

How to tame your
technology in

5

steps



Transform
IT from a
cost center
to a profit
center

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A Basic Premise

No doubt about it – technology has changed the way you do business – and for the most part, it's for the better.

Oh, it's fun to wax nostalgic about the “good old days” when things were simpler, but nobody really wants to go back to storing data in paper in endless rows of file cabinets.

Remember how a misplaced file was exactly the same as a lost file? There was no way of searching through all the file folders in all the files drawers in all the file cabinets unless you had weeks to devote to the effort.

This
was
not the
good old days



Is Your Technology Painted On, or Baked In?

Most small businesses adopt technology on an as-needed basis, due to limited resources and an always uncertain future. Moreover, technology advances so rapidly, expensive equipment ends up being obsolete in just a few years.

So, what happens is, small business network infrastructure is cobbled together, having grown by fits and starts as the business grows, and often consisting of disparate elements. The

resulting complexity makes administering and managing this infrastructure labor-intensive, and even very small companies find they need to hire a person whose sole responsibility is caring for this infrastructure.

The IT person seems to be a necessary and wise investment, because the complexity of the haphazard network means something is always breaking, and users always need help.

What would you do without your trusty IT person? Isn't it always difficult during times when the IT person is on vacation, or out sick?



Does the IT Staff Work in Concert with Management?

Your job as a business owner is to tend to your core business, so you cannot devote time to complete understanding of your IT infrastructure.

So, you place complete trust in your IT staff. When they say you need some new piece of equipment, you have no choice but to take the advice.

The costs of your IT department (equipment and personnel) are not stable – they balloon anytime some new piece of equipment or software needs to be replaced or upgraded – often without any warning.



Frequently, IT personnel at small businesses are actually working at cross-purposes with management. How can this be? You see how busy they are, and being busy justifies their position in the company, so they are motivated to stay in motion.



If your network suddenly stopped having any problems, would you need the expense of IT personnel on staff?

What if there was a way that IT personnel could be utilized to prevent problems, and apply their efforts towards an IT strategy designed to provide your company's technology needs now, and in the future, and react as technologies advance or business goals change?

There IS a way, and it consists of 5 easy steps!

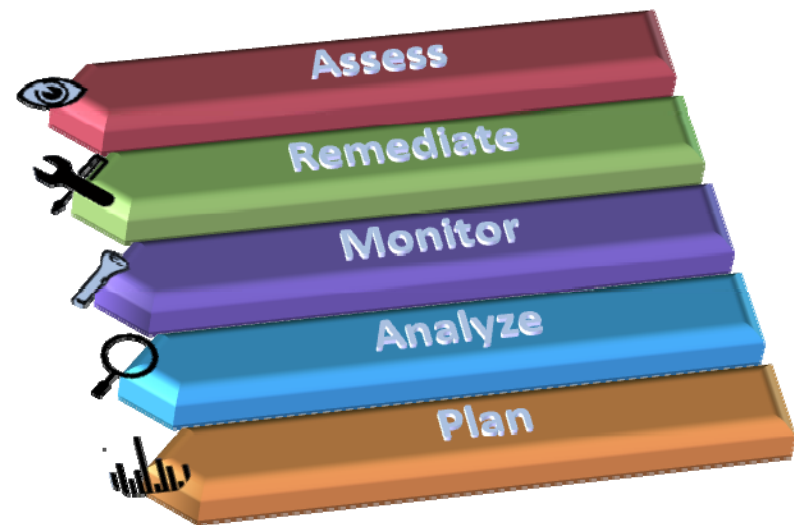
The 5 Steps

Assess, Remediate, Monitor, Analyze & Plan

These steps represent a method for integrating your company's IT infrastructure management into your company's overall management and vision.

This methodology has been used by enterprise-level businesses for years, but the costs of the expertise and tools kept these methods out of reach for small businesses.

However, advances in technology have made this method practical for smaller enterprises – but it does require a major change in how your company's executive branch works with the IT side of the house.



Assess

Before you can implement a plan to fully integrate information technology into your business, you have to establish a baseline.



What, exactly, does your current IT Infrastructure consist of? Since networks tend to grow by fits and starts over time, rather than through some master plan, it's wise to perform a Network Assessment at least once a year.

You need a detailed and up to date diagram of EVERY element of your network – every server, every switch, hub, router, every user machine and every printer, and every connection.

Look at your company right now, and consider your existing IT infrastructure. If you were starting this business today, at this size, and building this IT Infrastructure from scratch, how would it differ from what you have now?

Chances are good it would look a whole lot different. Chances are also good that you don't know the answer to this question, because it's not your area of expertise, but your IT personnel should be able to create this document.

In addition, you will want a list of the assets that make up your IT Infrastructure. The same tools used to create the network diagram can usually be used to create the Asset Inventory as well.

Next, sit down with your IT staff, and discuss what you've found.



What's working in your current network?

What's not working?

What's getting old?

What's missing?

It pays to ask around the office, because some users may know of some things that aren't working well, of which neither you, nor your IT staff was aware.

What should come out of this discussion is a wish list of what it would take to make your current network match your IT staff's notion of the ideal network.

Remediation



You may have noticed that the IT staff seemed to be main player in Step 1 (Assessment), and that's true, because it was largely a pure technology exercise.

But beginning in Step 2 (Remediation), management's role in budgeting and strategic planning becomes a major part of this process.

Usually, the Assessment will reveal that there is a gap between what your network would like if you were starting from scratch, and what it actually is.

How can you close that gap? What are the critical points or the widest gap between reality and ideal?

Can you create a plan to close that gap over time, and submit a budget for it?

Ask your IT staff for a list of the tasks (and equipment and software) it would take to close the gap completely. They'll love it! How often have you encouraged them to imagine and articulate their vision for your company's technology?

Next, prioritize the list. This is where the real collaboration between the company's executives and the IT side of the house begins.

They'll want everything of course, and they'll want it now. But business realities require the list to be prioritized in a way that requires considered decisions as to what needs to be done right away, and what can be done next, and when.

What parts of the "dream network" are simply out of reach, and what are the second-best choices?



Management **MUST** be committed to the goal of bringing the IT Infrastructure to functional level that meets your immediate needs and short term growth goals, or this whole process dies at this stage, and you will be stuck forever in the cycle of "making do" and "putting out fires".

If you're OK with this, with its cost factor inefficiencies, and impediments to growth, you don't need to read any further. Many companies don't have the will to progress through this Remediation step. They will see their competitors who possess that force of will thrive, rather than just getting by.

To be an effective part of this 5 Step methodology, there needs to be a commitment to completing the Remediation in a timely manner.

If your company takes 2 years to power through these steps, the steps you make towards one end will be based upon decision and realities that are no longer relevant at the other end of the process. Management should plan for time and funding to complete the remediation process in 3 to 6 months.

You will need to consider whether your IT staff has the technical acumen, and the time, to complete this process on this time schedule.



While you're improving the network infrastructure, the normal time demands on your IT staff will not magically stop.

Users will still have issues, and the stuff that was breaking before will still break. It may be wise to contract with an IT Services firm for part or all, of the Remediation process.

Monitor



Now you have a new network, and you'll notice some improvements in efficiency and productivity as your office uses newer, more reliable equipment and software.

Make no mistake about it – completing a network upgrade is an accomplishment. But this new equipment, and new software

will age, and eventually, your business will revert to the old cycle of dealing with issues and putting out fires.

So, once your network is in good (enough) shape, stay in touch with it. Monitor as much as you can, and fine-tune the alerting system(s) so that you receive only the most useful information.

For your IT staff, your alerting system should respond immediately whenever a performance threshold is reached that might indicate the network is in trouble — this could be CPU usage, storage space filling up, a spike in a network or WAN traffic - any number of things.

Monitor



But your monitoring system should also be collecting trending data and this information is vital for making strategic decisions.

Consult with your IT staff to decide what trends bear watching and keep records and graph the data often enough so that you can understand not only your network's health, but what directions that health is heading.

This information will enable your budgeting process to be ahead of the curve.

**Know when you WILL need to replace or upgrade,
before you need it.**

Analyze

Your monitoring systems will help give advance warning of many potential problems. This is a great help to your IT staff. Instead of putting out fires, they will be able to what's about to break.



Automated alerts will tell the IT personnel when disks are filling up, or when CPUs are becoming overworked, and even hard drives can provide alerts of impending failure. The IT staff's work becomes more a series of maintenance tasks, rather than repair tasks.

But the data collected over time will tell a bigger story, and what you learn from that trending data is what will make the IT department a profit center instead of a cost center.

To properly implement this, management will need to coordinate with the IT staff.

Analyze

It may seem odd, at first, to include the IT department in discussing your company's business goals. Believe me, it'll be odd to them, too!



But as you communicate what your roadmap is for growth and expansion for your company over the next year, three years or even five years, you ask the IT staff to think about these goals, and what demands will be made on the company's infrastructure as you approach those goals. It's a question you want to ask now, not in one, three or five years!

The IT staff will be able to interpret the data you have collected through your monitoring, and advise you on the challenges that lie ahead.

Finally, you will be able to anticipate when your equipment will need replacing well in advance of the emergency of a "network down" situation. This means you can include anticipated IT expenditures in your budgeting process, based upon accurate data.

Plan

This final step is where the complete integration of Information Technology into the business process occurs. Your monitoring system will collect data that must be interpreted to anticipate what your business' technology needs will be to achieve your business goals.

Are you planning on growing?

Opening new locations?

What new demands will these anticipated changes and growth place upon your company's IT Infrastructure?

You communicate your company's goals to your IT staff and ask them this question, and together you create a technology roadmap component to your business' plans for the next one, three or five years.

You will be able to anticipate your company's IT expenditures well in advance and create a useful budget for them.



How do I get started?

The very first thing that has to happen, and the most important is, management has to commit to this process, and they must convince the IT staff to commit to it as well.

If the IT staff can't or won't commit to it, you may have the wrong people in that position.

If your IT personnel's skills are more suited for repairs than actual network management, you may have the wrong people in place.



For these 5 steps to succeed and deliver the promised benefits, both management and the IT staff must be committed to the process

So, then we're done, right?

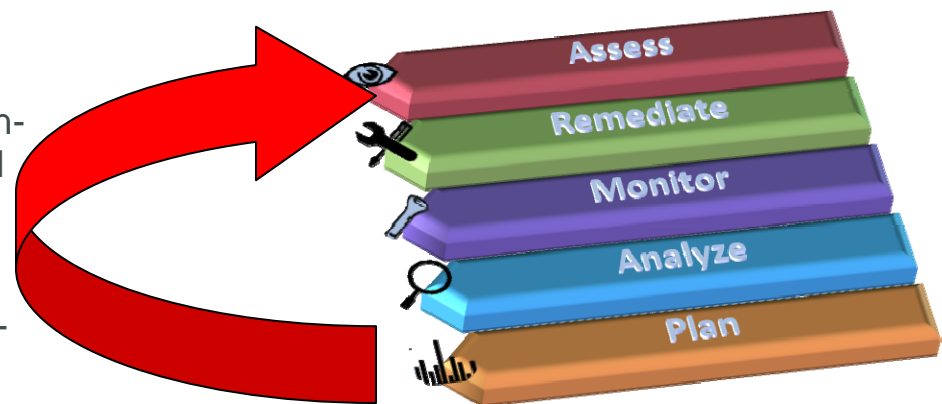
Most companies take about a year to work through these five steps, and once they do, they begin to reap the rewards of integrating (baking in!) technology into their business processes.

Let's say you've done it. Your IT Infrastructure is humming along and management and IT are working together swimmingly. So what do you do next?

YOU START ALL OVER AGAIN!

Remember in the beginning, where I mentioned that a network assessment should be done every year?

Well, it's been a year, and it's time for another one.



Over the course of the year, there are numerous inevitable changes to your network (some small, some big) that make your last assessment obsolete.

The project becomes a process, and you keep “baking in” technology.

Is this going to work?

It depends on you. I have seen these steps work for companies many times, but sometimes companies get stalled in the process. The most common reasons are:

- lack of commitment
- insufficient resources (money or personnel) to complete the steps in a timely manner
- culture clash (company is more accustomed to reacting to, then preventing, problems)

To adopt these 5 steps as an ongoing business process, your IT staff's skill set will have to be able to adapt to the change from on-call repairs to ongoing maintenance and management.

If they can, they will find they can manage a much more complex network than they would have thought possible.

For the management of the IT Infrastructure, growth doesn't automatically result in more IT personnel, and that's a boon, considering the costs of labor.



Can we pull this off with the people we have?

In some cases, IT staff isn't even necessary – because management and maintenance of the network can be outsourced for much less cost.



Many small-to-medium size businesses find that they can outsource parts of the 5 Step process, and there are some advantages to this idea.

Outsourcing the Assessment (Step 1), for example, is considered a good business practice. Having a network audit conducted by an outside firm often reveals things that might be missed by in-house personnel who have a tendency to overlook things they see every day.

I mentioned the Remediation (Step 3) is often where companies stall. Outsourcing the installation, design and installation of a new network will keep in-house IT staff available for the things that demand their attention on a day-by-day basis.

Finally, many companies find that their IT staff is well qualified to maintain their network, but planning and analysis are not among their strengths. Similarly, if clear communication between the IT department and management is difficult, an outside firm can bridge that gap, and enable the company to realize the true value of the trending data that is collected from the network.

Every company is different, but that does not change the importance of making your IT infrastructure a profit center.

What if I choose not to do these 5 steps?

If you're completely happy with your company's growth curve, and your IT infrastructure meets your needs in every way, then you have no reason to do anything differently.

But if you want to free up resources to concentrate on the activities that grow your company and add sales, then you need to find a way to make your company's network and technology contribute to that effort.

Your company's network should be a utility—as reliable as flipping a switch to turn the lights on, or picking up a phone and getting a dial tone.

If you're not to that point yet, keep in mind that your competition may be. While you pour attention and money into your network, the competition is focusing on capturing market share and increasing sales.

Isn't it time your investment in technology reaped some rewards?



About the author

Bruce Campbell has been involved in technology since the 1970's, first in tech manufacturing, then in Sales and Marketing.

In the 1990's, he was in the forefront of the Internet boom, as co-founder of an Internet Service Provider in Walnut Creek, California,

Since selling that business, Bruce has been employed at Clare Computer Solutions in San Ramon, CA as VP of Marketing, and also created that company's Managed Service Division.

Bruce has become a vocal proponent of the IT Services industry's move towards Managed Services and has spoken at industry events around the country to peers in this field.

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