IT Governance & Performance Management Using Public Domain Best Practice Frameworks

Client Briefing

January 2008

Prepared For: Our Valued Clients
Agenda

Introduction

IT Performance Improvement Framework
- COBIT
- ITIL/ITSM and ISO 20000
- CMMI
- PMBOK and Six Sigma

IT Performance Measurement Automation
- Metricus Overview
Session Objectives

The objectives of today’s session are to:

1. Review public domain best practice frameworks and their role in IT performance improvement
2. Discuss the role of performance measurement in success of a comprehensive performance improvement program
3. Review the role of measurement automation in deployment of frameworks and achieving the promised benefits
IT Performance Improvement Framework
Common Business Drivers Effecting Organizations

- Achieving profitable, predictable and consistent growth
- Competing effectively with local and global players
- Complying with, and keeping up with national and global Regulatory changes
- Improving quality while reducing costs
- Leveraging of global suppliers, services and workforce through outsourcing and offshoring
- Reducing time to market for new products and services.
IT Imperatives in Response to Business Drivers

**Challenges**
- IT enables Organization to meet goals
- IT imperatives

**IT Imperatives**
- Increasing Performance
- Improving Outcomes
- Minimizing Cost and Time-to-Production
- Minimizing Risks
- Linking Organization and IT
- Minimizing Costs and Complexity
- Optimizing Resources and Costs
- Ensuring a Stable and Flexible IT Environment
- Extending Value and Reach of Enterprise
IT Performance Improvement Framework

- **IT Infrastructure Design**
- **Application Development**
- **IT Infrastructure Deployment**
- **Application Deployment**
- **Application Maintenance**

**Information Technology Infrastructure Library (ITIL), ISO/IEC 20000**

**Project Management (PMBOK)**
- Scope
- Quality
- Time
- Cost
- Resources

**Capability Maturity Model Integrated (CMMI)**
- Plan
- Design
- Build
- Test
- Deploy
- Manage
- Enhance

**Governance (COBIT)**

Outcome Measures and Performance Indicators

- COBIT
- ITIL / ISO 20000
- PMBOK
- CMMI

**Work Instructions**

- Process Execution
- Process Control
- Strategic
Use of IT Performance Management Framework

- COBIT health checks are used to determine current state of IT and identify weaknesses in processes and controls.
- COBIT metrics are used to track outcomes and performance of key IT Processes.
- ITIL is used to improve IT Operations processes and controls as well as the life cycle of IT Service Management.
- ITIL is also used to determine ITSM technology requirements and identify optimal organizational strategies, roles and responsibilities.
- CMMI is used to improve IT Development processes, controls and outcomes.
- PMBOK and Six Sigma are used to improve project management and IT process performance.
What is COBIT?

- Control Objectives for Information and related Technology (COBIT) ([http://www.isaca.org/cobit.html](http://www.isaca.org/cobit.html))
- Covers all controls within or relevant to IT organization
- Created by Information Systems auditors and IT Governance Institute in 1992
- First version launched in 1996 containing a new Framework, control objectives and audit guidelines
- Based on major research study into all relevant existing standards and best practices
- In 2000 management guidelines added providing maturity models, performance indicators and critical success factors
- In 2007 version 4.1 released with continued enhancements in framework and terminology
What is COBIT?

Controls for IT Governance

- Add value while balancing risk versus return for IT and its processes.”

Format

- “The control of IT Processes which satisfy Business Requirements is enabled by Control Statements considering Control Practices"  
- There are 34 Processes defined in the framework

Evaluation of COBIT controls

- Assessment of maturity rating described for each control, ranging from 0 (non-existent) to 5 (optimized),
- Outcome Measures (Previously Key Goal Indicators)
- Performance Indicators (Previously Key Process Indicators)
COBIT Framework

Monitor and Evaluate
- ME1 Monitor and Evaluate IT Performance
- ME2 Monitor and Evaluate Internal Control
- ME3 Ensure Compliance With External Requirements
- ME4 Provide IT Governance

Delivery and Support
- DS1 Define and Manage Service Levels
- DS2 Manage Third-party Services
- DS3 Manage Performance and Capacity
- DS4 Ensure Continuous Service
- DS5 Ensure Systems Security
- DS6 Identify and Allocate Costs
- DS7 Educate and Train Users
- DS8 Manage Service Desk and Incidents
- DS9 Manage the Configuration
- DS10 Manage Problems
- DS11 Manage Data
- DS12 Manage the Physical Environment
- DS13 Manage Operations

Planning and Organization
- PO1 Define a Strategic IT Plan
- PO2 Define the Information Architecture
- PO3 Determine Technological Direction
- PO4 Define the IT Processes, Organization and Relationships
- PO5 Manage the IT Investment
- PO6 Communicate Management Aims and Direction
- PO7 Manage IT Human Resources
- PO8 Manage Quality
- PO9 Assess and Manage IT Risks
- PO10 Manage Projects

Acquisition and Implementation
- AI1 Identify Automated Solutions
- AI2 Acquire and Maintain Application Software
- AI3 Acquire and Maintain Technology Infrastructure
- AI4 Enable Operation and Use
- AI5 Procure IT Resources
- AI6 Manage Changes
- AI7 Install and Accredit Solutions and Changes
COBIT Is Measurement Driven

A basic need for every enterprise is to understand the status of its own IT systems and to decide what level of management and control the enterprise should provide. To decide on the right level, management should ask itself: How far should we go, and is the cost justified by the benefit?

Obtaining an objective view of an enterprise’s own performance level is not easy. What should be measured and how? Enterprises need to measure where they are and where improvement is required, and implement a management tool kit to monitor this improvement.

COBIT deals with these issues by providing:

• Maturity models to enable benchmarking and identification of necessary capability improvements
• Performance goals and metrics for the IT processes, demonstrating how processes meet business and IT goals and are used for measuring internal process performance based on balanced scorecard principles
• Activity goals for enabling effective process performance
COBIT View of IT Governance

- **Strategic alignment** focuses on ensuring the linkage of business and IT plans; defining, maintaining and validating the IT value proposition; and aligning IT operations with enterprise operations.

- **Value delivery** is about executing the value proposition throughout the delivery cycle, ensuring that IT delivers the promised benefits against the strategy, concentrating on optimizing costs and proving the intrinsic value of IT.

- **Resource management** is about the optimal investment in, and the proper management of, critical IT resources: applications, information, infrastructure and people. Key issues relate to the optimization of knowledge and infrastructure.

- **Risk management** requires risk awareness by senior corporate officers, a clear understanding of the enterprise’s appetite for risk, understanding of compliance requirements, transparency about the significant risks to the enterprise and embedding of risk management responsibilities into the organization.

- **Performance measurement** tracks and monitors strategy implementation, project completion, resource usage, process performance and service delivery, using, for example, balanced scorecards that translate strategy into action to achieve goals measurable beyond conventional accounting.
COBIT Benefits

The benefits of implementing COBIT as a governance framework over IT includes:

- Better alignment, based on a business focus
- A view, understandable to management, of what IT does
- Clear ownership and responsibilities, based on process orientation
- General acceptability with third parties and regulators
- Shared understanding amongst all stakeholders, based on a common language
- Fulfillment of the COSO requirements for the IT control environment
COBIT Content Diagram

How does the board exercise its responsibilities?

Executives and Boards

How do we measure performance? How do we compare to others? And how do we improve over time?

Management guidelines
Maturity models

Business and Technology Management

What is the IT governance framework? How do we implement it in the enterprise? How do we assess the IT governance framework?

Governance, Assurance, Control and Security Professionals

COBIT and Val IT frameworks
Control objectives
Key management practices

IT Governance Implementation Guide, 2nd Edition
COBIT Control Practices, 2nd Edition
IT Assurance Guide

Board Briefing on IT Governance, 2nd Edition
COBIT Performance Measurement

Goals and metrics are defined in COBIT at three levels:

- IT goals and metrics that define what the business expects from IT and how to measure it
- Process goals and metrics that define what the IT process must deliver to support IT’s objectives and how to measure it
- Activity goals and metrics that establish what needs to happen inside the process to achieve the required performance and how to measure it

Goals are defined top-down in that a business goal will determine a number of IT goals to support it. An IT goal is achieved by one process or the interaction of a number of processes. Therefore, IT goals help define the different process goals. Each process goal requires a number of activities, thereby establishing the activity goals.
Relationship Amongst Goals, Process & Metrics

Provided by COBIT

Define goals.

**Business Goal**
- Maintain enterprise reputation and leadership.

**IT Goal**
- Ensure that IT services can resist and recover from attacks.

**Process Goal**
- Detect and resolve unauthorised access to information, applications and infrastructure.

**Activity Goal**
- Understand security requirements, vulnerabilities and threats.

**is measured by**
- Number of incidents causing public embarrassment
- Number of actual IT incidents with business impact
- Number of actual incidents because of unauthorised access
- Frequency of review of the type of security events to be monitored

Measure achievement.

Improve and realign.

Outcome Measure Business Metric Performance Indicator

Outcome Measure IT Metric Performance Indicator

Outcome Measure Process Metric Performance Indicator

Indicate performance.
COBIT Scorecard Views

Business Balanced Scorecard

Financial
Customer
Process
Learning

IT Strategic Balanced Scorecard

Financial
Customer
Process
Learning

IT Development Balanced Scorecard

Financial
Customer
Process
Learning

IT Operational Balanced Scorecard

Financial
Customer
Process
Learning

INFORMATION

REQUIREMENTS

AI

PO

DS
ITIL and ITSM

Information Technology Infrastructure Library and Information Technology Service Management
Definitions

**IT Service Management (ITSM)**
- Managing IT as a collection of services that have been defined in advance as a result of collaboration and negotiations between IT group and its constituencies

**IT Infrastructure Library (ITIL)**
- A library of IT operations best practices that provides a consistent definition of terms, a process model, activities and success measures that can help an organization implement IT Service Management
What is IT Infrastructure Library (ITIL)?

Information Technology Infrastructure Library
- Developed by UK CCTA (now OGC) in 1980s
- Result of years of analysis and research by many contributors
- ITIL v2 consists of 7 books providing guidance on planning, delivery and management of quality IT services
- ITIL v3 consists of 5 books and moves the ITSM discipline to a life cycle management perspective
- De facto global standard of IT Service Management best practices

ITIL v2 is a process-based IT Operations framework that delivers a set of IT service management best practices that can help align IT with organization requirements, improve service quality, and lower long-term costs of IT service provision

ITIL is world's most widely accepted approach to IT service management
ITIL v2 Framework

Service Support
Enables effective IT Services Operations Domain

SERVICE DELIVERY
Service Delivery
Planning for IT services Tactical Domain

SERVICE SUPPORT

- Release Management
- Change Management
- Problem Management
- Incident Management

- Service Desk

Service Level Management

- Capacity Management
- IT Service Continuity Mgmt.
- Availability Management

Financial Mngmnt For IT Services

Security Management
ITIL v3 Framework

Complementary Publications

CORE

CMMI®
TOGAF™
ETOM®
Six Sigma®
PMBOK®
PRINCE2™
SOA
COBIT®
M_o_R®

Web Support Services

ISO/IEC 20000
SOX Certified Training
ISO/IEC 17799
ISO/IEC 19770
## ITIL v3 Processes Within the Service Lifecycle

<table>
<thead>
<tr>
<th>Governance processes</th>
<th>Service Strategy</th>
<th>Service Design</th>
<th>Service Transition</th>
<th>Service Operation</th>
<th>Continual Service Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Measurement</td>
<td>CSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Reporting</td>
<td>CSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Improvement</td>
<td>CSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand Management</td>
<td>SS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategy generation</td>
<td>SS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Portfolio Management</td>
<td>SS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Financial Management</td>
<td>SS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational processes</th>
<th>Service Strategy</th>
<th>Service Design</th>
<th>Service Transition</th>
<th>Service Operation</th>
<th>Continual Service Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Catalogue Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Level Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Continuity Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Security Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier Management</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition planning and support</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Management</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Asset and Configuration Management</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Release and Deployment Management</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Validation and Testing</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event Management</td>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Management</td>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request Fulfilment</td>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Management</td>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Management</td>
<td>SO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Key ITIL Characteristics

- Process-oriented
- Customer-focused
- Based on best practices
- Common language
- Effective expectation management
- Fact-based decision making
- Optimum service against justifiable costs
- Independent of organizational structure
- Vendor and technology independent
How Does ITIL Work?

Quality Management Framework for IT Focused on
- process management
- Process control

- Objective
- Mission
- Policy
- Measure / Steer
- Feedback

Activities
- A. Purchase
- B. Produce
- C. Sell

KPIs for efficiency
KPIs for effectiveness

Input → Output
Output → Result
ISO/IEC 20000 – The ITSM Standard

- 10 Core ITIL Processes Plus 4 More
  - Security, Service Reporting, Relationship Management, Supplier Management
- Requirement for a Management System
- Integration Among Processes
### ITIL vs ISO 20000

<table>
<thead>
<tr>
<th>ISO 20000 and ITIL are aligned but:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- ITIL is a set of guidelines</td>
</tr>
<tr>
<td>- ISO 20000 is a set of universal requirements</td>
</tr>
<tr>
<td>- Minor differences in scope and grouping</td>
</tr>
</tbody>
</table>

Anyone can claim “they have adopted ITIL”

Standard provides

- A quality level for service management processes that can be audited

ISO 20000 does not specify ITIL

- ...but ISO 20000 would be difficult to achieve without ITIL
- ...ISO 20000 verifies that ITIL has been adopted intelligently

ISO 20000 certification

- Proof that an organization has implemented best practice
- Independent, external auditing body (RCB)
ITSM Focuses on Customer’s View of Services

Customer View

- - - Technology View - - -

Desktop  Server  Database  Mainframe

Network

Application

Midrange

Email

Online Sales and Claims Reporting

Human Resource Management

Our Email was out for over 3 hours last week!!

91.22% Available

99% x 99% x 99% x 97% x 98% x 99% x 99.9%

99.22% Available
ITSM and ITIL Relationship

Organizational Policies, Practices, and Procedures

Applied Framework

Best Practice

Standard Processes to Achieve IT Service Management

IT Service Management

Standard

ISO 20000

For Example, MS, IBM, HP

Processes for Specific Technologies

Processes Specific to Organization

Standard Processes to Achieve IT Service Management

For Example, MS, IBM, HP

ISO 20000

ITIL

Best Practice

Standard
ITIL and ITSM Reported Benefits

- Enhanced/Increased Service Levels
- Align IT goals with those of Units supported
- Make “Excellence in Service” a part of culture
- Improved quality and reliability of IT services offered
- Optimize resource utilization
- Enforces collaboration across silos
- Move from traditional supply-demand model to customer oriented processes and service value creation
## ITSM Focuses on Cost & Quality Improvements

<table>
<thead>
<tr>
<th>People</th>
<th>Process</th>
<th>Technology</th>
</tr>
</thead>
</table>
| • Break down inter-departmental barriers  
  • Focus staff on priorities and role definition  
  • Increase efficiency in resource utilization through process and process-enabling technology  
  • Possible reduction of the number of operational resources  
  • Reduce number of emergencies and sleepless nights | • Improve inventory process for assets  
  • Provide financial IT services information  
  • Reduce recurring incidents  
  • Reduce time to implement changes  
  • Shorten incident resolution time  
  • Synchronization between and consolidation of people, process, and technology  | • Automating problem diagnosis and resolution  
  • Better utilization of assets  
  • Consolidation of technology  
  • Introducing process-enabling technology  
  • Standardization of working environments  |

### COSTS

| • Define organization needs in terms of quality, quantity, and financially  
  • Define services and service levels  
  • Increase speed of service  
  • Introduce project approach  
  • Move from reactive service provision to proactive  
  • Provide management information on cost, improvements, and/or balanced scorecard | • Automating problem diagnosis and resolution  
  • Better utilization of assets  
  • Consolidation of technology  
  • Introducing process-enabling technology  
  • Standardization of working environments  |

### QUALITY

Cost and quality improvements in IT services drive the cost and quality improvements in people, processes, and technology.
Examples of Results Achieved

- Oslo Stock Exchange: “100% uptime since 1999”
- Roche: “Introduced a consistent global service management process that meets validation requirements”
- Bombardier: In 12 months time 24% less incidents; 40% faster service recovery; 15% higher availability of critical applications
- Capital One: In 2 years time production incidents reduced by 30% and business critical incidents reduced by 92%
Examples of Results Achieved (cont’d)

- **Bombardier**: In 12 months time 24% less incidents; 40% faster service recovery; 15% higher availability of critical applications
- **Capital One**: In 2 years time production incidents reduced by 30% and business critical incidents reduced by 92%
- **European retail bank with 30k incidents/month**: ITIL implementation for incident and problem management avoided service desk costs of $2 million per month.
- **Hewlett-Packard**: ITSM implementation resulted in $168 million annual savings and enabled a further $400 million savings on the business side over a four year period.
- **KPN Telecom**: saved $320K per day through reduction of temp labor and contractors by implementing the ITIL service support disciplines.
- **Proctor and Gamble**: ITIL implementation across the corporation enabled $120 million cost reduction per year. (Over $500 million to date)
- **Shell Oil**: Just implementing ITIL change management and software control and release management saves $5 million per year in desktop management.
ITIL Implementation Framework and Measurement

- What is the vision?
- Where are we now?
- Where do we want to be?
- How do we get to where we want to be?
- Have our milestones been achieved?

High-Level Business Objectives
Assessments
Measurable Targets
Process Improvements
Measurements and Metrics

How do we keep the momentum going?
CMMI
Capability Maturity Model Integration
What is CMMI?

Capability Maturity Model® Integration (CMMI) is a process improvement approach that provides organizations with the essential elements of effective processes.

It can be used to guide process improvement across a project, a division, or an entire organization. CMMI helps integrate traditionally separate organizational functions, set process improvement goals and priorities, provide guidance for quality processes, and provide a point of reference for appraising current processes.
<table>
<thead>
<tr>
<th>Level</th>
<th>Focus</th>
<th>Process Areas Including IPPD</th>
</tr>
</thead>
</table>
| 5 Optimizing          | Continuous Process Improvement | Organizational Innovation and Deployment  
Causal Analysis and Resolution                  |
| 4 Quantitatively      | Quantitative Management | Organizational Process Performance  
Quantitative Project Management                      |
| 3 Defined             | Process Standardization | Requirements Development  
Technical Solution  
Product Integration  
Verification  
Validation  
Organizational Process Focus  
Organizational Process Definition  
Organizational Training  
Integrated Project Management (2 IPPD Goals)  
Risk Management  
Decision Analysis and Resolution  
Organizational Environment for Integration  
Integrated Teams    |
| 2 Managed             | Basic Project Management | Requirements Management  
Project Planning  
Project Monitoring and Control  
Supplier Agreement Management  
Measurement and Analysis  
Process and Product Quality Assurance  
Configuration Management  |
| 1 Initial             |                        |                                                                                             |
CMMI Benefits

- More explicitly link management and engineering activities to business objectives
- Expand the scope of and visibility into the product lifecycle and engineering activities to ensure that the product or service meets customer expectations
- Incorporate lessons learned from additional areas of best practice (e.g., measurement, risk management, and supplier management)
- Implement more robust high-maturity practices
- Address additional organizational functions critical to products and services
- More fully comply with relevant ISO standards
Why Use CMMI for Software Development

Proven framework for achieving significant gains in quality and reliability in software development. The framework is made up of practical and common sense activities to improve chances of software development project success.

Typical Benefits (Computer World Survey 3/04)
- A 20% to 25% reduction in post-implementation defects
- Reduced operational support as systems are more reliable
- "Emergency" releases to fix bugs reduced by 60%
- Better management of globally distributed projects because of standardized terminology and specifications
- Improved supplier performance due to better requirements

Allows the organization to build on existing processes and best practices
The improvement effort can be highly pragmatic and focused on results
Numerous case studies with provable tangible benefits
- Boeing – 28% improvements in cycle time, 34% decrease in defects
- Cognizant – 35% increase in productivity, 43% decrease in defect density
- Many others...
PMBOK and 6σ

Project Management Body of Knowledge and Six Sigma
What is a Project?

- Temporary endeavor undertaken to create a unique product, service or result
- Progressive elaboration - distinguishing characteristics of each project will be progressively detailed as the project is better understood; must be closely coordinated with project scope definition
Definition of a Project

A *project* is a sequence of *unique, complex, and connected* activities having *one goal or purpose* that must be completed by a *specific time, within budget and according to specification.*
Project Parameters

Scope
- Documented boundaries of the project
- Document is described differently in different industries

Quality
- Product quality: deliverable of the project and its quality
- Project quality: quality of the project management process

Cost
- Representing project’s consumption of resources (in dollars, person hours, etc.)

Time
- Time – Duration to complete the project (effort vs. duration)

Resource Availability
- Management of the organizational assets required for successful completion of the project
The Scope Triangle

Scope and Quality

Resource Availability

Time

Cost
A program is a collection of projects that share a common goal or purpose. We will touch on the dynamics of programs later on.
Portfolio Management

A portfolio is a collection of projects, programs, and other related work grouped together to facilitate effective management and yield of that work in alignment with specific strategic objectives.

Aligned and organized by the strategic plan (or should be!)

- Strategic Plan
  - Vision, Mission, Goals
  - Results and Performance

- Portfolio Management
  - Program Management
  - Project Management
PM Life Cycle Considerations

PMI’s 5 Basic Process Groups (Linear)

Input

Opportunity

Initiate
Request
Determine Need
Define Issues
Determine Objective
Feasibility
H/L Scope/Est.

Deliverables
Formal Request
Initial Charter
HL Scope
HL Project Plan
HL Budget (ROM)

Plan
Definitive Scope
Estimate/Sched.
Risk Assessment
PM Plan
Team Meetings
Trade-Off
Analysis
Negotiation
Team Building

Deliverables
WBS
Estimates
Schedule
Risk in Plan
Assignments
Commitments
Enlarged Proj. Plan
Milestones

Execute
Integration
Scope Mgmt. Plan
Project Comm. Plan
Work Packages
Issue Resolution
Task Activity
Resource Coaching
Quality Standards

Deliverables
Ongoing Task Activities
Milestone Completion
Key Task Completion
Ongoing Proj. Meetings

Control
Scope Control
Cost Containment
Productivity
Monitoring
EVA/Burn Rate
Variance Reports
Risk/Issues Reports
Status Reports
Matrix, Means, Measurement

Deliverables
Productivity Ratios
Variance Levels
Budget Perf. Report
Risk Register
Quality Audits

Close
Client Acceptance
Delivery
Document.
Close-Out POs, Contracts,
Accounts
Disposition of
Equipment/Resource

Deliverables
Documented/Accepted Deliverables
Formal Closeout Meeting
Final Quality Report
LLA
Resource

Output

Opportunity realized

Generic Life Cycle

Initiate → Plan → Execute → Control → Close

PMI’s 5 Basic Process Groups

Client Briefing
## Draft Lifecycle to Deliverable Mapping

<table>
<thead>
<tr>
<th>Phase Name</th>
<th>Initiation / Planning</th>
<th>Planning</th>
<th>Execution / Control</th>
<th>Closing</th>
</tr>
</thead>
</table>
PMI and Six Sigma Contrast

Charter Contrast

**Six Sigma Charter**
- Business case
- Problem statement
- Role of team members
- Boundaries (scope)
- Goal Statement
- Resources
- Completion measurements

**PMI Charter**
- Document that formally authorizes a project. Includes or refers to (documents):
  - Business need to be addressed.
  - Project / product description
  - Proof of management's commitment
Scope

Scope Six Sigma
- Document that defines the work to be done Charter.
- Stakeholders Analysis
- Define the customer
- SIPOC model

PMI Scope
- Charter
- Constraints
- Assumptions
- Scope management processes defined here
- Project deliverables, objectives measures
PMI and Six Sigma Contrast

### Life Cycle

**PMI Life Cycle**
- INITIATION
- PLANNING
- EXECUTION
- CONTROL
- CLOSEOUT

**SSBB Life Cycle**
- DEFINE
- MEASURE
- ANALYSE
- IMPROVE
- CONTROL
Monitoring the Project’s Progress

Four Types of Project Status Reports

- Exception reports
- Current period reports
- Cumulative reports
- Variance reports
Monitoring the Project’s Progress

Exception Reports – Stoplight Reports

- The project is progressing according to plan.
- The project has a problem. A Get Well plan is in place. The situation will correct.
- The project is failing. Intervention is required.
Monitoring the Project’s Progress

Gantt Chart Project Status Report

Tracking Gantt Chart

<table>
<thead>
<tr>
<th>Task</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Baseline
Cumulative Reports – Milestone Trend Charts

Monitoring the Project’s Progress

A run up or down of four or more successive data points

Project Month

Early

Late

On Schedule
IT Performance Measurement

Metricus
Why Measure IT?

“You can’t manage what you can’t measure”.

IT Performance Measurement is fundamental to successful IT Governance.

Pragmatic metrics & measurement capability is a prerequisite for an effective IT Service Management (ITSM) program.

- A centralized 'one-stop shop' for information related to IT Service Performance Management
- Provision of information required to re-engineer and optimize processes associated with COBIT, ITSM and ITIL best practice frameworks
- Benchmark your Key Performance Indicators against other organizations with similar profile as the number of clients grow
- Improved data quality from the IT operational systems
- Lower costs associated with data collection for IT Service Metrics
- Streamlined development and delivery process for presenting IT Service Metrics
Performance Measurement – Role in Governance

Enabling IT Governance By:

- Facilitating alignment of IT Services with Business Strategies
- Providing faster, more efficient, and consistent communications of IT Service Performance
- Increasing visibility into the impact of business changes on IT Services
- Enhancing budget, planning and forecasting of IT Services
- Increasing accountability within IT, and between IT and the Business
IT performance measurement is dominated by theoretical metric ‘wish lists’ that are applied without truly understanding their meaning or impact.

Management needs information to take decisions, but data is often meaningless and the quality cannot be trusted.

Performance measurement initiatives are often based on home grown spreadsheets and do not leverage business intelligence platforms.

Scorecard initiatives fail because the underlying data to support the scorecards does not exist.

Performance measurement typically surfaces too late in a process implementation and minimizes the chance of success.
Meeting These Challenges . . . .

Organizations require information about the health of their IT organization and need to understand how IT can effectively support the business strategy.

Metricus provides an IT performance measurement framework that allows organizations to understand and maximize the value from their IT organization:

- Metricus provides an ‘on demand’ business intelligence platform that supports comprehensive IT performance measurement.
- Metricus represents a toolbox with scorecards, metrics, practices and expert knowledge that supports the entire IT performance measurement lifecycle.
- Metricus presents a framework for performance measurement that supports effective decision making at the strategic, tactical and operational levels of IT.
Unique Approach to IT Performance Measurement

**Metricus** provides the most comprehensive ‘on-demand’ IT performance measurement solution.

**On-demand IT Performance Measurement**  
- A centralized ‘one stop shop’ for comprehensive IT performance measurement  
- Streamlined process for collecting and intelligently presenting IT performance metrics  
- A Business Intelligence SaaS service available ‘on-demand’ for IT organizations/ departments of virtually any size or geographic location.

**Based on Expert Knowledge**  
- A ready-to-use set of proven and pragmatic metrics aligned with IT best practices such as ITIL and COBIT  
- Toolkits to improve the quality and reduce the cost of data collection  
- Predefined and customizable scorecards to provide a quick insight into the health of the IT organization

**Provides Business and IT Governance Benefits**  
- Facilitates IT decision making and increases IT alignment to business strategies  
- Enables accountability and transparency between the business and IT
Functionality for IT Service Metrics Management

- Facilitate ownership and accountability for IT Service performance by assigning owners to defined IT Service metrics.
- Assign up to 5 static or dynamic targets, goals or benchmarks per metric.
- Create and view strategy maps and impact diagrams to understand the cause and effect relationship between metrics and scorecards.
- Set alerts and notifications to ensure awareness of IT Service metric status changes.
- Manage corrective actions and initiatives through creation of actions and projects specific to IT Service metrics.
- Create custom scorecards and metric watch lists for selected users groups.
- Embed business intelligence capabilities into scorecards for added context and analysis.
- Use a metrics network and centralized data store to ensure reliable and consistent delivery of information related to IT Service metrics.
Metricus services support the full IT performance measurement lifecycle.

**Analyze**
- Selection of IT performance metrics
- Metrics definition
- Analyze availability and quality of data

**Design**
- Business Intelligence technical architecture
- Data mart structures

**Develop and Deploy**
- Data integration procedures
- Metrics, scorecards and supporting reports
- Testing and documentation
- Organizational implementation

**Manage**
- Backup and restoration
- Security management
- Auditing

**Improve**
- Performance analysis
- Benchmarking
Metricus Performance Measurement Solutions

A complete set of services built around expert knowledge and a secure, hosted Business Intelligence SaaS solution.

**Consulting Services**
- Metric scorecards and report services
- Feasibility analysis and data quality
- Data Transformation
- Benchmarking services

**Training Services**
- Enablement Workshop
- Specialist End User and Technical Support

**IT performance measurement platform**
- Business Intelligence Framework
- Metrics and measurement library
- Metricus data management
- Expert Knowledge and tools
- Secure hosted infrastructure
- Support services
Back to Our Example

1. Can you show me how good we are at managing IT issues?

2a. Sure; have a look at this dashboard
2b. I can drill down into the details if you want

3. We based this on a predefined TOP 10 ITIL scorecard

4. Considering the available data and effort to insight ratio for collecting data

Senior/executive Management → Consulting “Middlemen” → IT management → IT service transition team

Metricus provides dashboards for IT decision making

Incident management dashboard

Industry experts predefined top scorecards

Based on a comprehensive library of measures and metrics

Incident management dashboard

1. % Incidents Misrouted
2. % Incidents Linked to Problems
3. % Incidents Re-opened
4. % Incidents Resolved within Target
5. % Incidents with Incorrect Data
6. % Incidents Caused by Changes
7. Average Incident Create to Resolve Duration
8. Incidents Created
9. Incidents Open
10. % Incidents Requiring Onsite Support
11. % Incidents Resolved - 1st Level
12. Average Cost per Incident
Metricus provides a multi-tenant infrastructure that is available ‘on demand’ for organizations of all sizes across the world.

New features and functionalities can be rapidly added to Metricus without having to wait for new installations and long release cycles.

Metricus ensures that customer data is protected with physical security, data encryption, user authentication and application security.

Metricus provides a scalable architecture that can grow with the number of users and ensures high availability of the platform.
Metricus provides a secure and scalable hosted performance measurement environment.
A powerful scorecard engine that taps into predefined IT best practice scorecards or allows for the creation of organization specific IT performance scorecards.

A report engine and IT health dashboard that provides the insight required for decision making at the strategic, tactical and operational level.

A role based portal with different views for different users secured by industry standard security standards.

Customizable front end allowing for the creation of different views and an organization specific look and feel.
The IT Performance Metrics Library is a structured database containing the definition of over 360 IT Performance Metrics, 440 supporting measures and 250 report templates.

- Represents a ‘super-set’ of IT Performance Metrics providing the foundation for selecting metrics appropriate for a customer.

- Globally accepted ITSM best practice frameworks are covered including ITIL and COBIT.

- Structured: Metric attributes include impact, usage, related measures, calculation techniques, targets, relationship to IT Service frameworks, analysis granularity, units of measure and data collection tips.

- Pragmatic and Practical: All measures, metrics and reports have been defined based on actual usage within successful implementations of IT Performance Measurement.
IT Performance Data Management provides the data integration layer for Metricus.

Various techniques and mechanisms are provided to identify and extract information from the IT organization into Metricus. Both manual as well as automated solutions are possible.

Relational data structures designed specifically for the collection of data related to IT Performance Metrics.

Supports modern data sources, such as XML, JDBC, LDAP and OLE-DB.

Supports satellite sources, including Excel, Access, flat files, and more. Also supports manual data entry.

No practical limits on historical retention of data.
Metricus Consulting Services

Metricus is supported by a range of consulting services that help organizations in understanding and adopting Metricus.

Metricus – Feasibility Analysis
Services to assist with the definition of IT Service Metrics for customers, the feasibility of selected metrics, and cost/benefit analysis.

Metricus – Data Quality Assessment
Designed to analyze the availability and quality of data required to provide Metricus IT Service Metrics, Scorecards and Reports. Project deliverables include definition of data sources required for Metricus and remediation strategies for data quality issues identified.

Metricus – Data Transformation Services
Services to assist with the collection and transformation of data required to populate Metricus IT Service Metrics and Scorecards.

Metricus – Customized Scorecards & Reports
Development services for customization of Metricus environment including new metrics, diagrams, reports and scorecards.
Metricus Training Services

**Introduction to Metricus**
A comprehensive ½ day introduction to the services that define Metricus. Includes a demonstration of functionality, a presentation of the Metricus value proposition and a practical overview of implementing Metricus for a customer.

**Metricus Enablement Workshop**
A 3-days workshop to train consultants on how to successfully implement customer IT Service Metrics and Scorecards within Metricus. Detailed information is provided on customer implementation methodology, data quality and transformation issues, and the definition and presentation of IT Service Metrics and Scorecards.

**IT Service Metrics and Benchmarking**
A 1-day workshop to explore the processes and techniques needed within an IT Service environment to ensure effective and accurate benchmarking of IT Service related metrics.

Metricus training services help key employees comprehend and deliver high quality IT performance metrics.