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DB2 and e-business Infrastructure

- DB2 Everyplace
- HTTP Browsers
- SOAP Requests
- DB2 Web Services
- DB2 LDAP Support
- DB2 J2EE Support
- DB2 J2EE Support
- DB2 XML Extender
- DB2 XML support
- DB2 LDAP Support
- DB2 Federated Support
- DB2 Stored Procedures
- DB2 Federated Support
- heterogeneous data sources
- application specific sources
- DB2 XML support
- store, shred/compose, search
Challenge: Integrate ALL Data

Solution:
DB2 heterogeneous data federation technology for structured and unstructured data

DB2 VLDB Federation Features

- Auto-discovery of servers
- Cost and function models for remote data sources
- Global heterogeneous query optimization
- Full DB2 function for low function sources: e.g. sophisticated analysis against flat files
- Wrappers proven against non-relational sources (XML, flat files, Excel, Documentum, ..)
- Complementary to DB2's web services producer/consumer capabilities
Challenge: Speed of Application Development

- Solution: DB Integration with Queues

- `select MQSend(e.lastname || ' ' || d.manager) from employee e, dept d where e.deptno = d.deptno`
- `insert into MESSAGE_ARCHIVE(time, msg) values (current time, MQRead())`
- `CREATE TRIGGER new_employee AFTER INSERT ON employee REFERENCING NEW AS n FOR EACH ROW`
- `MODE DB2SQL VALUES MQPublish('HR_INFO_PUB', current date || ' ' || lastname || ' ' || DEPARTMENT,'NEW_EMP')`

- `dxxmqShred - decompose a single XML message`
- `dxxmqShredAll - decompose all XML messages in a queue`

Challenge: Complexity of DB Admin and Maintenance

- DB2's Approach: automatically
  - Monitor system health
  - Recognize potential problems
  - Identify causes
  - Fix or allay causes
  - Before they're fatal!
  - Cause no harm!
  - A major headache for DBAs (time, complexity)
- Solution: The DB2 Health Center
  - Low-overhead monitoring of system health
  - Automatically diagnose & fix potential problems
Health Center

Database Manager Health Snapshot

- **Node type**: Database Server with local clients
- **Instance name**: horman
- **Snapshot timestamp**: 03-27-2002 13:24:51.799180
- **Database Manager Health Indicators**:
  - **Health Indicator ID**: 2 (db2.sort_privmem_util)
  - **Value**: 86
  - **Alert state**: warning