Survey Reveals Needs of Mid-Market Companies

By
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Introduction

Lisle Technology Partners undertook a survey of mid-market companies. The survey was performed through focus groups and interviews. The objective was to find out what Information Technology (IT) issues are on the minds of CIOs and CFOs at these companies. We interviewed CIOs and CFOs representing around 20 different companies. This paper lists the major findings of that survey.

There is no common definition of what a mid-market company is. For our purposes, we wanted to ensure that the IT department was large enough, without being so large as to skew issues to those of the Fortune 500. Therefore, we selected CIOs and CFOs that were involved in organizations where the IT department budget ranged from $1 to $10 million per year. In general, this means that financial organizations tended to be in the $10 to $500 million revenue range, where as manufacturing organizations tended to be in the $100 million to $1 billion range.

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Survey Results

Our survey has indicated that mid-market companies have unique characteristics that are causing their IT development needs to go unaddressed. Mid-market companies have drastically reduced headcount and yet need to address new business requirements. The IT staff is driven by business leaders to provide mobility and access and, at the same time, to secure and harden access to systems and data. They have a disproportionate (compared to larger and smaller companies) number of legacy applications and hardware. And, they have more integration issues because they lack the clout to make suppliers and customers modify their systems so that integration is easier.

Aligning Business Goals and IT

Business leaders have felt a strong need to spend on IT during the late 1990s and year 2000. First there was spending on Year 2000 remediation and related package upgrades. Next, came the

Internet and the software needed to battle the siege of dotcom upstarts. Compelled to reign in expanded IT costs, the same leaders have taken action over the past few years to control IT costs by reducing budgets and head count. These extreme changes have disrupted the IT staff, orphaned projects and created new technology dependencies that few outside of IT understand. In this new environment, management feels it has even less control over the IT support of its business goals.

In our survey we found that CIOs and CFOs are very interested in realigning business goals and IT. They now realize some of the power that IT initiatives have given them, such as more efficient supply chain management and integrated services. However, they are loath to expand IT headcount to leverage and broaden that new power to serve the corporation's business needs. C-level management has come to realize that IT projects need to be realigned to corporate priorities and goals. Also, they are demanding more cost effective ways of staffing IT.

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Legacy Systems

Typically, the IT systems of mid-market corporations have evolved organically. For example, when the corporation was young and small a critical IT application might have been developed to enable a business process. As the needs of the corporation grew, so did the enhancements to that application. Now that the corporation has reached mid-market size it has a dilemma. It is not big enough to afford an off-the-shelf software package to replace the application, let alone the associated integration and personalization consulting costs. Maintaining the application is risky because the original talent that built and maintained it has been "right-sized" out of the organization. As a result, enhancements critical to the new business environment are postponed or skipped out of fear of what the consequences will be.

Another factor driving this need to extract and understand the knowledge locked in legacy systems is the fact that smaller corporations tend to settle on niche hardware and software solutions that reach end-of-life status well before the corporation does. In these cases where the hardware manufacturer or software vendor is no longer supporting these systems mid-market companies are forced to understand these legacy systems better so that they can migrate them to new platforms.

This predicament has created a desire to extract knowledge out of these legacy applications so that they can be more easily managed. Trapped inside these applications are business rules that describe critical business processes and functions. By documenting those business rules, the company is in a better position to maintain, enhance or re-architect the application.

In some cases, CIOs are looking for ways to re-architect the application as opposed to wholesale replacement. This approach allows them to defer the cost of replacement or porting and yet update the application so that it can more easily integrate with modern counterparts. One example from our survey is a monolithic printing application that was re-architected so that the business rules were documented better and the print interfaces were replaced with a modern, off-the-shelf printer management package. This gave the corporation better control and understanding of its reporting application and allowed it to change printers and print functions with greater control—something not possible with the original legacy system. This was achieved without the cost of replacing the entire system.

Goal Oriented Corporations

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What corporation does not want to drive its business through strategic goals? Despite this desire, C-level managers are faced with that fact that deciding what to do next is many times easier than ensuring that those decisions are fully acted upon. Managing the goals of an individual employee and making sure they are acted upon is difficult enough; managing strategic goals for a whole corporation is much more difficult. Our survey indicated that this is true of mid-market companies, as well.

As a smaller organization it might have been possible to manage communication about goals and follow up on their implementation. But, as the corporation grows, aligning the goals of individuals and groups with those of the corporation becomes more difficult. When organizations reach mid-market size this issue becomes a significant problem.

Our survey has revealed that IT is a business function where this problem is seen first because it touches many business processes. This is further complicated by the fact that IT is driven not just by business goals, but also by technology constraints and support goals.

In order to ensure that IT projects are aligned to business goals, each project must be identified and reviewed periodically. Corporations need to view these projects as a portfolio of investments. As such, they need to be evaluated with respect to the goals of the corporation and the return on investment. Risks need to be identified and plans for mitigation need to be developed.

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Security

Mid-market IT staffs have been reduced over the last few years, but security threats have increased during the same period. Mid-market CIOs have also reported to us that they are presented with the conflicting requirements of more open access to IT systems by management and increased security to prevent unauthorized access.

Mid-market companies are often too small to have a chief security officer or even an IT staff person properly trained in security issues. They typically react to security issues rather than plan for them.

A Holistic View Is Needed

Security is not an item that can be easily tacked on to an application or network after it is deployed. Beyond that, security is something that spans not just technology, but also business and employee policies. Mid-market companies generally do not take a holistic approach.

Mid-market CIOs have indicated that security audits and security management are areas that need to be addressed. A security audit should examine practices and policies and should also include an audit of vulnerabilities.

Items like audit trails and logging are just as important as firewalls. For example, allowing any employee to turn off firewalls, power down servers or query databases for customer information can easily cause more damage than allowing spam or a virus into the company's network. And, having security applications in place without keeping them current with the latest patch levels also can undo the effort that went into adding security in the first place.

Integration

Small businesses have rather simple IT systems. They might have several applications, say one for accounting and one for material resource planning, but the total number of applications is small. Large enterprises have both larger applications and larger numbers of small to medium applications. However, larger businesses have clout with suppliers and sometimes even with customers. This leaves mid-market companies stuck in the middle with multiple applications and not enough power over customers and suppliers to demand that they customize to the mid-market company's need.

Our survey shows that mid-market companies that support EDI, for example, have to support many different versions of EDI because of the demands of their much larger suppliers and customers. These larger customers and suppliers are simplifying their own integration needs by forcing mid-market companies to accept their requirements.

The survey also indicated that the organic development of mid-market companies' legacy systems further compounds the integration problem. Some of these legacy applications might have been stand-alone applications when they were first deployed and now need to be integrated and orchestrated with other applications. In general, integration accounts for 33% to 40% of the cost of IT development and maintenance. Given the pressures they are under, this percentage might skew even higher for mid-market companies.

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The Integration Landscape is Chaotic

The integration situation is made more complex by that fact that the integration tools market is in chaos. Enterprise Application Integration (EAI) vendors have expensive solutions that require large implementation costs and, therefore, are hard to justify for the mid-market. This has left these vendors even more desperate to make sales. Several re-invent themselves on a semi-annual basis. EAI vendors are also under pressure from large package vendors, such as Siebel and SAP, which are adding integration capabilities to their suites.

The dominant applications integration solutions today are not packaged software products. They are custom developed and are typically point-to-point approaches. These point-to-point solutions are quick and cheap fixes, but their inflexibility will cause higher costs when looked at from the longer term.

The Integration Maturity of Typical Mid-Market Companies

Lisle Technology Partners and DiamondCluster International have developed a model of integration maturity for organizations. This Integration Maturity Model (IMM) describes the levels of experience organizations find themselves at and how they can improve their approach to integration.

The model is organized into these levels, with level 1 being the entry point and level 5 representing enterprises that are able to control integration costs and leverage integration expertise:

“Our survey indicates that most mid-market companies are at [Integration Maturity Model] level 1, with some at level 2.”

1. Ad Hoc Integration
2. Simple Application Decoupling
3. Centralized Transformation and Routing
4. Legacy Application Overhaul
5. Centralized Process Management

Our survey indicates that most mid-market companies are at level 1, with some at level 2. The model has specific actions that need to be taken to mature from one level to another. This means that mid-market companies must develop a plan for how they will climb through the maturity levels. Attempting to jump to a high level, such as Level 5 (Centralized Process Management), without first having centralized transformation and routing in place and overhauled legacy systems will likely result in failure.

Summary

Lisle Technology Partners’ survey of mid-market CIOs and CFOs showed that mid-market companies have unique characteristics that complicating their IT plans and needs. Their growth pattern and size have made them depend upon legacy systems and integration much more than their larger and smaller counterparts.

They have reduced their IT staffs substantially (in absolute terms) and yet have new IT-related business issues that must be addressed. These IT staffs are further stretched thin by the conflicting requirements of increased access and increased security. All of these forces cause them to have a myopic view of integration issues, which they typically solved on a point-to-point basis, even though that approach is very costly to the organization when viewed over the long term. Finally, because of the drastic changes that have been made to IT organizations, their goals are viewed as not being aligned to those of the corporation. This realignment must happen if mid-market companies are to be able to respond quickly and effectively to changing business conditions.

About The Author

David Jakopac is Vice President of Lisle Technology Partners, LLC, a consultancy specializing in strategy and software services. David was a founder of three start-up companies, one of which went public. At LisleTech, David is involved in strategic start-up development, software technology design and management, and venture capital due diligence. David had designed and managed the implementation of software technologies for start-up clients in the areas of XML translators, call record processing for Telco billing, business strategy execution tools, logistics systems interfaces, 3D web-based visualization of new home construction options, and on-line 3D racing and skateboarding games. Some of David's technology developments have resulted in patent applications. David has also performed technical due diligence for several private investors and venture capital firms on companies in the following markets: web-based stock purchasing and portfolio management, Enterprise Application Integration, and Business-to-Business Integration. David holds Ph.D. and M.S. degrees in Computer Science and Electrical Engineering from Northwestern University, and a B.S. in Computer Science from the University of Florida.

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