

Here's Why Towns are Feeling Good About the Cloud

Submitted by Integrated Systems

The number of municipalities that are making the move to the cloud is growing exponentially. This shift in popularity is due to the economic feasibility and IT benefits that the cloud can offer compared with maintaining your own in-office server. Simply put, the cloud is a secure platform for your organization's data, applications, email and more.

The security that a cloud-based datacenter can offer, most times, is much greater than an in-house server. Datacenters usually are being closely monitored 24/7/365 and always have staff ready to react to any alerts or unusual activity. Other critical benefits include accessibility, redundancy, scalability, security, and back-up options. Additionally, a team of trained technicians is at your disposal to help solve and walk you through any technical issues that may arise. Government agencies no longer have to balance security, availability and accessibility on their own – they can now outsource these tasks and rely on the cloud.

Security is one of the initial reasons municipalities begin looking into the cloud. Servers that sit in a dusty back closet (sound familiar?) often do not get the proper attention and upgrades that they deserve. Many times, those who are tasked with maintaining the server have a full-time job of their own, and because of that, server maintenance and upgrades historically

have taken a back seat. When moving to the cloud, it automatically takes these tasks off the plates of those assigned to it; allowing them to focus on what they need to do. When a server does not receive the upgrades that it needs, it leads to holes in the security or defense of your network, making you more vulnerable. With cybercriminals and hackers getting savvier each day, it is of the utmost importance to stay on top of all the latest upgrades available. Commercial data centers are constantly kept up to date with the latest software releases, are proactively monitored, and institute best security practices in their daily routine – so you never have to worry.

Sadly, municipalities are common victims for cybercriminals and hackers by targeting them with phishing emails to lure municipal employees into clicking fake links or downloading malicious attachments. Once the link is clicked or the attachment downloaded, it can install dangerous software onto your computer that will cause it to



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lock up or hold the user's data for ransom. These techniques are called malware and ransomware. The best way to guard against these attacks first and foremost is education. Ensuring you and your employees know what the warning signs are in these emails and what to do if they believe they have received one is critical. Second is to have back-ups of your data ready and always up to date. When you have back-ups taken in a hosted environment, you can rest assured that they are always taken on time, are up-to-date, and that each back-up is tested to make sure it was taken accurately.

Back-ups ensure that data can always be restored when lost or deleted. Loss of data can happen for several different reasons: accidental deletion, intentional deletion, clicking on ransomware or malware through a phishing email, flood or fire, etc. When municipalities do not have back-ups, it can cost a lot of time and money trying to recover their data, if at all. A back-up is essentially a copy of your data being taken at a certain time and being saved. Data centers often give their customers different options as to how often they want a back-up taken. For example, they could have it taken every night, once a week, once a month, and so on. Off-site back-ups are also available; this is where the data is stored in an additional second datacenter in a separate location. When choosing the best back-up plan for your municipality, it is important to know that the shorter the time period in between your back-ups, the less information that needs to be re-created or entered, when a failure occurs.

One of the safest and best options are data replicas. Replicas are similar to back-ups, but are bit-by-bit snapshots taken of your data instantaneously and frequently. When data needs to be recovered and you have replicas taken of it, an application or entire server can be restored in moments. Both back-ups and replicas are so important because it ensures that your municipality has more than one copy of its data.

Equipment and operating system

redundancy is another important feature that the cloud can offer. Datacenter architecture ensures that no one piece of equipment creates a single point of failure. If that one component fails, then the system can automatically failover to the good operating components, allowing your municipality to continue working uninterrupted, knowing your information is available and safe.

Accessibility, mobility, and customizability are three characteristics that in today's world have been important, but recently, with the spread of COVID-19, they have become increasingly essential. Back in March of 2020, municipalities quickly looked for ways to move their employees home, while still being able to work efficiently and effectively. For this to happen, employees needed encrypted remote connections established to safely access their data from home. When in a cloud environment, it is relatively quick and easy to add remote connections to your network. Credentials and encrypted communications are established for a user, and anytime or anywhere they want to access their data, the user may only have to click on an icon on their desktop to begin their work. This provides accessibility and mobility because now they can effortlessly and safely access all their data, files, emails, and information from wherever they are working. Data



and applications can now be accessed and attended to even if your office is closed. Scalability and customizability are offered because the municipality can request any number of remote connections, additional resources, or features to be added or removed at any time. In turn, allowing them to only pay for only what they need.

Another security feature that comes with the cloud is network monitoring from a Security Operations Center, otherwise known as SOC monitoring. This constant monitoring is provided through systems that scan data center network traffic. Through machine learning technology, the service becomes familiar with what your good network traffic looks like and updates the systems to block the malicious traffic. When an anomaly shows up, such as someone trying to enter your network who is in another country or region your municipal employees are not typically logging in from, an alarm alerts the data centers

About Integrated Systems

Integrated Systems is located in Victor, NY and is an established provider of Information Technology services to the government and industry business sector since 1983. We provide information technology consulting, management and planning services, system integration, information network design, and development and installation for both voice and data communication. Our goal is to always provide our clients with efficient and reliable state of the art hardware and software management tools. We are proud to offer our clients a private, in-house datacenter to meet all their hosted needs and expectations. If you have any questions or want more information on solutions that we may provide you, please do not hesitate to call us at (585) 924-8670 or visit our website at www.integratednet.com.

system administrator. This proactively addresses the issue by letting you block this person from ever attempting to enter your network before it happens.

Lastly, another security feature that the cloud datacenter offers, is the highly maintained and controlled environment in which the physical datacenter is located. Typically, a commercial datacenter is built

in an atmospherically controlled environment to keep the equipment at an optimal temperature and humidity. The room is constantly kept clean and has a fire suppression system installed. If there ever were a fire, the suppression system would automatically engage, and deprive the room of oxygen to immediately suppress it. In addition, they do not leave any chemical residue on the equipment, keeping your data safe.

When municipalities begin to evaluate their budgets for the year, often they find that making the move to the cloud can be more effective rather than maintaining their own server. With the cloud, they receive more benefits, such as a monitored network, accessibility, fully redundant servers, scalable storage and network systems, and state-of-the-art security. Municipalities are feeling good about the cloud. ☐