Oracle OpenWorld and other new adventures

Fall 2017

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Thursday: October 12, 2017

Welcome

- Dan Morgan
  - Vice President TCOUG
  -  Oracle ACE Director Alumni
- Our TCOUG Slack Community
- Local Events
- TCOUG Election
- Lightning Sessions

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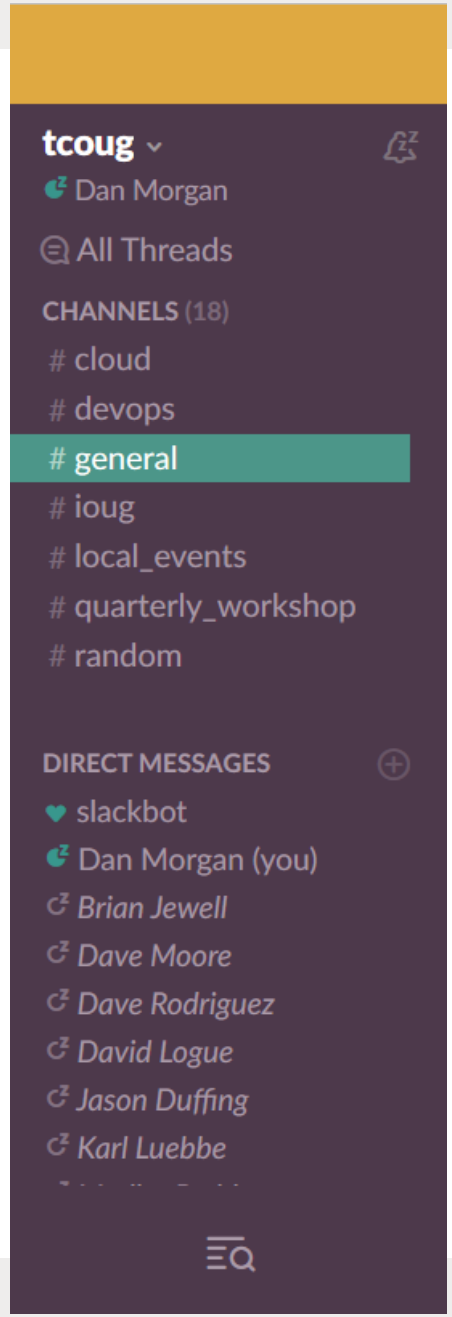

https://tcoug.slack.com/

To join the TCOUG Slack Group see a Board member today and give them your contact information

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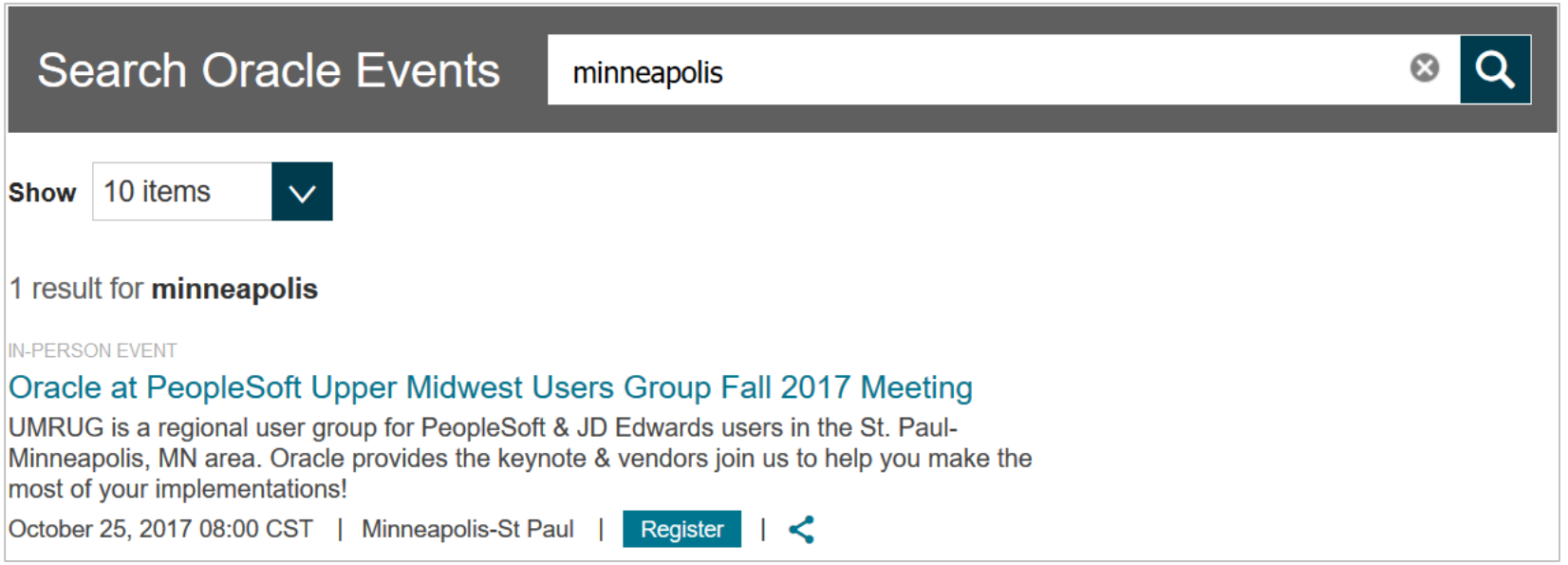

`https://www.oracle.com/search/events ... Search: "Minneapolis"`

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- TCOUG Election ... please be sure to be here just before lunch
- Lightning Sessions

Lightning Sessions

- A short presentation 5-15 minutes
- A phenomenal way to share your knowledge and experience with our group and our community
- A great way to develop your presentation skills
- I will lead workshops to help our members develop their presentations and presentation skills

Welcome

Time	Description	Length
08:30 - 09:00	Registration and Networking	30
09:00 - 09:25	Welcoming Remarks, Sponsor and Speaker Introductions	25
09:25 - 09:40	Database Creation from a Gold Image Using RMAN, Brooks Graner @ Mayo Clinic 	15
09:40 - 10:40	New Availability Features in Oracle RAC 12c Release 2 - Anil Nair @ Oracle	60
10:40 - 10:50	Break	10
10:50 - 11:50	New Diagnosability Features in Oracle RAC 12c Release 2 - Anil Nair @ Oracle	60
12:05 - 12:10	TCOUG Elections - Kristen Spain @ TCOUG	5
12:10 - 01:00	Lunch	50
01:00 - 01:15	Tips and Traps with the new Oracle Keystore - Jim Czuprynski @ Vion 	15
01:15 - 01:30	In-Depth Schema Comparison - Ty Willingham @ Thomson Reuters 	15
01:30 - 02:30	Oracle 12cR2 Database In-Memory: Adventures with SwingBench TPC-DS - Jim Czuprynski @ Vion	60
02:30 - 02:45	Q&A and Break	15
02:45 - 03:45	Channeling Oracle OpenWorld 2017, Dan Morgan @ Meta7	60
03:45 - 04:00	Giveaways, Prizes, and Closing Remarks	15

Sponsor Introductions

TWIN CITIES ORACLE USERS GROUP

Sponsors

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Speaker Introductions

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Brooks Graner

- Sr. IT Systems DBA at the Mayo Clinic

MAYO CLINIC

Ty Willingham

- Lead Database Engineer (Legal) at Thomson Reuters

Jim Czuprynski

- Jim Czuprynski has 35+ years of professional experience in his career in information technology, serving diverse roles at several Fortune 1000 companies before becoming an Oracle DBA in 2001
- He was awarded the status of Oracle ACE Director in March 2014 and is a sought-after public speaker on Oracle Database technology features, presenting topics at Oracle OpenWorld, IOUG COLLABORATE, Hotsos Symposium, Oracle Technology Network ACE Tours, and Oracle User Group conferences around the world
- Jim has authored over 100 articles focused on facets of Oracle Database administration to his credit since 2003 at databasejournal.com and ioug.org.
- He has also co-authored two books on Oracle database technology. Jim's blog, *Generally … It Depends* (http://jimczuprynski.wordpress.com), contains his regular observations on all things Oracle

Anil Nair

- Senior Principal Product Manager Oracle Corp. (2015-present)
- Previously a Consulting Member of the Oracle Technical Staff (2010-2015)
- Global Technical Lead / RAC & Parallel Clusterware (1997-2010)
- Technical Team Lead for 150 Global Engineers helping Fortune 500 customers plan, implement and support cutting edge technologies like Oracle Clusterware, RAC, ASM, Exadata, and Data Guard
- Responsibilities include deep-down technical training, follow up reviews on Customer satisfaction, follow up with Product Development on defect reviews and improving overall product experience
- Conversant with auxiliary availability technologies like Virtualization, HACMP, VIOS, NIC bonding and multi-pathing
- Specialties: Oracle Clusterware, Oracle Real Application Clusters, Oracle Data Guard, Oracle Virtualization and Exadata

ORACLE

Dan 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**

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A Division of Forsythe

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Learning Experience Alert

Database Creation from a Gold Image Using RMAN

Brooks Graner, Mayo Clinic

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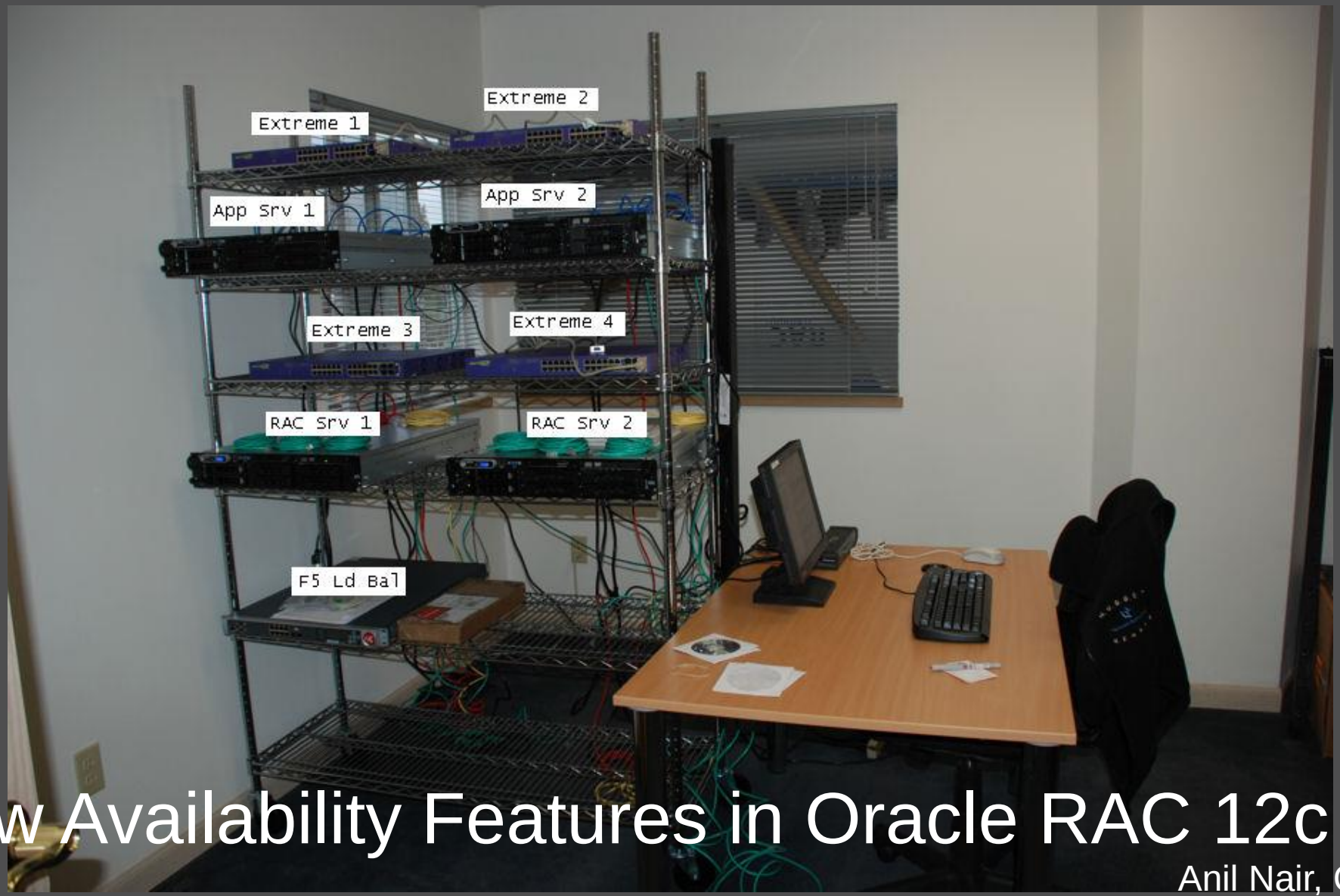

New Availability Features in Oracle RAC 12c Rel. 2

Anil Nair, Oracle Corp.

Break

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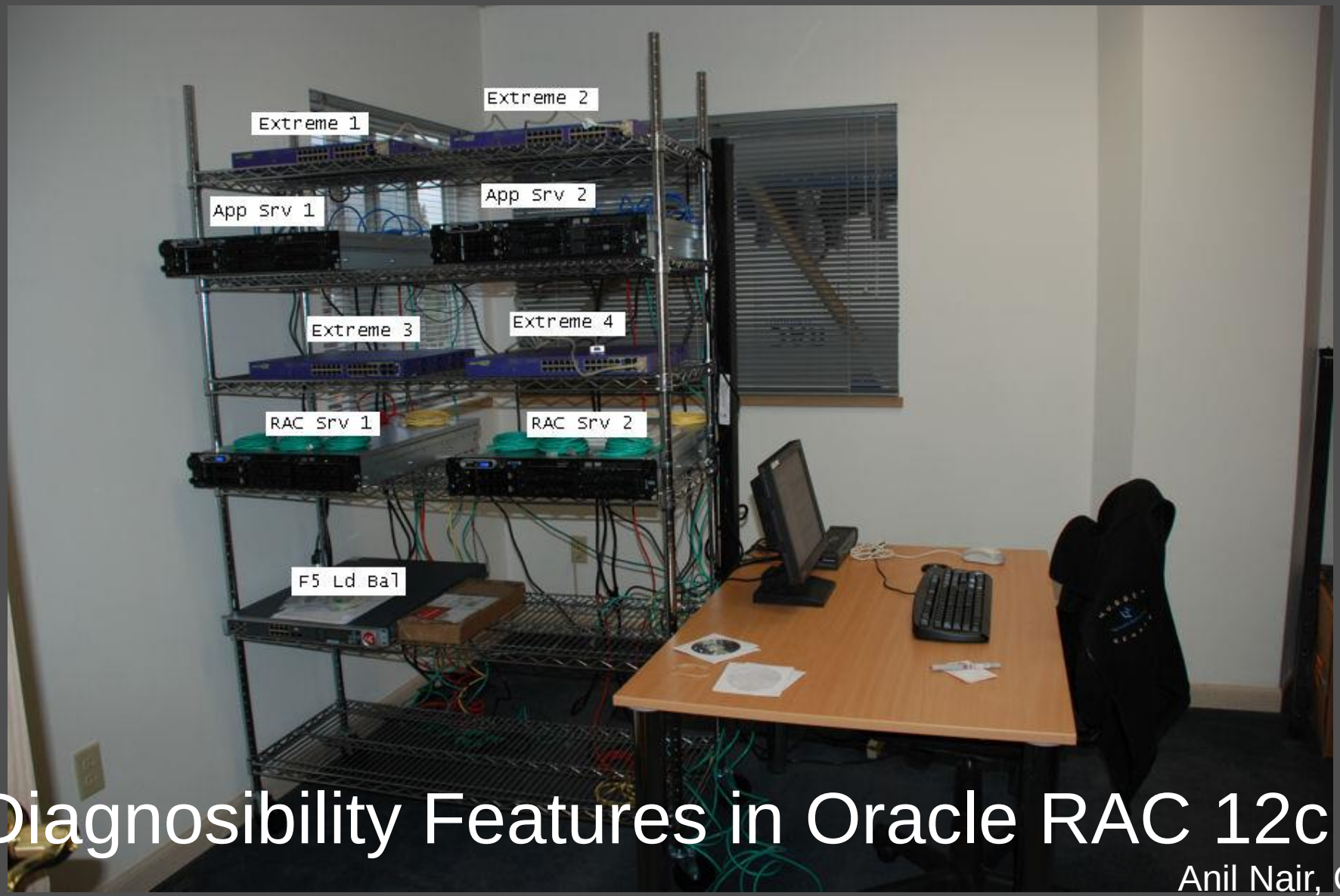

New Diagnosibility Features in Oracle RAC 12c Rel. 2

Anil Nair, Oracle Corp.

TCOUG Election

Kristen Spain, TCOUG Secretary

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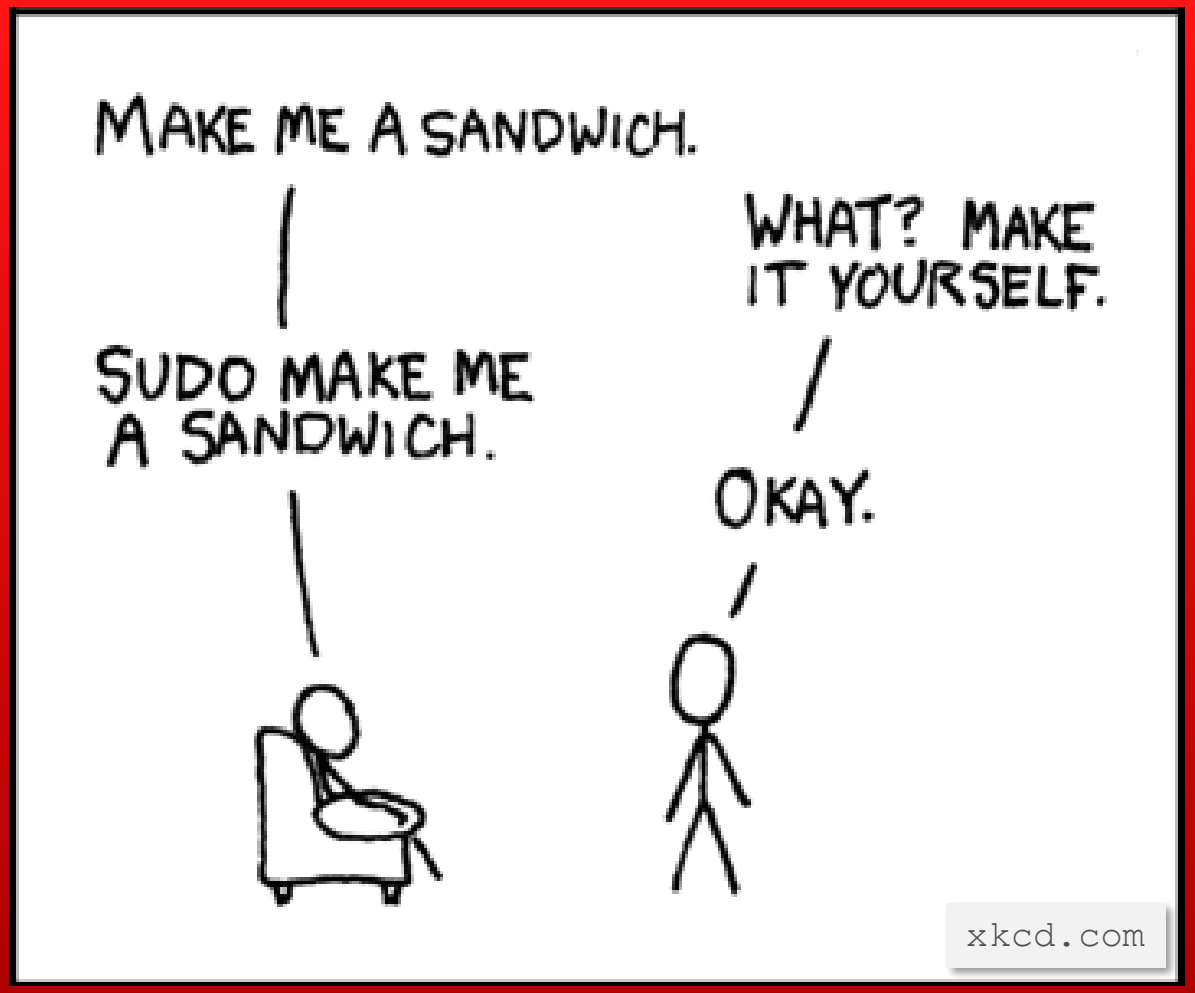
MAKE ME A SANDWICH.
WHAT? MAKE IT YOURSELF.
SUDO MAKE ME A SANDWICH.
OKAY.
xkcd.com

Lunch

Tips & Traps for the New Oracle Keystore

Jim Czuprynski, Vion

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In-Depth Schema Comparison

Ty Willingham, Thomson Reuters

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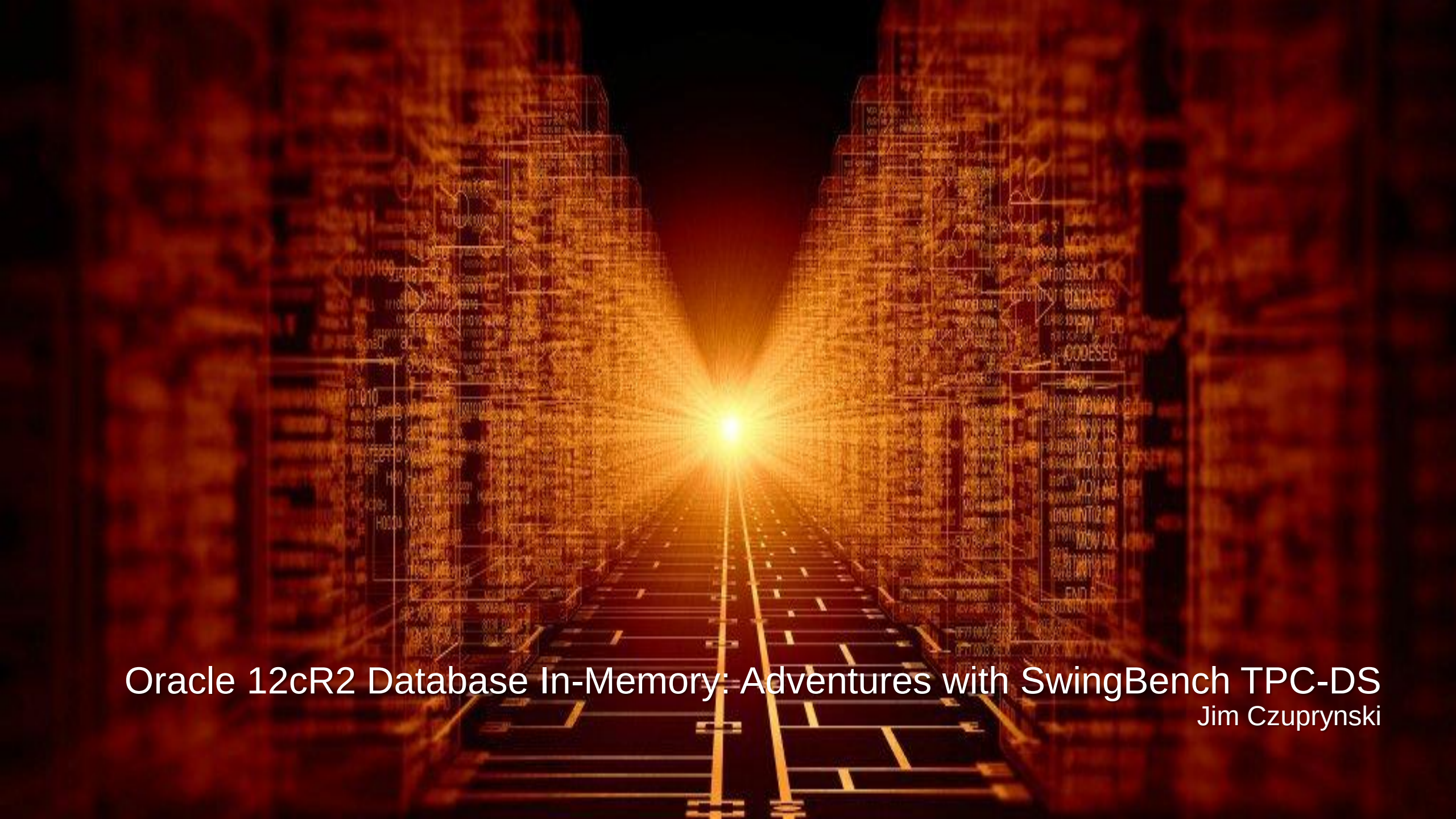

Oracle 12cR2 Database In-Memory: Adventures with SwingBench TPC-DS

Jim Czuprynski

Break

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Channeling Oracle OpenWorld 2017

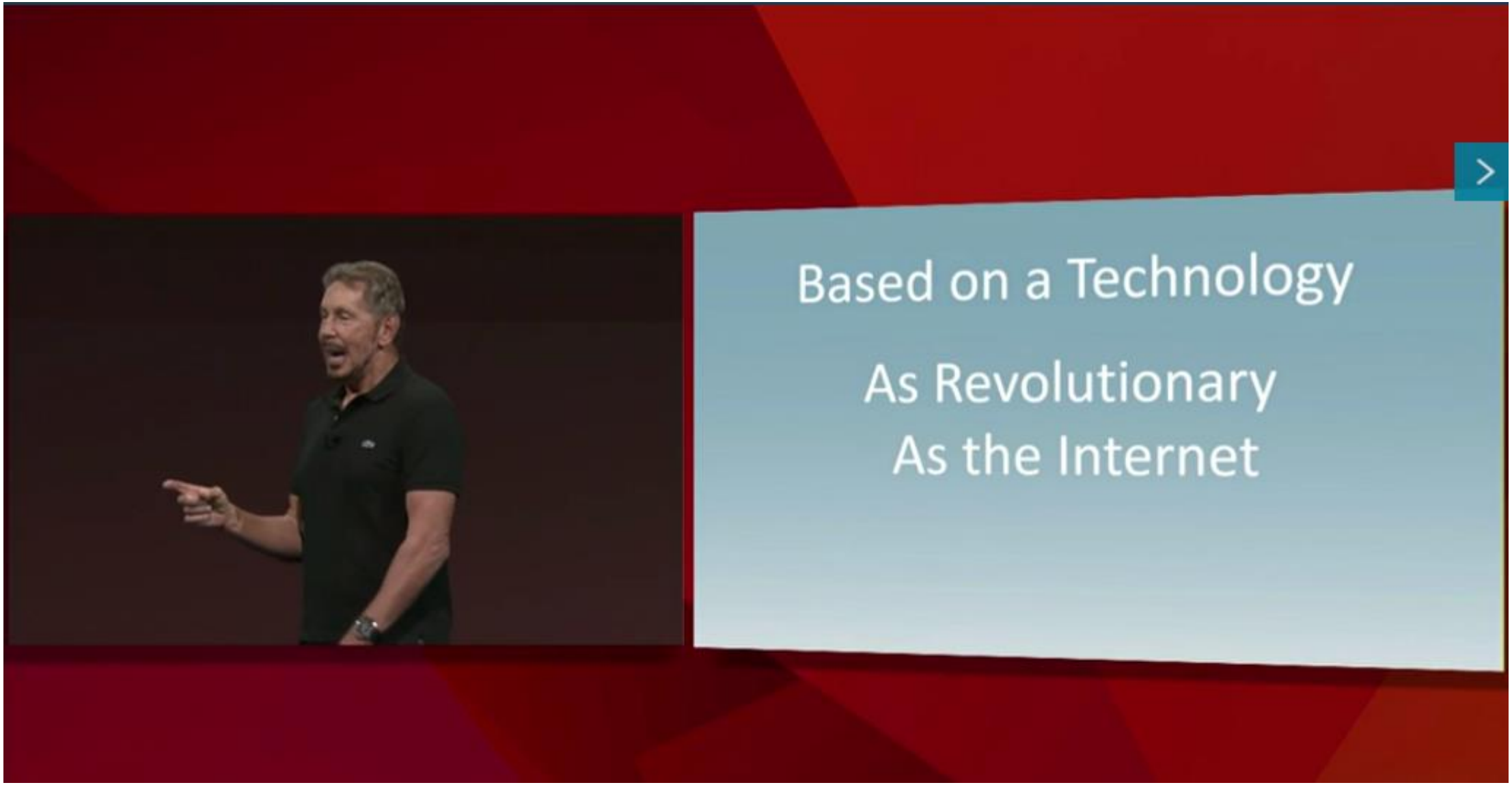
Daniel Morgan, Meta7

Welcome To Our Future

- Two different new products were the focus of Larry Ellison's keynotes
- Both based on a single underlying technology that Oracle is working to build into a lot of different products throughout the tech stack
- On the first day Larry focused primarily on what he called:

"The new, greatest, version of Oracle 18c which is the world's first autonomous database"


Oracle Autonomous Database
and
Highly Automated Cyber Defense
Larry Ellison
Chief Technology Officer
Robots
Prevent Data Theft
ORACLE


Based on a Technology
As Revolutionary
As the Internet

The Premise Is As Ground-Shaking As It Is Obvious (1:2)

- There can be a variety of threats to our data, our databases, and our organizations
- The threats include
  - Stability Issues
  - Security Threats
    - Denial of Service Attacks
    - Data Theft
    - Data Corruption
  - Performance Issues
- The solution Oracle has chosen in Machine Learning
  - Not Artificial Intelligence ... but very specifically "machine learning"
  - The point is that "We do everything we can to avoid human intervention"
- The "cold war" has moved from the military to our computers
- We are the front line ... and while there is no blood or burning buildings ... make no mistake about it ... this is escalating and our ability to pretend that we are not on the front line is evaporating

The Premise Is As Ground-Shaking As It Is Obvious (2:2)

- It is now "Our computers" vs "Their Computers" in cyberwarfare
  - If it is their computers vs us ... we will lose
  - If you don't believe me try to beat Deep Blue at chess or AlphaGo at go
  - If the opposition is an organized crime family you will find your data being sold on the dark web
  - If the opposition is a nation-state expect your data to be used to attack your country, your community, your family
  - The worst data thefts have occurred after a patch was available
  - Because we all know we do not patch the instant the patch if available
  - We schedule downtime
  - Patching is never a top priority for our employers
- To win we must
  - The instant a patch is available
  - The instant the database detects a threat
- We no longer have the luxury of scheduling dev, scheduling test, taking an outage and scheduling prod ... not a strategy, not a tactic, a guaranteed failure

Oracle Management & Security Cloud (1:2)

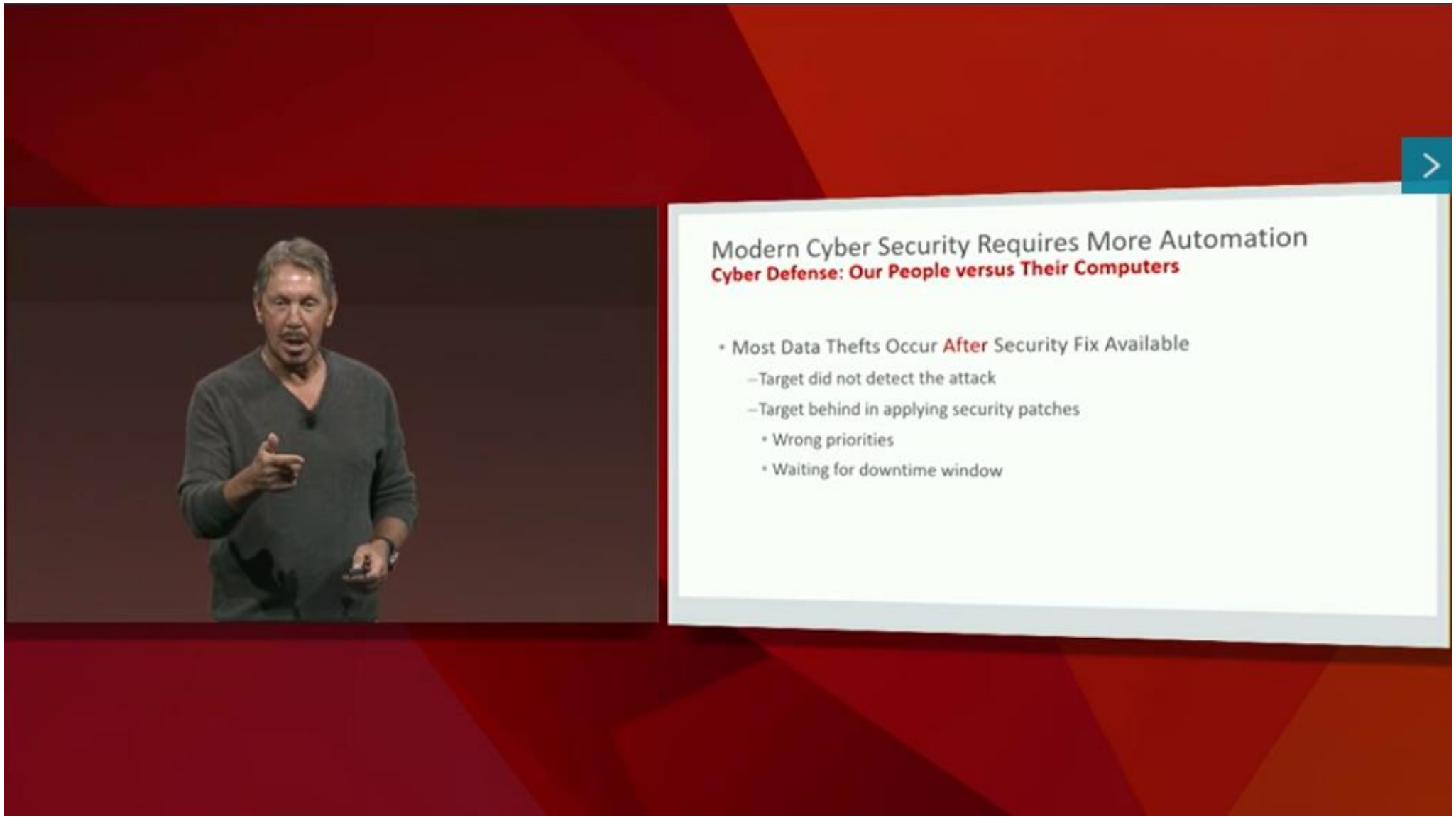
- Log Analytics (Splunk) doesn't fix anything ... it just tells you that you have a problem ... if you have time to look
- OMC is a highly automated cyber defense ... but not 100% autonomous
- Originally designed as a Splunk killer ... but implemented as far more
- With the 18c database ... co-designed to stop data theft
- We need to reprioritize
- We need to rethink how we protect our systems
- What happened at Equifax?
  - For one thing they couldn't find all of the installed instances of Apache Struts
  - Which prevented them from patching them
  - And they made the mistake of focusing on perimeter defense rather than defense in depth

Oracle Management & Security Cloud (2:2)

- We don't tolerate airplane crashes ... but we tolerate security failures daily
- We need to elevate the priority of security
- We need to reprioritize ... to do security without being a speed bump
- Humans can't keep up ... we must have more automation
- Automatically fixing vulnerabilities and, if there is an attack, detect it and shut it down
- There should be no human intervention and no downtime required
- Which means we need to
  - Identify normal events
  - Distinguish normal from abnormal events

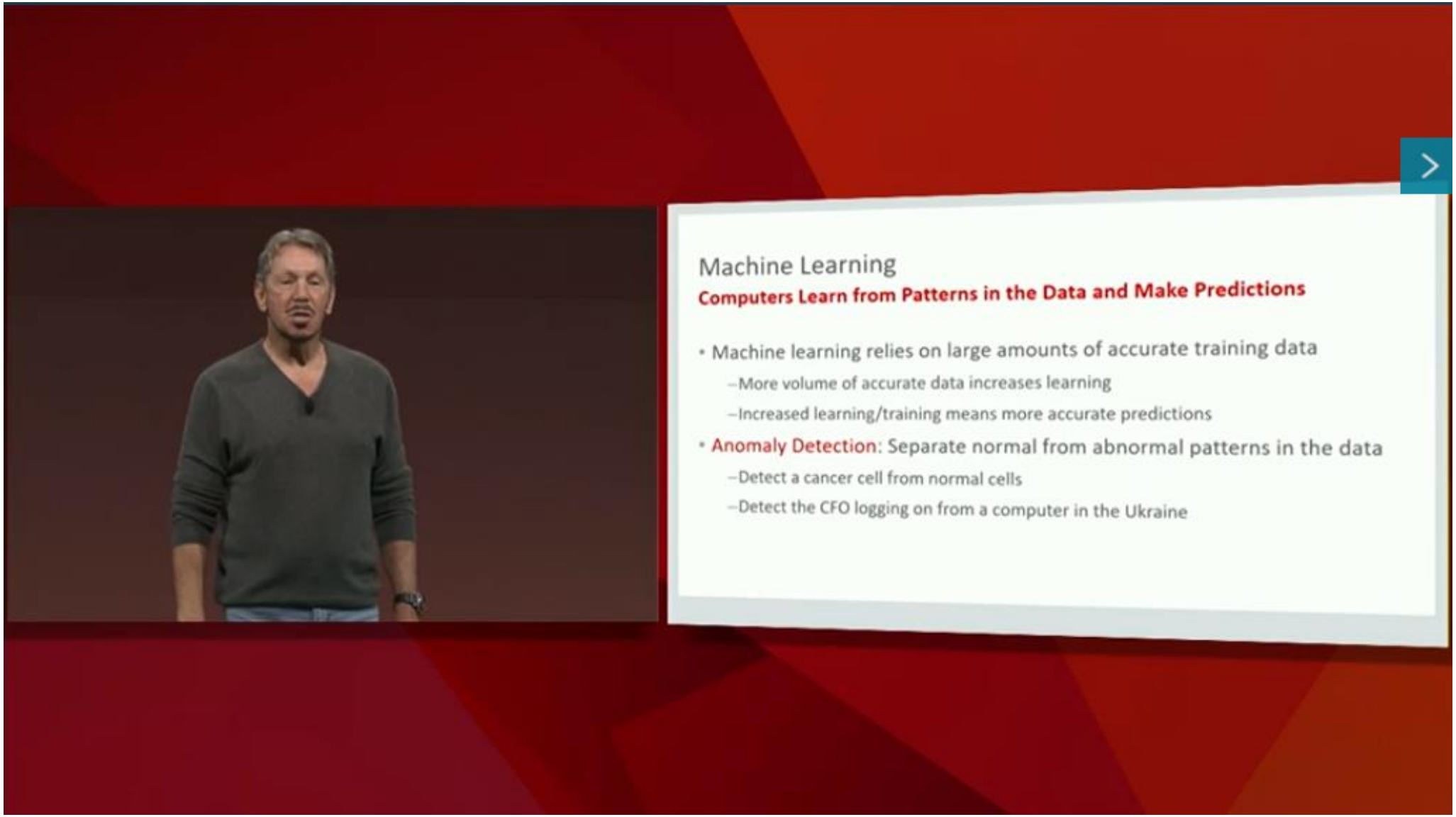
Oracle Management & Security Cloud (4:2)

Oracle Management & Security Cloud (4:2)



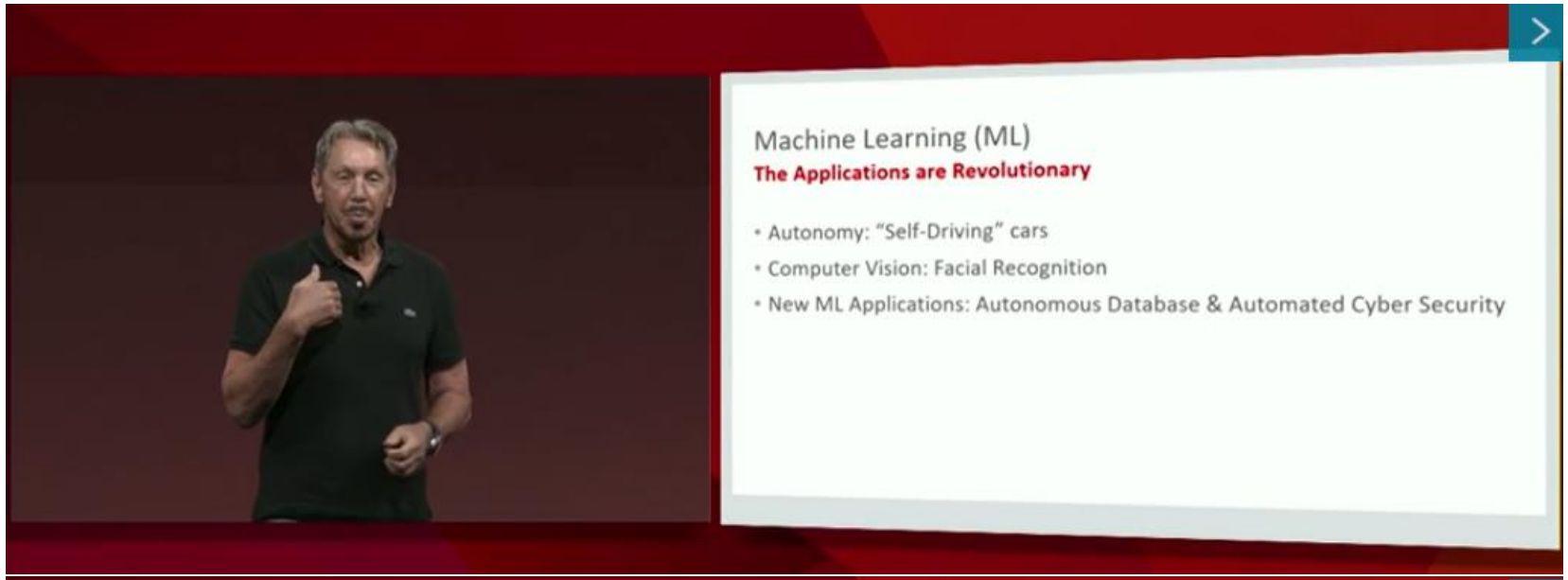
Oracle Management & Security Cloud (5:2)

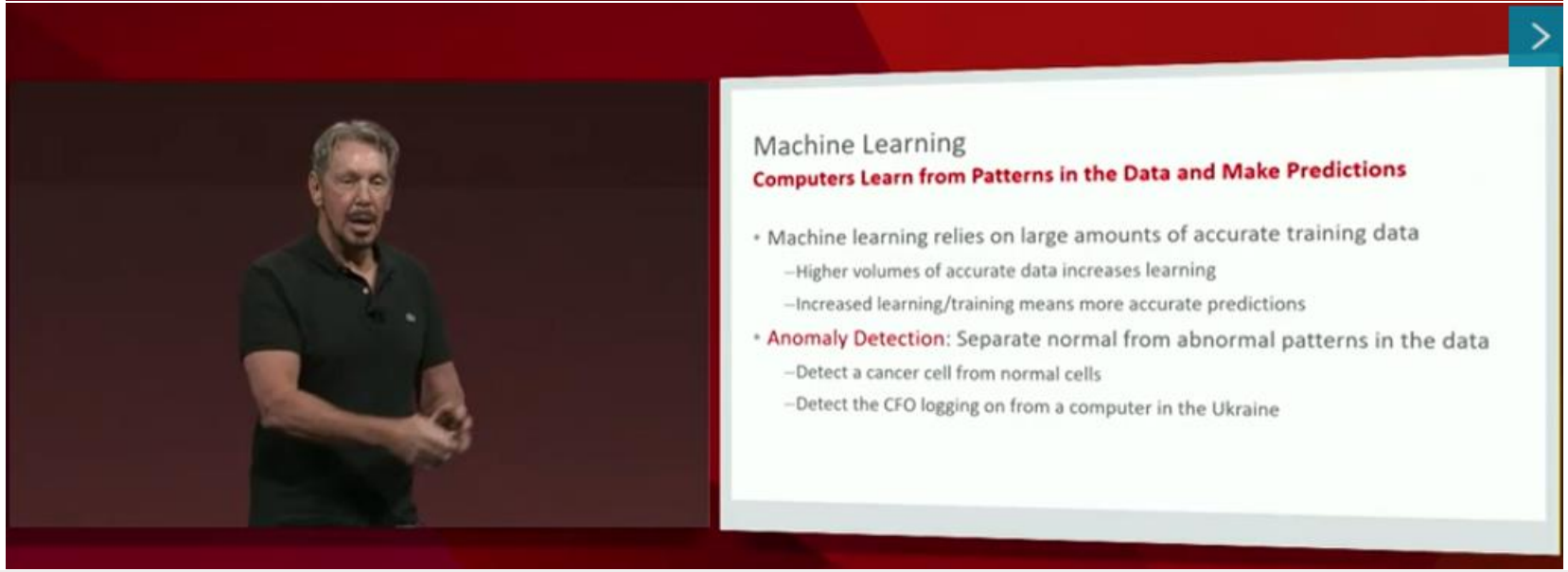
Oracle Management & Security Cloud (6:2)



Oracle Management & Security Cloud (7:2)

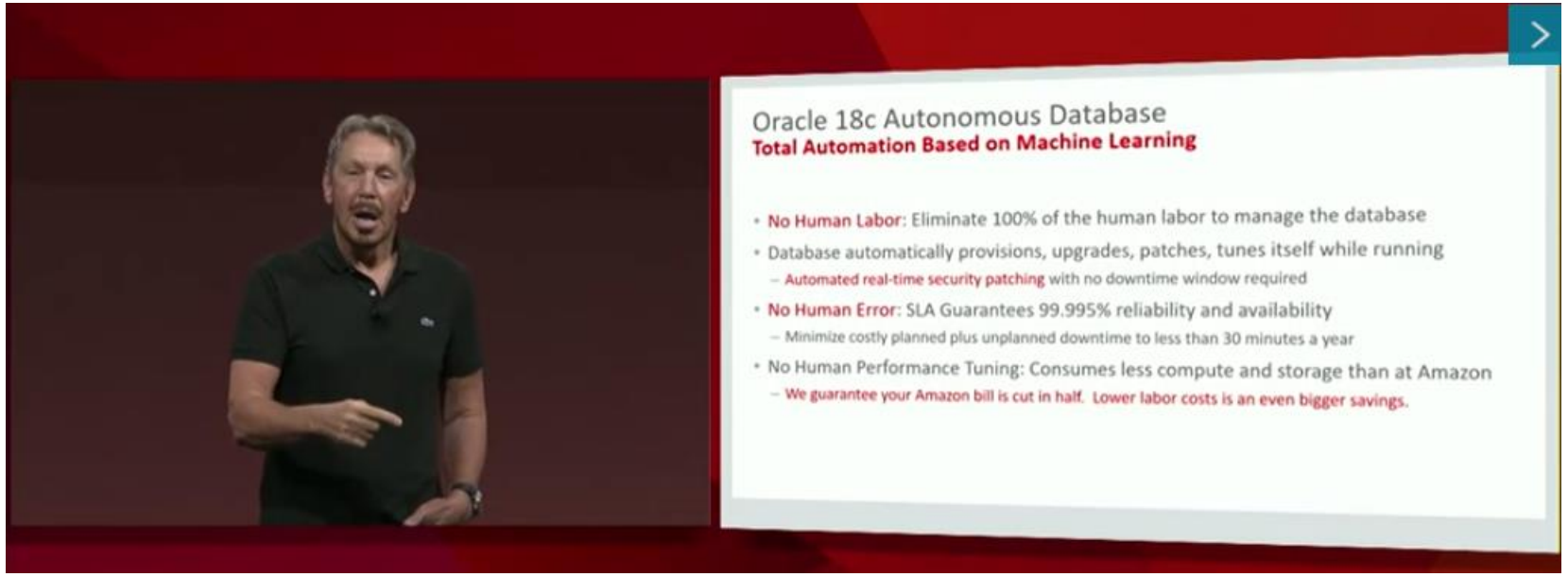
Autonomous Database 18c (1:6)



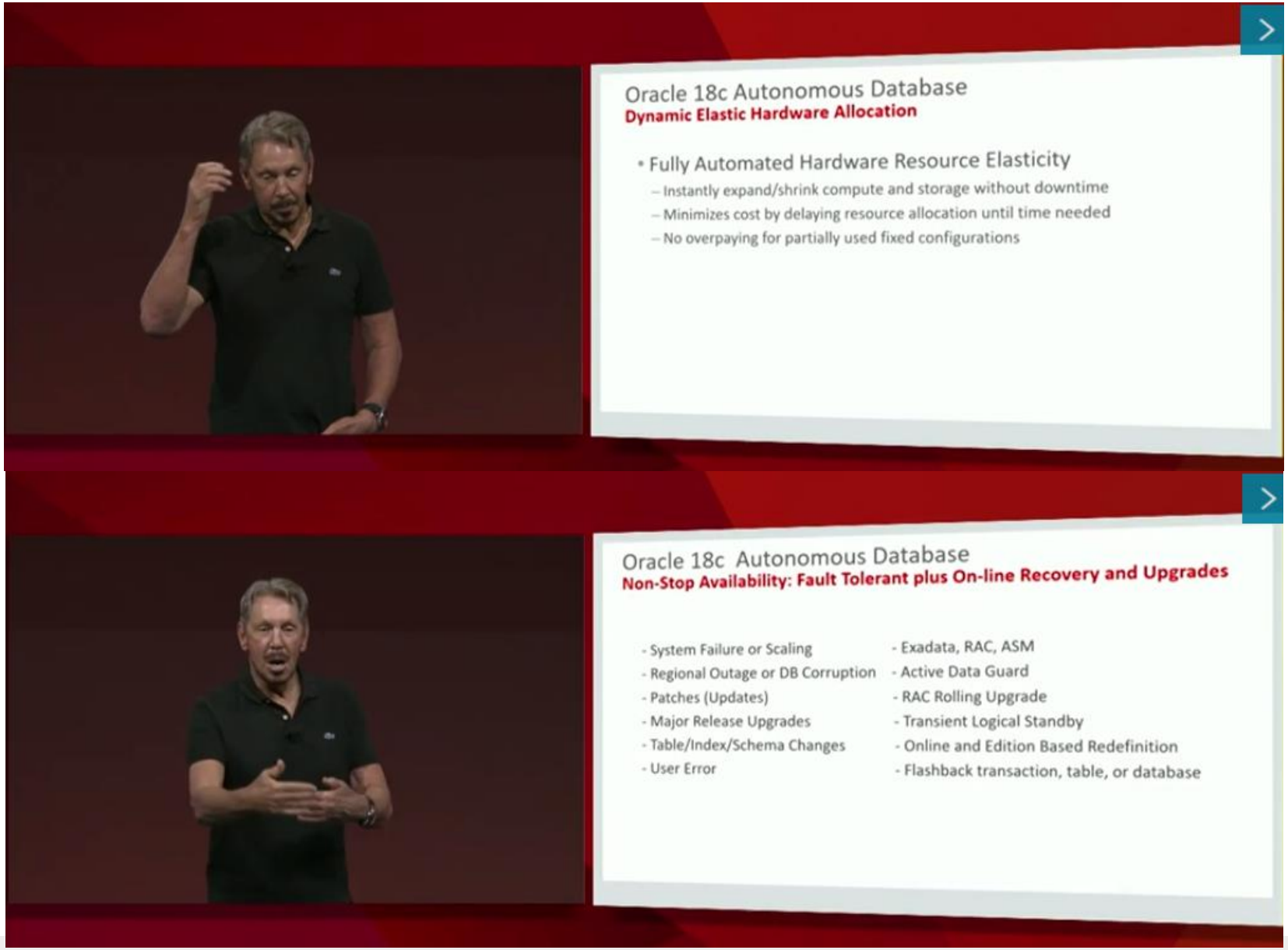


Autonomous Database 18c (2:6)

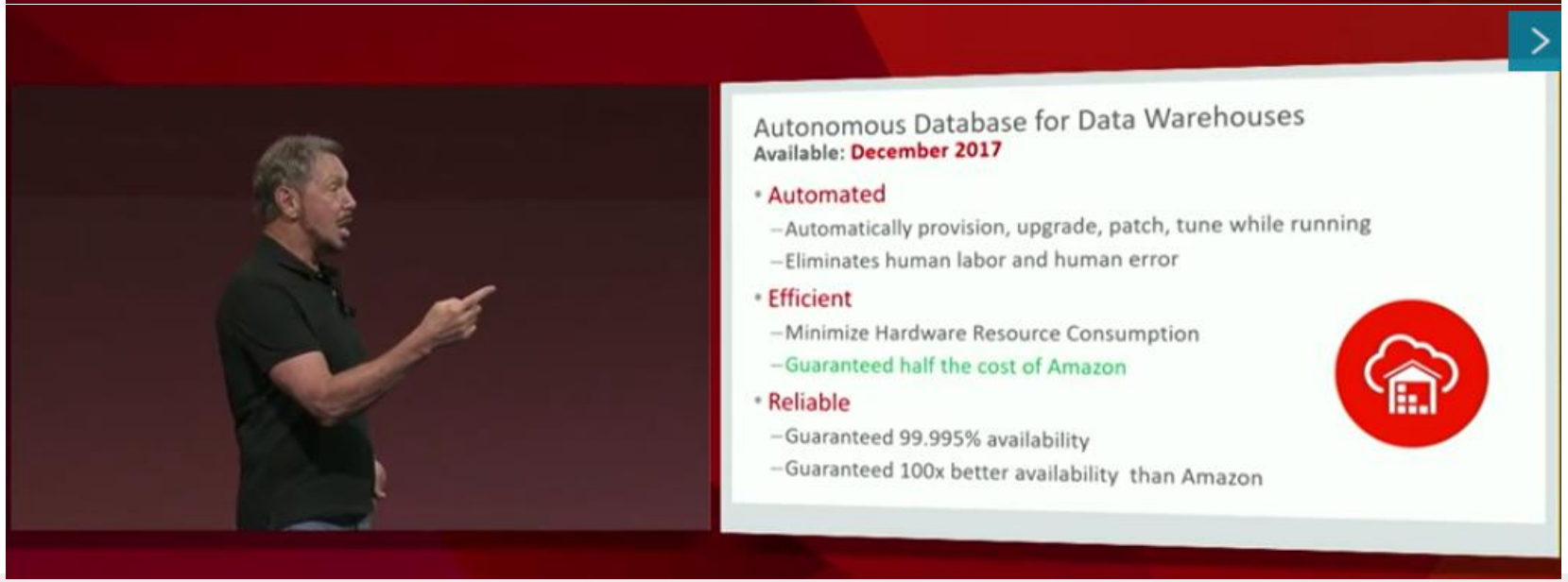
Autonomous Database 18c (3:6)



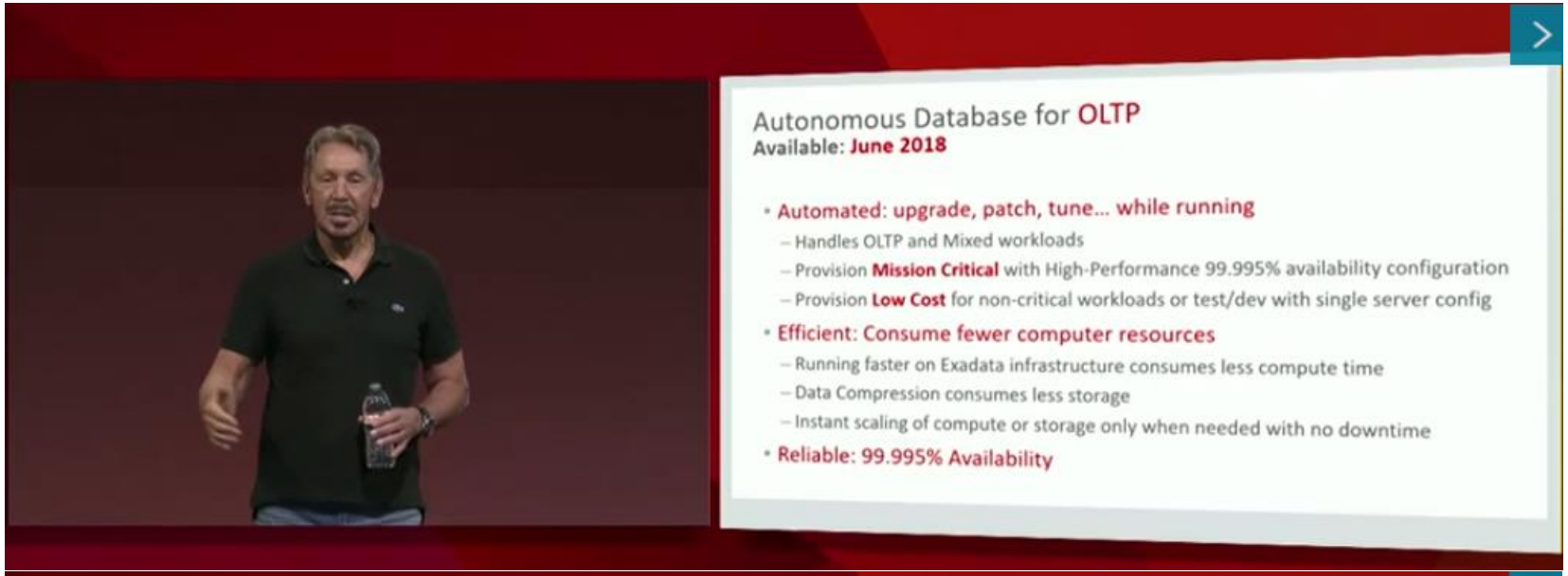
Autonomous Database 18c (4:6)



Autonomous Database 18c (5:6)



Autonomous Database 18c (6:6)



The Future Is Just 3 Months Away

- Databases that use machine learning to detect attacks and stop
- Databases that patches themselves
- Databases that back themselves up
- A database that guarantees <= 30 minutes of downtime per year

We've Come A Log Way ... We Have Far Further To Go

Ed Oates Bruce Scott Bob Miner Larry Ellison

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Giveaways, Prizes & Closing Remarks

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I hope today has been valuable for you and I encourage you to contact me ... vp@toug.org ... with suggestions and to volunteer to present at our Fall meeting

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