

Notarius The Digital Last Mile



Municipalities willing to fully embrace electronic data management including the use of secure encrypted digital signatures will be rewarded with:

INCREASED OPERATIONAL
EFFICIENCIES

BOTTOM LINE COST
SAVINGS

INCREASED PUBLIC ACCESS TO
OPEN DATA

Current Context

Municipalities across Canada are working towards digitizing their documents and records. It is a journey where municipalities are at different stages on the journey to complete electronic data management.

Many of these municipalities are making increased use of paperless agendas, accessible data on municipal websites, on-line community engagement forums and electronic communication and mailings. However, this merely scratches the surface of what is possible.

Some of these municipalities go further and are digitizing many of their documents and making them publicly available as open data while retaining paper copies.

A number of these municipalities are even boldly moving to give up many of their paper copies and replacing them with only digital records.

A few municipalities are searching for ways to complete this journey and go virtually paperless by also replacing stamped engineering drawings, sealed

by-laws, minutes, executed agreements and permits with strictly digital records.

To complete this digital journey not only requires the technology to provide secure encrypted digital signatures for these most important documents to be stored strictly electronically, it also requires municipalities to give up the time honoured practice of keeping paper back-up copies of the corporation's most cherished documents. For these municipalities, having the technology to confidently give up these paper records may well be the last mile in this digital journey.

Until municipalities actually replace the majority of their paper records, they will discover that their efforts towards comprehensive electronic data management are more of a service to the public and less about achieving significant cost savings and efficiency in operations.

Both are indeed possible; however, it really requires municipalities to travel the last mile on this digital journey and embrace the use of secure encrypted digital signatures.

Secure Encrypted Digital Signatures

Quite simply, a secure encrypted digital signature is just what it says. With these signatures, organizations, including governments, can create and verify electronic documents that are highly reliable with a high legal value. These documents would at least be as secure as paper copies with original signatures.

Secure encrypted digital signatures should meet ISO 27001 Vendor Certification and converted documents should comply with PDF/A ISO standards.

Throughout Canada, provincial legislation provides a solid foundation enabling the use of electronic documents by municipal governments. For example, in Ontario, the legal basis for using digital signatures can be found in Section 15. (1) of the Electronic Commerce Act, 2000 which states, "*If a public body has power to create, collect, receive, store, transfer, distribute, publish or otherwise deal with information and documents, it has power to do so electronically.*" The Act defines public bodies to include municipalities.

¹ Similar legislation exists in British-Columbia (see Electronic Transactions Act, S.B.C. 2001, c. 10, ss. 3, 11 and 13), Alberta (see Electronic Transactions Act, S.A. 2001, c. E-5.5, ss. 10, 20), Quebec (see An Act to Establish a Legal Framework for Information Technology, c. C-1.1, R.S.Q., s. 2) and all other Canadian federal and provincial jurisdictions.

Electronic documents need to address four key objectives in order to meet an appropriate standard to be the municipality's only official record:



Identity: to ascertain its true origin and be able to confirm who signed it, the date and time executed and the status of signatory (i.e. engineer, planner, municipal clerk, treasurer, lawyer, etc.).



Integrity: to be assured that the document has not been altered since it was finalized and executed.



Authenticity: to prove its authenticity by embedding in the document all that is required to prove the origin and integrity of the document.



Longevity: to ensure that the document that is opened and read retains its authenticity and can be trusted over its entire lifecycle whether it be 10, 30, 60 years or even longer.

Managing Risk

Municipalities do use electronic signatures currently.

Here are three examples:

- Electronic signatures are sometimes applied to correspondence issued by a municipality in PDF format.
- Electronic signatures are sometimes used to sign agreements that are time sensitive and may be signed separately by each party.
- Cheques are invariably signed using electronic signatures.

How many times are municipal officials or their assistants asked to attach their electronic signatures to documents?

These documents are, of course, currently exposed to the risk of tampering which is a real threat to the municipality and its reputation. Applying a secure encrypted digital signature would make these documents tamper proof and secure.

Even documents signed by hand are at risk of tampering and this risk can be effectively managed through the use of secure encrypted digital signatures. Accordingly, the use of secure encrypted digital signatures offers enhanced security over existing practices.

The Opportunity for Savings in Storage

At the other end of the spectrum, are municipal corporate documents long considered sacred and kept in secure and often environmentally-controlled locations. A number of them are permanent records of the municipality (e.g. municipal by-laws signed and sealed by the head of council and municipal clerk, minutes of council meetings, important agreements signed and sealed by municipal officials). Many municipalities are making electronic copies of these and other documents available to the public; however, this will remain as an added service by the municipality unless the municipality is able to secure the savings associated with getting rid of these duplicate paper copies thus freeing up the physical space set aside for these and other documents.

The same can be said in regards to stamped engineering and other drawings held by the municipality. These are

also taking up significant storage space in a municipality and gradually deteriorating decade by decade. Again, they are often copied electronically for easy access by staff and availability to the public. While efficiencies are gained, unless we can do away with the original paper copies, cost savings achieved by reducing or even eliminating the ever increasing area for storage cannot be achieved.

Of note, a Canadian Crown Corporation that replaced original paper documents with electronic documents using secure encrypted digital signatures managed to eliminate physical archiving, printing and transportation costs and realized annual savings of over \$1,000,000. They also reduced processing time from seven to ten days to a matter of minutes.

The Opportunity for Savings in Process Redesign

The use of secure encrypted digital signatures removes a significant barrier and allows new processes to be introduced to municipal operations.

The process of issuing building permits is a case in point. Municipalities by and large deal with applicants electronically. Information and applications are available online. Much of the communication with developers is via email and the exchange of draft documents is also done electronically. Developers can often monitor the progress of their application online and can even pay their fees on-line. However, municipalities will often require the applications themselves to be executed by hand, the building permit to be signed by the building official by hand and site plans to be original paper copies that can be registered on title and kept in municipal storage.

The opportunity here is to achieve further savings by making the entire process digital which can be done securely with the use of secure encrypted digital signatures. Imagine the savings if the whole process can be done on-line from application to issuance of the building and occupancy permits. No more paper copies and no more physical storage required for these. Access to the permits and complete files would be right at one's fingertips at a lap or desktop.

Notarius

Notarius offers secure encrypted digital signature technology at an affordable price that will allow municipalities to fully embrace electronic document management and achieve significant savings.

In fact Notarius' focus is document authenticity. Notarius was created 20 years as a not-for-profit organization by the Chamber of Notaries of Quebec, a member of the Federation of Law Societies of Canada. Notarius is still owned by them.

Notarius can provide a unique mix of resources to enable organizations and professionals to create and verify high reliability and high legal value electronic documents which meet ISO 27001 Vendor Certification.

Notarius looks forward to better understanding the needs of each client and working with them on a solution that is cost effective and increases productivity and customer service.

A Scalable Application

There are multiple opportunities to introduce the use of secure encrypted digital signatures in municipal operations. These can be introduced in scalable stages as the municipality is able to incorporate changes into its operations. In other words, municipalities can bite off as much or as little as they wish and proceed at whatever speed they wish. It all depends on how much and how fast they want to achieve results!

For example municipalities can:

- Use secure encrypted digital signatures in place of their current use of electronic signatures in order to reduce risk and enhance security of their practices.
- Allow for the submission of documents to the municipality with secure digital signatures and for the municipality to recoup these costs through the imposition of a small user fee creating a win/win business arrangement. Such documents could be the submission of tenders, applications which require signatures and agreements that the municipality wishes to sign with other corporations and entities.
- As noted above, redesign current processes to allow for the complete digitization of various municipal operations and retain the complete record of the file only in a digital format. Even this is scalable by the municipality which can tackle one process or application at a time.
- Finally, convert existing records taking up valuable municipal storage and replace with digital records.

Summary

The introduction of technology in office environments has changed the way municipalities conduct their business in so many ways. The changes we have experienced in the last few years have been breathtaking and would have been beyond what we may have imagined in the preceding decades.

No one expects the pace of change to slow down in the years ahead. In fact, we have now come to expect that new technologies will be introduced that will provide fundamental opportunities both at work and at home.

Something as simple yet effective as secure encrypted digital signatures is a tool to create efficiencies in municipal operations in ways previously not imagined. At one time, it was inconceivable that we could get rid of and replace documents executed by hand and sealed by the municipal clerk. Not anymore!

For some municipalities on the journey to full electronic document management, this was considered the weak link in the chain allowing full conversion and replacement of all municipal records to digital. Secure encrypted digital signatures will allow them to travel the last mile on this journey.



For More Information

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Legally reliable documents.