

Advanced Technologies for Distributed Systems

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Administrivia

- Course meeting time:
 - Mon-Fri 14:00-17:00 (21-25/Nov)
 - Mon-Fri ??:00-?:00 (28/Nov-2/Dec)
- URL:
 - www.exa.unicen.edu.ar/catedras/tecmod/
- Course materials:
 - slides available on Web site (as they become available)
 - papers will be posted on Web site
 - sites of manufacturers
 - on-line resources (e.g. eBizq, TMC, ...)

Motivation

- Real life applications are complex and rarely rely on a single technology
- The access methods, the capabilities, the goals, and the available technology is continuously changing
 - What can we learn that will remain valuable in the years to come?
- We want to separate the buzzwords from the **underlying technology** and gain insight into architectural principles

Objectives

- What you should get out of this course
 - a basic understanding of large system architecture
 - an understanding of the **technological building blocks** used in the implementation of large, modern systems
 - an overview of the state of the art in **C/S**, and **middleware for distributed applications**

Business shifts

Business

- Globalization
- Deregulation
- Competition

Technology

- Power of the Web
- Pervasive computing
- Access Information

Customers

- more sophisticated
 - Complex transactions
- more demanding
 - standards, performance,
 - 24x7

Markets

- Fragmented
- Mass customization

Contents of the Course

- Client/Server
 - Intro & Basics
- Interaction mechanisms
 - Messaging (MOM)
- Semantic Data Integration
 - XML-related technologies
- TP Monitors
 - CORBA, OTS
 - Application Servers
- J2EE Platform
 - EJBs
- Web Services
 - WSDL, UDDI, SOAP, ...
 - **Workflows (BPEL)**
- EAI and B2B
 - **strategies**
- Applications:
 - Barcodes, RFID
 - Auto-ID/EPCglobal
 - Physical- vs Digital-world