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Building Enterprise Alignment: A Case Study[1,2]

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Executive Summary

IT-business alignment in multi-business-unit firms that have a federated IT structure involves two types of alignment—local alignment and enterprise alignment. Local alignment efforts focus on serving the technology needs of an individual business unit and creating business value from such technology deployments. Enterprise alignment efforts involve coordinating potential economies and efficiencies across business units. In our study of a multi-business-unit company with federated IT governance, we found three components to be key to successful enterprise alignment: (1) Building the capabilities of the shared IT services group so it can provide infrastructure services more reliably and professionally, (2) Introducing opportunities for IT and business managers to collaborate so they can develop mutual trust and understanding, and (3) Creating new mechanisms for business unit leaders to be better informed about IT investment trade-offs and corporate IT leaders to be better informed about the business value of specific shared services.

FEDERATED IT REQUIRES BOTH LOCAL AND ENTERPRISE ALIGNMENT

We define alignment as the process by which those responsible for managing information technology (IT) and stakeholders from the rest of a firm work together to achieve long-term business value. We have found that multi-business-unit firms that have a federated IT structure require two forms of alignment: local and enterprise. Local alignment consists of IT and non-IT managers working together to ensure that IT resources support and advance business-unit objectives (e.g., developing new applications, operating and maintaining existing ones). Enterprise alignment consists of IT and business managers working together to coordinate potential synergies across business units and local alignment efforts, such as creating an efficient and effective shared IT infrastructure platform, developing common business processes, and sharing customer data across units.

Although local and enterprise alignment share common elements, they differ significantly in the overall objectives of the working relationship, metrics for success, the participants who need to be involved, the key interdependencies that participants manage, and the tools they draw on to build and sustain alignment. These differences are summarized in Figure 1.

Local alignment is important for ensuring projects advance business-unit interests, are on time, and are on budget. However, local alignment is insufficient for achieving economies and efficiencies across business units. Information systems resulting from projects become part of the infrastructure that the IT function operates and maintains and that future projects may depend on (e.g., to access data,

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Figure 1: Federated IT Requires Two Forms of Alignment

	Local Alignment	Enterprise Alignment
Overall Objectives	• Business-unit sponsors' objectives.	• Enterprise-wide objectives, such as deriving cross-unit synergies from integrating and standardizing:[3] ○ Technologies (e.g., to achieve economies from shared IT infrastructure[4]). ○ Business processes (e.g., to achieve economies from common business processes and refocus business units on value-added processes). ○ Data (e.g., to develop a single view of customers common across business units).
Metrics	• Project execution (on time, within budget, and value of application to business-unit sponsor). • Project return on investment. • Service level agreements. • Time for business unit to respond to new threats and opportunities.	• Ongoing reduction of infrastructure-unit costs. • Low system redundancy. • High re-use. • Greater percentage of IT budget spent on new applications and less on operations and maintenance. • Number of IT and non-IT services offered by shared services group. • Seamless customer experience across business units.
Key Inter-dependencies	• Between IT and non-IT interests and resources related to a business unit's needs.	• Between IT and non-IT interests and across business units and project solutions.
Participants	• Stakeholders within a business unit—i.e., IT and business project team members and business-unit leaders.	• Stakeholders from multiple functions and business units—i.e., IT and business project team members, business-unit leaders, and those responsible for enterprise-wide resources (e.g., shared technology, process owners of common business processes, those responsible for shared data).
Tools	• Project management methodologies, COBIT, ITIL.	• Owners of enterprise-wide resources (e.g., shared services organization, business process and/or data owners). • Project management methodologies, COBIT, ITIL. • Short-term and long-term engagement opportunities. • Tools for managing interdependencies and providing options to participants.

to build on existing applications, etc.). The more a firm tries to achieve synergies across business units (e.g., to reduce redundant systems, to standardize business processes, to share data), the more business units depend on enterprise-wide resources, such as IT infrastructure, common business processes, and shared data.[5] Firms that focus solely on local alignment to enable business responsiveness risk creating "IT infrastructure spaghetti"—uncoordinated islands of local solutions

3 These enterprise objectives are based on operating model concepts from Ross, J., Weill, P., and Robertson, D., *Enterprise Architecture as Strategy: Creating a Foundation for Business Execution*, Harvard Business School Press, 2006.

4 IT infrastructure refers to the shared IT equipment, systems, software, and services used in common by multiple applications across an organization (e.g., servers, networks, laptops, customer databases).

5 For more on why multi-business-unit firms are coordinating IT resources across business units, please read about platform and scalable models in Agarwal, R., and Sambamurthy, V. "Principles and Models for Organizing the IT Function," *MIS Quarterly Executive* (1:1), 2002, pp. 1-16, and Ross et al., op. cit.,2006.

that require increasingly complex and expensive systems to interconnect, operate, and maintain. In the long term, these uncoordinated islands jeopardize both business-unit and enterprise-wide interests.

To build enterprise alignment, IT and business managers must learn to work together on enterprise-wide IT infrastructure investment decisions. Even though firms spend, on average, 46% of their total IT investments on IT infrastructure,[6] most business executives consider infrastructure investments a "black hole" that eats up resources from the applications they want developed "now." This lack of understanding of IT infrastructure investment causes problems in firms where IT is integral to business operations and business units are expected to share IT assets. In such firms, non-IT executives do not participate in important IT investment decisions and their IT infrastructures are not transformed into digital platforms for agility.

In this article, we draw on an in-depth study of a global insurance and financial services company, which we call IFS.[7] This firm had high local alignment under a federated IT structure, and we describe how it built enterprise alignment by engaging business executives in IT infrastructure investment decisions. (More details of the study are in the Appendix.) Within one year, IFS met demands for new infrastructure services totaling $20 million by investing only $3.8 million. At the same time it reduced ongoing infrastructure costs by about 10% ($14 million) and anticipated saving an additional $7 million in infrastructure cost savings, freeing up more resources for new applications. Most important, IFS laid the foundation for future and more strategic collaborations between the IT function and the rest of the business as well as between those responsible for business-unit responsiveness and those responsible for enterprise-wide synergies.

PRE-ENTERPRISE-ALIGNMENT SITUATION AT IFS

Beginning in the year 2000, IFS expanded into a variety of services by acquiring several insurance and financial services companies. By 2007, it was one of the top-20 largest insurance and financial services companies in the United States, with three business units, each organized to meet the needs of key customer segments and their respective product portfolios. Like many of its competitors, IFS offered a range of products, such as life insurance, automobile insurance, annuities, retirement and savings products, and institutional investment. These products were provided to individuals, corporations, and other institutions throughout the world. Over the years, IT became increasingly integral to how IFS operated, both in terms of new applications that supported individual products and services, and the IT infrastructure that supported them.

IFS's Federated IT Structure

IFS used a federated IT governance model to pursue both the benefits of providing a diverse set of products, each tailored to a specific type of customer, and economies across products. At the corporate level, Global Technology Services (GTS) managed IT infrastructure services for all of IFS. At the business unit level, each of the three lines of business had a CIO responsible for application development, deployment, and support.

GTS provided and ran the infrastructure services on which applications from business units were developed. When business-unit teams worked on a new application, they would tell GTS what they needed in terms of a development environment. GTS then provisioned the necessary hardware or capability. GTS's infrastructure services included hardware (e.g., networks), software, storage, and output processing. GTS had about 800 full-time equivalents and an annual budget of around $500 million—about 45% of IFS's total IT spend.

Islands of Local Alignment

At the start of 2006, a new CIO joined "Large BU," the largest of IFS's three business units. She found the application development group had a good working relationship with business colleagues and was recognized for its ability to quickly fulfill requests from the business. However, Large BU had become a "product-siloed organization," and application development for individual products was driven by "speed over efficiency," which had led to multiple applications performing the same function and multiple references to the same data. Additionally, business managers complained that IT infrastructure costs from GTS were a "black hole" eating into their application development budget. As one recalled:

> *"We had this amount of money from GTS. We really didn't know how it was spent or where it was allocated. It was a substantially large*

6 Weill, P., and Aral, S. "Generating Premium Returns on Your IT Investments," *MIT Sloan Management Review,* (47:2), 2006, pp. 39-48.

7 The company has requested anonymity; names and company facts (e.g., budgets, number of business units, etc.) have been changed.

figure, and we had to manage the overall IT-spend with that as a component of it. So if it went up—and it often did disproportionately to an increase that we might have for application development—we had to figure out how to make do with the money that we already had. The impression was that we have a large amount of money here in GTS, we can't control it, we don't know what it is, and that it takes away money from the projects that will ultimately drive business results for us."

Escalating IT Infrastructure Costs

To assess the state of IT at Large BU, the CIO met with IFS's Chief Technology Officer (CTO), who was head of GTS. The CTO reported two pieces of bad news:

1. Large BU's annual bill from GTS was going to increase by $12 million (about 10% of the business unit's total infrastructure costs) because GTS had recently discovered that it had been undercharging Large BU by that amount.
2. Large BU and the two other lines of business were demanding a total of $20 million in new services from GTS, but there was only $5 million in the budget. GTS had to figure out how to do $20 million worth with $5 million.

Both GTS and Large BU's application development group had each been working for several years on improving their respective IT management capabilities. However, neither had the information to resolve on its own the source of the two pieces of bad news: how applications contributed to and relied on common IT infrastructure services. IFS's IT infrastructure was the result of years of acquisitions and hundreds of independent application development efforts focused on speed-to-market. The uncoordinated growth of applications, infrastructure, and data had become too cumbersome a platform on which to build new applications and too expensive to operate and maintain.

THREE COMPONENTS OF BUILDING ENTERPRISE ALIGNMENT AT IFS

Large BU's CIO and the CTO decided they had to get out of the tough situation they found themselves in. First, they needed the IT and business stakeholder groups to recognize the broader problems caused by a lack of coordination of user requests for building, operating, and maintaining applications. Within a year, under their leadership, IT and business managers had worked together to build enterprise alignment by developing three components:

1. Both the infrastructure group and the application development group *strengthened their internal IT capabilities*, which enabled them to build credibility with their business partners.
2. IT leaders created short-term and long-term *engagement opportunities* for IT and business stakeholder groups to collaborate. These engagements helped to develop mutual trust and understanding.
3. IT and business participants created decision making *tools for managing interdependencies* between applications, IT infrastructure services, and business objectives.

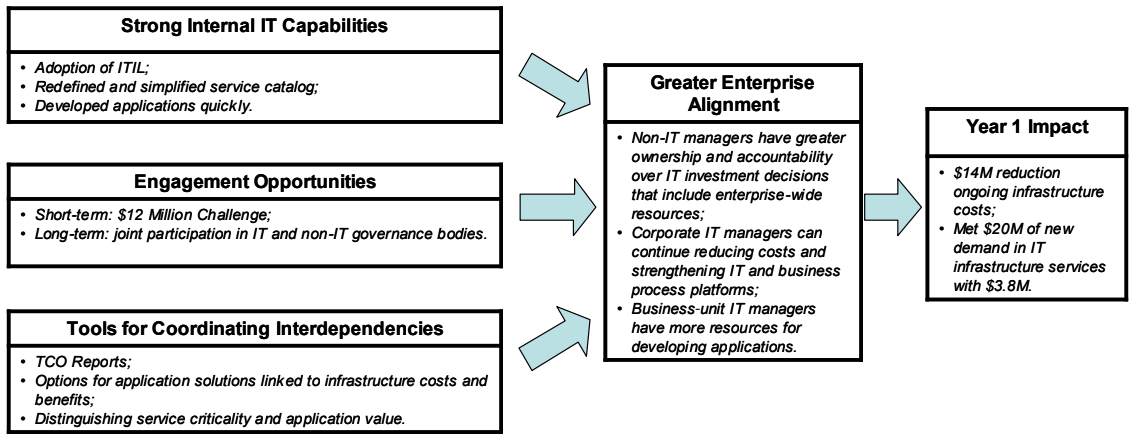
Figure 2 depicts how these three components improved enterprise alignment and the financial impact in the first year. The IT and business stakeholder groups in Large BU and GTS developed a better understanding of how applications related to each other and to IT infrastructure and ensured joint accountability and ownership for achieving both local and enterprise-wide objectives. This led both to significant cost savings and to increased services within the first year of this initiative.

We now describe each component in greater detail, focusing in particular on engagement opportunities and tools for managing interdependencies.

1. Build Credibility By Strengthening Internal IT Capabilities

To improve their working relationship with the rest of the firm, those responsible for enterprise-wide IT resources first made sure they had developed the capabilities to run a shared services organization well. The CTO spent his first four years (2002-2006) centralizing and streamlining IFS's infrastructure and transforming GTS into a services management organization. Initiatives included adopting the IT Infrastructure Library (ITIL) framework, training GTS employees in project management, and strengthening governance bodies. GTS also simplified its chargeback system, transforming its catalog of 125-plus products that, in the words of the CTO, "no one understood," to just two-dozen services "that clearly resonated with the business." (Figure 3 provides examples of how GTS strengthened its

Figure 2: Three Components to Build Enterprise Alignment



internal capabilities). In the process, GTS discovered several "dislocations"—where it had been either over- or under-charging a line of business. Large BU, for example, was being undercharged by $12 million a year.

2. Introduce Opportunities For Engaging With Key Stakeholders

According to the CTO and Large BU's CIO, a critical factor that had resulted in the firm's "infrastructure spaghetti" was the lack of engagement between GTS and both IT and business managers in Large BU. To address this problem, they introduced a series of short-term and long-term engagements between IT and business stakeholder groups throughout IFS to develop stronger mutual trust and influence and common understanding between participants.

One of the first short-term actions Large BU's CIO took was to invite the CTO to a Large BU Planning Board meeting. The purpose was to get the CTO to explain GTS's mission to Large BU's senior management and to gain commitment for taking on the challenge of eliminating $12 million from Large BU's infrastructure costs—i.e., to keep its GTS costs flat. As the CIO recalled:

> *"[The CTO] and I initiated a frank conversation with the board about GTS charges. We allocated the entire application portfolio across the board members so they could see exactly what portion of total GTS charges they were responsible for. For the first time, the notion that GTS charges are a shared responsibility really hit home. Board members recognized the direct impact their business and product decisions had on GTS charges,*

Figure 3: Strengthening Shared IT Services Capabilities

Needed Capability	Action Taken by GTS
Ensure project proposals include operations and maintenance costs	To increase the transparency of costs, GTS made sure business-unit sponsors were aware of ongoing operating costs at the time of proposal.
Build project management capabilities	To manage projects more professionally, any GTS employee that engaged with a business unit's IT or business manager was required to be PMP certified.
Create a relationship management group	GTS set up a client delivery organization and assigned at least two relationship managers to each business unit to review key projects and service metrics and, in general, to build shared understanding between corporate and business-unit IT managers.
Define services by their business value	To ensure GTS's services made sense to non-IT business-unit managers, GTS worked with key customers to simplify and redefine its product offerings.

and committed to achieving the $12 million in reductions."

The CIO and CTO made a similar presentation to Large BU's IT Operating Council—a governance body responsible for ensuring the IT organization was effectively executing the technology components of Large BU's business plan. As the CTO explained, "If the point was to share responsibilities and accountability, from the very beginning, we [needed to involve] IT and non-IT stakeholders."

After these two key presentations, the CTO and CIO formally launched the "$12 Million Challenge"—a focused collaborative effort to cut Large BU's infrastructure costs by $12 million in one year. The initiative was backed up with an extensive communications campaign that included pins, buttons, coasters, and monthly recognition events. Every month, for example, recognition letters were sent to people in Large BU and GTS who had successfully reduced infrastructure costs, and a list of recipients was posted on a wall. The wall became a "wall of honor." People wanted to be on the list because if they weren't, it suggested they had not saved any costs.

3. Create Tools for Managing Interdependencies

Enterprise alignment involves continuously managing trade-offs between what is best for a business-unit team and what it best for the enterprise as a whole. These trade-offs are neither obvious nor static and are also contingent on numerous situational factors—including the current short-term and long-term interests of the various stakeholders involved. IT managers at IFS created several tools to identify interdependencies and manage trade-offs between local and enterprise-wide efforts. We describe three below: Total Cost of Ownership reports, presenting business application owners with options, and distinguishing between service criticality and application value.

Total Cost of Ownership Reports. The tool that all managers credited the most with helping them exceed the $12 million goal was a set of Total Cost of Ownership (TCO) reports. These reports were created by IT managers from GTS and Large BU, who drew on several years of work accomplished separately within their respective departments. For example, GTS had been developing a detailed view of infrastructure use and costs, while Large BU had been developing a detailed view of which IT and business managers were associated with applications. The reports also drew on input from business managers.

The TCO reports provided a common view of how applications related to and depended on each other and on infrastructure services, and of the business owners of each application. In particular, applications were now linked to maintenance and infrastructure costs. This enabled users to view the total cost of the applications they owned.

The reports provided different ways for business owners to understand the total cost drivers of the applications and processes they were responsible for. Two "views" are shown in Figure 4. In View 1, applications could be identified by the key business processes they supported (e.g., client acquisition, billing and remittances, etc.) on one axis and by the key products they supported (e.g., life, automobile, annuities, etc.) on the other. In an organization that was very product-focused, this view enabled users to see how different products drew on similar processes and what applications were used for the same process (i.e., where there were redundancies). With both views, managers could also now see the data at multiple levels of detail—from all the products associated with a single business owner, to all the applications associated with a single product, to all the infrastructure services associated with an application.

In some cases, business owners realized they were responsible for applications they did not understand and engaged with their IT relationship manager to understand their portfolio. As the CIO of Large BU recounted:

"As a large business unit with a diverse product portfolio, it is no surprise that Large BU's board members may not understand each and every application under their purview. By generating individualized reports for each board member, we were able to raise awareness about the costs associated with the applications in their portfolio. On learning that a particular application costs $200,000 per year to run, a board member may seek out the business owner to learn more about it."

In other cases, users found applications with no business owners. These cases sparked discussion on whether the application was needed and, if so, who the business owner should be.

The TCO reports gave business owners a greater sense of ownership and accountability. As one senior IT manager noted:

Figure 4: Two Views From a Total Cost of Ownership Report

View 1: An Excerpt of Summary by Sponsor, Application Development Maintenance, and Infrastructure

Business Sponsor	Parent Application	Applications	Service Class	Disposition	Status	2006 Plan AD Maintenance	2006 Plan Infrastructure Total	Total IT SLA 2006 Plan
Jane Doe	ParentApp X	Application B	High	Hold	Production	*$1,742*	*$11,898*	*$13,641*
		Application E	Low	Buy	Production	*$790*	*$6,352*	*$7,141*
	ParentApp Y	Application M	Medium	Hold	Development	*$157*	*$449*	*$606*
		Application O	High	Sell	Target for Retirement	*$96*	*$444*	*$540*
		Application P	Low	Buy	Production	*$21*	*$677*	*$698*
Total Jane						*$2,806*	*$19,820*	*$22,626*
Pat Argent	ParentApp Z	Application A	High	Buy	Production	*$790*	*$6,352*	*$7,141*
		Application F	Medium	Sell	Development	*$157*	*$449*	*$606*

DISPOSITION

Buy: Invest in application for continued future value
Hold: Minimally invest to maintain the application
Sell: Divest in application to remove low value cost

STATUS

Development: App is in Design or Build phase
Production: App has reached Deploy stage
Target for Retirement: App is being replaced or phased out

View 2: An Excerpt of Application by Process Within Product

Process Group	Level 1 Process	Level 2 Process	Product 1	Product 2	Product 3	Product 4
Client Acquisition	Sales	Sales to Employer	*Application A*	*Application B*	*Application B*	*Application C*
		Sales to Individual	*Application D*	*Application E*	*Application D*	*Application D*
	Underwriting		*Application F*	*Application F*	*Application F*	*Application F*
	Case Implementation		*Application G*	*Application H*	*Application I*	*Application J*
	Eligibility		*Application K*	*Application K*	*Application K*	*Application L*
Disbursements	Claims Adjudication		*Application M*	*Application M*	*Application P*	*Application M*
	Funds Out		*Application O*	*Application O*	*Application N*	*Application N*

> *"We needed to get the data together because you can't be accountable if you don't know. If GTS holds onto all that data, then it's their problem. If [the application developers] hold onto all that data, then it's their problem, along with GTS's. If we pass it to the business and make them accountable for the expense, then it's everyone's shared problem."*

A senior business manager noted:

> *"[The effort] to break down the expenses by system, by owner, was huge. ... When you've got something that's an unknown, it feels more put upon you. In contrast, when you've got the data, you know how much you're spending on an application ... you can then ask: Do we still need all that data? Do we still need to run all those reports? Is that still a business need? And maybe I can make some business decisions that will drive down CPU costs. So [the TCO database] did two things. First, it focused on sharing the data with the business. Then it enabled the business to say 'you know what, this is my problem. This is something I've got to solve.'"*

Before the TCO reports were made available to the business, GTS and Large BU's IT group spent a couple of months in preparation, brainstorming potential questions and developing answers that would make sense from a business perspective. One IT manager involved in the rollout recalled:

> *"We made sure that IT [people were] educated about the application costs and how they were derived and knew how to explain these costs in terms that the business would understand. We also ensured [they] knew where to go for even more information on the application costs. Because as soon as you share that kind of information with the business, guess what? They start asking a whole bunch of questions, and they should. Reporting on the cost of our applications has heightened the awareness both on the IT and the business side as far as what the primary drivers of application costs are and what we can do to try to manage those costs more efficiently."*

IT and business managers commented that the TCO database and reports "brought two worlds together" and gave users a total picture of the applications for which they were responsible. In the past, IT managers had understood the set of applications that supported Large BU's business and the total cost of their infrastructure, but they hadn't related the two together. One IT manager recounted how he and his colleagues used to focus simply on their specific pieces of an application without any understanding of how the pieces related to each other:

> *"When I first came into the company, the conversations I would hear would be 'What do you work on?' 'I work on 2256 [a piece of an application].' And somebody else would say, 'I am working on 3825 [a different application piece].' And as silly as that sounds, that's how some conversations would go, and what it amounted to was that folks had very little identity with the total application."*

The TCO reports enabled IT people and business users to develop a common understanding of how applications related to the broader business. Thus participants used them to build both local and enterprise alignment. The same IT manager as above commented:

> *"Now, we're quite well organized around applications of the type that the business organization recognizes. The steady migration has been to move away from recognizing component parts of applications the way an IT person sees them, to recognizing the whole application, to recognizing the application family or product group that it's part of, and associating that with the right business groups on the business side of the house."*

Presenting Business Application Owners With Options. The new mantra became "it's all about choice." Application developers and GTS worked together to provide business owners with choices that included organization-wide infrastructure, in terms of both alternative project solutions and alternative service levels. They believed that when business managers had choices, they could make decisions and be held accountable for them. According to Large BU's CIO, presenting the business with options also had a favorable effect on her department's relationship with the rest of the business:

> *"Our business partners view us as more strategic and more engaged when we present them with choices and clearly explain the ramifications of each."*

An early example of providing choices to business executives was during the development of two new products. Application developers and GTS examined the total costs associated with the development and maintenance of two options:

1. Create a separate dedicated IT environment for each product (the traditional way).
2. Use IFS's existing administrative processing system environment for both products.

Faced with this choice, the business owners chose to forego some specific features and use a single environment because the costs of having two environments outweighed the benefits of the additional features.

Distinguishing Service Criticality and Application Value. Another area where GTS and Large BU's application developers worked together was to create a new vocabulary by identifying classes of services, based on criticality, as judged by the business. As shown above in Figure 4, View 1, applications were assigned a "service class" based on service requirements of high, medium, or low, and a "disposition":

- Applications with a "Buy" disposition should be invested in for continued future value.
- Those labeled "Hold" should only be minimally invested in for maintenance.
- "Sell" applications should be divested to remove low-cost value.

These dispositions became an important first attempt at approximating business value alongside total

IT costs in TCO reports. As a manager from GTS explained:

> *"[Large BU] had about 160 applications. We worked with business sponsors to tell us, from a business perspective, what's most critical to the business as well as what's not as critical. We then asked them to [rank] their applications by [what they paid for them], to see if anything [was out of line]. In some instances, we found applications that cost a lot of money, used a lot of capacity and GTS resources, that we built [because we thought they were] critical, yet the business sponsor would tell us that the application actually was not so critical."*

USE GOVERNANCE BOARDS TO ENSURE ONGOING ENTERPRISE ENGAGEMENT

To ensure stakeholders from GTS and Large BU worked together beyond the $12 Million Challenge, the CTO and Large BU's CIO relied on several governance boards. The CTO, for example, introduced a Client Delivery Organization (CDO), which consisted of a service desk and relationship manager for each line of business. The CDO acted as a liaison between GTS and Large BU's application developers. GTS relationship managers helped execute projects, explained the GTS bill, and, in general, worked on any special projects or problems that arose. In addition, within Large BU, the CIO introduced an IT Operating Council and co-led it with a senior business vice-president. Once a month, senior IT and business managers met to discuss the prioritization and status of Large BU's critical projects that were in red or yellow status. During these meetings, participants used the TCO reports to ensure the correct party (e.g., IT or a business owner) was taking responsibility for issues.

LESSONS LEARNED AND RECOMMENDATIONS

Lesson 1: In firms with a federated IT structure, local alignment is insufficient; enterprise alignment is needed as well.

At the multi-unit-firm we studied, the new CIO of one of its largest business units faced a situation familiar to many CIOs: a federated IT structure with strong local alignment and weak enterprise alignment. Within her business unit, teams of application developers had strong working relations with their business colleagues and were responsive to their needs. In a firm with a federated IT structure, such local alignment helps individual business units derive value from IT in the short-term. In the long-term, however, local alignment is insufficient and even counter-productive both to local business-unit interests and to the development of enterprise-wide resources. Because individual technology choices in the firm we studied were inconsistent and uncoordinated across the enterprise, IT infrastructure services had become a "black hole" that was taking away resources from new applications. Key IT and business stakeholder group leaders realized that they had to develop both local and enterprise alignment.

Lesson 2: Manage the interdependencies between applications and IT infrastructure.

Given the federated structure of IT at the firm we studied, IT and business leaders worked on engaging business unit managers not simply in application development decision, but also in IT infrastructure investment decisions. They introduced a common initiative ("The $12 Million Challenge") and several key mechanisms to help participants manage interdependencies between applications and IT infrastructure services—including decision-making tools that linked infrastructure services to applications and their business owners.

The lessons from this case study sharpen our understanding of why focusing on too narrow a form of alignment can be counter-productive. At a local level, participants need to work together to manage interdependencies between IT and non-IT interests during the project lifecycle to ensure it is on time, within budget, and its output is valuable to the business. At an enterprise level, participants need to work together to manage interdependencies between IT and non-IT interests throughout the enterprise to achieve complementarities across business units, such as between a project solution and existing shared IT infrastructure.

Recommendations

Managers at multi-business-unit firms pursuing complementarities across business units can use our case study findings to identify concrete ways of achieving both local and enterprise alignment in their own organizations. Figure 5 lists our recommendations for improving each of the three components of enterprise alignment developed in the firm we studied. By strengthening internal IT

Figure 5: Recommendations for Developing Enterprise Alignment

Key Component	Recommendations for Improving Component
Strengthening Internal IT Capabilities • How well does your firm: Understand its IT infrastructure costs? Meet service level agreements? Manage capacity?	• Include operations and maintenance costs in project proposals. • Build project management capabilities. • Create a relationship management group. • Define services by their business role.
Enhancing Engagement Opportunities • Do application developers, shared IT services, and business executives have a clear motivation for collaborating? • Is there a set of governance mechanisms in place to develop and sustain engagement?	• Introduce a short-term project with a clear objective to rally collaboration between key stakeholders. • Assign clear roles and responsibilities for achieving both local and enterprise-wide objectives. • Hold key decision makers accountable over the long-term by having them participate in regular meetings where the decision process and trade-offs are transparent.
Improving Coordination of Interdependencies • Are there tools that relate applications to shared infrastructure? • Does the IT department provide business managers with options that make sense and represent trade-offs?	• Produce tools that relate costs and benefits managed within business units to costs and benefits managed enterprise-wide. • Create options that enable business-unit decision makers to share responsibility for managing trade-offs.

capabilities, enhancing engagement opportunities, and improving coordination of interdependencies, IT and business stakeholder groups can develop a better understanding of how applications relate to each other and to the IT infrastructure. In turn, this understanding will ensure joint accountability and ownership for achieving both local and enterprise-wide objectives.

Enterprise alignment enables IT and business stakeholder groups to take greater control of shared resources and achieve synergies that no single IT unit can achieve on its own. In the firm we studied, the strengthened enterprise alignment provided the foundation for IT and business leaders to collectively pursue more ambitious synergies, particularly in the area of developing business process platforms.

APPENDIX: THE RESEARCH STUDY

The findings in this article are part of a broader stream of research into how multi-business-unit firms achieve and sustain economies and efficiencies across business units and increase business unit agility. We have taken a grounded theory approach, first developing key concepts by iterating between existing theory and case study findings and then testing those concepts through a survey. We developed our findings from the IFS case study by collecting and analyzing data, including tape-recorded and transcribed interviews with 13 senior IT and business managers and internal documents from the $12 Million Challenge initiative. Additional details on the IFS case study can be found in Fonstad, N., and Subramani, M. "Engaging non-IT Executives in IT Infrastructure Decisions," *MIT Center for Information Systems Research Working Paper 375*, July 2008.

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