Visual Enterprise Architecture Planning

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Agenda

- Why IT Architecture planning and IT & Business Alignment
- The Elements of IT Architecture planning
- NCR’s GITP and TOGAF
- Problems with traditional IT Architecture planning
- Visual Enterprise Architecture Planning
- Demo
## CIO and Senior IS Management Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>1997</th>
<th>1996</th>
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<tbody>
<tr>
<td>Aligning IS and Corporate Goals</td>
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<tr>
<td>Organizing and Utilizing Data</td>
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<td>Instituting Cross-Functional Systems</td>
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<td>Using I/ T for Competitive Breakthroughs</td>
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<td>13</td>
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<td>Integrating Systems</td>
<td>5</td>
<td>16</td>
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<tr>
<td>Capitalizing on Advances in I/ T</td>
<td>5</td>
<td>15</td>
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Source: CSC Survey of Critical IS issues
Traditional Architecture Planning

IT and Business Alignment

Strategic Information & Technology Architecture

Architecture Management Activities

Transition
Traditional Architecture Planning

IT and Business Alignment

Business Strategies
- Vision
- Goals
- Environmental Analysis
- Objectives
- Strategies
- Critical Success Factors

Business Questions

IT Principles

Business Process Model
- Processes
- Users / Locations

Action
Traditional Architecture Planning

Strategic Information & Technology Architecture

Data / Information Model

Future Target Architecture

Applications

Data

Technology

• Components
• System Profiles
• Topologies
NCR’s GITP (Global IT Planning) Method

IT and Business Alignment
- Business Strategy Synthesis
- Information & Technology Principles
- Business Activity Model
- Action Report

Strategic Inf. & Tech. Architecture
- Business Object Model
- Current Environment & Inventory
- Enabling Technologies
- Strategic Technical Architecture
- Data Location
- Distributed Computing
- Common Software Architecture
- Architecture Building Blocks, Systems Topologies

Transition

Architecture Management Activities
- Scoping

Strategy
Planning
NCR GITP Complies to TOGAF Architecture Development Method

- A: Initiation and framework
- B: Baseline description
- C: Target architecture
- D: Opportunities and Solutions
- E: Migration options
- F: Implementation
- G: Architecture maintenance

- Strategic Inf. & Tech. Architecture
  - Business Object Model
  - Current Environment & Inventory
  - Enabling Technologies
  - Data Location
  - Distributed Computing
  - Common Software Architecture
  - Architecture Building Blocks
  - Systems Topologies

- Scoping
- Business and Business Align
- Strategy Synthesis
- Business Activity Model
- Information & Technology Principles
- Action Report

- Transition
- Architecture Management
- Activities

- Strategy
- Planning
NCR GITP Complies to TOGAF Architecture Development Method

1. Create Baseline
   Baseline in TOGAF terms

2. Consider Views
   Baseline from step B
   Constraints from views
   Constraints from step B
   Business reqs and drivers from A.

3. Create architecture model
   Model of target system
   Influences from orgs wider environment
   TOGAF SIB

4. Select services
   Org.-specific framework
   Criteria for specs

5. Confirm business obj.
   How business objectives met
   Business reqs and drivers from A.

6. Determine criteria
   7a. Define architecture
   7b. Identify architectural building blocks
   Target Architecture

8. Conduct gap analysis
   Gap Analysis

TOGAF TRM

Business reqs and drivers from A.

Criteria for specs

TOGAF SIB
Differences between NCR GITP and TOGAF ADM

**GITP has:**
- More details on Business Strategies - strategies, objectives, critical success factors
- More on Business Activity models and user/location models
- Business Object Modelling and a data distribution scheme
- Application Architecture: an “external view” (computing elements) and an “internal view” (the data and functionality structure of proposed applications)

**TOGAF ADM has:**
- More on project management structures
- Gap analysis - how does the proposed technology architecture meet the business needs

**Conclusion:**
TOGAF provides an excellent framework for technology planning, capturing state-of-the-are approaches found in most IT planning methods.

GITP is in accordance with the TOGAF approach to technology planning, and goes further in also incorporating the application and database aspects.
NCR’s GITP in the TOGAF Context

NCR Open Cooperative Computing Architecture
Technology Position Papers

NCR Banking Architecture
NCR Retail Architecture

Result of an NCR GITP engagement
NCR’s Experiences with an “Architecture Continuum”

- The concept and structure works!
- Foundation for viable, efficient IT Consulting service
- Predefined Common Systems and Industry Architectures and Architecture Building Blocks helps
  - Speeds up delivery of Customer-specific Architectures
  - Helps in planning the Solutions Continuum, developing and selecting compliant NCR and 3rd party products
Using Visual Tools to Make the Architecture Development and Maintenance more Efficient
New Demands to Strategic IT Architecture Planning

The traditional paper-based approach meant:

- Thorough, correct (and expensive) IT plans that are:
  - ... difficult to maintain and keep relevant,
  - ... hard to keep aligned with evolving business needs,
  - ... an obstacle to continuous knowledge capturing and sharing.

- ... and therefore often suffers from the "IT Plan Gathering Dust" syndrome.

A better approach should...

- Provide flexible, iterative incorporation of existing work:
  - Technology policies
  - Business process models
  - Data models
  - Existing IT environment

- Ensure continuous alignment with business:
  - Manage effect of changed business priorities
  - "What-if" analysis

- Publicize the strategic IT direction

- Maintain the IT plan operational and up-to-date

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Business and IT Changes Requires Effective IT Architecture Management

Business

Staying aligned

Mainframes

Cobol

1960

Accounting

International funds transfer

Servers

C

PCs

LANS

EDI

1970

Cobol

Servers

1980

C

PCs

LANS

EDI

1990

Java

WWW

Data warehouse

2000

Electronic commerce

Serving

Strategic IT Plans

Ad-hoc

Visual Enterprise Architecture Planning

“Co-opetition”

Globalization

Self-service

1:1 marketing

Customer service

Marketing

Partnering

Specialization

Globalization

Visual Enterprise Architecture Planning


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06/05/99
Old Approach

**Build**
- Traditional “paper-ware” – difficult to keep consistent
- Often “start from scratch”, not leveraging existing work
- Method predefined
- Chronological method (as opposed to interactive where knowledge can be continuously captured)
- Difficult to visualize progress and use in interviews, etc.

**Share**
- Paper binders – difficult to disperse in organization
- Difficult to navigate
- Difficult to provide feedback

**Use, Manage**
- Difficult to maintain and keep relevant
- Hard to keep aligned with evolving business needs
- One target architecture – a large effort to see consequences of changed assumptions
The Ideal IT Planning

*Build*

- Iterative, incremental, flexible
- Incorporate and leverage existing pieces
- Holistic, consistent, rigorous method
- Freedom of choice of architecture methods (predefined, but also others)
- Visualization as a help in the creation process
The Ideal IT Planning

* Share
  - Promote strategic IT plan to organization
  - Accessible to stakeholders (e.g. Intranet access)
  - Visible, visual
  - Easy navigation, selected views
  - Architecture management framework / discipline
The Ideal IT Planning

* Use, manage
  - Demonstrate and maintain alignment of IT to business
  - Foundation for decisions on IT projects
  - Test and verify a variety of future scenarios (CAAD), based on changed business and technology requirements
  - Drive down costs and increase speed of maintenance

IT and Business Aligned

Range of Adaptability

Time →
The VEAP Tool

Experience architects still needed

Windows NT workstations

Web export

Web Intranet output (HTML + Metis Meta Language)

Customer Architecture

NCR Banking Model

NCR Retail Model

NCR Telco Model

GITP Specific Objects & Rules (The GITP Architecture Method)

Customer Specific Architecture Method

General Objects

Database

Experienced architects still needed
Demo