Developing E-Commerce Solutions using the Oracle Platform.

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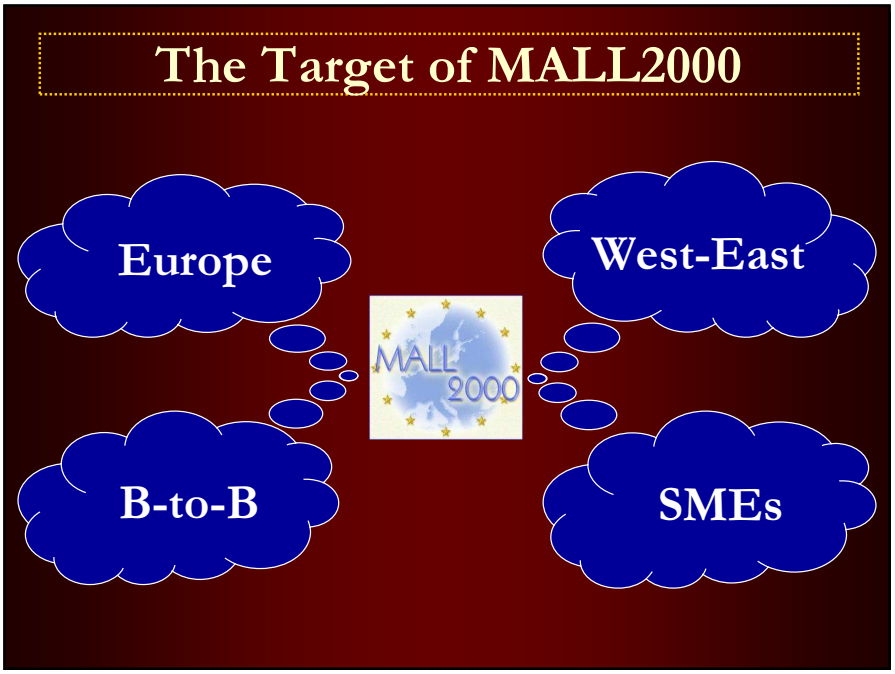
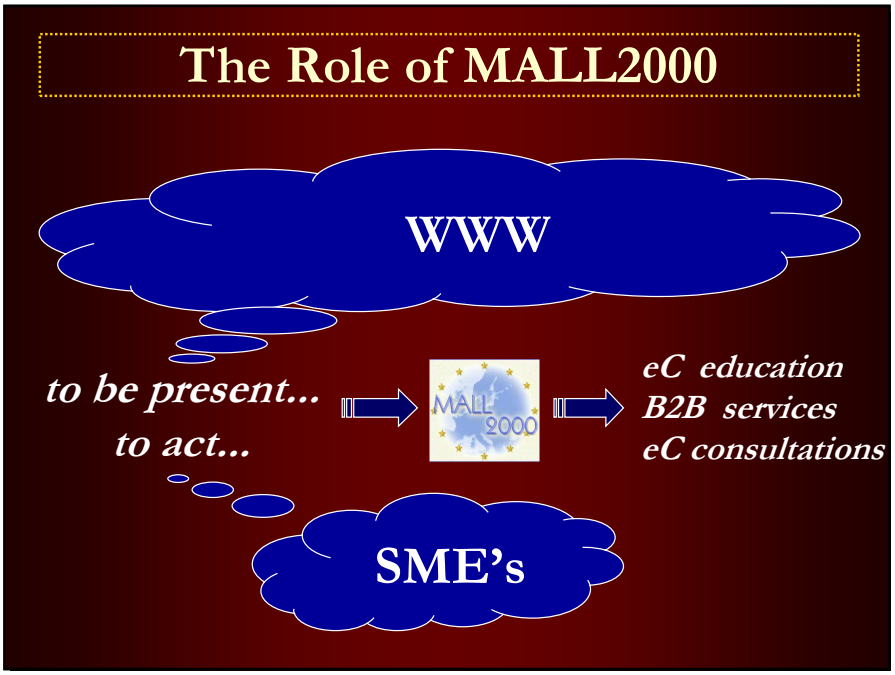
The MALL2000 Project

Mall for Online Business beyond the Year 2000

An EC-funded Project
Aiming to
Develop an E-Commerce
B-to-B Environment
To Support SME's
in Europe


The Target of MALL2000
Europe
West-East
MALL 2000
B-to-B
SMEs

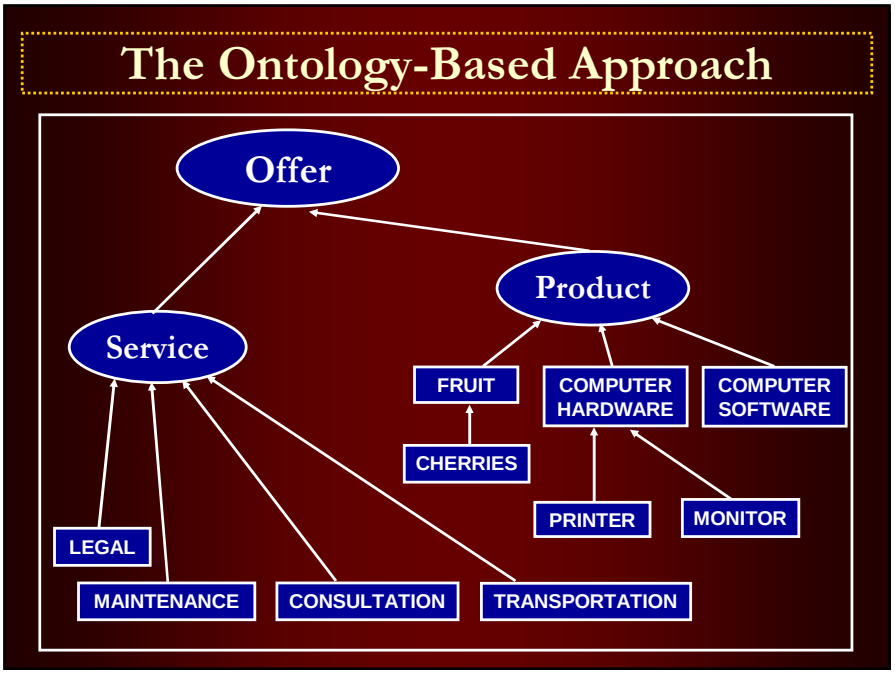

The Role of MALL2000
WWW
to be present...
to act...
MALL 2000
eC education
B2B services
eC consultations
SME's

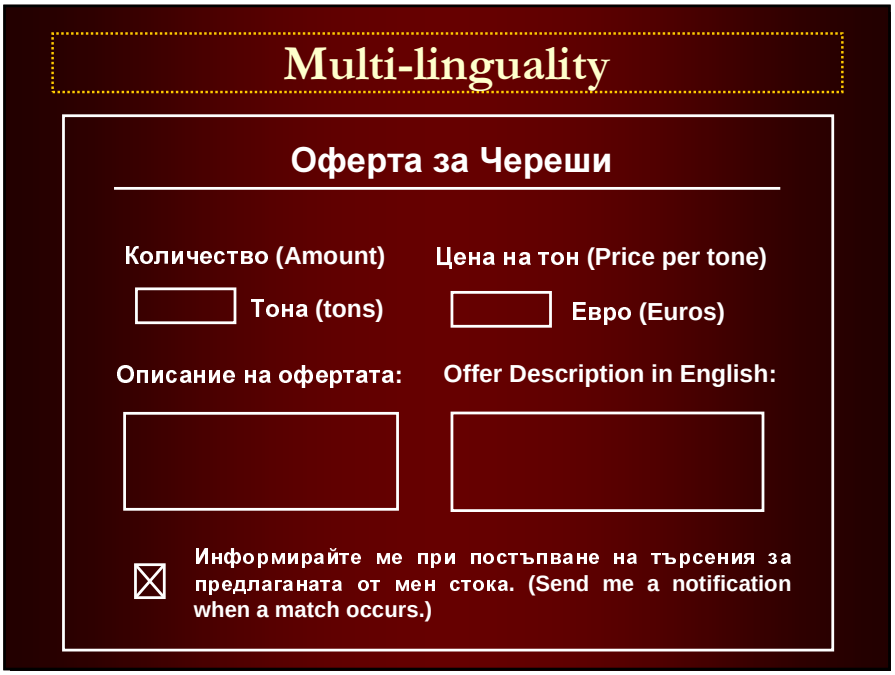
The MALL2000 Services

- Brokering (Supply & Demand Exchange)
- E-newsletter Publishing
- Marketing Surveys
- E-commerce Education and Consulting
- Management of Suppliers and Products
- Document-Centred Services

MALL2000 Users

- Visitors
  - Occasional
  - Registered
- Subscribers
  - Suppliers
  - Consumers
- Advertisers
- Providers


The Ontology-Based Approach
Offer
Product
Service
FRUIT
COMPUTER HARDWARE
COMPUTER SOFTWARE
CHERRIES
PRINTER
MONITOR
LEGAL
MAINTENANCE
CONSULTATION
TRANSPORTATION


Multi-linguality
Оферта за Череши
Количество (Amount)
Тона (tons)
Цена на тон (Price per tone)
Евро (Euros)
Описание на офертата:
Offer Description in English:
Информирайте ме при постъпване на търсения за предлаганата от мен стока. (Send me a notification when a match occurs.)

The MALL2000 Broker

- Supports b-to-b match making
- Supports supply/demand exchange
- Multi-lingual
- Provides automatic matching & notification
- Includes precise filtering capabilities

Based on ontologies, which structure the information space by classifying and describing the types of business offers & requests.

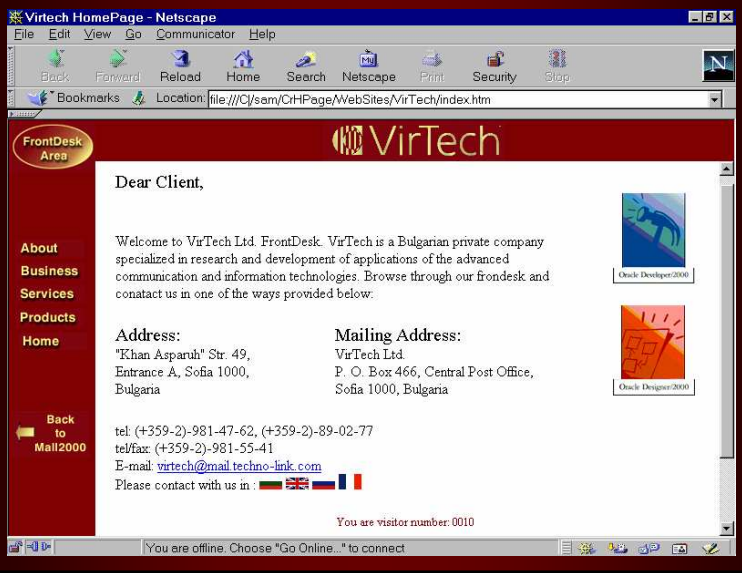
Management of Suppliers and Products

Supplier Frontdesk :

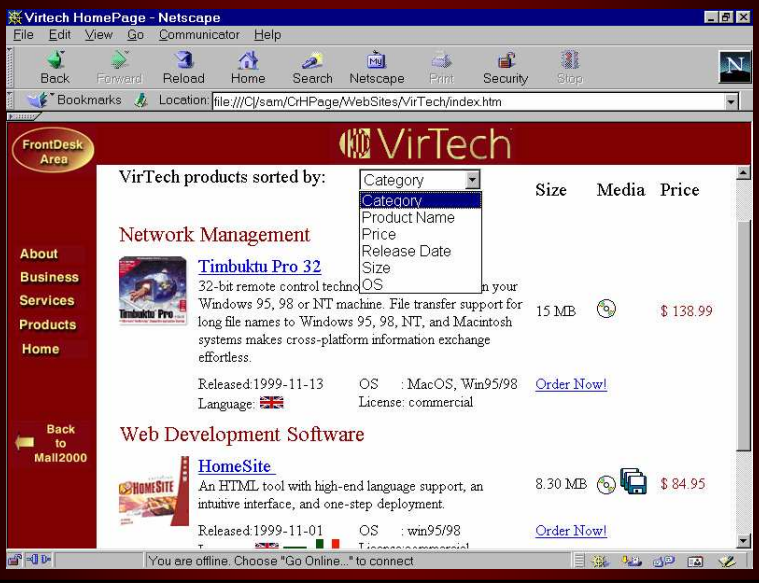
- Detailed supplier information
- Supplier‘s advertisements (e.g. banners)
- Special offers
- Product & service catalogue

Business-to-Business Search

Management of Suppliers and Products



Management of Suppliers and Products

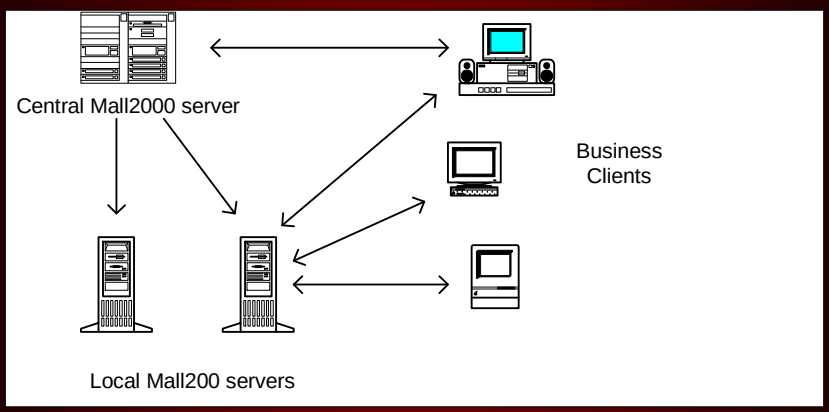


MALL2000 Application Model

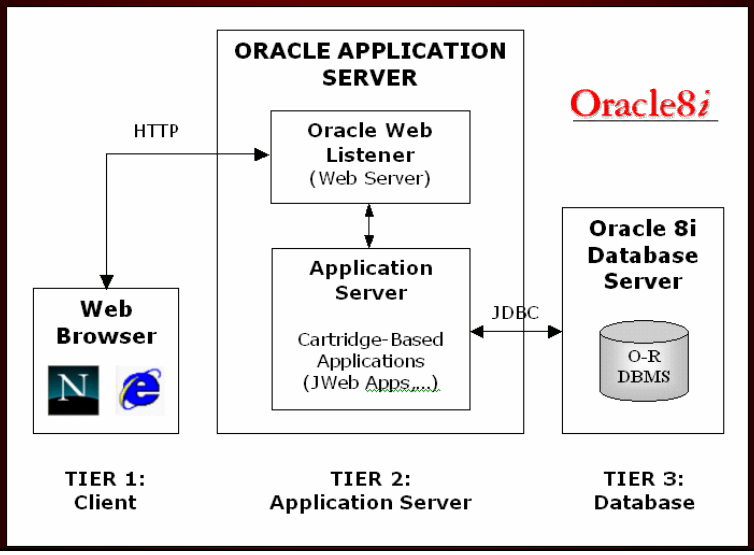
MALL2000 will be implemented using a :

- Distributed web-based client-server application
- Build according to the 3-tier application model

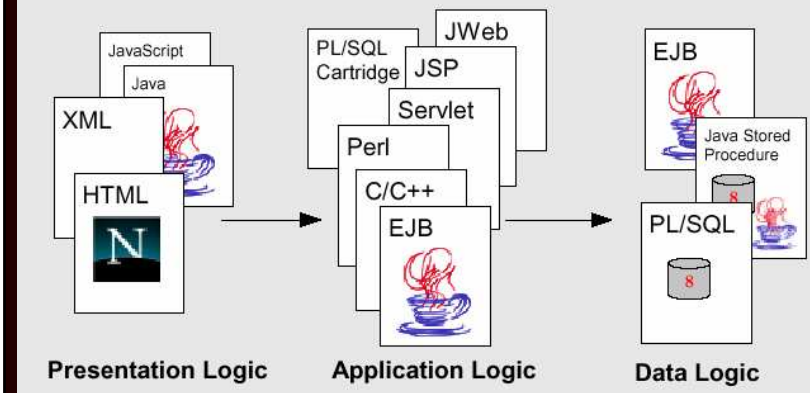
The MALL2000 Architecture



The MALL2000 Platform



Application Code Partitioning



Implementation Strategy

1. *JWeb cartridge-based* applications for the bulk of the application logic.
2. *JServer Java stored procedures* for intensive database operations.
3. User interface presentation logic on the thin-client using HTML+CSS, JavaScript, XML, DOM, etc.

Advantages and Benefits

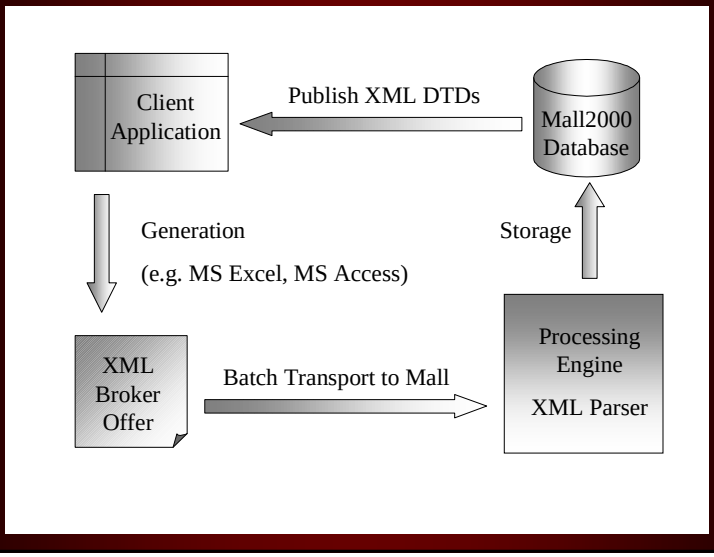
1. Centralized configuration and management - simplifies maintenance and redeployment
2. OAS provides load balancing, fault tolerance, scalability, monitoring, logging, sessions, etc.
3. JServer provides for better performance, higher productivity and increased scalability

Accessing Oracle DB from Java

- *The JDBC API*
  - needed for dynamic SQL operations
- *The SQLJ API*
  - ideal for static SQL operations
- *The pl2java utility*
  - provides interface to PL/SQL applications

Oracle8*i*

XML-enabled DB interface



XML encoded offer

```
<BrokerOffer>
  <Cherries>
    <weight unit="kg">12000</weight>
    <availableFrom>1999/10/18</availableFrom>
    <fresh yes=""/>
    <cherryColor item="red"/>
  </Cherries>
</BrokerOffer>
```

XML support in Oracle8i

- *Oracle XML Parser*
  - SAX and DOM APIs supported
- *XML Support in iFS*
  - support for defining, parsing, and rendering of XML based file types
- *XML-enabled "Section Searching" in Context*

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