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10 Mantras for better IT

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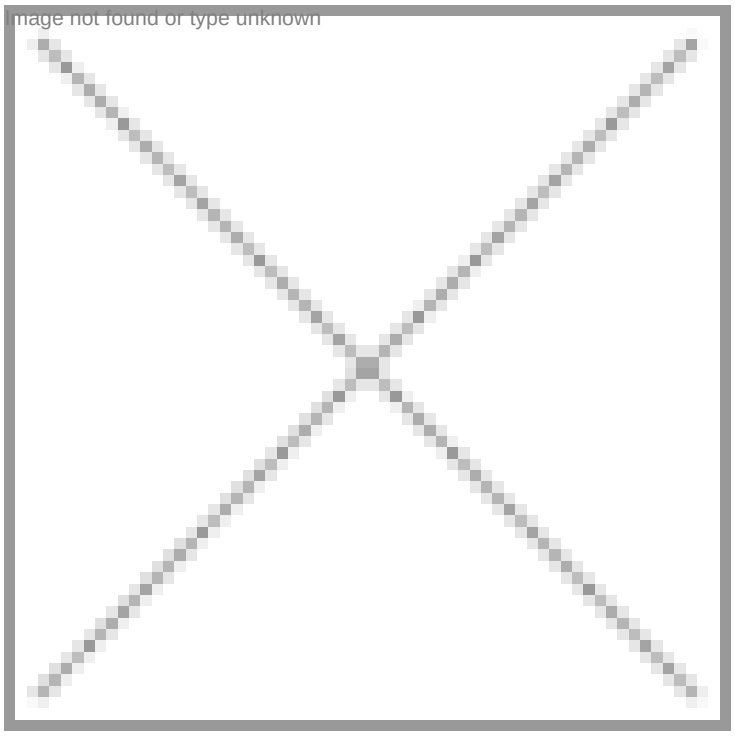

10 Mantras for better IT

Have you ever wished for a magic mantra that can make all your IT-related problems go away? PCQuest gives you not one, but 10 of them.

The days of technology deployment just because your competition was doing it are long- gone. Today, every rupee spent on IT requires a justification, and not without a good reason. The competition is increasing, and customers are becoming ever more demanding. Companies have to fight harder than before to retain their customers. This definitely calls for better products and services, which essentially translates to higher costs of operation. Of course, the changes in govt. policies don't help either many a times. The introduction of VAT for instance, had most companies running in a frenzy trying to incorporate it into their accounting systems. In such a tough scenario, companies typically end up doing two things-cost cutting and discounting.

While this is a fact of life, it's not the foundation on which a business can grow. Every business needs investments to grow, and typically companies would prefer to focus their energy on investing in building their brand, doing market surveys and running customer loyalty programs. That's where the role of the captain of IT comes in. If you as the IT in-charge can convince your management that Information Technology is an equally worthy investment if not more, and that all the business activities they'd like to carry out can be better performed using IT, then you've done your job.

Unfortunately, that's the toughest challenge, because it requires an understanding of the business and how it functions. It's

tough because most IT managers are brought up on a staple diet of servers, protocols and networking. Ask them about the latest buzzwords in the IT world, and you won't hear the end of it, but ask them about the marketing campaign of the company's latest product, and they'll start floundering for words after a while. Many companies, therefore, end up appointing an IT head with a finance background, which also has its demerits-the person would understand number crunching, but not technology! What's required therefore, is the right balance of technical and business knowledge. An IT manager who can understand both IT and business will be able to marry the two successfully.

IT needs to be understood so that the company's IT infrastructure can be best utilized, and new IT purchases be made wisely. And business needs to be understood to determine which IT solution is the best fit, which IT partner can best service it, and how can the IT team manage it effectively.

In this story, we take you through the ten mantras, which, we feel, will help you manage your IT infrastructure better, and should, therefore, form a core part of your IT strategy. The role of a CIO today has evolved from being technology head to a multi-faceted personality.

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MANTRA 1 Understand your business needs

Out of operations and into strategy: PCs not working, Internet bandwidth is choked, there's a new worm on the prowl, the list of troubles goes on and on for an IT manager. These are never-ending issues, so if you continue to remain caught in them, you'll never be able to fulfill the first mantra. So the first thing to do is to take some time out of these day-to-day operational issues, and spend some time with your business managers. The objective is to understand what they go through every day in running their departments, and whether the company's IT infrastructure is able to support them in any way.

Build the right case for IT: This involves two things. One is to come up with an IT solution that best resolves the problem. The management likes to see numbers, and you can show the right numbers only if you know the business problems being addressed.

MANTRA 2 Identify the key IT areas that need management

Just because you have to figure out your company's business needs doesn't mean that you can forget about managing your IT infrastructure. At the end of the day, IT is supporting the business, and it must be maintained like a well-oiled machine. The trouble is that the IT infrastructure is becoming increasingly complex, as the number of elements to manage has increased. Moreover, your users need the same simplicity and assured quality of service from IT as they've been getting (provided it's been good!). Under such a situation, you can't afford to run around troubleshooting everything. So how do you match these opposites?

Identify the critical elements in your organization and keep their monitoring and management under your control, rather than keeping track of everything. Some of the things you could monitor can be workstations for inventory, servers for uptime, network for traffic, WAN Links for QoS, information for security, peripherals for Cost and Availability, and applications for performance

Besides keeping an eye on the critical elements, try to break up your network according to the five pillars of a network-management system. ISO has defined these very neatly as FCAPS or Fault, Configuration, Accounting, Performance and Security management. You just need to strike the right balance between them.

MANTRA 3 Tune your resources

Is your deployed IT optimized to deliver the best possible performance? Tuning your resources is a two-way process. Both your hardware and software should be optimized. A system that's either eating up hundred percent of available capacity or is idle most of the time will not be at peak performance.

Optimization starts with an evaluation of what needs to be better. For that, you need to understand what is expected of each system and determine what's stopping what you have from achieving that performance. For long, this was a three-level discreet process, involving separately tuning the hardware, software and the network. However, to an application and the end-user that these systems serve, all three are one seamless whole. Distributed applications make this the imperative. Some tips.

Use a performance monitoring console to figure out loads on your resource-pool.

Use network monitoring tools to manage bandwidth issues.

The database platform should be treated as a file-server during optimization.

Configure what you already have to the best of its abilities.

At the system end, servers really must have Gigabit Ethernet (GE) connections to your switches.

Turn off unnecessary plug-ins and services on your servers to reduce its load.

MANTRA 4 Watch that downtime

Management standard: SNMP was the default protocol for monitoring and alerting network-related problems. But you can't rely on SNMP for all your management tasks as vendors don't let everything in their devices to be managed with SNMP. Nevertheless, you still need SNMP today to keep a close watch of your critical equipment.

Desktop firewalls don't help: Almost every advisory out there implores you to run one firewall or the other, and at least one anti virus. The tough part in following that advice is that a firewall (and the firewall part of an anti virus) is meant to keep out unknown traffic from that system.

Single or multiple vendors: If you have a heterogeneous, multi-vendor environment, then it can cause configuration and compatibility problems. The "one-vendor" route, ties you down to their technologies and products, some of which could be proprietary. Whatever you choose, two things become very important. One is how you fix your SLAs with the vendor, and two how well do you establish your equations with them.

Standardize: Till recently, the chant was "standardize". The question today is 'standardize on what?' Three immediate things come to mind--platform, equipment and technology. On the technology front, go for something that's widely accepted, and is going to be around for a long time.

MANTRA 5 Convince your business managers to use tech

Change is difficult. Like Newton's First Law of Motion, everything likes to be just as it is, highly resistant to any force that will change that state. Therefore, the fundamental obstacle that managers face in an organization is introducing a change. Quite often, IT managers face that inertia from business managers, and not without good reason. Business managers are interested only in the three letter acronyms-ROI, TCO, TCS and so forth. And not all benefits of IT can be monetarily quantified in that manner. The task of the IT manager, who is seeking to introduce a change therefore, is uphill to say the least. So your proposed IT change has to be quantified. There are of course the two usual suspects-short-term gains and long-term advantages.

The biggest challenge to successfully implementing change is resistance from your users. Your case for the project needs to allay such fears. Some change is transitional-like when you upgrade your infrastructure. Everything that you implement must be documented properly. This ensures continuance when your IT staff changes. Such documentation must include procedures followed too, so that problems can be found and rectified early during the next such exercise.

MANTRA 6 Buy better IT

Computer systems, like anything else we use, don't become completely useless at the end of their classified life-span. They can still be used in active service, in other less demanding roles. For instance, what was your production file-server could be used for near-line backup, or in a testing role. Your high-end PCs from a bygone era could be your security or reception-desk's terminal. Hard disks can be removed from old PCs and those systems reused as terminals using remote booting. Even something as intricate as your old 10 Mbps Ethernet lines could be used for hooking up monitoring stations along the way.

A tip you can use here is to use our classification of the system according to which of its processor, I/O, network or other subsystem it's been using the most of and then re-using the system in a scenario that would transfer that stress onto a different area. So a network-stressed system today could be put into an I/O or CPU-intensive task tomorrow, in a lesser-critical role.

You don't think about upgrading a system when you begin to see it as obsolete. You build it in when you're buying it. Every system has a life-term.

MANTRA 7 Ensure that your team works

What good is technology if you don't have the right people to manage it? It's important therefore that you have a proper strategy in place to find, retain and get the best people who can manage your IT infrastructure. There are several points to consider when devising manpower strategy. It's not an easy task and needs permanent attention. For one, the IT team has amongst the most tech savvy people in the organization. They're the ones who run the entire infrastructure, be it troubleshooting desktops, or tuning servers, or administrating the business applications. They would have a hard time working under a boss who doesn't understand technology that well. Supporting users is one of the most thankless jobs.

All of the above tasks of managing an IT team are quite challenging. But one way out is to outsource. It's now time for Indian organizations to completely outsource their IT infrastructure to a managed service provider or MSP. It removes all your day-to-day burdens of keeping the team motivated, finding and training the right people. Plus, your company won't have the burden of paying salary and other overheads to the team. You don't have to figure out how many people you need to manage the infrastructure. The MSP will worry about that and the technology change.

MANTRA 8 Keep your users happy, but under control

What makes your users happy? Easy to use applications, working machines and other network equipment? How about faster Internet access and negligible spam and viruses? Or maybe the excellent and quick support. Actually speaking, it's all of the above. While these are very simple expectations to put down, meeting them is extremely challenging and we use all sorts of technologies for the job. So while the users get a smooth sail on your network, your IT team sweats it out in the back to keep everything under control. It's important that you put in the right set of user policies to keep the burden on your team under control. Plus, give your team a good helpdesk-management system if you haven't already to become more productive.

Create an Acceptable Usage Policy (AUP), if you don't have one already for various applications on your network, such as Internet access and e-mail manners.

Another critical part is a good helpdesk-management system. Many organizations don't feel the need to have such a software in place, but if used properly it can improve the entire support system. It will keep a searchable knowledgebase of problems and their solutions handy for the support staff and also map machines with their complete configurations.

MANTRA 9 Be a sought after fortune teller

No this mantra doesn't require you to dress up like a gypsy and sit inside a tent with a crystal ball. But predicting what's going to happen in IT is very important, which is why in addition to the duty of running an IT infrastructure, you have to have a sense of the direction in which IT is moving. Which technologies are hot, which are going down, what's the life of the new application you've implemented in your organization? What's the life of your new hardware, how long before you can discard the old machines, are all questions that fall in your basket. Everybody will come to you with these questions, and unless you can give them fairly accurate answers, you won't be able to build the trust you want in your IT infrastructure. After convincing management to invest in IT, you then have to be able to carry along that trust. There are two ways of doing this. One is to be aware of what's happening in the IT world, and provide reasonably accurate predictions of what's going to happen. Second of all, understand where does your IT infrastructure lie on the technology

MANTRA 10 Resizing your IT

Needs change and as your business grows or transforms itself, you need to evolve your IT to match it. One of the key issues in resizing your IT (frequently called up-scaling) is foreseeing and planning for such a change. Both over and under estimation of future needs can create problems. Therefore, you might find that as time passes, you may even want to pull back a little bit. For instance, that new data center you built may now be too big or completely unnecessary if you have found alternatives or your business has changed.

Consolidation: Everyone out there is now talking of 'consolidation'. Instead of having multiple servers and large investments scattered all over the place, centralizing it gives you both better manageability and controls costs.

Not all plug-n-play: Do note though that it is not a matter of simple re-arrangement of hardware. Other factors (like your software) may change too, along with overheads of management and support.

Capacity planning: Don't be over-cautious with your future estimation. You need to sit with your business people and understand their vision and direction for your company's future.

The choices: Each need has its own specific answer and your need has to be well defined.