

Subra Suppiah
subra@knowledgebaze.com

Balanced Scorecard 2005 Asia Pacific Conference & Hall of Fame Awards

Workshop:
Managing The Balanced Scorecard
Beyond Implementation for All
Enterprises

15th May 2005

Managing The Balanced Scorecard Beyond Implementation for All Enterprises

In order to implement a Balanced Scorecard strategy you need an effective performance management system that gathers data from diverse sources and automates the process of driving information to the management core. This workshop will be valuable if you are just starting to automate your Balanced Scorecard with your performance management applications or looking for ways to improve the management system you currently have in place. This workshop will:

- ▼ **Provide a way to automate the collection and summarization of all the data that is fed into the balanced scorecard solution.**
- ▼ **Working within existing operational, analytical, and communication tools.**
- ▼ **Integrate with other technologies and enterprise systems.**
- ▼ **Give you an understanding of the performance management technology framework**
- ▼ **Identify the various end users that will benefit from a Balanced Scorecard**
- ▼ **Analyze technology that supports the strategy implementation**
- ▼ **Choose the right set of tactics, techniques and tools**
- ▼ **Select enterprise solutions and application software**

Agenda

- ▼ **Executive Summary**
- ▼ **Introduction**
 - ▶ What is BSC automation?
 - ▶ BSC Automation – Pros & Cons
 - ▶ What are the advantages and disadvantages of automation?
 - ▶ Deciding the right time to automate
 - ▶ Choosing between Custom-built BSC software vs Excel/Powerpoint
- ▼ **BSC Automation Software**
 - ▶ Types of Offerings & Technologies
 - ▶ Gartner on BSC
 - ▶ BSCol BSC Certified Software
 - ▶ BSC Glossaries
 - ▶ BSC ER Model
 - ▶ BSC Sample Flow
- ▼ **BSC Software Selection Process**
- ▼ **BSC Software 101**
 - ▶ Scoring
 - ▶ Analysis & Reporting
 - ▶ Alert Management & Email Communication
 - ▶ Mobile/PDA integration
 - ▶ Cascading
- ▼ **BSC Software 10 Must Have features**

Agenda

..continued

- ▼ **BSC Technical Architecture**
 - ▶ Technical Architecture Alternatives
 - ▶ ETL Process
 - ▶ Why Web-based Data Entry vs Excel?
- ▼ **BSC Automation Implementation Approach**
 - ▶ Methodology
 - ▶ Implementation Timeline
 - ▶ Deliverables
 - ▶ Resource Plan
 - ▶ Standard Templates
- ▼ **Challenges in Automation/Lessons learned**
- ▼ **Case Studies**
- ▼ **Q & A**
- ▼ **Demonstration of BSCol BSC Certified Software**
 - ▶ PBView
 - ▶ Business Object
- ▼ **Closing**



▼ Corporate Highlights

- ▶ KnowledgeBaze is a local Malaysian ICT firm specializing Performance Management and Business Intelligence.
- ▶ Incorporated in 1998; with more than 35 staffs
- ▶ A MSC Status company & MOF registered
- ▶ Implementing SEI-CMM Level 5

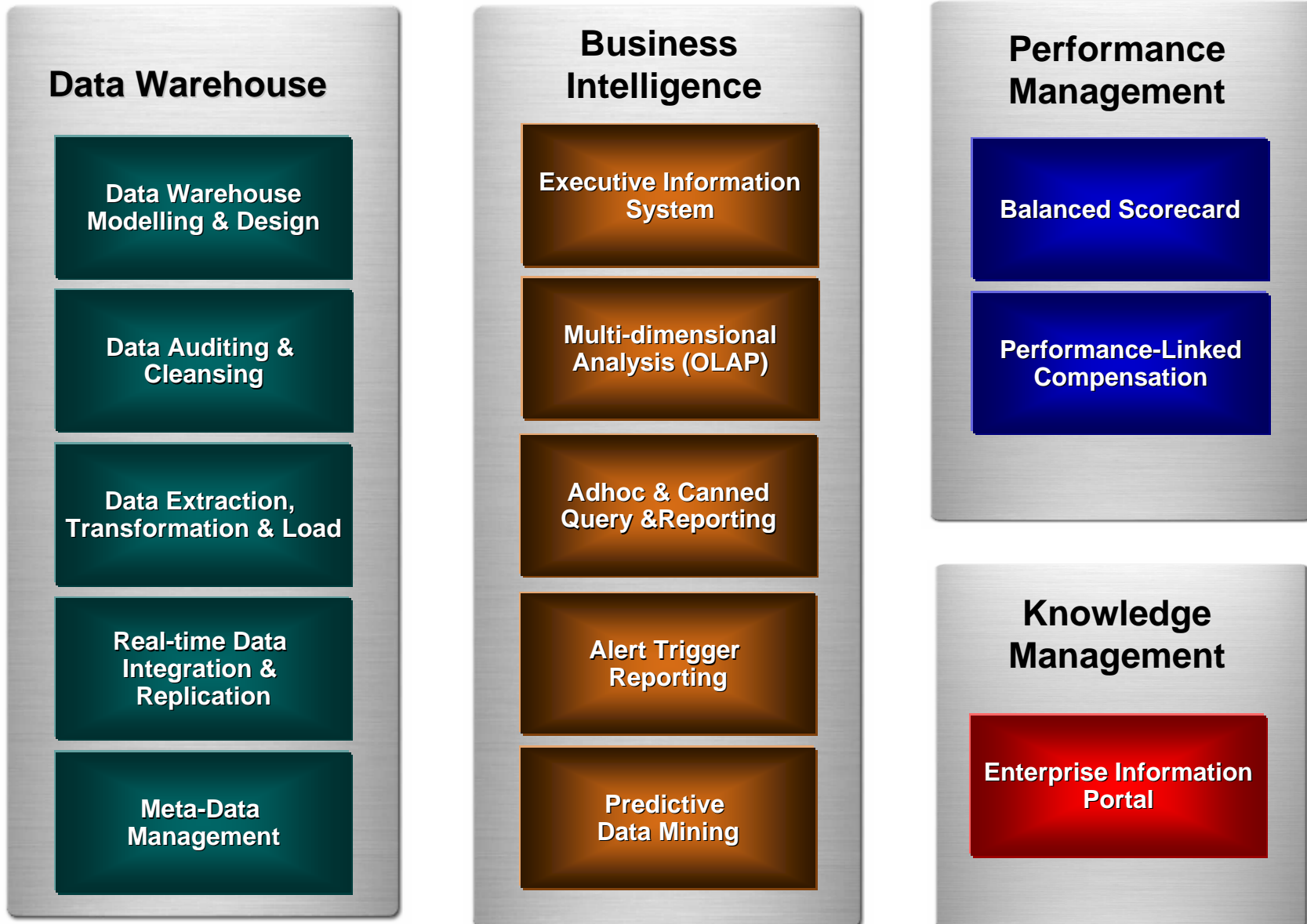
▼ Core Competencies

- ▶ Business Consulting
 - Performance Management, Business Continuity Planning, Business Discovery Workshops & Project Management
- ▶ Technology Services
 - Enterprise Data Warehouse, Business Intelligence & Data Mining
 - Enterprise Application Integration (EAI) & Data Cleansing

▼ Strategic Business Partners

- ▶ Joint Collaboration with BSCol for Balanced Scorecard
- ▶ Microsoft Business Intelligence Partner
- ▶ IBM Value-added Partner
- ▶ NCR & CA Strategic Data Warehouse partner
- ▶ SAS Business Intelligence Partner

KnowledgeBaze Solution/Services Framework

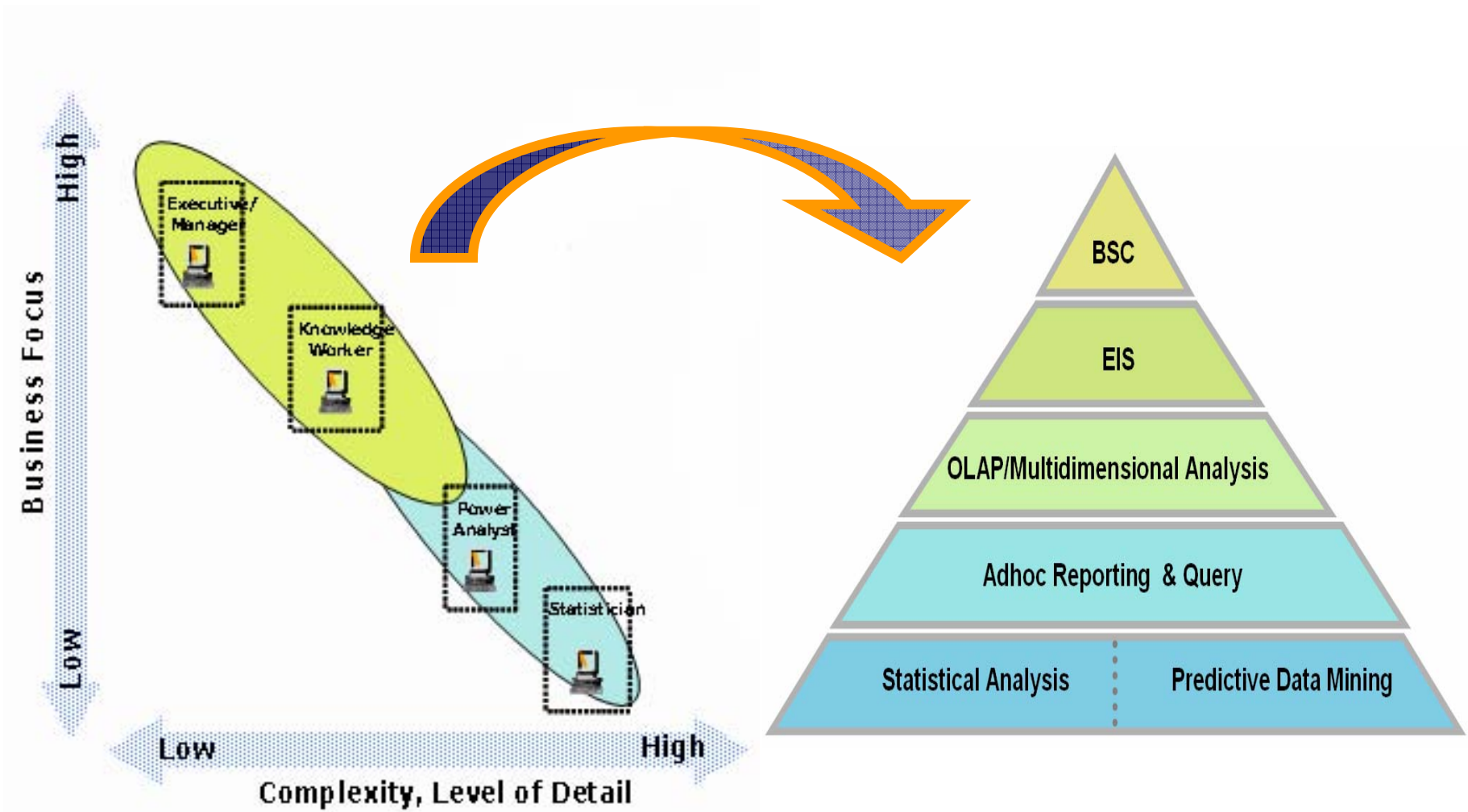




Introduction



Business Intelligence/Corporate Performance Management Framework

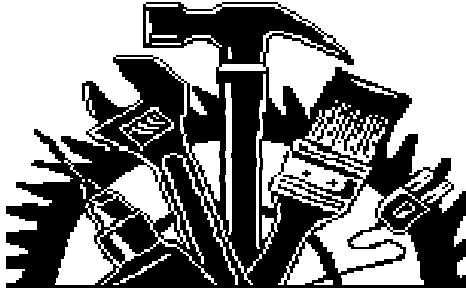


Difference between BSC vs Traditional EIS?

Traditional EIS :

- ▼ Generally focus on Financial measures only.
- ▼ Focus on measures that reflect past decisions rather than indicating future positions (performance drivers).
- ▼ Focus only on measures that motivate short-term behavior at the expense of long-term behavior.
- ▼ READ ONLY !
- ▼ Minimal support of qualitative analysis (cannot capture commentaries).
- ▼ Generally do not provide collaborative environment e.g. sharing commentaries/observations with users
- ▼ Not a tool to manage and monitor strategy.

What is BSC Automation?



- ▼ Fully automating the BSC reporting using purpose-built BSC software rather than maintaining completely on simple tools such as Excel, Powerpoint or Word.
- ▼ Automation provides efficient collaboration among users and more importantly ability to support cascading.
- ▼ The metric data required for the measure is collected automatically by interfacing with various data sources

BSC Automation – Pros & Cons

▼ Pros

- ▶ Elimination of manual and repetitive tasks
- ▶ Communication, information sharing, collaboration and knowledge can all be enhanced using an automated system – esp. critical during cascading.
- ▶ Enhances data retrieval and tracking thus leads to better accuracy, reliability and timeliness.
- ▶ Provides a single version of truth
- ▶ Spontaneous analysis, reporting and discussion group
- ▶ Ability to view cause-and-effect relationship
- ▶ Automation reinforces the methodology and enables true enterprise deployment and adoption.

*“At this point, we would say that the use of technology has accelerated the acceptance of the Scorecard. One of the immediate and obvious concerns is the volume of data that is produced and the time and resources it would take to manage the data without such technology. **We believe the Scorecard would not be accepted and used without the availability of software**” – **Nancy Foltz, Michigan Dept of Transportation.***

BSC Automation – Pros & Cons

▼ Cons

- ▶ Not Cheap – can run from several thousands to millions !!
- ▶ Learning curve for users to adapt to new application – esp. if the application is too complex to use
- ▶ Business drives technology and not the other way around
- ▶ Technical person to maintain/support the system



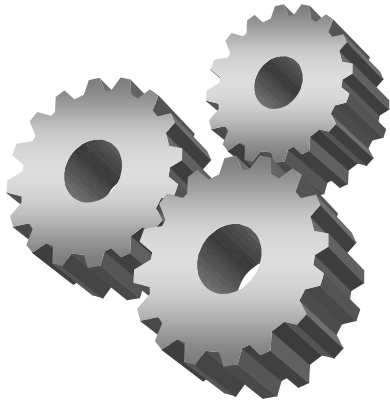
BSC Automation Software



In a nutshell, BSC software **MUST** provide the following :

- ▼ **Link the vision to strategic objectives and measures and show cause and effect of relationships.** *More than a list of measures, from vision to strategy to objectives to measures using drill-down and cause and effect diagrams.*
- ▼ **Allow creation and linkage of organizational and personalized scorecards.** *Create and manage scorecards across business units and build individual scorecard portfolios.*
- ▼ **Support both quantitative and qualitative Information.** *The numbers are important, but the commentaries add real meaning.*
- ▼ **Enable dynamic communication.** *More than a reporting vehicle it is a strategic feedback system. It must support feedback loops, dialogue, comments, personalized assessments and initiative management.*
- ▼ **Link through to tactical or operational BI applications.** *Integrated environment with linking feeder systems and drill through to analytical applications specific to that organization.*
- ▼ **Be easy to set-up and maintain.** *Standard implementation features with ease-of-use and security*

Types of Offerings & Technologies



- ▼ Client Server vs Web-based
- ▼ Dashboard (EIS) based vs Specialized BSC software
- ▼ Certified BSC Software vs Non Certified
- ▼ Relational vs Proprietary database
- ▼ Java-based vs Microsoft .NET based
- ▼ BSC focus vs Performance Management Suites
- ▼ BSC focus vs Business Intelligence Suites
- ▼ Off-the-shelf vs Home-grown
- ▼ Outright purchase vs ASP Based

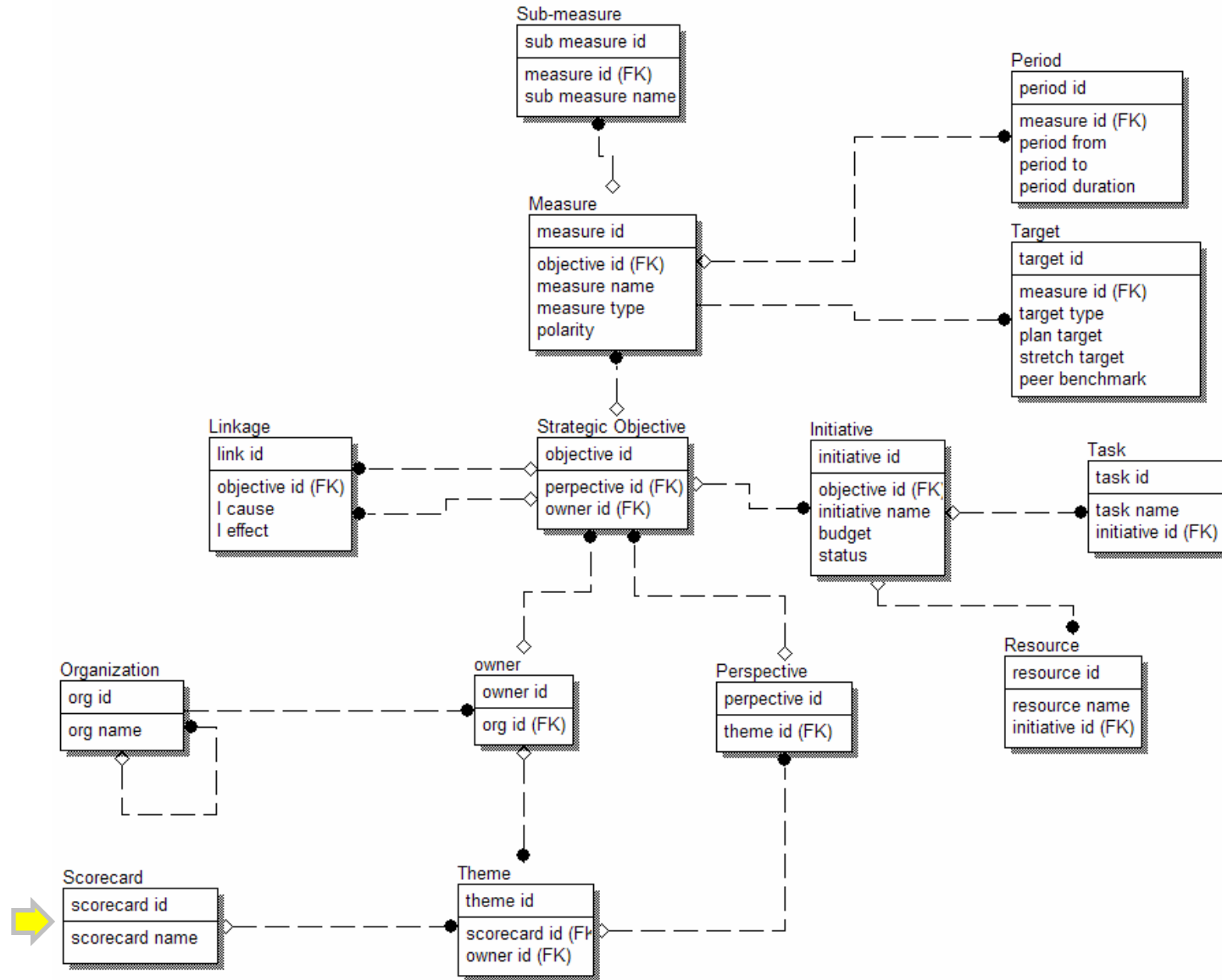
BSC Glossaries

- ▼ **Scorecard** – All the information for a client’s Balanced Scorecard is linked back to their Scorecard. Scorecard information includes the scorecard name and unique identifier.
- ▼ **Strategy Map** - In a strategy map tool, the client lays out perspectives, themes and objectives. Strategy Map information includes linkage cause (an objective reference), linkage effect (an objective reference), degree strength (weak, middle, or strong), interaction (positive or negative), and unique identifier for each link. These fields describe the connections the user made between their objectives.
- ▼ **Theme** – Descriptive statement representing a major component of a strategy, as articulated at the highest level in the Vision. Themes represent vertically linked groupings of objectives across several scorecard perspectives. Theme information includes the theme name (short description), description (long description), unique identifier, an optional owner reference, and associated objectives.
- ▼ **Perspective** - The set of (usually) four “viewpoints” to a strategy as represented by key constituents/stakeholders of that strategy. Viewed horizontally, each perspective represents the set of objectives desired by a particular stakeholder (Financial, Customer, Internal Process, Learning & Growth/Employees). Sometimes, clients will have added additional perspectives. Perspective information includes the perspective name, description, unique identifier, perspective type, an optional owner reference, an optional sort order, and associated objectives.

BSC Glossaries

- ▼ **Objective** - Concise statement articulating a specific component of what the strategy must achieve/what is critical to its success. Each perspective usually contains 3-6 primary objectives that state key aspects of the strategy to be achieved over the next 3-5 years. Objective information includes objective name, description, unique identifier, an optional owner reference, associated initiatives, and associated measures.
- ▼ **Initiative** - Key action programs developed to achieve objectives or close gap between measures performance and targets. Initiatives are often known as projects, actions, or activities. Initiative information includes initiative name, description, unique identifier, an optional owner reference, start date, end date, and optionally additional resources (includes their name and role).
- ▼ **Measure** - Statement of how success in achieving an objective will be measured and tracked. Measures are written statements of what is tracked over time. Measure information includes measure name, description, unique identifier, update frequency, an optional owner reference, and associated targets.
- ▼ **Target** – The level of performance or rate of improvement required for a particular measure. Targets are stated in specific units (\$, #, %, Rating, etc.), and should include time-based segments (annually, quarterly, etc.) as appropriate. Target information includes target name, description, unique identifier, update frequency, an optional owner reference, target value, and actual value.

Simplified BSC Entity-Relationship Model



Selection Process

- ▼ **Functional Requirement (30%)**
 - ▶ Strategy Map
 - ▶ Themes, Perspective, Strategic Objectives and Initiatives
 - ▶ Measure/Metrics
 - ▶ Collaboration
 - ▶ Reporting
 - ▶ Alert Management
 - ▶ Multiple scorecard and cascading

- ▼ **Technical Requirements (30%)**
 - ▶ User Interface
 - ▶ Technology Platform
 - ▶ Easy of Use
 - ▶ Ease of Implementation
 - ▶ Software stability and reliability
 - ▶ Compatibility & Integration
 - ▶ Performance and Scalability
 - ▶ User Access Configuration

- ▼ **Operational Requirements (30%)**
 - ▶ User license fees
 - ▶ Resource costs
 - ▶ Software & Hardware Support
 - ▶ Training Cost

- ▼ **Vendor Information (10%)**
 - ▶ Client References
 - ▶ Local Presence & Support



Pre-Qualification

Pre-Qualification

The following pre-qualification should form the pre-requisite prior to the evaluation of the software

#	Features	P1	P2	P3	P4	Comments
1	Must be Web-based BSC software	✓	✓	✓	✓	
2	Software Reliability and Stability	✗	✓	✓	✓	the current version of P1 is not stable. P1 is launched version 2 about less than 2 months. P1 version 1 is not supported now. Overtime we think P1 will be stable, however not at presently
4	Compatibility with current client environment such current Hardware environment e.g. different operating system and Screen resolution. Can coexist with current clients system	◆	◆	◆	✓	all can support different O/S used in Client but only D looks better in 800x600 resolution compared to all others
7	Is their price within the budget?	✓	✓	◆	◆	Both P1 and P2 are the leaders in BI and control the market share and are strong financially
8	Local partner capability and locality in terms presence, support staff, helpdesk and maintenance	◆	◆	◆	◆	most of the local vendor/reseller has either no or little experience with BSC software. For example P1 and P2 local resellers have no experience in BSC sw. However P3 and P4 resellers has some experience and knowledge.

Legends

- ✓ Good/Recommended
- ◆ Average/Okay
- ✗ Not Recommended

Selection Process

Overall BSC Software Evaluation Reportcard

#	Description	Weightage (%)	Software A	Software B	Software C	Software D
1	Functional Requirement	30	21	21	22	21
2	Technical Requirement	30	17	20	23	27
3	Operational Requirement	30	15	16	26	20
4	Vendor	10	4	6	9	7
FINAL VERDICT		100	57	63	80	75

Rating and traffic lighting

30	====>	>=24	<=15 and >24	< 15
40	====>	>=32	<=20 and >32	< 20
100	====>	>=80	<=50 and >80	< 50
score	====>	>=80%	<=50% and >80%	< 50%
		Good	Average	Poor

Functionality Scorecard

SAMPLE ONLY

Functionality Scorecard			Weights 30					
#	Features		Max Score	A	B	C	D	Comments
A	Strategy Map							
1	Ability to create and maintain strategy map graphically using a diagrammer approach	👍	50	0	0	40	20	
2	Ability to create strategy map from other tools e.g. Photoshop or Microsoft and export the image (superimpose method)	👍	50	40	30	20	10	
3	Ability to display the strategy map preferably in a single screen rather than scrolling screens		10	10	0	10	9	
4	The SO bubbles can be invoked by clicking at the strategy map to show the relevant SO and measure performance and descriptions	👍	50	0	0	40	0	
5	Strategy Map can show dynamic traffic-lighting (performance) of SO at a glance and also its linkages	👍	50	10	10	10	40	
6	The sequence or layout of the perspectives in the Strategy Map can be customized, e.g. Customer on Top rather than Financial on top	👍	10	10	6	10	10	
7	Strategy map can show the linkages (cause-n-effect) between all SO	👍	10	10	10	10	10	
8	Ability to display the version of the Strategy Map and the state of the strategy map (i.e. if ready for current month).		10	8	8	9	1	
9	Recalculation of the score and weightages can be done in real-time rather than in batch-mode		10	5	10	10	10	
	sub-total		250	93	74	159	110	



<< Demonstrate BSC Evaluation Template >>

*For a free BSC Software evaluation template guide, please
contact KnowledgeBaze, email to:
info@knowledgebaze.com*



Scoring & Normalization

Measure	Plan Value	Actual Value	Normalized Score
Marketing cost as a percentage of sales	9	12	94
Number of responses from each marketing campaign	20	16	80
Total revenue from marketing campaign	300,000	250,000	83

- ▼ Base score can be 100 or 10.
- ▼ Normalized Performance of a KPI = $\text{Actual Value} / \text{Plan Value} * 100$

Relative Importance (Weight)

Marketing KPI	Relative Importance
Marketing cost as a percentage of sales	30%
Number of responses from each marketing campaign	25%
Total revenue from each marketing campaign	45%

Weighted Score

Standard scoring algorithm used in traditional Norton/Kaplan Balanced Scorecards.

This traditional method uses the “Best” and “Worst” values to calculate a score based on the linear position of “Actual” between “Best” and “Worst”.

The calculation is: $10 * (\$Actual - \$Worst) / (\$Best - \$Worst)$

Actual = 7

Best = 9

Worst = 4

Score = 6

Actual = 120,000

Best = 200,000

Worst = 10,000

Score = 5.8

Traffic Lighting

Positive = The Higher the value is BETTER

Polarity = +

Between 85 to 100

Between 55 to 84

Below 55

Traffic



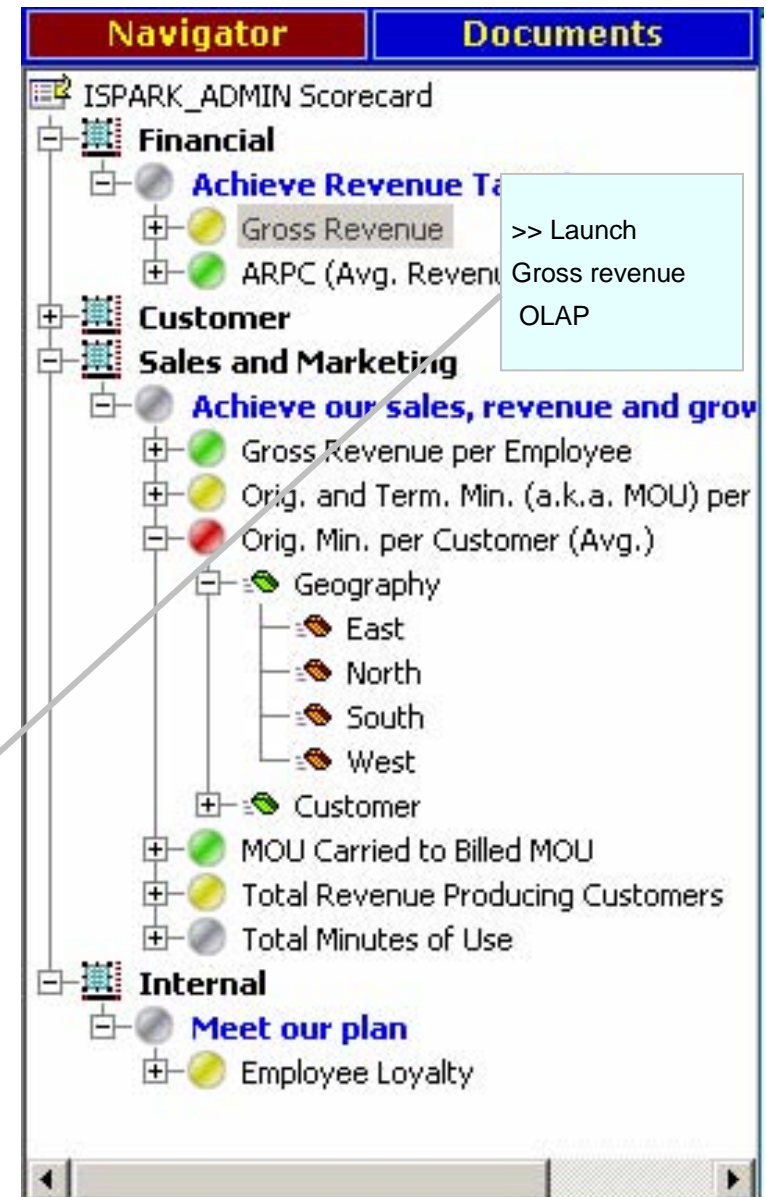
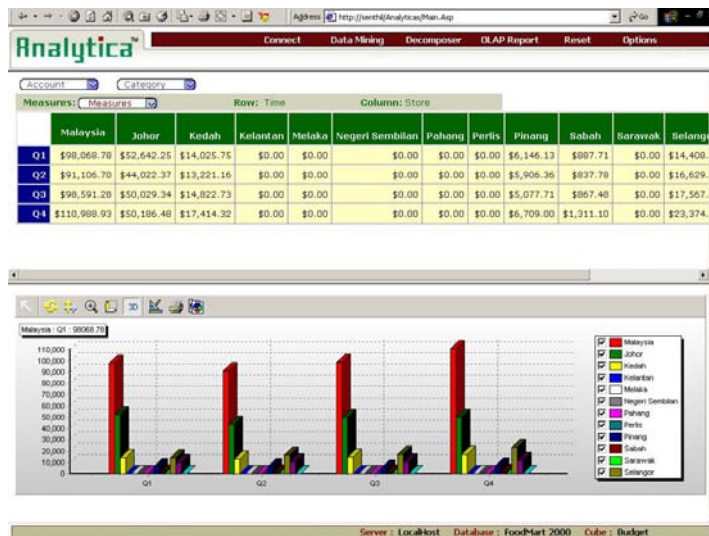
Analysis and Reporting

Analysis

- ▶ Multidimensional Analysis (OLAP) support
- ▶ Ability to define sub-measures
- ▶ Ability to define dimensions/views

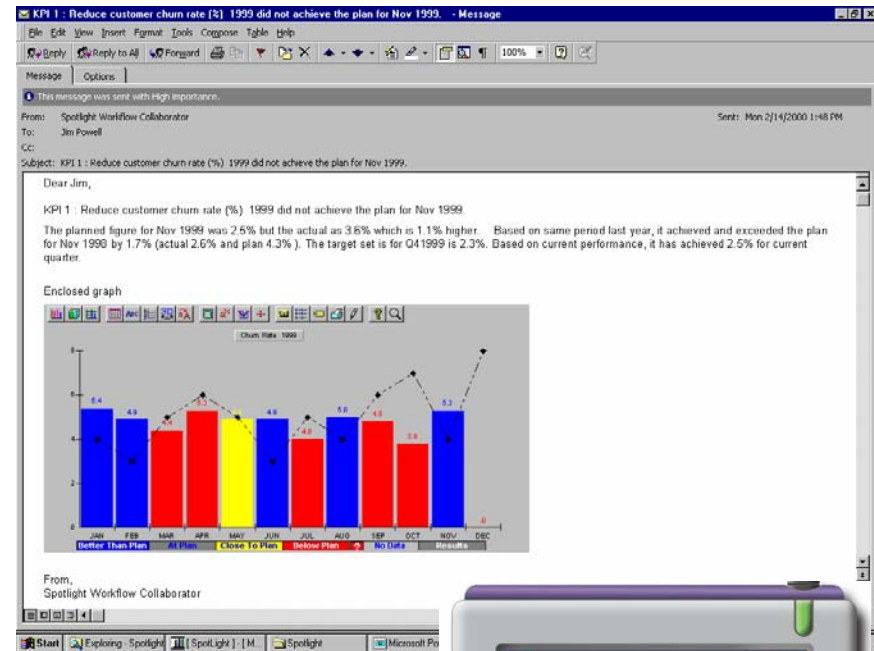
Reporting

- ▶ Provides standard report
- ▶ Users can customize or create reports easily using third-party reporting tools



Alert Management

- ▼ Alerts can be set if threshold is certain threshold is breached e.g. Yellow or Red color
- ▼ Supports subscribe and publish metaphor
- ▼ Alerts can be published to user's dashboard or portal
- ▼ Alerts can be sent to Email and SMS
- ▼ Charts can be attached with Email
- ▼ Comparative Analysis can be performed
- ▼ System can also alert user if a task is not completed within a defined time



Support Mobile/PDA Integration

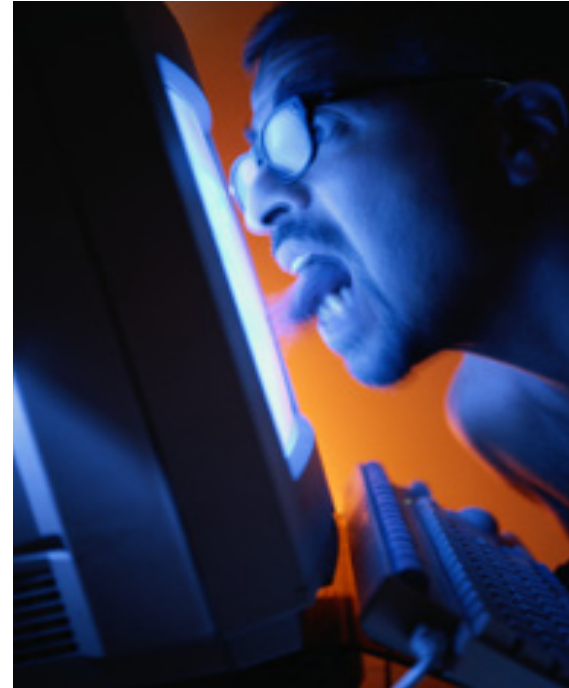
- ▼ Supports Microsoft Mobile Services technology
- ▼ Synchronization with Personal/Mobile PDA with the ability to update KPI and summary data.
- ▼ Charts and traffic-lights can be displayed
- ▼ SMS and MMS support to send alerts
- ▼ Subscribe and Publish methodology
- ▼ Future development:
 - ▶ GPRS and 3G support

Alerts		
ID		Alert
1	▶	Total deposits for Fed Govt down by 20%
2	●	Payment to suppliers in peris exceeding 30 days - above threshold of 5%
3	●	Payment to suppliers in Kedah exceeding 30 days - above threshold of 5%
4	●	Investment in govt bond is at maximum
5	●	Local councils have not submitted audited reports
6	●	Statuary bodies have not submitted audited reports
7	●	Cash in Hand exceeds limit of 100 Million
8	●	Fixed deposits in statutory bodies exceeds limit of 100 Million
9	●	Agency reports to Kedah is not available
10	●	MFinancial EIS dashBoard Launched!



The 10 MUST have features in BSC Software

- ▼ Dynamic Strategy Map
- ▼ Cause-n-Effect
- ▼ Metrics Management
- ▼ Visualization
- ▼ Initiative Management
- ▼ Collaboration
- ▼ Accountability
- ▼ Cascading
- ▼ Data Collection & Consolidation
- ▼ Alert Management & Reporting



Custom-Built BSC Software vs Excel/ Powerpoint

Microsoft Excel/Powerpoint are the the programs most widely used to support BSC implementations

▼ Custom-built BSC software is preferred over Excel Powerpoint because:

- ▶ Out-of-the-box software provides “single version of truth” since data is shared and centralized
- ▶ Out-of-the-box BSC software provide dynamic strategy-map vs static using Excel/Powerpoint.
- ▶ Excel is not scaleable
- ▶ Excel/Powerpoint requires “time-consuming maintenance”
- ▶ Excel/Powerpoint do not allow collaboration
- ▶ With Excel it is not easy to link scorecards or automate data integration
- ▶ With Excel you cant drill-down to cascaded scorecards
- ▶ Excel/Powerpoint lack critical analytical tool
- ▶ Excel can be considered for data-entry purposes but not to manage your day-to-day BSC.



BSC Technical Architecture



Technical Architecture Alternatives

- ▼ **Option 1: Stand-alone BSC Server and interface with OLTP**
 - ▶ Data is extracted from operational systems (OLTP) and stored in the BSC Server

- ▼ **Option 2: Stand-alone BSC Server and interface with Data Warehouse or MIS Server**
 - ▶ Data for BSC is extracted from Data Warehouse or MIS Server

- ▼ **Option 3: BSC database co-exist in Data Warehouse**
 - ▶ Data is stored in the DW (different database)

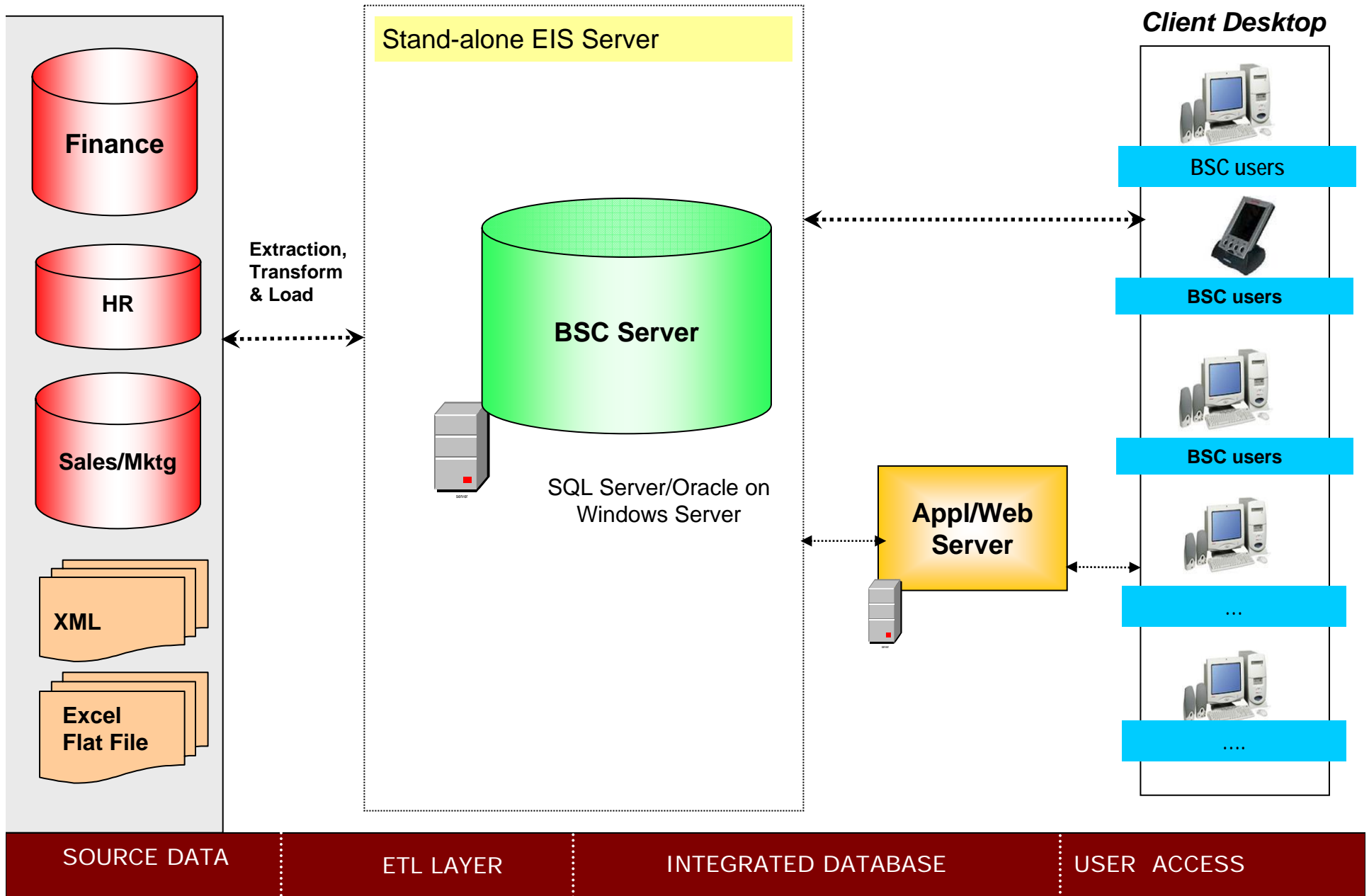
- ▼ **If the application is web-based, two options:**
 - ▶ Separate Data and Web/Application Server
 - ▶ Combined into one for budgeting reasons



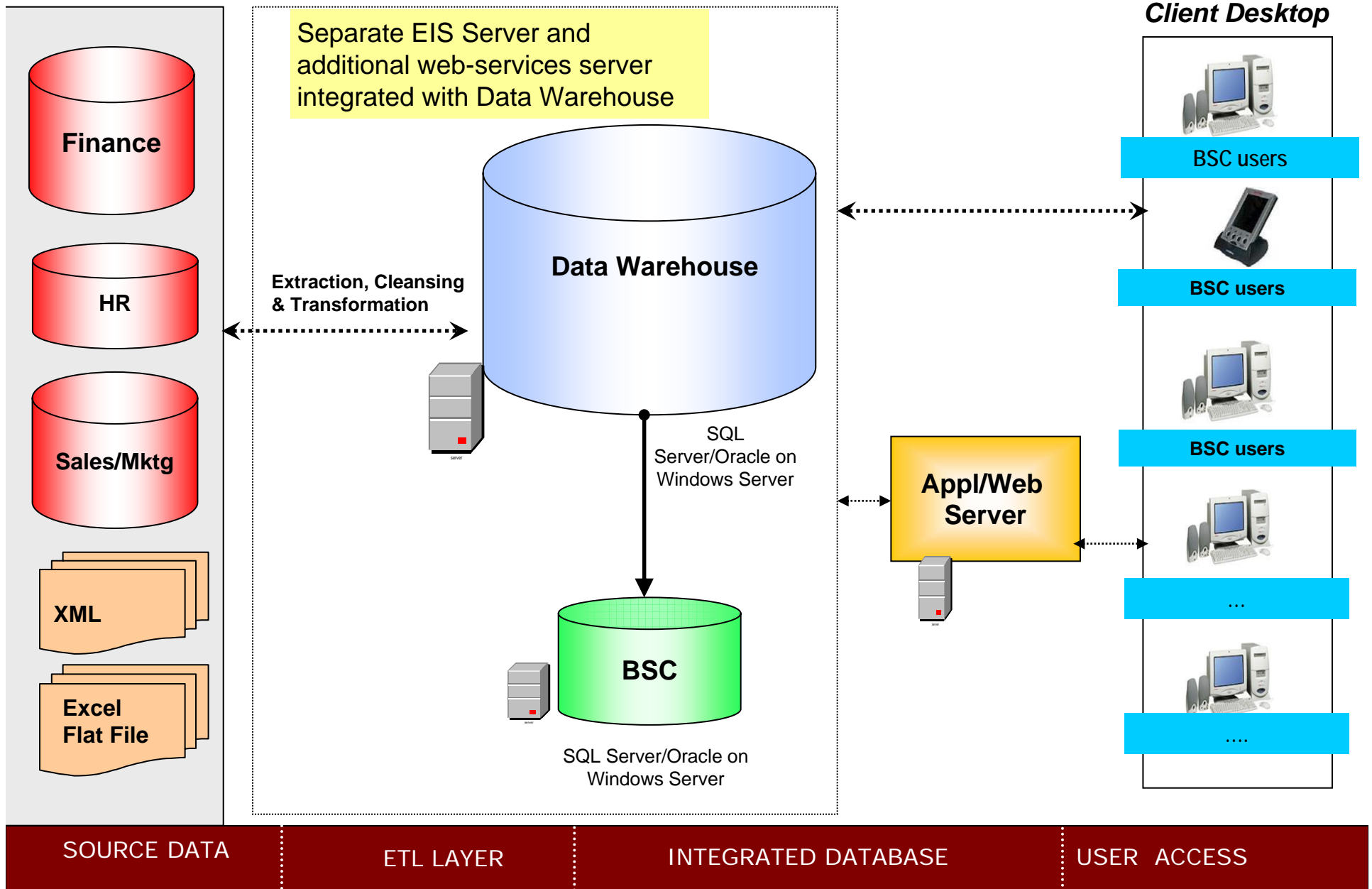
BSC Technical Architecture



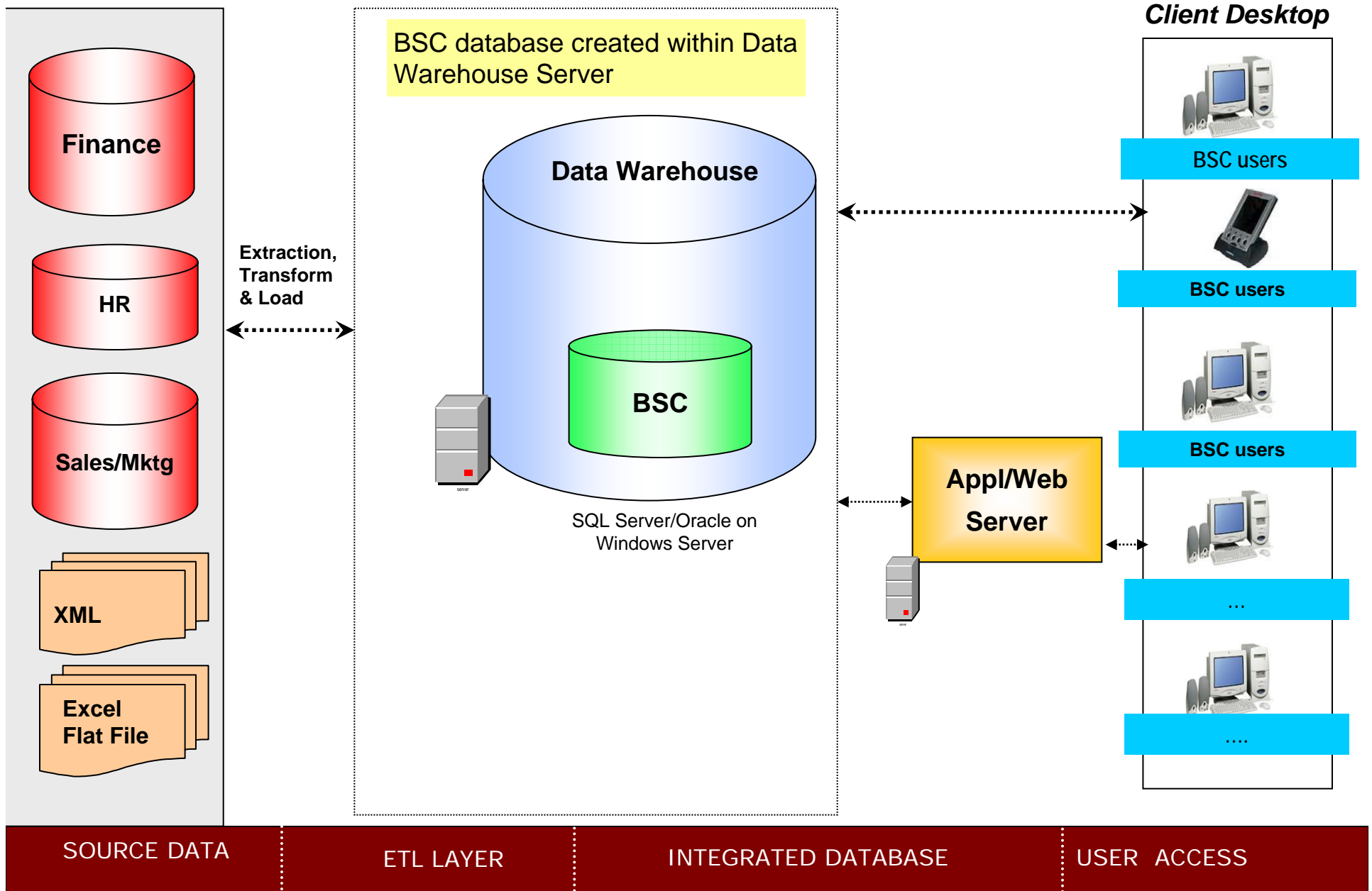
Proposed BSC Architecture – option 1



Proposed BSC Architecture – option 2



Proposed BSC Architecture – option 3



Data Extraction from OLTP Systems

▼ Common Data Issues

- ▶ Measure data is not available in system (i.e need to be captured manually)
- ▶ Measure data has partial value
- ▶ Data integrity problems with measure value

Data Extraction, Transformation & Loading (ETL Process)

▼ Considerations:

- ▶ Push or Pull Technique
- ▶ Data Collection – Summary vs Detail
- ▶ When and how often to run the ETL
- ▶ Scheduling the ETL Process
- ▶ Data Locking Issues
- ▶ Alerting User when the System is not available
- ▶ Overcoming Data Quality & Integrity Issues
 - Flag missing data
 - Business Rule conformance e.g. range check
- ▶ What happens if ETL Process fails e.g. some of the measure not successfully loaded into scorecard database
- ▶ Restarting or Rerunning ETL Process
- ▶ Generating ETL Report
- ▶ Alerting the System Administrator
- ▶ Overwrite mode to overwrite data via Web Data Entry

Excel vs Web-Based Data Entry

Why Web-Based Data Entry?

- ▶ PC does not require any additional software - no reliance of Excel. Only requires Internet Explorer.
- ▶ No compatibility issues
- ▶ Easy to use
- ▶ Business Rules can be managed centrally in database
- ▶ Data is stored centrally
- ▶ Common data or variables can be shared
- ▶ Auditing is enabled to identify who entered, when and etc
- ▶ Enhanced security – data logging and auditing can be enabled.
- ▶ Very less prone to any viruses

Why Excel not recommended?

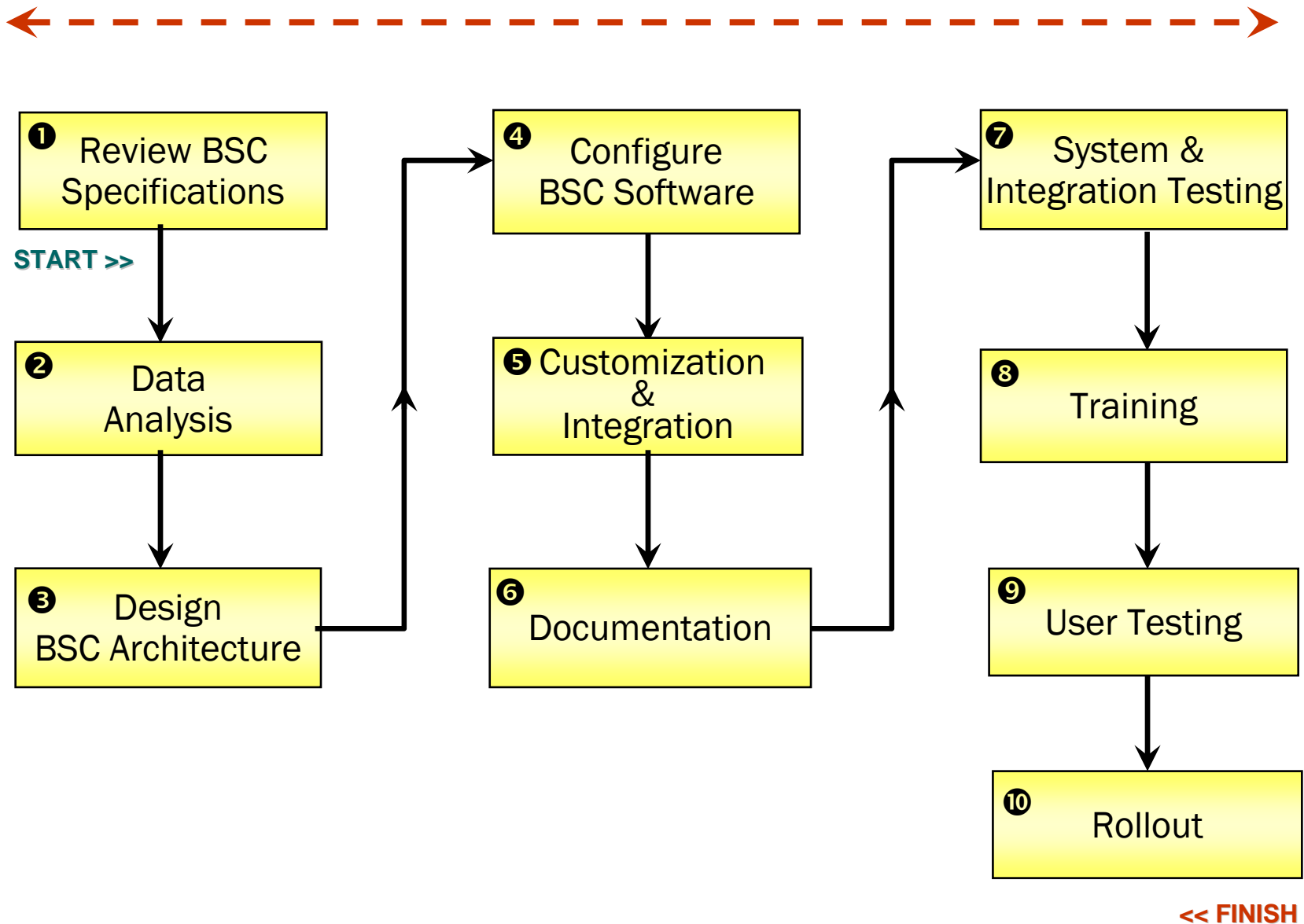
- ▶ Each PC may have different versions of Excel and may introduce compatibility problems
- ▶ Business Rules for data validation cannot be enforced, as macros need to be enabled. But if macros are enabled, it is vulnerable to virus.
- ▶ Prone to error during conversions
- ▶ Highly Prone to viruses attack



BSC Automation Implementation Approach



BSC Rapid Automation – 10 steps process



BSC Automation Project Activities

▼ [1] PLAN

- ▶ A01 Study current environment
- ▶ A02 Evaluate BSC Software (optional)
- ▶ A03 Review BSC Design Specifications ★
- ▶ A04 Conduct Data Discovery/Analysis ★
- ▶ A05 Present Findings
- ▶ A06 Select BSC Software (optional)
- ▶ A07 Deliver & Install Hardware & Software

▼ [2] DESIGN

- ▶ B01 Design Management Reporting Flow
- ▶ B02 Data Transformation Architecture ★
- ▶ B03 Define Security & User Access Matrix
- ▶ B04 Prepare System Test Plan

▼ [3] DEVELOP

- ▶ C01 Configure BSC Application ★
- ▶ C02 Develop ★
 - Data Extraction & Loading programs
 - Develop & Refine Reports
- ▶ C04 Integrate with OLAP (optional)
- ▶ C05 Develop User and System manual ★
- ▶ C06 Conduct System and Integration Testing ★

▼ [4] DEPLOY

- ▶ D01 Conduct BSC Tool Training ★
- ▶ D02 Conduct User Acceptance Testing (UAT) ★
- ▶ D05 Rollout BSC Application ★
- ▶ D06 Project Sign-off
- ▶ D07 Post Implementation Review



▼ [1] PLAN

- ▶ A01 Study current environment
- ▶ A02 Evaluate BSC Software (optional)
- ▶ A03 Review BSC Design Specifications ★
- ▶ A04 Conduct Data Discovery/Analysis ★
- ▶ A05 Present Findings
- ▶ A06 Select BSC Software (optional)
- ▶ A07 Deliver & Install Hardware & Software



▼ [2] DESIGN

- ▶ B01 Personalize & Customize BSC App
- ▶ B02 Design New Reports
- ▶ B03 Data Transformation Architecture★
- ▶ B04 Define Security & User Access Matrix
- ▶ B05 Prepare System Test Plan



▼ [3] DEVELOP

- ▶ C01 Install & Configure BSC Application ★
- ▶ C02 Develop ★
 - Data Extraction & Loading programs
 - Develop & Refine Reports
- ▶ C04 Integrate with OLAP (optional)
- ▶ C05 Fine-tune User and System manual ★
- ▶ C06 Conduct System and Integration Test ★



▼ [4] DEPLOY

- ▶ D01 Conduct BSC Tool Training ★
- ▶ D02 Conduct User Acceptance Testing (UAT) ★
- ▶ D05 Rollout BSC Application ★
- ▶ D06 Project Sign-off
- ▶ D07 Post Implementation Review



▼ [5] REVIEW

- ▶ E01 Conduct Post Implementation Review
- ▶ E02 Fine-up Application & Database
- ▶ E03 Retraining
- ▶ E04 Furnish Post Implementation Report

BSC Automation Project Deliverables

- ▼ **Statement of Work (Project Charter)**
- ▼ **BSC Technical Architecture Document**
- ▼ **Deliver Working BSC Software:**
 - ▶ Strategy Map created
 - ▶ Base data – Objectives, Measures, Metrics and Targets populated
 - ▶ Data Transformation & Loading automated
 - ▶ BSC Reports
- ▼ **BSC Software User manuals and Administration manuals**

Resources Plan

▼ Project Manager

- ▶ Manage the project
- ▶ Responsible for day-to-day project based activities.
- ▶ Track and resolve implementation issues.
- ▶ Track and communicate project status to involved parties
- ▶ Participate in Steering Committee Meeting
- ▶ Deliver weekly reports and update with <Client> Project Team
- ▶ Manages schedules and resources
- ▶ Manage project issues and conflicts with <Client>.

▼ System Architect (Technical Consultant)

- ▶ Translating Business Requirement into Design Specification.
- ▶ Study and review current Client technical architecture environment
- ▶ Develop the BSC Technical Architect
- ▶ Design Data Extraction & Loading
- ▶ Review and approve all architectural changes and resolve design issues

▼ Solution Specialist (Application Consultant)

- ▶ Participate in requirements gathering and analysis activities.
- ▶ Coordinate and oversee BSC Tool Selection Process.
- ▶ BSC Configuration
- ▶ Populate base data
- ▶ BSC software administration and configuration
- ▶ BSC Software System and Integration Testing
- ▶ User and System Administration manual documentation
- ▶ BSC Software Training

Resources Plan

▼ ETL Consultant (Developer)

- ▶ Perform Data Analysis/Data Discovery
- ▶ Develop Data Extraction and Loading Programs
- ▶ Develop & Refine Reports
- ▶ Automate Programs
- ▶ Perform System & Integration Testing

▼ System Engineer (*part-time*)

- ▶ Involve in Selection, Installation and Configuration of Hardware and System Software
- ▶ Install and setup Database
- ▶ Develop and Document Back-up Procedures
- ▶ Technical Support

Lessons Learned/Tips

- ▼ Choose a practical yet easy-to-use BSC Software
- ▼ Always start small, first deploy to Corporate and then cascade it down later. Don't not opt for big-bang approach
- ▼ Look into data quality & integrity of measure data
- ▼ Be cautious in selecting a tool that is retrofitted to support alternative Performance Management methodologies e.g. Six Sigma, TQM, ABC and BSC - often make the application generic to support all methodologies and as a result could make it complex to use.
- ▼ Be cautious investing a fortune into BSC Software. A BSC Software for 50 users can range from RM 50,000 to RM 500,000
- ▼ Choose a vendor who have proven experience in automating
- ▼ Choose a tool that can provide good local support
- ▼ Choose a tool that can be customized to your needs and easily integrate to your environment.

What is Balanced Scorecard Total Solution?

- ▼ KnowledgeBaze is a solution driven and product independent service provider. We have experience working with various tools in the market.
- ▼ After the development stage of BSC, top management usually needs a software application that provides a comprehensive overview of the business. KnowledgeBaze uses BSCol's methodology, that is a systematic and based on rich experience to automate BSC.
- ▼ KnowledgeBaze provides consulting for selection of the optimum software solution.
- ▼ How to select software? Develop an understanding end user needs in your organization. We provide guidance in how to select from available software solutions based on mutually agreed upon decision criteria.
- ▼ We provide guidance on the best approach to working with your software provider that balances your time and cost.
- ▼ How to cooperate with the software provider to achieve the following:
 - ▶ Integrate SFO principles while using your Balanced Scorecards and software, including customization of the software to meet your concrete needs
 - ▶ Design friendly end user interface and reporting system to achieve BSC/SFO project objectives and meet business performance targets
- ▼ By partnering with BSCol, KnowledgeBaze can provide end-to-end BSC Solution



Restriction on Disclosure and Use of Data

The data in this document contains proprietary information of KnowledgeBaze, the disclosure of which would provide a competitive advantage to others. As a result, this document shall not be disclosed, used, or duplicated – in whole or in part – for any purpose other than to evaluate KnowledgeBaze.

If a contract is awarded to KnowledgeBaze, as a result of, or in connection with, the submission of this document, any right to duplicate, use, or disclose the data will be to the extent provided in the resulting agreement. This restriction does not limit the rights to use information contained in the data if it is rightfully obtained from another source without restriction.

© 2005 KnowledgeBaze
Sdn Bhd All rights reserved.

[Unpublished]

Thank You
www.knowledgebaze.com