

From IT Cost to Business Value

Focusing investment for competitive advantage



Transforming applications into business advantage

Summary

The challenge of portfolio management has been summed up in the extensive research conducted by the former CIO of the US Department of Defense, Paul A. Strassmann^{1,2,3}. He demonstrated there is no relation between information management per employee and return on shareholder equity. He also showed there is no relation between profits and annual IT spending. Thus, the key decision of portfolio management should not center on how much to spend but on what to spend on. The goal is to create a portfolio management approach in which “decisions on whether to invest in IT are based on potential return, and decisions to terminate or make additional investments are based on performance, much like an investment broker is measured and rewarded based on managing risk and achieving results.”⁴

The challenge for any CIO, but particularly one faced with the requirement to create more value rather than just to cut costs, is to develop a balanced portfolio that allocates IT funding in a targeted, controlled and measurable way.

Support and maintenance central to value creation

Costs

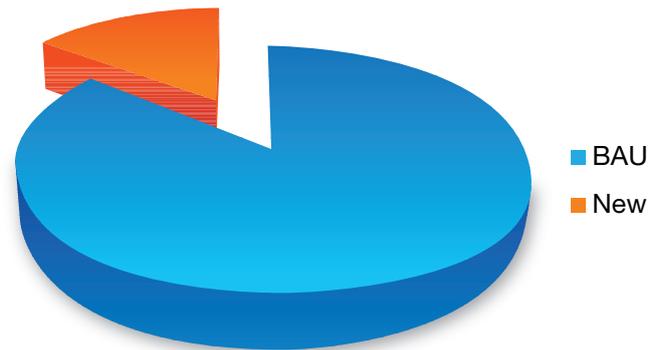


Figure 1. Current cost model

When CIOs look at the current cost structure of their IT estate they see a consistent picture: the majority of funding is spent on Business as Usual (BAU) and a minority on new investment.

These challenges of cost distribution mean that any plan to drive value from IT must be focused primarily on improvement and value that can be driven from the existing estate. The CIO who concentrates purely on new projects faces two key problems. Firstly, these projects are mostly already defined by the business and therefore not IT-driven; and secondly, the new projects represent the minority of IT spending. For the CIO to truly demonstrate value creation from an IT estate, he must understand how the value can be driven out of all IT, and most especially out of Business-as-Usual IT. It is in this area that the CIO can really create the flexibility and slack⁵ needed to drive innovation and value within the business.

This understanding means that to really drive value from IT the CIO must think of Support and Maintenance as integral parts of the value creation strategy. By looking at how Support and Maintenance can be modified to drive value, the CIO has the opportunity to directly demonstrate how the IT department is cognizant of the business challenges and can react to them within the existing spending structure. Rather than continually requiring new funding to achieve new things, this approach helps to repurpose old money in line with the business.

Thinking about business over technology

The biggest challenges in IT are not technological but sociological⁶. Thus, the biggest change faced by the IT organization is to change the way it thinks about the business and to re-orient itself towards business value. IT organizations and their suppliers need to shift away from the technology (i.e. a network- and application-centric) view towards a business-centric view. They need to understand the way business operates, its drivers and goals, and – most importantly – the language it uses to describe itself. Instead of centering on implementation and technology, the goals of IT need to be defined in business language and focused on the prevailing business model.

The most effective way for an IT organization to do this is to understand the business services⁷ of the organization. This Business Service Architecture helps to give the context and framework for IT and organizational decisions.

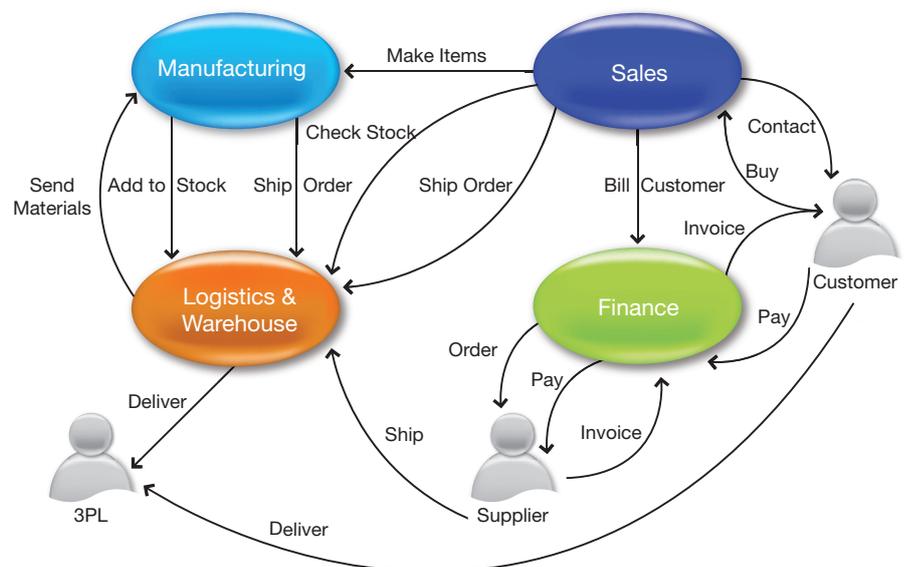


Figure 2. Manufacturing Level 0 Service Model

The Business Service Architecture represents the map of the business; it defines its objectives and drivers. The “big picture” it provides represents the IT organization’s aim, namely: to create an IT estate that looks like, evolves like and is budgeted like the business it supports.

By constructing a Business Service Architecture, the CIO can start to map out the vision and goals for IT and to look at the organizational and business structure within which IT can sit. Work is underway to improve these definitions, to move away from the abstract towards more formal, manageable entities⁸.

Business alignment is not nodding

One challenge IT departments face is the erroneous idea that business alignment is about doing what business people say, which confuses “alignment with the business” with “alignment with individual objectives.” People will rarely, if ever, admit that their area is not strategic or differentiating to the business. One of the hardest lessons for IT to learn is that its goal is not to simply do what business people say but to do what the overall business strategy says. This means that IT must be there to challenge the business around its IT spending; the challenge is necessary to ensure business spending on a service is in line with the expectations.

Too often IT and business alignment is taken to mean that the IT department is to do what business tells it to do. Comments like “they do what I ask which is great, but it’s very expensive” highlight the risk of such approach, in which IT fails to rein in spending and to stop needless optimizations, preventing the whole estate from becoming a differentiated solution against the competition. This means that there is a lack of focus in the spending and the end result is almost always a massively more expensive IT estate than befits the business strategy.

The goal for the dynamic CIO therefore is to have an IT department and partners who are able to actively engage in debate with the business and assist in shaping the course for the future, in line with the overarching business strategy rather than simply based on the last conversation had with a business person.

Know the value

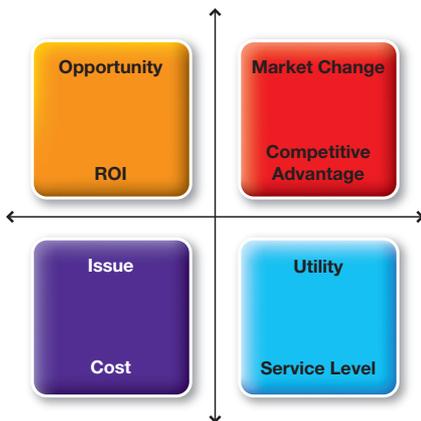


Figure 3. Value Classification Matrix

Once you have the business context, you can then properly understand the business value. Too often IT equates value with the amount of money spent on a system rather than on the value derived from that investment. Taking a business-value approach to assessing the validity of spending often leads to a dramatic reassessment of IT priorities. Understanding the business value of a business service is relatively simple. Answers must be provided to two questions: firstly, what would be the driver for changing a service, and, secondly, what would be the justification for the change.

Figure 3 shows a standard Value Classification Matrix. The top of each box defines the Business Driver for change; the bottom defines the Decision Driver for approval. This helps the IT department to identify areas genuinely important to the business, as opposed to those that merely cost a lot to support.

The Business Service Architecture and the Value Classification Matrix can be used to create a “heatmap” of the business.

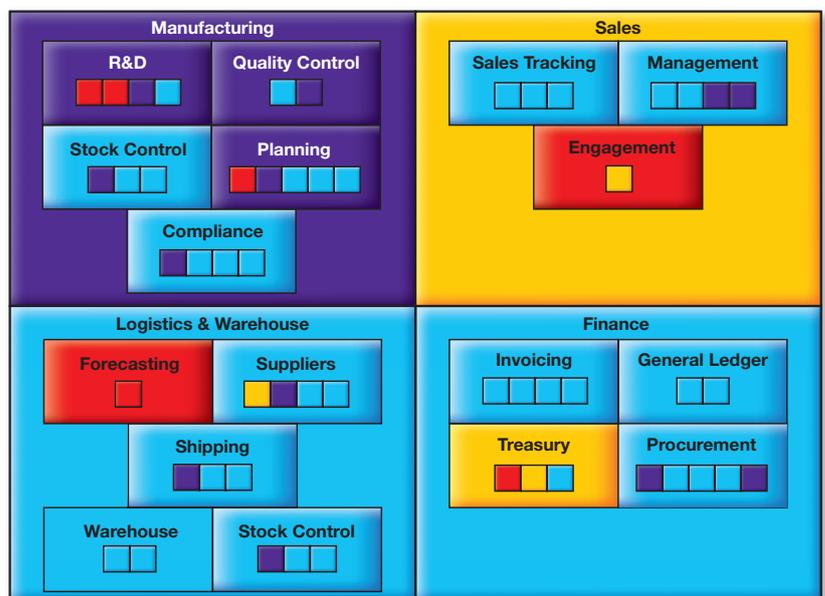


Figure 4. Sample heatmap

Heatmaps quickly showcase the business areas where value can be created (Orange and Red) and where costs should be reduced (Blue and Purple). Importantly, even within an area where cost reduction is the norm, it is reasonable to find business services that have the potential to really change the way the business works and to drive significant new value.

Concentrate on differentiation

One of the most striking conclusions of this type of exercise is that many parts of the existing back office are considered to be either a utility- or an issue-based system. It has been claimed⁹ that 95% of what all companies do is effectively the same, and only 5% of their activities provide the strategic differentiation. Oddly, in most companies today these non-differentiating parts are often the most expensive parts of an IT estate. The heatmap gives a business-value perspective and therefore it highlights the supporting IT system investment and cost drivers.

Therefore the CIO's goal is to dramatically reduce costs in the "cold" areas and to focus the best people and investment on the areas delivering real business value. The cold areas (Blue and Purple) should be outsourced; partners should be sought to co-develop the warm (Orange) areas; and the hot (Red) areas should be retained and developed through internal investment and, if needed, skills from outside. The quality of staff is the single biggest force driving productivity¹⁰; using high quality and productive staff in non-value-generating areas is a great waste of IT resources. The future IT organization should concentrate its staff on creating differentiation in value-creating areas and look to third parties to provide standardized cost-reduction solutions elsewhere.

This differentiation focus tends to require a different skills profile than the one normally found in corporate IT departments.

Rationalize in line with the business

Another key challenge many companies face in applications rationalization is to understand not just the technical and functional overlap of applications but also how this overlap fits with the business model and, therefore, which rationalization approach is optimal. The Business Service Architecture and the Value Classification Matrix make it easier to answer the questions of “Own, Manage, Rent, Retire” as they help to create a more accurate applications map, one which exposes not just the overlaps in applications but also the gaps – areas in which no application supports the business.

| | R&D | Quality Control | Stock Control | Planning | Compliance |
|--------|---------|-----------------|---------------|----------|------------|
| Own | X2 | | | Advance | |
| Manage | Phoenix | | | | |
| Rent | | | ERP A | | |
| | | | ERP B | | |
| | | | ERP C | | |
| Retire | | QCA | | | |

Figure 5. Example of straightforward application rationalization

In Figure 5, a limited number of differentiating applications should be retained directly by the organization. One application (Phoenix) should be managed via a third party provider (i.e. it should be outsourced); three ERP applications should be replaced with a single ERP instance; and one application (QCA) should be retired as it duplicates functionality. In this example the overlaps are clear and obvious, yet sometimes the situation is much harder to decipher.

In the scenario drawn up in Figure 6 there are not only a number of overlapping applications but there are also significant gaps in core areas, most notably in forecasting. The question is therefore not of a simple rationalization but of how to undertake the rationalization and start delivering solutions to one of the key business differentiators. This is a good example of a case in which elements, such as SOA Build and Run-Build-Run contracts described later, can be used to actively manage the rationalization either via a replacement strategy or by using SOA principles to reuse those parts of the legacy most representative of the company’s strategy.

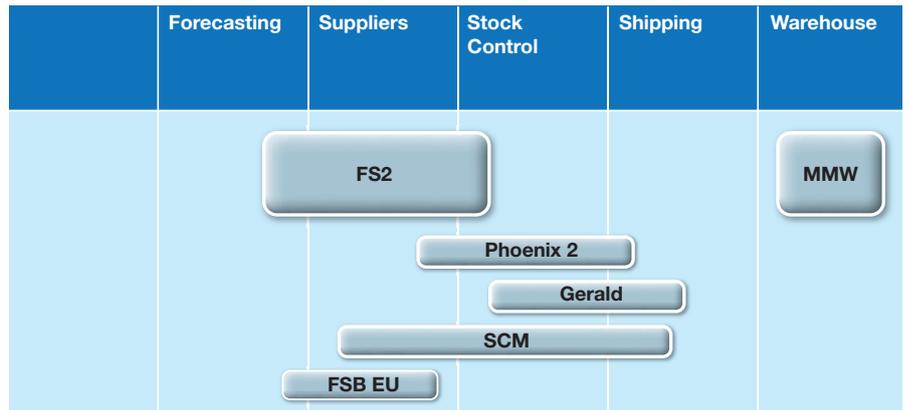


Figure 6. Example of challenging application rationalization

In this example, the most appropriate approach would be to look at rationalization as part of the move towards delivering an IT estate that better fits the business. The latter sections of this paper will deal with the different approaches to rationalization, but broadly what could be done in such an estate would be a combination of SaaS solutions, Run-Build-Run outsourcing, and new build.



Figure 7. Application rationalization with new build

The goal of strategic rationalization therefore is not just to retire and consolidate applications but also to identify areas that need to be extended and to create a more complete solution. Focusing purely on cost reduction often means that rationalization delivers lower costs but also less functionality, which can mean future difficulties in adding strategic differentiation since such differentiation was not defined as a goal of the rationalization process.

One size doesn't fit all – understanding the roadmap

This new value-focused model demands great flexibility from IT delivery. In particular, IT departments and outsourcers face a significant challenge as Mess-for-Less is no longer “enough” when it comes to cost cutting and it clearly does not assure the flexibility required to continually deliver business value. There are two clear roadmaps, the choice of the right one depends on whether an area is capable of creating value or not.

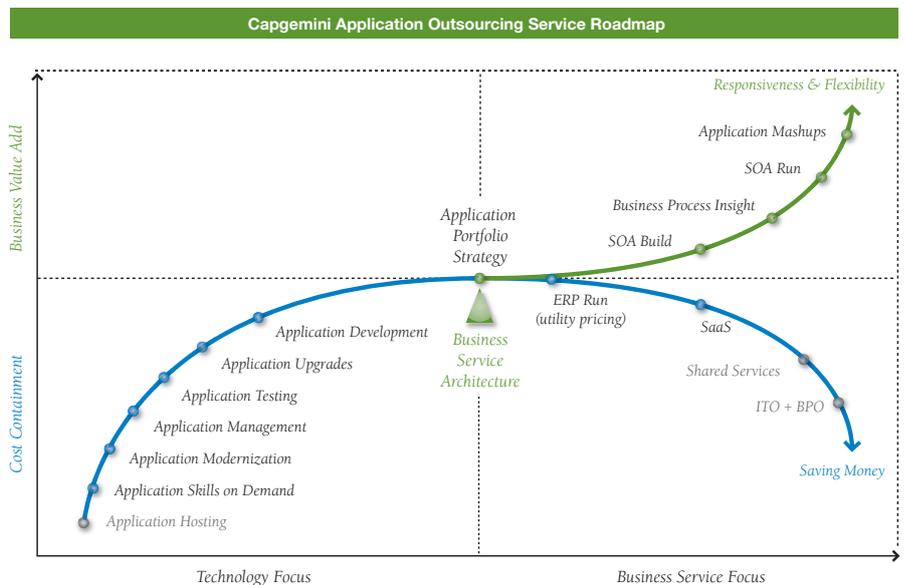


Figure 8. Application Portfolio Roadmap¹¹

Broadly there are two roadmaps, one which is focused on reducing the costs of elements and the other aimed at driving competitive advantage. To note, competitive advantage only ever comes from having a business focus and never from a technology focus.

Removing customization to eliminate costs

The dreaded package upgrade is one of the most consistent problems faced by IT estate management. The reason for the dread is simple: if the package had been left vanilla then there would be no problem, but the package is never left vanilla. In effect, the customizations cost many multiples of their actual implementation costs. Therefore, one question must always be asked: was the customization genuinely required or was it required only because we didn't want to change the business. All too often the business makes no move to change in order to make the IT solution work. This leads to the worst of all worlds: the adoption of a packaged solution customized to fit the existing business. The goal in cost-based areas is therefore to eliminate customization and, thus, to remove needless costs and, in particular, to support upgrades implemented in the most cost-effective manner possible.



Figure 9. Cost based Roadmap

If a package is the answer, which tends to mean either cost- or utility-based services, then there is no competitive advantage to be gained. This means that having business- or IT- differentiation in such areas is a waste of money. The business heatmap is there to highlight these areas to the CIO and to help them drive a more dramatic cost-savings agenda. The mantra for cost-based areas should always promote the adoption of commodity-packaged solutions and the change of the business to adopt the processes and standards of the package. The selection of a package solution is a statement of intent: it says that it is okay if in this area the business is just as good as everyone else's. There is no value to be created from customization and only significantly higher costs.

The first goal for any CIO in package implementation, upgrade or support should be to move towards as vanilla a solution as possible and to work with the business to develop and implement a business change program that will support the commoditization. Companies are currently wasting millions to customize packages whose costs increase over time.

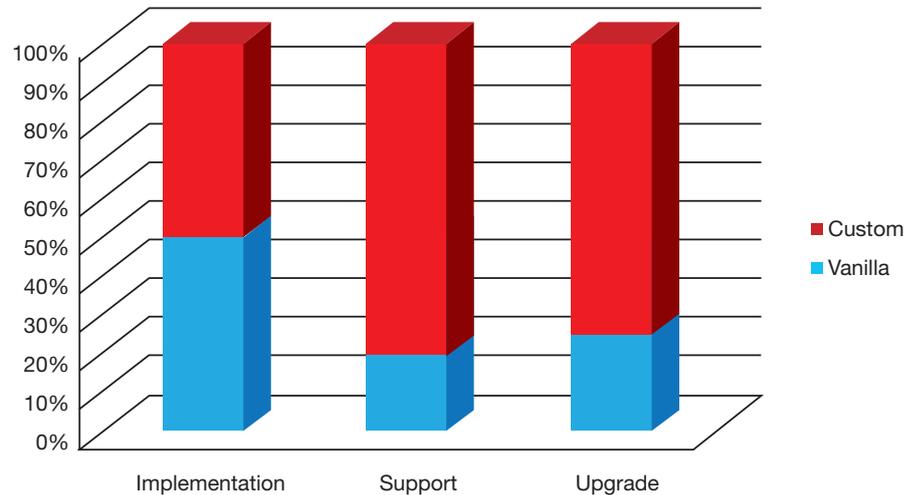


Figure 10. Relative cost of package customization

This means that a Mess-for-Less style of application support and management is designed to increase the long-term costs of package solutions as it fails to address the underlying challenges of business change or to continually look to replace customizations by vanilla solutions. Simply put, Mess-for-Less is designed to ensure the upgrade of a package solution is more expensive.

For new packages the answer is simple: change the business not the package. This mantra will significantly reduce implementation, support and upgrade costs and will also help to ensure the package delivers against its original business case.

For existing packages the challenge is clear: how to remove the customizations to eliminate the extraneous cost. To this end, applications support must shift away from merely patching and updating towards being part of a business and technology change program. This represents a significant shift and tends to be implemented with varying success in one of four ways:

| Name | Description | Pros | Cons |
|---------------------------|---|--|---|
| High Quality Evolution | High Quality Evolution Assign a high quality support and implementation team aligned to an incremental business change program. | Evolutionary approach with small steps. Enables business to remove costs over time. | Expensive to resource and staff. Does not quickly deliver the benefits. |
| Incremental Run-Build-Run | Break the package down into its constituent modules and replace elements in defined groups and business areas. E.g. if doing HR and Finance, upgrade Finance first. | Evolutionary approach with large jumps forward. Enables the targeting of key challenge areas. Gives a staged business change program. | Does not deliver benefits as quickly as possible. Requires ongoing support to combine implementation and upgrade. |
| Run-Build-Run | Single program approach to support existing application and then replace with a new version, then take that into support. Large change program and migration all managed together. | Gives all benefits as quickly as possible. Enables the new build to be done independently of ongoing support. Ensures build and migration are done with the existing support team. | Change program can be very large if it covers multiple application areas. Often works best for limited area packages. |
| New build and migrate | Existing organization does the support and a new program is established for a new build, this undertakes the business change and implementation. There is then a migration program to move the information from the existing system and to establish new support. | Separates support from implementation. Gives a targeted project for the new build and change. | Often very expensive. Creates organizational tension between BAU and new, often with BAU adding modifications from the business and thus causing disengagement from the change program. |

The last of these elements is often what companies are forced into doing as a result of existing Mess-for-Less outsourcing deals. The existing contracts force them to create a new structure in which to deliver the new package. Additionally, the existing support team knows it will be replaced and often becomes counter-productive by accepting business change requests which are being made redundant by the new implementation. This often leads to a big disconnect between the previous implementation and the new package, and sometimes to the rejection of the new package by the business.

Contractually therefore the most sensible approach is to choose an implementation approach that works with the existing support organization and which provides a clear strategy for moving the new application into support. These contracts should look at the demonstrable benefits that are expected through the implementation and link its costs and bonuses to the achievement of the benefits. Normally, these benefits should include both business change and technology savings targets. By making a single entity accountable for the migration and linking profitability and KPIs to the achievement of the savings, emphasis shifts clearly away from Mess-for-Less towards the delivery of quantifiable business advantage.

The logical conclusion: moving to shared services and SaaS

If a given area is not differentiating, then many companies can use the same solution without any impact on competition. This is best illustrated today by the adoption of standard packages, for instance SAP ISU in utilities or Retek in retail, adopted by multiple companies in a sector specifically to achieve standardization. Horizontal business functions represent other areas where differentiation does not yield competitive advantage; hence packages like PeopleSoft from Oracle are often used for HR solutions.

The next logical question therefore is why do I have my own? If a company has elected to change its business practices to fit a given package solution then it is hard to see how the cost of infrastructure and dedicated IT support would represent the lowest cost option for the provision of the service. If a service is considered a utility then it should be charged as a utility. Companies do not go out building mobile telephone infrastructures just so their employees can have mobile phones, nor do they build power stations and gas pipelines just to keep the heat and lights on. The decision driver for utility elements is service level: as long as a service reaches the required service level then the cheapest option wins; companies will pay more for extended service levels in the same way as they pay more to have mobile email access than simply to make phone calls. These services are utilities whose costs are directly linked to the business activity that creates the costs.

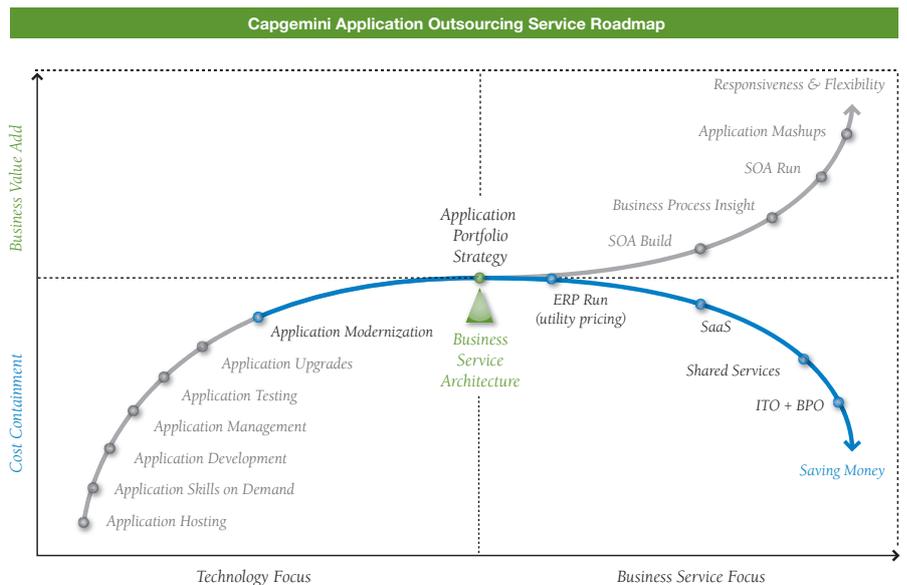


Figure 11. Utility Roadmap

With phones the unit is the phone call and with electricity it is the Watt. IT services must find the equivalent usage measure for charging. The cost of invoicing should be driven by the number of invoices; the cost of Employee Self-Service should be calculated by the number of employees. Once a business service is understood to be a utility, it becomes sensible to think about its provision and costing in the terms of a utility. This is where Shared Services and Software as a Service (SaaS) should be considered as the de facto choice for delivery.

The question for shared services or SaaS, and potentially even BPO, should not be “why” but “why not.” There are suggestions¹² that all computing will move into this mode of delivery although this is probably an extreme view. The reality is that many services would be better off being provisioned in this way. There are hurdles to be overcome for the adoption of Shared Services and SaaS for the services business cost to be directly linked to its business activities.

For utility-focused business services the only logical conclusion is that costing should be linked to the business volume metric that it supports. This suggests that SaaS, Shared Services or BPO are the only professional answers.

Focusing on ROI

The first area of focus for IT departments looking to drive value should be in the ROI category, as this is the place where traditional business cases can be built and new opportunities created. The first stage in many of these programs will be to clearly identify which parts within an area have the potential to differentiate and add value and which can be moved towards commodity and standardization. The goal of this process is to free up budget to be invested in areas that can actually create a return on investment. In these areas therefore there are two forms of ROI programs to be considered: those that create the headroom for innovation and those that deliver the innovation.

This approach focuses the ROI in one of the two places and gives the IT department the opportunity to demonstrate the creation of business value by establishing the budgetary headroom that is required to commission the new work. In creating a two phase program there is an obvious risk that the business, most normally the finance department, will elect to “book” the cost savings instead of investing in the innovation and value creation exercises. This risk is exactly why it is important to first identify those areas where a strong ROI case can be built. Too often IT departments undertake these exercises in non-differentiating and non-value-creating areas thus in areas where any potential for re-investment of savings does not represent good sense from a business perspective.

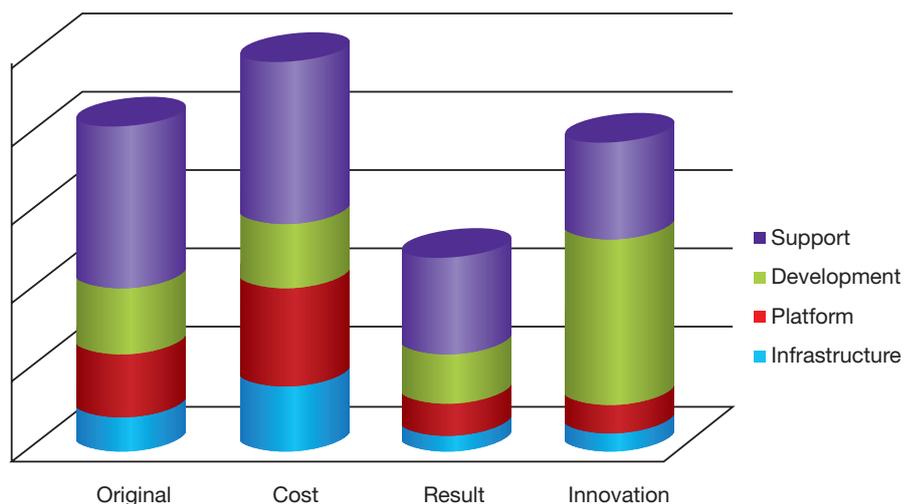


Figure 12. ROI approach to applications

It is most effective to consider the cost and innovation elements within a single program framework with a dual business case as justification. Both of the business cases should have clearly measurable metrics that either represent bottom-line cost reduction or top-line growth. By fitting the two elements in a single program,

the minds of suppliers and employees can be made to focus on the overall goals of the program rather than simply looking first at cost reduction and, by doing so, potentially making the innovation and top-line impact harder to deliver.

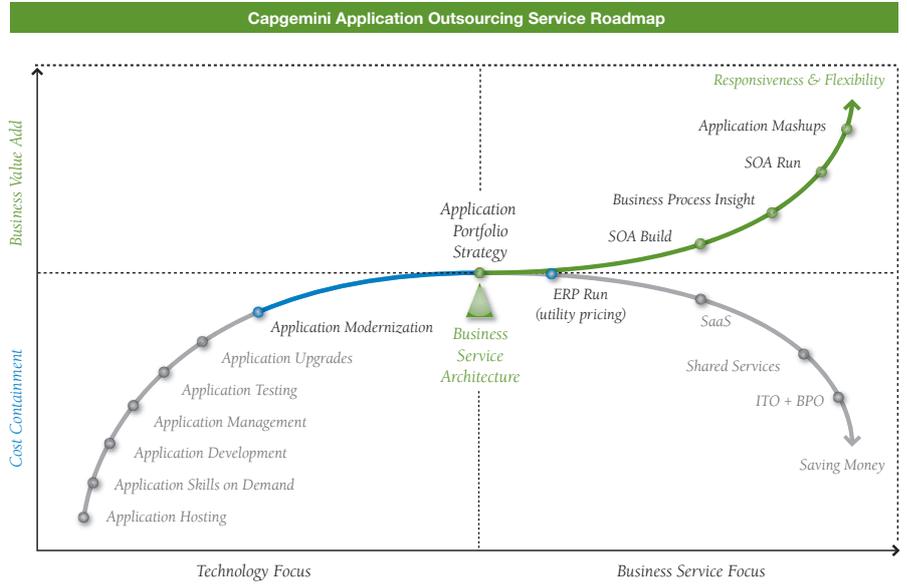


Figure 13. ROI roadmap

A common challenge in this area is found when looking at extensions to package software solutions or when looking at reducing costs of traditional bespoke applications: how can we clearly identify the pieces that should be cost reduced while feeding flexibility where there is an underlying business rationale. This is where the next generation of SOA technologies and approaches are most effective as they support a common base to be leveraged and differentiation to be added only where it counts.

The impact of Application Portfolio Strategy

A successful Application Portfolio Strategy is about aligning budget focus towards either investment or cost reduction. This approach must ever evolve with the business to enable the CIO and the IT department to refine and update the portfolio to guarantee the maximum focus on business value at all times. The goal of the business-oriented CIO is to move the IT department away from skills-based management towards value-based management. To do this the portfolio strategy should aim to drive initial cost savings which can be re-invested in the value-creating areas of the business.

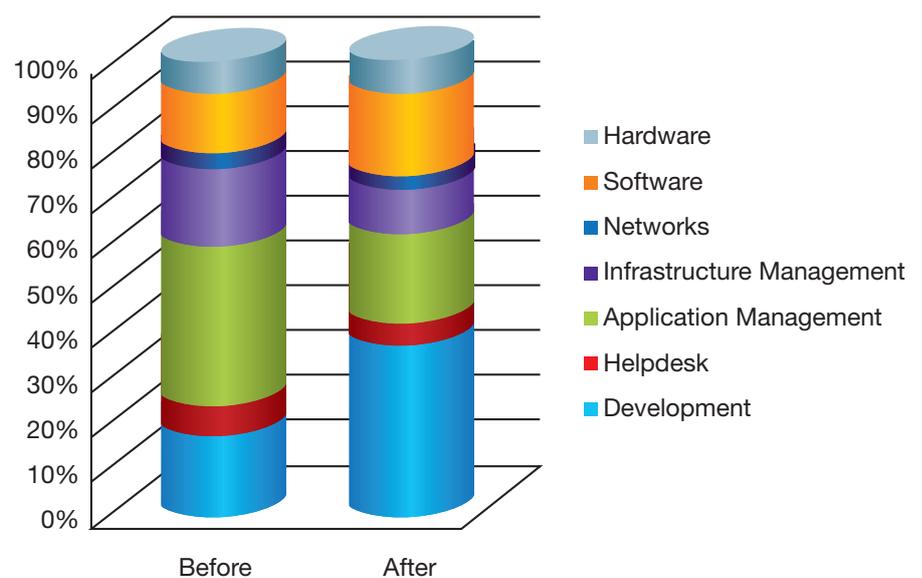


Figure 14. Skills based changes as a result of Portfolio Management

Clearly while it is possible to see some changes when looking from a skills perspective, for instance the slight increase in application development and a decrease in traditional support costs, the exercise in Figure 14 highlights one of the key tasks before Application Portfolio Strategy: Application Portfolio Strategy must drive change from a skills-based assessment of IT towards a value-based assessment. A skills-based approach leads to inefficient spending, with the bulk of spending around cost- and utility-based areas. It also does not give a holistic view as to whether the spending was correctly focused.

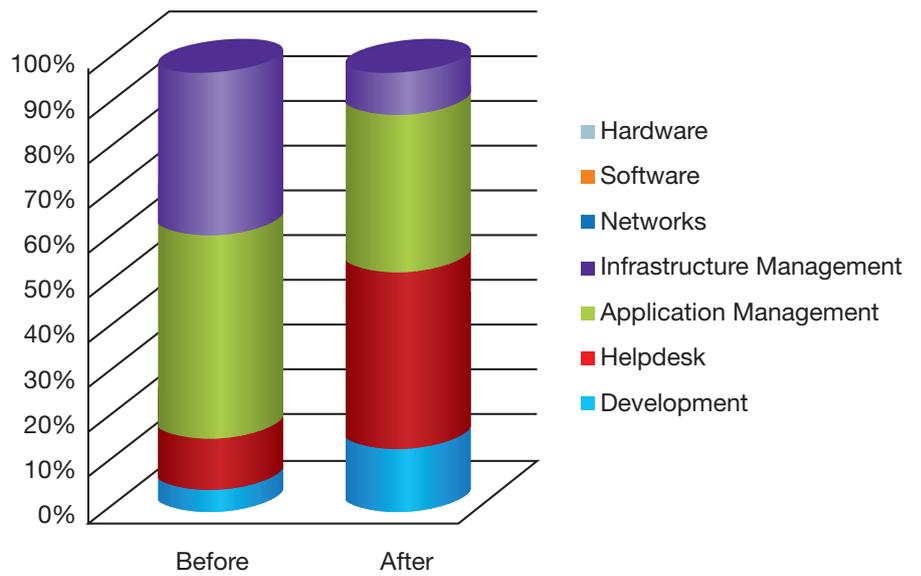


Figure 15. Value base changes as a result of Application Portfolio Strategy

While the skills change is interesting to IT, the impact on business value represents the real change. This is because spending allocated to cost- or utility-based areas, for instance ERP customization, can be redirected to much more efficient spending decisions, e.g. vanilla ERP with value-based customization in middleware or even a move towards SaaS instead of traditional ERP. This change needs to be visible throughout the organization and is a major reason that on most occasions the first stage of any portfolio strategy is a value-based assessment of today's IT spending.

Conclusion

IT needs to become business centric. This requires a business-centric application portfolio strategy. The strategy needs to focus on where value can be created and where costs should be reduced. By reorienting the application portfolio strategy away from IT and towards business, it is possible to demonstrate the value IT can deliver and to create room for investment from within the existing IT portfolio. Spending more on IT does give better results; the results are achieved by targeting that spending to where the investment will create the greatest added value.

Works cited

1. **P.A. Strassmann.** Information Payoff—The Transformation of Work in the Electronic Age, The Information Economics Press, New Canaan, Connecticut, USA, 1985.
2. **P.A. Strassmann.** The Business Value of Computers—An Executive's Guide, The Information Economics Press, New Canaan, Connecticut, USA, 1990.
3. **P.A. Strassmann.** The policies and realities of CIM—lessons learned, in the Proc. 4th Armed Forces Communications and Electronics Association Conf., AFCEA, Fairfax, VA, USA, 1993, pp. 1–19.
4. **The Standish Group.** CHAOS, 1995. Retrieval via: standishgroup.com/visitor/chaos.htm (Current February 2001).
5. **De Marco, Tom.** Slack. s.l. : Broadway Books, 2003. 978-0767907699.
6. **De Marco, Tom and Lister, Timothy.** Peopleware 2nd Edition. s.l. : Dorset House Publishing Company, 1999. 978-0932633439.
7. **Jones, Steve.** Enterprise SOA Adoption Strategies. s.l. : InfoQ, 2005. p. 146. ISBN 978-1847283986.
8. **Jones, Steve.** Towards an acceptable definition of service. 3, s.l. : IEEE, 2006, Software, Vol. 22, pp. 87-93.
9. **Agassi, Shai.** Drive Strategic Differentiation. s.l. : SAP TechEd '06, 2006. http://www.crmchump.org/2006/09/saps_major_anno.html.
10. **Brooks, Frederick P.** The Mythical Man Month. s.l. : Addison-Wesley Professional, 1995. 978-0201835953.
11. **Mulholland, Andy.** Redefining Business Capabilities. s.l. : Capgemini, 2007.
12. **Carr, Nick.** The Big Switch Our New Digital Destiny. s.l. : W.W. Norton & Co, 2008. 978-0393062281.



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For further information please contact:

Steve Jones

Head of SOA,
Global Outsourcing
Steve.g.jones@capgemini.com
Tel: +44 (0) 789 115 7026

Glenn Adams

Global Product Director,
Application Outsourcing
Glenn.adams@capgemini.com
Tel: +44 (0) 789 115 3151

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