Agenda

- **Service Management Foundation:**
  - Fundamental building blocks for successful Service Management
  - ITIL v3: What’s new in Service Operations and Service Transition

- **From “Best Practice” to Implementation**
  - Planning a successful Service Management roadmap
  - Overcoming organizational challenges:
  - Using a Process Reference Model to accelerate process design
  - Building a Service Management Technology Architecture
  - Case study: successful Service Management implementations
The current situation at a bank in the ASEAN region

- There is no integrated process framework
- Different tools are used for different processes:
  - Monitoring is done at the platform level, with no overall monitoring capability. There is no event management function, and event information is not passed to the Service Desk
  - Service Desk is currently using a CA product for Incident and Service Requests, but they are considering changing to a BMC product
  - 2nd and 3rd level support staff use PVCS Tracker for Problem Management
  - Change Requests are managed on spreadsheets
  - There is no formal Release Management process
  - Configuration management is done in an unstructured manner by each of the support teams in a silo and hero-based manner. Spreadsheets are used by some of the teams.
- Consequences:
  - The standard method of finding out about an availability problem is via a call to the Service Desk (users know before the IT team does)
  - There are significant availability issues, and there was recently a significant downtime of core banking services
  - Data is manually entered from one ITSM tool to the next
  - It is difficult to produce KPI reports, or understand the health of the IT services
  - Users are highly dissatisfied with IT services
Weak/missing processes continue to be the top ten biggest challenges faced by IT Organizations

(identified by the Tivoli Assessment Program)

**2002**
1. Resource issues: including quantity, skill levels.
2. **Weak, missing processes.**
3. User buy-in, communication issues with user community, getting proper user requirements.
4. Failure of strategy and lack of planning as applied to global ESM as well as Tivoli.
5. Total lack of support from the executive to go more about implementing ESM.

**2003**
1. Too few trained and dedicated resources.
2. **Lack of basic IT processes.**
3. No Project Management.
4. Deployed product is obsolete or at end-of-life.
5. Weak or obsolete infrastructure.
6. Inadequate staffing & lack of formal Tivoli training and basic skills. (DB, UNIX, WinTel, Scripting)
7. Project management/enforcement of expectations through SLAs.
8. Inconsistent incident and problem management.
9. Lack of overall ESM strategy with no Executive support/direction.
10. Tivoli products not included in disaster recovery plans/tests.
11. Need for proper test environment to manage change.
12. Failure to upgrade products & properly maintain environment. (Endpoints, Tuning)
13. No Project Management & evangelizing of ESM
14. Immaturity of process implementation. (Focus on Capacity, Change, Incident management)

**2004**
1. Resources: no formal Tivoli training, cross training and quantity of resources.
2. No Project Management.
3. **Lack of basic IT processes.**
4. Weak or undocumented architecture.
5. Failure to upgrade products & properly maintain environment. (Endpoints, Tuning)
6. No proper test environment to manage change.
7. Weak or undocumented architecture.
8. Tivoli products not included in disaster recovery plans/tests.
9. No Project Management & evangelizing of ESM
10. Stress from organization demanding upgradability, little use of metrics and trending.

**2005**
1. Inadequate staffing & lack of formal Tivoli training and basic skills. (DB, UNIX, WinTel, Scripting)
2. **Weak management/enforcement of expectations through SLAs.**
3. Inconsistent incident and problem management.
4. Lack of overall ESM strategy with no Executive support/direction.
5. Tivoli products not included in disaster recovery plans/tests.
6. Need for proper test environment to manage change.
7. Failure to upgrade products & properly maintain environment. (Endpoints, Tuning)
8. No Project Management & evangelizing of ESM
9. Immaturity of process implementation. (Focus on Capacity, Change, Incident management)

**2006**
1. Poor management of expectations in lack of SLAs.
2. Lack of formal Tivoli training, cross training & recommended number of resources.
3. Haphazard product level standardization across environment & inadequate hardware.
4. Underutilization of product functionality.
5. **Inconsistent incident/problem management, little use of metrics and trending.**
6. Failure to upgrade products & properly maintain environment. (Endpoints, Tuning)
7. No proper test environment to manage change.
8. Weak or undocumented architecture.
9. Tivoli products not included in disaster recovery plans/tests.
10. No Project Management & evangelizing of ESM.
With evolution and increasing complexity of the managed environment, there is increasing need for effective IT processes.

There has been a natural progression from managing infrastructure resources to systems, to IT services and business services.

This requires a set of streamlined processes to improve efficiency of service management.
The ITIL v3 books introduce the concept of a service lifecycle, but do not provide a roadmap for implementing an IT Service Management program

Service Strategy
- Establishes the overall strategy for providing IT services. It consists of four main activities:
  - Define the market
  - Develop the offerings
  - Develop the strategic assets
  - Prepare for execution

Continual Service Improvement
- Review and analyze Service Level Achievement results
- Identify and implement improvement activities to improve IT Service quality and improve the efficiency and effectiveness of ITSM processes

Service Operation
- Coordinate and carry out the activities and processes required to deliver and manage services at agreed levels to business users and customers
- Manage the technology that is used to deliver and support services

Service Design
- Converts strategic objectives into portfolios of services and service assets
- Develops policies, architectures, portfolios
- Design a new or changed service for introduction into the live environment

Service Transition
- Guidance for the transitioning of new and changed services into the production environment
- It focuses on the broader, long-term change management role and release practices
- Objective is to ensure minimal unpredicted impact on production services, operations and support organization
ITIL v3 covers a lifecycle of 5 phases and many processes...

The question is often “Where do I begin?”
Service Operation and Service Transition are recognized to be the foundation and pre-requisites for effective Service Management

- In ITIL v2 most organizations started with the Service Support book, implementing the following functions/processes:
  - Service Desk
  - Incident Management
  - Problem Management
  - Change Management
  - Release Management
  - Configuration Management

- In ITIL v3 the same processes exist, but the list has been expanded to provide a more complete view of the service lifecycle:

  ▪ **Service Operation:**
    - Service Desk
    - Access Management
    - Request Fulfillment
    - Event Management
    - Incident Management
    - Problem Management

  ▪ **Service Transition**
    - Change Management
    - Transition Planning and Support
    - Knowledge Management
    - Release and Deployment Management
    - Service Validation and Testing
    - Service Asset and Configuration Mgmt
The IT Service Management framework should be developed using an integrated, holistic approach.
**Request Fulfillment**

- Request Fulfillment is the initial support handling of contact with IT users.
- The purpose of the Request Fulfillment Process is to receive service requests from users and route each request to the appropriate process for handling. Some service requests are handled by the Request Fulfillment Process, whereas many others are routed to other processes for fulfillment. Request Fulfillment can be the contact management process for an implementation of an IT Service Desk (or equivalent).

**Sample KPIs**
- User satisfaction with IT handling of
  - Incidents
  - Service requests
  - Requests for information
- Number of contacts handled
  - Percent handled by the first line of support
- Time to completion of service goal
Incident Management

- Incident Management provides rapid response to possible service disruptions.
- The purpose of the Incident Management process is to focus on the restoration of a service affected by any real or potential interruption which has impact upon the quality of that service.

Sample KPIs
- Number of incidents opened, closed, and pending (by severity level)
- Percent of incidents closed with automated responses against manual responses
- Percent of incidents closed using existing documentation (known errors)
Problem Management

- Problem Management identifies and resolves the root causes of service disruptions.
- The purpose of the Problem Management process is to resolve problems affecting the IT service, both reactively and proactively. Problem Management finds trends in incidents, groups those incidents into problems, identifies the root causes of problems, and initiates change requests (RFCs) against those problems.

Sample KPIs
- Number of known problems eliminated
- Status of change requests created to eliminate known problems
- Historical number of incidents eliminated through problem elimination
- Number of known errors (with workarounds) added to the known error database
- Percent of incidents related to known problems
Change Management

- The purpose of the Change Management process is to achieve the successful introduction of changes to an IT system or environment.
- Success is measured as a balance of the timeliness and completeness of change implementation, the cost of implementation, and the minimization of disruption caused in the target system or environment.
- The process also ensures that appropriate details of changes to IT resources (assets, CIs) are recorded.

Sample KPIs
- Customer satisfaction with the timeliness and value of the change approval process
- Percent of emergency changes
- Percent of change requests needing revision
- Percent of approved changes completed as planned and scheduled
- Number of Incidents due to Approved changes and Non-approved changes
Release Management

- Release Management is the controlled deployment of approved changes within the IT infrastructure.

- The purpose of the Release Management process is to prepare and finalize release packages that are fit for deployment so that optimal business value will be attained when deployment occurs.

Sample KPIs

- Customer satisfaction with the value and quality of releases
- Percent of releases
  - Completed as planned and scheduled
  - Rescheduled or delayed
  - Needing revision
- Number of incidents caused by a release
Configuration Management

- Configuration Management identifies, controls, and maintains all elements in the IT infrastructure called Configuration Items.

- The purpose of the Configuration Management process is to maintain the integrity of the configuration item (CI) employed in, or related to, IT systems and infrastructure, and to provide accurate information about CIs and their relationships.

Sample KPIs
- Satisfaction of related processes with CMS accuracy, completeness, and usefulness
- Percent of IT-controlled CIs represented in the CMS
- Number of updates made to the CMS
- Number of inaccuracies discovered in CMS data
From Best Practice to Implementation
ITSM Implementation Challenges

Once you decide to implement an ITSM solution, the questions are:

- Where to begin?
- How to determine where you are?
- How to determine where you want to be?
- How to get to where you want to be?
  - How to determine your ITSM’s "pain points" and gaps between theory and current reality?
  - How to translate the ITIL framework and best practices into a design that can be implemented?
  - How to customize ITIL best practices for your IT operational processes and procedures?
  - How to train your staff to internalize ITSM and ITIL best practices?
  - How to learn from other customer successes and failures?
  - .............
5 Steps to Plan for ITSM Implementation
The first two steps establish a basis for the ITSM design phases.

A well defined process for ITSM assessment and planning, and lesson learned from other implementations can save you a lot of time and money.
Step 1: Awareness and Training

- Understanding ITSM and ITIL processes is critical to the assessment and planning of IT Service Management.
  - ITSM concept, objectives, process definitions, activities, terminologies, relationships, roles, and responsibilities.
  - Advantages and benefits of using IT Infrastructure Library (ITIL) and IBM Process Reference Model for IT (PRM-IT) process models.
  - Key success factors and considerations for the implementation of ITSM based processes.

- The IBM Tivoli Unified Process Composer is a customizable process model that offers detailed content and tooling to enable content customization, extension, and publishing.
In addition to ITIL training, a well planned communications campaign helps instill awareness and cultural change.
Step 2: ITSM Assessment

- The success of every IT Service Management implementation project is dependent on a combination of people, process, and technology. Understanding the current organizational capabilities, status and issues is critical to identify areas for development.

- This Assessment workshop draws inputs from executives, managers and IT professionals to baseline the current environment. It establishes the current status, the target and the roadmap.

- The results of benchmarking and reviews lead to identification of gaps in terms of people, process and technology issues.

- The ITSM assessment maybe based upon:
  - ISO/IEC 20000
  - COBIT
  - ITIL Maturity Matrix
  - ISM Adoption Model
Sample assessment results

ISO/IEC 20000 Assessment Result

6.5 Capacity Management

COBIT levels of maturity
Step 3: Design

- Key requirements are first captured through collaborative discussions, these include:
  - Key Business Drivers
  - IT Service Management Objectives
  - IT Service Management Requirements
  - Key Value Propositions
  - Critical Capabilities
  - Critical Success Factors
  - Issues

- Designs are then developed for the Process, Organization, and Architecture.

- At this stage, a high level design of the tool is also defined.
IBM’s Service Management Reference Architecture can be used as a design guide for the development of the ITSM tools architecture.
Sample of Functional Architecture Design
Sample Process Design (Workflow)

1 - Incident Management

Help request
Step 4: Detailed Design

- Detailed tools design will include the configuration of the tool, the design of reports, and construction of interfaces.
- Detailed tool integrations need to be addressed.
- This phase will also incorporate system and user acceptance testing.
- This provides the basis for the next step of implementation.
Example of process integration with tools
Step 5: Implementation

- Implementation Planning prepares the organization and align resources for the implementation and deployment. Typical activities include:
  - Mapping the process roles to the functional roles
  - Training the staff on the new processes
  - Tools training
- User Acceptance Testing and sign-off for any new tools
- Move to production
- Monitor and report on the process KPIs
- Management to conduct periodic reviews
- Develop Service Improvement Programs for any areas where KPIs / SLAs are not being met
IBM’s Accelerator Solutions for Tivoli delivers faster time-to-value

**Awareness & Training**
- Awareness & Training
- Roadmap Planning

**Strategy & Plan**
- Assessment

**Design**
- Process Design
- Organization Design
- Architecture Design
- High Level Tool Design

**Detailed Design**
- Detailed Tool Design

**Implementation**
- Implementation

*Accelerator fast-tracks design and implementation*
**What does an Accelerator have that is not already included in the software?**

<table>
<thead>
<tr>
<th>Base code validation procedure</th>
<th>Project plan</th>
<th>Maintenance activity review</th>
<th>Technical support procedure</th>
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<tbody>
<tr>
<td>Organization change management considerations</td>
<td>Personalization collection workshop</td>
<td>Solution architecture</td>
<td>Bill of materials</td>
</tr>
<tr>
<td>Customized code</td>
<td>Personalized code installation</td>
<td>Technical support</td>
<td>Model organization communication plan</td>
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<td>Completed personalization worksheet</td>
<td>Solution documentation</td>
<td>Organization considerations planning workshop</td>
<td>Model training plan</td>
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<td>Teach the teacher training workshop</td>
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Putting things together…
In our experience we see five common phases that many organizations go through in building their ITSM architecture:

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<thead>
<tr>
<th>Phase</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>Provide essential resource availability monitoring and basic event management. Implement system management tools and processes with basic event management. Basic Configuration information should exist to support component identification.</td>
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<td>Implement system management tools and processes with basic event management.</td>
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<td>3.</td>
<td>Provide enterprise-view of IT capacity and availability against SLAs. Implement an integrated IT dashboard for proactive operational monitoring. Advanced correlation of events to allow automated diagnosis and recovery.</td>
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<td>4.</td>
<td>Provide integrated IT &amp; business performance monitoring. Implement an integrated IT &amp; business dashboard to support management reporting of business-aligned KPI’s and continuous improvement.</td>
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<td>5.</td>
<td>Progressively implement. KPIs, Service Level Agreements leading to continuous improvement.</td>
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