Keys to a highly-efficient IT department

How to turn your IT department from a cost center to a business driver

Introduction

Driven largely by recent trends, IT departments are evolving. In the past, IT departments were typically viewed as a back-office function that supported the business. Their main responsibility: Keeping the lights on. These days, that's changing.

"IT's current story revolves around current operations, concerns with a focus on cost, quality and services," says [Mark P. McDonald](), group vice president and head of research in Gartner Executive Programs. "It is a story defined by IT's role as 'tender' of the IT garden of legacy applications, outsourced operations and limited value creation."

"The current story is not working--as CIOs responding to this year's survey indicated that on average their organizations realize ONLY 43% of technology's potential. Clearly this number needs to increase if organizations are to create value via technology."

These days, keeping the lights on is no longer good enough. As technology plays an increasingly important role on all aspects of business, modern IT departments must permanently shift their focus from maintenance to innovation. They must move quickly. They must drive business forward.

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"We are witnessing the emergence of a new generation of CIOs, one that aims not so much to 'run' IT as to ensure that the business achieves strategic value from the use of technology," said [John Mahoney](), vice president and distinguished analyst at Gartner. "Although this isn't an entirely new development, the extent of the change is growing and a tipping point will be reached in the next five years."

The million dollar question: How can IT departments shift out of their back-office role, and into the role of technology driver? How can IT departments push the business forward? For many IT departments, this is a two-fold answer. It involves adopting practices that create high-performing IT departments, while abandoning common tasks that traditionally hold IT departments back from their full potential.

In this paper, we'll focus on helping IT departments make the shift from "cost center" to "business driver." To do so, we'll examine the issue from both angles: Do's and Don'ts. In the first section, we'll focus on the "Do's"—practices that IT departments must adopt. In the second section, we'll focus on the "Don'ts"—practices that IT departments must abandon. To start things off, let's first examine 6 keys to a high-performing IT department.

1. Get on the same page

The first step towards a high-performing IT department: Communication. If the business and IT department aren't on the same page, or don't communicate constantly, IT cannot possibly drive business.

"To ensure the IT department runs as efficiently as possible, they must be in lockstep with the business's goals and needs," says Jed Pillion, Managing Director of IT at The Execu|Search Group. "If the department is not educated on the firm's strategy it will be impossible for them to efficiently deliver solutions."

Now, proper communication goes beyond simply speaking with the business units. Oftentimes, the IT department and the business just don't use the same vocabulary.

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"The stakeholders and the developers must speak the same language," explains Steven Lowe, Founder and CEO of Innovator, LLC. "An 'account' in one department is called a 'liability' by another department, and an 'obligation' in yet another department, while to the developers they're all 'customers'. If the developers understand the business environment using the same terms as the users, then conversations will be fruitful and multiply. If not…"

2. Adopt a startup mentality

The proper mindset is a critical—yet difficult—component for high-performing IT departments. In many cases, IT departments get caught up in the day to day routine, and lose sight of the value-driving tasks. They keep themselves busy, yet ultimately unproductive. Other IT departments have developed such a convoluted mess of policies and red tape, getting anything accomplished is challenging at best.

Both such examples require a fundamental shift in mindset. Modern IT departments must abandon the old "just keep the lights on" mentality, and shift their focus to driving business value.

"Approach everything with a startup mentality," says J Wolfgang Goerlich, VP of Consulting Services for VioPoint. "By that, I mean, seek to answer the following two questions: what drives value and what keeps the light on. I suggest adopting a minimum viable strategy for keeping the lights on. By satisfying the requirements without spending too much time, you make space to deliver value. Spend most of your time and effort on what really matters, what really drives value, what really makes a difference. In doing so, you can deliver outstanding results to your manager, your stakeholders, and your organization."

What does this approach look like? Forrester Research sums it up nicely here: "It's been clear for years now that small business startups don't build massive IT departments and big operations teams. Instead they focus on the capabilities

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which truly differentiate them in the marketplace - their **strategic capabilities**. They hire experts in these capabilities as employees and continue to improve their differentiation. At the same time, they look to source their more generic business capabilities from business partners and technology service providers."

3. Keep your focus on the right place (Minimize the cool factor)

"Minimize the cool factor–many IT people want to invest in cool new tech," explains JJ DiGeronimo, a Technology Executive, Author, Entrepreneur & STEM Advocate. "Be sure to buy technology that aligns your company's needs and skills."

In the technology field, you're constantly bombarded with the latest and greatest devices and software. Unfortunately, this often leads to backwards problem-solving—where we discover some shiny new technology and look for problems it can address. This approach results in failure.

Now, am I saying that new technology isn't the answer? Of course not! In fact, outdated technology itself frequently holds an IT department back. Tied to outdated enterprise software or applications, the IT department focuses most of its time and energy keeping the lights on. The maintenance requirements and inflexibility of the old system handcuffs the IT department, keeping them from providing the business with modern solutions.

Patrick Burns, VP of Product Management at Autotask Corporation, explains one way old technology gets in the way: "The adoption of closed systems, proprietary environments and siloed organizational management," he says. "Old technologies tethered to the on-premise delivery model are costly and burdensome to maintain, displacing higher value IT activities. Incompatibility with open data standards inhibits integration opportunities and business agility. The sequestration of IT from other departments inhibits alignment on business objectives."

The key point: While new technology can address many of the issues facing IT departments, keep your focus in the right place. Technology for technology's sake is rarely a good idea, and usually ends in disaster. Instead, start with the company's most pressing problems, and seek out technology to fix them. While this approach may not always include the latest and greatest tech, it will vastly improve your chances of success.

4. Keep learning

In the past, IT professionals largely focused on a single, specialized area. Programmers focused on their language of choice, DBAs focused only on the database, and so on. Now, that's changing. The web doesn't allow for a single focus. IT professionals must keep broadening their skills if they hope to keep pace with the ever-changing tech landscape.

"We are seeing more and more of our subscribers broaden their scope of study beyond their own specialties," says Aaron Skonnard, CEO of Pluralsight. "For instance, those who used to stick to traditional IT courses are now delving into tangential topics such as app development, project management and cloud-based tech. The modern technology professional can't afford to live in a silo and needs to not only understand numerous technologies, but how to apply them to the business needs."

The fact is, if your skills (or your IT staff's skills) are stuck in the past, how can you possibly push the business forward? How can you innovate when your own skills are stagnating? Short answer: You can't.

Now, it doesn't stop there. Learning is a two-step process. According to this article, learning new skills extends beyond simply attending training classes. Once learned, these skills must be applied in the business.

"IT departments have been very focused on certification for their employees, and the results have been terrible – quality has not improved," says Jan Schilt, Managing Director of GamingWorks. "These people come back to the office with a head full of knowledge but they are not using it, because they didn't learn the competencies of applying the knowledge."

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5. Treat your staff well

Theodore Roosevelt once gave an excellent distinction between a leader and a boss: "People ask the difference between a leader and a boss. The leader leads, and the boss drives."

It's an important point that often gets lost in the shuffle. Some managers take an "I'm in charge, so you'll do as I say" approach. While it might deliver short-term results, it doesn't foster long-term motivation…and certainly doesn't create a high-performing staff. The best leaders understand the importance of a committed team, and treats their employees with respect.

"Simply put, the success of your IT department depends on the commitment of your crew," explains Joe Latrell, a former IT Leader and current President of Photos to Space. "You get great commitment by treating your staff like gold. When they needed time off, I gave it to them (within reason) because I knew we were going to be pulling some late nights getting servers moved or upgraded. There were times when we worked 24 hours straight to get problems resolved so the businesses could stay in business."

The importance of treating your IT staff well isn't just someone's opinion. It's backed up by many research studies, which all come to the same conclusion: Happy employees are productive employees.

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According to one such study, led by Andrew Oswald, a professor of economics at Warwick Business School: "We find that human happiness has large and positive causal effects on productivity. Positive emotions appear to invigorate human beings, while negative emotions have the opposite effect."

How much more productive are happy employees? The same study finds that unhappy workers were 10% less productive, while happy workers were 12% more productive. That's a difference of 22%!

6. Put the right tools in place

Gartner once estimated that 80% of IT resources are spent maintaining and supporting existing systems. With so much time and effort required just to keep the lights on, many IT departments can't possibly drive business innovation.

"The demands upon IT organizations to become agile innovation centers is being driven by a combination of technology shifts like cloud computing, SDNs, and mobile apps, among others," says Jonathan Crane, CCO of IPSoft. "And yet, most enterprise IT departments are shackled to legacy system management by budgetary and personnel constraints. Looking at CIOs' priorities, topping the chart is their need to dedicate more resources to funding new research and development projects in support of their business units. By moving resources and human engineers away from mundane, automatable tasks through the use of autonomics, legacy system management constraints can be greatly reduced freeing up human capital and budget dollars to invest in adopting innovative and strategic technologies to underpin new business initiatives."

The sad truth is, IT departments need resources to drive the business forward, but most are tied up supporting current systems. These outdated legacy applications require an inordinate amount of time to maintain, and oftentimes don't work with modern technology. Not only do these legacy systems waste time, they keep the business from moving forward.

Tyler Wassell, Software Development Manager at mrc seconds this point: "More often than not, IT groups are not able to allocate resources to support new business initiatives," he says. "Most IT resources are used to maintain and support existing legacy systems. If the IT group is truly going to push the business forward, they must put the tools in place that speed up development and application delivery to business units."

1. Writing (or re-writing) applications from scratch

"A common IT practice that wastes time and money is rewriting your app's code from scratch" explains Bartosz Olchowka, Head of Development at LiveChat. "Usually it comes from trying to use the latest technology, while the old one works perfectly fine. This practice is not always a good idea–it can waste lots of time (rewriting the code is a time consuming process) if your customers won't see any benefits. Always take careful consideration before rewriting your code from scratch. Oftentimes, dev teams can focus on more productive tasks that will result in immediate outcomes to your clients."

This is a time-wasting task on two fronts:
First–as Olchowka mentions–rewriting applications that work just fine is usually a waste of time. Besides the fulfillment of building the application from scratch, what value does this deliver? Unless that old application is holding your company or customers back in some way, developers should focus their attention on other tasks.

Second, writing (or rewriting) any app from scratch these days is a waste of time. "Coding everything from start to finish is often unnecessary," says Wassell. "Instead of trying to re-invent the wheel in each project, spend some time researching a web framework or development tool that eliminates the repetitive coding tasks and promotes stability, maintainability, and security. In the end it's all about delivering quality solutions in an efficient manner and selecting the right tools will help save time and improve software reliability."

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2. Repeating low-level, manual tasks

"A big time waster is repeating manual tasks that could and should be automated," says Ski Kacoroski, Director of the League of Professional System Administrators (LOPSA). "IT pros need to continually evaluate the repetitive tasks they are doing such as checking logs, checking system emails, checking backups, spinning up servers, and see what they can do to automate these tasks."

How much time do these manual tasks waste? According to the analyst firm, Quocirca, "30% of an IT team's time is spent on low-level tasks such as responding to minor user incidents, carrying out routine procedures or checking for errors." The fact is, many IT departments get caught in a never-ending cycle of low-level repetitive tasks. These tasks keep IT busy, but also keep them from accomplishing anything of importance. The solution: Automate these repetitive tasks.

"Companies are increasingly turning toward IT automation to eliminate the resource-draining tasks that hold them back from pursuing more strategic, innovative activities," explains Jonathan Crane, CCO at IPsoft. "For those that are just starting out with IT automation, deciding what should be automated can be overwhelming. The best place to start is with low-level tasks that are time consuming and frequent. Below is a list of five tasks that IT departments can – and should – be automating:

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1. Running diagnostics
2. Predictive incident management
3. Requesting permission
4. Service readiness checks
5. Password management"

Of course, that's just the tip of the iceberg. The point is, IT pros must regularly evaluate their repetitive tasks and see what (if anything) they can do to automate these tasks. You might be surprised at how much time you could save.

3. Creating reports for end users or executives

It's not that reporting isn't necessary–it's absolutely essential. It's the fact that IT departments focus so much of their time and energy on a task that can easily be automated, or turned over to the end users. Here's a great story that illustrates this point nicely:

"I used to provide executive summary reports for customers on how the IT system is performing," says Oli Thordarson, CEO of [Alvaka Networks, Inc.](#) "I even bonused one of the engineers if he got the reports done by the end of the first week of the month. The basic criteria was for him to print out all the alarm and performance data, examine trends and important events, etc. He was then to create a one to two page executive summary that could be digested by the CFO, department manager, etc. We would then mail out those reports."

"After a few experiences talking with the report recipients and learning that they had never even unsealed the envelope until I was discussing some IT budget planning matters, we quit doing them. In summary, those executives don't care what happened last month. The IT guys don't care what is in the report that covers last month. When something happens they only care about the status "right now!" What we did switch to is a real time reporting portal. That is what they are interested in…, but only when something happens."

The two big keys to that story:
First, without proper communication, the time wasting cycle would not have been caught. It's easy to get caught performing time-wasting tasks because "that's what we're supposed to do" or "that's what we've always done." Maybe an executive asked for a weekly report a few years back, and you're still delivering it to this day. Perhaps it's time to circle back and make sure it's still needed.

Second, creating a reporting portal is a great solution to end user reporting problems. Set up a secure area on your intranet where employees can login and access their reports whenever they need them. It lets them access data instantly, and saves IT from repetitive reporting requests.

4. Manual Quality Assurance

"Manual QA should be eliminated as a practice," explains Tom Barker, Senior Manager of Web Development at Comcast, Adjunct Professor at Philadelphia University, and Author. "Manual QA testers should instead be utilized to write test cases that can be automated by developers or test automation engineers sometimes called SETs (software engineer in test) or SDETs (software development engineer in test)."

"Manual QA, that is the hands on functional testing done by humans, does not scale. When there are releases, the QA testers must swarm to test instead of testing new features. When new features are developed they generally can be developed as fast as they can be tested. For small organizations this isn't usually an issue. For large organizations this becomes much more apparent."

"Automating testing allows features to be created as fast as tests can be written for those features. Automated testing frees up the time for releases to allow nifty things like continual deployment."

This comes down to the point mentioned above: Automate those tasks that can be automated. Of course, it's worth noting that not all testing can be automated. Areas like the user interface and the application design still require human interaction. That being said, the overriding point is this: Manual functional testing doesn't scale, and only slows the IT department down. It's a prime example of a process that can be automated.

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5. Juggling multiple projects at once

We're seeing an increasing amount of research surrounding the subject of multitasking. What are they finding? To make a long story short: It kills productivity. Our brains can only focus on a single task at a time, and struggle to switch from one task to another. How much does multi-tasking hurt productivity? This recent study puts the number at 40%. If we switch from task to task on a regular basis, we waste 40% of our time.

The same applies to IT projects. Switching between projects puts a strain on our productivity, yet many IT departments try to juggle multiple projects at the same time. The result: As explained below, this only drives up cost and lowers quality.

"There will never be enough people to handle everything," says Michael Good, CEO of IT New York, LLC. "Launching multiple projects and moving people back and forth among them is never a good idea. It often makes the final project cost more money, take more time and the resulting quality might not reach your standards."

"It is better to keep a stable team on each project, once they finish it, then you can move them to another one. This way the resulting applications will always keep your standards, it will be finished on time and thus it won't cost additional money."

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6. Individual desktop support

Physical end user support–which was always a time-consuming IT task–is becoming less and less necessary. These days, IT departments can remotely fix issues, and even create new virtual desktops for their users instantly. If you're still providing physical end user support, it's time to explore more efficient options.

"The world of the desktop has evolved," explains DiGeronimo. "Virtual machines have enabled desktop teams to move away from individual desktop support. Whether your desktop has crashed or you need an upgrade, desktops via Virtual Machines can streamline desktop delivery to almost every type of device anywhere in the world. Support teams no longer have to visit the device or have the device shipped back to support HQs. The support team, remotely and with a quick keyboard entry, can redirect devices to updated desktop profiles in minutes."

Summary

According to **Forrester Research**, 70% of the companies listed on the Fortune 1,000 list ten years ago have now vanished. The reason: an inability to adapt to change.

As modern technology evolves, we're seeing a shift in the business world. In the age of the web, business agility trumps size. More and more, the ability to adapt to change is critical to a company's success.

From a technology perspective, this means that IT departments must evolve. Maintaining the 'status quo' is no longer good enough. These days, IT must innovate. They must move quickly. In the future, they will drive the business forward.

In order to reach that point, much needs to change. IT must break out of the "back-office" stigma. They must establish themselves as a "business-driver", rather than a "business-supporter." How? As outlined above, IT must:

1. **Get on the same page with the business**: IT cannot possibly deliver effective business solutions if it is not constantly communicating with the business.
2. **Adopt a startup mentality**: IT must find a way to devote most of their time to tasks that drive value, rather than simply "keeping the lights on."
3. **Keep your focus in the right place**: IT must avoid the "technology for technology's sake" trap, and focus on adopting technology that solves business problems.
4. **Keep learning:** To keep pace with the ever-changing tech world, IT professionals must constantly hone their skills, and then apply those new skills in the business.
5. **Treat your staff well**: IT leaders must accept the fact that they're only as good as their team, and treat them as such.
6. **Put the right tools in place**: IT departments cannot drive the business forward using outdated, legacy tools and applications. Give your IT staff the tools they need to succeed.

It doesn't end there. At the same time, IT departments must abandon common practices that waste time and energy. These practices include:

1. **Writing (or re-writing) applications from scratch**: With all of the frameworks and tools available these days, coding applications from scratch is generally a waste of time.
2. **Repeating low-level, manual tasks**: 30% of IT's time is currently spent handling low-level, manual tasks.
3. **Creating reports for end users and executives**: IT departments must give end users self-service options to create and manage their own reports.
4. **Manual Quality Assurance**: Manual QA does not scale. Instead, switch to automated testing, which frees up developer time and speeds up the development process.

5. **Juggling multiple projects at once**: IT departments must avoid jumping from project to project. This wastes time and drastically reduces productivity.
6. **Individual desktop support**: The world has evolved to the point where physical desktop support is usually unnecessary. Shift this task to remote support, and free up your support staff's time.

As technology becomes increasingly important, IT departments face a great opportunity. They are in a prime position to take their technology knowledge and drive the business forward. Those that follow the points outlined above will position themselves to do just that.

About mrc

Michaels, ross & cole, ltd. (mrc) is a global software company which specializes in web application development software. Headquartered in Lombard, IL, and established in 1981, mrc has offices in the U.S. and the UK. mrc offers award-winning development software, as well as consulting, mentoring, and training services.

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Works Cited

Page 3 Image
Victor1558. Businessmen shaking hands. Digital image. *Flickr*. N.p., 6 Feb. 2012. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/76029035@N02/6829381157/>.

Page 4 Image
Faruque, Saad. *Lights of Ideas*. Digital image. *Flickr*. N.p., 24 Apr. 2011. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/cblue98/7254347346/in/photostream/>.

Page 5 Image
Matthews, Richard. *Darts*. Digital image. *Flickr*. N.p., 12 Mar. 2011. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/richardofengland/6788829651/>.

Page 6 Image
Alex. *Uris Library Stacks*. Digital image. *Flickr*. N.p., 6 Feb. 2009. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/eflon/3271730476/>.

Page 7 Image
Fowler, Neal. *Smile...It's Monday*. Digital image. *Flickr*. N.p., 30 Aug. 2010. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/31878512@N06/4941767047/>.

Page 8 Image
Daren. *IMG_1719*. Digital image. *Flickr*. N.p., 27 Aug. 2006. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/usefulguy/226362739/>.

Page 9 Image
World in Pixels, *n3wjack's. *Dir /s*. Digital image. *Flickr*. N.p., 22 Aug. 2009. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/eflon/3271730476/>.

Page 11 Image
Maxwell, Scott. *3D Bar Graph Meeting*. Digital image. *Flickr*. N.p., 25 Dec. 2007. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/lumaxart/2136954043/>.

Page 12 Image
Mjtmail. *Day 307*. Digital image. *Flickr*. N.p., 2 Nov. 2008. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/mjtmail/3008566512/>.

Page 13 Image
Helico. *Juggler*. Digital image. *Flickr*. N.p., 27 Feb. 2007. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/helico/404640681/>.

Page 14 Image
Hancock, JD. Stormtroopers on computer. Digital image. *Flickr*. N.p., 18 June 2011. Web. 5 Feb. 2014.
<http://www.flickr.com/photos/jdhancock/5845280258/>.