

**How NAS Can Increase Reliability,
Uptime & Data Loss Protection:**
**An IT Executive's
Story**



This is Connor,

The Small-to-Midsize Business IT Executive



Meet Connor. He's an IT executive who specializes in choosing and implementing IT solutions including storage. His job is to identify business needs and seek innovative solutions for both current and future problems, primarily in the form of software, hardware and best practices. But Connor needs the buy-in of other executives at his company before he can implement a company wide solution, so he conducts extensive research before putting an option or two on the table. He relies on product reviews from tech-related websites, online tech forums and user communities.

When it comes to solving problems and meeting business needs, Connor's always interested in an efficient and preventive approach – one that can address minor concerns and keep them from escalating. Issues of data storage and network reliability are first on Connor's list. Why? Because secure, scalable storage and a reliable infrastructure are key for growing any business, especially in the small-to-midsize business range. If not addressed in the early stages, storage and reliability can pose serious threats to the stability of a business.



WHY RELIABILITY MATTERS: CONNOR'S STORY

Until you know how much you have to lose, it's hard to know how and why you should protect it. What does a major outage or substantial data loss look like? What does it feel like to lose mission-critical data? How much does it cost your business to lose out on valuable uptime? Imagine your business in the middle of an outage or data loss situation. Or better yet – take a look at Connor's business in crisis mode.

After suffering a hardware failure, Connor's business experienced an IT outage resulting in about an hour of downtime. This failure and outage, combined with basic human error, including a lack of reliable backups or storage practices, left Connor's midsize business without some of its most crucial business data. Because the server crashed

suddenly, employees lost all their unsaved work, along with some financial records, client contracts, business materials, client deliverables and HR compliance documents. While they haven't lost everything, they have no backups for the data they've lost. And even worse, without some of these documents, data and information, employees can't work efficiently – while some can't even work at all.

Diagnosing the root of the problem, conducting any necessary repairs and restoring the lost data will require time, effort (whether internal or hired) and money in the form of lost income, productivity and even products or services.

This is what an outage looks like. **And it's not a place you want to be.**

A major outage today at a data center can cost up to **\$7,900 per minute**, a **41% spike** from the \$5,600 cost per minute in **2010**.

In 2013, Google suffered a complete **5-minute outage** that resulted in a **40% plunge in web traffic worldwide**.

While these outages are on a much larger scale than what Connor's business and other small-to-midsize businesses may experience, all outages are serious.

The short-term effects of outages and data loss are obvious, but what about the long-term effects? When you consider lost business in the form of customers, clients, a damaged reputation and lost productivity, the effects are much more far-reaching.

A company that experiences **an outage lasting 10 days** or more will **never see full financial recovery** – and **50%** of companies who face a 10-day outage will be **out of business within 5 years**.

What could Connor, as the IT point-person, have done differently to protect business operations and data? The following three decision points are critical for recovering from – or even preventing – harmful downtime or data loss. Addressing these areas beforehand could have saved Connor a lot of time, stress, money and damage.



DECISION POINT #1: ASSESS YOUR IT OUTAGE OR DATA LOSS DAMAGE POTENTIAL

To assess the possible damage of suffering an IT outage or data loss, ask yourself the following questions:

Where and how are employees sharing business-critical information and files?

Where are your business-critical files and information stored? Where is the backup housed?

What is your current backup process? How much backup space do you have right now?

If you can't answer these questions (or don't have a good answer), suffering an IT outage or losing data could do serious short- and long-term damage to your business. And if your employees are primarily sharing and storing files in email or on their local drives, an IT outage or data loss would possibly destroy your business. Even using cloud-based applications like Dropbox and Google Drive could result in data loss as a result of unexpected downtime. If you don't have a reliable backup location for business-critical files, you could find yourself in serious trouble, just like Connor. And if you don't have a current and regular backup process in the works, or aren't sure of how much space you either have or need, you need to resolve these issues immediately.



DECISION POINT #2: UNDERSTAND HOW AND WHY IT OUTAGES OR DATA LOSS OCCUR

An IT outage can occur for a number of reasons – ranging from too much traffic and too many users to too many devices or a poor connection with your server or web provider. While some of these factors are out of your control, you can take action to reduce your company's outage threats.

What risk factors are at play for your business?

Do you have more than 50 remote or in-house employees who need to access or share files at the same time?

Does your system often show signs of slow or sluggish processing?

Do you commonly deal with high traffic and large files?

Are there factors out of your control that you need to consider, such as inclement weather, frequent power blackouts in your area or spotty web provider service?

Recognizing these signs of potential trouble and addressing them now could save you from a great deal of trouble down the road. By finding a reliable solution for storage and performance, you can ensure greater uptime and secure backups for your data.



DECISION POINT #3: CALCULATE HOW MUCH AN OUTAGE OR LOSS WOULD COST YOUR BUSINESS

When devising a protection plan, predicting how much an outage or loss would cost your business can give you a clear idea of what's at stake. To calculate the estimated cost of your outage, consider the following factors and assign a dollar amount to each one, based on your best estimate:

- Damage to or loss of business-critical data and information
- Impact of outage on business operations and productivity
- Damage to equipment and assets
- Cost to diagnose and repair systems and processes
- Data recovery cost
- Legal and compliance impact
- Lost business, trust and stakeholder interest
- Damaged brand and marketplace reputation

Even a small-to-midsize business can lose more than \$50,000 per year due to IT downtime, with large corporations losing more than \$1 million. In 2010, 200 companies were surveyed across North America and Europe. In one year alone, these businesses lost \$26.5 billion as a result of IT downtime, which is roughly \$150,000 for each business surveyed. Even worse, 56% of North American businesses and 30% of European companies still didn't improve disaster recovery protocols or create plans to make their infrastructures more reliable.

Learning from Connor's mistakes, and the mistakes of real companies, can help you prevent a crisis or – at the very least – be prepared for anything. Choosing a reliable network attached storage (NAS) solution can be the first step toward better data loss protection.



UNDERSTANDING RELIABILITY: LEARNING FROM CONNOR'S MISTAKES

What is reliability? And why is it important? Reliability means having an IT infrastructure and a storage system that can support multiple users, huge amounts of data, constant sharing and regular backups. A reliable system is fast, secure and easily accessed by all users, even from remote locations. If you still haven't found a reliable storage system to support your business needs, NAS could be the answer. Learn from Connor's mistakes – don't let an outage or loss destroy your business.

NAS is a dedicated file storage device that provides local area network users with consolidated and centralized disk storage. With NAS, users are not limited to the storage capacity of a desktop or laptop computer, and they are not limited by the amount of disks in a local server. Users can store business-critical data on multiple disks and have a reliable backup of all their files. NAS also offers a reliable and safe way for users to share files locally or remotely and can support high traffic, many simultaneous users and large-scale projects. NAS can also grow to accommodate future business needs or incorporate RAID to increase reliability and performance.

Key reliability features of NAS:

- RAID capability
- Automated backup
- Support of multiple users, remote or local
- High performance
- Easy storage and sharing
- Centralized and consolidated storage
- Ability to handle heavy traffic and I/O requests



KNOW YOUR OPTIONS

How is NAS storage different from similar storage solutions, especially in terms of reliability?

NAS VS SAN

NAS handles file-based I/O requests, while SAN handles block I/O requests.

SAN is supported by a Fibre Channel connection and is best for server-class devices.

Any device can connect to NAS for file-level access for easy sharing and centralized access.

NAS VS DAS

DAS is a non-networked storage solution that connects to a dedicated server or hard drive.

With network attached storage, it's easier to share files, or scale up performance and storage needs.

NAS provides a consolidated view of storage, while DAS requires individual storage management for each server.

NAS VS Ext. Desktop Drives

External desktop drives are easy to set up and use, and offer up to 8TB.

External desktop drives can share, stream, store and back up data but can't support heavy traffic.

NAS offers higher performance and reliability – as well as more scalability for growth.

For SMBs that need to keep files safe and secure – and ensure reliable uptime – NAS is a solution that's affordable, simple and scalable. Plus, when searching for data loss prevention tools, NAS can be your first line of defense.



BUSINESS, TECHNICAL AND FINANCIAL REASONS FOR RELIABLE DATA STORAGE & BACKUP

What can NAS do to increase your business, technical and financial operations – all while increasing the security and stability of your business? Take a look at all the ways a reliable NAS device can benefit your company in financial-, technical- and business-related areas.



Financial Benefits

Store and retrieve business records, including accounts payable, accounts receivable, and personnel records.

Quicken project timelines to save money and remain profitable.

Manage business more efficiently, from identifying bottlenecks to judging volume and consistency.



Business Benefits

Keep track of business-critical customer records to improve customer relationship management.

Close deals quicker and make the entire sales cycle easier and more efficient.

Keep company data safe, including accounting files, HR materials and client contracts.



Technical Benefits

Support more users without slowing down performance.

Provide users with easy remote access and collaboration.

Easily access intellectual property documents, product designs and blueprints.



HOW YOU CAN IMPROVE RELIABILITY

Improving the reliability of your IT systems, storage and backups can help keep your business profitable – even in the event of an outage or significant loss of data. When it comes to data recovery, storage backups or disaster recovery protocol, having a reliable system already in place is key. If you often struggle with providing remote access to critical data or frequently face issues with printer and file servers, a more reliable network attached storage system would greatly benefit your business and its daily operations.

Visit our [network attached storage](#) page to learn more about how NAS can increase the performance and reliability of your company's IT infrastructure.