

Canadian SME IT Security Survey

July 2011



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Introduction

Background

- Trend Micro is a global leader in providing Internet security solutions for businesses and consumers. Trend Micro Canada commissioned Environics Research Group to conduct a nation-wide survey with small- and medium-sized businesses about IT security.
- The survey addressed experiences with and attitudes towards Internet security in general, and about cloud computing in particular.

Methodology

- The research was conducted by telephone from May 25 to June 6, 2011, with a representative sample of 502 small- and medium-sized enterprises (SME) across Canada (defined as having fewer than 500 employees). According to Statistics Canada, 99 percent of all businesses in Canada are classified as SMEs; the large majority (87%) have fewer than 20 employees.
- Surveys were conducted with the individuals responsible for decisions about the company's IT needs (in smaller companies, this was the business owner themselves).
- The margin of error for a sample of 502 is plus or minus 3.9 percentage points (at the 95% confidence level).

Throughout the report, results are expressed as percentages unless otherwise noted. Results may not add to 100% due to rounding or multiple responses.

Executive Summary

Use and security of Internet-based IT

Internet-based IT plays a central role in the ongoing operations of Canadian SMEs.

- SMEs use Internet-based IT for a wide variety of purposes. While the most common function is communications (88%), it is also used for document management (53%), sales and marketing (52%), finance and accounting (44%), and supply chain management (40%), among others.
- Web-based applications are considered an important, if not critical, part of day-to-day functioning for a majority (63%) of these businesses.

Most SMEs believe a threat exists to the security of businesses' online information. At the same time, they are somewhat complacent about the IT safeguards they themselves have in place, and tend to underestimate the consequences of an Internet security breach.

- SMEs generally recognize that online information is at risk. A majority (68%) say there is at least a moderate threat of outsiders' gaining access to a company's online information. Views are divided about whether the threat arises from companies not taking the necessary precautions to protect their data (38%) or because existing software does not provide effective protection (33%) (the rest say both are equally responsible, or are unsure).
- Nonetheless, SMEs are largely confident about their own IT security. A large majority describe it as adequate (61%) or better (19% say it is state-of-the-art). As well, relatively few businesses are concerned about the risks posed by mobile devices such as BlackBerries or iPhones (23% are very or somewhat concerned).

Continued.../

Executive Summary (continued)

- In part, this confidence is based on limited experience with Internet security breaches. Only one in ten (12%) SMEs have fallen victim to such a breach. Those that have not experienced a breach downplay the potential consequences in terms of lost time and productivity (only 58% say such an outcome is very or somewhat likely). In fact, most (88%) SMEs who have had an Internet security breach suffered lost productivity; some also experienced a loss of client confidence (26%) or revenue (23%).
- SMEs do not put much effort into educating themselves about security for Internet-based IT. The majority (63%) rarely or never search out such information. When SMEs do look for advice or guidance about this topic, they turn primarily to external IT consultants.

Cloud computing

There is not yet widespread awareness of cloud computing, and only a very limited number of Canadian SMEs have adopted it, driven by a desire to spend less time and money on IT infrastructure. Security is a concern for cloud users, but for non-users, a bigger obstacle to adoption is a lack of understanding about how cloud applies to their business. Nonetheless, SMEs foresee a modest shift in the business world towards cloud over the next 12 to 18 months.

- Familiarity with cloud computing is very limited. Only one-third (32%) of SMEs have heard of the term “cloud computing”, although once provided with a description, the level of awareness grows to one in two (48%). Even those previously aware of the term cloud computing are not particularly well-versed in what it is (14% of this group say they are very familiar with cloud).

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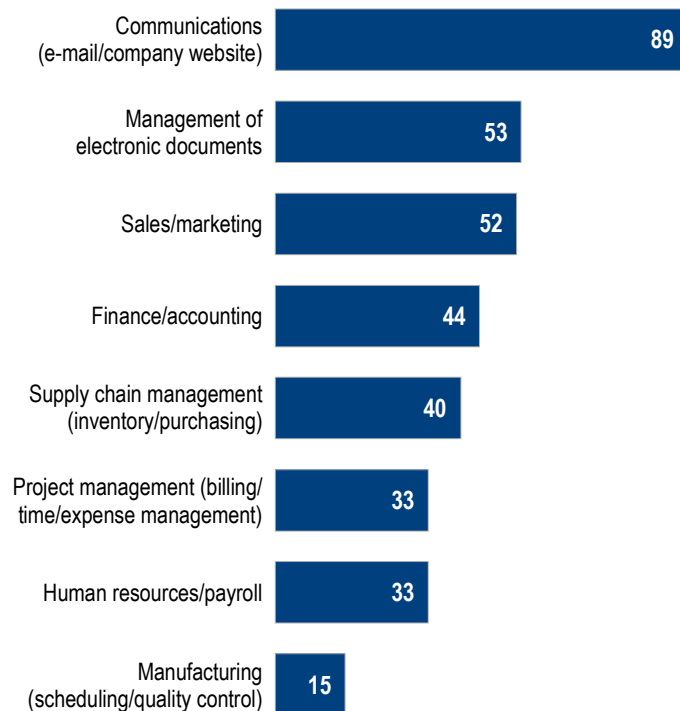
Executive Summary (continued)

- Very few Canadian SMEs are currently using cloud. Among SMEs aware of cloud computing, six percent currently use it (representing 2% of the total Canadian SME population), and another five percent have considered doing so. SMEs who use cloud typically do so because they want to outsource responsibility for IT infrastructure to someone else, and to save money.
- Security of online information is the biggest concern for cloud users, but is not so much an issue for non-users. Among the small group of cloud users, the security and privacy of the company's online information is the concern most commonly raised about the cloud. However, for SMEs that don't use cloud (but are aware of it), the most common reason is that they don't see the need for it. Only a minority (16%) cite security concerns as the reason they have not adopted cloud.
- Most SMEs believe cloud represents the future of IT, but few think it will become the common standard in the next 12 to 18 months. Six in ten (62%) SMEs say at least some businesses will be using cloud during this timeframe, but only a few (13%) think it will be taken up by most businesses.

Internet Use

SMEs use the Internet for a variety of business functions besides communication

Business functions for which Internet or VPN is used



SMEs are most likely to use the Internet or a VPN connection for communications purposes (89%), such as e-mail or a company website. However, they also use it for a variety of other purposes.

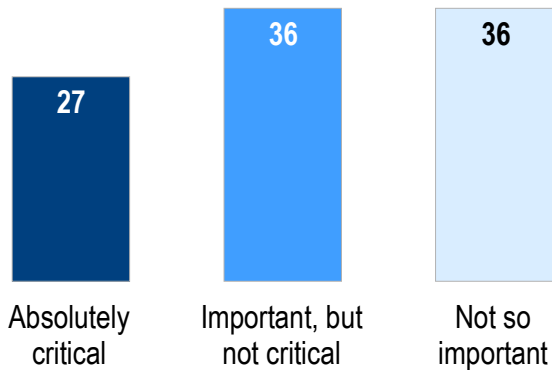
Half use the Internet to manage electronic documents (53%), and for sales and marketing (52%). Close to four in ten use it for finance and accounting functions (44%), and supply chain management (40%), while one-third use it for project management (33%), and human resources or payroll (33%). SMEs are least likely to use the Internet for manufacturing (15%).

Use of the Internet for almost all of these business functions increases with company size, with the exception of project management (where use is consistent regardless of number of employees).

Q.2 Which of the following business functions does your company use the Internet or a VPN connection for?

A majority of SMEs consider web-based applications to be important, if not critical, to their operations

Importance of web-based applications to day-to-day operations



Web-based applications play an important role in day-to-day operations for a majority of SMEs.

One in four (27%) say Internet-based applications are absolutely critical to their business, while close to one-third (36%) consider them important although not critical. Another 36 percent say these applications are not so important to their ongoing operations.

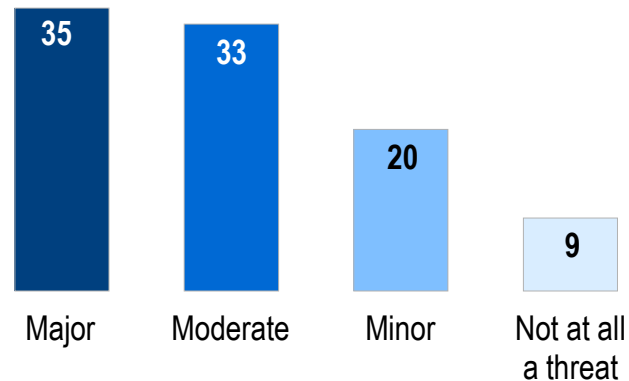
The view that these applications are critical is more common among larger SMEs (37% of those with 20-499 employees), which reflects their greater likelihood to be using the Internet across a range of business functions.

Q.4 How important are web-based applications to the day-to-day operations of your business? Would you say they are...?

Internet Security

Most businesses believe at least a moderate, if not major, threat exists to the security of online information

Threat of outsiders gaining access to businesses' online information



The majority of SMEs recognize a considerable threat exists to the security of businesses' online information. Seven in ten SMEs say the threat of outsiders gaining access is major (35%) or moderate (33%), while another two in ten (20%) believe it is minor. Only nine percent say no real threat exists.

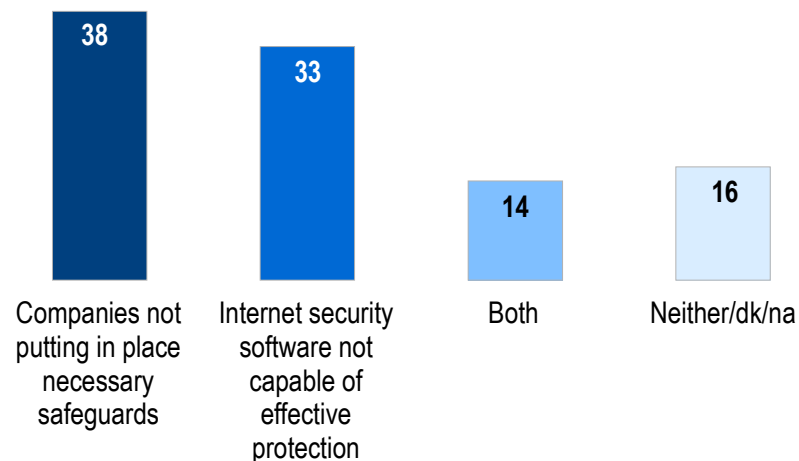
The view that there is a major threat to the security of online information is higher among the smallest enterprises (40% with 1 – 2 employees), older businesses (38% of businesses operating more than 10 years) and those who have experienced a security breach in the past (50%). It is also higher among older IT decision-makers (45% aged 50 and older).

Q.2. Generally speaking, do you think the threat of outsiders or hackers gaining access to businesses' online information is...?

Opinion is divided about whether the threat to online information is due to companies not taking necessary precautions or because existing software lacks sophistication

Source of threat to online information

Among those who believe threat exists



The majority of SMEs believe the security of online information is at risk, but what do they feel is the main source of this risk?

There is no consensus on whether the threat comes from companies not putting in place the necessary safeguards to protect their information (38%), or because current Internet security software is not capable of providing effective protection (33%). Fourteen percent say both are to blame, while 16 percent say neither or are unsure.

The view that the threat comes from companies without adequate safeguards is higher for newer companies (51% of those established less than 10 years ago), those who believe their current security is state of the art (52%), and those who consider web-based applications to be critical or important to their business (44%).

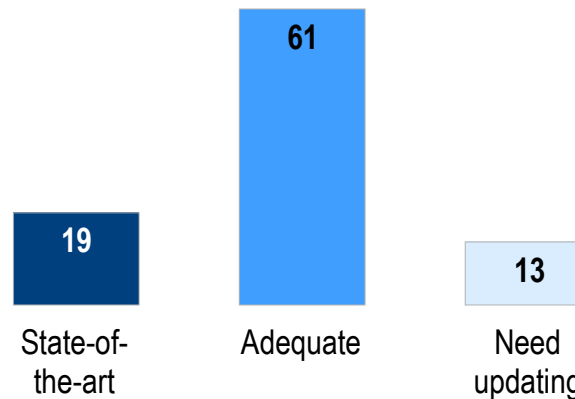
Belief that current software does not provide sufficient protection is higher among the smallest businesses (39% of businesses with 1 – 5 employees) and those who say their IT security needs updating (42%).

Q.23 Do you think the threat comes more from companies not putting in place the necessary safeguards to protect their online information, or more from the Internet security software available today not being capable of effectively protecting online information?

Subsample: Those who believe there is a threat to online information (n=458)

Most SMEs describe their current Internet security as adequate or better

Current Internet security safeguards

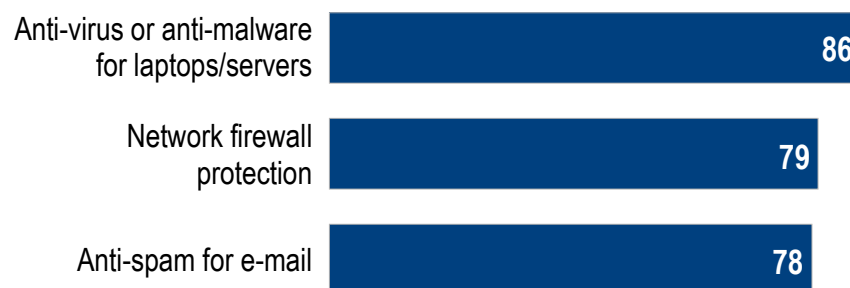


Do SMEs believe that the Internet security measures they currently have in place are sufficient? The majority (61%) say the security safeguards their business uses are adequate, while another two in ten (19%) businesses go beyond this, and describe their security as is state-of-the-art, while 13 percent say their Internet safeguards need improvement. These views are largely consistent across subgroups.

Q.17 Would you say the current Internet security safeguards that your business uses are...?

Anti-virus software is the most commonly used type of Internet security safeguard

Internet security safeguards currently used



Large majorities of SMEs use each of the Internet security measures currently available, but only two-thirds (66%) use all three measures to protect their business. SMEs are most likely to use anti-virus or anti-malware software (86%), followed by network firewall protection (79%) and anti-spam programs for e-mail (78%).

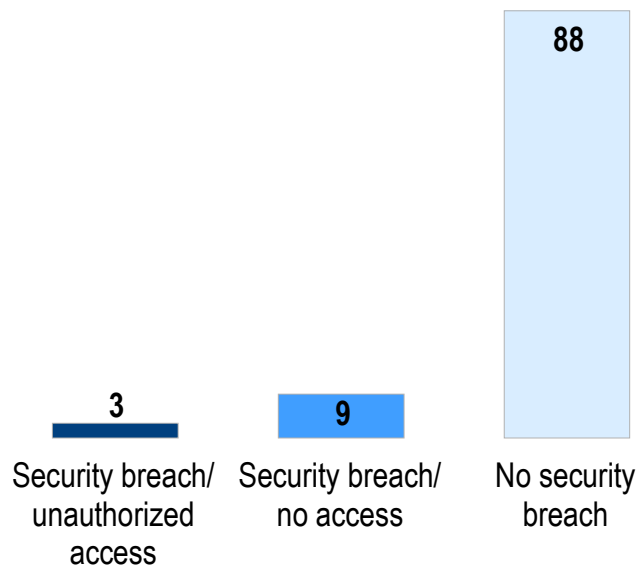
Larger SMEs (those with 20 – 499 employees) are the most protected, with three-quarters (75%) who use all three methods (versus 62% of SMEs with 1 – 2 employees).

The likelihood of using all three measures also increases with the importance placed on web-based applications. Eight in ten (80%) SMEs who say Internet applications are critical to their business use all three safeguards, compared to half (53%) who say such applications are not that important.

Q.18 d-f Which of the following types of Internet security safeguards does your company currently use?

A small number of SMEs have experienced an Internet security breach, few of which have led to unauthorized access of company information

Experienced an Internet security breach



Most SMEs have never experienced an Internet security breach. However, one in ten (12%) say they have had a breach that affected business operations; three percent of all SMEs say this has led to someone gaining access to company information.

Security breaches are more commonly reported by the smallest businesses (17% of those with 1 – 2 employees) and those that have been around longer than 10 years (14%).

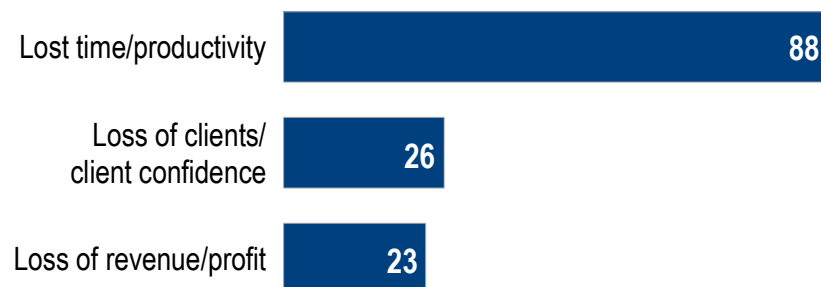
Security breaches are also higher among the small group of current cloud users (33%), although it cannot be determined from the current research if this occurred in the cloud or elsewhere.

Q.24 Has your company ever experienced an Internet security breach that affected business operations?
Q.25 (IF YES AT Q.24) Did it result in someone gaining unauthorized access to company information?

Lost time and productivity is the most common consequence of an Internet security breach

Consequences of an Internet security breach

Among those who have experienced security breach



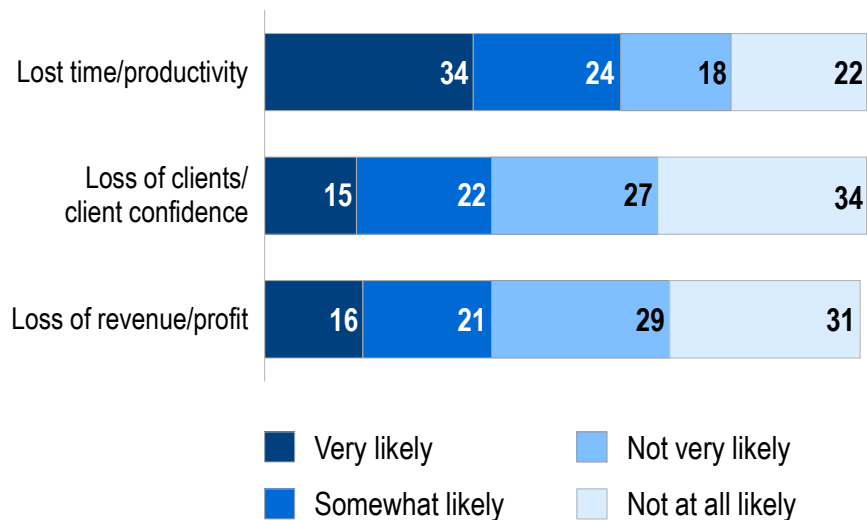
SMEs who experienced an Internet security breach (whether or not it resulted in unauthorized access) were asked about the consequences for their business. By far, the most commonly reported effect is a loss of time and productivity, which was experienced by the vast majority of these businesses (88%).

In contrast, fewer SMEs in this situation had to deal with loss of client confidence (26%) or loss of revenue (23%).

Q.26 Which of the following were consequences for your business?
Subgroup: those who have experienced an Internet security breach (n=59)

SMEs who have not experienced an Internet security breach underestimate the likelihood of lost time and productivity

Likely consequences of an Internet security breach



SMEs that have *not* experienced an Internet security breach were asked about the potential likelihood of certain consequences if such an event were to occur.

While a majority foresee disruption in terms of time and productivity, this understanding falls short of the actual experience of SMEs who have had a breach.

Six in ten (58%) SMEs say the loss of time and productivity is very or somewhat likely. More than one-third each believe the loss of revenue (37%) and client confidence (37%) are likely consequences.

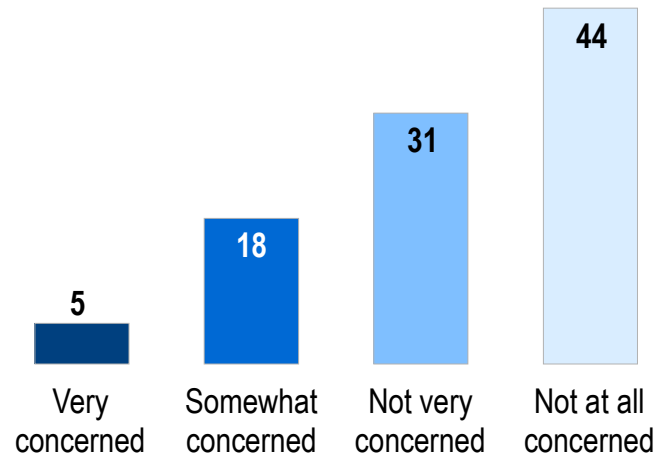
The view that lost time is a likely consequence is higher among SMEs whose web-based applications are critical to their business (52% say very likely). Current cloud users are also more apt to foresee impact in terms of lost time and lost revenue, although it is unclear the extent to which this sensitivity is due to their cloud experience.

Q.27 If your business did experience an Internet security breach, do you believe each of the following consequences would be very, somewhat, not very or not at all likely?

Subsample: Those who have not experienced an Internet security breach (n=443)

Most SMEs are not concerned about the security risk from the use of mobile devices

Concern over security risk from mobile devices



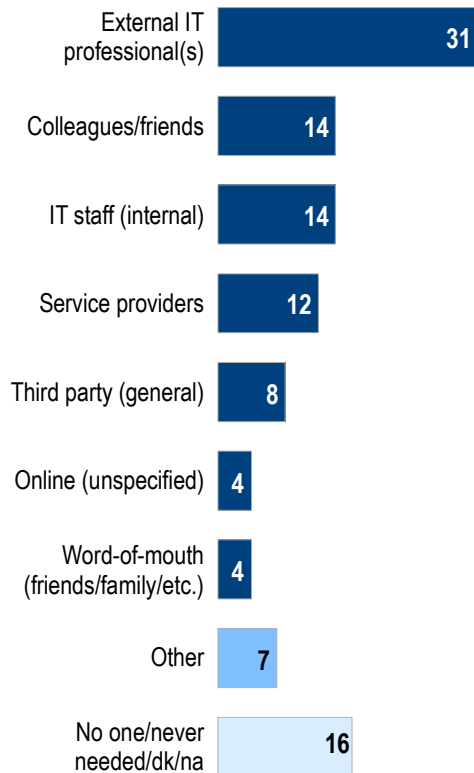
Few businesses are concerned about security risks posed by devices such as BlackBerries, iPads or iPhones. One in four are very (5%) or somewhat (18%) concerned; by comparison three-quarters of SMEs say they are not very (31%) or not at all (44%) concerned about security risks.

One in ten businesses (11%) allow employees to access company information through personal mobile devices (not company-issued). These companies express greater concern about the security risks from mobile devices (42% very or somewhat concerned) than others (21%).

Q.28 How concerned are you about the security risk to your company from the use of mobile devices like BlackBerries, iPads or iPhones?

External IT professionals are the most widely consulted on IT security matters

Sources of information about IT security



When an SME requires advice or guidance on IT security for their business, they are most likely to turn to external IT professionals (31%). Other sources of information include friends and colleagues (14%), internal IT staff (14%) and service providers (12%).

External IT professionals are the single most widely used source of advice regardless of business size, but nonetheless more common among larger SMEs (20 – 499 employees).

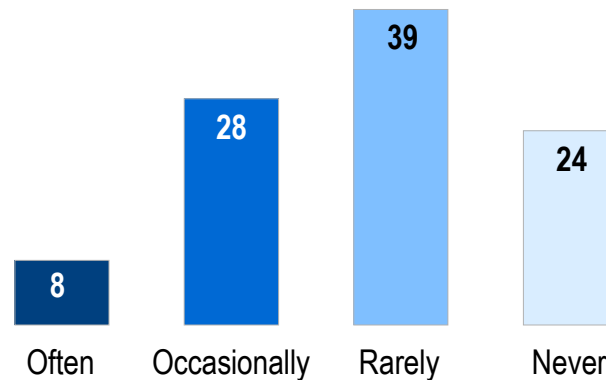
Larger businesses are also much more likely to have internal IT staff to consult (34%). In turn, smaller SMEs (1 – 5 employees) are more likely than others to turn to friends or colleagues (17% versus 7% of larger businesses).

The smallest businesses (1 – 2 employees) are most likely to say they have never sought advice or guidance, or are unsure (20%).

Q.20 When you are looking for advice or guidance about IT security for your business, who do you turn to?

Few SMEs regularly search out information about Internet-based IT security

Search for information about business IT security



Security threats to Internet-based IT are changing rapidly. How up-to-date do SMEs stay on how to protect their online information? With everything else they have to do, the majority rarely (39%) or never (24%) seek new information. Only one in ten (8%) do so often, while some (28%) do so occasionally.

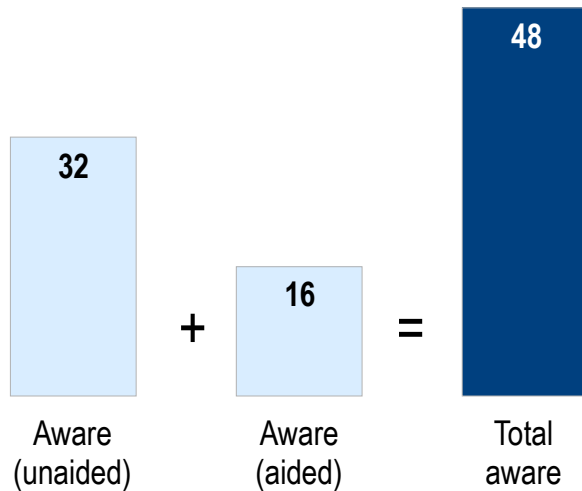
Both the smallest (1 – 2 employees) and largest (20 – 499 employees) businesses are most likely to look for new information regarding IT security at least occasionally. This is also more common among SMEs who consider their web-based applications critical (44%) or important (45%) versus those who do not (21%).

Q.21 How often do you or someone else in your business actively search for information about security for Internet-based IT?

Cloud Computing

Half of SMEs are aware of cloud computing

Awareness of “cloud computing”



In total, half (48%) of SMEs are aware of cloud. One-third (32%) of SMEs have heard of the term “cloud computing” (without further prompting), and another 16 percent recognize the term when provided with a description of what cloud is.

Total awareness is higher among larger businesses (70% of those with 20-499 employees), SMEs in the professional services industry (70%) and B.C.-based businesses (54%).

Cloud awareness increases with importance of web-based applications to the company, from fewer than four in ten (37%) who say such applications are not important to six in ten (61%) who say they are critical.

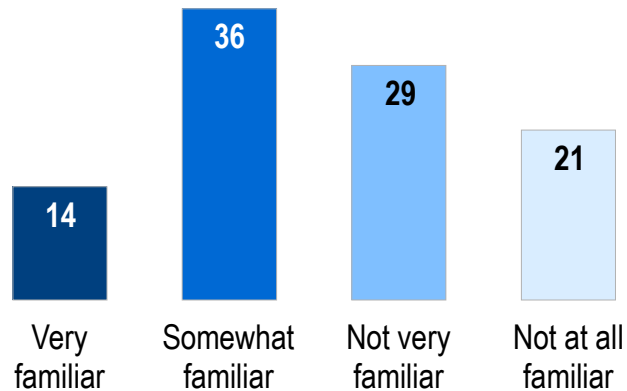
Q.5 Have you ever heard of the term “cloud computing”?

Q.14 [IF NOT AWARE AT Q.5] When we talk about “cloud” in this survey, we mean outsourcing business functions to a remote third party that provides the necessary IT infrastructure through the Internet. Cloud users use an Internet browser to access computing power or software applications or to store company data, which are housed on offsite servers. Now that we’ve described cloud computing, do you recall ever hearing anything about it or not?

Relatively few SMEs aware of cloud computing are well-versed in what it is

Familiarity with cloud

Among those aware of cloud (without prompting)



Among the third of SMEs aware of cloud (without prompting), familiarity with the concept varies considerably.

Just over one in ten (14%) say they are very familiar with cloud (representing 4% of all SMEs). Another 36 percent are somewhat familiar, while half are not very or not at all familiar.

Familiarity with cloud is higher among newer businesses (in business up to 10 years) and younger IT decision-makers (under 35).

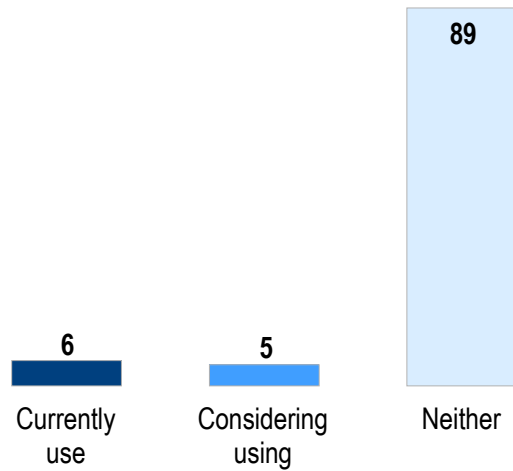
Notably, current cloud users are no more likely than non-users to say they are very familiar with what cloud computing is.

Q.6 How familiar would you say you are with what cloud computing is?
Subsample: Those who have heard of cloud computing (n=163)

Cloud is currently used by a very small minority of SMEs who are aware of it

Use of cloud

Among those aware of cloud (without prompting)



Among SMEs aware of cloud (without prompting), six percent say they currently use it (representing 2% of all SMEs). Another five percent have considered doing so.

Q.7 Does your company currently use cloud computing, that is, does it currently outsource any of its business functions to an Internet-based third party?

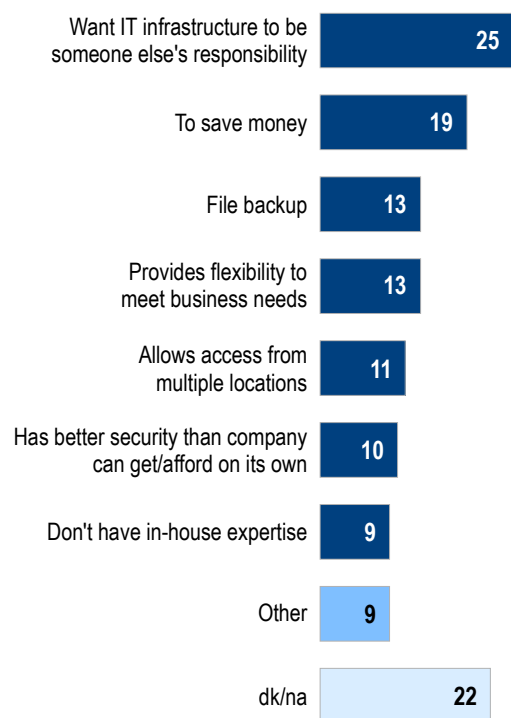
Q.12 [IF NOT CURRENTLY USING AT Q.7] Has your company ever considered using cloud computing for its' IT needs?

Subsample: Those who have heard of cloud computing (n=163)

SMEs who use cloud typically want someone else to be responsible for IT infrastructure, and accordingly, to save money

Reasons why use cloud

Among current users of cloud



The small group of current cloud users were asked the reasons why they use cloud (unprompted, without providing response options).

The most common reason is to outsource responsibility for IT infrastructure to someone else (25%), in some cases because they lack in-house expertise (9%). Others say they use cloud to save money by not having to make large IT investments (19%).

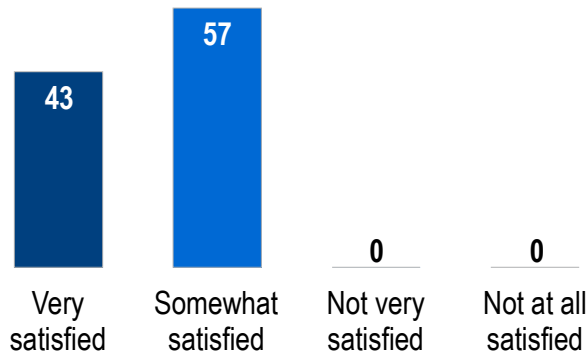
Fewer mention other reasons for using cloud, including having (better) file backup (13%), flexibility (13%), access from multiple locations (11%) and better security (10%).

Q.8 What are the main reasons why your company currently uses cloud computing?
Subsample: Those who currently use cloud computing (n=32)

Current cloud users are generally, but not fully, satisfied with the services they currently use

Satisfaction with cloud services

Among current users of cloud



The small group of SMEs who currently use cloud tend to be moderately rather than completely satisfied with it, but no one is dissatisfied with their experience.

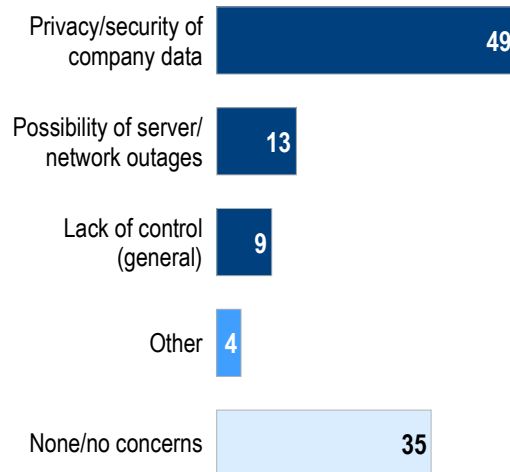
Four in ten (43%) say they are very satisfied with the cloud services their company currently uses, while the balance (a majority of 57%) say they are somewhat satisfied.

Q.9 How satisfied are you overall with the cloud computing services your company currently uses?
Subsample: Those who currently use cloud computing (n=32)

The most common concern about cloud relates to the privacy and security of company information

Concerns about cloud

Among current users of cloud



Current cloud users were asked what concerns, if any, they have about using cloud (unprompted, without providing response options).

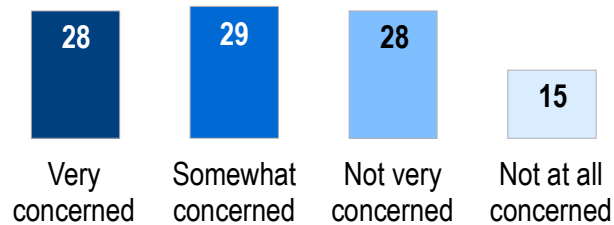
Half (49%) of current users identify the security of company data as a concern for them, more than any other potential issue such as the possibility of a server outage (13%) or a general lack of control (9%). A substantial minority (35%) say they have no concerns about cloud.

Q.10 What concerns, if any, do you have about using cloud computing for your business?
Subsample: Those who currently use cloud computing (n=32)

More than half of cloud users express concern about the security of company information in the cloud

Concern about security of company information in cloud

Among current users of cloud



When asked directly, a majority of cloud users express at least some concern about the security of the cloud.

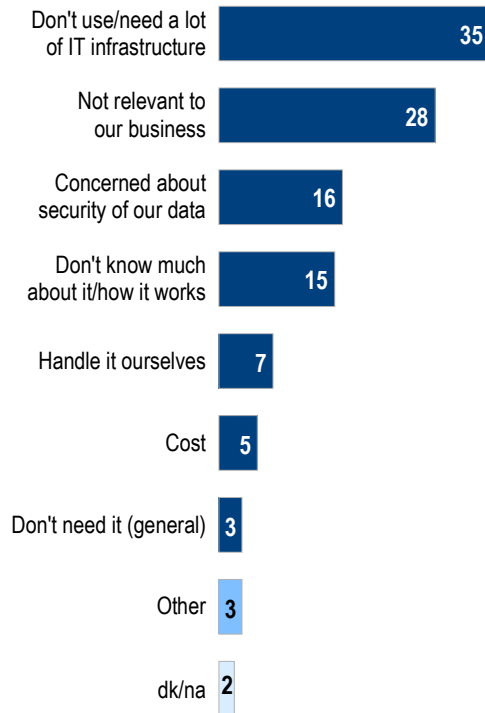
More than half (57%) say they are very (28%) or somewhat (29%) concerned about the security of their company information in the cloud. By comparison, four in ten (43%) say they are not very (28%) or not at all (15%) concerned.

Q.11 How concerned are you about the security of your company's information in the cloud?
Subsample: Those who currently use cloud computing (n=32)

A lack of relevance to their business is a more common reason for not using cloud than are security concerns

Reasons why do not use cloud

Among those aware of cloud, but do not use it



SMEs who are aware of cloud but who do not currently use it (26% of total sample) were asked the main reasons why not (unprompted, without providing response options).

SMEs that do not use cloud typically don't see how it applies to their business, because they don't need a lot of IT infrastructure (35%) or they simply don't see how it is relevant (28%).

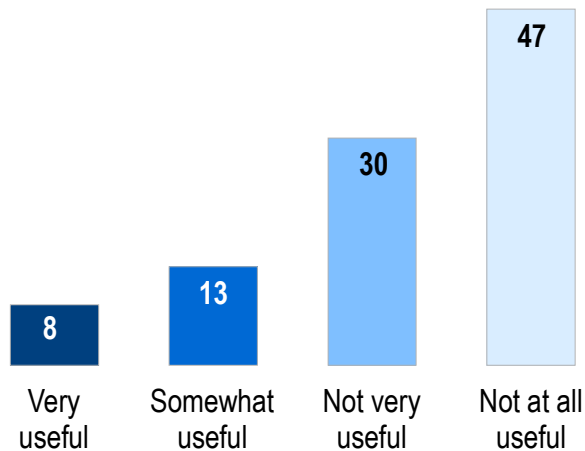
By comparison, fewer (16%) are not using it because they have concerns about data security. Other reasons include a lack of familiarity with cloud (15%), having sufficient in-house expertise (7%) and the cost involved (5%).

Q.13 What are the main reasons why your company does not currently use cloud computing?
Subsample: Those who are aware of, but do not use cloud computing (n=131)

Few SMEs who were not previously aware of cloud see it being useful in addressing their company's IT needs

Perceived usefulness of cloud in meeting company's IT needs

Among those not previously aware of cloud



SMEs who had never previously heard the term cloud computing (68% of total sample) were read a description of it, and asked the extent to which they felt this could be relevant for this business.

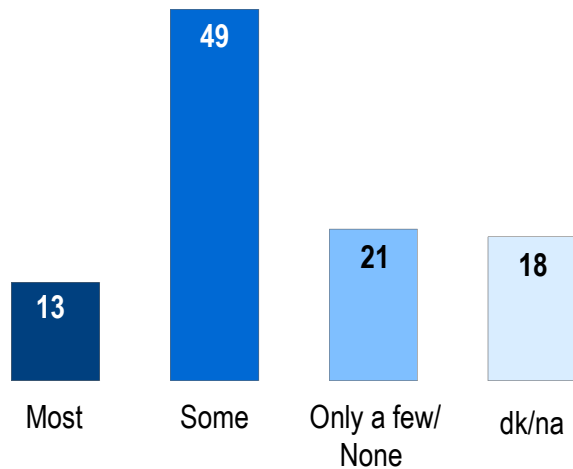
Based on the description, only a minority (21%) could envision how this would be at least somewhat useful towards meeting their company's IT needs. Most (77%) say cloud would not be very or at all useful for them.

The perceived usefulness (very or somewhat) of cloud is higher among SMEs who place greater value on web-based applications (35% of those who say they are critical and 27% who say they are important, versus 8% who say such applications are not important).

Q.15 How useful do you think cloud computing would be in meeting your company's IT needs?
Subsample: Those who not previously aware of cloud computing (n=339)

SMEs predict a steady but not overwhelming move towards cloud in the next few years

Extent to which business world will adopt cloud in next 12-18 months



To what extent do SMEs see cloud being the way of the future? These enterprises clearly see the business world moving towards cloud, but relatively few believe it will happen quickly.

The most common view is that some businesses will adopt cloud in the next 12 to 18 months (49%); only 13 percent believe this will be the case for the majority of businesses. By comparison, two in ten (21%) believe only a few or no businesses will make a switch to cloud in this timeframe. A substantial minority (18%) cannot provide a prediction about the adoption of cloud.

Q.16 To what extent do you see the business world moving towards cloud computing? Do you think most, some or only a few businesses will adopt cloud computing in the next 12 to 18 months?

Methodology

Methodology

The results reported here are based on telephone surveys conducted May 25 to June 6, 2011 with 502 small- and medium-sized enterprises (SME) across Canada (defined as having fewer than 500 employees). Surveys were conducted with the individual responsible for decisions about the company's IT needs. The margin of error for a sample of 502 is plus or minus 3.9 percentage points (at the 95% confidence level).

The objective of this research was to gather data from a representative sample of Canadian SMEs from which the results can be extrapolated to the full population with a reasonable degree of confidence, and permitting analysis by important subgroups.

The sample for this survey was sourced from Dun & Bradstreet, which maintains a database of more than 1.3 million Canadian businesses. The sample was drawn to ensure it was proportionate to the SME population by region, company size (number of employees) and industry, per Statistics Canada data. At the analysis stage, regional weights were applied. The adjacent table outlines the final sample distribution.

The questionnaire was designed by Environics, in consultation with Trend Micro.

	Unweighted sample size (n)	Weighted % of sample
Region		
Atlantic provinces	30	6%
Quebec	100	20%
Ontario	186	37%
Prairies	123	25%
B.C.	63	12%
Industry		
Agriculture/primary/manufacturing	75	15%
Wholesale/retail	75	15%
Professional services	56	12%
Knowledge-based/accommodation/food	55	11%
Other services	241	48%
Company size		
1-2 employees	163	37%
3-5 employees	117	25%
6-19 employees	141	26%
20-499 employees	81	13%