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Building Secure Multimedia Web Applications: Tips and Techniques

Melli Annamalai, Product Manager, Oracle
Marcel Kratochvil, CTO, Piction

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Agenda

- Oracle Multimedia overview
- Tips and techniques for building secure multimedia applications on Oracle Multimedia

What is Oracle Multimedia

- Platform for managing multimedia data in Oracle Database
  - Storage, management, processing of media data for applications that use multimedia data
  - Image, Audio, Video, Medical image (DICOM)
- A feature of Oracle Standard and Enterprise Editions
- A mature feature, shipping for 13 years

Why Oracle Multimedia

- Manage multimedia data in the database as naturally as business data
- Lower the cost and complexity of developing, deploying and managing business applications which make extensive use of multimedia data
- Help customers scale to very large datasets (100s of Terabytes to Petabytes)

- Oracle Multimedia collaborates with partners in the development of applications for vertical markets
  - Publishing, public sector, healthcare, etc.

Oracle Multimedia Features

- Images: Metadata extraction, processing of commonly used and popular formats
  - Thumbnail creation, crop, flip, mirror and other processing operations
  - JPEG, GIF, TIFF, BMP, etc.
- Audio, Video: Metadata extraction and streaming of media data from the database
  - MPEG, AVI, Quicktime, etc.
- Object, relational, and standards compliant interfaces
- PL/SQL and Java APIs

- DICOM (medical image): Comprehensive support in Oracle Database 11g

Multimedia Data in Oracle Database

Save application development time, complexity, maintenance

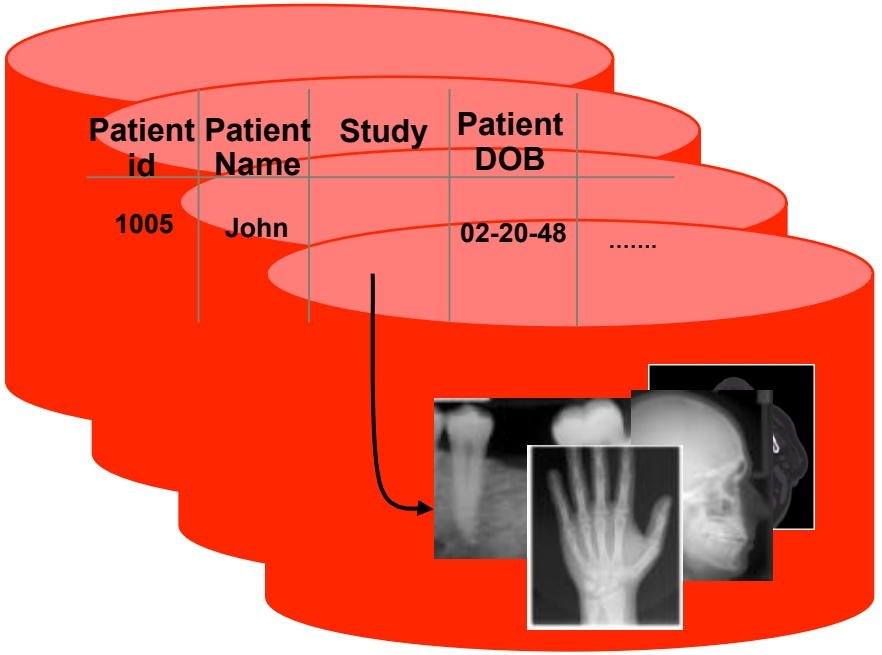
- Scalability
  - Exadata
  - Grid architecture
  - Virtually no limit to growth in data size
- Lower Cost
  - Lower labor costs
  - Manage growth without cost increases (lifecycle management, compression, ASM)
- Security
  - Protection against unauthorized access, deletion
  - Guaranteed privacy, tracking of access
- Manageability
  - Synchronize images with business data
  - Ability to use database' backup facilities

Performance (with Oracle SecureFiles)

- READ at 800 CAT Scan Images/Sec (0.5 MB each)
- WRITE at 500 CAT Scan Images/Sec (0.5 MB each)

- Benchmark published on Oracle Multimedia OTN page

- **Speeds are hardware bound**
  - Can be as fast as applications need



Sample Customers

Banking

UBS

CAIXA

The Federal Reserve Board

Web Publishing

BioMed Central
The Open Access Publisher

Business Wire
A Berkshire Hathaway Company

Reed Elsevier

Media

SBC

OCLC

Public Sector / Defense / Education

United States Coast Guard
U.S. Department of Homeland Security

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

UNIVERSITY OF OSLO

MTSA

MICHIGAN

Partner (certified on11g)

PICTION Enterprise Digital Resource Management

Museums

Australian War Memorial

MUSEO DI ROMA
PALAZZO BRASCHI

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Applications Using Oracle Multimedia

1. Healthcare and Life Sciences
   - Clinical trials image management, image-enabled electronic health record, research repositories
   - ***Major pharmaceuticals, BioGrid Australia, Spital Netz Bern***
2. Banking
   - Bad / damaged check clearing, deposit slip & statement image archive
   - ***US Federal Reserve bank, UBS Paine Webber, Caixa Economica Federal do Brazil***
3. Public Sector / Defense / Education
   - Road network image repository for safety review; car crash test data – images & video
   - Information portal - www.lifelines.navy.mil; engineering maintenance diagrams & manuals
   - Distance learning
   - ***State of New Mexico D.O.T., US Navy, US Coast Guard, NHTSA, U. of Michigan***
4. Web Publishing / Hosted Applications / Asset mgt.
   - Research portal, Book image archive, multi-office real estate, Asset mgt, Digital museum, Online Computer Library Center
   - ***Business Wire, Reed Elsevier, BioMed Central, Spa Microsystems, University of Oslo, OCLC, South African Broadcasting Corporation***