STORAGECRAFT, WESTERN DIGITAL, AND NEX-TECH

Fighting IT Fires

THE RIGHT TOOLS PREVENT DISASTER

What do systems engineers and firefighters have in common?

For starters...

- They're always on call and ready to go "at the drop of a hat."
- They're well trained, so they know what to do in an emergency.
- They quickly assess the situation and take corrective action.
- They bring the proper equipment with them.
- They save people and businesses from disasters.

Also, systems engineers and firefighters both put out fires.

They both know how to prevent—and recover from—disasters. Fortunately for his customers, StorageCraft® Certified Engineer Curtis Flax fits both job descriptions.

Curtis works as a systems engineer for Nex-Tech, a rural managed service provider in northwest Kansas. He also volunteers as a firefighter and EMT in his community. He's been doing both demanding jobs for almost 18 years, so he knows what works best when he arrives on the scene. According to Curtis,

> I made the transition to putting out IT fires about the same time as putting out actual fires. However, in both situations, having the right tools—either on the fireground or in the IT field—can make the situation at hand a lot safer and easier.

CURTIS FLAX

Systems engineer,
Nex-Tech

"StorageCraft fits perfectly with the Western Digital NAS, so Nex-Tech Total Backup works really, really well."

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PREVENTING DISASTERS IN TORNADO ALLEY

For an MSP in the heart of Tornado Alley, backup and disaster recovery tools are standard equipment.

In Kansas, it's not "if" a tornado will strike, it's "when." From 1950 to 2012, the state averaged 61 tornadoes a year.[1] The past 10-year average is 112, including 180 tornadoes in 2008 and 94 in 2012. In addition, Kansas leads the nation[2] in storm severity, with 14 tornadoes rated F5—the top of the Fujita Scale used for measuring tornado damage.

So it goes without saying that Nex-Tech, with a service area covering more than 9,300 square miles of the Kansas prairie, offers a backup and disaster recovery solution for small businesses. Curtis helped develop the Nex-Tech Total Backup solution to provide business continuity that small and mid-sized businesses could afford and that would be robust enough for Tornado Alley. Curtis says,

> In the past, only large enterprises with high availability server clusters could afford this level of data redundancy. We provide backup locally and replicate the backups offsite, at a price point that makes sense for rural Kansas. When you're in Tornado Alley, your business could disappear overnight.

Nex-Tech Total Backup isn't a "BDR appliance," a hardware device with backup and disaster recovery functionality built in. It's a combination of hardware and software technologies that Curtis and his colleagues put together to meet their customers' unique requirements.

They determined their IT business continuity solution must include:

- Backup of the operating system, applications, and settings on both servers and workstations—not only files and folders
- Triple redundancy, with two offsite locations
- Reliable network attached storage to minimize hardware problems
- Robust NAS device that could consolidate and replicate backup data throughout the day—not only in the evenings—without burdening the customer's servers
- Remote management capabilities across the IT environment to reduce costly travel to far-flung customer locations
- Easy verification to determine that backup files aren't corrupt
- Rapid and reliable data restore capabilities
- Monthly price point in the $200-or-less range
- Quick and easy installation at the customer site.

According to Curtis, Nex-Tech's goal is to provide high quality service at affordable prices.

> That's what we built Nex-Tech Total Backup to do.

CURTIS FLAX

Systems engineer, Nex-Tech

"I installed the WD Sentinel DX4000 in a couple of test locations, and it worked flawlessly."

WD ®   **STORAGE**CRAFT ®

BUILDING THE RIGHT TOOL

As a StorageCraft Certified Engineer, Curtis knew StorageCraft® ShadowProtect® would be a key component of the backup and disaster recovery solution.

Nex-Tech had been using the StorageCraft solution for its own backups for more than six years. The search was on for a NAS device that would meet SMB customers' requirements.

He found Western Digital's Sentinel DX4000 Small Office Storage Server, and Nex-Tech Total Backup was born. According to Curtis,

> I installed the WD Sentinel DX4000 in a couple of test locations, and it worked flawlessly. It was the first NAS device we tested that we really liked. And it met all of our requirements.

The WD Sentinel DX4000 includes 16TB of storage, with enough horsepower to replicate backups offsite without slowing down a customer's server. It's easy to use, reliable, flexible, and cost-effective.

> It gives me gobs of storage. It's beefy enough to run StorageCraft® ImageManager and make incremental backups all day long, every 15 minutes if the customer wants. And the installation is so easy it's not even funny.

Nex-Tech started offering Nex-Tech Total Backup as a managed service in 2012 and the solution was so popular that they had 40 customers sign up for it in the first six months.

Curtis explains how Total Backup works:

> During initial setup, we install StorageCraft ImageManager on the WD Sentinel NAS device. Then the customer selects the systems and data they want to protect.

> We install ShadowProtect on the customer's Windows server. ShadowProtect tracks updates to the customer's selected files and we store up to five incremental backup snapshots on the WD Sentinel NAS. (Failed systems are easily restored or virtualized on demand— including to bare metal or onto popular hypervisors.)

ShadowProtect encrypts the customer's backup data with 256-bit AES encryption—the encryption standard required by financial, military, and government regulations— making them unreadable and secure from prying eyes.

The encrypted backup files are then transmitted offsite via StorageCraft® ShadowStream™ technology to Nex-Tech servers in two different datacenters. Storing the backups in multiple geographic locations protects the customer's data from a widespread disaster such as a tornado.

Remote support software help Nex-Tech stay on top of any troublesome situations and take appropriate action.

> Anytime a backup fails, it emails me. Or anytime my server doesn't see a backup coming in at its scheduled time, it emails me.

CURTIS FLAX
*Systems engineer,
Nex-Tech*

"StorageCraft ImageManager [makes] incremental backups all day long, every 15 minutes if the customer wants."

WD® STORAGECRAFT®

SIMPLE, SCALABLE, AND RELIABLE

Nex-Tech customers depend on Curtis Flax to protect their business data and be there for them in the event of a disaster.

Curtis depends on StorageCraft ShadowProtect and Western Digital Sentinel for the same.

StorageCraft fits perfectly with the Western Digital NAS, so Nex-Tech Total Backup works really, really well. We wanted data backup and restore that wouldn't slow down our customers' servers, and we got exceptional reliability. It's simple, it's scalable, and it's reliable.

And, because it's affordable to Nex-Tech, it's affordable to their customers in rural Kansas.

ENDNOTES

1. http://www.crh.noaa.gov/images/ddc/News/SWAW_newest.pdf

2. http://www.kansas.com/2011/03/08/1752295/kansas-leads-nation-in-big-tornadoes.html

NEX-TECH

Nex-Tech is a Kansas-based telecommunications company that originated from its parent company Rural Telephone, which was incorporated as a cooperative in February of 1951.

Nex-Tech understands the tremendous challenge of delivering critical applications and data in today's workplace. Its core foundation is built on a high-level of customer service and quality installation practices, with an installation base that encompasses a diversity of projects throughout the state of Kansas.

Nex-Tech truly can provide the "Power of One" to customers of all industries because of its diverse Business Technology Group. Whether implementing servers or phone systems, building towers or networks, or strategizing on PRIs or connectivity, the Business Technology Group has the expertise to assist your business with technology. Plus, it has the tools necessary to assess your current infrastructure to make sure you are running at peak performance.

It can even aid in the expansion of your business to another location across town or across the country. So, whether designing a network from the ground up or needing assistance with your current IT needs, trust in a partner with a qualified team of experts and staff with more than 150 years of combined technology experience.

ABOUT WESTERN DIGITAL

We are thousands of people worldwide working to enable you to store, collect, access, and use a vast and growing body of digital information.

Our reliable hard drives and solid state drives, marketed under the WD and HGST brands, are everywhere that digital information and content is found: in the cloud, supporting your mobile digital lifestyle; in business and personal computers; in external storage devices; in the digital video recorder in your home; and in sophisticated medical, military, aerospace, automotive, manufacturing and telecommunications systems.

We also make media players that enable you to enjoy your digital content on the biggest screen in your house—your TV. Our customers range from some of the largest companies in the world to individual users like you.

With the acquisition of Hitachi Global Storage Technologies (HGST), now a wholly owned subsidiary of Western Digital Corporation, we have expanded R&D resources, a broader product portfolio, greater manufacturing scale and a larger geographic footprint. With two successful independent subsidiaries, WD and HGST, we expect to accomplish great things as we build the new WD to be the world's leading storage solutions provider.

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ABOUT STORAGECRAFT

At StorageCraft®, the goal of complete disaster recovery drives everything we do. Our StorageCraft® Recover-Ability™ solution is an end-to-end, best-in-class backup and disaster recovery solution that is both fast and reliable.

STORAGECRAFT RECOVER-ABILITY

It starts with a good backup. Our award-winning *StorageCraft® ShadowProtect®* takes complete, pristine images of your machines, including all your operating systems, applications, services, and settings.

It then records changes at the sector level, so you always have an up-to-date copy of every machine in your IT environment, whether it's a critical server or an employee laptop, physical or virtual. We even work with specialized database servers, like SQL, SharePoint, or Exchange. You can get granular recovery in Exchange with *ShadowProtect Granular Recovery for Exchange*.

You have complete control over the frequency of your backups and you can set rules for consolidation and retention to manage your precious storage space using *StorageCraft® ImageManager*.

Plus, with *StorageCraft® ShadowControl® CMD™* you can monitor the machines in your backup environment from a single interface and get alerts when a machine is running

out of space, when a backup doesn't happen, or when any of a variety of conditions you specify is met.

We also give you tools to test your backups using *StorageCraft® VirtualBoot™* and *StorageCraft® Image-Ready™* technologies, which gives you confidence that your data is safe and that a disaster won't shut you down or hold you up.

Then we make it easy to replicate your backup images with *StorageCraft® Cloud Services* or to our cloud or to your own offsite location so you can always have your data close when you need it and at a good safe distance when a disaster comes.

When it does, you can launch your backups as virtual machines with VirtualBoot or mount them as drives for complete, granular access to your data.

Or you can pre-stage the recovery of a backup image in a virtual machine with our patented *StorageCraft®*

HeadStart Restore® technology, so if your main server blows up, you can be up and running in minutes. You can even virtualize your data in our cloud so even Mother Nature can't keep you down.

Then, you can rebuild your infrastructure and recover to all kinds of machines, physical or virtual, using our *StorageCraft® Hardware Independent Restore™* technology or *ShadowProtect IT Edition*.

You can't be sure what kind of disaster will strike you next, but with the StorageCraft Recover-Ability solution, you can be sure it doesn't matter. You'll be just fine.

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