High performance. Delivered.

BI Project – End to End

A Practical Overview

Faculté des Sciences Appliquées - ULB
15/05/2012

Speakers introduction

Thomas Godefroid
- Senior manager
- 10+ years of experience in IT with a constant focus to bridge the gap between BU and IT
- Expert in Business Intelligence, BI Strategy and Governance, Data Management &Architecture combined with strong Project/Program management skills
- Master in Civil Engineering: Electricity and Mechanics (ULB)

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- 6 years of experience in BI and ETL projects
- Expert in BI and ETL architecture, Data Warehousing and Data Modelling
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Accenture at a glance…

Worldwide

- Accenture is a global Management Consulting, Technology Services and Outsourcing company.
- We enable our clients to become high-performance businesses and governments.
- With approximately 246,000 people serving clients in more than 120 countries.
- Turnover FY11: US$25.5 billion

Accenture BeLux

- Offices in Brussels & Vilvoorde
- Office in Luxembourg
- 1,300 employees

Operating Model

Comm. & High Tech	Financial Services	Govern-ment	Products	Re-sources

Management Consulting

Technology

Outsourcing

Process & Information Management

Business Intelligence is the capability of **collecting, integrating and analyzing** internal and external data to **generate knowledge and value** for the organization

- IM Diagnostic Tool: perform diagnostic process with client to **identify issues and opportunities**
- IM Survey: market-level **benchmark** & SWOT analysis

Data management is the capability of **controlling, protecting and facilitating** timely access to **good quality data**

- Data Quality Rules Accelerator: speed up Profile & Cleanse phase of DQ initiatives by **automatically discovering** actionable, client-centric **rules** from the data

Analytics, one of the 4 **spearhead businesses** of Accenture Belux, is a capability, powered by tools, data and processes, to **generate insights** that **drive business decisions**

- AASE: Analytics as a Service
- Accenture Customer Insight: provides **analytics platform** that gives business users access to transactional data for analysis and reporting purposes

IBM SAP INFORMATICA The Data Integration Company sas Microsoft MicroStrategy ORACLE avanade

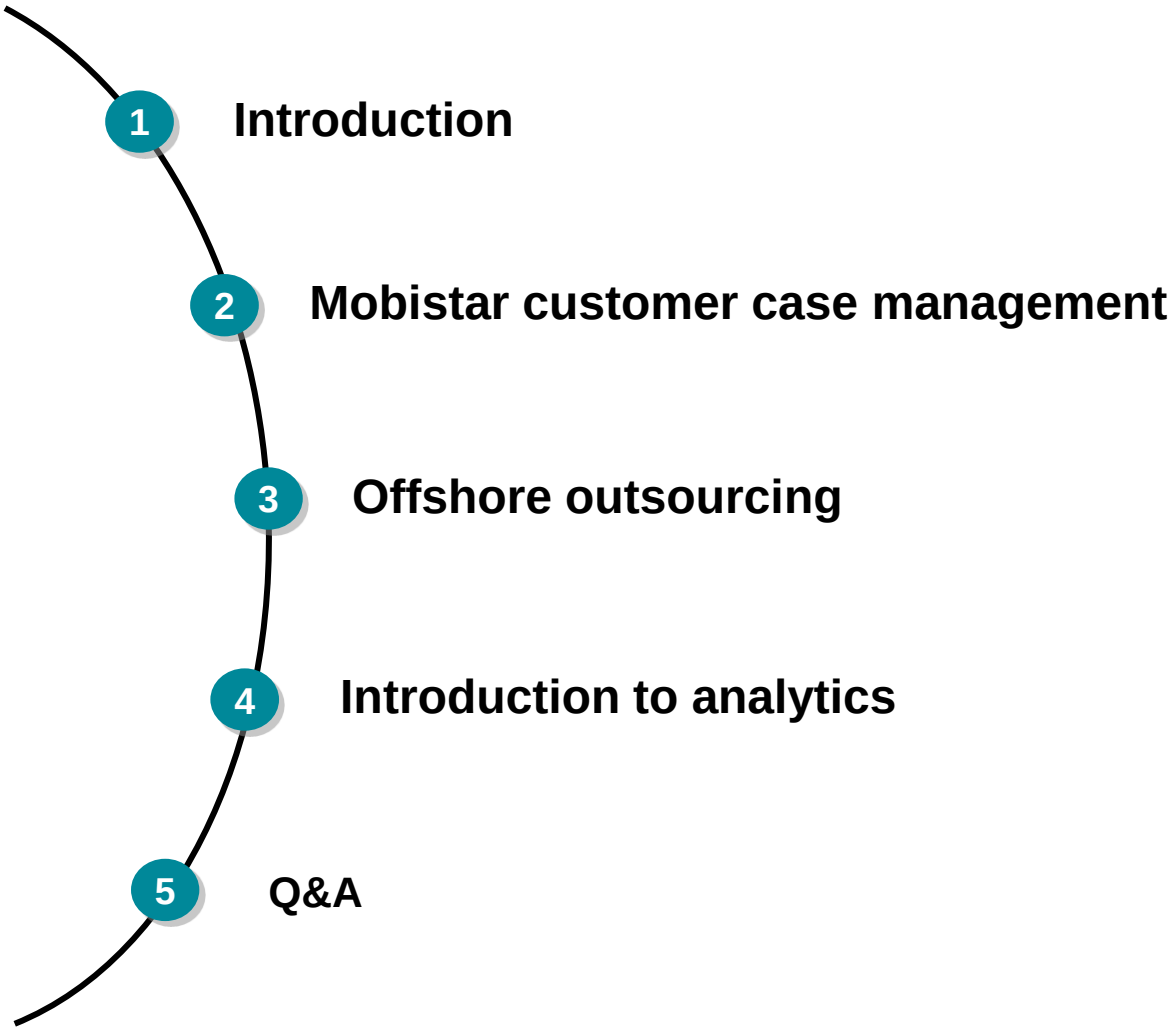
Objective of today's guest lecture

The goal of this guest lecture is to show you:

What to expect when you start your professional career

How a BI project is commonly approached and organised

Agenda



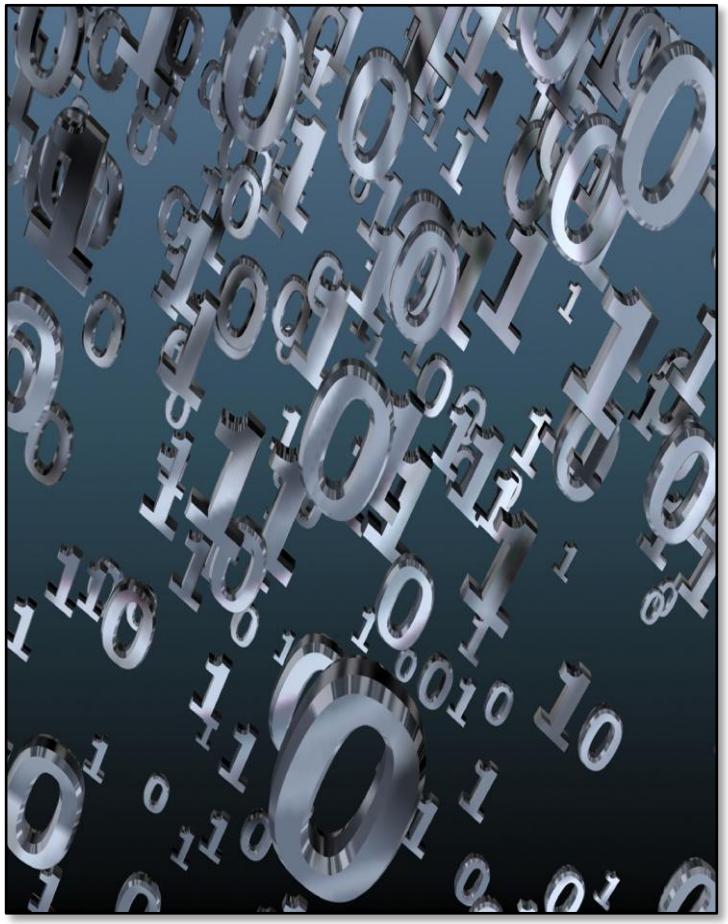
1. Introduction

- Overview of BI essentials
- Methodology
- Mobistar case context

Overview of BI essentials

Introduction to Business Intelligence

- Business Intelligence is the capability of collecting, integrating and analyzing internal and external data to generate knowledge and value for the organization.
- Today's decision-makers urgently need accurate and on-time information for a complete and up-to-date insight into their business.
- Business Intelligence provides decision makers and knowledge workers of an organization with bespoke functional components:
  - Ad-Hoc Queries
  - Analytical Processing (OLAP)
  - Dashboards
  - Data Mining
  - Etc.

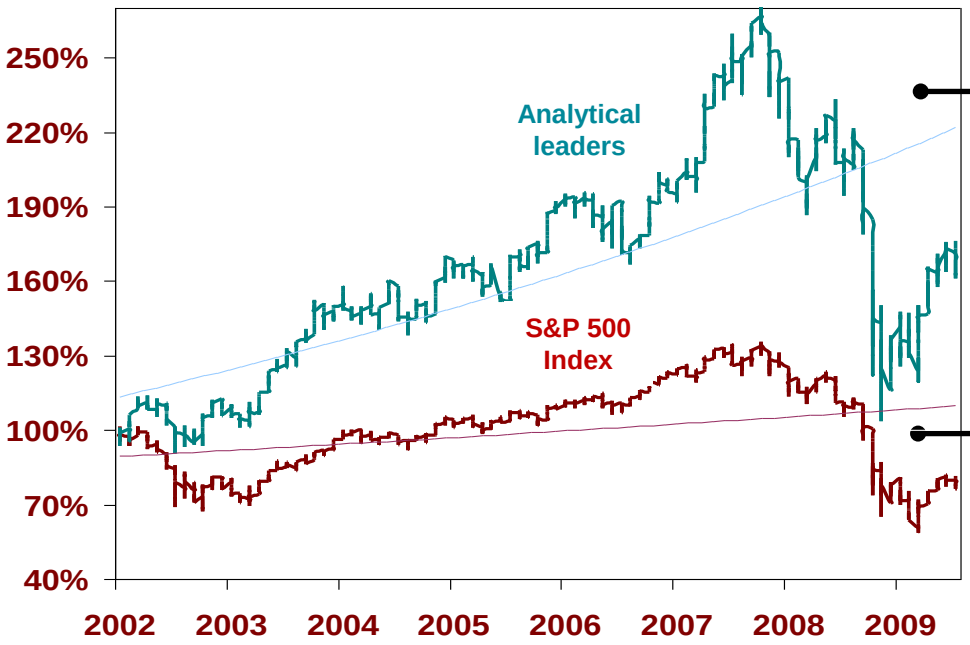


Overview of BI essentials

Business Intelligence in the market

Business organizations with advanced analytical capabilities outperform others

Market Performance
2002 – 2009



Research Findings

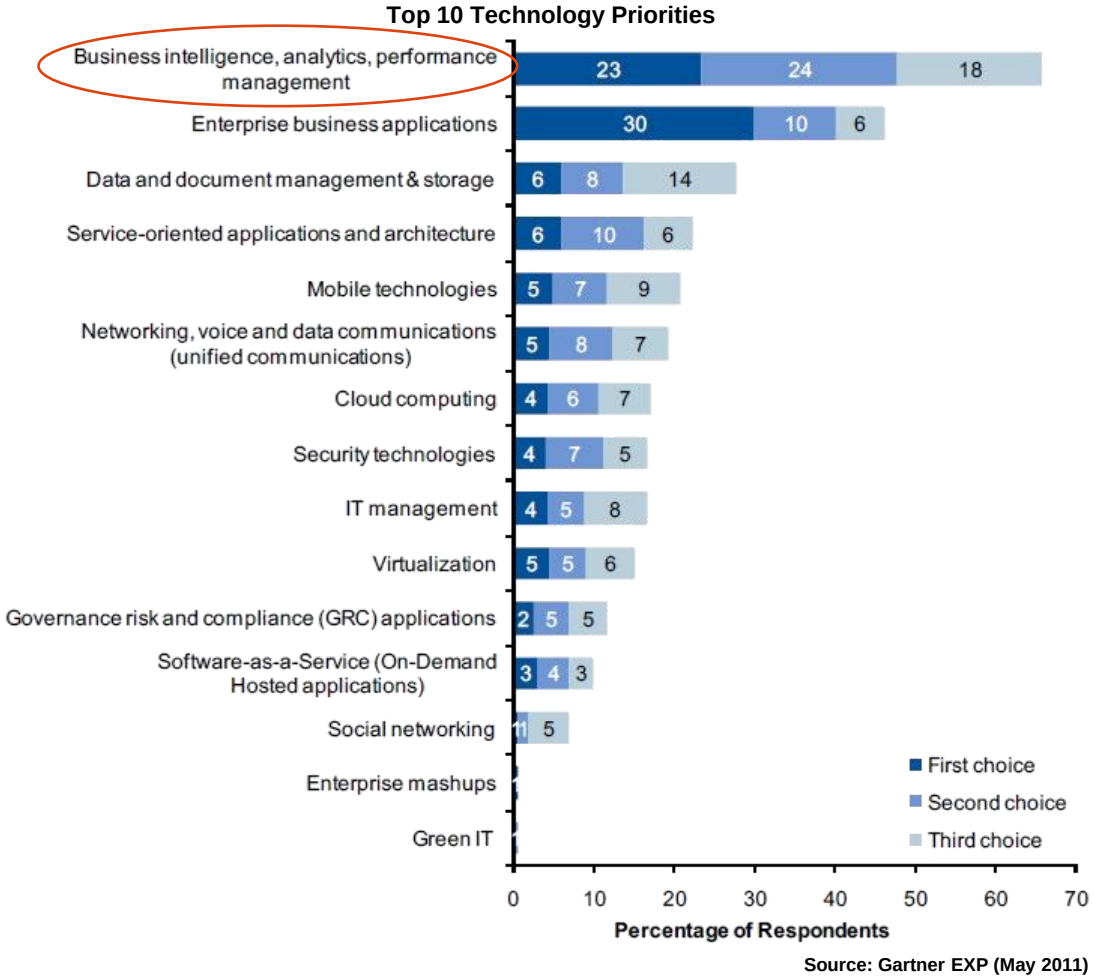
Companies that invest heavily in advanced analytical capabilities outperform the S&P 500 on average by 64%

Companies that invest heavily in developing analytical skills and adopting an analytical mindset recover quicker from economic downturns.

Overview of BI essentials

Business Intelligence in the market

Market research by Gartner believes that BI is a top priority for the majority of C-level executives. BI is about the ability to collect and analyze internal and external data can dictate how well an organization can generate knowledge, and ultimately, value.

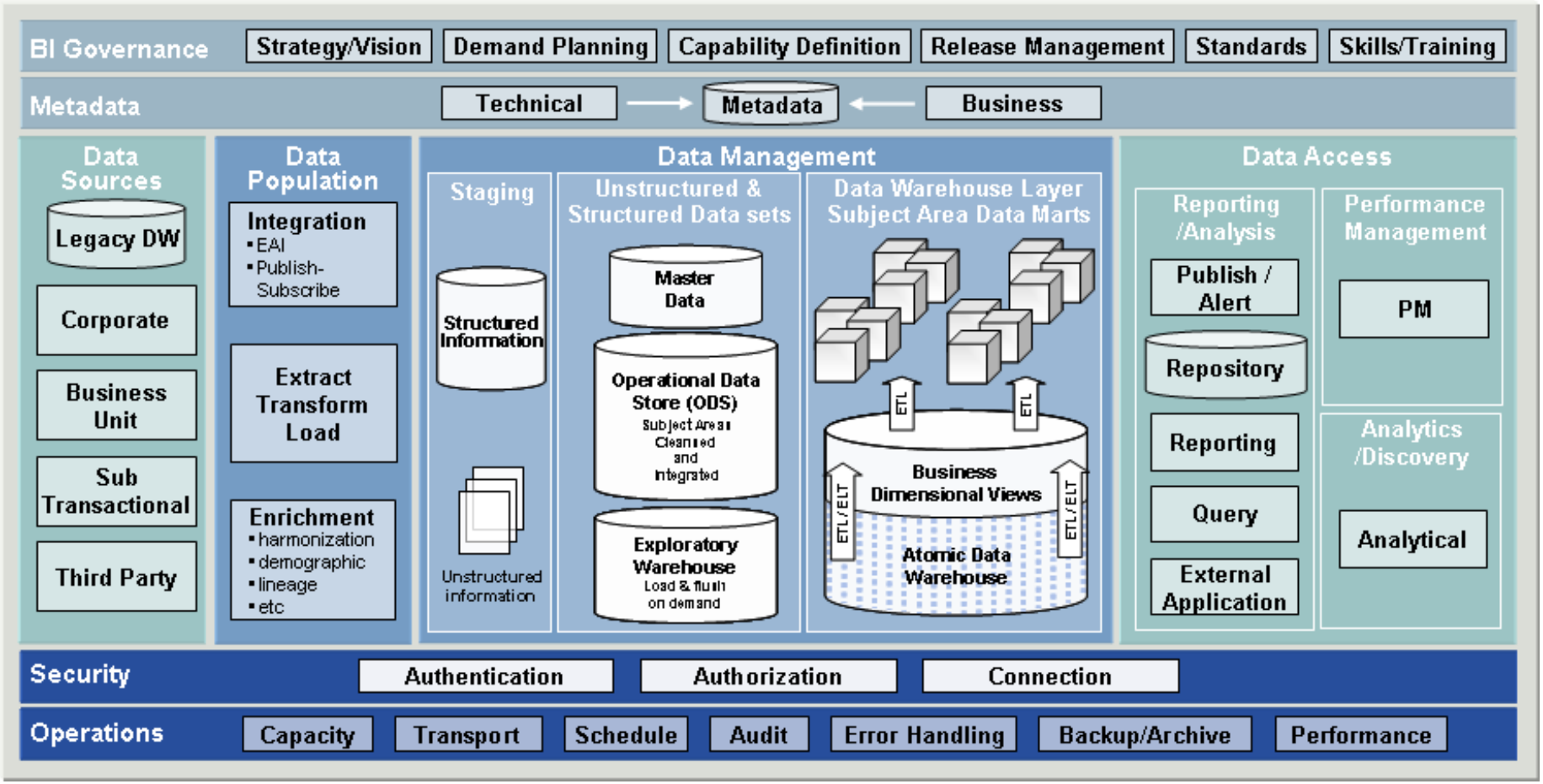


Source: Gartner EXP (May 2011)

Overview of BI essentials

BI Architecture

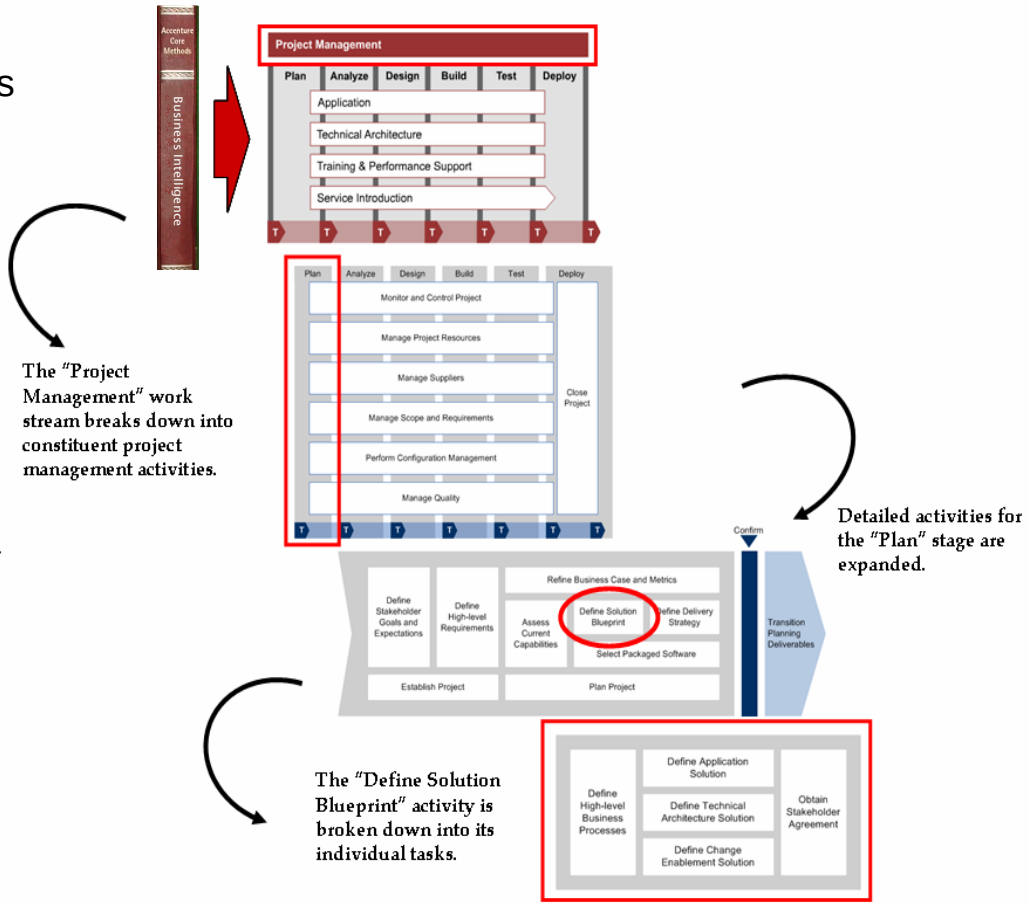
- BI Architecture ensures that the data that underlies an organization is available, accurate, complete, and secure.
- Multiple BI architectures exist. Each architecture has it pro's and con's
- Effective data architecture relies on Processes, People and Technology



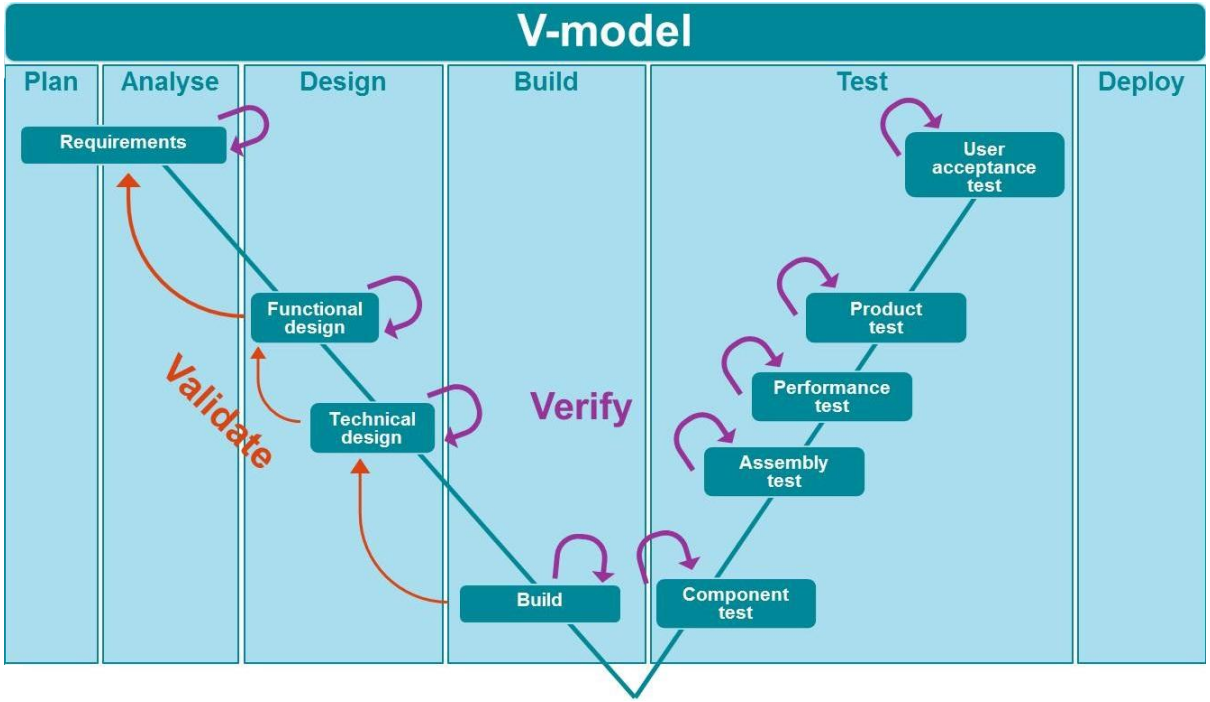
Methodology in a nutshell

A key success factor for the delivery of Business Intelligence projects is a structured and proven methodology:

- The ADM for Business Intelligence incorporates Accenture's implementation experience **harvested from real life engagements**
- It provides a **full set of process and sample deliverables** covering all aspects of a system implementation and across all project phases.
- As well as tasks for the design and development of the system components, ADM is a **complete methodology** that defines the project approach for project management, data migration and cutover, change management, quality management and risk management.
- ADM also provides a standard estimator tool **including off shore components**.



Methodology based on the V-model

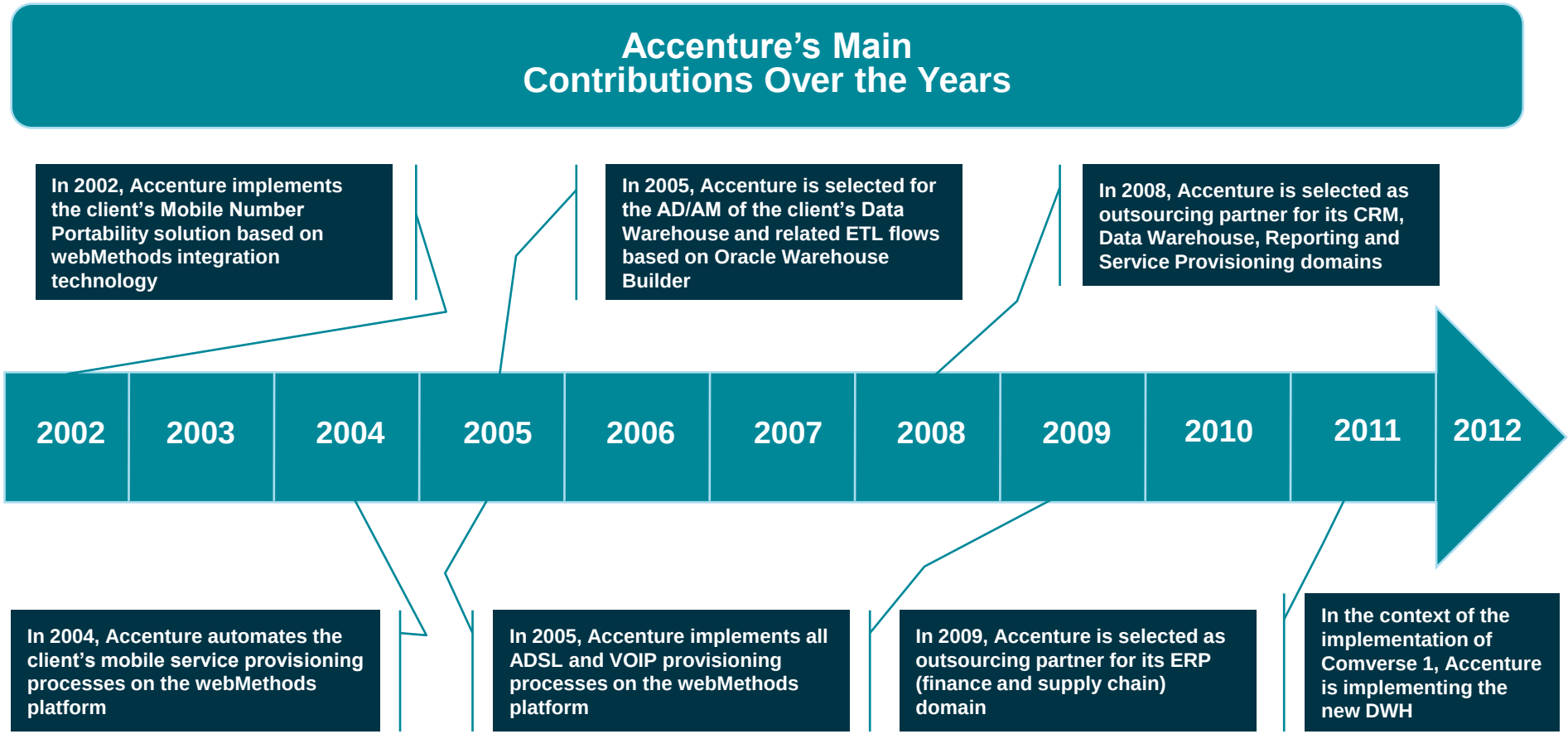


- 3 key words
  - **Validation**: Doing the right thing
  - **Verification**: Doing it the right way
  - **Testing**: Right things working right
- To avoid rework there is a validation and test step included for each phase in the development lifecycle
- The earlier issues are discovered and treated, the lower the cost

Mobistar case context

Mobistar & Accenture partnership

Mobistar is a major Belgian Operator delivering mobile telephony and fixed telephony solutions to sole traders, small and medium enterprises and large companies.



Mobistar case context

Introduction to customer case management

Global context:

Due to the recent **negative media attention** for **customer service** in the telecommunications market the client, Mobistar, is investing in **a new cross-enterprise platform** that would improve customer service and enable **close follow-up**

BI requirements:

- Provide a solid base for **management reporting and analysis** on **case management** and **customer interaction** data in order to gain a profound insight in and a true control of the case management and customer interaction subject areas.

- Organise case management and customer interaction data in an **understandable way**, allowing for **query performance and extensibility**.

- Lay the basic foundation for **future integration** of the case management and customer interaction data with the rest of the BI infrastructure through the use of **conformed dimensions**.

2. Mobistar case

Input:

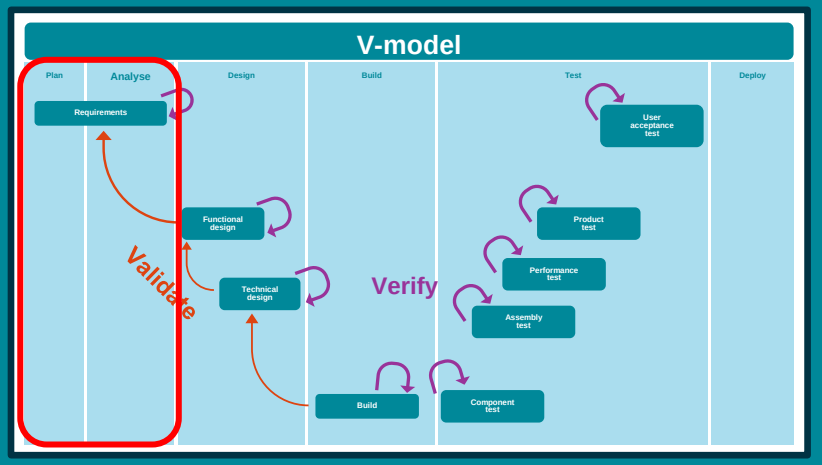
- Reporting needs
- Business processes

Output:

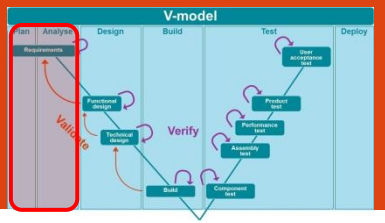
- Project scope
- Requirements traceability matrix

REQUIREMENTS

Typical Role(s): Business Analyst

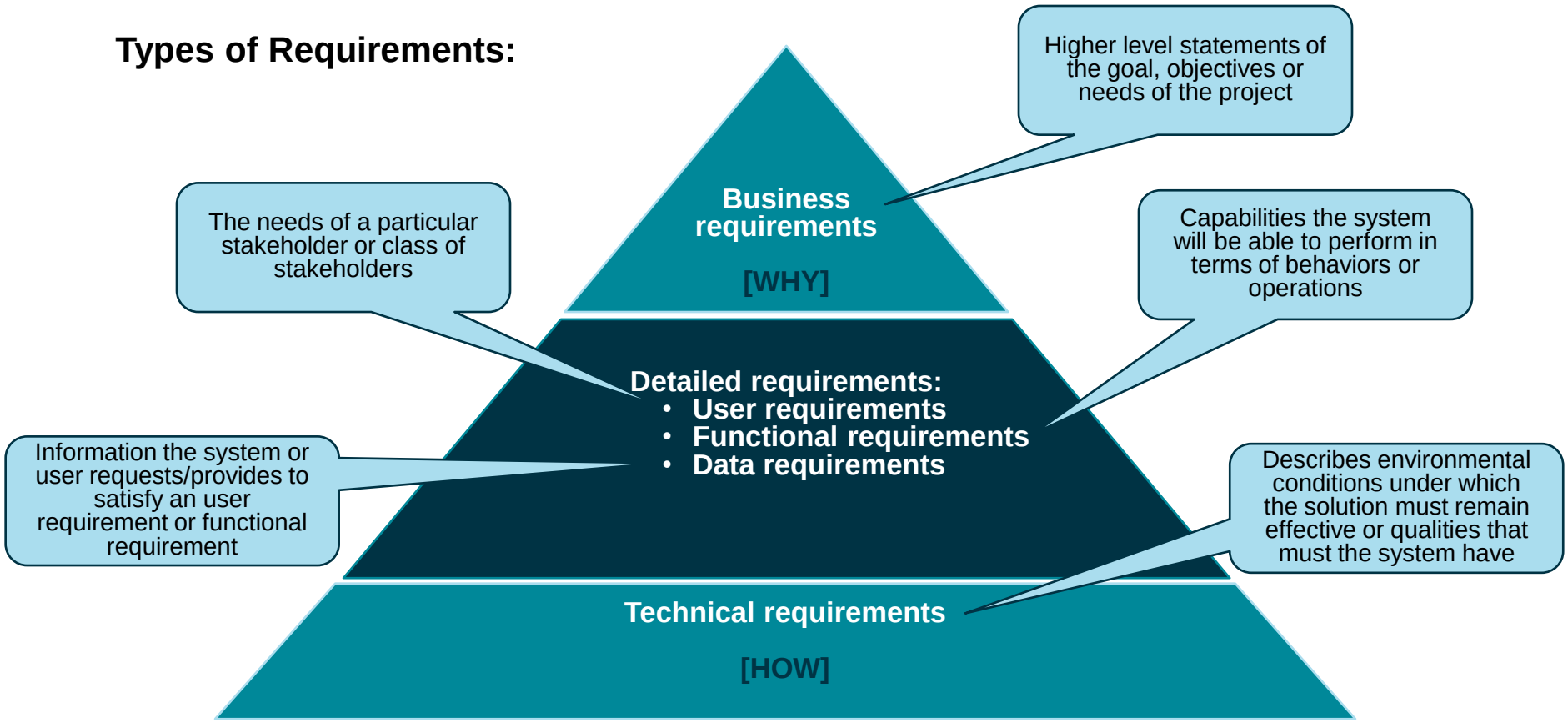


Requirements
Type of requirements

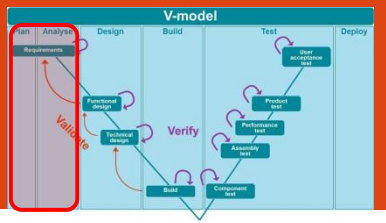


The requirements for the data warehouse and ETL are based on the reporting requirements.

Types of Requirements:



Requirements
Type of requirements



The requirements for the data warehouse and ETL are based on the reporting requirements.

Examples:

Provide a solid base for management reporting and analysis on case management and customer interaction data

Get the number of cases per customer, contract, case, problem area, agent, group queue

Build and maintain a daily snapshot storing the open cases

Business requirements

[WHY]

Detailed requirements:
- **User requirements**
- **Functional requirements**
- **Data requirements**

Keep history of open cases

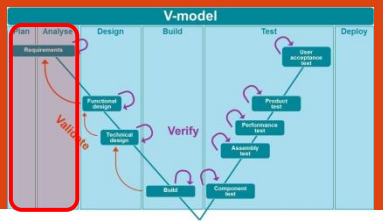
Data must be available at 8 am

Technical requirements

[HOW]

Requirements

Requirements gathering



The way to gather requirements should be adapted to the client's organization or group dynamics.

Requirements gathering methods:

- Individual interviews
- Joint workshops
- Document exchange

Attention points:

BEFORE

- Gather knowledge on the subject area
- Prepare documents
- Identify business users

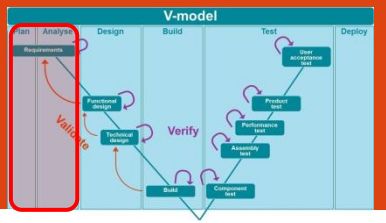
DURING

- Maintain detailed documentation
- Clearly explain your goal
- Regularly summarize your understanding as a first validation step

AFTER

- Send meeting minutes as a form of validation
- Summarize all requirements into a single, detailed document

Requirements
Example Deliverables



The outcome of this phase should be a single document containing all requirements, validated by all business users.

Detailed Requirements

Detailed	Related	Requirement Name	Requirement Type	Priority	Release	Long Description	Business Process	In/Out	Status	Owner	Change	Notes

Requirements Traceability Matrix

Detailed Requirements					Analysis Stage		Technical Design Stage		Build Stage		User Acceptance Test Stage	
Requirement ID	Short Description	Release Number	Priority (H, M, L)	Business Requirement ID or SOW Reference	Functional Component Reference	Functional Design Document	Technical Component Reference	Technical Design Document	Code Object / Component Reference	Code Interface / Graph	Test Script Reference	Test Condition Reference
1.1	The system must allow to answer the following question: How many subscribers do we have?	DWHV4	H	1	§ 3.7 Subscriber Dimension	Oxygen - DFS Common Dimensions vx.x.x.docx						
1.2	The system must allow to answer the following question: How many accounts do we have?	DWHV4	H	1	§ 3.6 Account Dimension	Oxygen - DFS Common Dimensions vx.x.x.docx						
1.3	The system must allow to answer the following question: How many offer and bundle instances do we have?	DWHV4	H	1	§ 3.5 Offer Dimension	Oxygen - DFS Common Dimensions vx.x.x.docx						
1.4	The system must allow to answer the following question: What happened during the subscriber's lifetime?	DWHV4	H	1								
1.5	The system must allow to answer the following question: What happened during the account's lifetime?	DWHV4	H	1								
1.6	Build and maintain the installed base	DWHV4	H	1								
1.6.1	The granularity of the installed base should be instantiated offers and bundles	DWHV4	H	1								
1.6.2	The installed base must be enriched with Account information	DWHV4	H	1								
1.6.3	The installed base must be enriched with subscriber information	DWHV4	H	1								
1.6.4	The installed base must be enriched with offer or bundles details	DWHV4	H	1								
1.6.5	The installed base must be enriched with offer or bundles instance details	DWHV4	H	1								
1.6.7	The installed base must be enriched with device information	DWHV4	H	1								
1.7	Track each Offer and/or Bundle movement	DWHV4	H	1								
1.7.1	The granularity of the offer or bundle movement must be one line per event at offer of bundle level	DWHV4	H	1								
1.7.2	The offer or bundle movements must be enriched with offer and/or bundle	DWHV4	H	1								
1.7.3	The offer or bundle movements must be enriched with previous offer and/or bundle details	DWHV4	H	1								
1.7.4	The offer or bundle movements must be enriched with offer and bundle instance details	DWHV4	H	1								
1.7.5	The offer or bundle movements must be enriched with account information	DWHV4	H	1								
1.7.6	The offer or bundle movements must be enriched with subscriber information	DWHV4	H	1								

Document Control | Business Requirements | Detailed Requirements | RTM

2. Mobistar case

Input:

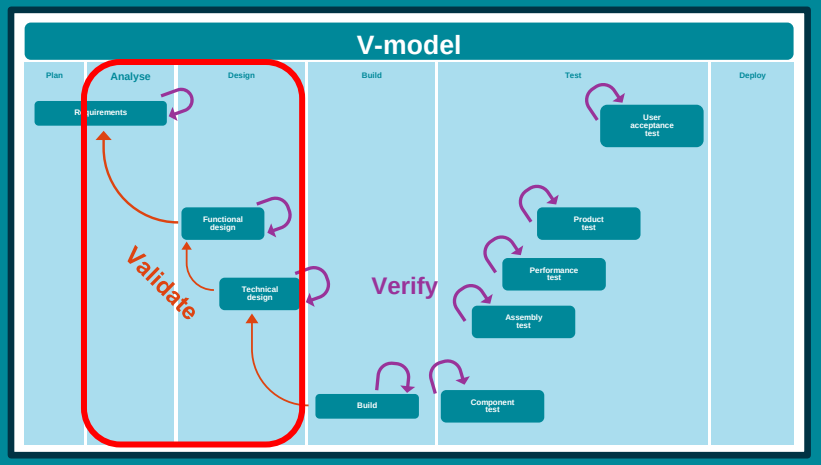
- Requirements traceability matrix
- Existing applications

Output:

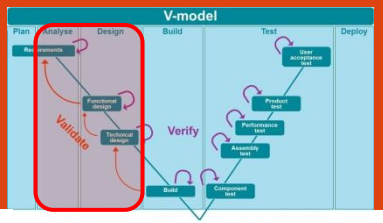
- Functional design
- Technical design
- Test plan

ANALYSE & DESIGN

Typical Role(s): Functional Analyst



Analyse & Design
Dimensional modeling



While no unique solution exists, it is imperative to use a common modelling approach and technique throughout the entire data warehouse/organization.

Common modelling techniques

Normalized

- Several levels exist (NF)
- No redundancy

Dimensional

Snowflake

- One concept, multiple dimensions
- Reduces storage need

Star

- One concept, one dimension
- Reduces reporting effort

Common modelling approaches

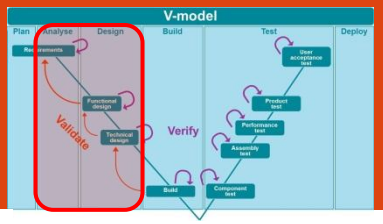
Inmon

An enterprise has **one data warehouse**, and data marts source their information from the data warehouse. In the data warehouse, information is stored in **3rd normal form**.

Kimball

Data warehouse is the **conglomerate** of **all data marts** within the enterprise. Information is always stored in the **dimensional model** on the **atomic** level

Analyse & Design
Dimensional modeling



Below an example of reporting (star) data model of the DWH

Account dimension
- Account key
- Account name
- Account status
- …

Case dimension
- Case key
- Case problem area
- Case description
- …

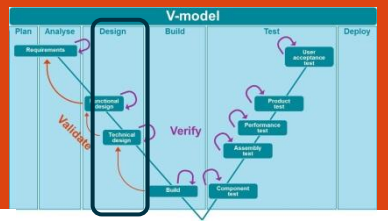
Open cases snapshot
- Date key
- Case key
- Account key
- Agent key
- Group queue key
- Case age

Group queue dimension
- Group queue key
- Group queue name
- Group queue focus
- …

Date dimension
- Date key
- Date
- Day
- …

Agent dimension
- Agent key
- Agent name
- Agent department
- …

Analyse & Design
Dimensional modeling



Below an example of logical data model mapped onto the physical data model

DIM_ACCOUNTS

column name	data type
acct_key	number(20)
acct_nm	varchar2(50)
acct_status_cd	char(1)
…	

DIM_CASES

column name	data type
case_key	number(20)
case_problem_area_desc	varchar2(50)
case_desc	varchar2(100)
…	

FACT_OPEN_CASES

column name	data type
date_key	number(20)
case_key	number(20)
acct_key	number(20)
agt_key	number(20)
grp_queue_key	number(20)
case_age_num	number(8)

DIM_GROUP_QUEUES

column name	data type
grp_queue_key	number(20)
grp_queue_nm	varchar2(50)
grp_queue_focus_desc	varchar2(100)
…	

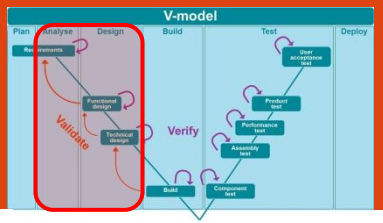
DIM_DATES

column name	data type
date_key	number(20)
date	datetime
day	varchar2(20)
…	

DIM_AGENTS

column name	data type
agt_key	number(20)
agt_nam	varchar2(50)
agt_depart_nm	varchar2(50)
…	

Analyse & Design
Reporting



Example report: the report should show **the case with the customer** and should contain **a standard filter** “most recently created case for every active customer (customer_status = A)”.

Report 1

Filter

DIM_ACCOUNTS

column name	Business name
acct_key	Hidden (key
acct_nm	Customer Name
acct_status_cd	Customer Status code

DIM_CASES

column name	Business name
case_key	Hidden (key)
case_problem_area_desc	Case Problem Descriptions
case_desc	Case Description
…	

FACT_OPEN_CASES

column name	Business name
date_key	Hidden (key)
case_key	Hidden (key)
acct_key	Hidden (key)
agt_key	Hidden (key)
grp_queue_key	Hidden (key)
case_age_num	Hidden (key)

DIM_GROUP_QUEUES

column name	Business name
grp_queue_key	Hidden (key)
grp_queue_nm	Queu Grop Name
grp_queue_focus_desc	Queu Group Focus
…	

DIM_DATES

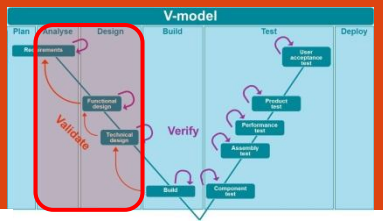
column name	Business name
date_key	Hidden (key)
date	Date Time
day	Day of Week
…	

DIM_AGENTS

column name	Business name
agt_key	Hidden (key)
agt_nam	Agent Name
agt_depart_nm	Agent Departement Name
…	

Analyse & Design

Extract, Transform and Load



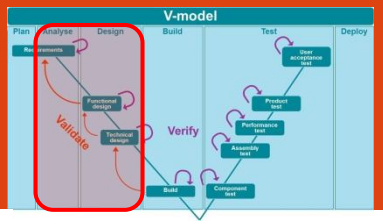
Based on the requirements, identify all the entities and attributes required

The system has to provide sufficient detail for answering the following:

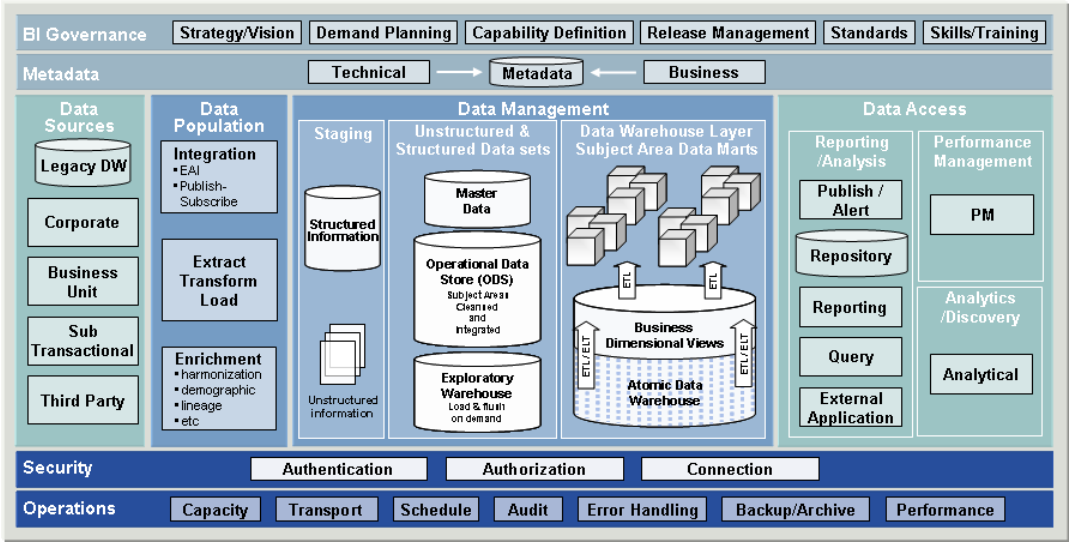
- **How many cases per customer, contract, problem area, agent, group queue**
- **How many cases are opened and closed during a defined period**
- **How many cases are assigned to a specific group or a specific agent**
- **Calculate the team performance (difference between the closure date and the first assignment date)**
- **Who initiates the session for who?**
- **…**

- **Case**
  - **Status (Open, Closed, …)**
  - **Date & Time**
  - **First Assignment Date**
  - **Closure Date**
- **Group Queue**
- **Point Of Sales / Agent**
- **Team**
- **Session**
- **Problem Area**
- **Customer**
- **Contract**

Analyse & Design
Extract, Transform and Load



The Case Management operational data will be extracted from the operational system



Contract, Customer and offer data will be extracted from the data warehouse itself

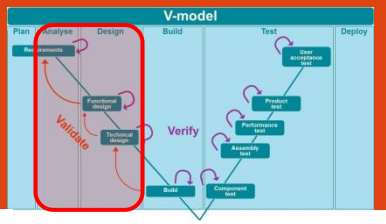
Identify the source systems that stores data related to these entities

- The source system can be:
  - an operational system
  - an ODS (Operational Data Store)
  - an external data coming from external provider
  - the data warehouse itself

➔ The guideline is **to not reinvent the wheel**, and use **the most integrated data**

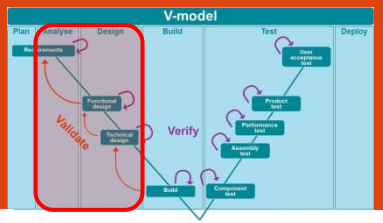
Analyse & Design

Extract, Transform and Load

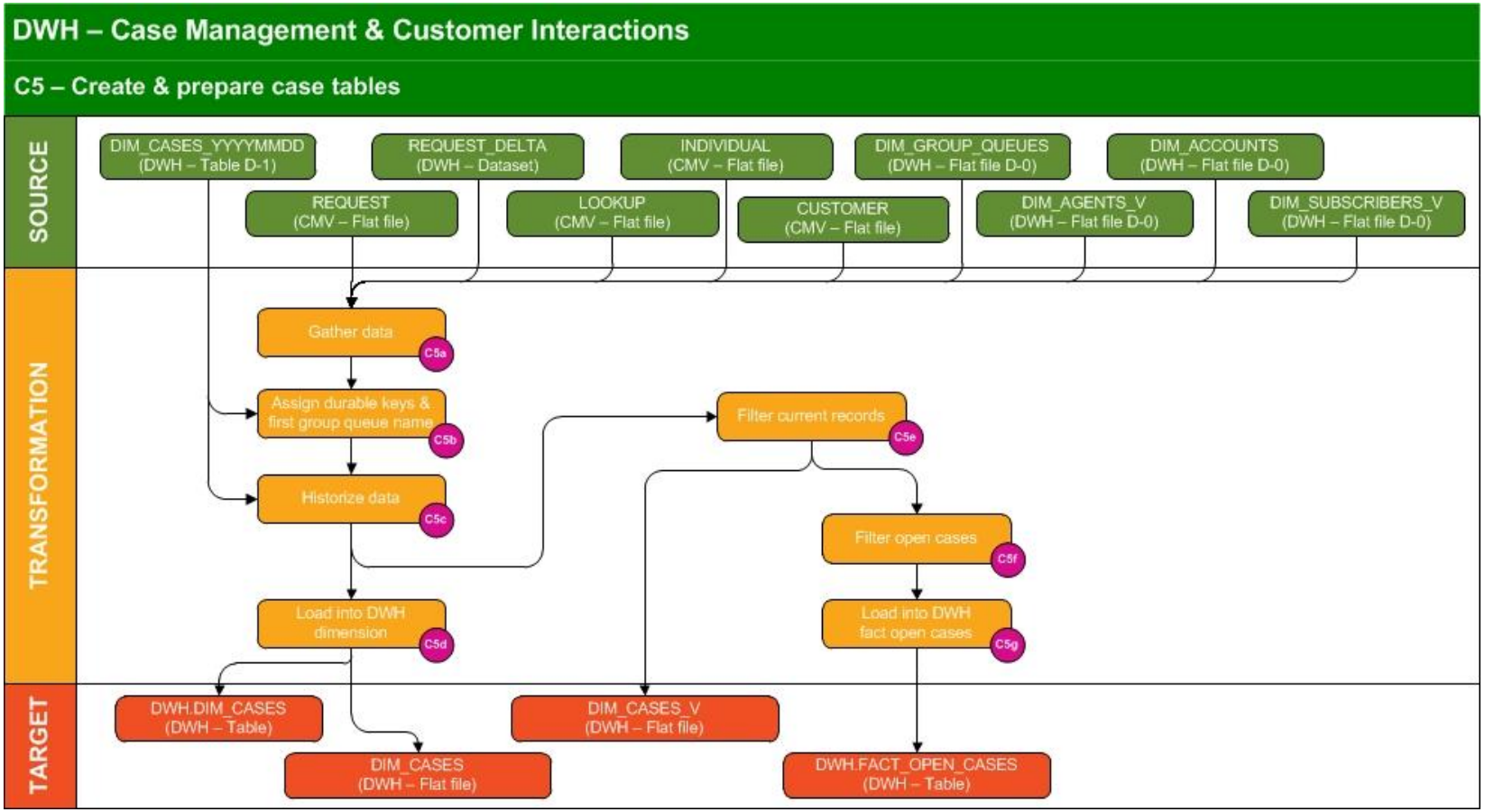


Below an example of transactional (relational) data model of a source system

Analyse & Design
Extract, Transform and Load



It is recommended to provide visual representations of the functional design to enable a quick high-level understanding



2. Mobistar case

Input:

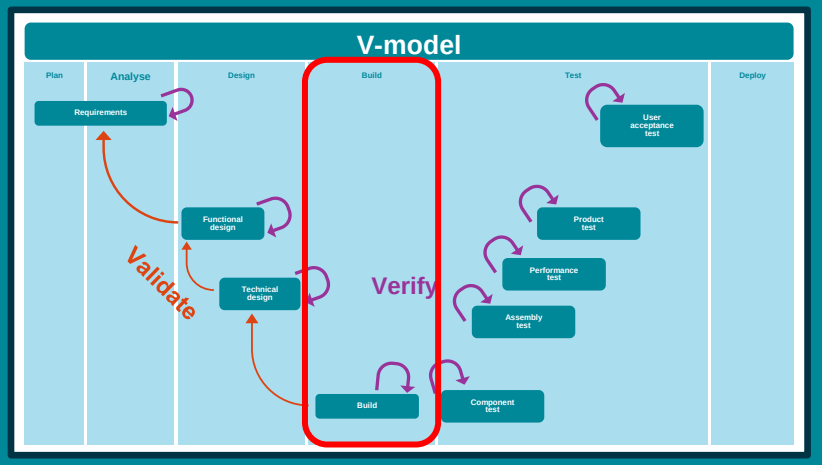
- Functional design
- Technical design
- Client / Accenture coding guidelines

Output:

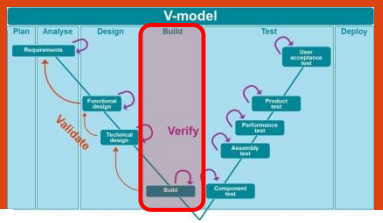
- Code
- Installation guide

BUILD

Typical Role(s): Developer



Build
Extract, Transform and Load



The code should be developed such a way that it should be easy to do the mapping between the functional and the technical components

PURPOSE

This graph builds the various Dimensions and Facts required for Case Management.

MANDATORY PARAMETERS

- P_RUN_ID : run_id of the load
- V_START_LOAD_DATE : Start Date of processing period (YYYYMMDDHH24MISS)
-V_FILE_DATE_SUFFIX : Start Datetime of processing period (YYYYMMDD)
- V_END_LOAD_DATE : End Datetime of processing period (YYYYMMDDHH24MISS)
- V_OUTPUT_DML_AGENT : reusable dml to avoid embedding
- V_START_LOAD_DATE_PREV : Start Datetime of processing period -1 day (YYYYMMDD)

OPTIONAL PARAMETERS

N/A

Comments

run_id_mgt

Lookups

The functional component C5 in which the Case dimension and Open Cases daily snapshot are covered by the technical component “C5 Create & Prepare case tables”

C1 "Audit data handling"

C4 "Create session tables"

C8 "Create case notes dimension"

C10 "Create dim_event_types"

C9 "Create & prepare event tables"

C2 "Create dim_group_queues"

C5 "Create & prepare case tables"

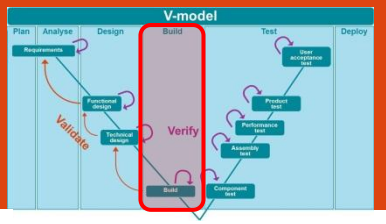
C11 "Append fact_event_log"

C3 "Create dim_agents"

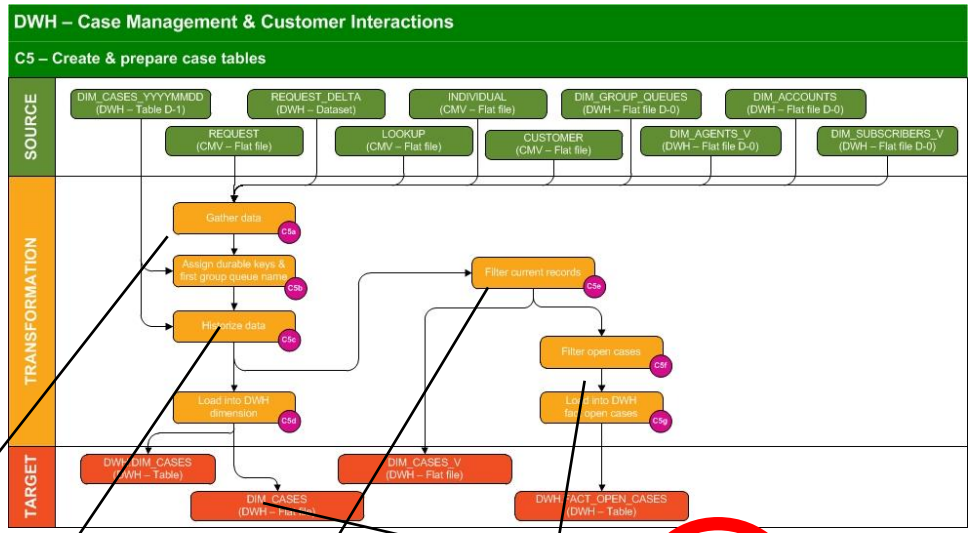
C6 "Update fact_case_milestones"

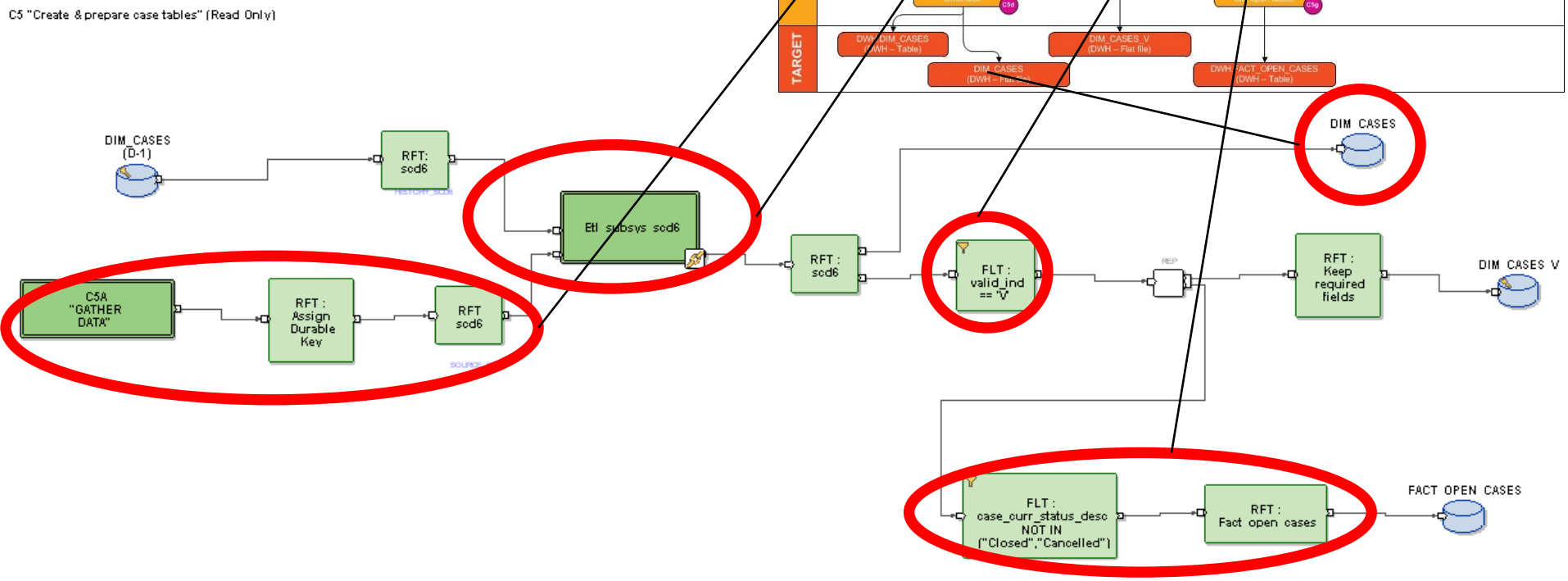
C7 "Append fact_case_transactions"

Build
Extract, Transform and Load

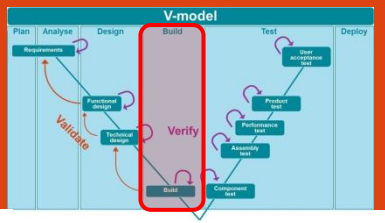


The code should be developed such a way that it should be easy to do the mapping between the functional and the technical components.





Build
Reporting



Bring in the necessary tables and start constructing the star schema. Define the logical entities (on the right hand side)

Designer - DWH - Mobile Data - [Hans De Jonghe - bomainMobistar651]

File Edit View Insert Tools Window Help

100%

- Period
- Customers
- Contracts
- Sales Agent (Historical
- Tariff Model
- Traffic
- Handset
- Measures
- Hidden

DWH.DIM_CONTRACTS
CONTRACT_NR

DWH.DIM_DEVICE_FEATURES
DIM_DEVICE_ID
46902

DWH.DIM_DEVICES
DEVICE_ID
DEVICE_NR
9774

DWH.DIM_ROAMING
ROAMING_NR
5

DWH.DIM_TARIFF_MODELS
TARIFF_MODEL_NR
1487

DWH.DIM_USAGE_SERVICES
USAGE_SERVICE_NR
135

DWH.DIM_DATES
DATE_NR

DWH.FACT_DAGG_MDATA
TICKET_TYPE_DESC
CUST_TYPE_CD
TICKET_RATING_CD
SERVED_PARTY_PHONE_NUM
SERVED_PARTY_IMSI_NUM
SERVED_PARTY_IMEI_NUM
EVENT_DTNR
APN_DESC
...

DWH.DIM_CUST_TYPES
CUST_TYPE_ID
6

DWH.DIM_CUSTOMERS
CUSTOMER_NR
22765088

DWH.DIM_ORIGIN_DESTINATIONS
(DWH.DIM_ORIGIN_DESTINATIONS)
ORIGIN_DESTINATION_NR
7203

DWH.DIM_SALES_AGENTS
SALES_AGENT_NR

DWH.DIM_TERMINATIONS
TERMINATION_NR
67

DWH.DIM_ORIGIN_DESTINATIONS
7203

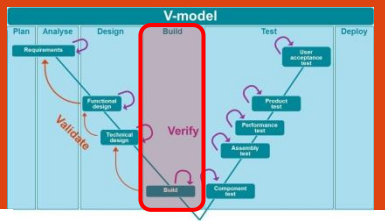
Join notation: Very Similar to EER: example Crowfeet notation

Join notation: outer join

Logical ordening

48,32 NUM

Build
Reporting



Use the metalayer to select the information you need in the report

Query Panel - PS Support Case Universe

Scope of Analysis: None

Classes and Objects

- Case
  - Case Id
  - Case Id URL
  - Case Id URL2
  - Case Quality
  - Nb of Cases
  - Last Case Id
  - Case Dates
  - Case Duration
  - Case Customer Information [CCI]
  - Case Information [CI]
  - Case Details [CD]
  - Case Incident & Whiteboard [CIW]
  - Case Technical Description [CTE]
  - Case Incident Location [CIL]
  - Case Billing & Payments [CBP]
  - Case Resolution Information [CRI]
  - Case Notes [CN]
  - Case Interested Parties [CIP]
  - Case Related Cases [CRC]
  - Case Related Objects [CRO]
  - Case History [CH]
  - Case Time Log [CTL]
  - Case Correspondence Mgt [CCM]
- Service Order
- Troubleshooting Guide Script
- Other

Result Objects

Case Creation Date Time | Case Creatio... | CCI Bscs Cu... | CCI Custom... | CCI Contact | CI Case Type
CI Level 1 | CI Level 2 | CI Level 3 | CD Phone N... | Case Creatio... | Case Creatio...
Case Creatio... | CCI Customer | CCI Custom... | CCI Contact | CMI Segment | Case Id
Case Id URL | Case Closed... | Case Closed... | CI Assigned ... | CCI Contact ... | Case Closin...
CD Error Code | CD Error Me...

Logical ordering: same as in metalayer

They select what they want to see

Conditions

And Case Creation Date Equal to Current Date - 1
And CCI Customer Different from 'ANONYMOUS'
And CCI Customer Type Not in list 'Dealers;MVNO Telenet Customer;PERMU;Team members'
And CD Source Equal to 'CTI'
And Case Creation Group Name Not in list 'ADSL Provisioning Bus;BOT Mobile;Bus Billing Support;Credit & Collection Hardware;Customer Relation;ERI/NOC;Entra;HiCare;ITNO/SSM/BOT/Mobile Data Team(
And CI Case Type Different from 'Alert'
And CI Level 1 Different from 'Incoming Document'
And CI Level 3 Different from 'Callback'
And Case Creation Group Name Different from 'NA_%'

Filters according to their needs

Options... | Save and Close | View... | Run | Cancel

2. Mobistar Case

Test

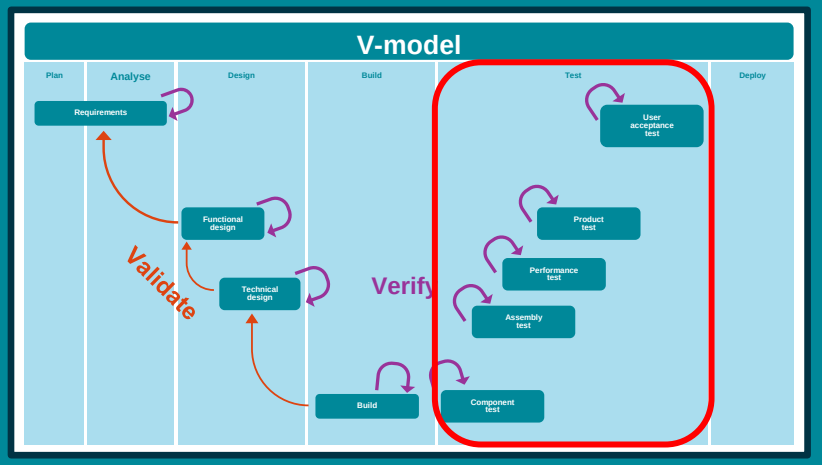
Input:

- Test plan
- Test data

Output:

- Test report

Typical Role(s): All of the above



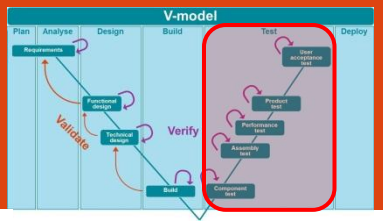
Test
Test steps

- **Preparation:**
  - Define your test approach
  - Write your test plan
  - Define your test data requirements

- **Execution:**
  - Initialise your test environment
  - Execute your test scripts
  - Log the results in a detailed manner
  - Follow-up for issues encountered (& re-test)

- **Communication:**
  - Regular meetings with the team
  - Regular reporting towards the client
    - Adapt message based on recipient's needs

Test
Test phases



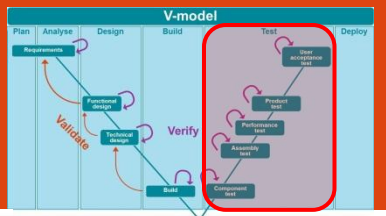
Below the different test phases are shown:

Phase	Test	Description	Example
Build	Component test	Tests each individual operation individually	code: customer_status = “A” test: count customers where status <> A
Technical design	Assembly test	Tests the sequence of individual operations	test: the application runs E2E without an error
Technical design	Performance test	Tests the performance parameters of the application	test: does the application run within 30min
Functional design	Product test	Tests if the application meets the functional design	test: for every active customer the most recent case is present
Requirements	User Acceptance Test	Tests if the application meets the business requirements	test: all recent cases for each customer are present

Integrated across DWH and Reporting

Test

Example deliverable



Test Cycle ID	Test Cycle Name	Test Script ID	Test Script Name	Test Script Type	Test Data Prerequisite	Test Script Description	Test Script Expected Result	SQL
TC_05	Case Dimension	TS_76	New case	Delta	TD_82	Identify a new case in the source and check the source_id in the dimension. The new case should be added to the table and should have received a new case	The new case was added and has received a new durable case key	
TC_06	Open Cases Fact	TS_77	Open cases count	Regular	TD_72 - TD_73	Check that the number of open cases in the dimension corresponds to the number of records in the fact table (for a certain date)	The number of open cases in the dimension corresponds to the number of records in the fact table	SELECT * FROM DIM_CASES WHERE case_curr_status_desc NOT IN ('Closed','Cancelled') AND valid_ind = 'Y'; SELECT * FROM FACT_OPEN_CASES WHERE date_key = ???;
TC_06	Open Cases Fact	TS_78	Case age	Regular	TD_62	Check for at least 5 open cases if the case age is correctly calculated (date_key 23:59:59 - creation_dttm)	The case age is correctly calculated	SELECT case_key, (TO_DATE(????????235959,'YYYYMMDDHH24MISS') - case_creation_dttm) AS elapsed_time, case_creation_dttm FROM DIM_CASES WHERE valid_ind = 'Y';
TC_06	Open Cases Fact	TS_79	Case quantity	Regular	N/A	Check that for all records the value for case_qty is equal to 1	For all records the value for case_qty is equal to 1	SELECT * FROM FACT_CASES WHERE case_qty <> 1;
TC_06	Open Cases Fact	TS_80	Account	Regular	TD_83	Check for 5 sessions in the fact table if the account which it is linking too is the correct one	The account which the record is linking too is the correct one	SELECT fc.case_key, dc.case_source_id, dc.case_source_cd, da.acct_source_id, da.acct_source_cd FROM FACT_CASES fc, DIM_CASES dc, DIM_ACCOUNTS da WHERE fc.case_acct_key = da.acct_key AND fc.case_key = dc.case_key; SELECT * FROM REQUEST req

Test Script ID	Requirement Type	Delta?	Source	Description	Comment	SQL
TD_81	Data	Delta		There must be at least one case that existed in the previous extract and that has changed its assigned_group_queue_id (and that had a value before)		SELECT * FROM ETL_REQUEST hist, ETL_REQUEST curr WHERE hist.drop_no = 1 AND curr.drop_no = 2 AND hist.request_id = curr.request_id AND hist.assigned_group_queue_id IS NOT NULL AND hist.assigned_group_queue_id <> curr.assigned_group_queue_id;
TD_82	Data	Delta		There must be at least one case record that did not exist in the previous extract		SELECT * FROM ETL_REQUEST curr WHERE curr.drop_no = 2 AND NOT EXISTS (SELECT * FROM ETL_REQUEST hist WHERE hist.drop_no = 1 AND curr.request_id = hist.request_id);
TD_83	Data	Regular		There must be at leaste one case record with an obsolete_flag set to 0 and a value for customer_id that exists (with obsolete_flag = 0) in CUSTOMER		SELECT * FROM ETL_REQUEST rq WHERE rq.customer_id IS NOT NULL AND rq.obsolete_flag = 0 AND EXISTS(SELECT * FROM CUSTOMER cust WHERE cust.obsolete_flag = 0 AND rq.customer_id = cust.customer_id);
TD_84	Data	Regular		There must be at leaste one case record with an obsolete_flag set to 0 and a value for individual_contact_id that exists (with obsolete_flag = 0) in INDIVIDUAL		SELECT * FROM ETL_REQUEST rq WHERE rq.individual_contact_id IS NOT NULL AND rq.obsolete_flag = 0 AND EXISTS(SELECT * FROM INDIVIDUAL ind WHERE ind.obsolete_flag = 0 AND rq.individual_contact_id = ind.individual_id);
TD_85	Data	Regular		There must be at leaste one case record with an obsolete_flag set to 0 and a value for assigned_group_queue_id that exists (with obsolete_flag = 0) in GROUP_QUEUE		SELECT * FROM ETL_REQUEST rq WHERE rq.assigned_group_queue_id IS NOT NULL AND rq.obsolete_flag = 0 AND EXISTS(SELECT *

3. Offshore outsourcing

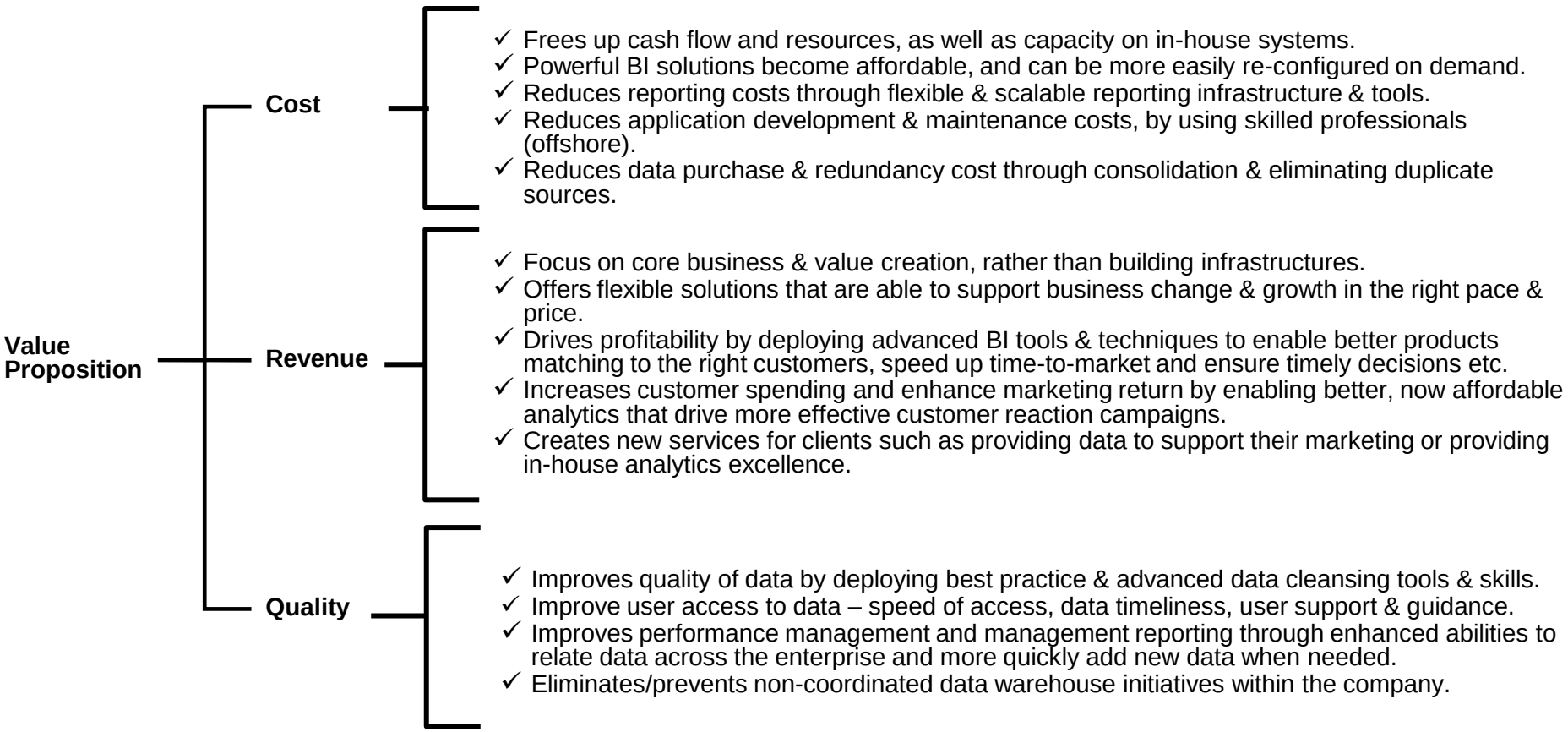
Offshore outsourcing

- Accenture has been in the outsourcing business for more than 15 years, and is a global market leader in outsourcing
- Accenture has over 40 delivery centres with approximately 120.000 employees
- They are Accenture owned, staffed by full time Accenture employees, and use the company's processes, tools and "way of working"
- IDC is ISO 27001 and CMMi Level 5 certified, and complies with Accenture's code of conduct and global policy on confidentiality

- **Outsourcing** is the process of contracting an existing business function or process of an organization to an independent organization, and ceasing to perform that function or process internally, instead purchasing it as a service
- **Offshoring** describes the relocation by a company of a business process from one country to another
- **Offshore Outsourcing** means that the business function or process is being performed by an external company in another country
  - Working with offshore/near-shore development centers is a growing business model

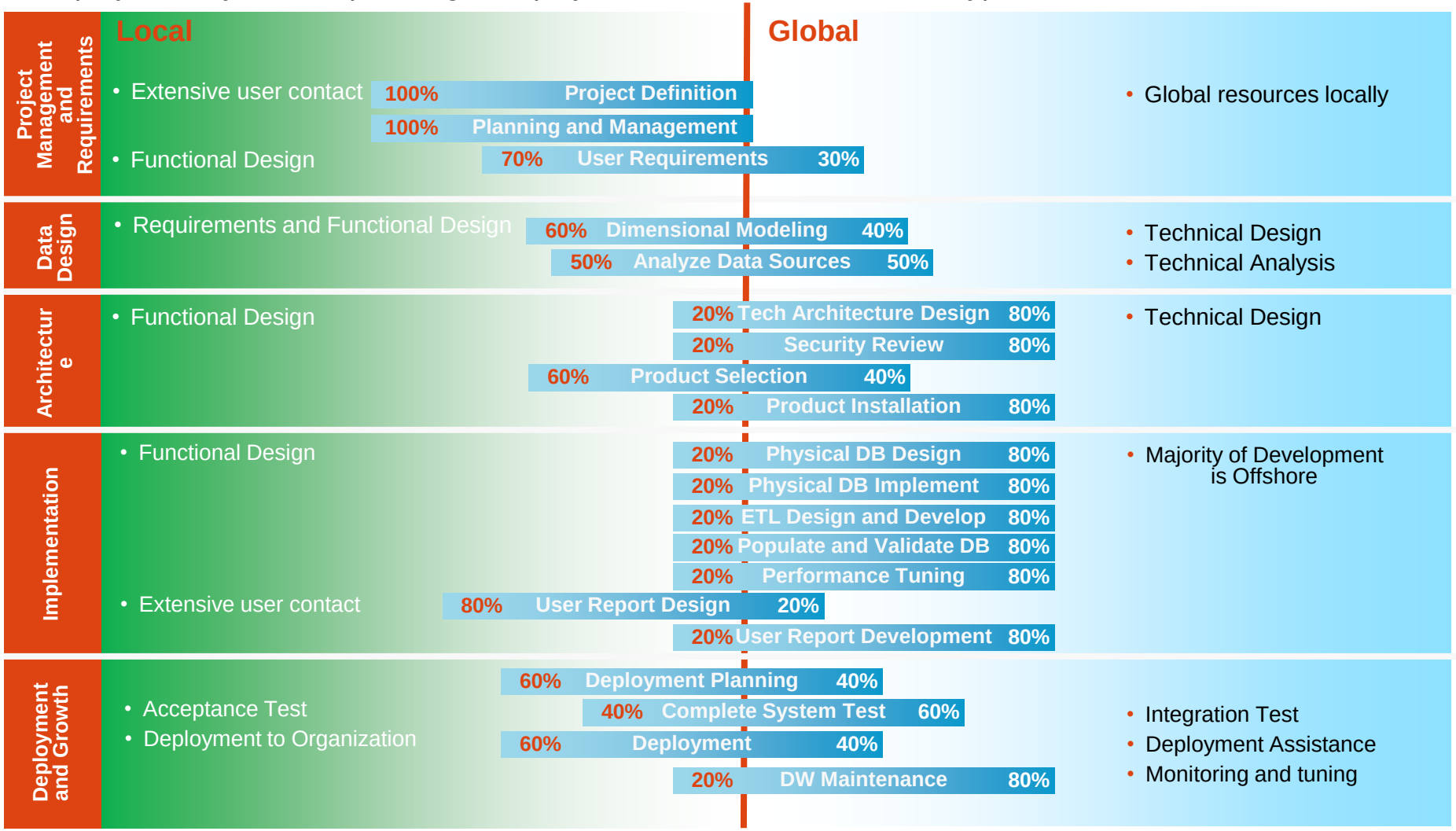
Benefits of offshoring

There are many benefits of offshoring. They are articulated around reducing cost, increasing revenue and improving quality

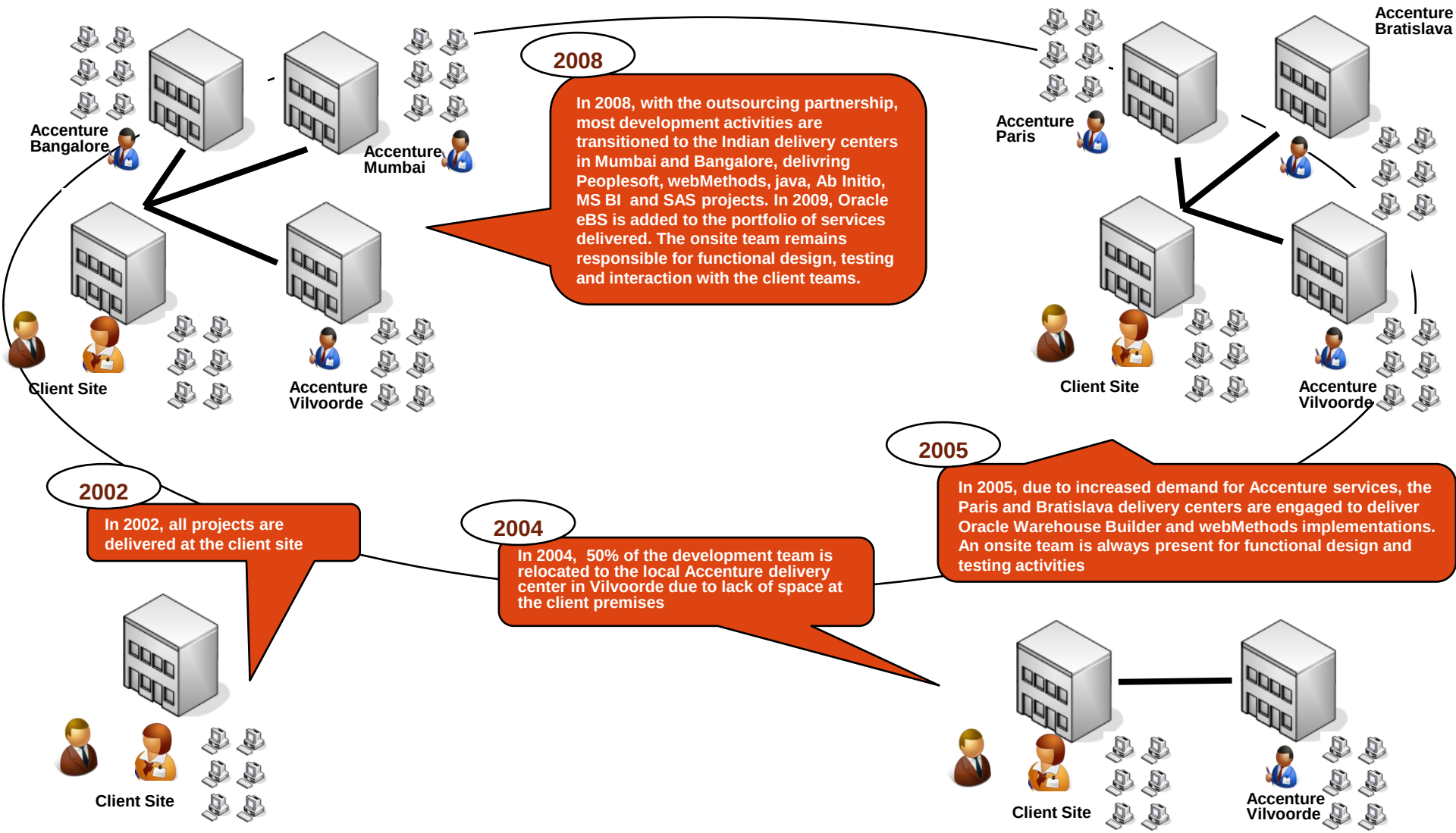


What to offshore in BI?

With Business Intelligence implementations you can expect a 40/60 (local/global) ratio on the entire project lifecycle from planning to deployment based on the resource type and functions

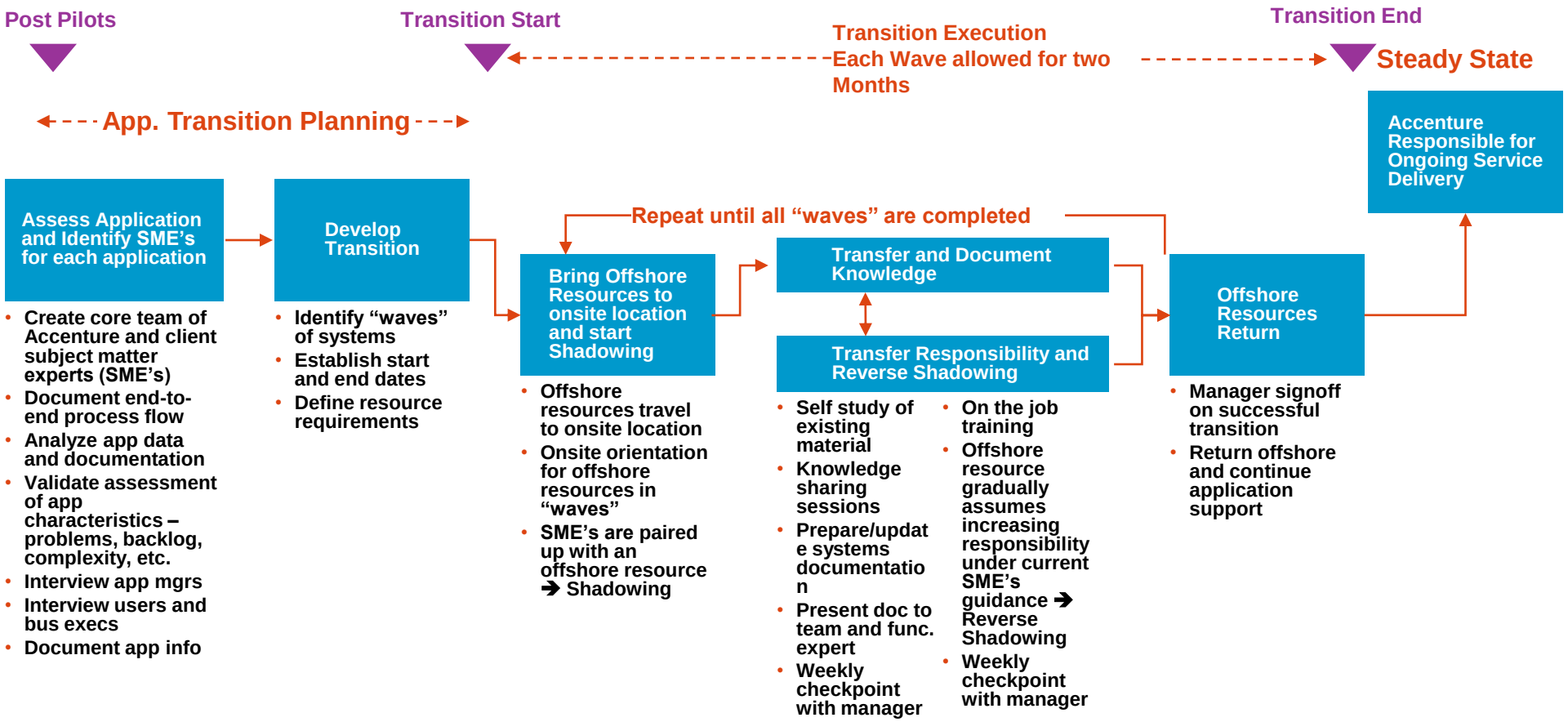


Transition to offshore at Mobistar



Offshore knowledge transfer approach

Knowledge transfer is one of the major activities in service transition lifecycle. The major activities that will be performed during the transition are depicted in the diagram below



Working With Offshore

There are some benefits and difficulties on working with offshore people:

Benefits	Difficulties
Broad and large pool of expertise	Cultural differences
Skilled and experienced in delivery	Language barrier
Flexibility in resources	High turnover
Time difference	Time difference
Procedure/Process driven	
Lower resource cost	

Working With Offshore

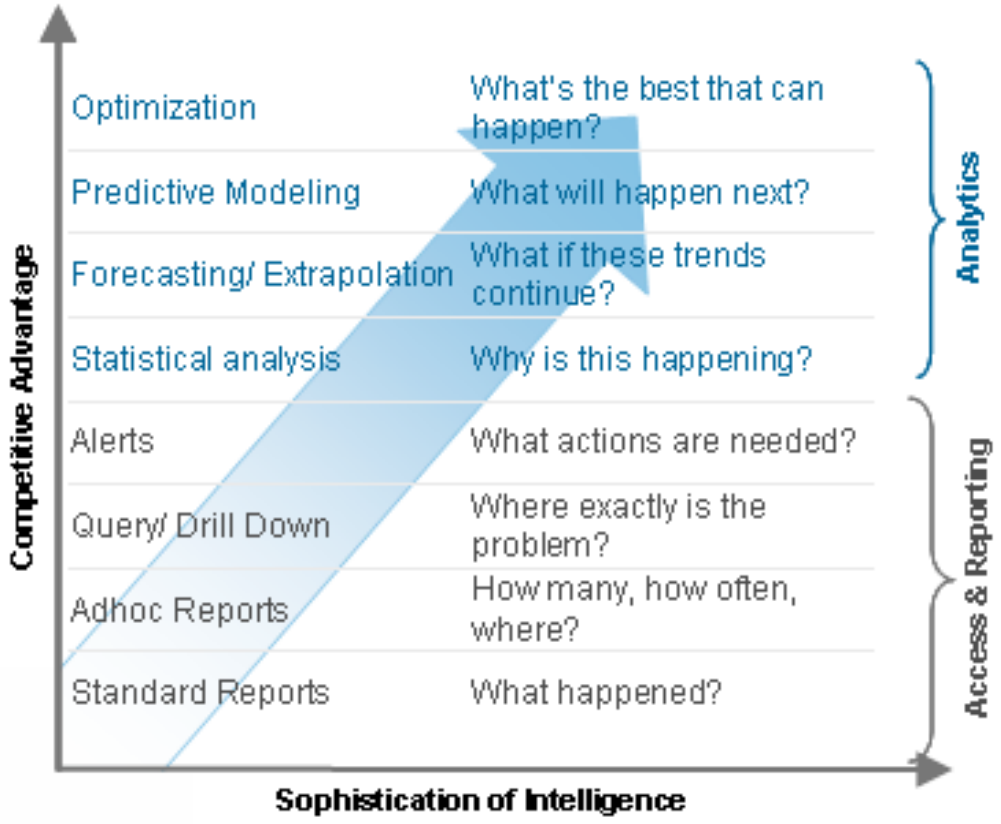
Here are some tips when working with offshore :

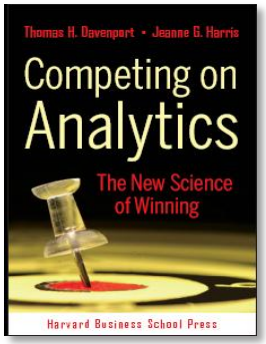
Define clear responsibilities and stick to them
Define standardized guidelines and deliverables
Provide the required applications/infrastructure
Provide a good idea of business objectives
Provide functional training / Share business knowledge
Respect their time and culture
Communicate on a regular basis (preferably by phone)
Send minutes of meetings after each meeting
Accept there is a learning curve
Show recognition for their achievements

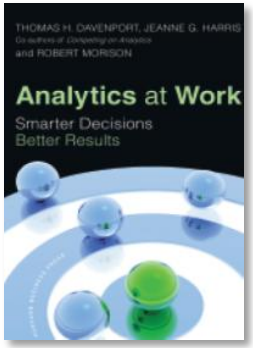
4. Introduction to analytics

Analytics: Intro

What is Analytics: Illustrative Intro







Source: Thomas H. Davenport & Jeanne G. Harris. Competing on Analytics: The New Science of Winning, Boston: Harvard Business School Press, 2007, p. 8

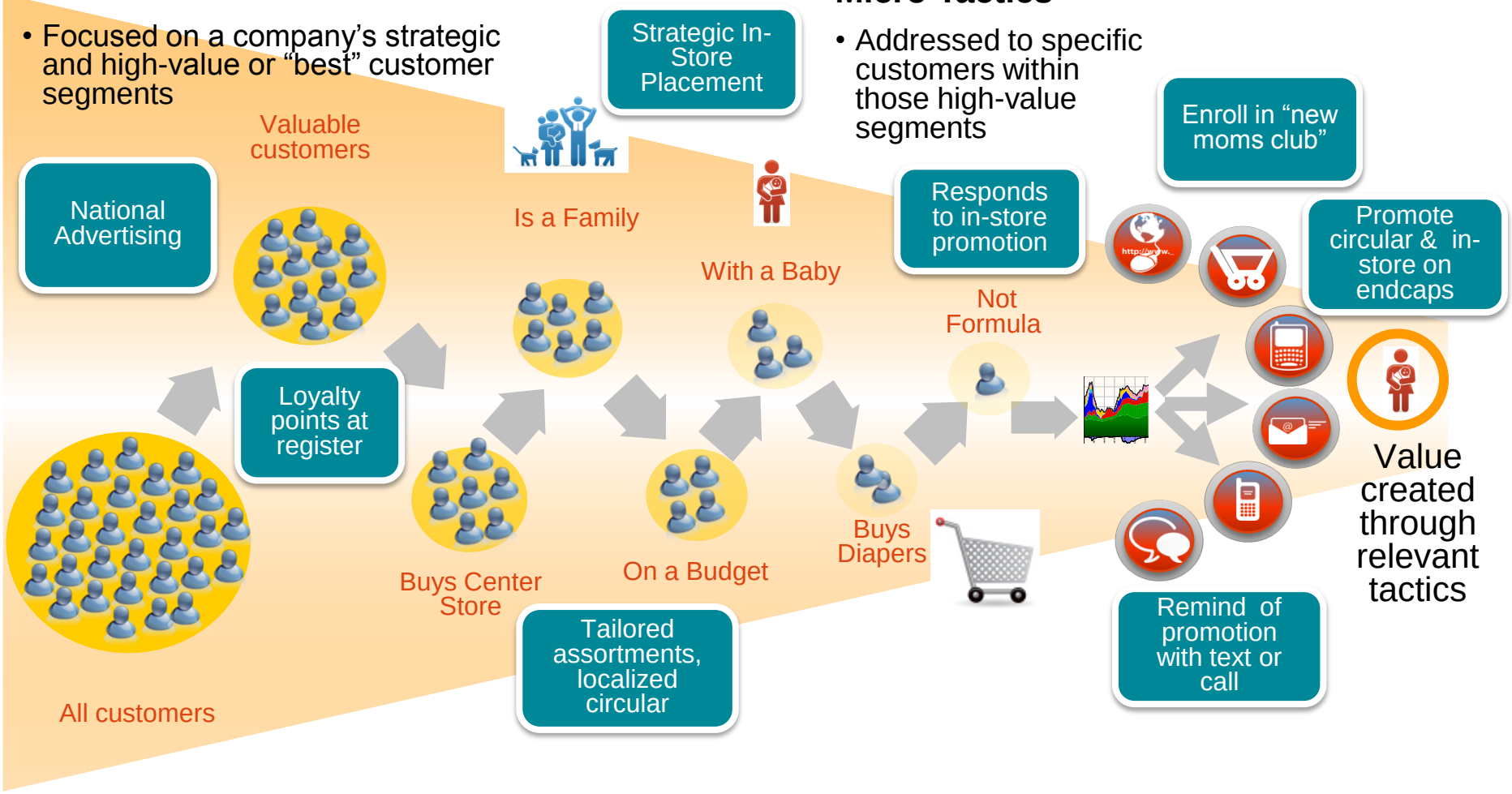
Vision: Day-in-the-life of a "customer infused" organization

Macro Tactics

- Focused on a company's strategic and high-value or "best" customer segments

Micro Tactics

- Addressed to specific customers within those high-value segments



Macro to Micro Marketing and Merchandising Activities

Start with the customer

WHICH customers are most important?

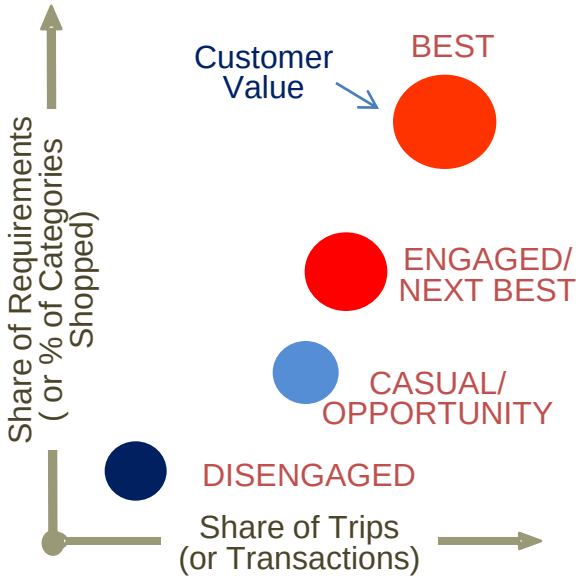
Derive INSIGHTS from your data

Be RELEVANT to your customers

Find the Value: Segment customers based on value

What to Offer: Profile customers, develop strategy based on demand, behaviors and attitudes

How to Offer It: Develop tactics across company unleash their value



What Customers Buy

- Groceries
- Clothing
- Electronics

Why Customers Buy

- Value of Company's Brand
- Advertised Price
- Social Media

How Customers Buy

- Value Brands
- Promotion seeking
- Seasonal visits

- Marketing
- Merchandising
- Operations
- Suppliers

Find the value

Mine the value

Convert the value

Data assets serve as an important foundation to becoming "customer-infused"

Does your company know…

- Who your best customers are?
- Your best customers' value?
- How to market to them?
- How to merchandise to them?
- How to drive greater loyalty?

Are you gathering valuable insights from your transaction data?

Which departments do they cross-shop?

What Private Label products do they buy?

Do they routinely respond to coupon offers?

What percentage of their baskets contain an selected product?

Customer Receipt

What items are in their market basket?

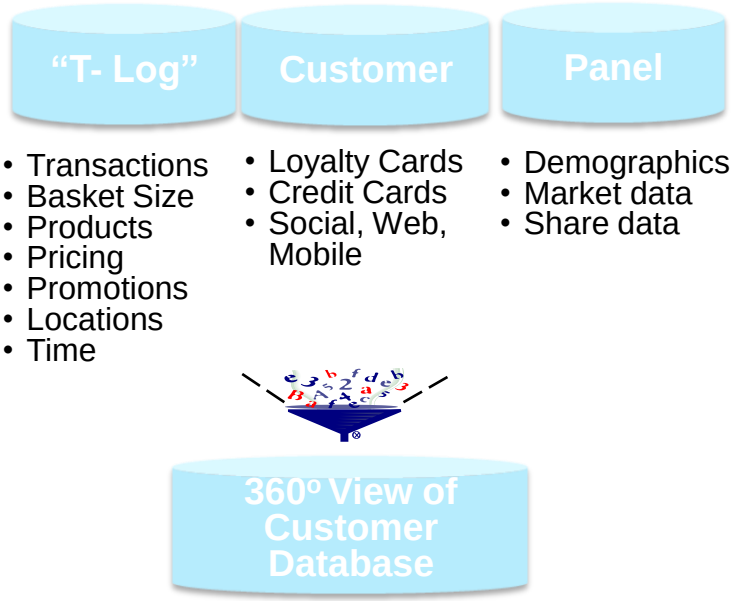
Will they respond to an offer?

Do they only buy products on sale?

What advertised items did they buy?

Customer-infused companies need to harness all of its data to provide a 360º view of its customer

Data Sources (Examples)



Allows "Micro-Customer Segmentation"

Q&A

Contact us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