TMC'S ADVISOR

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The Taking Control Issue

The unexpected collapse of the acclaimed Tacoma Narrows Bridge

Just When You Thought You Were Safe-Tracking You

By Peter Aggus

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CIO for Hire

Clients smaller than $300 Million per year in revenues **don't have a CIO.** They need one but **can't afford** one.

A CIO is a very senior IT leader that understand business drivers and can speak the language of the CEO, COO and CFO. The CIO works with IT staff and managers to plan and budget.

TMC can **assign a CIO** to work with clients on a part time basis. **One or two days** a month can translate into more confident staff and better financial decisions.

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Just When You Thought You Were Safe - Tracking You

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We often take online security for granted. After all, our log in and credit card information is protected by SSL when we buy things online. However, most web sites only use SSL for highly secure information, then revert to non-secure transactions for bulk data. This means that there are oceans of your data being collected and stored on servers…fairly useless information, until now.

IP Addresses Aren't Good Enough

Web servers collect tables of data such as users, web page browsing history, transactions etc. Network monitoring devices collect lists of users and locations. Unfortunately these lists of users are actually lists of the IP addresses of users, and IP addresses just aren't good enough.

IP addresses are often transient and fixed more to the network than the user device. With more and more access from mobile devices, the relevance of fixed access and static IP addresses is ever less useful. The only truly fixed identifier is the MAC address, which, until recently, has not been tracked. This is the goldmine that marketers will pay heavily for.

The How

Some data bank services now link to the DHCP server records of the access network provider. This gives access to a cross-reference table linking the ephemeral IP address to the physical MAC address. Using that data and collecting information from other sources including social media sites, a data bank will be able to associate a MAC address to the device owner's:

- Name, address, date of birth, family members…
- Likes and dislikes
- Recent travel: other shops, cities, countries, etc.

It's becoming relatively simple with more and more network access through 3rd party networks such as:

- Hotel internet service for guests
- Free Wi-Fi in coffee shops and transport hubs
- Public Wi-Fi
- Cellular data services

A 3rd party network operator can provide "free access" and sell log records of who does what. DHCP servers allocate the IP addresses to the physical devices, and the network logs see the traffic carried in the form of packets linking IP addresses to servers accessed and even transactions run on those servers. When someone enters a shop, a wireless access point can automatically pick up the MAC address of their device. If that MAC address is passed to an information bank, a lot of information can be immediately available.

The Ethics

Providers of free networks can add permission clauses to that rarely read disclaimer that everyone has to accept. The data collected is arguably in the public domain and does not involve hacking passwords or looking inside secure transactions at bank balances. Also, precedents exist –store "loyalty cards" already track user purchases. This is just the internet equivalent.

The Future

Next generation apps will allow users to tap their phone on a terminal to effect information transfer including making payments. This may well be the future of advertising, or even industrial espionage, something totally targeted to each user in a way that even search engines like Google cannot yet do –since they can only track users by way of cookies.

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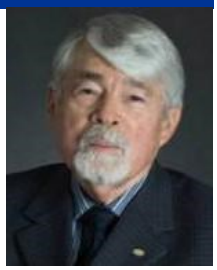
Peter Aggus is Vice President of TMC IT and Telecom Consulting. His Business Continuity training enables him to quickly assess an environment and identify failure points, often failure points that have never previously been identified.

Overcoming Inertia



By John Glover

How do you know when it's time to change direction? When economic conditions change, will inertia keep you from taking control and making necessary changes? Will you even notice that changes are needed before it's too late?

Success as a Weakness

Reasonable success over a long period of time can make management reluctant to tinker with what's worked well. It's easy to become fixated on long-term operating plans and miss some important signs that an abrupt change in direction is warranted. This is never more true than for IT, as IT can enable operational flexibility to adapt to changing conditions.

Mixed Signals

The signals can be far from clear. An example — between 2002 and 2008, and notwithstanding massive growth in the US budget, trade and payments deficits, net negative savings rates and growing instability in Chinese stock markets, consumption in North America continued to grow.

A large market correction began brewing in early 2000 and the Tech Wreck occurred in 2002. This caused the US Federal Reserve to worry that consumption would collapse so they decided to add unprecedented levels of liquidity to the world's financial system to spur consumption. Cheap money allowed millions to acquire housing in the US. An increase in demand laid the stage for escalating prices, allowing

Photo courtesy of Paul Koski

homeowners to refinance and upgrade their housing, acquire new cars and generally to increase lifestyle. The spill-over effects drove economic activity in BC. Even through a softwood lumber embargo, forestry revenues increased, oil and natural gas exploration intensified and a commodities boom emerged. Comfortable levels of government revenue prompted massive investment in post-secondary education, supporting a secondary boom in new intellectual property.

Of course in hindsight the stock market crash of 2008 seems inevitable.

Any manager who has experienced a downturn knows that conditions change slowly at first only to gain momentum later. At each turn, there is always the temptation to assume that the situation is likely to correct itself. Particularly in an environment where growth seems unstoppable even in the midst of declining economic fundamentals, it's easy to see how inertia could gain hold.

The risks of taking bold action can be significant. The organization can be destabilized, morale may suffer and complaints may skyrocket. The risk of not taking action is to experience subtle, then more intense reversals — in effect, death by a thousand knife wounds.

Make Contingency Plans

Increasing or decreasing interest rates, rising and falling employment levels, increasing or decreasing consumption are examples of indicators that may impact your operational plans. Identify which indicators will provide early warning for your organization and make contingency plans. Will certain groups of employees be affected? Will reorganization be required? Who specifically may experience a change in their job? A contingency plan identifies the operational changes that need to be made. It also identifies the conditions that will trigger its use.

The best time to create a contingency plan is before you need it.

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John Glover assists national and international clients with governance, IT systems compliance auditing, IT risk assessment, information policy formulation and PCI data security.

Why Do We Keep Hiring Admin Staff?

By Ellen Koskinen-Dodgson

We regularly hear IT managers and directors complain that there's always money available to hire more admin staff but no money for IT to automate more business processes, even though this would eliminate the need for some or all of the new staff. We see the extra staff whenever we create a business process diagram for a client.

Silos are Natural

Silos are a natural side-effect of business and government operations. Responsibilities such as sales, manufacturing and finance are grouped into departments with a management chain of command for each. This structure allows expertise to be developed within the department. It also allows information to flow easily up and down the chain.

Silos can also exist within silos as each process within a department can easily become its own silo. Examples include point of sale terminals in a store that connect only to ERP, corporate car booking, or municipal building permits. An organization can nurture thousands of information silos, each created for a specific and useful purpose.

Silos Are an Obstacle

Informed decision making requires collecting information from multiple silos. A municipal Engineering department may have information that would be useful to the Planning department but the planning department may never know that the information exists.

It can be difficult and time consuming to find out what information is available, decide how information from one silo could improve the operation of another and link information from separate silos for business intelligence purposes. This naturally results in manual processes. An automated process will generate a report which is exported in Excel format. This is emailed to a person who requires the information. Certain fields from the spreadsheet are copied into another application and combined with information from other sources. This is then emailed to managers who use the information to make higher level business decisions.

These manual processes may generate weekly sales reports from multiple sales channels, business growth projections, car pool replacement requirements or HR training budgets. Information requests from customers, suppliers, the media and the public lead to the need for more reports that require manually collected information from various silos. This results in the need for ever more admin staff.

Silos Can Be Integrated

IT departments are generally happy to take on the task of integrating silos, but it's usually not that easy or inexpensive. Information formats don't match and gaps exist in the available information so that a 'simple' automation project turns into one that uses too much staff time and misses project milestone dates. Organizations implement ERM systems to achieve this end but this only goes part of the way. Project teams can spend almost endless time and resources trying to automate information flow between silos, only to have information flow change as existing silos are redesigned and new silos created.

Automation World quotes General Mills' Technical Director of Control and Information Systems Jim Wetzel, "Technology alone doesn't break down silos. The alignment of purposes across the silos breaks them down." It's clear that a big-picture approach is the only way to effectively improve information flow across silos and that this needs to be scheduled into business planning processes on a regular basis.

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The Unnecessary Disaster (Part 2)

By Len Garis, Peter Aggus and Ellen Koskinen-Dodgson

Urban myths abound – we are often told that 'an event' causes a disaster but it often isn't true. Hurricane Katrina of 2005 did not cause flooding and devastation in New Orleans. In fact, everything went perfectly…until it all fell apart.

We're very good at creating emergency plans and we are often good at implementing them when an emergency occurs. However, if the emergency doesn't match the assumptions written in the plan, we often insist on following the plan anyway.

The Katrina Effect

Much of the U.S. Gulf Coast from Miami to Houston is prepared to deal with the havoc caused by the inevitable hurricane strike. This planning includes having shelters available for those driven from their homes, having evacuation plans, having supplies of food and medical needs – plus much more.

The Louisiana coast is no exception. In addition, New Orleans faces significant danger from flooding since much of the city is below sea level. It shares this danger with much of the Netherlands, which is threatened by the North Sea, and the solution of dikes and levees employed in New Orleans has much in common with the protection systems in the Netherlands.

When Hurricane Katrina passed over New Orleans, it caused a lot of damage as expected, but all of the plans worked and everyone breathed a sigh of relief. Then came the unexpected - a breach occurred in one of the levees which were holding back the expected surge water levels and an unimaginable quantity of water poured into the city.

No plans existed to deal with a breach because it was never expected to happen. Images on TV of helicopters dropping sandbags into a torrent of water tens of metres wide and widening showed clearly that there was no "Plan B" and they had no idea of what to do to stop the problem.

Beyond the contaminated water covering great sections of the city, much of the regional telephone service was knocked out. Even the cell network could not accept incoming calls. The reason – the power plant, including the backup generator, was at street level and hence under water.

Taking Control

A critical part of any disaster planning process is to always have a 'Plan B'. Plan B is an answer to the question 'what will we do if our assumptions are wrong and something unexpected happens?'

Watch for Part 3 in a future issue.

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