BHS Information Enterprise Architecture

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Objectives

- Let others know what we are doing in the development of BHS information enterprise
- Receive structural critique and feedback of our work

What is Information Enterprise

Simplistic "A System of Systems"

module, collection of modules, framework, program, application, system, department, **enterprise**, conglomerate enterprise, industry enterprise, global infrastructure.

Well Constructed Enterprise

- fully supports business work-flow
- allows sufficiently quick re-alignment, according to the workflow changes
- requiring only a reasonable amount of resources

Enterprise Goals

- To support business enterprise work-flow and its changes
- To allow gradual migration towards new technologies with the retirement of old ones as well as evolution of systems constituting the enterprise

Enterprise Constrains

- Change is aggregated exponentially, appears frequently and continues.
- Different business functions have different change rate.
- No cold turkey solutions.
- Frequent organizational re-structuring.

Architecture of Information Enterprise

A set of various descriptions, diagrams and other representation means that define an enterprise from various stake-holder viewpoints.

Why BHS needs IEA

- To describe, analyze, change, and evaluate the enterprise as well as to communicate knowledge of it to vendors, integrators, and maintainers.

Who Develops it

Information Enterprise Architecture Group
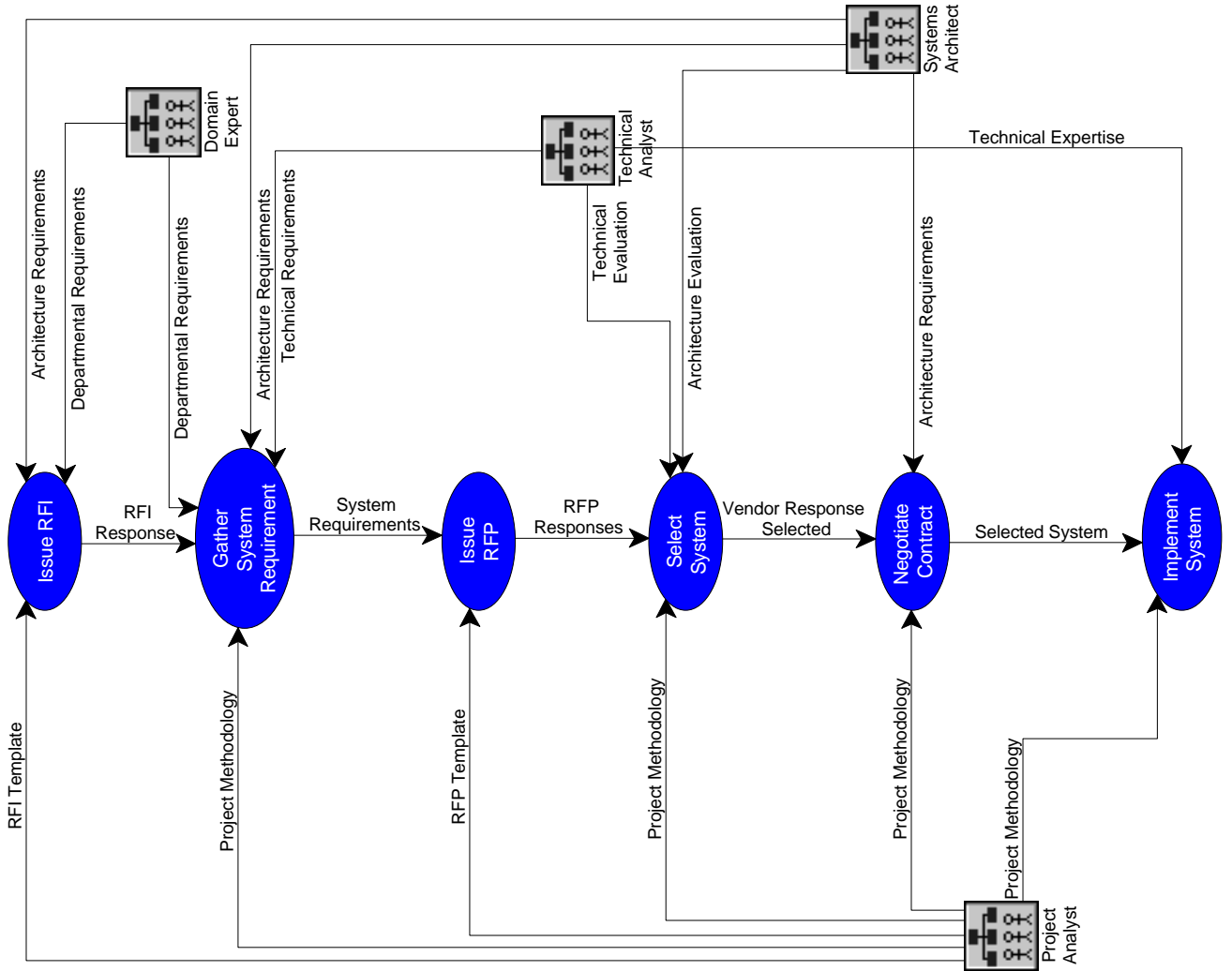
CPR Product line

Technical Services
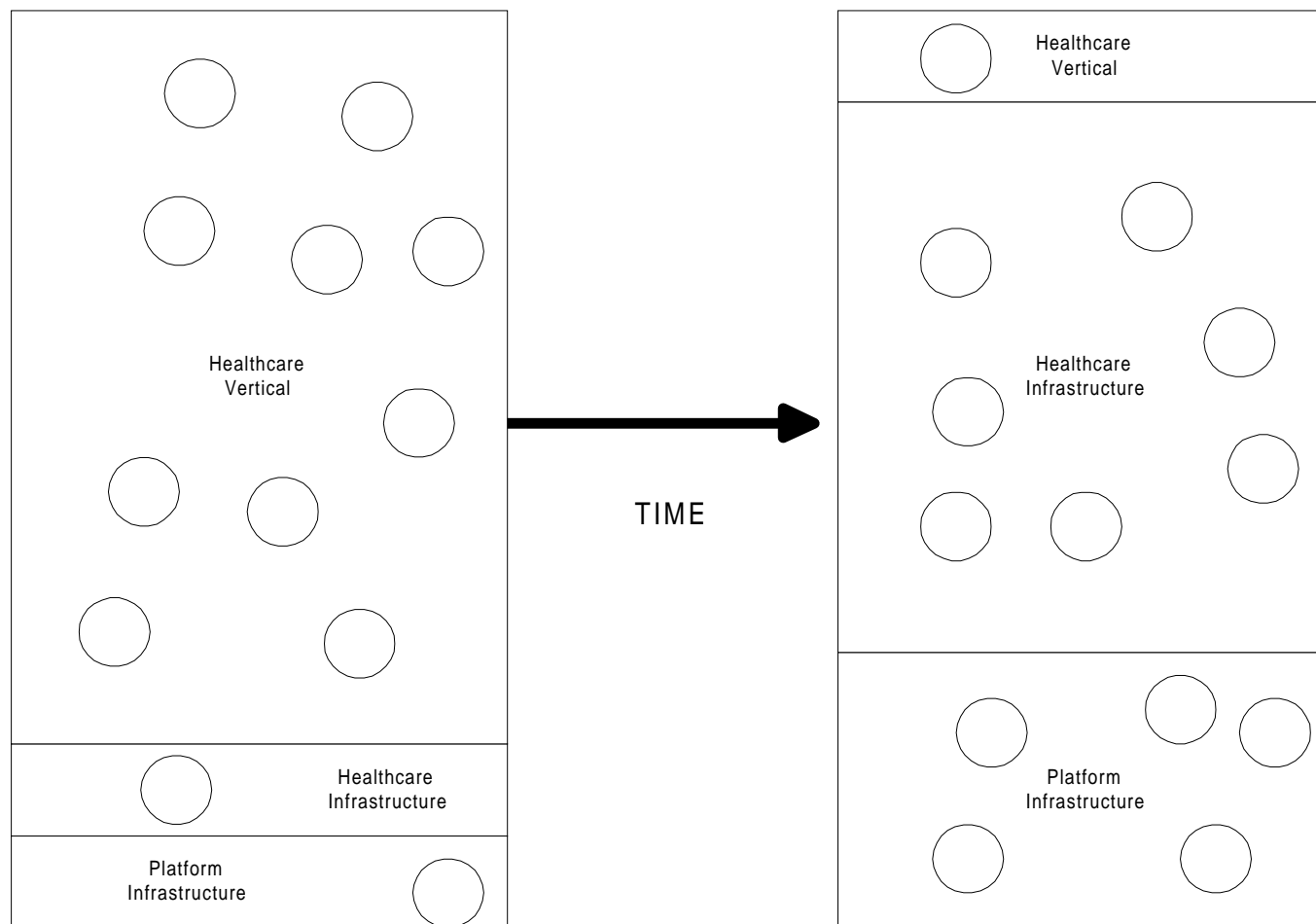
Main Challenges to IEA

- Too many changes to document
- Limit to the size of chunk of enterprise modeling that can be tackled at one time.
- Implicit assumptions about:
  - the nature of the systems and the connectors between them
  - the global architecture structure
  - the construction process
- Poor abstraction

How do we use the Architecture

- IT Projects trigger activities which result in content for the Architecture

- Architecture feeds IT projects
  - by describing the environment that the new system will fit into

- Each area of the document can be maintained by the area of IT that is responsible for that portion of the architecture.
  - Some of the sections of the document are broken down into RM-ODP Viewpoints. This allows product lines within IT to focus on the viewpoints that pertain to them.
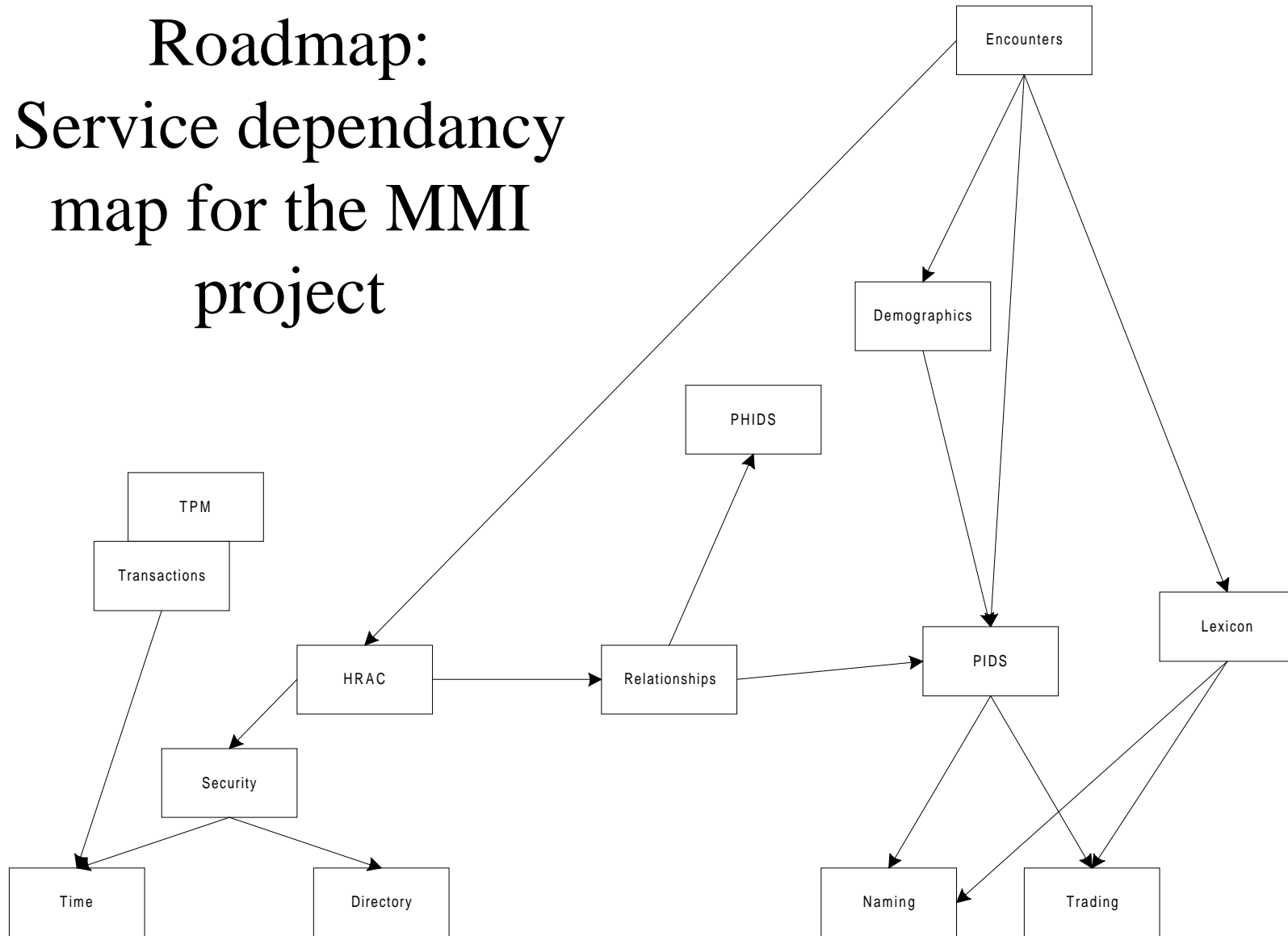
Ultimate goal: Drive to common services

Healthcare
Vertical

Healthcare
Vertical

Healthcare
Infrastructure

Healthcare
Infrastructure

Platform
Infrastructure

Platform
Infrastructure

TIME

Today's environment
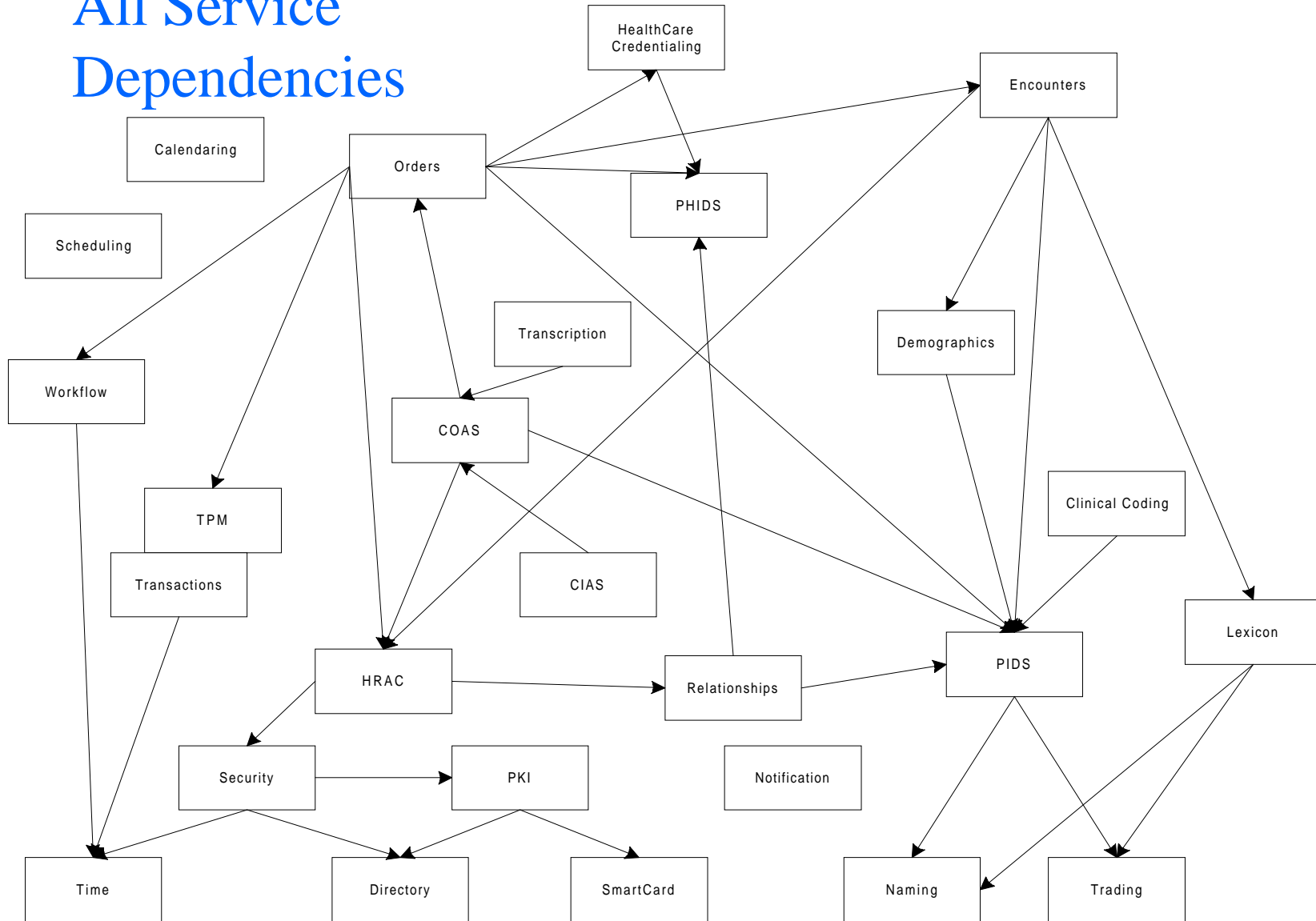
Future Environment

Architecture Content

- Roadmap
  - Dependencies
  - Business timelines
- System Centric Architecture View (p 11)
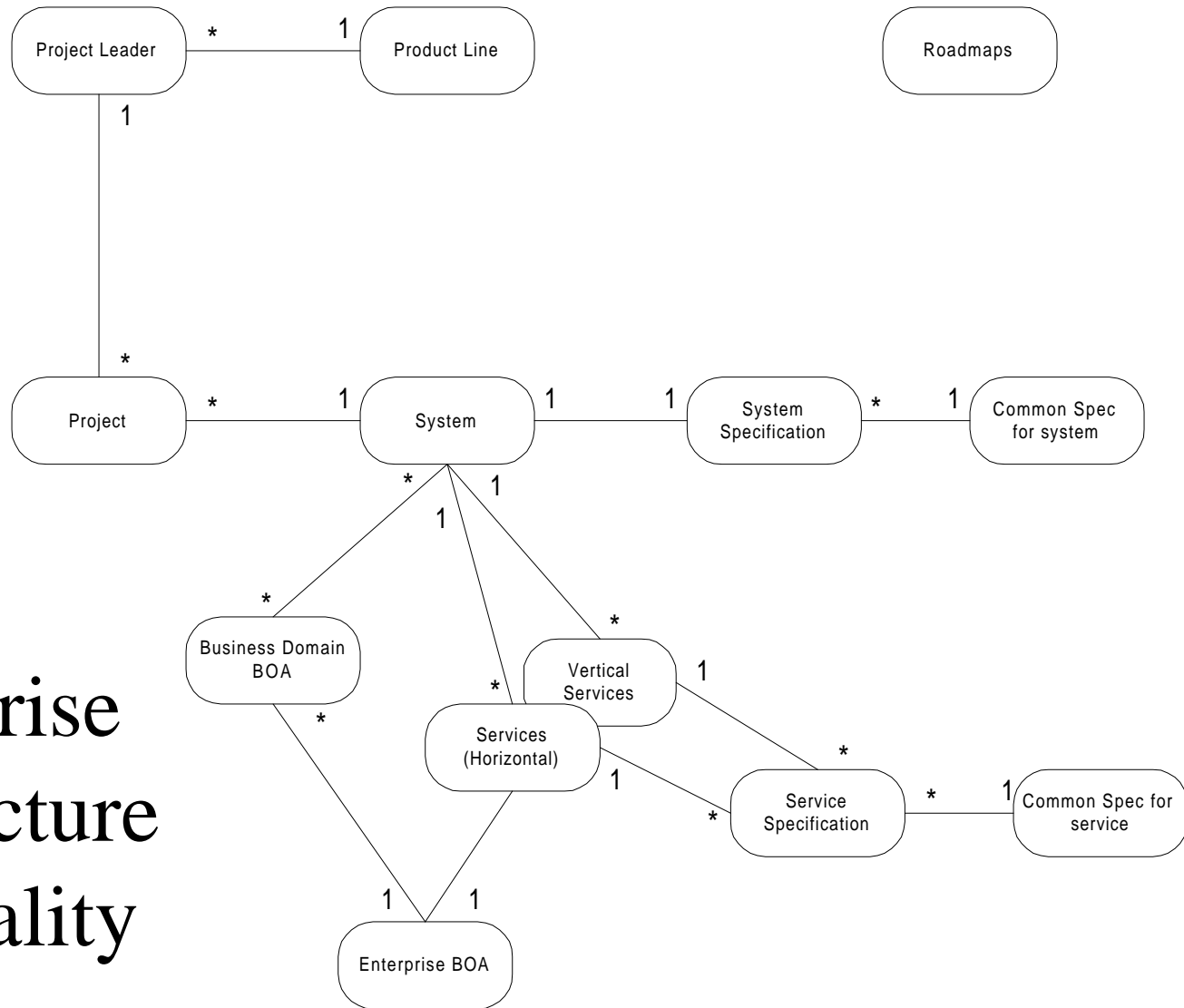- Service Centric Architecture View (p 12)

Roadmap:
Service dependancy
map for the MMI
project

Encounters

Demographics

PHIDS

TPM

Transactions

HRAC

Relationships

PIDS

Lexicon

Security

Time

Directory

Naming

Trading

Roadmap:
All Service
Dependencies

Calendaring

Scheduling

HealthCare Credentialing

Orders

Encounters

PHIDS

Workflow

Transcription

Demographics

COAS

TPM

Transactions

CIAS

Clinical Coding

HRAC

Relationships

PIDS

Lexicon

Security

PKI

Notification

Time

Directory

SmartCard

Naming

Trading

Enterprise
Architecture
Cardinality

Project Leader

Product Line

Roadmaps

Project

System

System Specification

Common Spec for system

Business Domain BOA

Vertical Services

Services (Horizontal)

Service Specification

Common Spec for service

Enterprise BOA

RM-ODP Viewpoints

- Enterprise -- the business activities
- Information -- information to be processed
- Computational -- interactions between parts
- Engineering -- mechanisms supporting system distribution
- Technology -- details of the components used for construction

Structure of the Documentation

- Introduction
  - First step in an architecture document is to identify the rational behind the document, who the intended audience is and how the document will be maintained.

- Roadmap
  - The next step is to describe the overall dependencies between services.
  - This allows people who are reading the document to have an overall picture of the services that will form the enterprise.

Structure of the Documentation (cont.)

- System Centric Architecture View
  - System selection is the "heart" of what we do as an IT shop within Baptist Health Systems.
  - From this perspective , it makes sense to people to think of the architecture as a collection of systems that utilize and provide services from/to the enterprise.
- Service Centric Architecture View
  - It also makes sense to view the enterprise as a collection of services working together.
  - This allows for a more concise request for services within the RFP process.

Structure of the Documentation (cont.)

- Appendices
  - Helps to define terms used in the context of the document
  - Helps to define methodologies used within the context of the document