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Practice Guide . . . .
Beware the New Silos!

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By David Sprott

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A governance approach to coordinating the disciplines involved in business improvement

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Introduction

Many enterprises are now embracing the BPM discipline. After many years in the doldrums, the BPM market is clearly maturing rapidly. But does "market maturity" necessarily equate to capability maturity?

Recently I was speaking with a business process analyst who briefed me on how his company, a medium sized financial services organization, is using a leading BPMS together with a collaboration based tool. He described how they are doing amazing work in the business process layer, but appear to be oblivious to everything else. They have no information architecture, no services or service architecture, no applications and no interest from business or IT management in anything other than delivering business processes. Everything is managed in the one platform and organized in business process silos. He commented, "this is a major train wreck waiting to happen!"

Perhaps this is an extreme case, but it serves to highlight a very common problem in the BPM space. But don't imagine that BPM is unique. After many years of strategic commitment to SOA without effective governance, it is clear that SOA is now mainstream for many enterprises, a mandatory architecture pattern and technology for all projects and programs. But interpretations of SOA vary widely and it's extremely common to see services implemented as next generation enterprise application integration, with minimal business based service architecture.

Similarly many enterprises struggle to find the right role for Enterprise Architecture. The continuing debate about "what is the purpose of EA?" demonstrates that there is profound lack of understanding or agreement throughout industry. One well known bank set up an EA responsibility, but after a few months it was clear that business pressure for solution delivery programs simply overwhelmed the EA effort which in the end was reduced to a bit part player on the governance board. Is this atypical? I think not. The core issue is that EA as practiced and as articulated in standards is too technology focused and too procedural. And whilst enlightened EA practitioners have promoted the idea of Business Architecture or Business Design as a parallel discipline to EA, in most enterprises the reality is that business architecture and design gets done in business delivery programs.

The issue is that each of these primary disciplines is required, but they need to be coordinated to some degree. Most enterprises have business transformation and

modernization tasks in process and these require the involvement of all the disciplines if the outcome is going to be materially improved over the status quo.

There's no sense that we require an umbrella "framework". I suspect we have sufficient frameworks already. Rather in this report we explore a governance based approach to coordination in which the responsibilities for policy creation and compliance plus inter discipline dependencies form a minimum necessary structure for ensuring the right questions are asked, and there is clear understanding on a case by case basis of the risk and lost opportunity which may result from isolationist strategies.
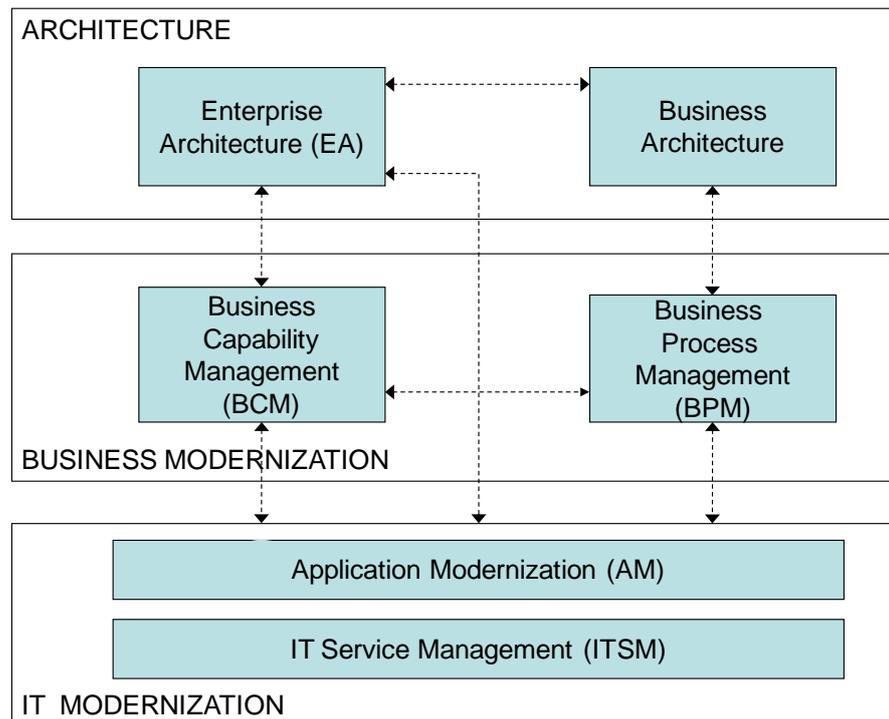
Landscape View

Figure 1: Disciplines in the Landscape

If you have just one, isolated business process to improve or a single legacy application to modernize, you don't need to read further. But, if like most enterprises you have a hugely complex landscape of business processes, services and applications you almost certainly require some coordination across the various disciplines involved.

Almost all business improvement and solution delivery is modernization of some existing artifacts. Green field developments in business or IT are extremely rare. Yet the modernization topic doesn't seem to be a core area of interest even though in most enterprises the existing processes and systems are the only reliable source of knowledge about what the business does.

We advise that a modernization context saves time and money because:

- It enables a reliable baseline against which improvements can be justified and planned

- It facilitates incremental, progressive delivery of smaller components that reduce risk and shorten time to market for critical business capabilities

- It reduces the reinvention of core business knowledge that is central to the way the business operates and thereby reduces risk

So, perhaps controversially, we recognize three primary tracks of distinct activity as shown in Figure 1.

- Architecture – planning, architecting IT and business, coordinating portfolios and transition

- Business Improvement – improving business processes, creating common business capabilities

- IT Modernization – rationalizing the existing application estate as a set of IT services which offer appropriate SLAs for operation and change

Tracks	Discipline	Short Description
Architecture	Business Architecture (BA)	A blueprint of the enterprise that provides a common understanding of the organization and is used to align strategic objectives and tactical demands (OMG)
	Enterprise Architecture (EA)	A formal description of a system, or a detailed plan of the system at component level to guide its implementation. The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time. For a collection of organizations that have common goals. (Open Group)
Business Improvement	Business Capability Management BCM)	A systematic approach to managing stable, shareable business capabilities that enable common behaviors across many business processes. (CBDI)
	Business Process Management (BPM)	A systematic approach to managing an organization's business processes and workflow that enables separation of business process and application behaviors and increases business agility. (CBDI)
IT Modernization	Application Modernization (AM)	A business driven, architecture led, agile process approach to modernizing one or more applications or a portfolio to deliver service oriented solutions and components that can be evolved on a continuous basis in response to changing business needs. (CBDI)
	IT Service Management (ISTM)	The implementation and management of Quality IT Services that meet the needs of the Business. IT Service Management is performed by IT Service Providers through an appropriate mix of people, Process and Information Technology. (ITIL V3)

Table 1 – Defining Disciplines

Some comments on this landscape perspective:

- This should not be viewed as a hierarchical, top down arrangement of disciplines. The reality for most enterprises is that increasingly BPM projects drive business modernization. The other disciplines try to respond.

- Readers will quickly spot that SOA is missing. Of course SOA is not a discipline in its own right. SOA is an architecture style and pattern and View. So it will be an integral perspective of the Business Architecture, and the Enterprise Architecture. Similarly SOA will guide the efforts of BCM and BPM. And SOA will be the underlying structure for AM and ITSM. Figure 2 below illustrates.

	BA	EA	BCM	BPM	AM	ITSM
Planned	✓	✓	✓	✓	✓	✓
Specified			✓	✓	✓	✓
Being Provisioned			✓	✓	✓	✓
Provisioned			✓	✓	✓	✓
Certified			✓	✓	✓	✓
Published						✓
Operational			✓	✓		✓
Retired		✓			✓	✓
Archived					✓	✓

Figure 2 – Disciplines in the Service Life Cycle

- We recommend that Business Architecture and Enterprise Architecture should be separate disciplines. Whilst it is perfectly reasonable for the EA structure to include business process models the EA (at least) as defined in the TOGAF standard is insufficiently rich to articulate the business context to inform the other disciplines.

- BCM is one of the most important aspects of modernization planning that facilitates cross cutting capabilities which can provide standardization of business process behaviors across multiple value chains and business processes. Arguably BCM will kick in at higher levels of BPM maturity, but our recommendation is that BPM efforts will deliver far more value to enterprises if they embrace coordination and collaboration as early as possible in their capability maturity model.

- The term AM is widely used but frequently refers to conventional legacy reengineering; often a technology centric activity. At CBDI we use Service Oriented Application Modernization (SOAM) to better describe business driven AM.
  The overwhelming majority of BPM projects require service enablement

of legacy and other back end applications which frequently generate demand for minimalist, façade based application modernization for specific BPM projects. But the façade approach is almost certainly not a long term solution.

The objective of the AM discipline should be to facilitate service enablement of applications that separates business process behaviors from applications in an architected manner that enables the application portfolio to support common, consistent service support to all BPM projects and to be able to continuously evolve to support the inevitable demand for change from the business process layer. If you are still persisting with conventional legacy reengineering it's time to look at AM.

- Information Technology Service Management and ITIL are de facto practices across the industry. The ITSM discipline is well placed to effect modernization of the provided IT service. Today the industry solution is typically Cloud deployment, and it would be easy to say that all we need is a Cloud deployment modernization discipline. But as most larger enterprises are discovering the reality of future deployment architectures will be multi dimensional.

A Governance Based approach

In most organizations the relationships between the various disciplines in general, let alone individual project instances, are commonly tenuous. The IBM Red Book exploring just the relationships between EA and BPM[1] refers to tribes! That summarizes the problem rather well. The Red Book pursues the relatively simple relationship between EA and BPM in a conventional manner defining all the various deliverables that link modeling systems. I am however more than a little skeptical that it will solve the primary issues between the two disciplines because it is narrowly focused and mechanistic.
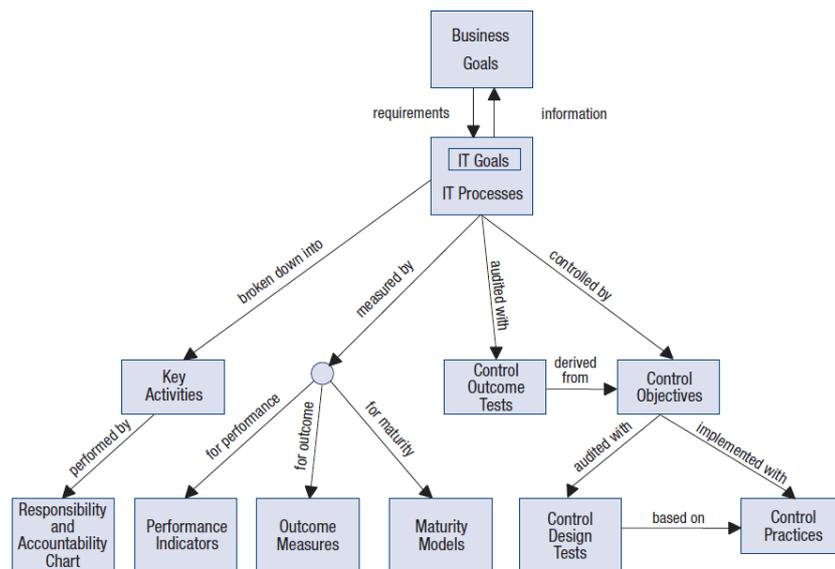

**Figure 3 – Interrelationships Between COBIT Components
(Source IT Governance Institute)**

In my report on the COBIT Framework[2] last year I outlined how the highly generic COBIT framework could be used to govern SOA based solution architecture and delivery, and provided extensions to the meta model and classification system. One aspect of COBIT that I found very useful was the relationships between Business Goals and Control Objectives shown in Figure 3 below.

To coordinate the various disciplines involved in business architecture and modernization I recommend a governance approach in which the key Control Objectives for each discipline that support integrity of inter discipline relationships are the basis for ensuring integrity of the overall coordination.

The Control Objective is a governance review criteria. In project practice this will be supported by detailed deliverables, but we don't need to itemize these in order to show all the dependencies between the disciplines. This provides us with a meaningful and communicable view of cross discipline interrelationships.

To manage the governance process the incremental Control Objectives can be added to existing Control Objectives and managed through existing governance practice. The governance reviews need to be executed on a discipline by discipline basis triggered by discipline / phase activity.

Using and extending the COBIT framework for our purposes will, in many enterprises, be seen as very supportive of existing governance practices and reduce friction in the areas of adopting new governance criteria.

Control Objectives

In this section I set out Control Objectives for each of the Disciplines discussed above. For each discipline I outline business goals that should drive inter discipline relationships. I then map key Control Objectives that govern inter discipline relationships and show examples, plus coordination requirements. I don't pretend this is exhaustive, but hopefully it's a good template and starting point.

The interrelationship aspect is crucial to governance across the disciplines. The intent is that the Control Objectives form key governance criteria for each discipline that, together with the identified coordination with other discipline(s) provides a coherent approach that should optimize the enterprise view in the most efficient manner.

Discipline: Business Architecture

Control Objectives that can be utilized regardless of how the disciplines are organized, with BA as part of EA or standalone.

Business goals relevant to BA cross discipline control might address:

- Adequacy of business strategy

- Business standardization – goals that rely on consistent business process and information such as customer satisfaction, cross channel behaviors, competitive business intelligence and so forth. And conversely . . .

- Business diversity – goals that rely upon freedom of action in innovation areas, loosely coupled parts of the business that are perhaps candidates for divestiture as well as cash cows where business improvement is low priority.

- Business morphology – goals that influence the structure and shape of business. Strongly linked to business loose coupling, these goals may relate to business components that may be more easily outsourced, or capabilities that deliver cross division, LoB and geography to achieve goals such as regulatory compliance or centralization to achieve reduction in headcount or costs.

Control Objective Type	Examples	Coordination required
Business strategy is articulated sufficient to guide primary delivery projects and programs	Context business components will be outsourced Core business components will be enterprise standard	Architectural response by EA Project goals, scope and strategy response by BPM and AM projects ITSM response on scope of IT services
Standardized business model components modeled and defined	Consistent behaviors for certain business types	Policy governing implementation approach defined in EA and complied with by BPM, AM and ITSM
Standalone business capabilities identified	Candidate for outsourcing and or offshoring Candidate for replication for scalability or risk reduction	Policy governing implementation approach defined in EA and complied with by BCM and BPM implemented in AM and ITSM
Compliance requirements defined for (industry standard) semantics	Support for partner ecosystem and or channel strategy Business process standardization	EA defines information and or transformation architecture Compliance with defined aspects of Information Architecture by BPM, BCM, AM
Key KPIs defined for major processes (value chains)	Number of complaints Average <claim, trade, . .> handling cost % add-on business	Architecture and design response from BCM, BPM Service architecture and design response from AM including schema support SLA response from ITSM

Table 2 – Example BA Control Objectives

Discipline: Enterprise Architecture

In most enterprises EA is responsible for determining the enterprise context for solution and BPM delivery projects and managing the portfolio view. This means setting policies for architecture work, establishing reference architecture and identifying those elements of all architecture views that are enterprise standards such as capability and core business services, technology and deployment components and so forth.

Whilst EA will typically establish requirements for architecture governance, in a cross discipline environment it is also important that the other disciplines accept the enterprise policies and architecture as relevant to discipline delivery. A governance forum is an appropriate mechanism to improve coordination between EA and the other disciplines.

The business goals relevant to cross discipline EA Control Objectives may include:

- Prioritized focus on principles that support key business strategies

- Loose coupled business

- Alignment of IT services with strategic business context

- Establishing architecture that enables continuous evolution of business capability with appropriate response time to defined classes of change by domain

- Business sourcing strategy

- Conformance with specific business governance requirements, such as business security and threat containment, regulatory requirements, knowledge and intellectual property management, management of third party relationships etc.

Control Objective Type	Examples	Coordination required
Architecture principles reflect business strategy needs	Services and components will map to key business concepts that support consistent behaviors for mission critical, core business processes across all channels, LoB and geographies. Common enterprise data and information architecture supporting above. Evolutionary architecture in support of innovating business processes.	Alignment between BA and EA Compliance by all disciplines
Reference model and architecture establishes consistency of approach and reusability of standard components relative to a) strategic business context b) type of sourcing	Component types by layer for logical, implementation, technology and deployment architecture mapped to strategic grid Reference business process architecture mapped to strategic grid Contract formats for services, components and IT services.	Development of EA overlays to support specific business and sourcing contexts as requested by BA/BPM/AM Compliance by BPM, BCM, AM and ITSM

Control Objective Type	Examples	Coordination required
Key planning and architecture policies approved	Architecture layer patterns Commoditization patterns Sourcing Type by layer and component	Compliance by BPM, BCM, AM and ITSM
Architecture governance process defined	Architecture and delivery phase end deliverable templates	Compliance by BPM, BCM, AM and ITSM
Common enterprise service architecture contracts mirror business contracts	Orders Capability Service is a business service and a technical interface	Alignment with BA, BCM and BPM Conformance by AM and ITSM
Common enterprise component architecture meets objectives for loose coupled	Business Types Information and Semantic Architecture Common application platform architecture for various layers Service exception architecture Common Technology Architecture Common Security Architecture	Alignment with BA, BCM and BPM Compliance by BPM and BCM Implementation and compliance by AM and ITSM
Enterprise portfolio and transition plan supports business priorities for continuous business evolution	Service Portfolio Plan Transition Engineering Plan	Aligned with BA priorities In conjunction with ITSM Change SLAs Continuous feedback of portfolio asset status from BPM, BCM, AM, ITSM

Table 3 – Example EA Control Objectives

Discipline: Business Process Management

As discussed, whilst BPM projects are generally the primary drivers for business improvement, they need to be coordinated with all other disciplines.

The business goals relevant to cross discipline BPM Control Objectives may include:

- End to end business processes or cross ecosystem business processes

- Support for radical changes in business model(s) and new KPIs

- Process improvement including increased productivity and quality of service, lower operating costs and faster cycle times

- Improve ongoing flexibility of business processes

Control Objective Type	Examples	Coordination required
Business process explicitly supports business strategy	Business process supports new business model with new KPIs	Alignment with BA
Business process is part of a coherent process portfolio	Business processes not confined to existing organization structure BPM projects collaborate in delivering consistent end to end business process support	Between BPM projects to establish interaction and interfacing With BA for cross functional perspective With EA to ensure use of common reference architecture and components
Business process reuses standard elements – business process components and business capabilities as appropriate	Common Ordering Process capability used across many lines of business and geographies	With EA to signal demand for common components and to feedback asset reuse With ITSM to reuse standard IT services
Business process is designed to continuously evolve to meet demands of changing business	Managed dependencies limit horizon of change Componentized business process design Strict enforcement of BPM architecture layering Generic designs where appropriate	With BA to drive out future perspectives With EA to develop agile architecture, generic components, customizing platforms etc With EA to minimize dependencies With AM to commission generalized, constantly evolving services and to minimize change cycle time With ITSM to establish contracts for IT Service change cycle time
Business process reuses standard enterprise services	Common customer service enforces common behaviors across all customer contacts throughout all business processes	With BA to understand strategy for consistent business process behaviors With EA to signal demand for standard service or feedback asset reuse With EA to develop platform strategies for embedding consistent behaviors into processes and concurrently enabling localization With AM to enable reuse and potentially to evolve standard service and or introduce localization

Control Objective Type	Examples	Coordination required
Business process uses common reference process architecture and template.	Enterprise standard BPMS practices, technology, templates, components	With BA to understand requirements for enterprise consistency or innovation With EA to adopt standard reference process architecture With ITSM for standard SLAs implicit in standard reference architecture

Table 4 – Example BPM Control Objectives

Discipline: Business Capability Management

Business capabilities are generally intended to implement standard behaviors across an enterprise, although it is perfectly possible that certain capabilities may be limited to specific domains, divisions or product groups.

There is a natural tension between BCM and BPM insofar as business capabilities will usually encapsulate business process components as well as application functionality. This will require coordination right from the outset in development of the BA such that the embedded processes are clearly demarcated from other free standing business processes.

The business goals relevant to cross discipline BCM Control Objectives may include:

- Segregating context behaviors for use of a standard COTS package
- Segregating context behaviors for use of a BPO
- Segregating core or context behaviors with standalone deployment for outsourcing and or cloud deployment
- Standard capability behavior is mandatory
- Standard capability behavior is mandatory but localization by extension is encouraged to meet situation specific behavior needs.

Control Objective Type	Examples	Coordination required
Business capabilities are designed to be extended for local behaviors whilst maintaining the integrity of standard enterprise behaviors.	Customer support capability facilitates extension for varying product group requirements	Compliance with common capability behaviors defined in the BA Coordination with EA policy on capability extension platform stack
Business Capabilities are enterprise standards	Customer, Risk, Regulatory Compliance, Customer Support, Authentication . . .	Embedded business process components defined in the BA to ensure separation from free standing business processes Architecture defined in EA AM provides standard interface contract Standard ITSM SLA

Control Objective Type	Examples	Coordination required
Business Capabilities are genuinely standalone	Manufacturing capability encapsulates all layers of stack including business process, application and technology. Deployment architecture is to Cloud with explicit agreements that facilitate rehosting	Coordination with AM and ITSM to ensure minimum necessary dependencies
Capability behavior is encapsulated.	Communications with offered capability services are entirely through the capability service interface. All physical attributes and behaviors are hidden from consumer.	ITSM to cover technology and manual activities and resources
Capabilities are single business functions (or components) that may be assembled into composite applications or business processes.	Shipment capability may be composed into Orders to Cash.	Defined in EA Coordination with BPM for business process design. Coordination with AM for composite delivery Coordination with ITSM for composite SLA

Table 5 – Example BCM Control Objectives

Discipline: Application Modernization

The key feature of AM is the transformation of the application portfolio to a set of components and services that will facilitate continuous evolution. Smaller units of deployment that map well onto the service architecture and by inference business components.

The business goals relevant to cross discipline AM Control Objectives may include:

- Reduce unit cost of delivery
- Ensure service can meets business needs for response to change by continuous evolution
- Retention of business knowledge

Control Objective Type	Examples	Coordination required
Solutions deliver services for specific solution(s) but within enterprise framework	Retail channel specific Customer service is designed to be evolved over several iterations to support multiple channel behaviors.	Coordination with EA and BA for vision of endpoint goal for generic, differentiated service. Coordination with ITSM for version availability
Leverage and protect existing	Where relevant ensure stability of business model by	With BA to understand where

Control Objective Type	Examples	Coordination required
business knowledge	reusing existing knowledge Deliver comprehensive knowledge together with solution and services	business model is changing With EA to align with new information architecture With BA to align with business process rules With ITSM to include knowledge as a key deliverable
Modular, portable, cloud ready services and components	Solutions, services and components designed to minimize dependencies, reduce deployment horizon where appropriate Enable minimum effort to rehost	With EA to align with enterprise technology and deployment architecture With ITSM to establish operational and change SLAs
Integrated into service and component portfolio	Twin track approach to AM separates out service from solution delivery. Service delivery is usually evolving the Service Portfolio Plan (SPP)	With EA to align with SPP, implementation architecture and feedback asset status With ITSM to provide SLAs
Deliverables include services, components and solution(s) plus designs and processes for continuous evolution	Designed for low horizon of change to enable narrow focus units of deployment. Work Breakdown Structure common to Deliver and Evolve Phases	Aligned with BA business components and heat maps for areas of volatility Aligned with Change SLA in ITSM
Business capabilities implemented as standalone components and encapsulated services	Private stack	Coordinated with ITSM for separate deployment and virtualization

Table 6 – Example AM Control Objectives

Discipline: IT Service Management

Service architecture is by definition a contract based environment. A key business goal is generally to establish high levels of separation between component, services and layers of the stack. The AM discipline delivers the technical interfaces; the ITSM manages the usage and life cycle contracts for composite IT services that ensure the goals of separation are achieved at realistic cost.

The business goals relevant to cross discipline ITSM Control Objectives may include:

- Dynamic reporting of business performance data

- Faster response to business change

- Reduced lock-in to suppliers at all levels of the stack

Control Objective Type	Examples	Coordination required
SLA reports support KPI requirements	Average time and cost to handle claim	Alignment between SLA reports and BA, BPM, BCM KPI reporting requirements
Delivered IT Services have functional change SLA for relevant granularity components	Services classified for functional change (upgrade) response time	Change SLAs agreed with consuming BPM, BCM projects
Delivered IT Services have non functional change SLA	Services classified for non functional change response time. E.g - scalability - change of host	Change SLAs agreed with consuming BPM, BCM projects
SLA reports support KPI requirements	Average time and cost to handle claim	Alignment between SLA reports and BA, BPM KPI reporting requirements

Table 7 – Example ITSM Control Objectives

Summary and Conclusions

Each of the primary disciplines involved in business improvement have a high internal critical mass which may encourage isolationism. Interrelationships may be competently established on a one to one basis. But if this is done in a tactical manner, the communications will be narrowly focused on deliverable and data exchange, and may ignore the bigger picture.

The governance approach outlined in this report, particularly in conjunction with some form of cross discipline governance body, can provide assurance that due diligence has been carried out in delivering optimum outcomes for the wider enterprise. Further this is a lightweight process, with low overheads placed on the disciplines, that can shine spotlights on areas where more attention needs to be given to particular issues.

From my observation of numerous corporations and government departments, a cross discipline governance system is badly needed, and in many situations could be rapidly demonstrated as bringing considerable benefit.

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[1] Reference IBM Red Book – Combining BPM and EA
http://www.redbooks.ibm.com/abstracts/sg247947.html?Open

[2] Using the COBIT Framework for SOA Governance, CBDI Journal, May 2010

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