

Markham Stouffville Hospital

Ensuring the Protection of Critical Data During Unplanned System Downtime

With 275 physicians and 1,700 staff members, Markham Stouffville Hospital has become a center for progressive care, serving nearly 300,000 people residing in Markham, Whitchurch-Stouffville, Uxbridge, North Scarborough and East Durham in Ontario, Canada. The hospital provides diagnostic services and medical and surgical care through two fully-accredited sites, one in Markham and the other in Uxbridge.

Markham Stouffville Hospital had a system for protecting patient data stored in its Healthcare Information System (HCIS) and keeping it as up-to-date as possible in the event of a planned system downtime. The system used Interbit Data's MPrint Server, which directs patient data from the HCIS to a PC as well as to a printer and will automatically print the data at pre-set intervals. Markham Stouffville Hospital would then burn the data onto CDs for delivery to the various departments. However, in the event of an unplanned downtime, the hospital needed a system that would allow them to get data distributed, particularly to the other site, without transporting a CD.

"The system worked for expected and planned downtime, but we didn't know how we would deal with unexpected downtime," explained Tim Pemberton, director of IT and communications at Markham Stouffville Hospital. "Unplanned downtimes occur rarely, but we need to protect against them. Our auditors are usually challenging us on business continuity, so we need to show that the business can continue and the hospital can continue to provide care in the absence of the IT system."

"We wanted a downtime protection system that would work in all circumstances, whether one piece or the entire network is down, or the HCIS or the hospital is down," added Rick Lambert, IT systems integration specialist.

That's when Markham Stouffville Hospital turned to Interbit Data and discovered its NetSafe solution.

"We saw Interbit Data at a conference and started talking to them about new products when we learned about NetSafe," said Lambert. "We immediately liked the idea."

Markham Stouffville Hospital took a look at other business continuance products offered in the market, but stayed the course and went with NetSafe.

"We saw that NetSafe was a good fit for us and our needs, and it had the functionality we required," said Lambert. "We have a good relationship with Interbit Data and we like their products, plus they offer good value."

"We had certain requirements for business continuity which Interbit Data helped address," added Pemberton. "We needed to configure NetSafe for each different document type we have, so Interbit Data was great at helping us with that."

A Downtime Protection System that Works in all Circumstances

"NetSafe is excellent and very useful for business continuity. We plan in the near future to begin utilizing NetSafe to capture the complete detail on the last payroll, so if necessary, people can at least be paid what they received the last pay period."

Tim Pemberton
Director of IT & Communications
Markham Stouffville Hospital

Continuing the Delivery of Patient Care During Extended Planned Downtimes

Markham Stouffville Hospital typically averages five planned downtimes per year, each lasting no more than 4 hours. Planned downtimes are usually due to routine system maintenance.

Over the first two months after implementing NetSafe in November 2009, Markham Stouffville Hospital conducted a network refresh that involved replacing different components on the network that affected various areas of the hospital. The network refresh required six or seven downtimes in that period, each of which lasted 8 – 12 hours. NetSafe was used during all of these downtimes to provide downtime documentation and enable the hospital to provide uninterrupted patient care.

“NetSafe is excellent and very useful for business continuity,” confirmed Pemberton. “We plan in the near future to begin utilizing NetSafe to capture the complete detail on the last payroll, so if necessary, people can at least be paid what they received the last pay period.”

“There’s also the patient safety aspect,” added Julie Kwan, clinical applications consultant at Markham Stouffville Hospital. “We can get patient information that’s up-to-the-minute to our clinical staff so they have the most recent data on a patient. Also, back-up procedures are now available in case an evacuation is needed.”

Easing the Tasks of Updating and Retrieving Downtime Data

Markham Stouffville Hospital previously refreshed its data every four hours, but with NetSafe, data is automatically updated on an hourly basis. And the IT department no longer needs to print data onto CDs and distribute them, as the information is readily available on 50 computers throughout the organization that are identified as “downtime computers.”

“To gather information for printing the CDs, we had to start the day before,” said Kathy Mickeler, clinical applications consultant at Markham Stouffville Hospital. “Now, with the downtime computers identified, it helps staff to know where to get their data, and getting it so easily is more efficient for the clinical folks. Admissions can also access the patient data it needs.”

“I used to be the one who stayed the night to burn the CDs, but with NetSafe I no longer need to do that, which saves time and decreases my workload,” said Kwan. “Before NetSafe, we would get calls from people that they couldn’t find or read their information, but I now get fewer calls on that because the staff finds it easier to obtain their information. The nursing staff has been very receptive to NetSafe because they no longer have to take the time to get a CD and read it --- they just click on the information they need.”

“NetSafe helps to make the information retrieval process more efficient by making it access-driven,” added Pemberton. “Each area of the hospital gets only the data that they need in that area and on only the patients it is working with.”

The downtime computers are easily accessible to all clinicians, so they are able to get all nursing and clinical documentation, lab data, full blood bank history, etc. Updated copies of the master patient index are sent to the patient registration areas. The improved documentation access process offered by NetSafe also helps to ensure privacy of patient info.

“It’s one setup, it’s hands off; from an IT perspective, it’s easy to use because we don’t need to scramble to make this data available,” explained Lambert. “The clinicians find it user-friendly as well. Quicker access to patient info helps them with their decision-making and providing immediate patient care.”

Markham Stouffville Hospital implemented NetSafe in phases, and found that as it rolled out the solution there were other areas of the hospital that want to use it, such as diagnostic imaging and other outpatient areas.

“NetSafe has proven to be a great product, so we’ve been a victim of our own success,” joked Lambert. “With phase two, we are rolling out NetSafe downtime data to additional locations, such as the pharmacy, occupational therapy, speech language therapy, and pathology. Everyone wants it, and they want more data!”

“We’re pushing out over 100,000 documents per day using NetSafe --- that’s how popular it is,” added Kwan.

Saving Time, Effort and Costs By Ensuring Up-to-Date, Accurate Information

Using NetSafe, the Markham Stouffville Hospital IT staff saves the time and effort formally spent creating and delivering CDs with the downtime data. It also no longer needs to merge temporary records as the new data is automatically integrated. During downtimes, clinical areas as well as admissions save time because they have immediate access to recent data and can update their data automatically. By freeing up staff time, NetSafe allows them to be more efficient and use that time for more important matters.

“NetSafe impacts organizational efficiencies because having immediate access to up-to-the-minute information allows our staff to process patients quicker and treat them in a timely manner,” affirmed Pemberton. “Having timely and accurate information ensures patient safety while having immediate access to that information allows staff to improve the level of patient care.”

Pemberton concluded, “With just the amount of time and effort saved by the IT staff, NetSafe has easily paid for itself 10 times over.”

About Interbit Data, Inc.

Founded in 1997, Interbit Data helps healthcare organizations deliver better, more consistent patient care with secure, reliable and cost-effective software solutions that improve operational efficiency. Interbit Data was named to the Inc. Magazine list of the 5,000 fastest growing private companies in the United States. The company ranked No. 2909 as a result of achieving over 96% growth from 2005 to 2008, a growth rate that is 70% more than other companies in the same industry. Interbit Data products are used by more than 600 healthcare facilities worldwide. For more information about Interbit Data and its NetSolutions products, visit the company Website at www.interbitdata.com.

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