Enterprise Architecture

Policies

External	National Privacy Policies	Policy 1: ..... Description: .....
		Policy 2: ..... Description: .....
	Sarbanes-Oxley Compliance Policies	Policy 3: ..... Description: .....
		Policy 4: ..... Description: .....
Internal	Information Security Policies	Policy 5: ..... Description: .....
		Policy 6: ..... Description: .....
	Data Exchange Policies	Policy 7: ..... Description: .....
		Policy 8: ..... Description: .....
	Cloud Hosting Policies	Policy 9: ..... Description: .....
		Policy 10: ..... Description: .....

Overarching organizational norms typically of restrictive nature providing compulsory prescriptions in certain areas

Principles

Principle 1: Standardized Business Processes
Statement: .....
Rationale: .....
Implications: .....

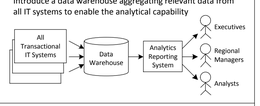
Principle 2: Single Customer View
Statement: .....
Rationale: .....
Implications: .....

Principle 3: Business Continuity
Statement: .....
Rationale: .....
Implications: .....

Global high-level guidelines influencing all decision-making and planning in an organization

Direction Statements

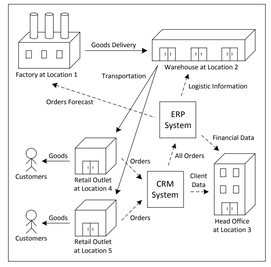
1. Current Business Strategy
.....
2. Identified IT Capability Gaps
Inability to provide a timely and comprehensive trends analysis to relevant business stakeholders
3. Recommended Strategic Direction for IT
Introduce a data warehouse aggregating relevant data from all IT systems to enable the analytical capability



4. Anticipated Outcomes
.....

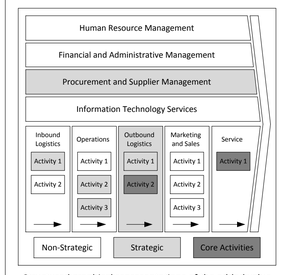
Conceptual messages communicating major organization-wide decisions with far-reaching consequences

Context Diagrams



High-level graphical descriptions of the current operation flows of an organization

Value Chains

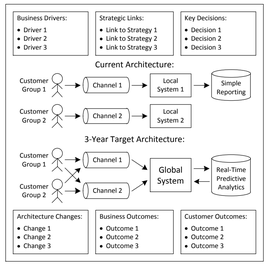


Structured graphical representations of the added value chains of an organization

Business Capability Models

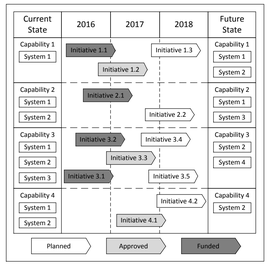
Structured graphical representations of all organizational business capabilities, their relationship and hierarchy

Target States



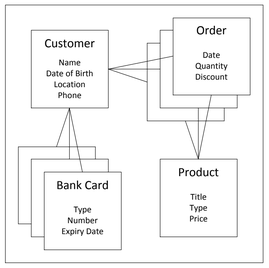
High-level graphical descriptions of the desired long-term future state of an organization

Roadmaps



Structured graphical views of all planned business-related IT initiatives in particular business areas

Conceptual Data Models



Abstract definitions of the main data entities critical for the business of an organizations and their relationship

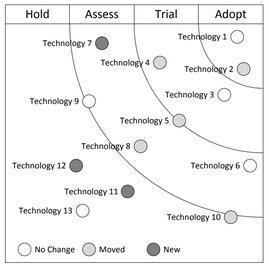
Initiative Proposals

1. Initiative Summary
.....
2. Goals and Objectives
.....
3. Anticipated Benefits
.....
4. Scope and Stakeholders
.....
5. Solution Sketch

6. Preliminary Estimations
Time: 6-12 months
Cost: $1.5-3.0 million

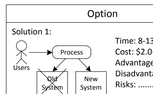
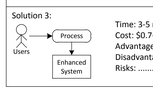
Very early idea-level descriptions of proposed IT initiatives and their justifications

Analytical Reports



Executive-level analyses of relevant technology trends and their potential impact on the business of an organization

Options Assessments

Option		Score
Solution 1: 	Time: 8-13 months Cost: $2.0-3.5 million Advantages: ..... Disadvantages: ..... Risks:	Functionality: 5 Feasibility: 2 Alignment: 4 Total Score: 11
Solution 2:	Time: 4-7 months Cost: $1.0-1.7 million Advantages: ..... Disadvantages: ..... Risks:	Functionality: 3 Feasibility: 3 Alignment: 1 Total Score: 7
Solution 3: 	Time: 3-5 months Cost: $0.7-1.3 million Advantages: ..... Disadvantages: ..... Risks:	Functionality: 2 Feasibility: 5 Alignment: 2 Total Score: 9

Lists of high-level implementation options for specific IT initiatives with their pros and cons

What Artifacts Describe?

Generic ⟷ Specific

Rules	Structures	Changes

How Artifacts Describe?

Business ⟷ IT

Business-Focused ⟷ IT-Focused

Considerations

Content: Global conceptual rules and fundamental considerations important for business and relevant for IT

Represent: Overarching organizational context for information systems planning

Usage: Developed collaboratively by senior business leaders and architects and then used to influence all architectural decisions

Purpose: Help achieve the agreement on basic principles, values, directions and aims

Benefits: Improved overall consistency between business and IT

Visions

Content: High-level conceptual descriptions of an organization from the business perspective

Represent: Shared views of an organization and its future agreed by business and IT

Usage: Developed collaboratively by senior business leaders and architects and then used to guide IT investments, prioritize IT initiatives and initiate IT projects

Purpose: Help achieve the alignment between IT investments and long-term business outcomes

Benefits: Improved strategic effectiveness of IT investments

Outlines

Content: High-level descriptions of specific IT initiatives understandable to business leaders

Represent: Benefit, time and price tags for proposed IT initiatives

Usage: Developed collaboratively by architects and business leaders and then used to evaluate, approve and fund specific IT initiatives

Purpose: Help estimate the overall business impact and value of proposed IT initiatives

Benefits: Improved efficiency and ROI of IT investments

Language: Technology-neutral business language

Domains: Business domain and sometimes other domains at a high level

Format: Brief, largely informal and include only the most essential information

Stakeholders: Business executives and architects

Role: Communication interfaces between business and IT

Purpose: Help business executives manage IT

Standards

Content: Global technical rules, standards, patterns and best practices relevant for IT systems

Represent: Proven reusable means for IT systems implementation

Usage: Developed by architects and technical subject-matter experts and then used to influence architectures of all IT initiatives

Purpose: Help achieve technical consistency, technological homogeneity and regulatory compliance

Benefits: Reduced costs, risks and complexity

Landscapes

Content: High-level technical descriptions of the organizational IT landscape

Represent: Knowledge base of reference materials on the IT landscape

Usage: Developed and maintained by architects and used to rationalize the IT landscape, manage the lifecycle of IT assets and plan new IT initiatives

Purpose: Help understand, analyze and modify the structure of the IT landscape

Benefits: Increased reuse and agility, reduced duplication and legacy

Designs

Content: Detailed technical descriptions of specific IT projects actionable for project teams

Represent: Communication interfaces between architects and project teams

Usage: Developed collaboratively by architects, project teams and business representatives and then used by project teams to implement IT projects

Purpose: Help implement approved IT projects according to business and architectural requirements

Benefits: Improved quality of the project delivery

Language: Technical IT-specific language

Domains: Various technical domains and sometimes business domain

Format: Can be voluminous, formal and include comprehensive details

Stakeholders: Architects and other IT specialists

Role: Internal IT tools invisible to business

Purpose: Help architects organize IT

Describe: Broad global rules defining an organization or its divisions

Scope: Very wide, often cover an entire organization

Format: Often textual

Question: How do we work or want to work?

Stability: Stable

Role: Basis for all other planning decisions

Purpose: Help achieve consistency and homogeneity

Describe: High-level structures of an organization or its parts

Scope: Wide, often cover large parts of an organization

Format: Usually graphical

Question: What approximately do we have or want to have?

Stability: Relative stable

Role: High-level "maps" facilitating decision-making

Purpose: Help understand what changes are desirable and how to implement them

Describe: Specific proposed changes to an organization

Scope: Narrow, often cover separate IT projects

Format: Mix of textual and graphical

Question: What exactly are we going to change right now?

Stability: Dynamic

Role: Tactical plans of an organization

Purpose: Help plan separate changes in detail

IT Principles

Applications	IT Principle 1: Prefer Open Source Solutions Description: .....
	IT Principle 2: Log All Operations Description: .....
Data	IT Principle 3: Use Scalable Storage Description: .....
	IT Principle 4: Backup All Permanent Data Description: .....
Integration	IT Principle 5: Use Middleware for Integration Description: .....
	IT Principle 6: Avoid Binary Integration Protocols Description: .....
Infrastructure	IT Principle 7: Host in the Cloud Description: .....
	IT Principle 8: Dedicated Server for Each System Description: .....
Security	IT Principle 9: Place Public Systems in DMZ Description: .....
	IT Principle 10: Secure by Default Description: .....

Global high-level IT-specific guidelines influencing all IT-related decisions and plans in an organization

Solution Overviews

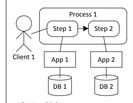
1. Brief Overview
.....
2. Goals and Objectives
.....
3. Scope and Stakeholders
.....
4. Essential Requirements
.....
5. Capability Impact
- Order Management
- Order Fulfilment
- Customer Analytics

6. Involved Vendors
- IBM
- Accenture

7. Estimations
Time: 6-8 months
Cost: $1.2-1.5 million

8. Supported Use Cases

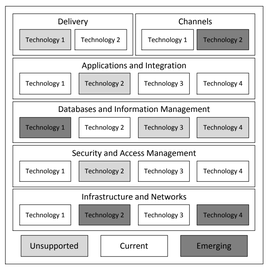
9. Architectural Overview



10. Key Risks
.....

High-level descriptions of specific proposed IT solutions understandable to business executives

Technology Reference Models



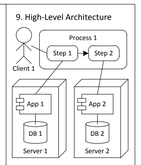
Structured graphical representations of all technologies used in an organization

Preliminary Solution Designs

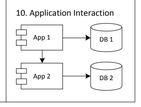
1. Brief Overview
.....
2. Goals and Objectives
.....
3. Scope
.....
4. Key Stakeholders
.....
5. Business Requirements
.....
6. Key Risks
.....
7. Involved Vendors
- IBM
- Accenture

8. Estimations
Time: 8-9 months
Cost: $2.1-2.3 million

9. High-Level Architecture



10. Application Interaction



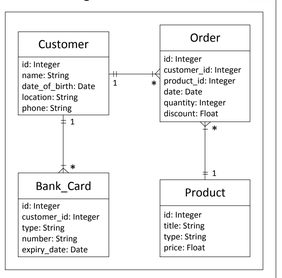
Preliminary high-level technical designs of specific proposed IT solutions

Guidelines

Server Deployment Standards	Guideline 1: Run Applications as OS Services Description: .....
	Guideline 2: Store Deployment Packages in VCS Description: .....
Network Protocol Standards	Guideline 3: Avoid Using UDP Multicast Description: .....
	Guideline 4: Prefer REST Over SOAP Description: .....
Data Encryption Standards	Guideline 5: Use 128-Bit Encryption Keys Description: .....
	Guideline 6: Store MD5 Hashes of Passwords Description: .....
Interface Design Guidelines	Guideline 7: Use Web-Safe Colours Description: .....
	Guideline 8: Place Menu in the Top Right Corner Description: .....
Secure Coding Guidelines	Guideline 9: Initialize Variables to Safe Defaults Description: .....
	Guideline 10: Validate All Incoming Data Description: .....

IT-specific implementation-level prescriptions applicable in narrow technology-specific areas or domains

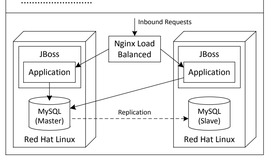
Logical Data Models



Logical or even physical platform-specific definitions of the key data entities and their relationship

Patterns

1. Description: Simple Failover Cluster
.....
2. Applicability
.....
3. Rationale
.....



Generic reusable solutions to commonly occurring problems in the design of IT systems

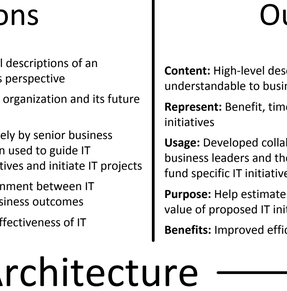
Inventories

Asset	Purpose	Owners	Cost	Problems
Application 1	.....	.....	.....	.....
Application 2	.....	.....	.....	.....
Application 3	.....	.....	.....	.....
Application 4	.....	.....	.....	.....
System 1	.....	.....	.....	.....
System 2	.....	.....	.....	.....
System 3	.....	.....	.....	.....
System 4	.....	.....	.....	.....
System 5	.....	.....	.....	.....
Database 1	.....	.....	.....	.....
Database 2	.....	.....	.....	.....
Database 3	.....	.....	.....	.....
Database 4	.....	.....	.....	.....

Decommission | Reuse | Invest

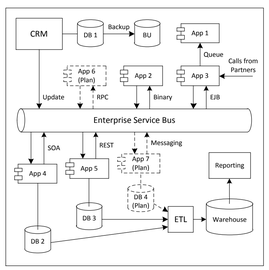
Structured catalogs of currently available IT assets describing their essential properties

Enterprise System Portfolios



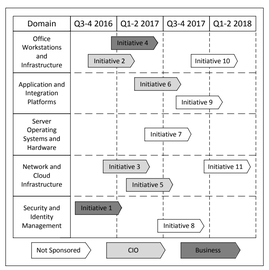
Structured high-level mappings of all essential IT systems to relevant business capabilities

Landscape Diagrams



Technical "boxes and arrows" schemes of different scopes and granularities describing the organizational IT landscape

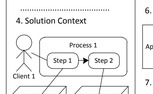
IT Roadmaps



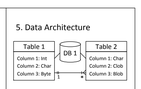
Structured graphical views of all planned business-unrelated IT initiatives in certain technology areas

Solution Designs

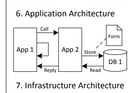
1. Brief Overview
.....
2. Goals and Objectives
.....
3. Detailed Requirements
.....
4. Solution Context



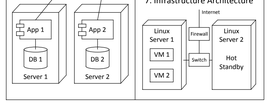
5. Data Architecture



6. Application Architecture



7. Infrastructure Architecture



Detailed technical designs of specific proposed IT solutions actionable to IT project teams

Essential | Common | Uncommon

Enterprise Architecture on a Page (v1.0), Svyatoslav Kotusev (kotusev@kotusev.com)