accenture

High performance. Delivered.

Application Architecture

Hamburg, December 2003

Vitae

Thomas Stephan

- BWL, Masch.-Bau
- Verheiratet, 2 Kinder
- seit 1995 bei Accenture
- Bereich Financial Services - Banking

Agenda

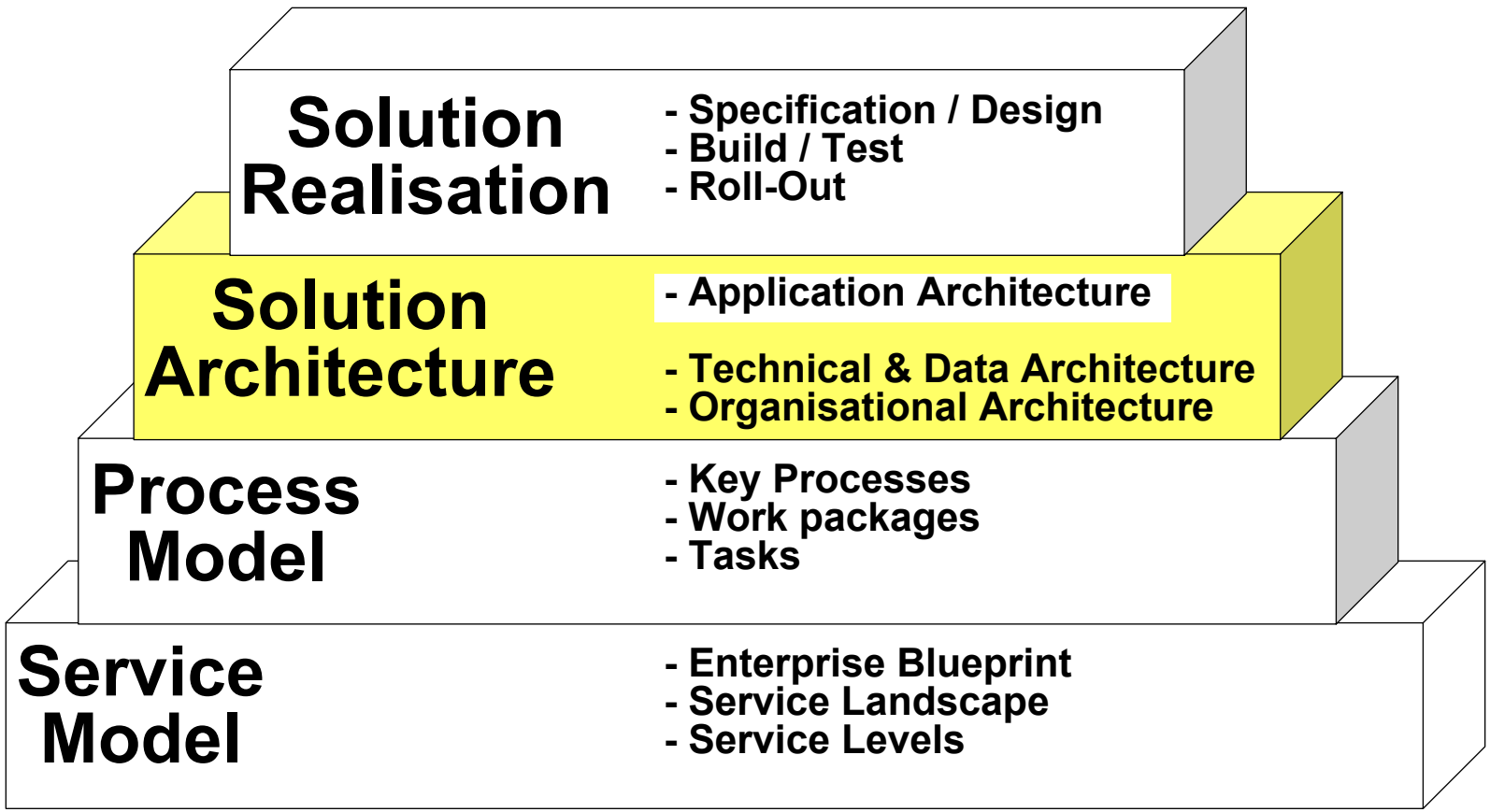
- Definition
- Context
- Application Architecture Example
- Dependencies
  - Service & Process Model
  - Guiding Principles
  - Value Proposition, Capabilities & Requirements
  - Business Components & Applications
  - Technical & Data Architecture
  - Organisational Architecture
  - Functional Cluster & Architecture
  - Component Interaction
- Do's and Don't
- Consultant Role
- Questions & Answers

Definition

A concept that defines the characteristics, styles, and interactions among one or several applications:

- In the context of the Planning phase, the application architecture concentrates on defining the major applications within an enterprise.
- This includes identifying how applications interact with each other and the other elements within the business architecture.
- The deliverable related to the application architecture in the Planning phase is known as the Application Software Architecture.

Context:
Development Project Life Cycle



Application Architecture Example

RELATIONSHIP MANAGEMENT

- Retail Sales and Marketing
- Institutional Relationship Management
- Private Client Relationship Management

MARKET INFORMATION

- Data Feeds

Fund Manager Support

- Research
- Performance Analysis
- Order Capture
- Modeling
- Market Monitoring

Customer Service

- Institutional Client Reporting
- Central Retail Dealing and Enquiry
- Retail Client Reporting

Market Dealing

- Order Monitoring
- Trade Capture

Administration

- Position Management
- Security & Cash Acctg
- Tax Processing
- Corporate Actions/ Dividends
- Trust Accounting
- Portfolio Acctg & Valuation

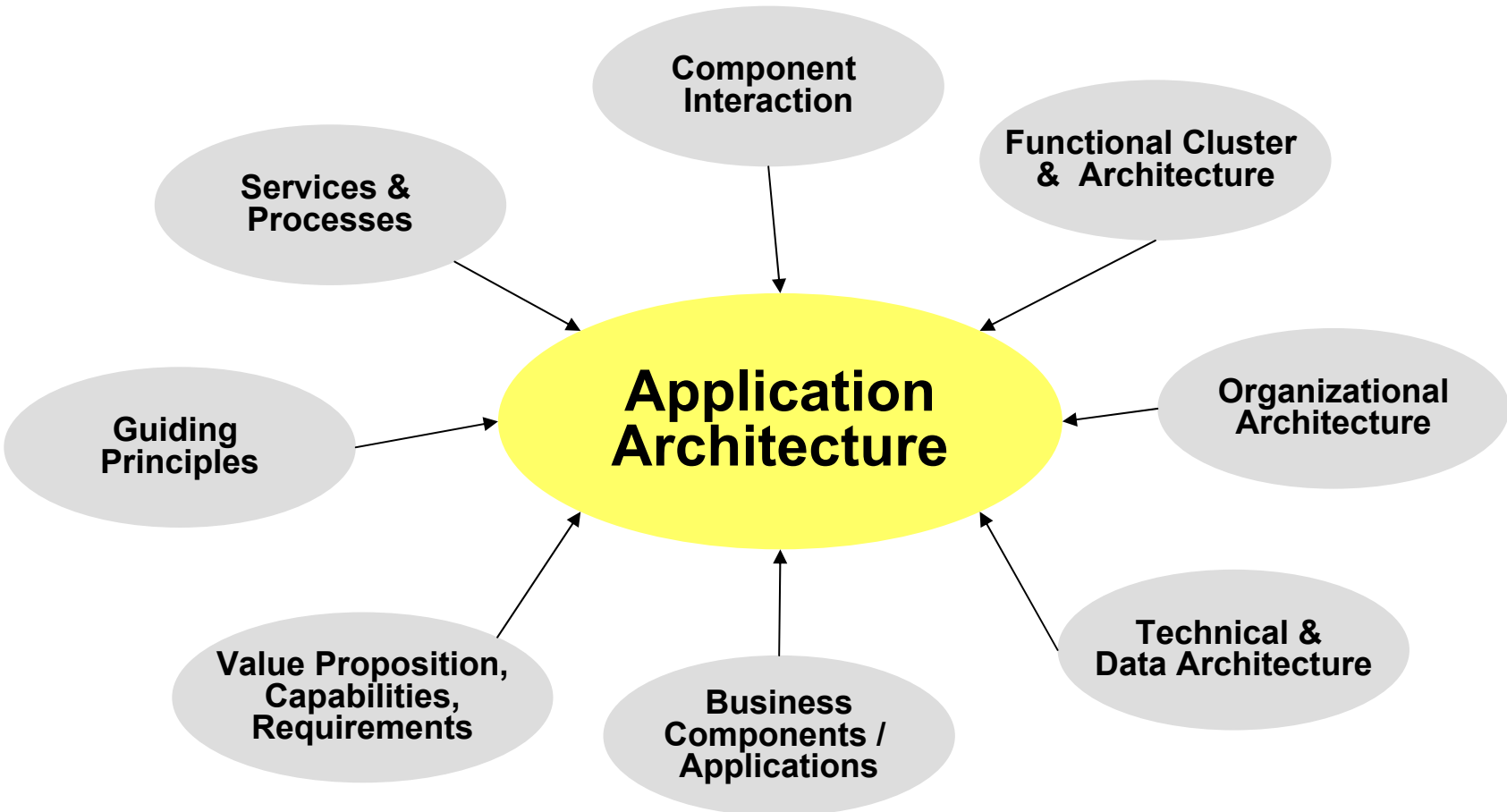
INFORMATION DELIVERY

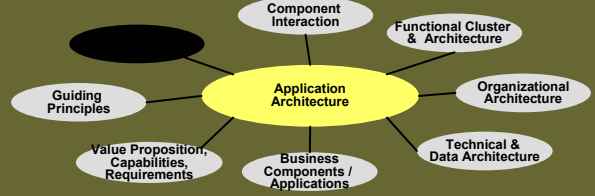
- Clearing and Settlement Linkage
- Payment Services
- Other Office Linkage

MANAGEMENT AND CONTROL

- Office Automation
- Group Financial Mgmt Information
- MIS/EIS
- Human Resources

Dependencies





Service and Process Model

Service Model
-Which services do I provide?
-Who are my customers?
-What are the channels?
-…

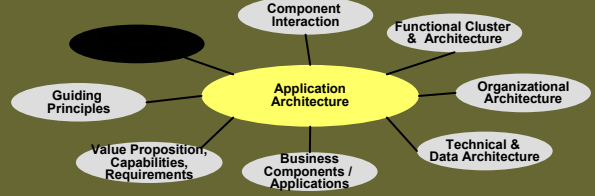
Banking Services
-Securities custody & transaction
-Cash custody & transaction
-Foreign Exchange
-…

Outside-View

Inside-View

Process Model
-What are the core processes?
-What is the value chain?
-Where are process cuts (in- / outsourcing)?
-What are the work packages?
-What are the involved tasks?
-…

Banking Processes
-Clearing & Settlement process
-Cash processing
-Valuation and Reporting process
-Posting and Booking process
-Audit & Compliance process
-Reconciliation process
-…



Service Model Example

Clients

Products

Channels

Client Servicing

CRM

OE/OM

Other Services

Factories

Cash/Payment Transaction Factory

Security Transaction Factory

OTC

Property Factory

... Factory

- to be defined -

Cash Accounts

Custody Accounts

... Accounts

... Accounts

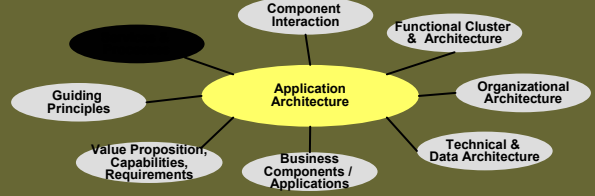
... Accounts

Other Providers

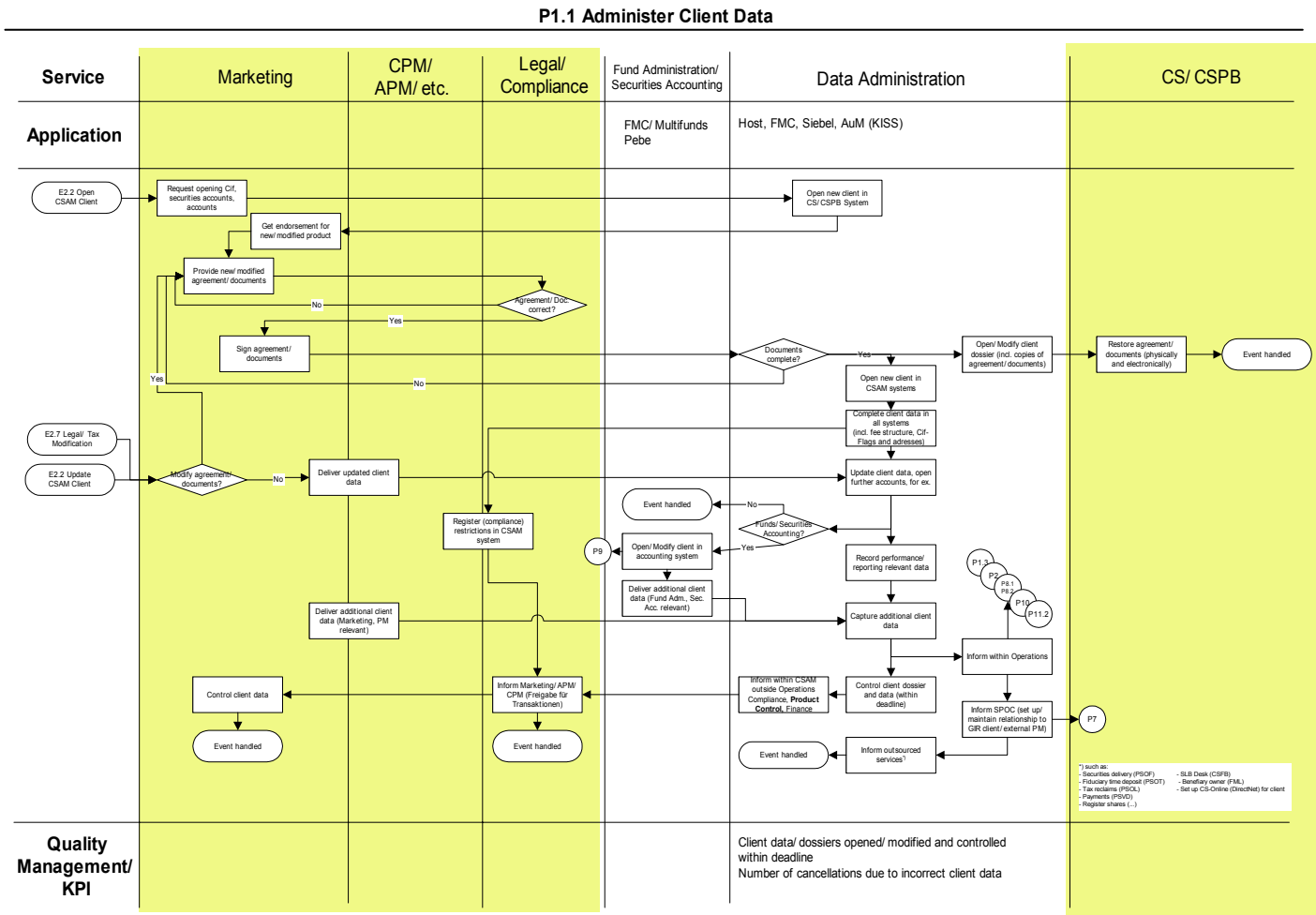
Wealth Management

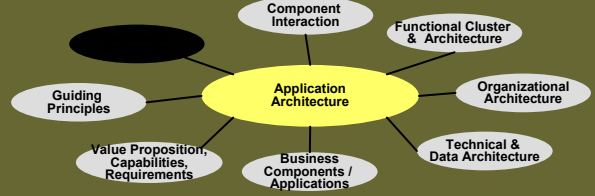
Client Reporting

Business Administration



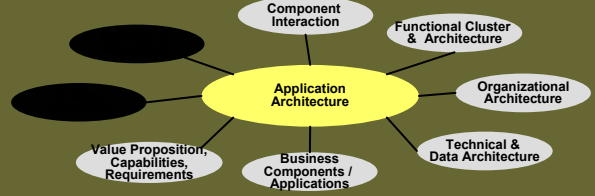
Process Flow Example





Service – Process Mapping

Service \ Main Processes (Level 'A')	P1 Administer Client / Counterparty Data	P2 Maintain Asset, Investment and Other Descriptive Data	P3 Control Instrument Movement	P4 Process Corporate Actions	P5 Manage Real Estate	P6 Manage Market Information	P7 Maintain Information Network	P8 Perform Client / Portfolio Accounting	P9 Perform Fund Accounting	P10 Measure Investment Performance	P11 Provide and Distribute Client/Portfolio Information	P12 Manage Client/Counterparty Relationships	P13 Manage SLAs
MIS/ Reporting Services										X	X		
Data Administration	X	X											
Settlement	X		X			X	X	X				X	
Fund Administration					X				X				
Portfolio Accounting				X				X					
SLA/ RSA Management													X
SPOC for Operations	X	X	X	X				X		X	X		



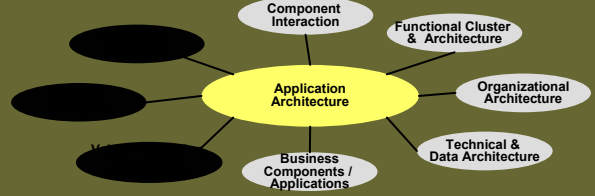
Guiding Principles

Strategic Principles
-Package usage
-Core competencies
-…

Technical Principles
-Platform technology
-Proprietary technology
-…

Business Principles
-In-Outsourcing
-Future Growth
-…

Architecture Principles
-Service architecture
-Data redundancy
-…

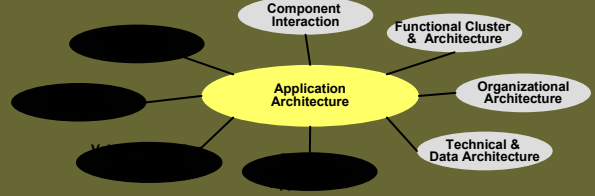


Requirements

Business Value Propositions
-Global player
-Consistent client experience
-Quality leader
-Cost leader
-…

Solution / System Capabilities
-Provide products & services across regions
-Consistent channel management
-Provide consistent quality over time
-High degree of automation
-…

Architecture / System Requirements
-Modular product concept
-Open architecture / 3rd party
-Multi channel support
-STP / Automation
-…



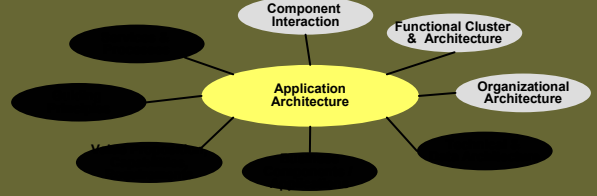
Business Components & Applications

Existing Systems

In-House Development
-Highly customized <>processes & organisation
-Highly automated according to processes
-Organic / historic growth
-…

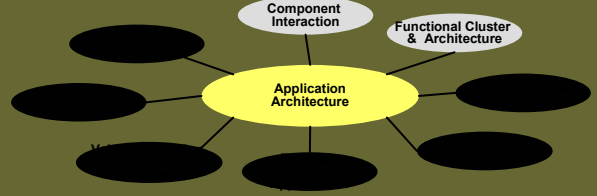
Packages
-Universal coverage (low depth)<> products & processes
-Special coverage (deep depth)<> products & processes
-Independent / autarc and referential integer
-…

Future Systems



Technical & Data Architecture

Technical HW & SW	Data
System Performance	Normalisation
Disaster Recovery	Volume
Platform Homogeneity	Redundancy
Security	Accessibility
Reliability	Performance
Availability	Distribution
Maintainability	Quality



Organisational Structure

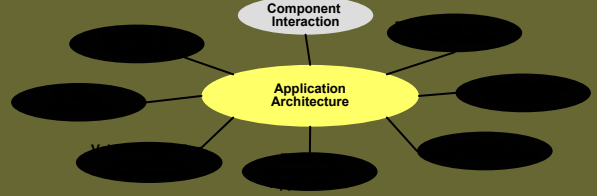
Management
- Products
- Processes
- Clients
- …

Front
- Sales
- Client Advisor
- …

Mid
- Sales Support
- Order Handling
- …

Back
- Production
- Operations
- …

Support
- Human Resources
- Procurement
- Finance & Controlling
- Development
- …



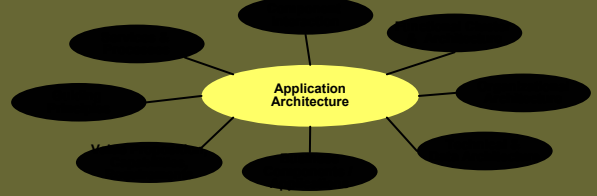
Functional Clustering

Data Keeping

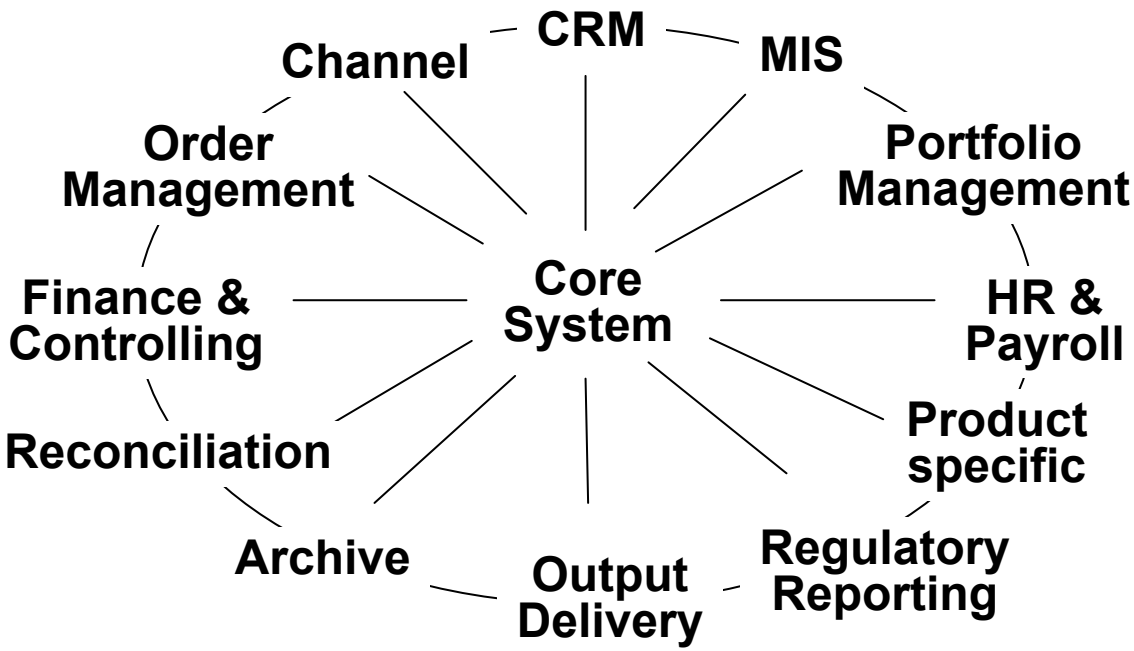
- Client Static Data
- Management Information
- Client Relationship Data
- Regulatory Information
- Transaction Data
- Position Data
- Product Data
- Contract Data
- Personnel Data

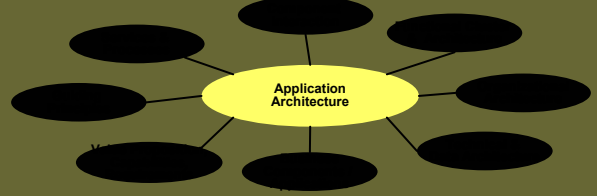
Process Execution

- Customer Care & Advisory
- Order Management
- Posting & Booking
- Archiving
- Reporting
- Production Control
- HR processes

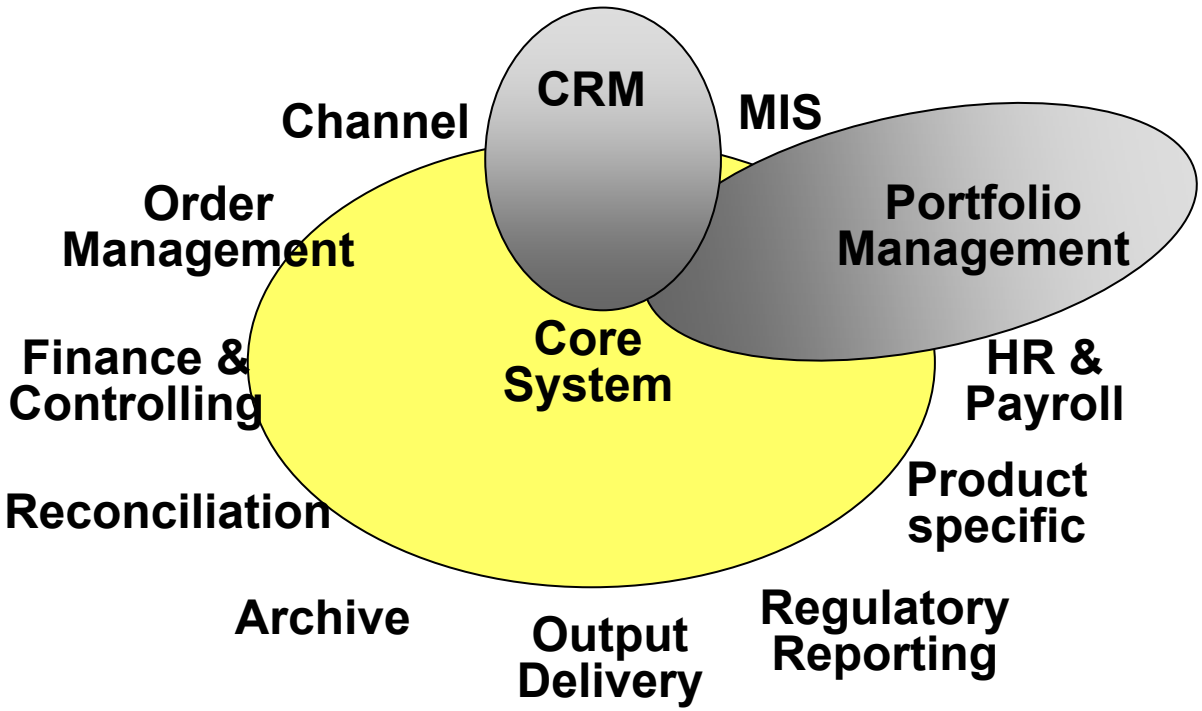


Component Interaction





Component Overlap



Do's and Don't

Do‘s

• Package Alliances	=> Interface effort, process cuts
• Consider Growth	=> Performance & Scalability
• Functional Modularity	=> Cost efficiency
• Process Cuts	=> In- and Outsourcing
• End-to-End view	=> Complete
• Master-Slave Data separation	=> Quality

Do's and Don't

Don't

• Centralised Architecture	=> Complexity
• Data redundancies	=> Quality & Effort
• Functional overlaps	=> Costs & Process cuts
• Encapsulating components	=> Unused Suite Advantage
• „Werkstudenten-Problem“	=> Maintenance
• Core Competency as package	=> Flexibility & Time to Market

Consultant Role

- Workload
  - Project modus
  - Timescale
- Expertise
  - Architecture
  - Packages
  - Methods
- Independence
  - Neutral to packages
  - Neutral to internal politics

Questions & Answers

- Why do I need Application Architecture?
- When do I need Application Architecture?
- Who needs the Application Architecture?
- What are trends in Application Architecture?

Contact

thomas.stephan@accenture.com