

WHITE PAPER: STRATEGIES TO IMPROVE IT PERFORMANCE

The Business Contribution of IT: Metrics that Matter

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Table of Contents

Executive Summary

SECTION 1 2

Communicating IT's Business Contribution

Problem: IT Speaks a Foreign Language

Problem: IT Speaks Too Much

Problem: IT Reports Often Lack Insight

Perception Becomes the Reality

SECTION 2 3

IT Performance Reporting — Essential Strategies

The Balanced Scorecard for IT

Metrics, Targets and Initiatives

Business Relevance and Impact — Metrics that Matter

Advanced Controls to Accelerate Performance Improvements

SECTION 3 11

Beyond IT Performance Measurement

Don't Just Measure — Manage

Embracing Change

SECTION 4: CONCLUSIONS 12

SECTION 5: ABOUT THE AUTHOR 12

Executive Summary

Challenge

With increased scrutiny and economic pressures, communicating the business value of IT has never been more important. Unfortunately, the technology-centric metrics used by traditional IT organizations mean nothing to business executives. And, with nothing available to gauge IT value, they fall back to the position of regarding IT as a cost center from which no tangible value is returned. Of course a focus on the “cost” invariably leads to a focus on “reduction” at the expense of everything else. To address this, CIOs and IT leaders must develop a way of demonstrating and reporting IT’s contribution to the business. This means identifying the metrics that are important to the business, setting the right targets, and ensuring capabilities exist to report achievement and drive improvement.

Opportunity

Adopting strategic measurement strategies based on systems such as the balanced scorecard (developed by Kaplan and Norton) provide IT with the opportunity to stop talking cost and start demonstrating value. To be successful, however, such programs must be underpinned by automated processes and controls which can both capture the required data and present it in business-relevant terms.

Benefits

Adopting a strategic approach to measuring IT performance supported by advanced IT management techniques enables IT to better demonstrate how it’s contributing to business growth and success. Such an approach benefits the business by:

- Stopping the endless cycle of IT cost reductions that can ultimately damage the business.
- Providing IT and the business with a common language and framework upon which to identify and drive strategic improvements.
- Increasing business agility and IT responsiveness to changing conditions.

SECTION 1

Communicating IT's Business Contribution

Problem: IT Speaks a Foreign Language

Unlike many other assets within a business, IT in itself has no intrinsic value. It does, however, play a pivotal role in business growth and success by automating and transforming business processes and delivering innovation. Since this is well understood, why has IT found it so difficult to measure and report the performance of IT in terms that are both relevant and meaningful to the business?

Part of the answer lies in the metrics IT has traditionally used to measure and report its capability. Typically, these have been technology and operations-centric, which while useful for IT managers, have no relevance to their business counterparts. Business managers need to understand how IT is supporting their business goals and objectives, so presenting them with reports detailing server-uptime or problem resolution time delivers absolutely nothing. Indeed, businesses today expect IT to be good at fixing things, so why bother reporting it at all?

Top of mind for business executives are new products, services and even disruptive business models that will increase profits and market share or drive service improvements. So, not surprisingly, the reports that would be most beneficial to them would be those that show how IT is contributing towards their objectives. The problem for IT is one of translation — taking something technical and abstract, and translating it into something meaningful and useful to all parties.

Problem: IT Speaks Too Much

Some organizations have taken great strides towards bridging this translation gap by introducing scorecard or dashboard reporting systems. Some have even gone further by incorporating meaningful metrics into their systems. Unfortunately, many of these IT performance reporting initiatives have failed due to the simple fact that IT doesn't know what strategic objectives it should be reporting against. As a result, they decide everything should be measured. Unfortunately, anything actually meaningful or relevant to the business gets lost in the noise and the system falls quickly into disrepair.

Problem: IT Reports Often Lack Insight

IT organizations collect many meaningful metrics and performance indicators. The problem, however, is that presenting them in isolation often doesn't tell the business anything that's useful. Consider for example, reporting customer satisfaction with the IT help desk. This outcome-based measure (or lagging indicator) tells us nothing useful in itself, unless it is linked and integrated with associated performance drivers (or leading indicators). Instead, reporting the percentage of customer problems resolved within agreed service levels linked to customer satisfaction is far more insightful and useful.

Perception Becomes the Reality

When IT can't report its contribution to the business, then it's no surprise that the business regards IT as a commodity. This inevitably leads to a vicious and endless cycle of cost cutting, which if left unchecked, can seriously damage the business. This cost cutting may not actually be justified. But since IT cannot provide a reliable reporting framework, it is powerless to prevent it.

To avoid this situation, IT clearly requires mechanisms and processes in place to deliver a comprehensive IT performance scorecard, one that combines proven performance reporting best practices with systems that provide the essential business measurements. In other words, it provides metrics that matter.

SECTION 2

IT Performance Reporting — Essential Strategies

Communicating IT value and business contribution is critical if IT is to be regarded as a strategic partner. As we have seen, however, traditional approaches have failed. To break through, IT leaders must implement a number of strategic disciplines. These should blend best practices with automated controls and systems so that an organization doesn't just measure the overall performance of IT, but can actually manage and improve it.

To drive such an IT improvement program, the organization should consider implementing and incorporating the following:

- A balanced scorecard for IT and associated artifacts
- Business-relevant measures of performance — metrics that matter
- Advanced controls to accelerate performance improvements

The Balanced Scorecard for IT

A balanced scorecard is a performance measurement system that enables businesses to drive strategies based on measurement and follow-up. Originally developed at an enterprise level by Kaplan and Norton in 1992¹, it is based on the fundamental premise that an organization should not be evaluated against one set of criteria (such as financial results). Rather, it should be evaluated against a broader set of objectives and measures, including perspectives such as customer satisfaction, internal process excellence and an ability to innovate. Results achieved across these additional perspectives should drive financial success and help the organization meet its strategic goals while keeping everything in balance.

The original four perspectives proposed by Kaplan and Norton were Financial, Customer, Internal Business Processes, Learning and Growth, with each perspective having a three-layered structure, describing its mission, objectives and measures.

While initially developed at an organizational or enterprise level, the balanced scorecard can, however, be applied to the IT department as an instrument to measure IT performance and business alignment². Indeed, it can be argued that for an organization traditionally focused on measuring its capability from an operational perspective, a more balanced view is needed; especially one that includes value-based and financial metrics.

1 Kaplan R S and Norton D P "The balanced scorecard: measures that drive performance", Harvard Business Review 1992.

2 Frameworks for IT Management (chapter 9) - Van Haren Publishing; September 2006.

Ideally, to work most effectively the balanced scorecard approach should be adopted by the organization as a whole, with IT scorecards linked to organizational scorecards³. Also to apply the balanced scorecard to IT, the four original enterprise perspectives (financial, customer, internal business processes, and learning and growth) should be adjusted as follows:

- Business value — “How does IT look to the business?”
- User or customer — “How do our customers see us?”
- Operational excellence — “What must IT excel at?”
- Future — “How can we continue to improve and create value?”

Against each of these perspectives, IT and business leaders would collaborate to identify the IT objectives needed to support business strategy. Each of these would have associated metrics and targets, with initiatives identified to illustrate how performance improvements against the objective will be achieved (see Figure A for an example generic IT scorecard).

BUSINESS VALUE PERSPECTIVE evaluates IT from a business stakeholder perspective, capturing the business value created from IT investments and services. An example objective could be the business value of new IT projects. Relevant metrics could include financial evaluation based on Return on Investment (ROI), Internal Rate of Return (IRR), Net Present Value (NPV), etc.

USER OR CUSTOMER ORIENTED PERSPECTIVE represents the user evaluation of IT from the perspective of both internal users and external customers. In addition to standard metrics such as customer satisfaction, this perspective could also gauge things such as the level of engagement between IT and the business to drive strategic application initiatives.

OPERATIONAL EXCELLENCE PERSPECTIVE this is essentially an internal IT viewpoint, measuring the efficiency and effectiveness of the IT processes needed to build and support IT services. Metrics in this perspective could include operational process excellence, security compliance and first call problem resolution by the help desk. An example objective could be efficient computer operations. Relevant metrics would be the percentage availability of IT services or response times per category of users.

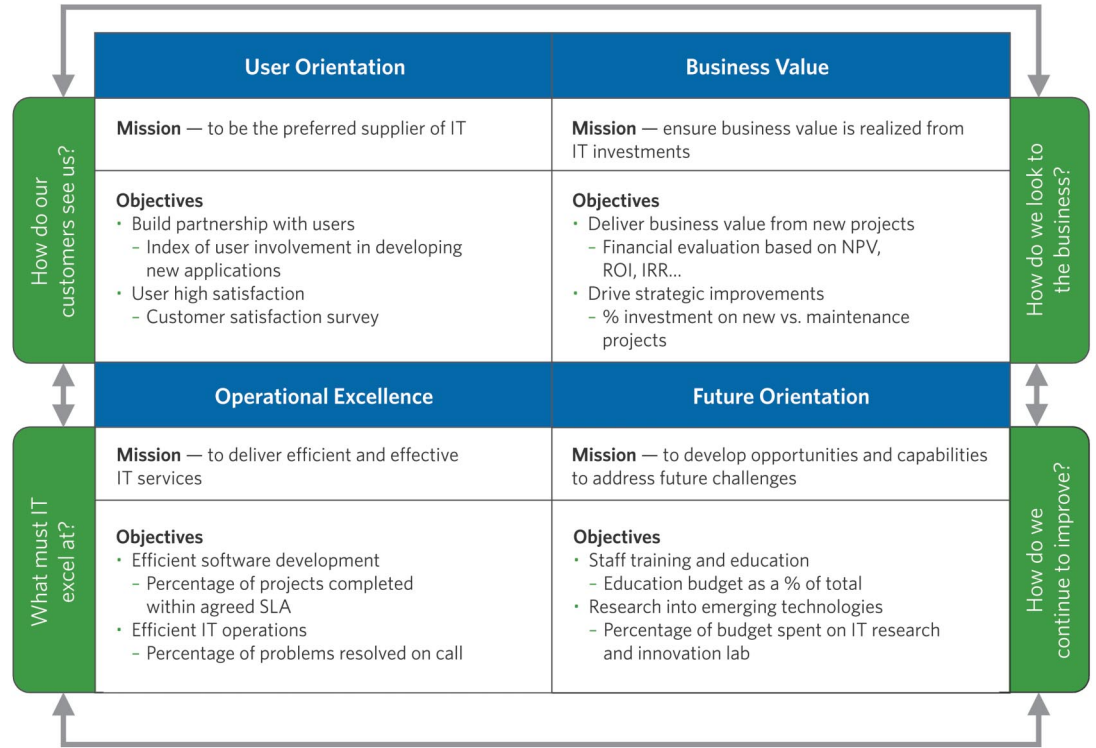
FUTURE ORIENTATION PERSPECTIVE this evaluates IT’s readiness to meet future business requirements. As such it measures human capital aspects such as training, expertise and the ability to innovate. An example objective for the future orientation perspective could be to promote a culture of innovation. A relevant metric would be the percentage of ideas submitted to a discussion board.

³ Implementing the IT Balanced Scorecard — Jessica Keyes — Auerbach publications, 2005

FIGURE A

An IT balanced scorecard can be developed to measure the performance of IT across four key and interrelated perspectives — Business Value, User/Customer, Operational Excellence and Future Orientation.

GENERIC IT BALANCED SCORECARD



Collaboration between business and IT is critical in the early stages of a balanced scorecard project to determine the strategic objectives or, if you like, the destination for IT. This is often difficult, since the overall business strategy may not be consistently defined or even completely understood by line-of-business constituents. But one of the biggest mistakes organizations make is when IT works in isolation to chart its own course; this is a major reason for alignment problems and disconnects between IT and the business. And, CIO's need to understand the objectives of their peer level counterparts in the business, how they are measured, and especially what expectations they have of IT moving forward.

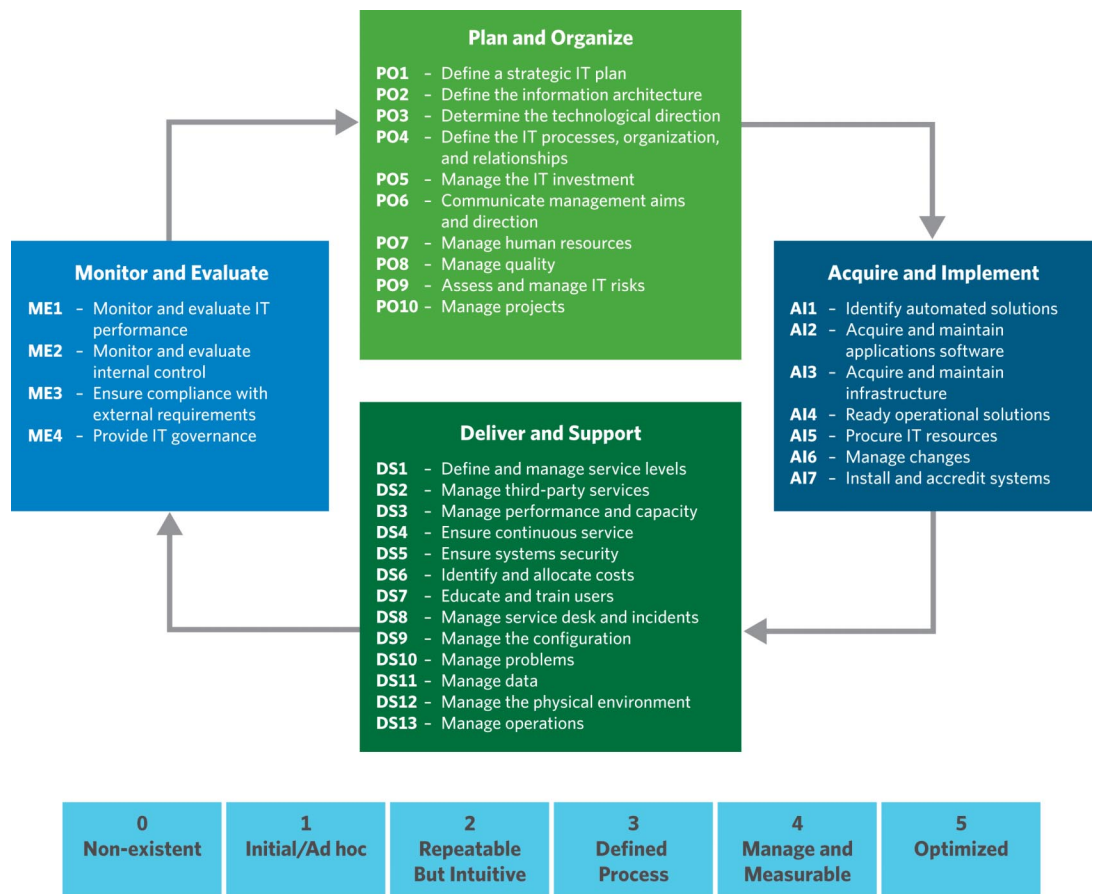
Once the business strategy is understood, the organization can develop an IT strategy map that documents the alignment of the IT strategy to the business strategy. The map typically shows the IT objectives (across each of the scorecard perspectives), how they are linked or aligned with business objectives and what the business expects from IT to meet its own strategic outcomes.

When the organization has identified the business expectations for IT, it should begin a process of determining what specific competencies are needed to meet those expectations. This can be quite an involved step. Fortunately, IT governance frameworks such as Control Objectives for IT⁴ (or CoBIT) and related technologies can help. CoBIT 4.1 for example, organizes IT into 34 processes across four domains and enables IT managers to assess their capabilities against a maturity model (see Figure B). This framework could be used in conjunction with the strategy map to identify which processes are critical for success and should be the focus of a more detailed capability assessment.

FIGURE B

Best practice frameworks such CoBIT provide a reliable means by which IT organizations can assess capabilities against a maturity model.

COBIT PROCESSES AND MATURITY MODEL



4 Control Objectives for Information and Related Technology — www.isaca.org

Metrics, Targets and Initiatives

Once IT knows where it needs to go, and what it needs to do to get there, an IT balanced scorecard becomes an excellent means to both measure and drive performance. But to gain maximum value, the IT organization needs to ensure that every metric it defines to help meet a stated objective has a target, and is supported by an initiative that will help meet and eventually exceed that target. Developing the right metrics, targets and initiatives is critical if a balanced scorecard project is to be successful. Some practical guidance includes:

- **Less is more** Many organizations try to report against too many things. In this situation, the sheer burden of maintaining the scorecard quickly outweighs the benefit. For a high-level IT management scorecard, aim to start with about 50 metrics. As expertise improves, reduce this over time to 15-20 key metrics. The aim should always be to measure things that are meaningful to the business and of course, valuable.
- **Strike the right balance** Scorecards should contain a good mix of lag (outcome measures) and lead (performance drivers) metrics, and will be enhanced by stressing the cause-and-effect relationships between them. Lag metrics (e.g. a project satisfaction index) without performance drivers (e.g. on time, on budget score) don't communicate how they are to be achieved. Similarly, performance drivers (e.g. developer training) without an outcome measure may lead to investment where it is not needed.
- **Ensure ownership** Every metric should have an owner who commits to ensuring the target is achieved and is held accountable when it isn't. Without ownership, scorecards can quickly become just another static reporting tool and performance will never improve.
- **Aim for something** The IT organization should define targets that drive improvement. A mistake at this stage would be to define targets that fall short of user expectations or are just unrealistic. Try to create initiatives for each metric and set targets that will drive improvement. For example, if a strategic objective is to improve end-user service, a metric might be first-call resolution at the help desk. The target for this metric might be 50 percent from 25 percent. An initiative to support this could be the introduction of user self-service knowledge tools and a password reset facility.

Business Relevance and Impact — Metrics that Matter

Perhaps the most important task during any performance management initiative is selecting a set of measures that are relevant and will have impact on a business outcome (e.g. help drive more sales, increase competitiveness). Examples could include:

1. **Alignment: IT investments supporting business strategy** Metrics in this category are especially valuable since they can help address business alignment issues. An example metric could be - the percentage of projects dedicated to supporting major strategic initiatives. This would be set against an alignment objective within the scorecard's business value perspective.
2. **Control Cost: IT spending analysis — strategic v.s. maintenance** A typical IT organization spends a high percentage of the IT budget on maintenance or "keeping the lights on" activities (as much as 75 percent). A good metric, therefore, would be the ratio of maintenance activities to new projects within the business value perspective of the scorecard.

3. **Improve Service: business service availability** performance against service level agreements can be a good indicator of customer satisfaction provided the metrics are linked to services rather than technology assets. End-users and customers care little about the performance of technology components, such as a web-server farm, but would, for example, find the overall performance of an online shopping cart application or customer loyalty program useful.
4. **Increase Efficiencies: operational excellence** while it is important for IT to drive improvement across the value (financial) and end-user/customer perspectives, nothing will be achieved unless IT delivers a stable and secure operation. Metrics in this category, therefore, should be good indicators of operational performance, which also drive improvements across other perspectives (cause-and-effect relationships). Examples include:
 - End-user response times
 - Security compliance indicators
 - Problem resolution times
 - Project execution (quality, timeliness, and cost)

Advanced Controls to Accelerate Performance Improvements

While simple and sensible, the metrics described above are often the most difficult to deliver since they require high degrees of IT management capability. Without this, the IT organization will have to dedicate considerable amounts of time and resources to manually collecting and analyzing data elements. The result: a scorecard that is little more than a static measurement tool, providing dubious information, and one that quickly falls into disrepair.

To avoid this situation, organizations should employ automated controls and integrated solutions. These should be capable of quickly and accurately reporting scorecard metrics and revealing insights that will help drive improvement. Consider, for example, the IT management dashboard shown in Figure C below:

Here, an IT manager is using advanced management techniques to report the status of an organization's IT service portfolio (financial services). Each of the bubbles on the dashboard represents an IT service, with the position on the dashboard illustrating the degree of business alignment. The size and color of the bubble are also important, showing actual cost and recovered cost. This type of solution not only provides the information to measure the business alignment objectives (see metric example #1 discussed above), but also reveals information that can be used to drive performance improvements in the future. For example, the dashboard shows that the 'retirement application' has poor alignment, high cost and low return, while a new 'retirement planning services' project has good alignment. If a strategic objective of this business is to introduce new products and services to increase revenue, then, from this information, the IT organization may consider shifting more investment and resources to the new project.

FIGURE C

Project and Portfolio management techniques are essential for providing business value and alignment metrics. Dashboard like this also facilitate stronger business engagement and fact-based decision making.

SERVICE PORTFOLIO DASHBOARD



To deliver strategic information such as this requires management solutions to be extremely well integrated. Important financial decisions will be made based on the data presented, so accuracy is vital. For example, cost information should not only include operational costs (e.g. project resource costs), but also capital expenditure (e.g. IT assets — hardware, software licenses).

Integrated capability within IT management solutions is especially important so as to measure customer satisfaction with the services IT provides. As previously stated, this would require service level measurements be set against actual end-user services themselves rather than technical infrastructure (e.g. CRM system, email service, web order-entry application). But without the means to automatically discover application and service dependencies and integrate within a Configuration Management Database (CMDB), it would be next to impossible to measure service availability.

Integrations like these also support key cause-and-effect metric linkages across the scorecard perspectives. For example, incorporating a support automation function within end-user self-help service will reduce problem resolution times (a leading indicator of operational excellence) while also helping increase customer satisfaction (a user-oriented metric).

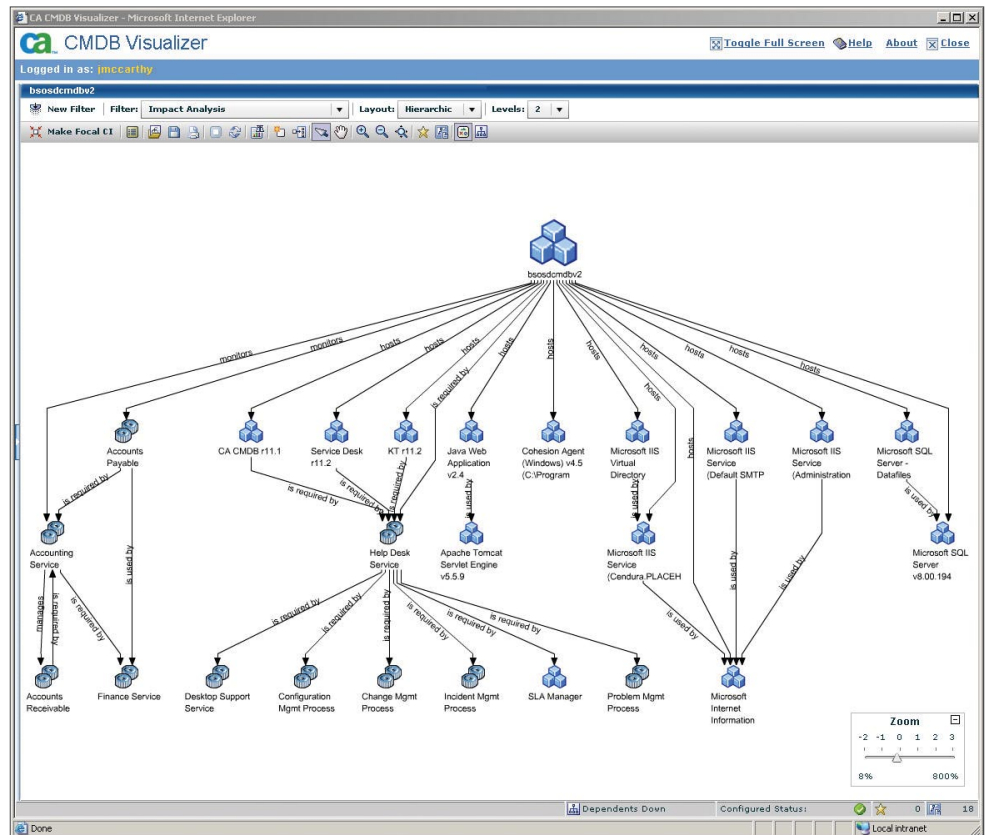
Some other examples of automation and integration techniques that can be used to meet and surpass scorecard targets include:

- **Integrated CMDB and Help Desk function** enables level 2 support analysts to access configuration details in order to quickly pinpoint the root cause of problems. This again will help reduce problem resolution times while increasing customer satisfaction. Additionally, the CMDB enables an infrastructure to be visualized in the context of the services delivered (see Figure D), so that problems can be prioritized according to business impact (which again could be a leading indicator of operational efficiency).
- **IT Process Automation** (often called run-book automation) solutions in this category enable the faster delivery of services by orchestrating IT processes and workflows. By nature, running IT operations is process-centric, with staffers routinely engaged in numerous processes and activities to deliver IT services (e.g. provision a new server, resolve a help desk incident). With these solutions, these processes can be standardized and made repeatable, which reduces costs and improves service quality.

FIGURE D

By visualizing and managing IT problems from a business impact perspective, a CMDB is essential for measuring true operational excellence.

CMDB WITH SERVICE VISUALIZATION AND IMPACT ANALYSIS



Beyond IT Performance Measurement

Don't Just Measure — Manage

With its focus on strategic objectives, a balanced view across four perspectives, and a mix of leading and lagging metrics, the IT balanced scorecard can truly help assess the overall performance of the IT function.

To be fully effective, however, the IT balanced scorecard must go beyond being just a measurement tool, and actually help improve performance. To do this, any metrics must have a target, and be backed by one or more initiatives that can help IT meet and surpass those targets. And, as illustrated, the advanced IT management capabilities delivered by integrated and automated solutions can advance these goals.

IT governance solutions like project and portfolio management are extremely valuable because they can capture data and translate it into something that is easily understood and relevant to business managers. For example, by reporting alignment metrics, CIOs can show their business counterparts where IT is adding value. This can be transformational, with traditional adversarial and conflict-driven dialog (normally focused around cost cutting) giving way to a business-IT engagement model founded on close collaboration and partnership (focused on business value).

Solutions such as those discussed are also important since they can often provide capabilities needed to support many of the initiatives IT sets in order to meet its targets. For example, if IT sets a target to increase the percentage of new projects linked to a strategic business objective, then a supporting initiative could be to introduce demand managers (often called relationship managers). Here again, IT governance solutions can help by providing methods to capture and assess ideas and concepts when demand managers engage with the businesses they support.

There are many other examples where IT management solutions can drive the initiatives needed to meet and surpass targets and advance scorecards beyond basic measurement tools. For example, a catalog of IT services each with tiered service level agreements could be used to support an initiative on improving resource utilization and reducing costs.

Embracing Change

Business strategies constantly change due to internal factors, organizational restructures or external market conditions. Suddenly a change in business direction may require a considerable shift in focus for the IT organization. By following the guidance illustrated in this paper to develop advanced scorecards and by better leveraging IT management capabilities, IT can develop the agility needed to better anticipate and respond to the changing needs of the business. Consider the following example:

A fictitious company changes its strategic focus by deciding to develop a new range of products to increase revenue. Additionally, new web-based sales channels will be used to increase customer service and lower costs.

To support this, the CIO would collaborate with business peers to better understand the strategic objectives, using strategy maps and self-assessments to understand the consequences for IT and where capability gaps exist. The IT balanced scorecard will then be adjusted to incorporate new objectives (based on the change) with metrics, targets and initiatives developed to show how improvements will be achieved.

IT management solutions would also be leveraged to provide the processes needed to not only capture and present the required performance measurements, but also help meet targets. For example, in order to support the development of a new range of products, IT will need to report the investment ratio of maintenance to new initiatives. Solutions like portfolio management could be used to determine this ratio, with integrated project, resource and asset management delivering the capabilities needed to improve the execution of new project initiatives.

SECTION 4

Conclusions

Communicating the business contribution of IT has never been more important. Unfortunately, the traditional technology-centric metrics used have no relevance to the business. Business executives don't see value and regard IT as a cost-center.

To shift the focus from continually looking at cost to instead delivering value, CIOs and IT leaders must develop a means of demonstrating and reporting IT's contribution to the business. This means identifying the things that are important to the business, setting the right targets, and ensuring the capabilities exist within IT to drive continuous improvement.

Performance measurement frameworks like the IT balanced scorecard can help as long as IT selects the metrics that are meaningful, relevant and support business outcomes. In other words, using metrics that matter. To do this requires advanced automation and integrated management techniques

SECTION 5

About the Author



Peter Waterhouse
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Peter Waterhouse has been involved in the development, support and marketing of IT management software products for more than 20 years. He has held a number of consulting, technical sales and marketing positions in such areas as network and systems management, application management and IT service management. Mr. Waterhouse writes regularly about business technology issues and is the author of many white papers and articles and is currently a Senior Principal in EITM Strategy and Marketing at CA.

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