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CASE STUDY: WITH DEDICATED CLOUD STRATEGY, FORECAST IS CLEAR FOR NEW HANOVER COUNTY, NC -- EVEN IN HURRICANE

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With Dedicated Cloud Strategy Forecast Clear for New Hanover County, NC...Even in Hurricane

Executive Summary

Located on the Eastern coast of North Carolina, New Hanover County is known for its pristine beaches, burgeoning film industry and much-loved beach music. While it is a favorite vacation destination for many, some 200,000 residents call the County home. Since the mid-2000s, New Hanover County has been in the process of replacing a complex hodge-podge of legacy communications and computing systems platforms to establish a more integrated environment that better supports day-to-day operations. More importantly, since the County is located in hurricane zone, officials were looking for an effective and cost-efficient way to maintain continuity of operations during the harshest of times, and recover from disasters quickly. After exploring options, the County moved its operations to a dedicated cloud environment based on Microsoft technology that is managed by GeniSys Global.

Situation

Notwithstanding the idyllic days that characterize life in picturesque New Hanover County – home to the University of North Carolina, Wilmington – when the wind does blow, it can blow hard. During hurricane season – which runs from the beginning of June through November – everyone in the County needs to be ready to move. That includes local government operations. Agility, in this context, is not just about developing a competitive edge; it is about saving lives and continuing to provide services to citizens – even when the population has evacuated in the face of 200 mile-per hour winds.

It is an established sense of expectation that has been set with residents of the County. Should those expectations not be met, a storm of a different sort can be born.

At the center of it all is the technology infrastructure that supports the New Hanover County government operations. Keeping this infrastructure up, running and responsive to citizens through all of the County's climate conditions is the responsibility of Leslie Chaney, the County's CIO.

It is a requirement, she says, that prompted her to view the role of infrastructure in an entirely new light. For many organizations – in the public or private sector – good technology stewardship revolves around maximizing performance at the lowest cost to optimize profits – or get the most for the taxpayer dollars. Her mission had an added wrinkle. She had to figure out how to address the low-cost requirement, while exploring new ways to build a resilient, always-up infrastructure that would be there when the lights everywhere else go out.

The cloud concept was introduced as a viable concept that had matured enough from a governance, control and security perspective to support the mission-critical applications of the County.

It was a set of specifications that her existing infrastructure, circa 2005, was not in a position to effectively address. Then, the County was running its full array of business systems on an IBM 390 mainframe platform that supported its ERP, financial and human resources applications. The tax and revenue system were on the mainframe as well. It also delivered Lotus Notes for its email communication and collaboration needs.

Meanwhile, the underlying network infrastructure was made up of a complex mash up of technologies that did not always integrate with each other, or provide the level of resilience that Chaney believed she needed to have in place when the wind started to blow.

Solution

Her team started to upgrade the County's systems around the 2005-2006 timeframe, beginning with its desktop environment and its email system. The decision to revamp the County's infrastructure occurred just as new levels of collaboration were enabled and gaining acceptance. And, as it happened, the County was fortunate enough to win funding for its first Microsoft Enterprise Agreement (EA).

"We chose the Microsoft platform – even at that time – for its rich set of features, and also so that we could get all of our desktops standardized on a single version of Office throughout the Enterprise. That really started the ball rolling for us with the Microsoft platform. Investing in the Microsoft EA has turned out to be one of the best technology investments that New Hanover County has ever made," Chaney says.

Dave Pavone, GeniSys Global's Data Center Architect further explained the benefits the County realized in this project. "GeniSys is a Verified Partner for Licensing Mobility with Microsoft. This means that GeniSys was able to use undeployed software assets already owned by New Hanover County under their EA to deploy a complete hosted communication and content management system quickly, reliably and at a fraction of the cost of traditional deployment."

The County migrated from Notes email to Microsoft Exchange 2003 and rolled out Office 2003. Emboldened by the early success and adoption, in 2007 she implemented the County's first SharePoint site, which quickly became the platform for the County's external Internet site. Not much time passed before the SharePoint environment became a platform that stimulated and elevated collaboration across the County's operations.

While the solutions were cost-effective and intuitive, Chaney still wrestled with the disaster recovery and business continuity issues that her team was expected to address in a cost-effective manner.

That is when the cloud concept was introduced as a viable concept that had matured enough from a governance, control and security perspective to support the mission-critical applications of the County.

By moving to the cloud, Chaney said she did not have to struggle with how to set up the servers or how to run the storage. That said, she still feels she is firmly in control of her infrastructure.

Chaney was interested in better ways to add redundancy into County systems – especially as both government employees and citizens become increasingly dependent on her infrastructure in their day-to-day lives.

After investigating a broad array of hosting environments for its Microsoft communication and collaboration platforms, Chaney made the decision to partner with GeniSys Global, a Wilmington, NC-based communications hosted infrastructure solution provider and Microsoft Gold Certified Partner.

The timing turned out to be perfect.

“We were at the point where we needed to upgrade from that original installation of the Exchange 2003 and we had the SharePoint 2007. We wanted to move onto the 2010 platform all at once so that the user engagement and training could include the increased level of cross-application integration that now exists between Exchange 2010, Lync 2010, SharePoint 2010, and Office Suite 2010” Chaney says.

But there was a problem.

“We did not have the internal staff we needed to be able to focus on bringing all applications up in a narrow time frame. So...we partnered with GeniSys. They set up a 2010 environment for Exchange, SharePoint and Lync in their data center. This secure, remote operations platform also gave us the redundancy that we needed for the disaster recovery and continuity that we wanted. Just as importantly, they had the service up and running very quickly. My staff was able to complete the migration of mailboxes and work on the SharePoint Extranet site, and also prepare for the roll-out of Office 2010 and then SharePoint,” she said.

“The GeniSys team has Lync, Exchange, and SharePoint subject matter experts (SME’s) on staff who care for and monitor the hosted systems utilizing Microsoft System Center,” noted Dave Pavone, GeniSys Global’s Data Center Architect

“GeniSys is able to leverage these SME’s against a pool of hosted customers in order to provide a cost effective system management strategy. This is often not possible within a customer environment, because the scale is not there to support a focused SME. This is a benefit for hosted customers because the IT staff can focus on providing value to the organization, rather than just maintaining IT systems.”

Benefits

By moving to the cloud, Chaney said she did not have to struggle with how to set up the servers or how to run the storage. That said, she still feels she is firmly in control of her infrastructure. Her own in-house staff is able to administer the applications with an onsite Exchange administrator. The County also has a SharePoint administrator. However, she does not feel burdened by having to worry about the servers and the underlying hardware architecture and its maintenance.

With GeniSys, we were able to quickly move our Microsoft Exchange servers to their data center, where we had our own dedicated assets. We still maintain control and can make the changes that are necessary because we have the rights to do that.

This particular implementation is distinct from other hosted services – such like the Microsoft Business Productivity Online Standard Suite (BPOS) solution – in a few ways. Chaney wanted a remote infrastructure platform that was integrated in various ways with her local operations. She also wanted full operational control for the county’s email and collaboration environments.

“We were used to having full control of the configuration and use of these applications when they were onsite for us. We wanted the control, but we did not necessarily need – or want – the hardware assets on site. With GeniSys, we were able to quickly move our Microsoft Exchange servers to their data center, where we had our own dedicated assets. We still maintain control and can make the changes that are necessary because we have the rights to do that. That is important when I talk to the County commissioner. If something comes up, and a change is needed, I can make it happen that same day; I do not have to wait for another process that may or may not get approved in a different type of multi-tenant environment,” she says.

Moreover, she was interested in fully leveraging all of the Microsoft platform benefits, including those in Lync, Exchange and SharePoint. This was especially important as the County was in the process of moving all of its shared files to Microsoft SharePoint.

“We’re not going to have traditional mapped drives and file servers anymore. We are moving all of that to SharePoint, which is going to require four (4) terabytes of storage space,” noted Chaney.

“This challenging opportunity was exciting for the GeniSys team given that New Hanover County wanted the functionality of SharePoint 2010 for their file server replacement,” said Pavone.

“Traditionally a SharePoint system with the capacity to store documents for all of the counties employees would have been prohibitively expensive. By leveraging the StoragePoint solution from MetaLogix, Genisys was able to overcome this cost challenge. With StoragePoint we are able to leverage a tiered storage system to reduce the cost associated with storing binary files in SharePoint. This allowed GeniSys to stay on budget while doubling the requested SharePoint storage capacity.”

In the old days, the County would have needed to add additional capital-intensive investments to carry this load.

“The County was looking for a ten-year retention capability on email, which was causing us a lot of headaches,” says Chaney. “The County receives a lot of public record requests for email. The system that was in place worked pretty well, if residents wanted something from within the last 90 days. But if they wanted something going back two years that was difficult and time consuming for employees to retrieve.”

In emergency conditions, Chaney will be able to make outbound phone calls, receive inbound phone calls using the IP-telephony resources that are already in place at the County. However this new arrangement provides a failover remote IP-telephony system should there be a major disruption.

“We were able to push all of the storage up to GeniSys and really extend the life of the SAN and the backup solution that we had in place. Also, the GeniSys solution provides us with the ability to keep those journals online and search them for the 10-year period of the retention schedule,” Chaney says.

According to Lawrence Webb, Director at GeniSys, there are several important attributes that make the New Hanover County implementation interesting:

- The environment is operating in very much the same way it did when all of the assets were on-premise...especially from an access and control perspective.
- There is tremendous value associated with the Microsoft 2010 stack; the level of integration across SharePoint and Exchange is extremely high. As the County moves forward to integrate its unified communication platform into its operations, the level of integration across the 2010 stack will be a huge boon.
- The entire set-up and migration to the dedicated Cloud environment was up and ready in about six weeks.

Chaney adds that as the County rolls out the Microsoft Office suite and SharePoint 2010, she is planning to roll out ‘My Sites’ to all of its 1500 employees across 30 departments. There are three distinct uses for SharePoint:

- ‘My Sites’ provide individual sites for each user – a corporate collaboration platform on an individual level.
- The County is creating team sites so people who work together in organized groups can collaborate.
- Finally, SharePoint supports a level of collaboration that spans the entire enterprise. This supports County-wide initiatives, and features, among other things, the County Manager’s blog.

The County is also overlaying its existing IP telephony infrastructure from the Cloud environment with Lync to support enhanced unified communications capabilities and also another important level of communications to their Emergency Operations Strategy.

Chaney will be able to make outbound phone calls, receive inbound phone calls using the IP-telephony resources that are already in place at the County. However this new arrangement provides a failover remote IP-telephony system should there be a major disruption at the County’s normal Operations Center. This network environment is configured such that the GeniSys Datacenter looks like another data center sitting on the County’s network.

“It has allowed us to move away from the standard of most IT organizations – in which 75 percent of IT is spent on maintenance and only 25 percent is spent on leveraging corporate objectives like innovation. My staff is now focused on using the stuff, not running the stuff”

To provide redundancy at the network level, GeniSys has established a direct, dedicated metro Ethernet provided by AT&T. As a result of the migration to this dedicated Cloud environment, Chaney has been able to shift the way she manages here technology budget from a capital (CAPEX) intensive investment model to an operational (OPEX) subscription-based model.

It has also allowed her to optimize her allocation of technology staff. During the economic downturn, Chaney lost six positions in her IT department.

“My focus has been to shift my remaining staff to helping users use the system and to find partners like GeniSys who can run the underlying infrastructure for us. Our folks are very much customer-focused,” she says.

“It has allowed us to move away from the standard of most IT organizations – in which 75 percent of IT is spent on maintenance and only 25 percent is spent on leveraging corporate objectives like innovation. My staff is now focused on using the stuff, not running the stuff,” she says.

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About BizTechReports

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