

## White Paper



### The Information Conundrum: How much is too much Information when it comes to Business Service Management Implementation Compliance

---

Madhukar I B

#### Abstract

The onset of Metrics-based governance in organizations world-wide has well and truly dawned. IT Organizations have not been exceptions to the rule. While they have not been leading the rest of the business in gathering and reporting upon metrics, they have not been lagging either. The growing interest in Business Services Management among IT Managers attests to the growing importance IT organizations attach to this discipline.

Six-Sigma, Business Services Management, Balanced Scorecard and many other techniques are being embraced by CIO's world-wide in order to quantify and measure the impact of new and existing IT services back to the business organization. While Six-Sigma and Balanced Scorecard techniques are general in nature, Business Services Management applies specifically to organizations delivering Service Management.

Organizations face a unique challenge when it comes to implementing Business Service Management. It is what can be termed as the "Information Conundrum". What do we measure and to what level of minute detail? What do we track in the CMDB and to what level of detail? When do the Costs of gathering Information and tracking changes outweigh the benefits of better traceability? Where and how do organizations go about drawing the boundaries? Questions abound but answers are hard to find.

This paper explains some of the pitfalls that organizations need to be careful about in while designing their Business Services Management implementation efforts. The paper also attempts at providing IT Managers some guidance around answering the "What can I do to improve the chances of BSM-implementation success" question.

## Introduction

Almost all Operations Managers world-wide are now increasingly faced with a need to manage the Metadata within their organization. Increasingly, realization has dawned amongst the Service Management organizations that to achieve real integration between Business objectives and IT projects, one needs to harness Metadata generated within their organization in the course of operations very effectively.

## MetaData and its relevance in the Business Services Management context – A Closer look

So what is metadata? And how did such an obscure concept that has earlier been in the arcane dictionaries of database designers come into the service management mainstream? Questions such as these need to be addressed before we can get some answers.

Does this definition serve for our Service management definitions? Is that sufficient in making sense out of the mess? A closer look at applying this definition in the context of Service Management gives an interesting insight into this issue that is giving service management process practitioners a tough time.

Let us for understanding purposes quickly apply the definition to a small area within Infrastructure Management, say, Desktop Management. A quick mapping of the Information needs around the Desktop management area for implementing BSM, gives us a table that looks somewhat like this.

ITSM Process Discipline	Application of the Data Analysis ‘MetaData’ definition
Configuration Management	List of Desktop devices, their owners, purpose, User Information, relationships between devices, warranty and support information, location information, cost-center information, associated documentation, Software installed on desktop, current patch levels, Anti-virus levels, Hardware serial numbers, Barcode information, Auxiliary attached devices information (such as mouse, printers, disk-drives etc.), The above-said information around each of these auxiliary devices, Key dates such as Purchase date, installed date, disposal date, Redeployment history etc.
Change Management	All Information contained in the RFC such as – Who asked for the change, Why was the change done, What was the impact of the change, Back-out plans, Change History, Who approved it, When was the change requested, Dates of implementation, Impact on the change schedule etc.
Incident Management	Incident history for the desktop cataloguing Information such as the date/time of incident, parties affected, Business/Service Impact and User Downtime, Resolution time, Parties that worked on the Incident, time spent in resolution, date/time stamp information at various stages in the Incident resolution process, Work-around Information, Resolution Information, Information on Root-cause of Incidents, Vendor ticketing information, Replacement Information, Relevant SLA/OLA/UC Information, Contact details of all parties that are involved with Incident resolution etc.
Problem Management	Problem History or all identified problems cataloguing Information such as the Incidents associated with the problem, Changes arising out of problem resolution, Knowledge Base of past Work-arounds, Root-Cause identification of problems, Contact Information for Problem resolution, Vendor KnowledgeBase references such as Hot-fix information, Microsoft Knowledgebases etc

Phew... and that is just the information requirements around just four process disciplines. A quick estimation of the amount of information as listed above for all the different process areas reveals that a single desktop can generate close to 40 thousand information fields during a 3-year lifecycle period. Assuming around 10 seconds of time spent in populating each field, the average Desktop Support Manager is around 110 resource-hours per desktop just to record each of the above information about desktops (not to mention additional time and monies spent for carrying out each of the Infrastructure management activities and audit and reconciliation of the above data). That works out to a whopping \$2100 USD per desktop per year in Metadata management costs for an average Fortune 500 sized company.

While that is scaring statistics, comfort can be taken in the fact that nobody has spent these monies so far and instead have taken a more pragmatic route to managing only the metadata that can be managed at a reasonable cost of maintaining the same.

But that means that we need to have a re-look at the types of metadata that we collect in the context of Business Services Management. The process used for selection of the metadata has to provide the operations manager a reliable guide to pick up only the relevant subsets of Information.

## What are the mistakes that organizations do when they go about identifying metadata for their BSM effort

The “Seven Sins” that Operation Managers typically commit when they go about identifying information that needs to be captured for Business Services Management:

1. **“The Collector Syndrome”** – Operations Managers tend to go about collecting and reporting on data because that is easily available from their auto-discovery tools that have been implemented. For example, Desktop Auto-Inventory tools provide available Hard-disk capacity on the desktops. Collecting data on the same and maintaining historical information of the same is unnecessary and serves only to slow down the performance of the CMDB systems and increase the network bandwidth loads during the collection process. Organizations need to evaluate the need for every field of information that they maintain and avoid the ones that are not required by any stakeholder as part of management decisioning process.
2. **“The Cowboy do-it-alone philosophy”** – Service Managers tend to start off with systems that are not well-integrated with other systems anticipating that such integrations would lead to implementation delays and a pilot needs to be gotten off ground as quickly as possible. This often leads to many manual data entry points for the end-user leading to severe data inaccuracies and user dissatisfaction, eventually dooming the acceptance of the service management pilot. For ex: Most managers tend not to integrate their directory services tools with their Service Desk and CMDB tools leading to the user having to enter the location and contact details each time they record information.
3. **“Swallowing too much in one bite”** – The key to a successful implementation is biting only as much as can be chewed. Many well-meaning service managers tend to go about gathering requirements from a wide-array of stakeholders and try to meet every requirement without prioritizing these requirements. This leads to hugely complicated designs of information-holding databases such as CMDB and other process information stores. The maintenance of accuracy of too much information would turn out to be well-nigh impossible for the service management teams.
4. **“Tool-fixation and Technology-led designs”** – This is easily the most popular mistake that is done by Service Managers. Many of them, in the desire for quick-start of the service management efforts, tend to focus on a tool implementation. The assumption here being that since the particular vendor complies with ITIL, implementation of the same would usher in service management within the organization. While this sounds naïve, the truth is that there are any number of organizations that focus on providing business-partners what the tool provides rather than what the business partners need. This bottoms-up approach tends to distort and strait-jacket the designs and eventually lead to the end goals not being met despite the large technology investments done.
5. **“The Let-us-do-it-later approach”** – This is another popular failing of the service management designer. Owing to time and project pressures, the service management process designer tends to postpone the hard tasks for later. While this helps in getting projects quickly off-the- ground, in the long-run, leads to a lot of investments to be done in re-engineering the systems from the ground-up because the original designs did not accommodate those hard tasks.
6. **“Do it all manually to start with” assumption** – Many technology implementations such as installing auto-discovery agents on desktops or implementing enterprise systems management frameworks can be quite challenging and take a long time depending upon the size and complexity of the computing environment within the organization. To mitigate the risk of having to wait too long, service managers tend to start off with manual processes and expect eventual replacement of the same with automated data collection mechanisms. This rarely translates to reality as owing to the unwieldy manual processes, the disenchanted teams give these processes as quick a burial as they can.

7. **“The Messiah Syndrome”** – It is very true of the Service Management community that many service managers tend to view themselves as messiahs spreading the gospel of service management within the organization helping move the organizations from the engulfed darkness to light. This “one-and-only-one-truth” approach leads to emergence of BSM designs and blueprints that are far divorced from reality. One needs to remember here that ITIL is a collection of best-practices and not an engineering design that needs to be faithfully reproduced. One needs to listen carefully to the concerns of the teams on ground and the business partners during the design phase and tailor the best-practices accordingly.

## What can organizations do to ensure that the right metadata is part of their overall Strategy

While there is no silver bullet for success in choosing the right metadata, Service Management designers can still take some steps that can minimize the risks of failure of the program and also help in enhanced customer satisfaction. Listed below are some of the “best-practices” that can be used as part of the overall program:

1. **Involve your Data Architecture Community in the ITSM program Designs** (the most senior ones, especially around the CMDB) – Traditionally, the Data Architecture community has been used by Software projects with solving business design issues and operations managers rarely interact with them. This needs to change and the need for standard data definitions and optimized data relationships within the service management program need to be given as much importance as for any ERP implementation.
2. **Look the CMM Way for ITSM project implementations** – Treat the entire Service Management project implementation as if it were a software development project a la ERP implementations. The rigour of Requirements gathering from all stakeholders, designs in-line with requirements, adequate testing, change management etc that CMM brings in is something that would be of invaluable use to the ITSM project manager who is beset with multiple, complex and sometimes conflicting Information gathering requirements.
3. **Phased Implementation Approach but as part of an overall integrated program** – The most important ingredient to success is to come up with an integrated data and systems architecture vision. However, the implementation of the same could be done out in a phased manner. Constraining the designs to the here-and-now of project implementations would lead to several ground-level re-engineering efforts that would be done later and many a times the original intent of a particular design might be lost as the persons who made those assumptions may no longer be there for the later phases.
4. **Use a suitable Maturity Model** (similar to the CMM 5-level model) **or at least a Roadmap** – It is very important to show the business partners and the IT community, the overall vision and the discrete steps that would be undertaken to get there. It is a good idea to use a CMM-style maturity model for the same, especially showing within it the various data elements, supporting process elements and technology elements that would go into the implementations at each level. This helps in overall expectation setting and also serves to get a consensus on the direction adopted fairly quickly.
5. And finally, **have a scorecard** that shows the amount of data and relationships that are currently there within the system vis-à-vis end objectives – Constantly reporting on the volume of the data that is there within the BSM repositories vis-à-vis the end-goals helps in setting and maintaining a shared vision of progress.

### About the Author

**Madhukar I B** is an MBA with a major in Information Systems from IIM, Calcutta and an Electrical Engineering graduate from IIT Madras. He started off his career as a Technology Projects Manager in Unilever, where he had a multi-faceted experience in diverse areas of technology including Server and Network Management, Information Security, Operations and Helpdesk Management. His career in Unilever was followed by a brief stint in Bangalore Labs where he led the Enterprise Management Systems Consulting group and provided ITIL and ITSM consulting services for several large Network Operations Centers and Large enterprises within India. Currently, he is a Senior Process Consultant in the Infrastructure Management Systems Consulting Practice within Infosys. He has extensive experience in the areas of implementing ITSM processes and Organizational Change Management in several large Fortune 500 companies.



For more information, contact [askus@infosys.com](mailto:askus@infosys.com)

#### About Infosys

Many of the world's most successful organizations rely on Infosys to deliver measurable business value. Infosys provides business consulting, technology, engineering and outsourcing services to help clients in over 30 countries build tomorrow's enterprise.

For more information about Infosys (NASDAQ:INFY), visit [www.infosys.com](http://www.infosys.com).