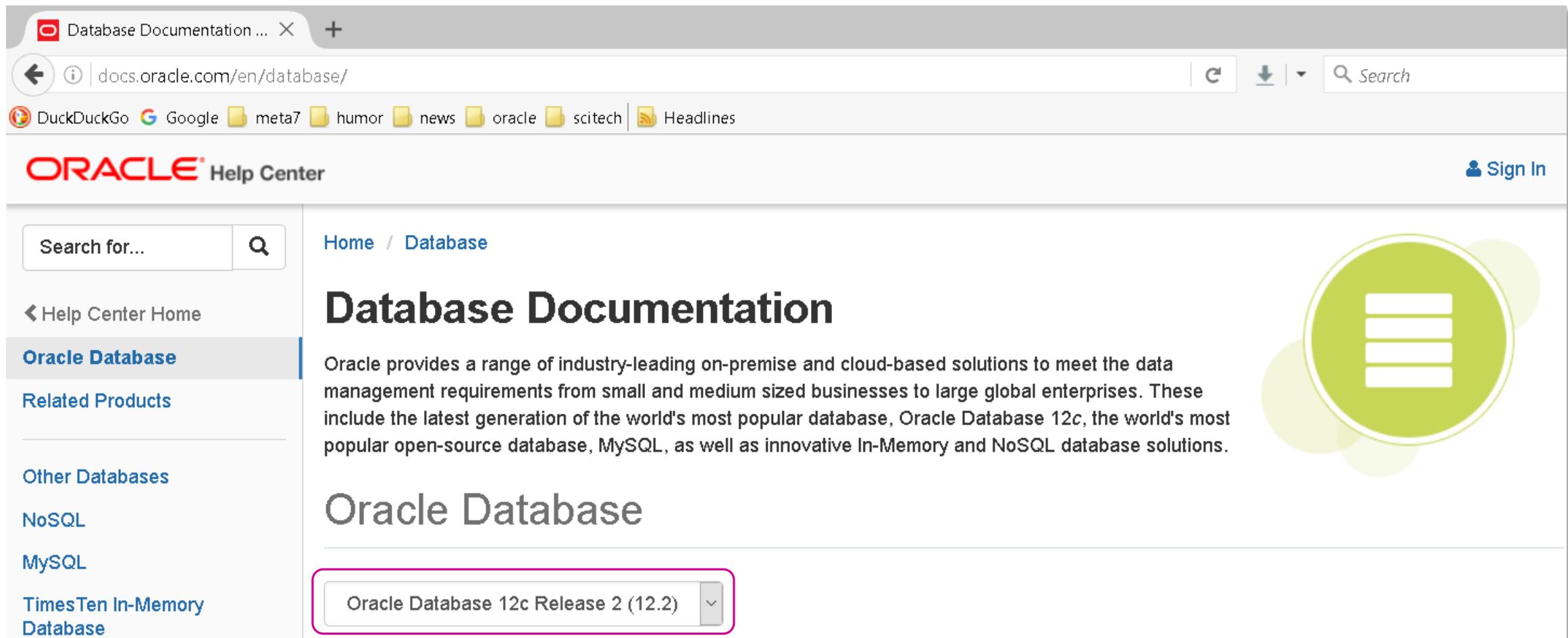
(12.2.0.1.0) - Standard Edition 2 and Enterprise Edition

 Linux x86-64	File 1 (3.2 GB)	See All
 Oracle Solaris (SPARC systems, 64-bit)	File 1 (3.1 GB)	See All
 Oracle Solaris (x86 systems, 64-bit)	File 1 (2.8 GB)	See All

<http://otn.oracle.com>



Get 12.2 Docs Today



The screenshot shows a web browser window with the following details:

- Tab:** Database Documentation ...
- Address Bar:** docs.oracle.com/en/database/
- Toolbar:** Includes a back button, a search icon, a download icon, and a search bar labeled "Search".
- Page Header:** DuckDuckGo, Google, meta7, humor, news, oracle, scitech, Headlines, ORACLE Help Center, and a Sign In link.
- Left Sidebar:** Includes links for Help Center Home, Oracle Database (which is selected and highlighted in blue), Related Products, Other Databases, NoSQL, MySQL, and TimesTen In-Memory Database.
- Page Content:** The main content area is titled "Database Documentation". It features a large green circular icon with four horizontal white bars. The text states: "Oracle provides a range of industry-leading on-premise and cloud-based solutions to meet the data management requirements from small and medium sized businesses to large global enterprises. These include the latest generation of the world's most popular database, Oracle Database 12c, the world's most popular open-source database, MySQL, as well as innovative In-Memory and NoSQL database solutions." Below this is a section titled "Oracle Database" with a dropdown menu showing "Oracle Database 12c Release 2 (12.2)".

<http://docs.oracle.com/en/database>



Introduction



Daniel Morgan

Oracle ACE Director Alumni

- Oracle Educator

- Curriculum author and primary program instructor at University of Washington

- Consultant: Harvard University

- University Guest Lecturers

- APAC: University of Canterbury (NZ)

- EMEA: University of Oslo (Norway)

- Latin America: Universidad Latina de Panama and Technologico de Costa Rica

- IT Professional

- First computer: IBM 360/40 in 1969: Fortran IV

- Oracle Database since 1988-9

- Beta Tester 10g, 11g, 12c, GoldenGate, TimesTen

- The Morgan behind www.morganslibrary.org

- Member Oracle Data Integration Solutions Partner Advisory Council

- Co-Founder International GoldenGate Oracle Users Group

- Vice President Twin Cities Oracle Users Group

- Principal Adviser: Forsythe **Meta7**



System/370-145 system console



My Websites: Morgan's Library

 **Morgan's Library** www.library

International Oracle Events 2015-2016 Calendar

Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

The Library

The library is a spam-free on-line resource with code demos for DBAs and Developers. If you would like to see new Oracle database functionality added to the library ... just email us. Oracle 12.1.0.2.0 has been released and new features will be showing up for many weeks. The first updates have already been made.

Home

Resources

- [Library](#)
- [How Can I?](#)
- [Code Samples](#)
- [Presentations](#)
- [Links](#)
- [Book Reviews](#)
- [Downloads](#)
- [User Groups](#)
- [Blog](#)
- [Humor](#)

General

[Contact](#)

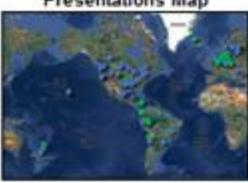
[About](#)

[Services](#)

[Legal Notice & Terms of Use](#)

[Privacy Statement](#)

Presentations Map



MadDog Morgan



Training Events and Travels

- [IOUG, Chicago, Illinois - Mar 10](#)
- [UTOUG, Salt Lake City, Utah - Mar 11-12](#)
- [DUGN, Oslo, Norway - Mar 12-14](#)
- [Collaborate, Las Vegas, Nevada - Apr 12-16](#)
- [NYOUG, New York, NY - May 19](#)
- [GLOC, Cleveland, Ohio - May 19-20](#)

Next Event: 27 January, Redwood Shores, CA

Oracle Events



Click on the map to find an event near you

Morgan


aboard USA-71



Library News

- [Morgan's Blog](#)
- [Join the Western Washington OUG](#)
- [Morgan's Oracle Podcast](#)
- [US Govt. Mil. STIGs \(Security Checklists\)](#)
- [Bryn Llewellyn's PL/SQL White Paper](#)
- [Bryn Llewellyn's Editioning White Paper](#)
- [Explain Plan White Paper](#)





ACE News



Would you like to become an Oracle ACE? 

Learn more about becoming an ACE

- [ACE Directory](#)
- [ACE Google Map](#)
- [ACE Program](#)
- [Stanley's Blog](#)

Congratulations to our newest ACE Director Jim Czuprynski



What Meta7 Brings To The Party

- The "Oracle Only" division of Forsythe
- A team of highly skilled professionals with
 - Extensive experience across multiple industries
 - Deep specialization in core Oracle technologies
 - Infrastructure
 - Licensing
 - Professional Services
 - 0% off-shore: All work performed by US residents
 - \$1M+ investment in the Oracle Cloud
- Reliable on-time and on-budget delivery
- Second largest security integrator in North America
- Corporate headquarters in Chicago, Illinois
- New, State-of-the-Art Technology Evaluation Center
- Flexible financial support





Zero Downtime Migration

Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: damorgan11g
twitter: [@meta7solutions](https://twitter.com/meta7solutions)



Safeguarding Databases From Cyber Threats



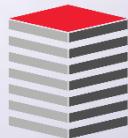
Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: damorgan11g
twitter: @meta7solutions



Scaling VLDBs



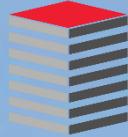
Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: [damorgan11g](skype:damorgan11g)
twitter: [@meta7solutions](https://twitter.com/meta7solutions)



Database Performance



Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: [damorgan11g](skype:damorgan11g)
twitter: [@meta7solutions](https://twitter.com/meta7solutions)



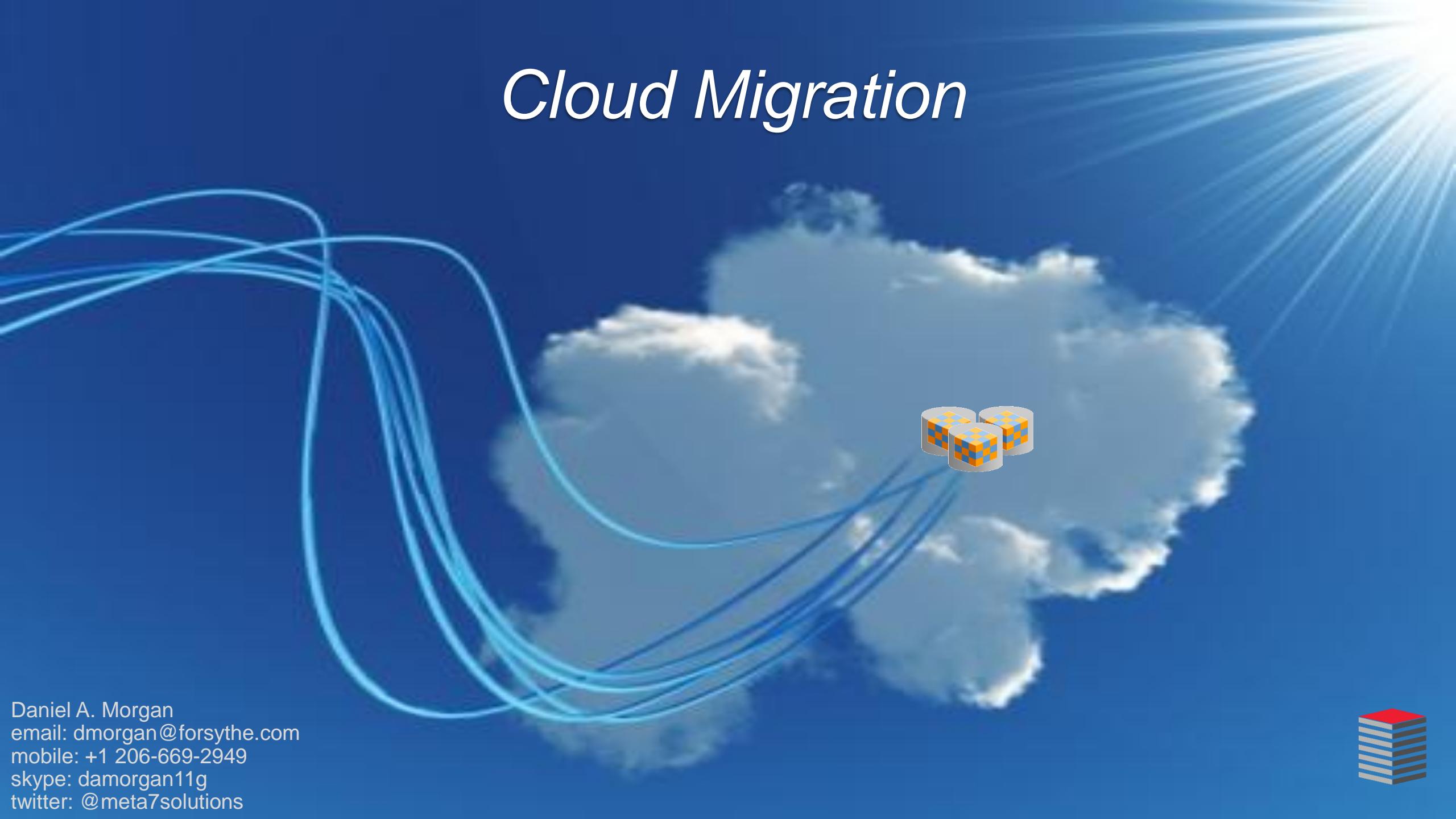
Fire Fighting



Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: [damorgan11g](skype:damorgan11g)
twitter: [@meta7solutions](https://twitter.com/meta7solutions)



Cloud Migration



Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: damorgan11g
twitter: @meta7solutions

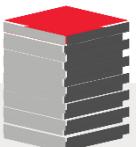


What We Don't Do at Meta7

- Explain the Standard Model of Particle Physics

- But I hope I can provide some clarity with respect to Oracle's Bare Metal Cloud

$$\begin{aligned} L_{SM} = & -\frac{1}{2}\partial_\nu g_\mu^a \partial_\nu g_\mu^a - g_s f^{abc} \partial_\mu g_\nu^a g_\nu^b g_\nu^c - \frac{1}{2}g_s^2 f^{abc} f^{ade} g_\mu^a g_\nu^b g_\mu^d g_\nu^e - \partial_\nu W_\mu^+ \partial_\nu W_\mu^- - \\ & M^2 W_\mu^+ W_\mu^- - \frac{1}{2}\partial_\nu Z_\mu^0 \partial_\nu Z_\mu^0 - \frac{1}{2c_w^2} M^2 Z_\mu^0 Z_\mu^0 - \frac{1}{2}\partial_\mu A_\nu \partial_\mu A_\nu - igc_w (\partial_\nu Z_\mu^0 (W_\mu^+ W_\nu^- - \\ & W_\nu^+ W_\mu^-) - Z_\nu^0 (W_\mu^+ \partial_\nu W_\mu^- - W_\mu^- \partial_\nu W_\mu^+) + Z_\mu^0 (W_\nu^+ \partial_\nu W_\mu^- - W_\nu^- \partial_\nu W_\mu^+)) - \\ & ig s_w (\partial_\nu A_\mu (W_\mu^+ W_\nu^- - W_\nu^+ W_\mu^-) - A_\nu (W_\mu^+ \partial_\nu W_\mu^- - W_\mu^- \partial_\nu W_\mu^+) + A_\mu (W_\nu^+ \partial_\nu W_\mu^- - \\ & W_\nu^- \partial_\nu W_\mu^+)) - \frac{1}{2}g^2 W_\mu^+ W_\mu^- W_\nu^+ W_\nu^- + \frac{1}{2}g^2 W_\mu^+ W_\nu^- W_\mu^+ W_\nu^- + g^2 c_w^2 (Z_\mu^0 W_\mu^+ Z_\nu^0 W_\nu^- - \\ & Z_\mu^0 Z_\nu^0 W_\nu^+ W_\nu^-) + g^2 s_w^2 (A_\mu W_\mu^+ A_\nu W_\nu^- - A_\mu A_\nu W_\mu^+ W_\nu^-) + g^2 s_w c_w (A_\mu Z_\nu^0 (W_\mu^+ W_\nu^- - \\ & W_\nu^+ W_\mu^-) - 2A_\mu Z_\mu^0 W_\nu^+ W_\mu^-) - \frac{1}{2}\partial_\mu H \partial_\mu H - 2M^2 \alpha_h H^2 - \partial_\mu \phi^+ \partial_\mu \phi^- - \frac{1}{2}\partial_\mu \phi^0 \partial_\mu \phi^0 - \\ & \beta_h \left(\frac{2M^2}{g^2} + \frac{2M}{g} H + \frac{1}{2}(H^2 + \phi^0 \phi^0 + 2\phi^+ \phi^-) \right) + \frac{2M^4}{g^2} \alpha_h - \\ & g \alpha_h M (H^3 + H \phi^0 \phi^0 + 2H \phi^+ \phi^-) - \\ & \frac{1}{8}g^2 \alpha_h (H^4 + (\phi^0)^4 + 4(\phi^+ \phi^-)^2 + 4(\phi^0)^2 \phi^+ \phi^- + 4H^2 \phi^+ \phi^- + 2(\phi^0)^2 H^2) - \\ & g M W_\mu^+ W_\mu^- H - \frac{1}{2}g \frac{M}{c_w^2} Z_\mu^0 Z_\mu^0 H - \\ & \frac{1}{2}ig (W_\mu^+ (\phi^0 \partial_\mu \phi^- - \phi^- \partial_\mu \phi^0) - W_\mu^- (\phi^0 \partial_\mu \phi^+ - \phi^+ \partial_\mu \phi^0)) + \\ & \frac{1}{2}g (W_\mu^+ (H \partial_\mu \phi^- - \phi^- \partial_\mu H) + W_\mu^- (H \partial_\mu \phi^+ - \phi^+ \partial_\mu H)) + \frac{1}{2}g \frac{1}{c_w} (Z_\mu^0 (H \partial_\mu \phi^0 - \phi^0 \partial_\mu H) + \\ & M (\frac{1}{c_w} Z_\mu^0 \partial_\mu \phi^0 + W_\mu^+ \partial_\mu \phi^- + W_\mu^- \partial_\mu \phi^+) - ig \frac{s_w}{c_w} M Z_\mu^0 (W_\mu^+ \phi^- - W_\mu^- \phi^+) + ig s_w M A_\mu (W_\mu^+ \phi^- - \\ & W_\mu^- \phi^+) - ig \frac{1-2c_w^2}{2c_w} Z_\mu^0 (\phi^+ \partial_\mu \phi^- - \phi^- \partial_\mu \phi^+) + ig s_w A_\mu (\phi^+ \partial_\mu \phi^- - \phi^- \partial_\mu \phi^+) - \\ & \frac{1}{4}g^2 W_\mu^+ W_\mu^- (H^2 + (\phi^0)^2 + 2\phi^+ \phi^-) - \frac{1}{8}g^2 \frac{1}{c_w^2} Z_\mu^0 Z_\mu^0 (H^2 + (\phi^0)^2 + 2(2s_w^2 - 1)^2 \phi^+ \phi^-) - \\ & \frac{1}{2}g^2 \frac{s_w^2}{c_w} Z_\mu^0 \phi^0 (W_\mu^+ \phi^- + W_\mu^- \phi^+) - \frac{1}{2}ig^2 \frac{s_w^2}{c_w} Z_\mu^0 H (W_\mu^+ \phi^- - W_\mu^- \phi^+) + \frac{1}{2}g^2 s_w A_\mu \phi^0 (W_\mu^+ \phi^- + \\ & W_\mu^- \phi^+) + \frac{1}{2}ig^2 s_w A_\mu H (W_\mu^+ \phi^- - W_\mu^- \phi^+) - g^2 \frac{s_w}{c_w} (2c_w^2 - 1) Z_\mu^0 A_\mu \phi^+ \phi^- - \\ & g^2 s_w^2 A_\mu A_\mu \phi^+ \phi^- + \frac{1}{2}ig s_w \lambda_{ij}^a (q_i^\sigma \gamma^\mu q_j^\sigma) g_\mu^a - \bar{e}^\lambda (\gamma \partial + m_\lambda^\lambda) e^\lambda - \bar{\nu}^\lambda (\gamma \partial + m_\lambda^\lambda) \nu^\lambda - \bar{u}_j^\lambda (\gamma \partial + \\ & m_\lambda^\lambda) u_j^\lambda - \bar{d}_j^\lambda (\gamma \partial + m_\lambda^\lambda) d_j^\lambda + ig s_w A_\mu (-(\bar{e}^\lambda \gamma^\mu e^\lambda) + \frac{2}{3}(\bar{u}_j^\lambda \gamma^\mu u_j^\lambda) - \frac{1}{3}(\bar{d}_j^\lambda \gamma^\mu d_j^\lambda)) + \\ & \frac{ig}{4c_w} Z_\mu^0 \{(\bar{e}^\lambda \gamma^\mu (1 + \gamma^5) \nu^\lambda) + (\bar{e}^\lambda \gamma^\mu (4s_w^2 - 1 - \gamma^5) e^\lambda) + (\bar{d}_j^\lambda \gamma^\mu (\frac{4}{3}s_w^2 - 1 - \gamma^5) d_j^\lambda) + \\ & (\bar{u}_j^\lambda \gamma^\mu ((1 - \frac{8}{3}s_w^2 + \gamma^5) u_j^\lambda)\} + \frac{ig}{2\sqrt{2}} W_\mu^+ ((\bar{e}^\lambda \gamma^\mu (1 + \gamma^5) U^{lep} \lambda_\kappa e^\kappa) + (\bar{u}_j^\lambda \gamma^\mu (1 + \gamma^5) C_{\lambda\kappa} d_j^\kappa)) + \\ & \frac{ig}{2\sqrt{2}} W_\mu^- \left((\bar{e}^\kappa U^{lep\dagger} \lambda_\kappa \gamma^\mu (1 + \gamma^5) \nu^\lambda) + (\bar{d}_j^\kappa C_{\kappa\lambda} \gamma^\mu (1 + \gamma^5) u_j^\lambda) \right) + \\ & \frac{ig}{2M\sqrt{2}} \phi^+ (-m_e^\kappa (\bar{\nu}^\lambda U^{lep} \lambda_\kappa (1 - \gamma^5) e^\kappa) + m_\nu^\lambda (\bar{\nu}^\lambda U^{lep} \lambda_\kappa (1 + \gamma^5) e^\kappa) + \\ & \frac{ig}{2M\sqrt{2}} \phi^- \left(m_\lambda^\kappa (\bar{e}^\lambda U^{lep\dagger} \lambda_\kappa (1 + \gamma^5) \nu^\kappa) - m_\nu^\kappa (\bar{e}^\lambda U^{lep\dagger} \lambda_\kappa (1 - \gamma^5) \nu^\kappa) \right) - \frac{g m_\lambda^\lambda}{2} H (\bar{\nu}^\lambda \nu^\lambda) - \\ & \frac{g m_\lambda^\lambda}{2} H (\bar{e}^\lambda e^\lambda) + \frac{ig m_\lambda^\lambda}{2} \phi^0 (\bar{\nu}^\lambda \gamma^5 \nu^\lambda) - \frac{ig m_\lambda^\lambda}{2} \phi^0 (\bar{e}^\lambda \gamma^5 e^\lambda) - \frac{1}{4} \bar{\nu}_\lambda M_{\lambda\lambda}^R (1 - \gamma_5) \bar{\nu}_\lambda - \\ & \frac{1}{4} \bar{\nu}_\lambda M_{\lambda\kappa}^R (1 - \gamma_5) \bar{\nu}_\kappa + \frac{ig}{2M\sqrt{2}} \phi^+ (-m_d^\kappa (\bar{u}_j^\lambda C_{\lambda\kappa} (1 - \gamma^5) d_j^\kappa) + m_u^\lambda (\bar{u}_j^\lambda C_{\lambda\kappa} (1 + \gamma^5) d_j^\kappa) + \\ & \frac{ig}{2M\sqrt{2}} \phi^- \left(m_d^\kappa (\bar{d}_j^\lambda C_{\lambda\kappa} (1 + \gamma^5) u_j^\kappa) - m_u^\kappa (\bar{d}_j^\lambda C_{\lambda\kappa} (1 - \gamma^5) u_j^\kappa) \right) - \frac{g m_u^\lambda}{2} H (\bar{u}_j^\lambda u_j^\lambda) - \\ & \frac{g m_u^\lambda}{2} H (\bar{d}_j^\lambda d_j^\lambda) + \frac{ig m_u^\lambda}{2} \phi^0 (\bar{u}_j^\lambda \gamma^5 u_j^\lambda) - \frac{ig m_u^\lambda}{2} \phi^0 (\bar{d}_j^\lambda \gamma^5 d_j^\lambda) + \bar{G}^a \partial^2 G^a + g_s f^{abc} \partial_\mu \bar{G}^a G^b g_\mu^c + \\ & \bar{X}^+ (\partial^2 - M^2) X^+ + \bar{X}^- (\partial^2 - M^2) X^- + \bar{X}^0 (\partial^2 - \frac{M^2}{c_w^2}) X^0 + \bar{Y} \partial^2 Y + ig c_w W_\mu^+ (\partial_\mu \bar{X}^0 X^- - \\ & \partial_\mu \bar{X}^+ X^0) + ig s_w W_\mu^+ (\partial_\mu \bar{Y} X^- - \partial_\mu \bar{X}^+ Y) + ig c_w W_\mu^- (\partial_\mu \bar{X}^- X^0 - \\ & \partial_\mu \bar{X}^+ X^-) + ig s_w A_\mu (\partial_\mu \bar{X}^+ X^+) - \\ & \partial_\mu \bar{X}^- X^-) - \frac{1}{2}g M \left(\bar{X}^+ X^+ H + \bar{X}^- X^- H + \frac{1}{c_w^2} \bar{X}^0 X^0 H \right) + \frac{1-2c_w^2}{2c_w} ig M (\bar{X}^+ X^0 \phi^+ - \bar{X}^- X^0 \phi^-) + \\ & \frac{1}{2c_w} ig M (\bar{X}^0 X^- \phi^+ - \bar{X}^0 X^+ \phi^-) + ig M s_w (\bar{X}^0 X^- \phi^+ - \bar{X}^0 X^+ \phi^-) + \\ & \frac{1}{2}ig M (\bar{X}^+ X^+ \phi^0 - \bar{X}^- X^- \phi^0) . \end{aligned}$$



Are You In Sales?



And About AWS ...

The Register®
Biting the hand that feeds IT

DATA CENTER SOFTWARE NETWORKS SECURITY TRANSFORMATION DEVOPS BUSINESS HARDWARE SCIENCE EMERGENT TECH BOOTNOTES

Cloud

AWS 'fesses up to cloud bill shock worries with budget calc update

Suits told to run two versions of services and turn on the bad one once budgets run low

23 Oct 2016 at 23:59, Simon Sharwood

Cloud

Amazon Web Services (AWS) has all-but-admitted some customers are experiencing bill shock, or finding it hard to control costs in its clouds.

Why else might the company have decided to upgrade its AWS Budgets tool?

Cloudy blogger in chief Jeff Barr says the tool is aimed at "Finance Managers, Project Managers, and VP-level DevOps folks" and the upgrade offers "automated notifications that provide you with detailed status information (over or under budget) so that you can identify potential issues and take action to prevent undesired actual or forecasted overruns."

The service now allows the creation of 20,000 budgets per client, a number explained by AWS' suggestion that users create discrete budgets for each cloud-using business unit, project team or perhaps even by calculating the costs of individual services.

It's no secret that cloud is frequently no cheaper – and sometimes more costly – than on-premises technology. Cost was one reason [Dropbox moved from AWS to its own data centre](#). Ease of use is another: just as virtualisation led to virtual machine sprawl, users often find themselves using rather more cloud than they planned or imagined.

More like this

Cloud

Most read

 Every LTE call, text, can be intercepted, blacked out, hacker finds

 Is Google using YouTube to put one over on Samsung?

 AWS 'fesses up to cloud bill shock worries with budget calc update

 Hacktivist crew claims it launched last week's DDoS mega-attack

 Mozilla plots TLS 1.3 future for Firefox



The Truth
The Whole Truth
And Nothing But The Truth



The Truth

The Whole Truth

And Nothing But The Truth

When Oracle talks about the cloud
... it gets two out of three



Why Am I Focusing On The Oracle Cloud Today?

- Because there are a lot of very good reasons why DBAs should embrace the Oracle Cloud
- Because no company does a worse job of explaining the value of the Oracle Cloud's than Oracle
- Because some of Oracle's messaging at User Group Conferences, and last year at OpenWorld, was "lacking in clarity"

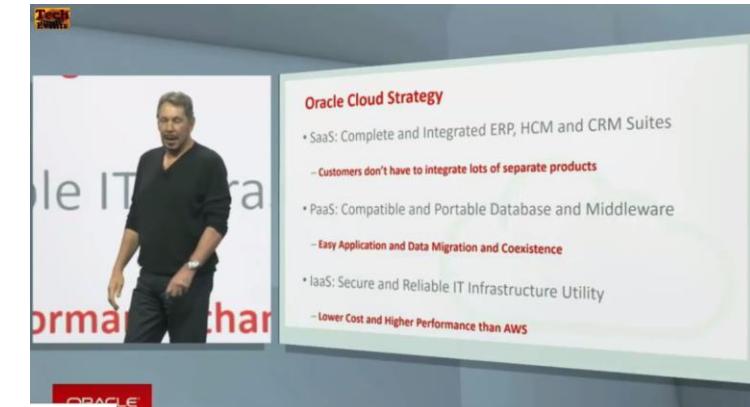


Tone Deaf Messaging

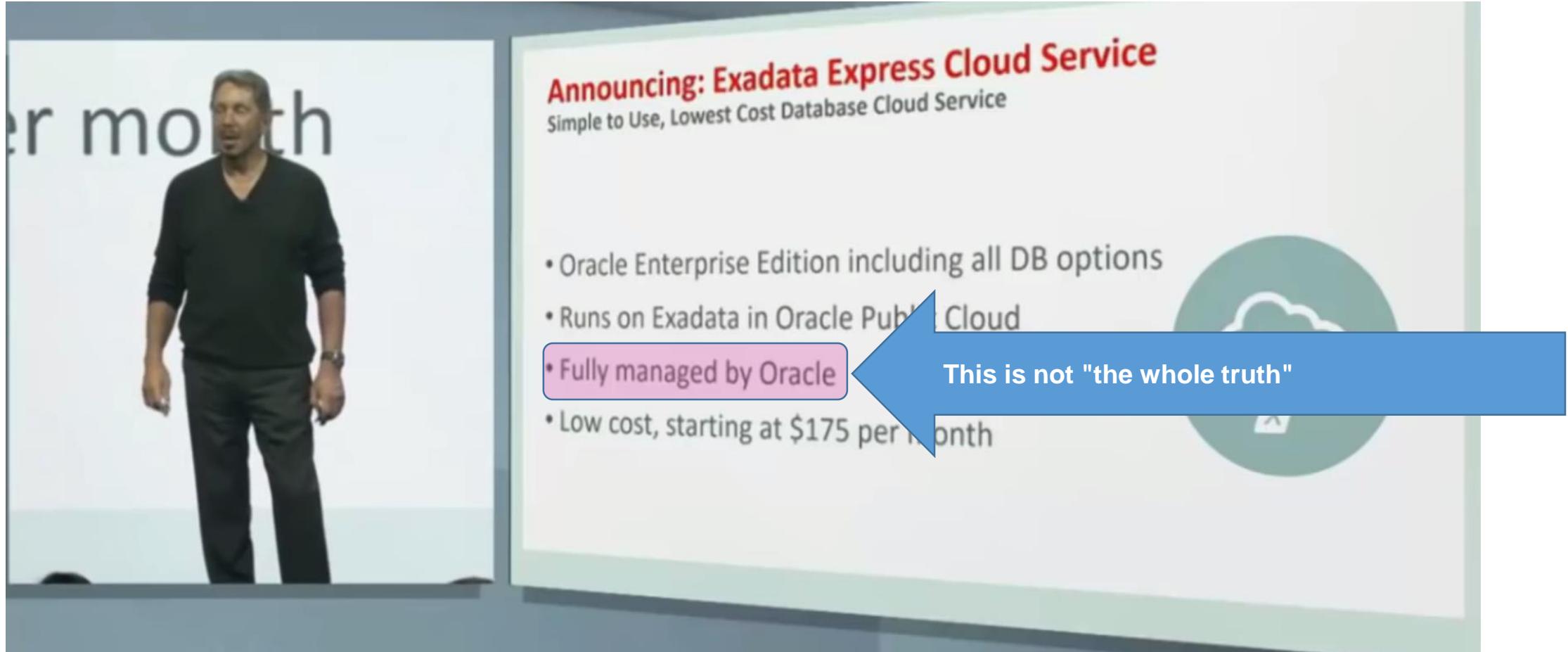


What Is The Cloud?

- Surely Morgan you aren't going to explain this to a group of intelligent Oracle professionals
- You're right ... I'm not
- No history lesson on 1950s service bureaus with IBM mainframes such as Service Bureau Corp. (1957)
- No explanation about AaaS aka SaaS because everyone here knows about Salesforce.com and Oracle's thousands of application cloud offerings
- We'll waste no time on Amazon AWS, Microsoft Azure, etc. etc. *ad nauseum*
- But I do want to spend some time on IaaS and PaaS because much of what you have heard is not "the whole truth"
- And the more you know the better



A Partial Truth Exposed



er month

Announcing: Exadata Express Cloud Service
Simple to Use, Lowest Cost Database Cloud Service

- Oracle Enterprise Edition including all DB options
- Runs on Exadata in Oracle Public Cloud
- **Fully managed by Oracle**
- Low cost, starting at \$175 per month

This is not "the whole truth"

- What, specifically, is "Fully managed by Oracle?"
- And why is this critically important to Oracle DBAs?



But I Was Sort Of Expecting It Because ...

- This was part of a briefing I received in Redwood Shores a few days earlier



Some People May Have Good Reason to Fear Technology

- The Oracle Cloud does not threaten Oracle DBAs



it makes things better



What Is "Fully managed by Oracle?"

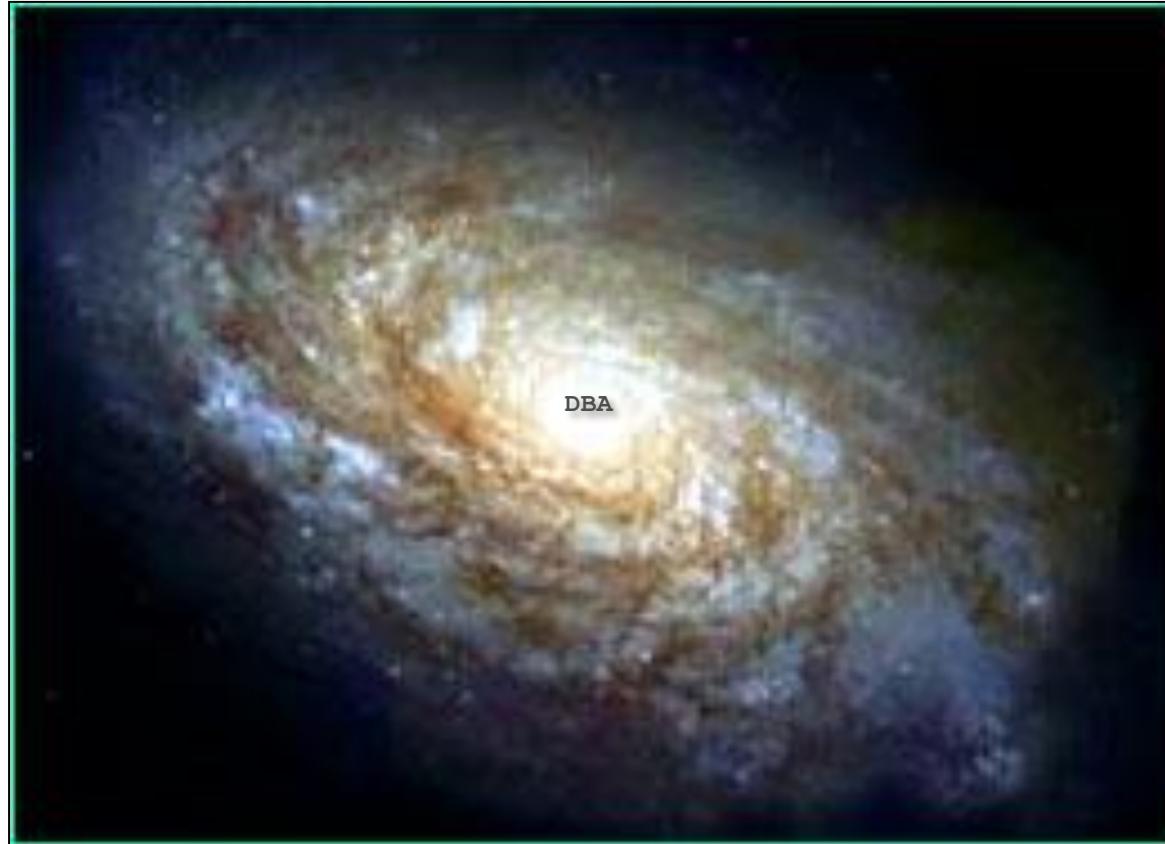
- Is Oracle going to rack and stack the hardware in their data center?
- Is Oracle going to provide network connectivity and a firewall?
- Is Oracle responsible for NTP and DNS?
- Is Oracle responsible for infrastructure security?
- Is Oracle going to install and patch the operating system?
- Is Oracle going to install and patch the database?

- Do you think Oracle is going to install your application?
- Do you think Oracle is going to create users on demand? Grant privs?
- Do you think Oracle is going to configure your application's security?
- Do you think Oracle is going to patch and upgrade your application?
- Do you think Oracle is going to tune developer's "bad" SQL statements?



Why It Matters

- Oracle first customer wasn't the CIA it was Oracle DBAs
- Oracle's next 100,000 customers were also DBAs
- And Oracle has always treated the database as the center of its universe



- The Oracle Cloud doesn't change that

Oracle's IaaS and DBaaS

- Serve DBAs the way we were served by ASM
 - Put database storage administration where it belongs ... in the hands of the DBAs
 - No more running out of space for data files and the recovery file destination
 - The end to the performance issues created by "shared storage"
- Serve DBAs the way we were served by Engineered Systems
 - A correctly configured operating system
 - Correctly configured storage with the right number of correctly sized LUNs
 - A correctly configured cache fusion interconnect for RAC
- Means that typing `./runInstaller` is not the highlight of our day
- Means we can focus our efforts on
 - Providing architecture and coding advice to development
 - Enhancing application stability
 - Enhancing application security
 - Enhancing application performance
- We can work fewer than 60 hrs/wk and enjoy time with friends and family

OEM



Oracle's IaaS Bare Metal Cloud



Oracle's Bare Metal Cloud (1:2)

- Of all of Oracle's Cloud offerings the one you most want to focus on most is Bare Metal Cloud

Oracle Cloud Compute Services

The slide displays five service cards under the heading "Oracle Cloud Compute Services".

- Bare Metal:** Features Docker Containers, Multiple Hypervisors, and Multiple OS. It includes an image of a server rack and a small server unit.
- Elastic Compute:** Features Oracle Solaris 11 Compute. It includes images of a server rack and a small server unit.
- Dedicated Compute:** Features a tall server rack.
- Docker Service:** Features MESOS, Kubernetes, and Docker Registry. It includes images of a ship icon, a blue hexagonal icon, a white cloud icon with colored blocks, and a small server unit.
- Engineered Systems IaaS:** Features a tall server rack with the Sun and Oracle logos.

ORACLE

10/12/2016 Copyright © 2016, Oracle and/or its affiliates. All rights reserved. | Oracle Confidential – Internal 5



Oracle's Bare Metal Cloud (2:2)

- We all know what's wrong with putting databases into virtualized environments
 - Instead of 1 ASM instance per server we get an ASM instance per container
 - Instead of 1 Management Database per server we get a Management Database in each and every container
 - Instead of leveraging all of Oracle's optimizations where the database talks directly to the hardware the database is forced to talk to a hypervisor
 - Instead of patching O/S + Clusterware + Database we get to patch the hypervisor too giving us 25% more patching work and outages
 - Instead of worrying about security at two levels, O/S and Database we get to worry about hypervisor vulnerabilities ... and there are many
 - We know stability is not improved by more complexity
 - We know performance and scalability are not improved by adding the overhead of hypervisors and containers
- Oracle's Bare Metal Cloud is just that ... Oracle ASM, Clusterware, and Database installed on bare metal
- And your existing perpetual licenses are fully utilized lowering Cloud costs



The Seven Best Things About The Oracle Cloud



The Seven Best Things About The Oracle Cloud

1. It has bugs
2. You can't use the REST API to find patches
3. It can force a dinosaur to use the new container architecture
4. If you're not careful you can bust your budget
5. You can't install "any" application in the Cloud
6. There are no AS/400s and M5000s in the Cloud
7. It isn't AWS ... or Azure ... or Google



Wrap Up



Conclusion

- Worried about your future after listening to Oracle talk about the Oracle Cloud?
- You've no need to be concerned if you keep your skills up to date
- The advantages to Oracle DBAs in embracing the IaaS Bare Metal Cloud are substantial and mirror the very same advantages we received from embracing
 - Undo Tablespace
 - ASM
 - Engineered Systems
- The Oracle Cloud's security is substantially greater than what you have in your place of employment ... but security within your application is still your responsibility
- As soon as you can you should establish an account with the Oracle Cloud and start learning it just as you learned the technologies you have mastered
- If you need any assistance in navigating version 12.2 or Oracle's IaaS and PaaS Cloud offerings you can contact me by email, text, or phone



*

ERROR at line 1:

ORA-00028: your session has been killed



Daniel A. Morgan
email: dmorgan@forsythe.com
mobile: +1 206-669-2949
skype: [damorgan11g](skype:damorgan11g)
twitter: [@meta7solutions](https://twitter.com/@meta7solutions)

