

Hidden Costs and Delayed Value in Customized ITSM Software:

Why organizations are moving towards out-of-the-box solutions

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Executive Summary

This white paper participates in the growing debate around customization and configuration—why some organizations believe it is important to own a highly-customized solution in contrast to the growing majority that are rejecting customized solutions and instead implementing out-of-the-box solutions that are highly flexible and configurable to an organization’s needs. This trend indicates that the ITSM software market has evolved considerably in recent years, where adoption of ITSM global standards is driving considerable process standardization that can easily be served by increasingly sophisticated pre-integrated ITSM suites. These out-of-the-box solutions deliver fast routes to value and satisfy the needs of most organizations.

In most cases, organizations that create complex, customized solutions to tightly fit business requirements at a particular moment in time, in fact, risk limiting future strategic options and often end up committed to an inflexible system that is costly to maintain.

In fact, Gartner published that, “in 2006, 25% of IT spending was on unnecessary and redundant customization . . . This overspending is apparent in both the initial strategy and requirements stage, when redundant customization is often specified, as well as in the deployment and implementation stage, when enterprises seek highly customized implementations. This situation is unsustainable.”¹

Recognizing that the situation above is indeed “unsustainable,” organizations are shying away from customizations and instead taking advantage of increasingly robust out-of-the-box solutions. In 2008, Gartner commented on this shift, saying “a trend for IT organizations, so as to remain more flexible and have a quicker return on investment, is to perform little to no customization, run more ‘out of the box’ and rely more on best practice workflows and templates, rather than create their own.”²

1. Source: Gartner, Riding the IT Commoditization Curve, May 4, 2007.

2. Source: Gartner, Magic Quadrant for the IT Service Desk, November 4, 2008.

Understanding the Terminology

There is a lot of confusion on the semantic differences between configuration and customization. The two terms are often used interchangeably when talking about modifying an enterprise software solution to fit specific requirements. In simple terms, if a solution is configurable, the existing software can be altered (via the standard User Interface) to reflect a change in system requirements—both at the point of initial implementation and during the life of the software. Importantly, no changes to the underlying source code are required.

In contrast, if a system requirement cannot be met without altering the underlying source code footprint, the software requires customization. This involves technical skills to build the solution and often makes scoping difficult at the onset. In many cases, the services component cost becomes larger than the license costs.

Typically, customizations also must be recreated if the software is upgraded to the next version, creating an ongoing reliance on technical staff and a significant increase in the total life cost of the software (usually called Total Cost of Ownership or TCO). This leads to situations in which organizations resist frequent changes to the software and thus risk decay in the value of the software as it remains static, even as processes change. The software can quickly drift out of alignment with need and typically causes an organization to enter a rip-and-replace cycle; this cycle can be difficult to break as the organization becomes convinced that it needs to customize its solutions.

What are the market trends?

The broad adoption of best practice frameworks, such as ITIL and COBIT has produced a polarization of methodologies around common practices. With more and more organizations converging with regards to IT activities, the limitations of out-of-the-box solutions are diminishing. Organizations have similar needs and drivers including creating value around agility, risk, predictability and efficiency of service provision. Further, they must balance increasing service quality while managing costs. Therefore, their ITSM needs can more easily be served by a functionally-mature, out-of-the-box ITSM solution.

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From a Gartner report entitled, "Riding the IT Commoditization Curve," published May 4, 2007.

Organizations are feeling the pain of legacy ITSM software implementations and are returning to the market to procure a new solution rather than upgrade with the incumbent vendor. There are two reasons for this change:

1. Organizations are concerned with high re-implementation costs and have no migration path from the current version to the new version.
2. There is recognition that out-of-the-box software has matured significantly in recent years.

Functionality that was previously not available from true out-of-the-box vendors is now being offered as part of a vendor's core product. It takes considerably less capital to fulfill needs from an out-of-the-box tool, thus it makes the switch to an out-of-the-box solution an easy one. Further, these mature solutions typically do not require organizations to compromise on functionality. Spending less on the operational tools, with no compromise on service quality and functionality to enable ITSM, translates into more budget for organizations to invest in proactive IT and/or business initiatives.

The impact of configuration and customization

As the saying goes, “the only constant in life is change.” Change inevitably has an impact. Managing the impact of that change efficiently and effectively is what produces best-in-class IT service delivery. Making changes to an out-of-the-box solution through configuration and resisting the temptation to customize unnecessarily will have a positive effect on cost, rollout speed, operation disruption, upgrade and product support.

A custom implementation of an ITSM solution will cause delays while modifications are made. The financial impact here is twofold—cost of modification effort and delayed Return-on-Investment (ROI) from the functional enhancements being delivered, while still paying Maintenance and Support license costs.

The more complex the customization is, the higher the operational cost will be. Software customization is also one of the most widely-cited causes of failed software operation. System failure prevents value gain from the solution; it becomes a cost, rather than an asset. Time is money, so cost-per-call metrics will often rise, rather than fall, as a result of customization. The pursuit of the perfect fit solution can, in fact, destroy value rather than create it.

Typically, the traditional model of the five year rip-and-replace cycle is seen as the least capital efficient. Frequent re-optimizations of existing tools deliver more value and enable the organization to climb up the ITSM maturity curve more efficiently than the rip-and-replace cycle.

As with any business asset, an organization must continually invest in the maintenance of that asset. The secret is investing the minimum necessary to maintain that asset at maximum capacity.

ITSM solutions are no different. They should be thought of as a business asset and maintained to ensure continued fit with changing requirements. Creating and altering modifications throughout the lifespan of the product to reflect new system requirements all incur cost. Maintenance through configuration is commonly believed to compromise less than one-tenth of the cost of maintaining a customized feature. Customizations therefore need to deliver highly-tangible business value to justify the cost. As such, businesses are struggling to justify the cost of these customized ITSM solutions.

Certainly compared to five years ago, the market has more broadly adopted best practice frameworks as organizations have realized that their needs are not as uniquely complex as they were once thought to be. The result is that customization is believed to deliver value only to the declining few truly uniquely complex operations.

Is customization REALLY necessary?

ITSM solutions such as Service Desk Software, Incident, Change, and/or Problem Management solutions exist to provide an organization with functionality to support and automate business or IT processes. The software helps make business and IT processes more efficient and effective, thus adding value to the organization. These solutions are strategic assets that reduce costs and, if used wisely, enable process agility that transforms IT into an enabler rather than a barrier to change.

From a business perspective, it should be relatively straight-forward to put a reasonable dollar value, based on the benefit it will provide, on the acceptable cost of a specific software feature. The most reliable way to ensure that cost never exceeds value is to aim for all functionality to be provided for by an out-of-the-box tool. It may not be possible to match every requirement to an out-of-the-box deployment, but the Pareto 80-20 rule holds true here. It is possible to ensure that the 'vital functions' that typically provide 80 percent of the value are catered for without customization. Consistent with Pareto, the pursuit of the final 20 percent will require 80 percent capital and effort to execute. As such, pursuing this final 20 percent moves the project into the realms of diminishing returns and in many cases is why custom ITSM implementations fail or seem to never cease. It could be that limiting scope around the configuration functionality of a mature ITSM solution suite instills valuable discipline to an ITSM project, particularly if the organization has made the strategic decision to adopt a best practice framework like ITIL. This ensures that delivery is focused on high-value "must-haves," rather than high-cost, "nice-to-haves."

It is important to get a clear picture of what functionality lies within the product as-is and what must be implemented through configuration and customization. When possible, it is optimal to select a tool in which the remaining 'must-have' requirements can be implemented using configuration tools or integrations, provided the core ITSM tool has an extensible architecture and integrates easily, as opposed to scripting and coding customizations.

The challenge is to ensure that the number of requirements beyond out-of-the-box functionality is minimized. Anyone who has been involved in an IT investment project knows that 'we need this' often really means 'it would be nice to have this.' Not every requirement can be treated as a necessity. Further, in order to minimize TCO of the implementation, a policy must be instituted for justifying customization-heavy requirements from a business-need perspective.

The two questions that organizations should be asking are 'how much do we need this feature?' and 'is there a risk that this functionality will cost more than it's worth?' If it does cost more than it is worth, what was intended as a strategic asset will instead become a drain on resources, effectively wasting valuable finite resources that could be better invested elsewhere.

So what’s the real cost of customization?

Each requirement that can be fulfilled within the out-of-the-box functionality shares the license cost. If an ITSM solution is purchased to meet a set of 100 requirements, 80 of which are catered for out-of-the-box, and the license cost is \$2,000 per annum per user, the average cost per standard requirement per user is going to be \$25.

Taking ballpark estimates for the cost of configurations and customizations as \$10 and \$1,000 respectively, if half of the remaining requirements must be met by each, you can add \$100 for configuration changes and \$10,000 for customizations. If there were 20 users and no need for further changes within the initial 12 months, the cost, excluding implementation services, in the first year would be \$50,100—25.3 percent greater than if all requirements were met out-of-the-box.

Assuming comparable license cost, if another tool were selected that was able to meet 50 of the 100 requirements as-is with 20 requiring simple configuration and 30 requiring customization, the cost in the first year would be \$70,200—75.5 percent greater than if all requirements were met out-of-the-box. Additionally, when not properly managed, customizations can incur exponential cost as the product ages.

Table 1: Comparison of costs to fulfill 100 requirements through out-of-the-box (OOTB) functionality, configuration and/or customization.

Requirements Fulfilled	100 OOTB	80 OOTB, 20 Configured	80 OOTB, 10 Configured, 10 Customized	50 OOTB, 20 Configured, 30 Customized
Cost of OOTB Standard Requirements Met	\$40,000	\$40,000	\$40,000	\$40,000
Cost of Requirements Met Through Configuration		\$200	\$100	\$200
Cost of Requirements Met Through Customization			\$10,000	\$30,000
Total Cost	\$40,000	\$40,200	\$50,100	\$70,200
% Greater than OOTB Cost	0%	0.5%	25.3%	75.5%

A real world example

One of the world's largest toy manufacturers was using a large, customized application. It needed to upgrade in order to benefit from recent ITSM developments. The software vendor offered the company an upgrade to its current system which, due to the level of customization, would take nine to twelve months and a set of consultants to implement the next version. The toy manufacturer already had six in-house administrators to maintain the system and it was reliant on the vendor and partner to make any significant changes. Moving forward, because the organization wanted to open new facilities and enter new markets with ease, it wanted to increase self-sufficiency and nimbleness. The organization started to assemble a list of potential software vendors. It gathered the identified vendors in a room for three days. During those meetings, a vendor with a configurable system was able to demonstrate that an out-of-the-box application with enterprise functionality could match the capabilities of highly-customized solutions.

One of the out-of-the-box vendors suggested a number of tests to prove this was possible. The first test involved replicating ten of the customer's most complex workflows. While all of the customizable solution vendors asked for more time to prepare, the configurable solution vendor was able to replicate them within minutes. The second test was to prove the solution was easy to upgrade while still retaining all of the workflows. The out-of-the-box configurable system provider was able to demonstrate this within 20 minutes.

Conclusion

Understanding the differences between configuration and customization is critical when comparing the cost of a Service Desk solution. For each toolset, it is imperative to understand which functional requirements fall within the out-of-the-box solution and which are enabled by configuration and customization capabilities.

Beware 'our product can do everything' sales pitches. Also beware of the software vendors whose business models and partner channel models are built on delivering heavily-customized solutions and with that a high percentage of service costs as part of their installation. This translates into a considerable amount of customization required to get the full solution live.

Also, keep in mind that flexibility always comes at a cost. It is also important to remember that the impact of a heavily-customized solution can be far-reaching, impacting the ROI of the solution from implementation to operation to maintenance and upgrade. An organization should resist the temptation to be too clever with its solution. Most organizations' needs are actually not that unique!

It is impractical to implement a solution that is all things to all people. The project may need high-level sponsorship to keep it focused on the "must-haves," and to make decisions when emotions inevitably dominate rational thought at key points in the implementation.

Requirements should be prioritized on cost and value to the business, not based on who is asking for it and how forcefully. Eighty percent of the value of a Service Desk tool will come from 20 percent of the functionality. Is it worth spending 250 percent more for a customized solution only to squeeze out another 20 percent on functionality?

About Axios Systems

Axios Systems is one of the world's leading providers of IT Service Management (ITSM) solutions. Its customer-centric approach, combined with its award-winning software, enables customers to improve their Service Delivery and Support and deliver Continual Service Improvement by helping to align and realign IT services to changing business needs, supporting business processes and improving productivity.

Its core solution, *assyst*, built around a market-leading Configuration Management Database (CMDB), intuitively steers users through the ITIL (Information Technology Infrastructure Library) processes which help organizations transition toward the next generation of ITSM and Service Desks. *assyst* offers a unique lifecycle approach to ITSM with the integration of all ITIL processes (including Incident Management, Capacity Management, Problem Management, Change Management, Asset Management, Configuration Management and Service Level Management), twelve of which have been verified by Pink Elephant's PinkVERIFY service as compatible with industry best practices (based on ITIL V3), in a single, out-of-the-box application. It empowers management with a dashboard-based transparent view of real-time performance against Service Level Agreements (SLAs), and Operations Level Agreements (OLAs) using Web 2.0 technologies.

Implementing *assyst* into an organization optimizes IT infrastructure efficiency, reduces overheads and lowers the total cost of IT ownership (TCO), helping to ensure a significant return on investment (ROI) with rapid time-to-value. Axios also offers a comprehensive set of consulting and training services to support ITSM best practices in an organization.

Axios is headquartered in the UK, with offices across Europe, the Americas, Middle East and Asia Pacific. Axios' global presence is further strengthened with a worldwide network of partners.

For more information, visit www.axiossystems.com.

