

The TMC ADVISOR

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By Guy Robertson

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Transform: Changing the nature of the business

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SLA Plus XLA = Happy Users

By Ellen Koskinen-Dodgson

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Emergency Evacuations: Best Practices *By Guy Robertson*

It's not complicated but it's vitally important. When the fire alarm rings, you need to evacuate right away. That's no time to start asking coworkers "Do you remember where we're supposed to meet? Who's in charge? Should I bring my computer? What are we supposed to do with Fred? He's in a wheelchair." Here's the simple plan.



Protocols

Prepare for a safe and successful emergency evacuation of your office by giving employees the information they need. Emphasize the importance of:

- Knowing the locations of the nearest exits, and the routes that everyone should follow to reach them.
- Knowing the locations of the fire alarm pull stations and the fire hose cabinets.
- Knowing the Safe Stairwell guidelines, which during evacuations disallow any eating and drinking, the use of cell phones and other portable technology, and moving against the flow of stairwell traffic.
- Knowing the location of the Safe Gathering (or Muster) Site

Orientation

You can cover these points during a 15-minute orientation session, including important questions such as:

- "Should I gather my personal items before I evacuate the office?"

Ideally, you will evacuate as quickly as possible. You can gather coats, purses, wallets, keys, and other small personal items before you make your exit, but do



not try to carry out larger, heavier items, since to do so could slow you down.

- "Can I use the elevator during an emergency evacuation of our building?"

No. Avoid elevators and use stairwells. You do not want to be caught in an elevator during a fire or toxic spill.

- "What if there's smoke in the stairwell that I use to evacuate?"

If you encounter smoke or fumes in your stairwell, use an alternative stairwell in a different part of your building.

- "What if the directions from firefighters and other first responders disagree with the instructions from my manager?"

Directions from firefighters, police, and paramedics take precedence over instructions from your manager.

- "Somebody in my department uses a wheelchair. How can we keep that person safe, and render the proper assistance during an evacuation?"

Make sure that anyone who needs assistance to evacuate the building has informed your Fire Warden and knows the location of your building's Emergency Refuge area. Note that people with physical and emotional challenges might need different kinds of assistance during an evacuation.

Drills

Fire codes demand that all offices hold fire drills regularly, i.e. annually or semi-annually. Treat your drill as if it were a response to a real emergency. Encourage everyone to participate, and record outstanding observations to improve your performance. It pays to respect these best practices.

If you'd like to comment on this article or explore these ideas further, contact me at guy@tmccconsulting.ca.

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Submarine Cables

The first transatlantic telegraph cable became operational on 16 August 1858. Telephone cables followed and, more recently, optical data cables carry Internet traffic around the world. New cables enter service regularly and older ones are retired—so the exact number changes. Estimates are that over 400 cables currently span over 1 million km.

All are quite vulnerable to damage. Dragged anchors regularly sever shallow cables. Deep sea sections are not vulnerable to such damage as the cables just lie on the sea floor.

Vulnerability

Whilst the sea floor is mostly stable, in January 2022 the Fiji-Tonga cable was broken by an underwater volcano. Repairs took over 2 weeks.

Also, bad actors can easily inflict damage to a submarine cable. UK and US intelligence agencies believe that several cables may even be mined with explosives waiting to inflict such damage on demand. It is practically impossible to investigate all of the length of every cable to find out.

If a cable is broken, a ship has to be sent to the site and then undertake a weeks long exercise recovering the two broken ends, bringing them to the surface, and splicing in a repair section.

As the recent damage to the Baltic gas



pipelines shows, such bad actors do exist and they have the capacity to sever something as large as a reinforced gas pipe—so a small cable will present little challenge. It is clear from his public comments that Vladimir Putin wishes to take revenge for the crippling sanctions imposed on Russia—and it is also clear that he has recently deployed a submarine designed for that purpose amongst others. To many observers it is no longer 'if' but 'when and where'.

Consequences

Many still think of these cables as 'international telephone cables' - leading to a false sense of security if you never make international phone calls. Nowadays most cables carry IP traffic and form a critical part of the global internet. For sure they still carry phone calls but as one increasingly

minor service. Since costs for long distance communication are no longer a significant issue, many data network designs put servers where in the world is cheapest. Social media postings may span the world several times without you even being aware of it—until things go wrong. We like to think of the internet as a 'cloud' as if it was 'up there somewhere'—whereas the real cloud is mostly way below sea level and very much at risk.

What Should You Do?

As with all risks, you should investigate and quantify your exposure. You can then put plans in place to cover a potential loss of your network-based services should the 'unthinkable' actually happen. This may mean making sure your cloud service is adequately secure and did not just win your contract with a low bid because their servers are in the 'third world'. It may even mean having local servers as a cloud backup so your business does not fail just because your network-based service vanished. Remember that it took many weeks to get Tonga back online from just one break.

If you'd like to comment on this article or explore these ideas further, contact me at peter@tmcconsulting.ca.

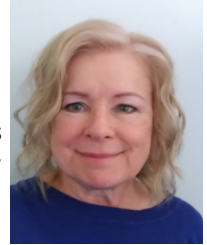
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Peter Aggus, as an engineer & technology management consultant, has developed innovative & cost-effective solutions for clients in many industries.

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SLA vs. XLA

A service-level agreement (SLA) is an agreement that identifies what services the service provider (ISP, IT Department...) will furnish and defines the objective service standards the provider has agreed to meet. It focuses on what can be measured. Examples include:

- Available bandwidth
- Percentage up-time
- Mean time to repair
- Average clearance time for trouble tickets
- Did the work complete within budget

These service level metrics are measured and tracked and if a standard is not met, reports are issued and a plan for improvement is generally developed.

An experience level agreement (XLA) identifies the subjective service standards for user satisfaction. Examples include star reviews (1 – 5) for such things as:

- Did you get the outcome you were trying to achieve?
- Did you achieve the benefits that you were expecting?
- Were you satisfied with the experience?
- Was the process easy to use?



Each Can Disappoint

Perceived IT quality is not the same as actual IT quality. For example, a reliable network uptime may be 99.9% and IT staff are happy when they're meeting their SLA. However, this metric actually translates to 43 minutes of outage per month. If the outage happens after hours, it may go unnoticed by users. If it occurs during peak deadline time, it can be devastating.

Prior to XLAs, complaining users could be brushed off with the comment that the network performance is good: the SLA thresholds are being achieved. SLA results do not often impress end users.

XLA ratings can be hard to mitigate. One poor rating can go viral and influence subsequent ratings. XLA results often do not impress IT staff. They can seem like a personal

judgement.

Further, valid user feedback can be difficult to collect. Many people don't take the time to respond when the outcome was fine but are motivated to give a negative response when they had a disappointing experience. We now need to discuss design options that will increase the level of user feedback. We also need to decide what level of XLA feedback scores can be considered to represent successful service levels.

Taking Action

Some organizations combine SLA and XLA requirements into one document. This allows all of the basic SLA information to be used: what service, where, to whom, exceptions, who will sign, expiry/renewal date, etc.

Development of XLA metrics need to be developed through discussions with stakeholders. For example, help desk ticket resolution time may have a higher standard for tax department staff during the property tax payment season.

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Web3 – Delivering the Future *By Roban Chahal*

The new iteration of the World Wide Web is going to bring much development to the internet and applications ecosystem, with the biggest companies already releasing early products. Experts say that it will take around a decade for Web3 to fully integrate however, some indications suggest this is incorrect since there are already a few products out.



Web3 vs Web2 vs Web1

The first Web consisted of a basic network connecting users and searchable websites.

Web2 is all about end user experience. This Internet form emphasizes User-Generated Content (UGC), ease of use, interactivity, and is known as “the participative social Web.” Web2 includes web browser technologies such as JavaScript frameworks.

Web3 is secure, decentralized, and is built on blockchain technology. This Web interaction and utilization stage moves users away from centralized platforms like Facebook, Google, and banks, and towards decentralized, nearly anonymous platforms. The Web3 internet would be owned by its many builders.

Impact

In terms of data security, end-users will benefit the most. With decentralized apps and data storage, they can continue to operate even if a server crashes.

Web3 enables different types of applications and services to exist, including:

- **dApp** - Web3 decentralized applications are built on top of blockchain and enable service delivery using smart contracts stored in an immutable ledger.



- **NFT** - Nonfungible tokens are unique digital identifiers that usually reference a digital file, are stored in a blockchain, and are bought and sold.
- **DeFi** - Decentralized finance is an emerging use case for Web3 where decentralized blockchain is used as the basis for enabling financial services, outside of a traditional centralized banking infrastructure.
- **Cryptocurrency** - Bitcoin, for example, are Web3 applications that create a new world of currency that aims to be separate from the historical world of fiat currency.

Timeline

Web3 stakeholders are proposing anywhere from the next five to ten years for it to become integrated, but not all experts share the vision. According to Gartner, the Web3 landscape won't be overtaking the

existing Web2-based applications in the enterprise domain in the ongoing decade.

But this could change. Most blockchain systems are currently developed by non-profits, which provides an open-source blockchain platform that allows for collaborative design and development. Companies that don't yet exist could become the next Apple.

Also, there are a few applications and products that already exist that have had a great effect on businesses, economies, and people's lives. Some examples include:

- Siri
- Facebook (Meta)
- Wolfram Alpha
- Storj
- Brave Browser

Once Web3 is fully developed, it will not replace Web2, instead it will integrate so the use of the best aspects of both software can be used.

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Roban Chahal is the editor of the Advisor, a researcher, and oversees TMC benchmarking studies.