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Session 15612 : One-Click Access to Enterprise Applications with Oracle Desktop Virtualization

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Presenting with

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

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Oracle OpenWorld 2011
Desktop Virtualization

- **Oracle Virtualization General Session**
  Tuesday, October 4
  10:15 AM, Moscone South, Room 103

- Monday, October 3
  - **One-Click Access to Oracle Applications with Oracle Desktop Virtualization**
    12:30 PM, Moscone South, Room 252

  - **The Essential Development, Testing, and Lab Environment Tool:**
    Oracle VM VirtualBox
    12:30 PM, Marriott Marquis, Golden Gate C1

  - **Oracle Desktop Virtualization: Complete, Open, and Integrated**
    2:00 PM, Moscone South, Room 302

  - **Oracle Storage Best Practices for Oracle VM and Oracle Virtual Desktop Infrastructure**
    2:00 PM, Moscone South, Room 236

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Oracle OpenWorld 2011
Desktop Virtualization

- Wednesday, October 5
  - **Enterprise Desktop Virtualization with Oracle VM VirtualBox**
    11:45 AM, Moscone South, Room 200
- Demos
  - **Oracle Virtual Desktop Infrastructure and Sun Ray Clients**
    Moscone South DEMOgrounds, S-156
  - **Oracle Secure Global Desktop**
    Moscone South DEMOgrounds, S-158
  - **Oracle VM VirtualBox**
    Moscone South DEMOgrounds, S-146

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Oracle Strategy
Complete, Open, Integrated Systems

Applications
Middleware
Database
Operating System
Virtual Machine
Servers
Storage

Customer Benefits:

- Open and standards-based
- Innovation delivered faster
- Better performance, reliability, security
- Shorter deployment times
- Easier to manage and upgrade
- Lower cost of ownership
- Reduced change management risk
- One-stop support
- Reduced down time

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Virtualization Product Strategy

Making Software Easier to Deploy, Access, Manage, & Support

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VIRTUALIZATION

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Oracle Virtualization Strategy
Desktop To Data Center Virtualization

- Virtualization offers key cost savings benefits
  - Server consolidation
  - Lower energy, facility and labor costs

- Oracle's virtualization strategy offers much more
  - Most comprehensive desktop to data center product portfolio
  - Integrated management of the full hardware and software stack from applications to disk
  - Integrated support

- Virtualization that makes software easier to deploy, easier to manage, and easier to support
  - Not virtualization for virtualization's sake

Oracle Virtualization
Industry's Most Complete Product Line

SERVER VIRTUALIZATION	DESKTOP VIRTUALIZATION

- Oracle VM Server for x86
- Oracle VM Server for SPARC (LDoms)
- Oracle Solaris Containers
- Dynamic Domains

- Oracle Virtual Desktop Infrastructure
- Sun Ray Clients
- Oracle Secure Global Desktop
- Oracle VM VirtualBox

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More Product Releases Than Ever Before
Driving Innovation

• Oracle VM VirtualBox 4.0

• Sun Ray Software 5.1

• Oracle Virtual Desktop Infrastructure 3.3

• Sun Ray Software 5.2

• Oracle Secure Global Desktop 4.6.1

• Oracle VM VirtualBox 4.1

• Oracle Virtual Desktop Client for iPad

• Oracle Virtual Desktop Infrastructure 3.2

• Sun Ray Software 5

• Oracle Secure Global Desktop 4.6

• Sun Ray 3 Client

• Sun Ray 3i Client

• Oracle Virtual Desktop Client 2.0

| Q3 CY2010 | Q4 CY2010 | Q1 CY2011 | Q2-4 CY2011 |

Oracle Virtualization
The Full Stack, End-to-End

Application-Driven Virtualization

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Oracle Desktop Virtualization

Application Driven

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VM

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Oracle Desktop Virtualization
Access Layer for Enterprise Applications

Access

Applications

Middleware

Database

Operating System

Virtual Machine

Servers

Storage

– Deliver virtualized access to users' enterprise applications…
  - Server-hosted applications
  - Server-hosted desktops

– Application clients become…
  - Easier to deploy
  - Easier to manage
  - Easier to support & maintain

– Access becomes…
  - More secure
  - More device-independent
  - More location-independent
  - Certified for use with Oracle's web applications

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Access Layer Benefits for Applications

Oracle Desktop Virtualization

- Simplified Client Configuration
- Application Performance
- Security
- Easy Migration
- Certified

Benefits

- Hosted browser, plug-ins environments for Oracle Applications
- Optimized for network latencies via protocols
- No application-related data loss, central administration
- No down time to access upgraded applications
- Oracle's web applications certified for access

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Oracle's Certification Statement

- **Oracle desktop virtualization products are now certified for use with Oracle's browser-based products**

  - My Oracle Support Doc ID 1325300.1

- **Statement of Certification**

  - *"Default certification/support for all new Oracle software releases: By default, for current and all new Oracle application software releases going forward, any internet browser and operating system combination certified by the application itself is certified for use with the desktop virtualization products unless the combination is not supported by the desktop virtualization product in question or unless otherwise referenced in this support note."*

- **ONLY for <u>Oracle's</u> Desktop Virtualization Products**

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Access Layer for Applications
Oracle Enterprise Apps and more

- Oracle leveraging desktop virtualization for its broad enterprise applications portfolio

- Simplified, single-source access for multiple Oracle Applications

- Certified access of Oracle's browser-based applications with Oracle Desktop Virtualization

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Desktop Virtualization Products
Applications, Desktops

- **Secure Global Desktop**: Remote Applications Delivery

  - Enables browser-initiated access to server-hosted **applications** from Microsoft or Linux desktops

  - Optimized for access across the open-internet (no VPN required)

- **Virtual Desktop Infrastructure**: Virtual Desktop Delivery

  - Delivers access to server-hosted **desktop** instances from remote client devices

  - Optimized for access across enterprise networks

High performance protocols

Multiple Operating Systems support

Simplified Client Configuration

Certified with Oracle's web apps

Data Security

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Oracle VDI

Application Driven Virtualization

Desktop VM
Servers & Storage

Oracle VDI:
Broker & Mgmt Servers

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VM

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Why Oracle VDI for Applications Access?

Only Oracle allows you to:

- Deploy almost any application to any client
  - Huge range of "Desktops" supported

- In any manner that the application supports
  - Individual VMs per users
  - Shared server based computing

- In any manner that works best for the user
  - Access a full desktop
    - Tight linking of workflows between multiple applications
  - Access just the application

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Application Access Made Simple

**Oracle Virtualization
Access Tier**

VPN

ALP Protocol

**Existing
Oracle Applications**

Shared Environments

- Oracle Linux (Shared)
- Oracle Solaris (Shared)
- Windows 2003 (Shared)
- Windows 2008 (Shared)
- Linux or Solaris "Apps" via Sun Ray Kiosk

VM Environments

- Windows 2000
- Windows XP
- Windows 7
- Ubuntu
- Oracle Linux
- Oracle Solaris

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Minimal Client Configuration

- Existing VPN access methods used
  - Oracle remote protocols bring expensive network hardware like benefits to existing IT supported VPN solutions.
    - IPSec (Cisco EzVPN/Juniper) for physical Sun Ray terminals
    - IPSec or SSL VPN for mobile devices (iPad)
    - SSL VPN for all other clients using OVDC
- End-point client configuration for applications access significantly reduced
  - Configure VPN connectivity
  - Install/Use Oracle Desktop Virtualization Client of choice
    - Oracle Virtual Desktop Client
    - Oracle Secure Desktop
    - Physical Sun Ray Client

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Choice of Client Devices
Access From Virtually Anywhere

Sun Ray Client
No OS, Secure
Eco-friendly
Reliable
Ultra-Thin Client

Oracle Virtual Desktop Client
Software Client
Secure
Flexible
Mobile

Linux Desktop

PC / Laptop

Mac

iPad

Sun Ray 3i

Sun Ray 3Plus   **Sun Ray 3**

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NEW! Oracle Virtual Desktop Client for iPad
The iPad in the Enterprise

- iPad in the enterprise increases workforce mobility, corporate productivity, customer responsiveness

- OVDC removes the barriers to iPad adoption in the enterprise

  – "I can't store company data on hardware other than on a company PC'

  – "The iPad doesn't support corporate apps"

  – "You can't run Windows and/or Linux apps on an iPad"

Virtual Desktop

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Oracle Virtual Desktop Client for iPad
Optimized iPad GUI Support

- Simple, intuitive, accurate gestures and navigation

Oracle Virtual Desktop for iPad
Rich Keyboard Support

- Fast and responsive interface
- Extended keys: ctrl, alt, shift esc, del, tab, function, insert, home, end, page up/down, cursor keys

Siebel CRM on iPad – Account Location

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Enterprise Manager on iPad – Chargeback

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Instantly Switch between Applications/Desktops

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Oracle Secure Global Desktop

Application Driven Virtualization

Application Servers

SGD Array

SGD Gateway

DMZ

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VM

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What is Oracle Secure Global Desktop (SGD)?
Secure remote access to applications

- Web-based applications access

  - Remote access to Oracle's applications from PCs, Macs, and thin clients

  - Secure access via an internet browser

  - Also Works with Windows, Linux, Mainframe applications

  - No VPN infrastructure and associated support costs

- Certified Access to Oracle's web-based applications

- Lightweight / non-intrusive client installation

- Industrial-grade network security

- DMZ and Firewall friendly

Gateway   SGD Array

DMZ

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Benefits of Oracle Secure Global Desktop

Oracle Secure Global Desktop

Simplicity

Single Source Access

Flexible

Reliability

Session Persistence & Performance

Customer Benefits

Easy to setup, configure, manage and use (no VPN required)

Access all your applications in one place from a browser

Works with multiple application types (Windows, Linux, Oracle, etc)

Built on Oracle Linux

Ability to suspend-resume sessions while on-the-go using AIP (adaptive internet protocol)

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Oracle Secure Global Desktop
Adaptive Internet Protocol (AIP)

- US Patent No. 6,104,392

- Provides optimal network performance to clients, even in varying bandwidth conditions
  - Fast performance over LAN, WAN and Internet
  - Dynamically adjusts as needed
  - Use the designed intelligence or place a bandwidth limit

- Used to transmit data between X protocol engine and client's display engine
  - Request pruning, & merging
  - Caching
  - Compression

- Why spend extra $$ for performance over WAN?

AIP

Oracle Secure Global Desktop
Security & Data Protection

- Use the highest industry standard encryption and cipher levels

- Leverage a true client-to-server SSL tunnel

- Both user and internal array server traffic can be encrypted

- PKI certificates verify server identity

- Security restrictions for the end-user
  - Controlled copy and paste
  - Controlled client-drive mapping
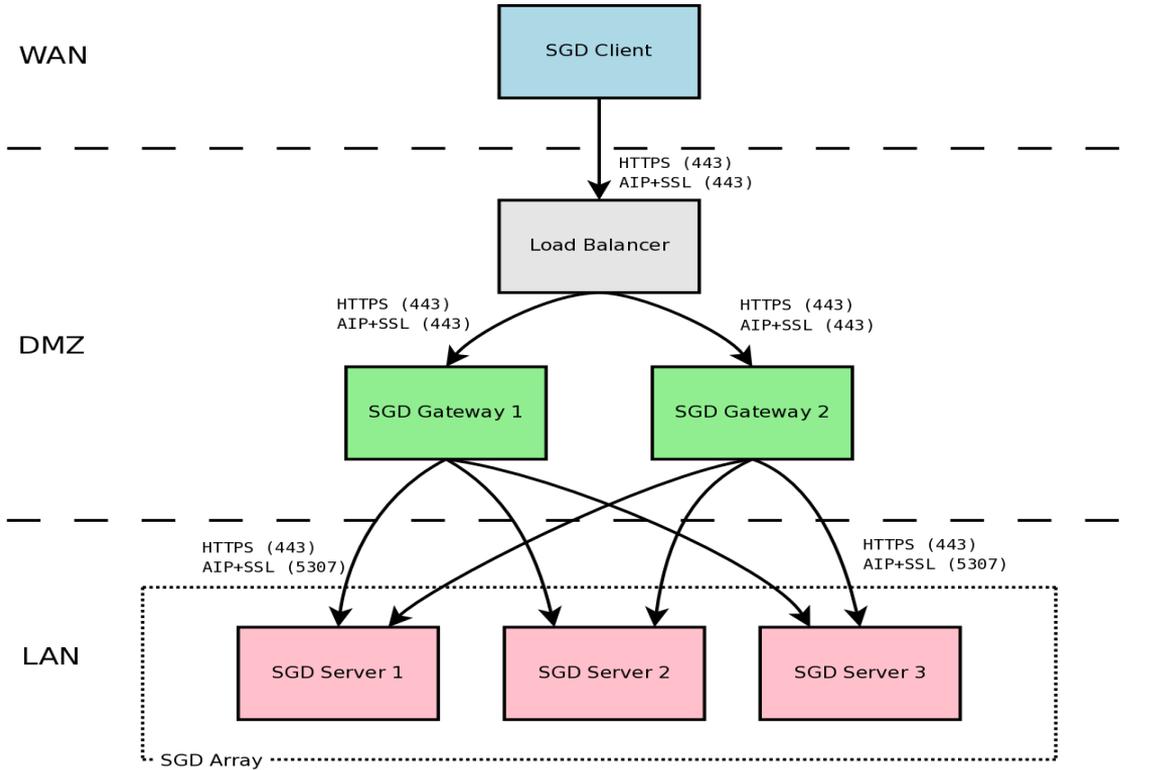 - Controlled printing
  - Controlled USB connectivity

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Oracle Secure Global Desktop
Secure Gateway at No Additional Cost!

- Hides topology and addresses of internal network

- Provides single network entry point
  - One address and port – replaces SGD firewall forwarding
  - Reduced Internet-facing attack surface

- Apache Reverse Proxy

- Authenticate in the DMZ
  - Before granting access to data center

- Decrypt and re-encrypts data
  - Can leave unencrypted for IDS sensor inspection

- Multiple gateways for redundancy and scalability

- Use on independent server(s); not separately licensed

Gateway   SGD Array

DMZ

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Oracle Secure Global Desktop
Load-Balanced Deployment

WAN

SGD Client

HTTPS (443)
AIP+SSL (443)

Load Balancer

HTTPS (443)
AIP+SSL (443)

HTTPS (443)
AIP+SSL (443)

DMZ

SGD Gateway 1

SGD Gateway 2

HTTPS (443)
AIP+SSL (5307)

HTTPS (443)
AIP+SSL (5307)

LAN

SGD Server 1

SGD Server 2

SGD Server 3

SGD Array

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Oracle Secure Global Desktop
Session Persistence (On-the-go)

- Allows for not just applications access on-the-go, but also access application "state"

- Independent of device (Sunray, PC, Mac)

- Typical scenario
  - Sales consultant logs into an application (e.g. CRM) at work on a desktop
  - Arrives at a particular screen displaying customer specific CRM information
  - Sales consultant needs to visit a customer, "pauses" the application on SGD
  - Arrives at customer site with his laptop, logs into SGD
  - "Plays" the CRM application
  - The exact screen where he left off (prior to leaving work) is displayed
    - Improving productivity at the customer site
  - "Follow-me" printing (printer context from local device)

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Single-source, Anywhere Applications Access

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Summary

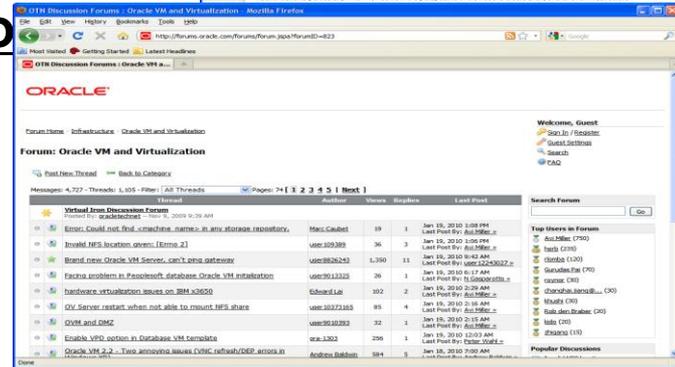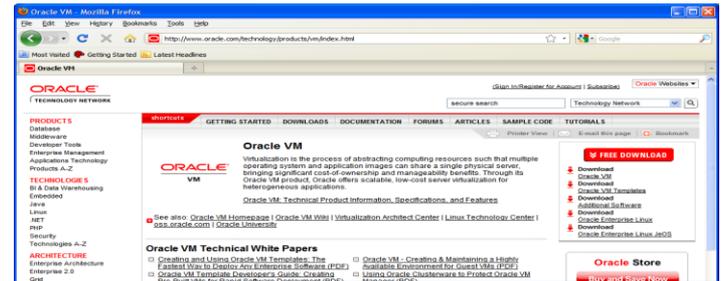**Accessing applications through Oracle's Desktop Virtualization Portfolio is:**

- Certified
    - Oracle's default position is to support Oracle Applications

- Flexible
    - Deliver more environments to more devices than any other solution

- Integrated with Oracle's full-stack
    - One solution, one support contract, one stop-shop

- Reliable
    - Built on Oracle Linux

- Optimal
    - "Run" the app where it runs best, regardless of the client

- "Return-on-control" with Visulox
    - Enforces control for privileged users

Q&A

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Oracle Virtualization

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- **Download** edelivery.oracle.com

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VIRTUALIZATION

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Latin America 2011

December 6–8, 2011

Tokyo 2012

April 4–6, 2012

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Hardware and Software

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Engineered to Work Together

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