

15 QUESTIONS LEADERS IN SMALL MUNICIPALITIES SHOULD ASK ABOUT THEIR TECHNOLOGY

Among so many other things, 2020 was a breakout year for technology—demonstrating just how central it has become to municipal effectiveness. Staff want and need the right tools and technology to do their best work possible. Delivering municipal services in the way that customers increasingly want—available from anywhere, on a smartphone, 24x7x365—depends on having the right approach to service delivery and the right technology. Simply put, harnessing technology effectively must become a core competency for all municipalities. Thus, even in the smallest municipalities, leadership teams must get comfortable with technology as it becomes pervasive.

From our work with many small municipalities over the past few years, we have compiled a set of questions that we have been asked. We think leadership teams in municipalities should ask themselves about technology in their organizations.

1. Do we have a plan?

You and your leadership team should have a clear view of what the next 3 years hold from a technology perspective.

You should know what the critical systems and technologies are for your organization and what the roadmap is for each of them. You should be clear on the top four or five strategic things you need to tackle in each of the next few years. The plan does not need to be complex or fancy; it can be short (just a few pages), but you do need one, and it should be known and agreed at the leadership and council level and communicated across the organization.

2. Do we spend enough on technology?

You should know how much you spend on technology (not just the IT team spend; spend on IT tends to happen all over organizations), and you should keep an eye on the proportion of your overall spend that goes to technology.

Likely spend should be going up, not staying static, and definitely not going down in this day and age. As a guide, across all sectors, organizations spend approximately 3.5% of their expenditure on technology. Leading digital organizations spend double that, around 7-8%. Spending 1-2% is not enough to meet customer and staff expectations. We suggest that municipalities aim to spend between 2.5% and 5% of their total expenditures on technology—the closer towards 5% the better.

3. Do we assign enough staff to technology?

Most municipalities under resource technology. We suggest that municipalities allocate 2.5-5% of their total staffing (for comparison purposes use a full time equivalent [FTE] number of all staff, including part-time, seasonal and volunteers that use technology) to technology.

This includes geographic information system (GIS) staff, but not communications staff involved in the management of the website. If you have outsourced some of your IT functions, calculate roughly what your FTE equivalent would be for those external people working with you and use it to make your comparison. We don't recommend that you compare yourself to your neighbour or find out how many staff other similar sized organizations dedicate to IT. In this context, benchmarking is not helpful as those you compare to are likely to be struggling with the same things you are. Instead, ask around to find out who the leaders with technology are and see what they are doing, how they are resourcing and funding technology and what projects they are doing? Think about what you need and where you are trying to go, and let that guide your decision making.

4. Do we have the right people for the right technology?

It is essential to be aware that not all IT is the same. There are four layers of technology, as shown in the figure below.



You should also know that each layer needs people with different skills and capabilities to manage them well. An IT person that is good at infrastructure is not typically skilled in business solutions. A business solutions person can be useful in the other two layers above - integration and customer facing but would not typically be strong at managing the bottom layer. These are large generalizations of course, but a handy thing to bear in mind.

If you outsource IT, your outsourcer will probably only look after the bottom infrastructure layer, leaving people inside your organization to look after the other three layers. At a minimum, you need a person, people or a service that will look after your infrastructure and a person, people or a service that can help your teams/business units with business solutions, GIS, data, integration, and the web. But take the time to reflect – where is it that you are having challenges? Does this relate to what skills you may be missing?

5. Do we know who does what? What does IT, and what should business units do?

Again, if you outsourced IT services, it is likely that your IT provider will only be responsible for the infrastructure layer, which means that business solutions management/ decision making will fall to non-IT specialists in departments—a non-ideal situation. If you have in-house IT staff, there can often be confusion about an IT person or team's responsibilities and the role in departments around technology. Once you understand the different layers of the technology stack, it should be clearer that IT people's role should encompass all four layers - not just the bottom layer; their part is to help departments and teams translate their ideas into implemented technology solutions.

The preferred role of the IT team or person is to help business units be successful with technology. To give advice and input. To help design a technology environment that works together.

Departments should not be buying or implementing technology on their own. They should be working with your IT people - ideally those with business solutions skills - to develop ideas that address specific business problems. They should work together to think through concepts and implement projects.

The business unit's role is to have a vision for their service, to know their business processes, to work together with your business solutions specialist(s) to figure out the right solution and to implement it. They are responsible for actively leading the change, providing training, education and support to staff - all in service of ensuring that adoption is successful.

6. Do we make decisions about technology in the right way?

Leaders can often defer IT decisions to their IT person or staff because they are uncomfortable with technology and feel that IT decision making is technical. This is not true. The senior management team (SMT) should be actively involved in IT decision making.

Many IT decisions are not technical at all –but are about how the organization operates. Many decisions are about setting priorities (on what should we focus our limited resources) or about how staff should be using technology (do we allow people to work from home, use their personal smartphone). Ensure it is clear what decisions are delegated to IT staff or those that lead IT and what should come to leadership or SMT. We suggest that the following decisions should not be made by IT alone. Leadership should be actively involved in these decisions:

- how should our people work?
- how much should we spend on IT?
- which business processes should receive our IT dollars?
- which IT capabilities need to be companywide?
- how good do our IT services really need to be?
- what security and privacy risks will we accept?
- who is accountable if an IT initiative fails?

A regular IT briefing and review at SMT, at minimum 6-8 times a year, is an excellent way to channel IT decisions to the right place, educate SMT about what's going on in the IT program, to help set priorities and to seek input on IT strategic priorities.

7. Do we have the right technology?

Getting staff the right tools for the job is essential. Your team needs reliable, up to date technology - smartphones and computers (increasingly laptops to support flexible working). Today's smartphone is a digital swiss army knife – don't make this a status symbol or try and skimp here – your mobile staff need good tools - not just your office or senior staff. Trust them to use them the right way.

Replacing devices regularly (smartphones every 2-3 years, computers every 3-4 years) is the norm so that staff have good up to date and reliable tools. You should at minimum be able to:

- work securely from home;
- experience reliable connections and IT services without interruption;
- access inboxes and shared calendars from their computer and phone;
- conduct remote meetings;
- find, share, and work on documents together; and
- field staff should be able to access systems and files available in the office.

If you can't do these things or have these services, you should be asking your IT people and your service provider why not.

8. Do we have the right business systems?

Business Solutions (the second layer) are the technology you use to run your business processes (send tax bills, pay staff, issue building permits, etc.). They are essential to running an efficient and effective organization. You should have at least the following systems:

- i. finance and tax system (used for general ledger, accounts receivable, accounts payable, reporting, financial information return reporting, tax and utility billing);
- ii. HR system (employee records, employee self-service, time and attendance, recruiting, training and tracking);
- iii. work and asset management system (used for asset inventory, service requests, inspections, preventative and reactive maintenance, logbooks, condition tracking and short- and long-term budget planning);
- iv. planning, permitting and licensing system (used for planning, consents, building permits, business, professional and animal licensing, bylaw complaints, investigations and inspections, fire safety inspections);
- v. recreation management system (recreation catalog, programs, drop-ins, memberships, gift cards, summer camps, facility, and resource rentals);
- vi. GIS;
- vii. document and records management; and
- viii. agenda and meeting management.

If you don't have some of these systems, you should address the gaps that you have. We have listed them in our recommended priority order, but your organization's pressures and priorities may differ.

We suggest you only tackle one of these at a time—they have the potential to be large and disruptive projects.

9. Are we offering the right online services?

Modern service delivery in the 21st century is online. Customers using Netflix, Amazon, Uber, and ServiceOntario expect to interact with their municipalities online.

So, of course, you will need a website (including web content management, online forms, online payments, bookings).

Looking across municipal websites these are the online services that are commonly provided:

- easy to use website/mobile friendly;
- job search and online job applications;
- events calendar;
- online agendas/minutes;
- council/committee web streaming;
- online bid management—digital submission of bids/proposals;
- council delegation request (form);
- parking ticket payment;
- parking permits or overnight parking exemptions;
- pet licence;
- recreation program online booking;
- submit a service request;
- engagement platform (e.g., Bang the Table); and
- online forms.

Note that not all of these will apply to your municipality—but if you don't offer these, this is probably the right place to start prioritizing your online service offerings.

10. Do we have a repeatable way of successfully delivering new business-technology projects?

We deliver new technology through projects. So, you need to get good at successfully running them. You should have a repeatable methodology for running technology projects that works. This process should be known to SMT and those participating in the projects themselves.

Critical roles for every project should be assigned a project owner (who is responsible for the achievement of the intended outcome), a project manager, and subject matter experts. The scope should be set and documented. Risk, budget and timelines must be overseen throughout. Regular weekly project status reporting should be in place.

Also, remember that when a project is over, that's not the finish - it's just the start of using the solution to run your services. Once up and running, you need to evolve and change the product that you have implemented as you use it. Make sure you define who is going to be the product owner once the project is completed. Who will ensure that you keep evolving and enhancing the use of the product, implementing new features? Who will they work with to implement changes - a vendor or someone that works for your municipality?

11. Does the leadership team know what is possible with technology?

A tech-savvy organization will not be led by people that are uncomfortable with technology. You don't need to be good with computers or a whizz with systems. Still, municipal leaders should know what's possible, so that you can be better informed commissioners of technology solutions and services. As a leadership team, you should work on learning more about technology. Be curious. Spend more time on it. Invite outside speakers to come and talk about how they are using technology. Talk to your peers in other organizations about how they are using technology. Consider reverse mentoring—partnering senior staff with more junior tech-savvy staff. Don't be afraid to ask seemingly stupid questions. Find out what leaders in the municipal and nonmunicipal space are doing. Listen and learn more.

12. Are we as secure as we can be / need to be?

Cybersecurity is an ever-present challenge for municipalities who are frequently targeted by hackers. Ask Wasaga or Woodstock about the hundreds of thousands or even millions of dollars they have spent recovering from their security incidents. Even if you have cyber insurance - you must put in place additional measures to protect your organization and its information assets.

You should have conducted an independent third-party security review. If you haven't done one in the last few years, you should commission one. You should plan to do one annually. The results of the security review should come to SMT for their awareness. The security review will identify actions that you should take, which will likely mean staff education and training, policy updates, and technology investments to secure your environment and services to monitor for attacks continually.

13. Are we prepared for a disaster or a disruption?

Have you, as a leadership team, identified what your business continuity needs are? If there is a disruption, have you determined what technology will need to be restored, in what order, and how quickly in the event of an incident? Do you have adequate plans in place to respond promptly when an incident interrupts your IT services? What will you do if technology cannot be restored in a reasonable time? No one thinks it will happen to them, but when a tornado or a fire hits your main building—what is your plan? You should put effort into building a plan so your teams will know how to respond.

14. Do we buy software in the right way?

Seeing a demo, finding out about a solution from a cold call from a vendor, a conference, an article in the trade press, or hearing from a peer in another organization is a good way to learn about potential solutions.

But, *before* you buy any software, you should always make sure that you have addressed the following questions:

1. What business problem is this software designed to solve?
2. Is this problem or requirement unique to this business unit or are there others in the organization that could also benefit from solving this business problem?
3. Have we thoroughly considered all aspects of this business problem and how this solution fits into our technology environment?
4. Do we have some software that we already use that could be used to solve this business problem?
5. What technology are other municipalities using to solve this problem?
6. Have we spoken to them and learned about their experiences implementing this software?
7. What have we learned for which we need to plan?
8. Have we planned to revamp our processes as part of the implementation?
9. Do we know what the impact on staff will be? Are we, and are they, ready for those changes?
10. Do we have the money to pay for this software going forward?
11. Who will be accountable for this software when it has been implemented?
12. Who will make changes to this software after it is implemented?
13. Should this software share information with any other systems (e.g., finance, website, GIS, and document management)?
14. Do we know how the software will do this?

If you haven't asked and answered these questions, you are not ready to buy any software. Make sure that you go back and consider these points carefully before making any decisions. Members of SMT should hold each other accountable for following this approach.

15. What about GIS?

GIS has often grown in organizations separately from IT—often in planning or engineering. This can create barriers and a competitive rather than collaborative environment between IT and staff involved in GIS.

It is worthwhile to understand that there are two discrete parts of GIS work:

1. map and data work; and
2. systems and technology work.

Map-making, data maintenance and data analysis work should unquestionably be the responsibility of business units. People in planning, engineering, public works, forestry, etc., should be expected to be using GIS tools for their day-to-day work. But, for GIS technology, implementing GIS software, databases, web services, field data collection systems, it is critical that GIS and IT people are working closely together – to ensure that data is not duplicated and that systems can talk to each other.

This distills our views on some of the questions that we have been asked about how best to manage technology in smaller municipalities. Of course, there are many other questions and much additional detail behind each of these 15 answers. But, if, as a leadership team, you have considered and tackled these topics, we think you will be well on your way to thinking about technology in the right way.

A blue-tinted photograph of a desk setup. In the foreground, a silver laptop is open on a dark desk. To its left is a black mug. Behind the laptop, there is a camera and a book with 'NFO' visible on its spine. A small potted plant sits on the desk behind the camera. The background shows a window with blinds and a wall.

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