



IBM Software Group

# La Soluzione IBM per la Enterprise Architecture

## *Rational System Architect*

Rational. software

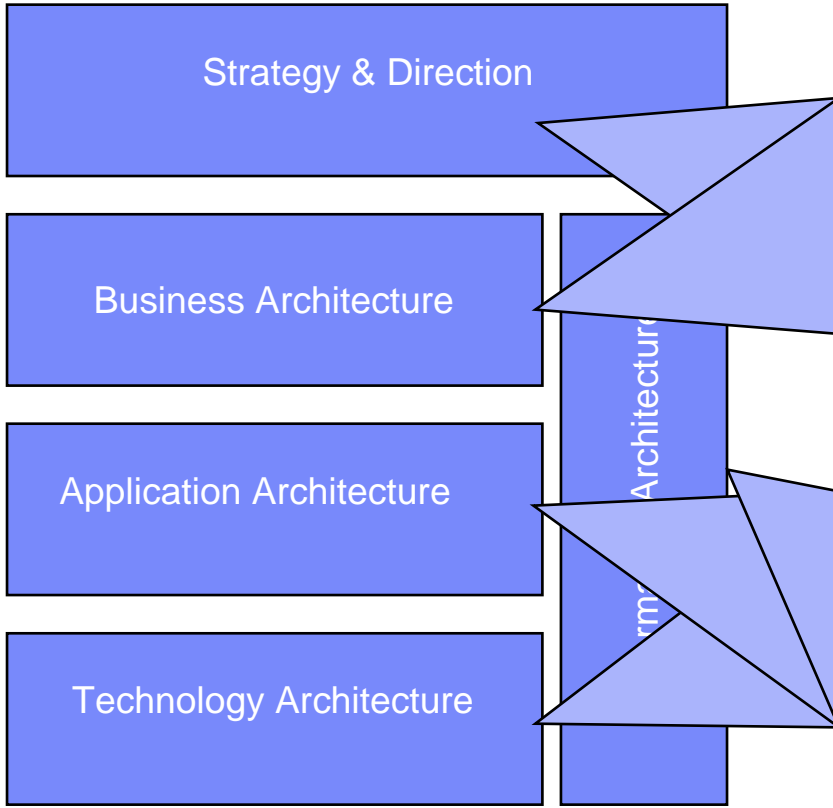
→ Go to IBM

**Roberto Pozzi**

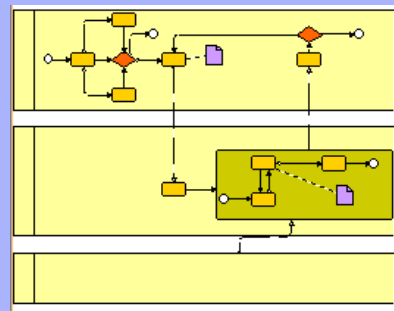
*IBM Client Technical Professional*  
*roberto\_pozzi@it.ibm.com*

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# Aree di Interesse della Enterprise Architecture



- Organisation Models & ABBs
- Business Structure & ABBs
- Functional Models & ABBs
- Process Models & ABBs

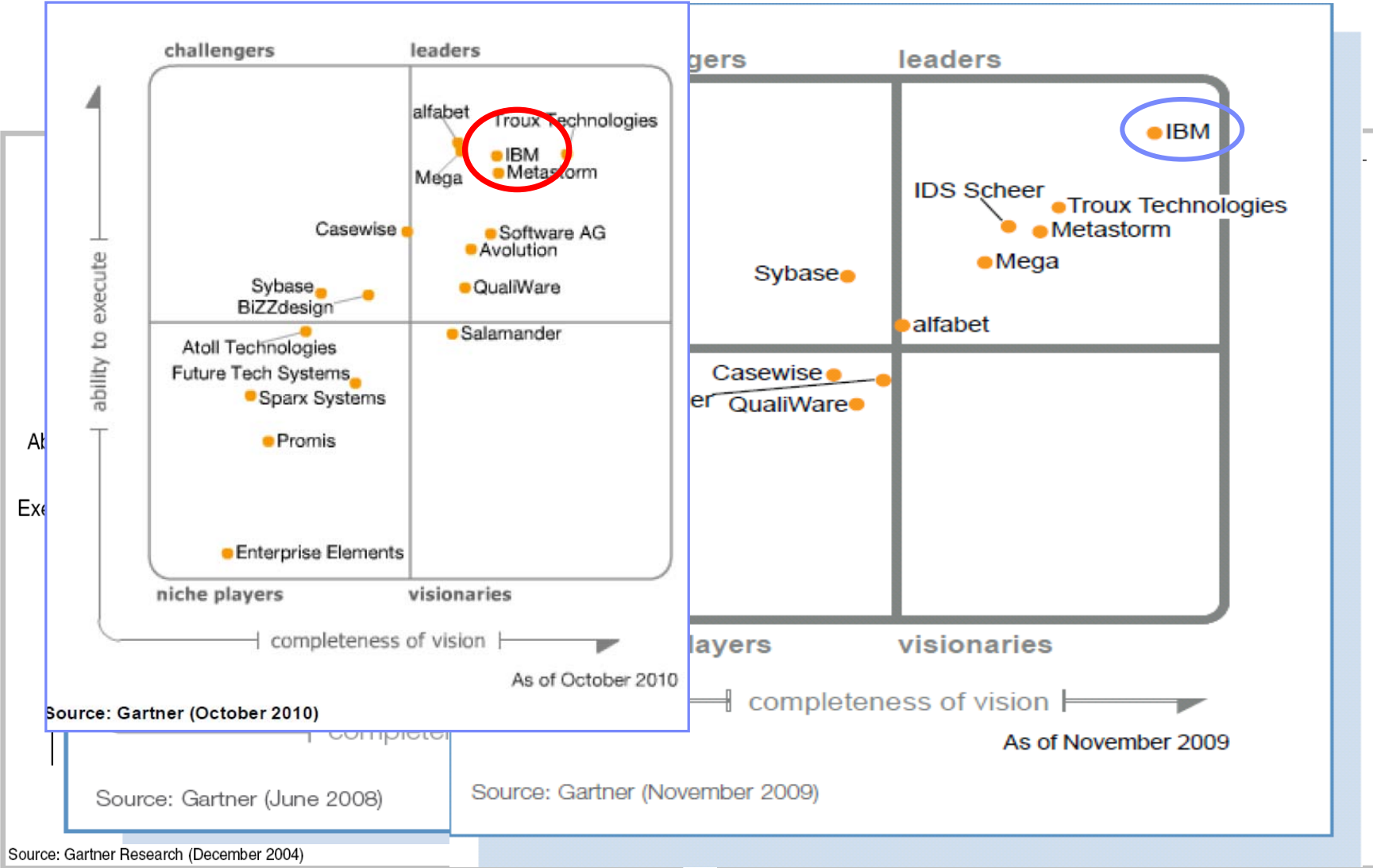


For Example

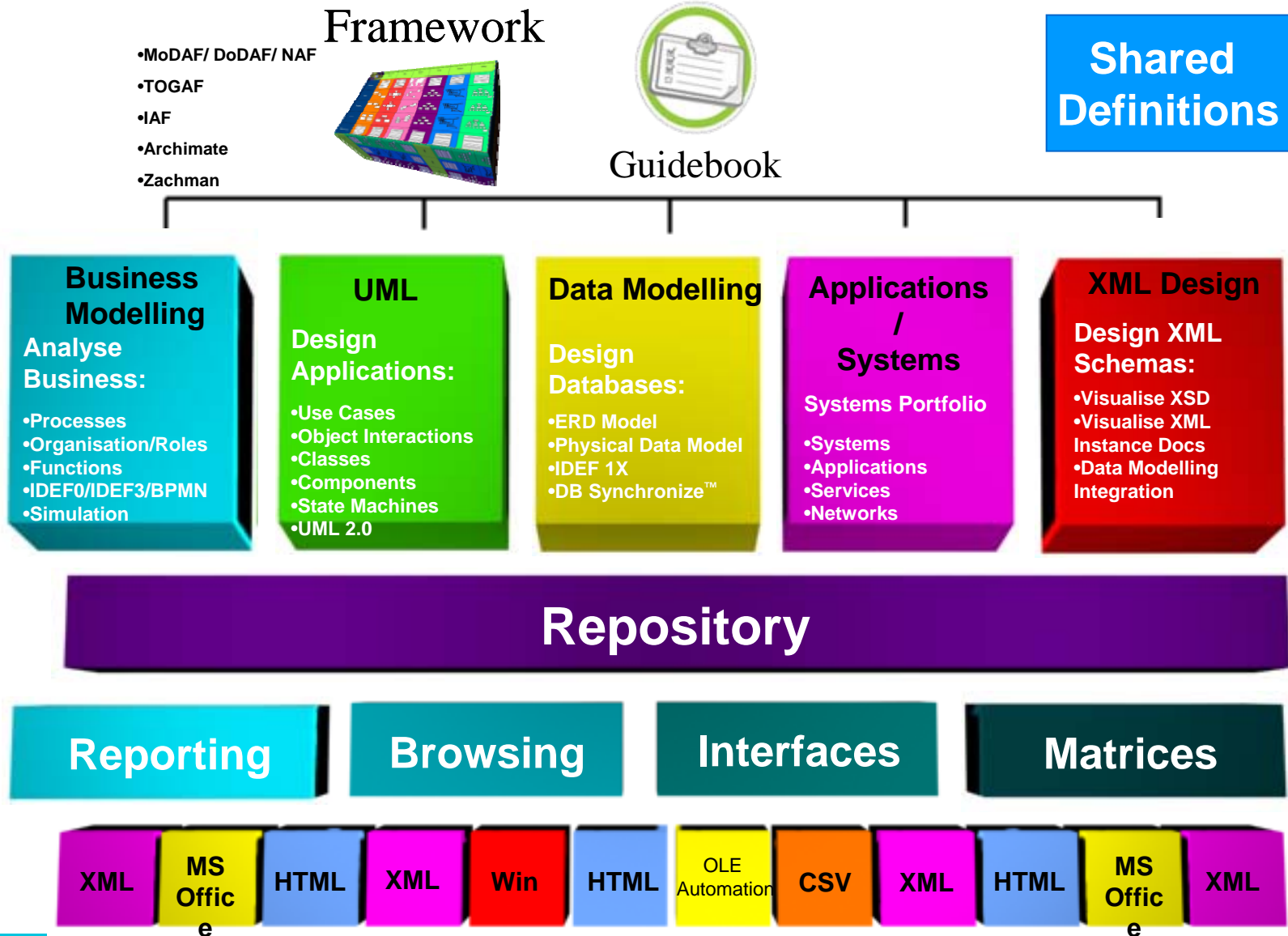
# Rational è Leader per Gartner nella Enterprise Architecture

**5 Anni Consecutivi**

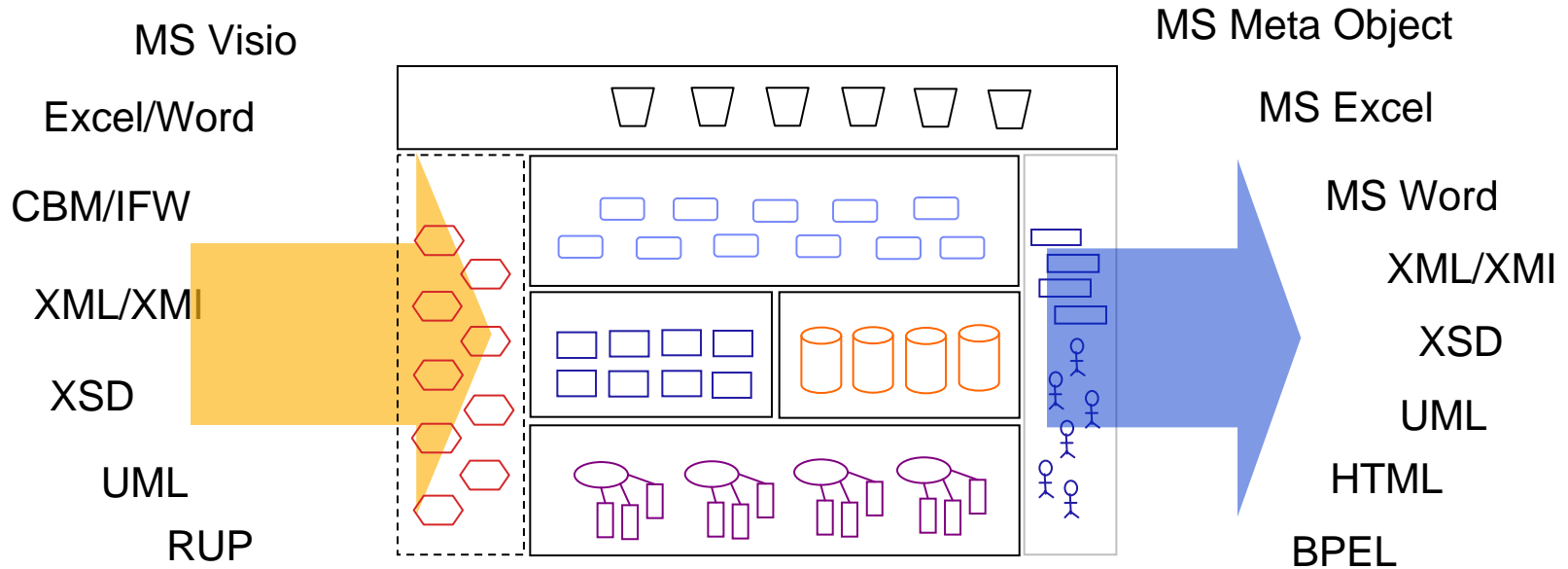
Figure 1. Magic Quadrant for Enterprise Architecture Tools



# Rational System Architect



# System Architect Repository Solution: Import/Export di Standards facilita la condivisione delle Info



***SA è basata su industry standards & best-practices***

***Le funzionalità di Import di SA aiutano a inizializzare il DB con dati già esistenti***

***Le funzionalità di export favoriscono il ri-uso dei dati della EA e la collaborazione***



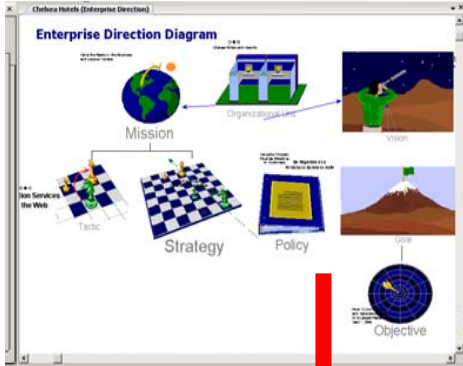
## Caratteristiche Principali del Tool

- Profilazione accessi Role Based
  - ▶ Active Directory
  - ▶ Single Sign on
- Accesso Multi-User Concorrente
- Partitioning/Versioning
- Tracciatura della History con Roll back
- Tracciatura degli Audit
- Estensibilità e Import Dati con Macro VBA
- Freeze/UnFreeze
- Intelligent Merge/Extract
- Backup/Restore

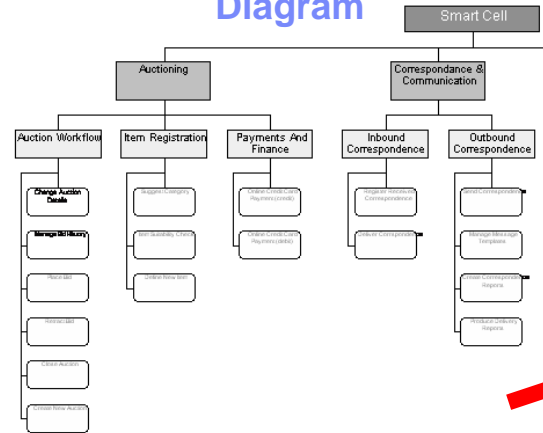


# Es: Modellare un IT gestito a Servizi

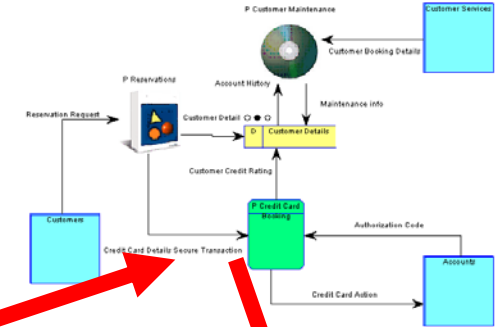
## Enterprise Direction Diagram



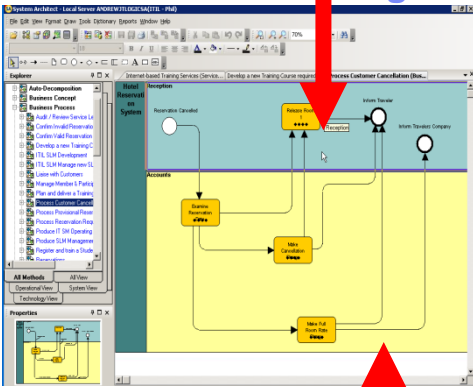
## Business Service Hierarchy Diagram



## Application Architecture

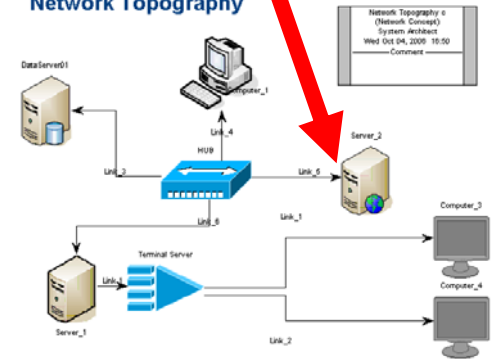


## Business Process Diagram

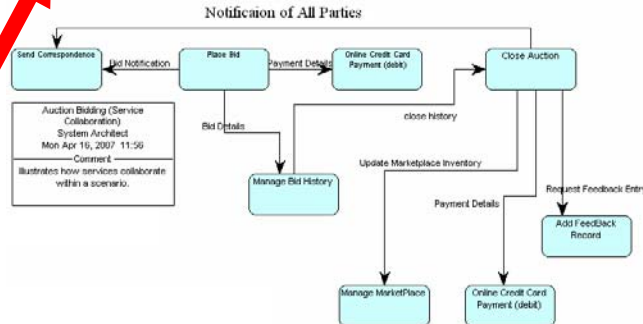


## Network Concept Diagram

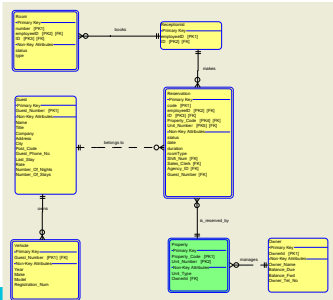
### Network Topography



## Business Service Collaboration Diagram



## Data Models



# Enterprise direction

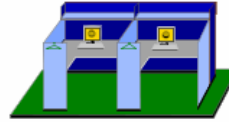
[Hide Breadcrumbs](#) | [Reset](#)

## ACME COMMERCIAL BANKING

Type - Enterprise Direction

### Enterprise Direction

#### ACME Commercial Banking



Organizational Unit

Means

Elements of

Ends

**Model Object - Business Objective - 5 or Less of Employees Leaving Company with rating over 4 ...**

Name: 5 or Less of Employees Leaving Company with rating over 4 in FY05

Introduction | Targets | Performance Measures | Initiatives | Expectations | Influences | Related Items | Access

Description: Turnover amongst high performing employees shall be minimized in order to improve operational efficiency and quality of service. Minimizing turnover will also reduce recruiting and training costs, a major component of current HR budgets.

Target Date: 1/1/2006

Achievement (%): 100

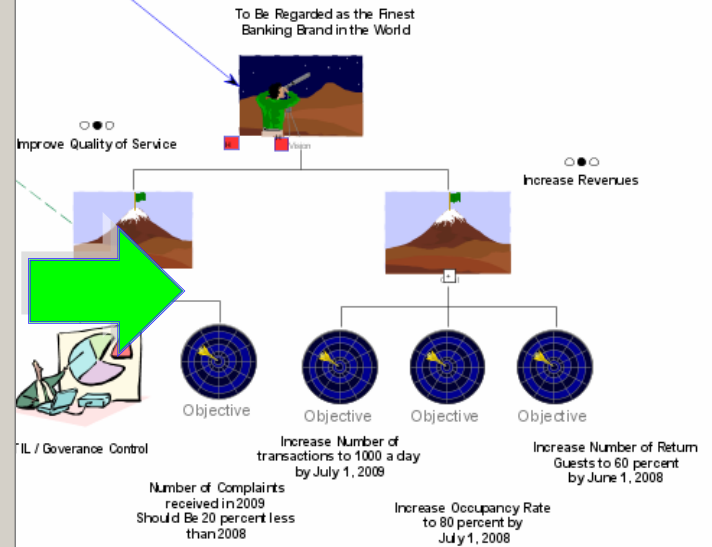
Owner: Human Resources

Buttons: Define, Check, Choices...

Buttons: OK, Cancel, Spell, Delete, Apply

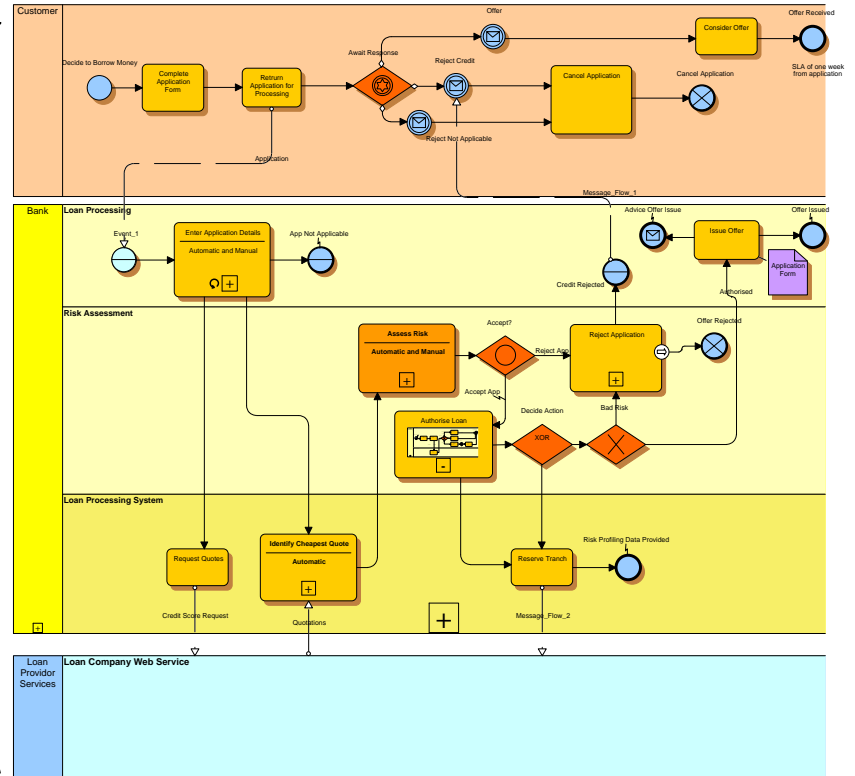
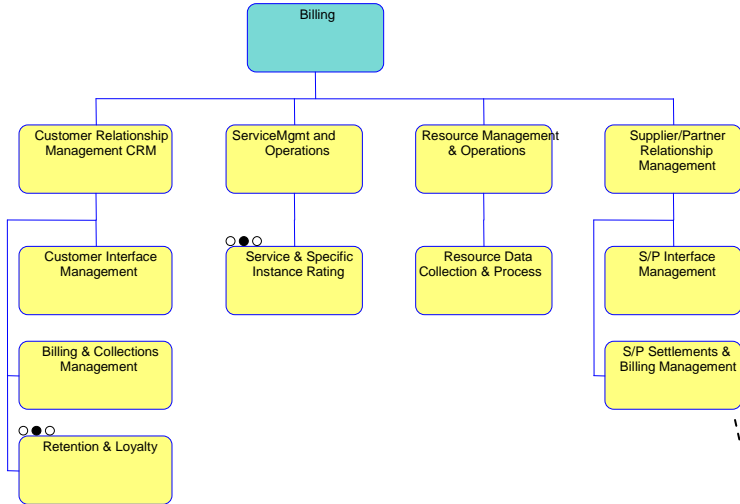
Text: Len: 4074

*Esempio*

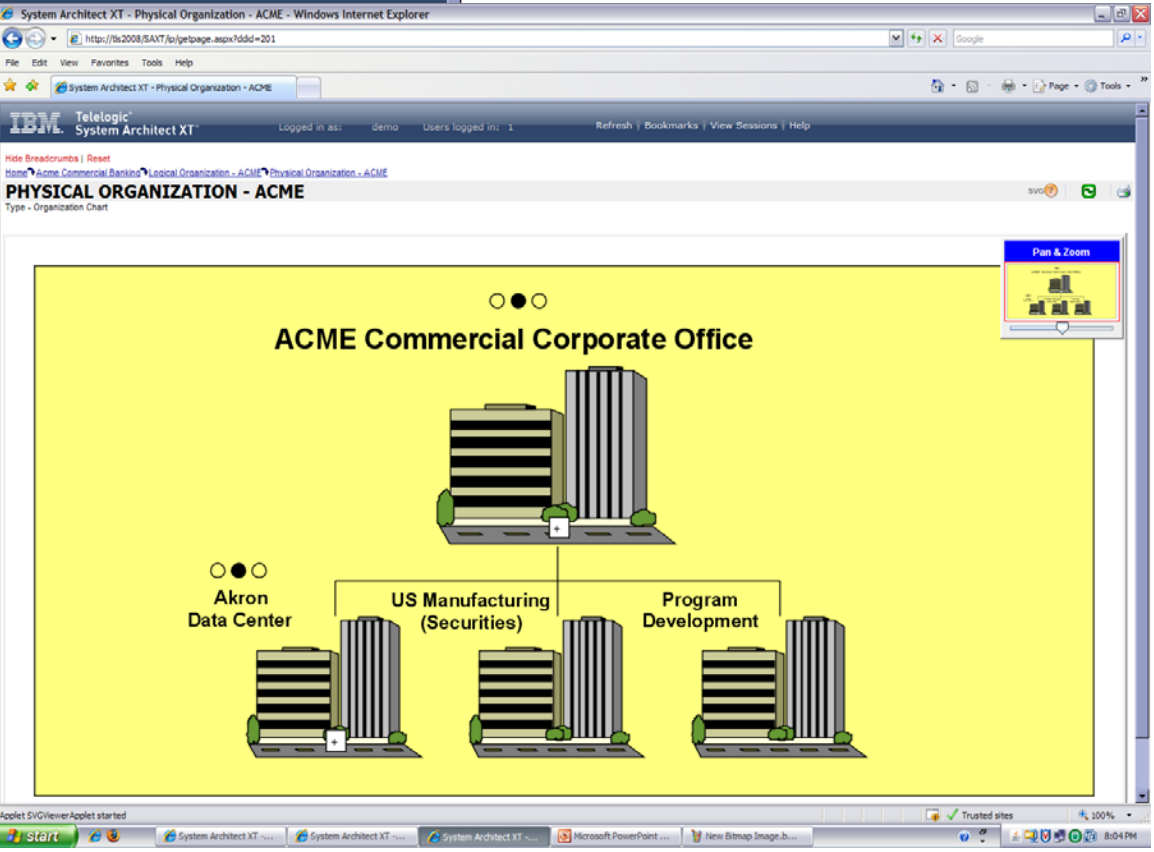
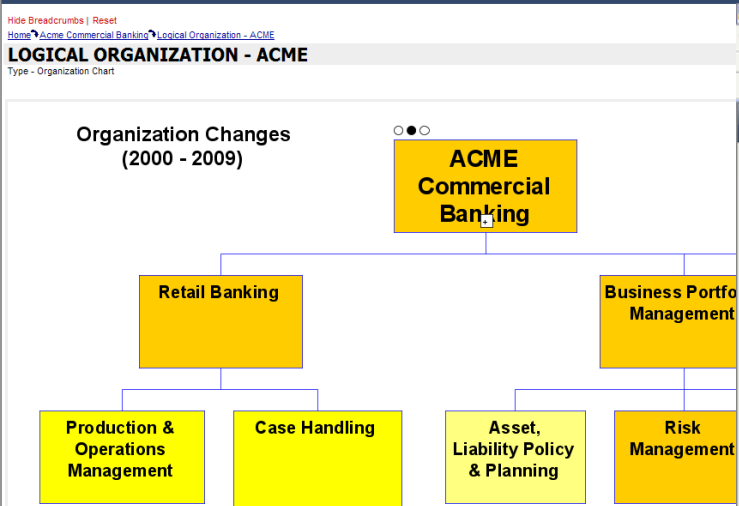
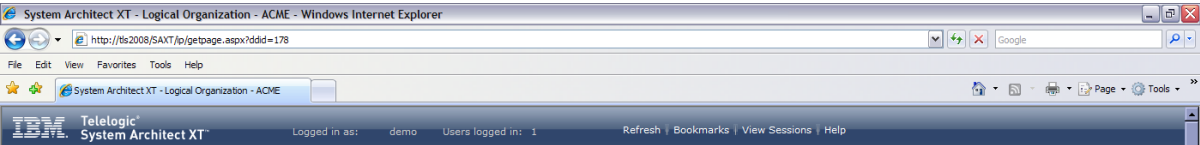




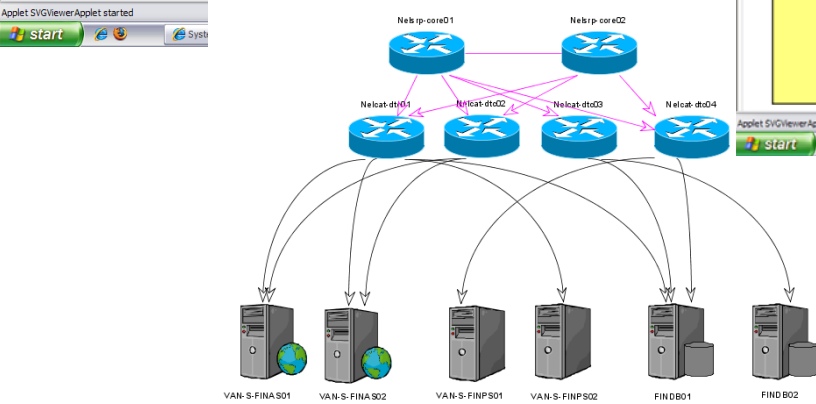
# Mappatura Processi



# Organizational model

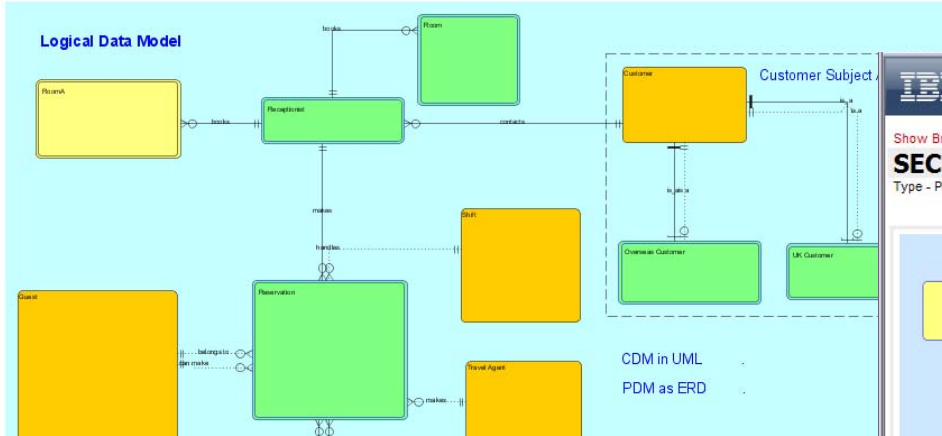


**Akron Network Architecture**

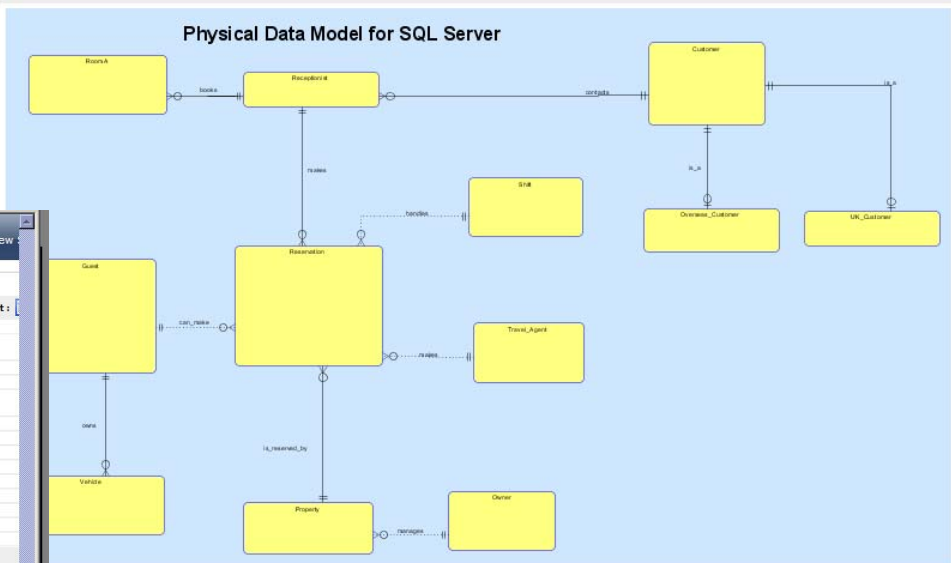


# Data model

Show Breadcrumbs | Reset  
**SECURITYS BOOKING SYSTEM**  
Type - Entity Relation



Show Breadcrumbs | Reset  
**SECURITYS BOOKING SYSTEM**  
Type - Physical Data Model



IBM Telelogic System Architect XT™ Logged in as: demo Users logged in: 1 Refresh | Bookmarks | View

Show Breadcrumbs | Reset

**CUSTOMER**  
Type - Entity

Model: Hotel Reservation System

Create Trailer:  
Entity Type: Type A  
Related Classes: OrdersProcessing\_Customer

Business Description:  
Volume:  
Purpose:  
Business Owner:  
Reference Documents:  
Database Comment:  
Comments:  
Table Name: Customer  
Column Prefix:

**CONTAINED IN ENTITY RELATION DIAGRAMS** COUNT:2

- Customer Subject Area
- Claim System

**ATTRIBUTES** COUNT:6

Name	Allow Null	Data Element	Foreign Key	Unique	Primary Key
name	F	name	F	F	F
a	F	addr	F	F	F
addr	F	telNo	F	F	F
faxNo	F	faxNo	F	F	F
creditCard	F	creditCard	F	F	F
Customer ID	F	Customer ID	F	F	T

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# Technology architecture

## SA FOOTPRINT

Type - Network Concept

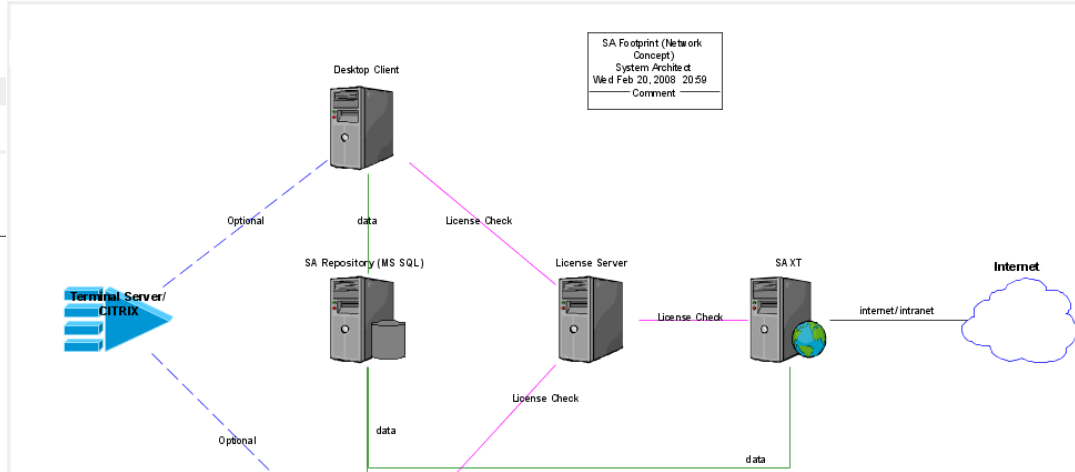
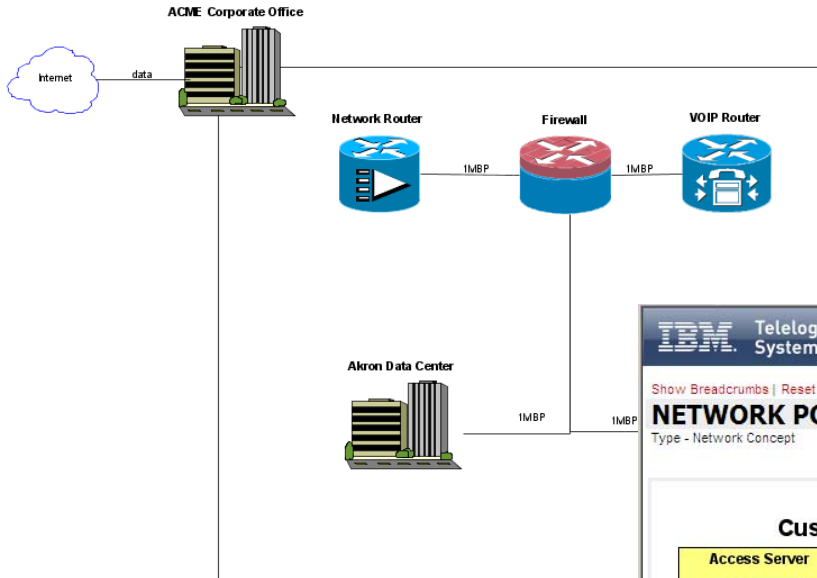
svg ?

Show Breadcrumbs | Reset

## BACKBONE CONCEPT

Type - Network Concept

Type - Network Concept



SA Footprint (Network Concept)  
System Architect  
Wed Feb 20, 2008 20:59  
Comment

IBM Telelogic System Architect XT™  
Logged in as: demo Users logged in: 1  
Refresh | Bookmarks | View Sessions | Help

## NETWORK PORTFOLIO

Type - Network Concept

svg ?

Customer Service		Account Management		Transactional Data Storage	
<b>Access Server</b>  Existing Server / License Server	<b>System Architect Server</b>  FINDB02	<b>Terminal Server / CITRIX</b>  License Server	<b>VAN-S-FINAS01</b>  Synergy Change	<b>VAN-S-FINAS02</b>  SA Repository (MS SQL)	<b>VAN-S-FINPS01</b>  VAN-S-FINPS02
 SAXT	 DOORs Repository	 FINDB01	 CITRIX	 DOORs / SA Repository	 D02_NA01

# Support di Svariati Framework & Guidebook

The screenshot shows the System Architect software interface. On the left is a vertical navigation bar with four colored sections: NAV (green), NOV (purple), NSV (yellow), and NTV (red). The main window displays a document titled 'SA Guidebooks Six Sigma'. The document content is as follows:

**SA Guidebooks Six Sigma**

**Define Activities**

- Establish Project Charter
- [Voice of the Customer](#)
- [Define Objectives](#)
- [Establish Processes](#)
- [Define the Organisation](#)

**Establish Project Charter**

This is a collection of statements and relationships that establish the purpose and objectives for a specific initiative.

It includes:

- The Business Case
- The Goals and Objectives
- The Stakeholders and Key Project Members

**Build**

- [Create Process Charter](#)
- [List Project Charters](#)

At the bottom of the document are five tabs: Define, Measure, Analyse, Improve, and Control. The status bar at the bottom indicates 'Refreshing browser: 100% complete' and 'EUGENEM'.

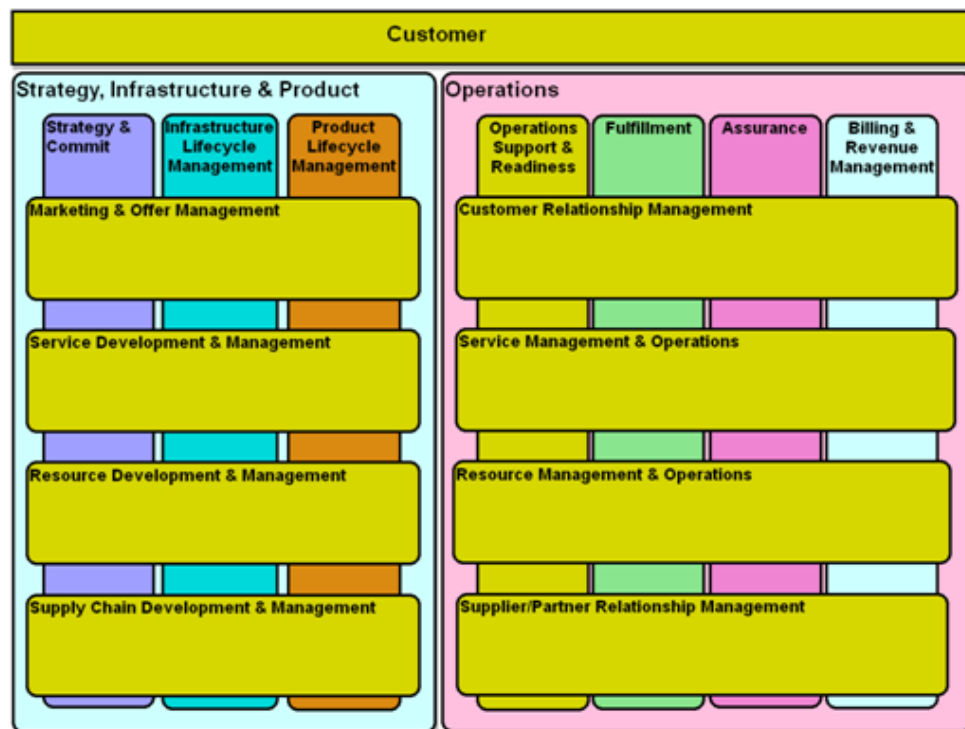
*I have six honest serving men, they taught me all I knew.  
They are **What** and **Where** and **When** and **Why** and **How** and **Who**.*

*(Rudyard Kipling)*



# Numerosi Templates già disponibili (es: CBM,IFW,eTOM)

Welcome Guide   TOGAF Enterprise FS Banking Full Service Banki...									
	Business Development	Interaction	Finance & Risk Management	Production	Operational Services	Business Infrastructure			
Direct	Fund/Market Asset Planning & Development	Customer Sales & Servicing Planning	Credit/Margin Policy & Planning	Investment/ Trading Policies & Planning	Production Planning & Analysis	External Data (IP) Planning & Assessment	Operations Planning	Human Resources Policies & Planning	Alliances Planning & Analysis
	Business Development Policies & Planning		Enterprise Portfolio Planning					Facilities & Procurement Policies & Planning	Business Strategy & Enterprise Planning & Analysis
	Acquisition Planning		Financial Planning					Business Unit Planning	Corporate Relations Policies & Planning
	Customer Portfolio Planning		Finance & Risk Management & Planning					Business Systems Planning	
	Product Performance Oversight								
	Segment Analysis & Planning								
	Product Portfolio Planning								
Control	Customer Portfolio Oversight	Agreement & Relationships Oversight	Credit/Margin Oversight	Agency & Broker Oversight	Financial Market Analysis Oversight	Correspondent Planning & Oversight	Information Provider Oversight & Administration	Business Unit Oversight	Human Resources Oversight
	Fund & Debt/Equity Instrument Oversight	Trader/Book Oversight	Enterprise Portfolio Oversight	Market Order & Services Oversight	Consumer Processing Oversight	Network Oversight	Operational Services Oversight	Alliances Oversight	Facilities & Procurement Oversight
	Business Development Oversight	Customer Sales & Servicing Oversight	Finance & Risk Management Oversight	Production Oversight	Corporate Processing Oversight	Customer Accounting Oversight		Business Systems Oversight	
	Campaign Oversight		Financial Control & Reporting Oversight						
	Product Deployment Oversight								
	Product Design & Development Oversight								
	Market Research Management & Oversight								
Execute	External Campaign Execution	Internal Campaign Execution	Cash Flow/ Maturity Ladder Maintenance	Stock Lending & Repos	Quantitative Analysis Services	Market Data/Feed Operation	Market Asset Maintenance (Corporate Events)	Stakeholder Investment Relations	Corporate Relationship Administration
	Customer Reference Information	Customer Reviews, Surveys & Research	Operational Risk Management	Investment Portfolio Planning	International Trade Services	Market Information Maintenance	Reference and Directory Data Maintenance	Knowledge Exchange	Intellectual Property Maintenance



# Analisi d'Impatto – Explorer Diagram Network

**Application**

- New Complaints System
- ChequePrint
- Peregrine
- TRITON
- Astra
- TRIP
- TRIP Management
- TRIP

**Technology Component**

- Complaints
- Back Office Application Processor
- Security Manager**
- Fulfillment
- Credit Risk Management
- Fraud Manager
- Fraud Analytics & Control

**Services**

- Create plastic card / PIN
- Define fraud control / authorisations policy
- Enquire on campaign information
- Manage fraud control authorisations against policy
- Process application through the various stages
- Provide authorisations status
- Provide account information
- Provide enquiry on historical information
- Provide enquiry on customer information
- Provide enquiry on captured correspondence
- Log complaints
- Close account
- Provide customer contact history
- Provide customer analysis
- Provide ID&V on users
- Provide fraud validation
- Provide fraud analysis
- Provide enquiry on product features
- Provide transactions information
- Remove terminal
- Setting security policy
- Send plastic card / PIN
- Send correspondence
- Route out-bound correspondence
- Store historical information
- Update customer specific product
- Update customer information

**Text on the right:**

Identificare le discrepanze e massimizzare l'utilizzo dei sistemi IT.

Risparmi con l'identificazione delle infrastrutture ridondanti

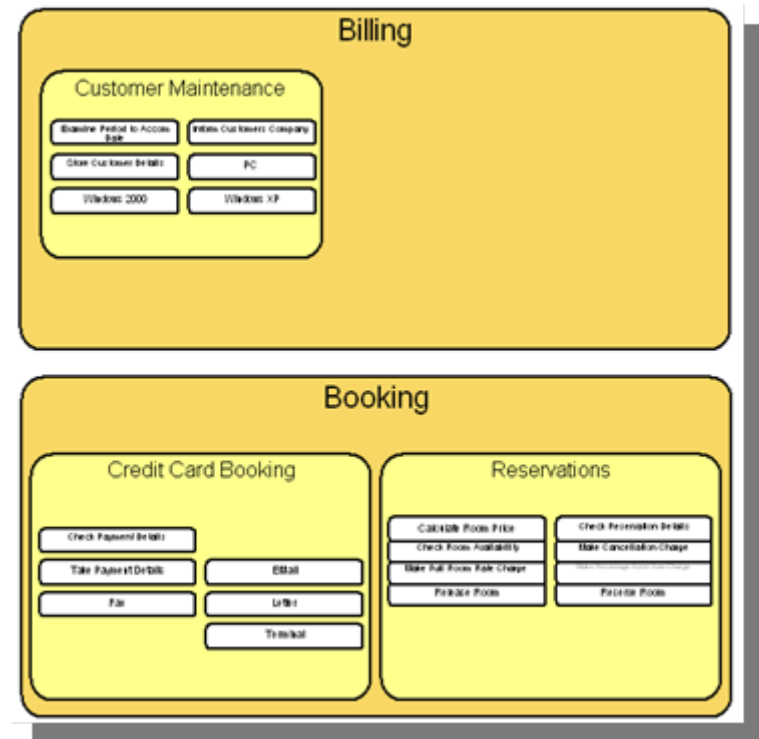
**Status Bar:** Definition: Security Manager | 9.27cm, 14.10cm 3.18cm



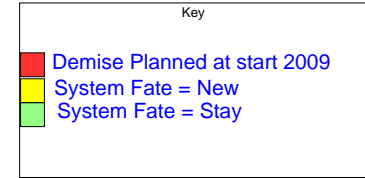


# Explorer Diagram – Landscape Style

- Nuova Tipologia di Explorer diagram
- Utilizzare query su oggetti in maniera “nested” (a nido) raggruppando le categorie e le sottocategorie tra loro



# Query Grafiche con Heatmap Manager



Identificare le aree critiche



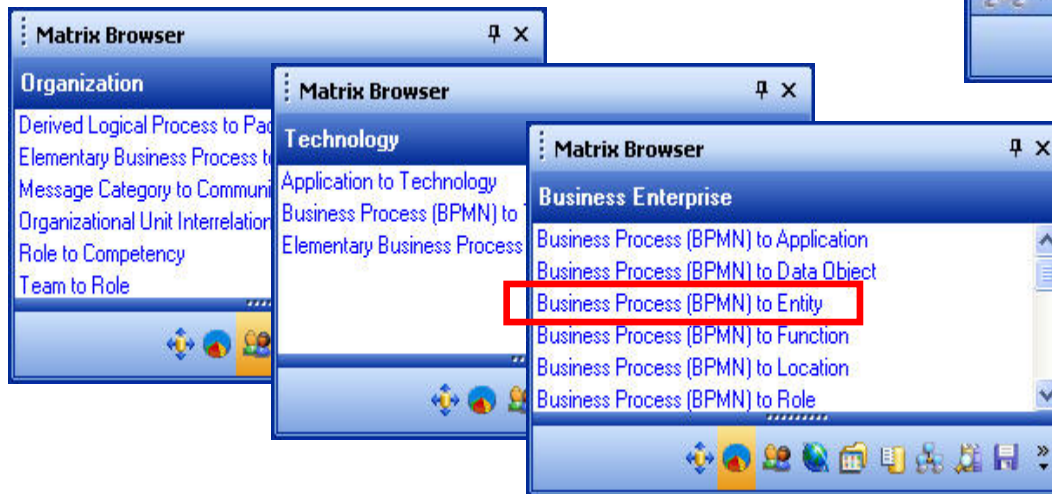
Ridurre i costi di gestione e massimizzare i ROI

Facilitare attività come Outsourcing per funzioni non critiche



# Trovare le Correlazioni e le Dipendenze usando il Matrix Browser

- Organizzate per Tipologia
- Personalizzabili con Nuove Tipologie Dati

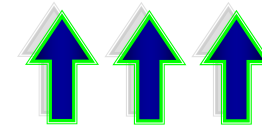


# Gap Analysis

- **Creare** correlazioni
- **Visualizzare** gaps organizzativi
- **Aggiornare** dati di progetto direttamente sulle Matrici.
- **Customizzare** e creare viste personalizzate

Application	Elementary Business Process	Answer Phone	Business Case Routed for Approval	Calculate Room Price	Check Payment Details	Check Reservation Details	Check Room Availability	Examine Period to Accom Date	Inform Customers Company	Make Cancellation Charge	Make Full Room Rate Charge	Make Percentage Room Rate Charge	NewProcess	Process Room Booking	Process_1	Reserve Room	Release Room	Reservations and Booking Funcs	Reserve Room	Store Customer Details	Take Payment Details	Test 1
Bid server																						
Credit Card Booking	X		X	X	X	X										X			X	X	X	
Customer Maintenance																				X		
Hotel Maintenance																						
Order Entry	X		X	X																		
Reservations			X	X	X												X		X	X	X	
VendorConnection			X																	X		
new application																						

Application Role	Accounts Clerk	Application Engineering	Assistant	Booking Coordinator
Application_1	ReadOnly		Create/Delete	Read/Write
BHIS System		Create/Delete	ReadOnly	Read/Write
Billing Application	Create/Delete	ReadOnly	ReadOnly	
Course Management		Create/Delete	ReadOnly	
Credit Card Booking	Read/Write		ReadOnly	Create/Delete
Customer Maintenance	Read/Write	ReadOnly		
DOORS		Create/Delete		Create/Delete
External Customer login		Read/Write		



**Svolgere Gap Analyses**  
**Quali Processi non sono automatizzati?**



# Publicare le Informazioni all'intera organizzazione



## Measures

### Measure - Production Quota

Owner	Update Frequency	Unit	Achievement (%)
Fred McDonald	Monthly	units	55

### Targets

Name	ID	Owner	Update Frequency	Target Value	Actual Value	Achievement (%)
Widget A		<a href="#">Bill Jones</a>	Weekly	1000	300	45
Widget B		<a href="#">Ivor Davies</a>	Weekly	10000	8000	60
Widget C		<a href="#">John Smith</a>	Weekly	100000	80000	60



# Esempio di Sito Web avanzato

- Dashboards – Publisher and SA/XT

The screenshot displays a web dashboard with a navigation sidebar on the left and a main content area. The sidebar includes icons for Strategy Map, Enterprise Diagram, Business Questions, and Simulation. The main content area features several data visualization components:

- Business Objectives Supported By Most Processes**: A header with a 'Send Comments' link.
- Applications With Most Interfaces**: A header with a 'Send Comments' link and a search box.
- Technology Satisfying Most Business Objectives**: A header with a 'Send Comments' link and a search box.
- Top 10 Value**: A 3D pie chart showing the distribution of values for the top 10 items.
- Item Count Table**: A table listing the top 10 items and their counts.

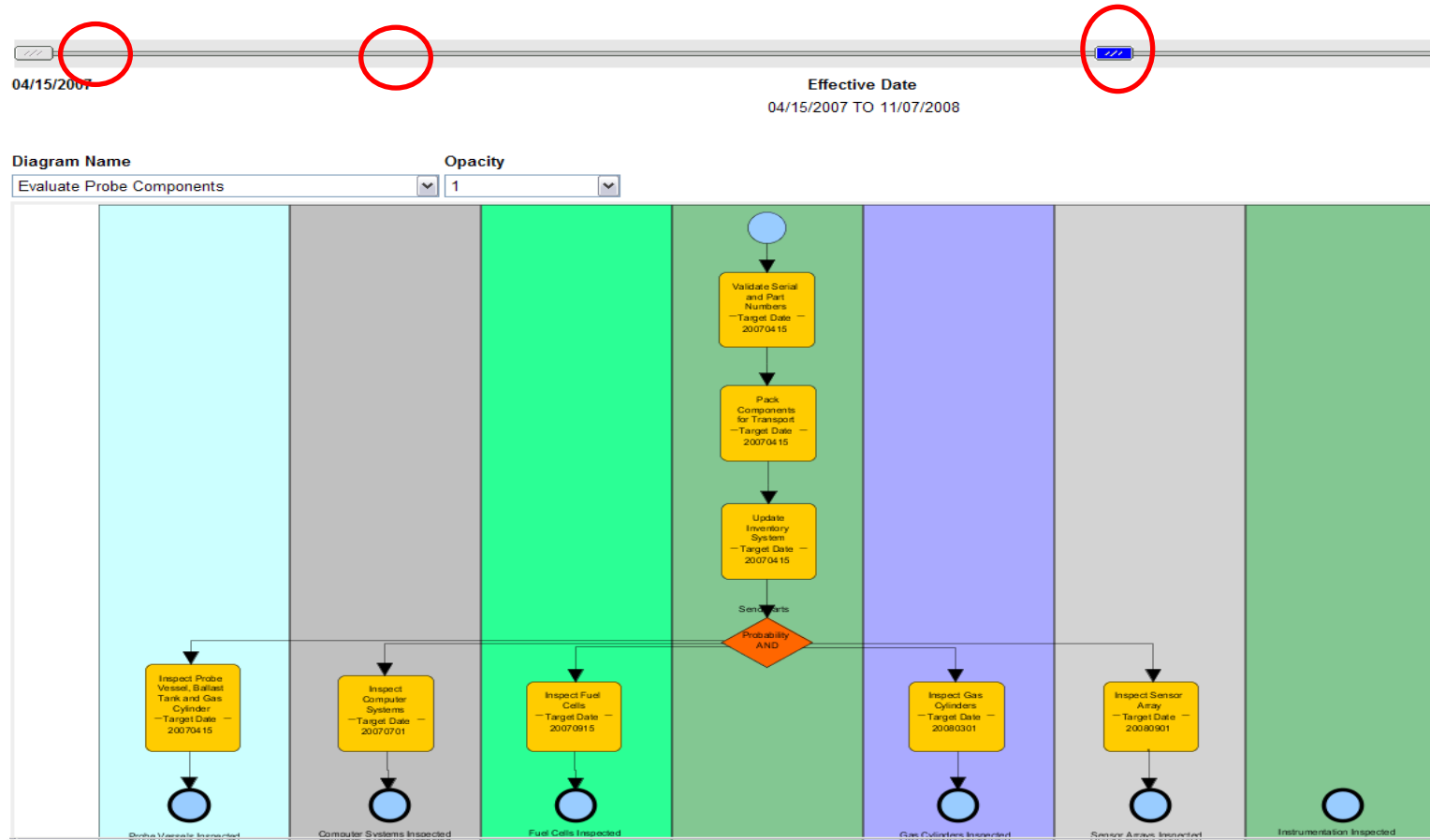
Item	Count
Intranet / E-mail	15
Police National Computer	12
Restraint Systems	6
Camcorder Technology	3
Hand Held Computers	2
Drug testing Equipment	2





# As-Is vs. To-Be

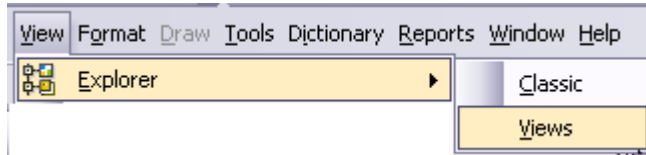
*Transition planning usando parametri legati ai dati*



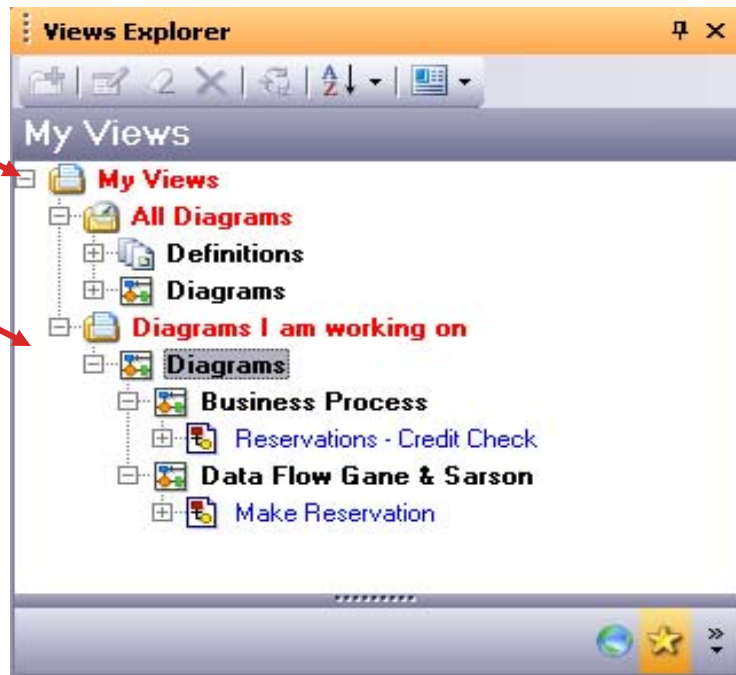
- Model Compare against one diagram with Date Parameters
- Scroll Bar slides between beginning of date range and end



# Viste Personalizzabili per Utente



- Rendere la EA più maneggevole
- Lavorare in maniera più produttiva
- Due tipi di Viste:
  - ▶ Statica: Vista Basata sul Trascinamento di Diagrammi e Oggetti
  - ▶ Dinamica: Vista che si aggiorna dinamicamente sulla base di un certo report





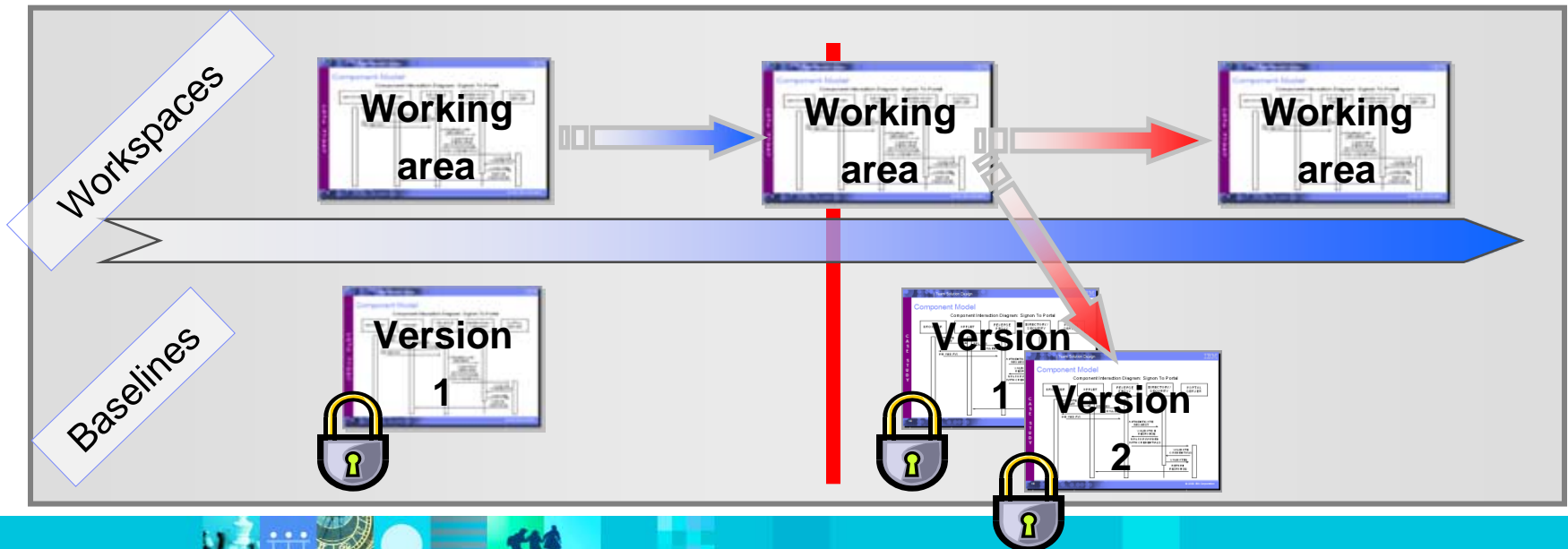
# Architecture lifecycle management

IBM System Architect has the concept of:

- ▶ Baseline – consolidated/official version of the architecture with a read-only access
- ▶ Workspace – working area accessed by the users according to their authorization.

At a point in time, the Administrator can promote a Workspace to Baseline and create a new working Workspace.

The COMPARE function highlights the difference between two versions of an Architecture or between an official and a working version.

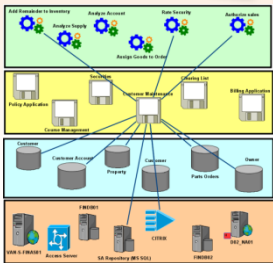


# Integrazione di SA con strumenti di Discovery (CMDDBs)

1. Allineare i cambiamenti operazionali con Business ed enterprise architecture
2. Gestire il passaggio dallo stato corrente a quello futuro
3. Comprendere l'Impatto di un cambiamento operativo sul Business
4. Mantenere una vista aggiornata degli asset IT nella Enterprise Architecture

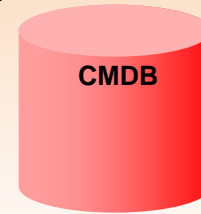
## Enterprise Architecture and Development

## Operations

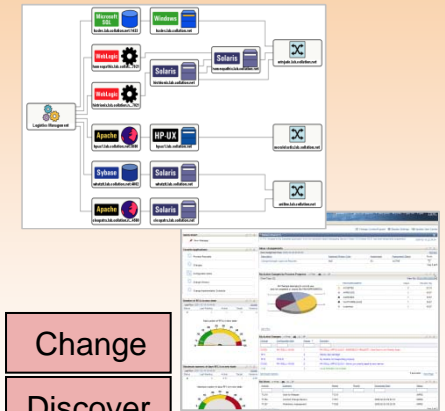
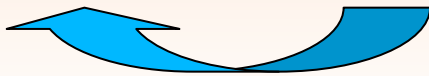


Rational System Architect

Expand Operations into Enterprise Planning and Business Strategy



Harvest IT Architecture to Update and Maintain Enterprise Architecture



Change  
Discover  
Config

