



Solutions Development

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Introduction

Many services companies have diverse offerings ranging from support to development to subject matter expertise to high level management and advisory consulting. Often, they struggle to keep these offerings coordinated in the eyes of their customers. Frequently, managers are handed a portfolio of projects that may have no commonality other than the customer or the type of technology and are challenged to be able to present a unified face to their customer and explain how their organization, collectively, has the ability to solve their customer's most critical problems. While this is not necessarily a big issue for smaller, younger companies working with focused capabilities for customers they know well, it can be a very substantial challenge to larger, more established companies that want to provide 'one stop shopping'.

The usual sales/marketing response is to talk about 'solutions', yet most of the time these solutions are little more than PowerPoint decks showing a portfolio of unintegrated offerings. Or worse, companies sometimes invest in expensive technology development efforts that lead market demand or even fail.

Xeelee Group has, based upon a number of client engagements, developed a methodology for companies to integrate the service offerings that they already have by means of some brainstorming workshops and some internal communications. The process includes mechanisms to get started quickly and testing the demand for the solution with customers.

While the methodology was developed for federal systems integrators, it should be easily adaptable to any multi-offering services business.

Why A 'Solution'

Solutions Provide Competitive Advantage

Anything one systems integrator can claim to do using people and technology may not provide a sustainable competitive advantage. Cost, incumbency, expertise, and clearances can all be successfully challenged as well.

Niche proprietary processes and techniques demonstrating a productivity gain or better insight into solving a piece of a customer problem can provide temporary advantage, but often do not create a serious barrier to competition: they can almost always be reverse-engineered.

A broader, more complete, and integrated set of methodologies and proprietary processes is more difficult to reverse engineer in that every organization will tend to have their own take on things and discriminate their version of services: I *could* reverse engineer what you do, but I think my version is better.

At the end of the day, though, while bundling and packaging services can provide the opportunity to achieve substantial competitive gains, these gains can still be eroded simply by being copied (or claimed to be copied) to whatever extent a competitor feels they need to. What cannot be copied so easily are relationships: what we always hear from customers is

that the 'who' is as, or even more, important than the 'what' or 'how'.

The reason a solution provides a more sustainable competitive advantage is that the delivery of it will, over time, provide for deep organizational integration: 'You are the company that solves my mission critical problems; your organization is deeply entwined with mine'.

Our solution, therefore, in order to be effective, needs to be cognizant of relationships, not just methods and process. The relationships prevent the erosion of the advantage gained by methods and techniques.

Achieving Trusted Advisor Status

Many organizations like to talk about becoming trusted advisors to their customers (Fig. 1). Trusted advisor relationships are desirable because they tend to decrease competition and decrease price sensitivity.

In his book "The Trusted Advisor" however, author David Maister notes that being a trusted advisor is a person-to-person relationship, not an organization-to-organization one.



Figure 1: Typical Trusted Advisor Ladder

But what happens when there are many trusted relationships between a company's business development, account management, project management, contract management, subject matter experts, etc. and many points in the customer's organization? The problem for larger organizations is that if all these stakeholders are not pulling in the same direction, and disagreements are visible to the customer, trust can be weakened or broken. A common understanding, codified as a solution, can help ensure this doesn't happen.

The reason for having a solution, therefore, is both for competitive advantage and for giving a common focus to a broad range of customer interactions.

Being Perceived to be a Thought Leader

Customers want their trusted advisors to be the 'go to' resource to advise them about how to solve problems that matter to them. Very often those problems are either caused by or are expected to be solved by new technologies and customers want to know what they should do. Being competent if and when they ask is reactive and not conducive to building or maintaining trusted relationships. In his "The Trusted Advisor" David Maister also notes that gaining and maintaining trust requires giving something of oneself: taking chances and offering advice.

Having a perspective, or point of view, on how customers should best utilize technology is necessary, but not the winning strategy by itself: many executives I've spoke to simply discard unsolicited position papers.

The right answer is proactively telling them how to strategically use new technology to avoid risks or leverage opportunities because you have thought about it on their behalf and have developed solutions: invested in frameworks, determined vendor preferences, established teaming and partnering (Fig. 2).

We think this combination of bundling and packaging services using proprietary methods and processes, being a trusted advisor coordinated across multiple points of contact with the customer, and being seen as a thought leader is pretty much unbeatable.



Figure 2: Technology Thought Leadership

Building a Solution

While the previous section described some of the benefits of a solution, we have not really defined what a solution is and is not. From our perspective, a solution is not:

- A portfolio of past performance
- Knowledge of the customer's needs and a desire to be responsive to them
- PowerPoint.

A solution is:

- Competency in terms of having the kinds of technical resources, subject matter expertise, and clearances the customer may require
- Having an opinion regarding how the customer ought to solve their mission critical issues.
- Software tools, frameworks, or products.

All of this needs to be documented in a repeatable/reusable form, proactively integrated so that it is focused on customer needs rather than your company's services, and with enough embedded vision, customer knowledge, technique, and technology to create customer confidence through demonstration of your understanding of their needs and your approach to meeting those needs.

However, because of the way many organizations grow organically and integrate acquisitions, tactical P&L pressures, and even sometimes the way the customer procures services, they can get stuck in a cycle of being reactive/responsive even as their customers plead for them to be proactive, visionary, and bring solutions.

The good news is that most Systems Integrators who provide multiple types of services to their customers have most of what they need in house already. Our technique for developing a robust solution is a process of:

- Figuring out better and different ways to describe the customer's problems other than what you happen to have done for them: more big picture/synthesized.
- Inventorying and reorganizing what you've already done, are capable of doing, or should be capable of doing and describing it as the building blocks of an integrated solution.

- Bridging organizational silos (for the purpose of this article, it is assumed that silos are not fixed/reorganized) so groups can work in parallel and stay coordinated.
- Making sure your customer resonates with, understands, and agrees with your integrated solutions vision: that you are 'leading the pack, not running from the mob'.
- Making very sure you can still conduct practical, tactical business in your current world using the solution as a discriminator, but not as an impediment to doing the work that keeps your P&L healthy.

While not discussed here, because it is presumed, excellence in services delivery is a must regardless of how we package and bundle our services. Extraordinary competence, deep and wide customer communications with lots of face time, and high levels of efficiency and effectiveness all have to be in place before any packaging or bundling will provide any value. That being said, in our experience most federal systems integrators take their customers' missions very seriously as well as the idea of providing service to the country, which is why we can focus on integrated solutions rather than basic services delivery.

What Problem Are You Solving?

The first step is to understand what problem you are developing a solution for. Too narrow, and the solution doesn't solve any problem that's important to the customers' executive management. Too broad, and the customer will not know how to react: 'we want to provide the solutions for DHS's needs'. The solution must get the customer's attention: 'we want to provide the solution to DHS's secure information sharing needs'.

There are two ways for a System Integrator to go about framing their solution:

- Top down: Using senior business development personnel's understanding of the customer
- Bottom up: Abstract what do all the things you currently do mean to the customer via brainstorming workshops.

Some combination of both is probably best. We recommend that you do not directly engage the customer at this point, but, rather wait until you have the solution more clearly formulated so it can be 'test marketed' (see below).

The primary output we need from the solutions definition is the major service domains to be included in the solution. For example, a secure information sharing solution might include content management systems development, network security services, and infrastructure management services.

These major service domains can, and should, fit what you already do for customers to a large degree:

we are trying to use what you have, not reinvent the wheel.

Often we find that an organization has a full suite of services for their customer, and the major service domains line up with units in the organizational structure. Their challenge is getting your groups to sell and deliver cooperatively without building a lot of expensive overhead.

Inventory and Categorize Current Competencies, Technology Value-Add, and Offerings

The next step is to understand what you have in-house. Very often, the necessary data, if available, is difficult to find, uses different descriptive terms making comparisons challenging (e.g. a skills management system that uses 'service oriented architecture' and a past performance database that uses 'web services'). Worse, it is stored ad hoc and uncategorized on network drives or even leaves when your personnel leave in the evening.

While broad-based corporate knowledge management initiatives can be very costly and have uncertain payback, some basic information is required:

- Competencies: What skills your personnel currently possess?
- Past Performance: What you have done for customers in the past?
- Technology: What have you built for customers that can be re-used?
- Processes & Methods: What defined and reusable methodologies, processes, procedures, and policies do you have?

Critically important is using a common vocabulary across skills, past performance, and technology asset databases to be able to understand their relationships. Developing a simple taxonomy and thesaurus will make the required information findable; the key is to keep it simple: we are only seeking to identify the building blocks of our solution (and while we're at it some support of proposals, resource assignment, focus of IRAD investment and reuse previous client deliverables – clearly we want the inventory to be beneficial in and of itself).

With a reasonable set of past performance examples, the skills it took to successfully deliver (or skills one should have had), and the embedded technology that was used (or was developed or should have been used), we can frame service offerings.

A service offering, as used here, is a more abstracted, repeatable version of a past performance qual: if you provided a physical security risk assessment for the port of Newark, your service offering might be physical security risk assessments for ports, physical security risk assessments, port security services, etc. Be careful not to frame the services as larger than you can successfully deliver, but be equally careful

not to make it too restrictive. Make sure to incorporate the capabilities of partners you are comfortable you can repeatedly include on your team. This presents a good opportunity to review these relationships and ascertain which ones are strategic and which are opportunistic; which ones you want to continue to subcontract and which ones you want to bring in-house.

Service offerings can be described as very product-like even if they do not contain anything but labor. They can have defined deliverables, fixed costs and timing, and make use of templates or methodologies. Service offerings can also have embedded technology or even be primarily technology. A full treatment of how to optimize product-service blends within an offering is the subject of a separate white paper by Xeelee Group. We like to call them ‘provides and serducts’ because of the interesting blends that can occur.

Just as competencies and technology are the fundamental building blocks of service offerings, service offerings are the fundamental building blocks of solutions (Fig. 3).



Figure 3: Competencies, Service Offerings, and Solutions

The way we use these building blocks is to:

- Group them into end-to-end service delivery lifecycles within a particular domain (e.g. networking, software development)
- Line up all the lifecycles that we want to deliver concurrently in our solution (the major service domains discussed previously)
- Figure out all the points of contact between the lifecycles: where they are doing similar things that can be grouped or where they need to share information

Linking Offerings into Solutions

The first step in building a solution out of our offerings is to collect offerings of a similar type into lifecycles. ‘Similar’ is a judgment call, but depending on the range or breadth of the solution we are trying to build, there is usually a logical organizational unit that has responsibility for an appropriate domain. We’ve seen this be as broad as things like ‘network and infrastructure services’ to things as focused as ‘database mining for law enforcement’.

Regardless of whether that organizational unit looks at the world as organized by customer, technology, function, or geography, the service offerings that have been identified in the inventory can almost always be arranged according to (Fig. 4):

- Up front assessments, analyses, and requirements
- Design of physical and IT systems, policies and procedures, or organizations and processes
- Development and implementation of the design
- Ongoing operations, maintenance, and support.

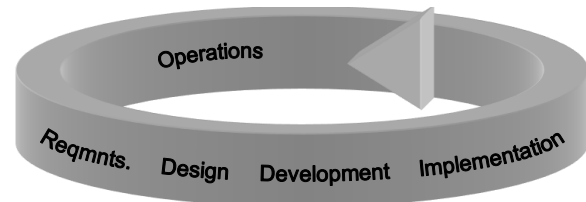


Figure 4: Typical Single Domain Lifecycle

This can be broken down into a larger number of steps if desirable. A workshop of the organization’s leadership to review and organize the results of the inventory can quickly build up this lifecycle model if it isn’t already used. Whether these are short, tight spirals or longer waterfall processes without planned repetition is not important here.

What is important is to perform a gap analysis and see what parts of the lifecycle within your capabilities, but are missing from your actual customer projects... and why. It is also a good opportunity to review reliance on partners and subcontractors as well as other parts of one’s own organization. Again, the intent is to make this step beneficial in and of itself to support short term growth.

Generally there are several of these lifecycles that need to operate in a coordinated to order to solve the customers’ problems (Fig. 5). This is distinct from what your customer may procure: a customer’s problem may be that they need to improve how they share information with other organizations in a safe, secure manner; they may procure only network security. In that case, they have deconstructed the problem into its components, rather than you allowing you to present them with a holistic solution. Let us defer tactics regarding marketing a whole solution while, at the same time, selling only parts of one until later, and remain focused on building the solution: providing for the customer’s mission needs.

The solutions definition created previously will help identify the set of domain-specific lifecycles that are collectively necessary to end-to-end ‘solve’ customers’ key problems. Typically, we find that 3-5 of these lifecycles comprise a typical solution.

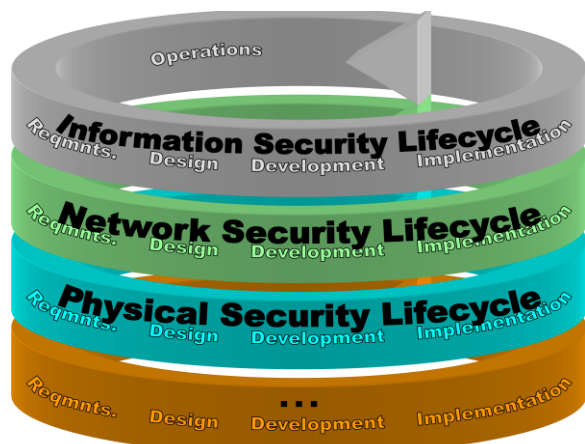


Figure 5: Domain Lifecycles in a Solution

Identifying the domain lifecycles, however, doesn't provide much help in coordinating them. We have seen, all too often, briefings of corporate capabilities integrated at the level of PowerPoint, and heard all too often the government executives' reaction to these briefings. Suffice it to say, this kind of unintegrated portfolio approach is generally not persuasive.

So how do all these lifecycles get integrated? We don't want to, at least for purposed of solutions development, require organizational change, consume large amounts of overhead, or build a lot of software. Technology-based services delivery platforms are great, but if they're not focused on real needs they can end up being a very expensive answer in search of a problem: out in front of the customer's headlights. We also don't want to break the focus of organizations that have tactical P&L targets to meet and beat.

The simplest way we have found to integrate domain lifecycles is to take a more granular look at these lifecycles: break each of them back into their component services offerings. What we were previously looking at as stand-alone service offerings are really 'tasks' within the solution, hence the notion of them being the 'building blocks' referred to earlier (Fig. 6). Some of the tasks from a case example are shown below color coded by the different lifecycles they came from.

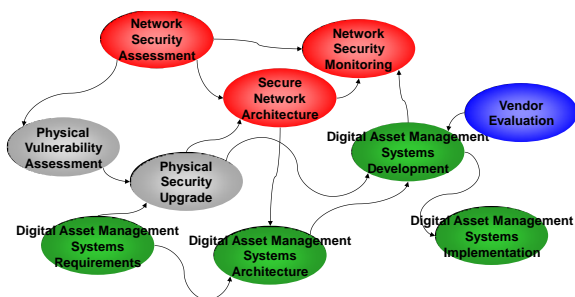


Figure 6: Lifecycles Broken Down Into Tasks

These tasks can then be connected by building up a list of hypothetical 'conversations' between tasks within and across domains plus within and across lifecycles that would have to happen to integrate them into the integrated solution (Fig. 7). Again, workshops are the simplest way to develop these linkages. In order to keep the model from becoming overly complex, it is important to focus on which upstream tasks *really* need to inform any given task and which downstream tasks *really* need to be informed.

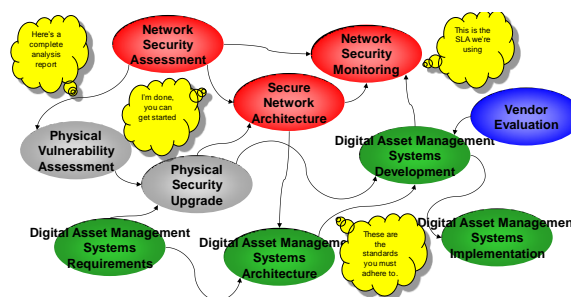


Figure 7: Conversations Between Tasks

As a practical matter, these 'conversations' can be as simple as 'here's my deliverable to the customer, and you should get started', or they can be an annotated version of customer deliverables with notes intended for company use only, or they can be as complex as an entirely separate deliverable for internal consumption. Others who might want to review materials, but were not included in the network of conversations should have ready access via corporate intranets and knowledge management tools. There is a well established technique called RACI (responsible, accountable, consulted, informed) that can be very helpful for engineering these kinds of communications.

An example of the kinds of materials that we use to document a 'conversation is' below (Fig. 8). Detailed work sheets codify:

- What the task is
- How the system of tasks interrelate in terms of deliverables: predecessor and successor tasks
- What customers get (and when)
- What other internal stakeholders in the solutions process get (and when)

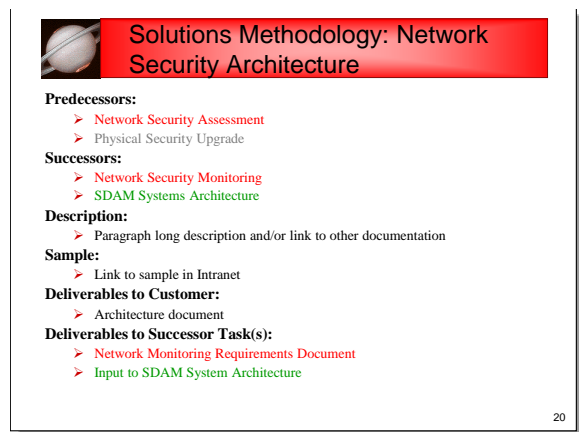


Figure 8: Sample 'Conversation' Documentation

A briefing book of the 'conversations' along with examples of internally and externally focused deliverables is typically adequate to assert to the marketplace that the solutions methodology can be delivered and managed operationally. There are, of course, many improvements that can be considered such as building more general delivery templates, providing cross training, building up solutions program management infrastructure, and creating automated workflow support. These should all be evaluated as to their specific incremental cost/benefit to the basic solution.

Solutions Adoption: On Ramp Services

As was stated earlier, while the solution is valuable for capturing mindshare, it is not expected that many customers will adopt such a broad set of services immediately. We need to define some easy to adopt 'on ramp' services that can engage the customer in response to their stated needs and procurements.

The lowest lying fruit is for an organization to continue doing what they currently do, and using the solution as a roadmap for upselling their own services along the lifecycle or cross selling other organizations within their company. Or, and preferably, we can create multidisciplinary bundles of tasks, to become points of entry ('On Ramp' services) into new customers from which we can expand our relationship (Fig. 9).

These new, multidisciplinary offerings should be one of the deliverables of the workshop(s) that defined the 'conversations between the tasks.

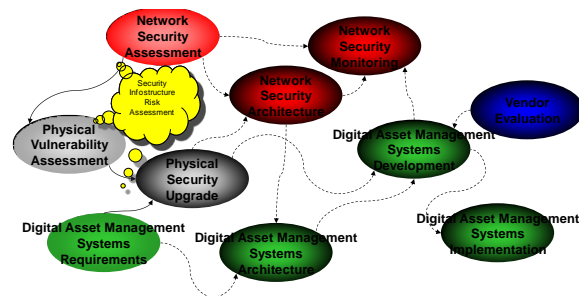


Figure 9: 'On Ramp' Services

It is important to note that as part of building up these conversations, a couple of things happen that can provide 'quick hits':

- We have a map of what customers probably should have done before they engaged us, should be doing concurrently with our scope of work, after we complete our current assignment. If we have marketed the solution well, not only do we know what to up-sell/cross-sell, but the customer may well agree.
- We now have a gap analysis of the white space and overlap in our services. Now that these are apparent, internal competition can be managed more deliberately and partnering relationships can be set up more proactively. This gap analysis can even be useful input into a company's acquisition strategy.

Deploying the Solution

Once the basic model is completed, we recommend splitting ongoing solution development and enhancement efforts into a marketing initiative and an operational one (Fig. 10).

The primary goal of the marketing initiative is to make sure that the collection of tasks and their integration do, in fact, have the potential to solve the problem we set out to. The rationale for allying the various delivery lifecycles needs to be discussed relative to the customers' needs rather than simply being what was in hand. This must be boiled down to a unique selling proposition, competitive discriminators, and other market-facing messages.

Early and often, once the scope of the basic model is clear, feedback and guidance should be obtained from customers with whom you have close relationships and can get honest, candid feedback.

'Trial balloon' collateral will need to be developed and perhaps even some web pages. This also should be test marketed with the same customer personnel.

As confidence is developed, testing should be broadened and a market launch program should be developed in accordance to each company's normal marketing practices.

For the operations initiative, the most important objective is to provide adequate oversight to any unfamiliar handoffs either within or across disciplines. The solution needs to be practical, and rapid identification and remediation of missing conversations, deficient internal deliverables is critical.



Figure 10: Marketing and Operations Ongoing Solutions Management

Challenges

There are a number of key challenges we have identified based on our experience:

- **Organizational silos:** While this solutions development methodology specifically attempts to avoid requiring organizational change, if there is too much internal competition for the kind of cross-disciplinary handoff delivering a solution requires to work, then these organizational issues will need to be addressed. Generally, if this level of organizational stress exists, most companies are already taking steps to address it regardless of the requirements of the solutions methodology.
- **Program management:** Some smaller organizations have not yet had the need for program management that can handle the size or scope that a full solution could entail. Some larger ones may have the right types of personnel, but they are beholden to a particular group, not the overall deployment and delivery of the solution. While no one wants to incur unnecessary overhead expenses, it is essential that the early opportunities to link multiple offerings in a broader way be delivered as flawlessly as possible. Any deficiencies in the basic model need to be corrected transparently to the customer and lessons learned gathered and incorporated into future deployments of the solution.
- **Selling/Marketing:** While an organization earnestly endeavors to provide higher value-add to their customers with their solution. Extreme care has to be taken to strike the right balance between being forward leaning and being customer responsive: we want to make absolutely sure customers see the solution initiative as advancing their goals and objectives, not a System Integrator selling what they have. Previously, we used the metaphor that there is a very small difference between leading the pack and

running from the mob... make sure you know which one you are doing.

- **Aggressive use of ‘On-Ramps’:** On Ramp services are essentially continuing current operations with some better cross-business unit teaming and a vision for the customer to meet their mission critical goals. It is important to maintain a business that works and not trade it for one that you believe might be better but have no evidence of, or experience with, it. It is far preferable to grow into a solution based on small successes and then upsell/cross sell.
- **Executive sponsorship:** Developing and maintaining the intellectual property required for a solution requires significant amounts of executive sponsorship. It is very easy to backslide into current operations and maybe some improved internal teaming and declare victory. Cost models of the overhead required to develop, maintain, and sell the solution should be developed and compared to incremental sales over a reasonable time horizon to ensure sponsoring executives are comfortable with the use of scarce overhead funds.

Case Examples

Case #1: Information Systems Division of a Major Systems Integrator

This division had three sectors: one providing network operations services to the intelligence community, one providing knowledge management development services to homeland security and law enforcement markets, and the third providing modeling, simulation, and exercise support to DoD. Their challenge was to offer a broader range of services to each of the customer bases.

At the end of a series of Xeelee led workshops and interviews, the organization’s offerings were grouped into a ‘Strategic Infostructure’ solution that provided secure network, information, and application services development and operations, plus provided the subject matter expertise to use the services to help customers accomplish their mission.

The solution provided an intuitive model for each sector to engage the other two within all three markets. Significantly increased cross selling resulted.

Case #2: Federal Practice of Public Records Data and Data Mining Software Provider

This group was part of a larger organization that was focused on sale of information. The group was attempting to sell the underlying data mining technology that ran one of their commercial data services as software, either as a license or using a SaaS (Software as a Service) model. Many in the company felt that this business was not core,

including some senior executives. The organization also had a privacy consulting practice that was able to open new accounts and engage senior executives, but unable to transition these accounts into larger, more lucrative, data or software projects.

The integrated solution that was developed showed how the provision of data, along with data mining software, could provide a valuable solution to the government provided privacy services were used to create and assert, as business rules, the necessary controls to ensure appropriate use and adequate monitoring and reporting for mixed public/private data applications. The addressable market for both the data and data mining products was enlarged as a result.

Case #3: Integrated Security Division of a Major Systems Integrator

This was an organization that was assembled to focus on a functional value proposition, integrated security, within an organization that was almost exclusively customer focused. Their major groups were a cyber security practice, a physical security practice, and a records management/web development practice.

The challenge was that, although the managing executive had a clear vision of how the organization could provide integrated security solutions, most of the middle management did not understand or share that vision. Further, they had goals and tactics that were not aligned with the executives plans, in some cases just to get more short term revenue and profit, in some cases because they had a completely different vision for their part of the organization.

A solutions model was developed showing how both cyber and physical security systems generated network traffic, and how that network traffic could be used by centralized digital asset management systems for analysis and response.

As the group managers began to see their businesses enhanced by the integrated model, their alignment with the executive's vision increased, and large integrated security projects were won.

Conclusion

We believe, based on our experience that this process is a great way to better understand, get more life out of, and get more value out of, what you currently have. The approach outlined here can be developed at relatively low cost and without the requirement for traumatic organizational change or expensive and potentially risky technology development (though as discussed both can be used in conjunction with this process as makes sense).

It is also a great way to differentiate services from competitors' in a meaningful way: packaging and bundling can have a dramatic impact on the customer by providing them with all the services they will need and a framework to recognize and adopt them.