STAKEHOLDERS

REQUIREMENTS

ARCHITECTURES

FUNCTIONAL

NON

SOME SUBJECTS TO BE REVISED LATER

"ILITIES"

TOPOLOGICAL

NET:

Homogeneous components

Power:

Source

Load vs

Main

inhomogeneous

Decouples load from mains

Enhanced (power) availability

Storage

Most responsible for storage

SEPARATE

STORAGE

SERVER

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1. Topological eg. Star
2. New components eg. PDP; UPS
3. Additional components to feed the above eg. P1P (PAP) Policy store?
4. Additional Org roles to administer the above eg. Battery Maintainer Policy Author?
5. Tools to facilitate above
IT Architectures

"architecture"

The term is used more broadly in IT settings

- The organization of an IT system
- The extensibility and modifiability of a system
- Even the governance of a system

Organization (human)
SOA Governance \leq IT Governance

- Design
- Development
- Testing
- Allocate Resources
- Policies on usage

Registrar
- Student
- DAP
- Faculty

WAIT LIST
QUERY
SERVICE

Student \rightarrow DAP

Registrar
management
IT Governance

The human management of IT systems

- The human organization in a system taken broadly
- Even the processes by which a system is updated or upgraded (including the human aspects such as permissions)
- Nontechnical aspects, such as flows of responsibility

Used to be confused with architecture, but now increasingly separated
Administration ≠ Management

Negotiation (Peer-to-Peer)

Governed by Organizational Policies

Realized by:
- Hard Code
- Manual
- Flexible Policy Language

Top-Down Supervision to Subordinate
Enterprise Models: 1

- Capture static and dynamic aspects of enterprises
- Document information resources
  - Databases and knowledge bases
  - Applications, business processes, and the information they create, maintain, and use
Enterprise Models: 2

- Capture organizational structure
- Document business functions
  - Rationales behind designs of databases and knowledge bases
  - Justifications for applications and business processes
Enterprise Models: 3

By being explicit representations, models enable

- **Integrity validation**
- Reusability
- Change impact analysis
- Automatic database and application generation via CASE tools

*Software Engineering*
Enterprise Architecture Objectives

At the top-level, to support the business objectives of the enterprise; these commonly translate into

- Accommodating change by introducing new
  - External new instances (students)
  - Users
  - Applications
  - Interfaces and devices
- Managing information resources
  - Preserving prior investments, e.g., in legacy systems (need to interoperate with such)
  - Upgrading resources
- Developing blueprints to guide resource and application installation and decommissioning