XML AND DATABASES: LATEST FAD
or
NEW DISRUPTIVE TECHNOLOGY

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TALE OF TWO PARADIGMS
(What a difference a year makes…)

- **XML**
  - Un/semi-structured data
  - Data transfer & exchange
  - Self describing content
  - Clean-slate implementations
  - Content management …

- **SQL**
  - Structured data
  - Data storage & retrieval
  - RDMS enforced constraints
  - 20+ years of infrastructure
  - OLTP…

XML AND SQL: Both Standards Based & Vendor Neutral

WWW10: XML vs. SQL => Evolution Not Revolution
WWW2002: XML Only Transport vs. Everything is XML
Convergence/Co-existence of XML and SQL

• Two Metaphors: One Data Store => Native XML in database
  – XMLType
    • XML Schema support
    • DOM fidelity
    • Xpath search in database
  – XML Repository
• XML SQL Duality
  – Access XML data using SQL
  – Access SQL data using XML
• Performance and functionality benefits including:
  – Eliminating intermediate processing layers
  – Using SQL constraints on XML data
Non-Native XML Processing

Applications

Application Server

XML Processing & Repository Layer

File system

RDBMS

XML Document Content

Structured Data & Metadata

Separate Data & Content Servers

Applications

Application Server

XML Repository

RDBMS

XML Document Content & Metadata

Structured Data

Oracle XML DB

Applications

iAS

Oracle XML DB

XML Document Content, Structured Data, Metadata