Microsoft Customer
Case Study

HOLDEN BEACH

Holden Beach Takes IT Infrastructure to the Cloud to Enhance Hurricane Operations

Overview

Country or Region: USA
Industry: State & Local Government

Customer Profile

Holden Beach is a small barrier island that is 8.5 miles long with an inlet at either end. The town, which has 575 year-round residents, can grow to 20,000 during the summer months.

Business Situation

During the hurricane season the town must be able to immediately evacuate all residents to a safe location. It must also transfer its government operations and infrastructure to support citizens.

Solution

The Town is moving away from a cumbersome legacy system and toward a dedicated cloud environment that provides continuous business operations in a secure and compliant manner.

Benefits

- High availability
- Portable infrastructure
- Reduced maintenance costs
- Improved citizen service
- Business continuity

"I cannot afford to go down. I cannot afford to tell the public that we are not available to them…[we now] have the capability to keep our home owners and vacationers connected to the government."

David Hewett, Holden Beach Town Manager

Sitting at the far southeast corner of North Carolina, Holden Beach is a small barrier island that is 8.5 miles long with an inlet at either end. The town, which has 575 year-round residents, can grow to 20,000 during the summer months. From June 1-November 30, many residents – including the town government officials – have hurricanes on their minds. However, since a large percentage of homes on the island are vacation properties City officials cannot assume that vacationers are as well versed on hurricane evacuation plans as full-time residents. When the time comes to leave, all critical operations – including the systems that support them – must move while maintaining operations. It is a tall order. To meet this requirement, Holden Beach turned to cloud technology from Microsoft and services from Microsoft Gold Certified Partner GeniSys Global, of Wilmington NC.

GeniSys GLOBAL

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Situation

One of the economic realities for many coastal municipalities is that small populations often translate into small budgets. Small budgets, of course, do not leave a lot of extra money available for extravagant technology programs.

A full quarter of the Holden Beach budget is funded by a local occupancy and room tax. The majority of its revenues are therefore generated when school is out – which is in prime hurricane season on the Carolina coast.

A key element in managing a thriving community like Holden Beach revolves around attracting summer vacationers, and then making them feel safe and taken care of before, during and after a major storm. Communication and interaction with full-time residents and vacationers is critical.

When the clouds gather and the weather threatens, town leaders need to make decisions and then take immediate action if it is determined that evacuation of the entire island is in order. The communications and logistical implications of such a decision are immense. In assessing the math and physics of storms that work their way up the coast, municipal officials know that the likelihood of people getting hurt diminishes greatly if the population gets off the island sooner rather than later. Getting residents 30 miles inland in a short-period of time can spell the difference between a vacation interrupted by a storm, and much more tragic outcomes.

That was the situation that Holden Beach Town Manager David Hewett confronted when he took the helm in 2008. The town had an ancient computer system. Key operations were still run using paper-based manual systems. That meant that when stormy weather was on the horizon, emergency movers literally had to pack file cabinets, decades-old servers and PCs onto trucks and convoy off the island with the rest of the evacuees. Maintaining operations through such a system was essentially impossible.

"Prior to my arrival the IT infrastructure on our premises was antiquated, even obsolete. It was a DOS-based system on file servers that were not very well protected. Things were not pretty," explains Hewett.

As he saw it, he had a three-pronged mission that had to be accomplished in very short order:

- Provide cost-effective technology support for day-to-day government operations.
- Ensure continuity of operations when the town's government had to leave with its residents.
- Quickly resume normal operations once the storm blows over.

Hewett had previously worked at nearby Caswell Beach, where he had dealt with a similar situation on a smaller scale. However, for Holden Beach, Hewett wanted to pursue a more comprehensive strategy that not only addressed the town's email requirements, but also incorporated all voice and data communications operations.

"We have to be ready to help everyone on the island during inclement weather and meet our obligations to our residents. This must happen from the time that a preliminary evacuation notification is issued all the way through to a full-blown evacuation," says Hewett.

"We have a series of plans for retreating from the island and we have plans for reconstitution. When residents and

vacationers retreat from the Island, town officials must still provide communication and information from an off-island location."

Solution

In order to meet this requirement as efficiently and cost effectively as possible, Hewett made the case to town leaders for moving Holden Beach's IT and communications operations to a dedicated cloud environment based on Microsoft technology and managed Microsoft Gold Certified Partner, GeniSys Global, a Wilmington NC-based provider of integrated hosted solutions.

Holden Beach officials elected to move its entire IT operation into a virtual environment operated by GeniSys at their in-land facility, away from the weather hazards of the coast. Applications hosted and managed by GeniSys include:

- **Microsoft Exchange** – the enterprise-grade messaging platform that provides email, calendar and contacts on PC, phone and web browser. It supports a variety of browsers, including Internet Explorer, Firefox, Safari and Chrome. As a result, it allows Town employees to work and collaborate no matter where they are.

- **Microsoft Office** – WORD 2010, EXCEL 2010, POWERPOINT 2010, ONENOTE 2010, OUTLOOK 2010, PUBLISHER 2010, ACCESS 2010

- **Microsoft Lync** – the communications software that offers instant messaging (IM), presence, conferencing, and telephony solutions in support of enterprise-level collaboration requirements.

Using Microsoft Published Desktop Services delivered by Citrix XenApp as the application delivery mechanism, GeniSys enabled Holden Beach to run any Windows-based application as part of their fully integrated and hosted solution. Citrix XenApp further provides the Town a secure mechanism for access from any type of connection, anywhere, on just about any device. This was critical to Holden Beach as it allowed the inclusion of the following applications:

- **Harris Computer Systems Suite** – a billing system for water, property taxes and other municipal services.

- **Police Pak** – for the Holden Beach Police Department

- **BlackBear Software** – and application that is used for writing permits for the building inspector's office.

The entire IT operation has been virtualized, says Hewett. Holden Beach computers are directly connected to the GeniSys data center over a fiber optic connection that they negotiated with local telcos. The high-bandwidth connection allows municipal staffers to use their Lync voice capability to access the public switched telephone network (PSTN) through a Session Initiation Protocol (SIP) trunk."

"For us, it was a case of either being all in or not in at all. It just did not make sense for us when we are in an evacuation mode to have IT assets on the island. What if we could not get back to the island? We elected to move it all off our premise…and off of the island," says Hewett.

David Spears, CEO of GeniSys Global, tasked his team of engineers with taking the full inventory of services used by Holden Beach, and configuring all applications in the

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For more information about GeniSys Global products and services, call 877 436 4797 or visit the Web site at: www.genisysglobal.com

For more information about Town of Holden Beach, call 910 842 6488 or visit the Web site at: www.hbtownhall.com

GeniSys dedicated cloud. The project was completed over a weekend.

"When the Holden Beach employees came in on Monday they were using the system exactly as they did the week before, except it is not on premise anymore," says Spears.

As for the old filing cabinets, municipal leaders decided to relocate older hard copy documents off the island in a facility that complies with the state of North Carolina's data retention rules. This is an interim solution until all documents are digitized.

"We're continuing the process of scanning and sending these documents to the virtual server," he says.

Hewett says he does not store any applications locally unless someone wants to keep a personal copy - a practice he actively discourages.

Benefits

The move, according to Hewett, has been an unqualified success for Holden Beach's constituents.

"The actual transition from before and after was seamless, and we keep getting positive feedback from the public on the type of information that is received by them on a consistent basis," Hewett said.

Prior to this solution, it took two people to keep municipal operations running. From an ongoing maintenance perspective, Holden Beach had to struggle with how to fund investments in new servers every few years to accommodate growth in data.

"The services provided by GeniSys cost about $20,000 per year. That supports all of our 26 employees. But I don't have to worry about:

- Relocating IT functions during storms;
- The equipment going bad;
- Programming new servers;
- Funding IT staff;
- Maintaining full redundancy.

"I cannot afford to go down. I cannot afford to tell the public that we are not available to them," says Hewett.

Today, with the help of the dedicated cloud service provided by GeniSys, Hewett says he and his team can focus on getting everyone off the island when the weather turns for the worse.

"Whether we stop on the other side of the bridge at our emergency center or we keep heading in-land to get out of harm's way, we have the capability to keep our home owners and vacationers connected to the government, while still complying with the security protocols and the latest risk management technologies that keep people's financial and private information secure," says Hewett.

Document published August 2011

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