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Tectrade
A CSI GROUP COMPANY

Data Protection step-by-step

Your guide to planning
a better backup strategy

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Meeting the Data Protection Challenge

If you've been in IT for any length of time, you'll know today's landscape is a completely different one to that of only a few years ago. Businesses are doing more than just storing information, they're focusing on how they can use it to deliver meaningful, profitable insights about their businesses and their customers.

Today, the critical importance of data to a business's success means availability and data protection are more in the spotlight than ever before.



The increasing price of valuable data

Like many companies, you're probably finding the data you're protecting is growing at a phenomenal rate. And this massive data growth is having a significant effect – increasing costs, consuming resources and narrowing backup windows to name just three. In fact, by 2025, worldwide data will swell to 163ZB, 10 times the amount today according to IDC¹.

The result? Many companies have quickly realised they need to re-evaluate how they approach backing up and protecting their critical data as it becomes more valuable by the day.

The risks of downtime are also increasing when you consider the high likelihood of downtime caused by Ransomware attacks rather than just IT failures.

Backup for the future

In this short guide, we're going to look at how you can begin to plan more effective backup strategies for your business by highlighting the four key areas of concern we see regularly.

¹ <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>

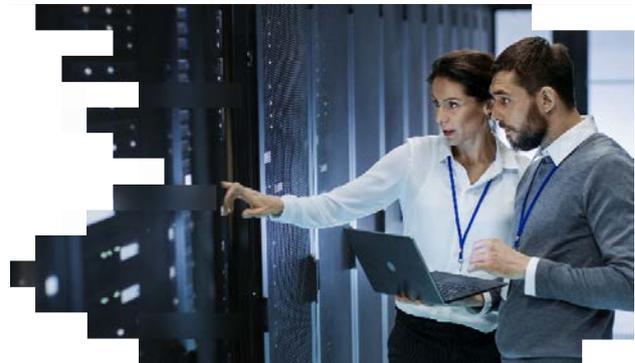
Step #1: Match capacity constraints to business demands

IT professionals are faced with a significant challenge: how to quickly protect data as it accelerates in multiple directions with diminished physical resources.

Continuing to fill your traditional tape library is not an option as many enterprises are faced with the real possibility of running out of physical space in the next few years.

So step one is about getting a better view of the problem, using your backup reports to audit and identify the main culprits to understand what data is actually critical to your business.

“Step one is about getting a better view of the problem.”



High value vs. low value data

In our experience, running an audit often reveals low-value and rarely used resources using up more space and incurring more costs than they should.

By clearly identifying which data sources are consuming the most resources, you can make an informed decision on

whether you have the capacity (and are willing) to support and protect data which is of low value to your business.

Alternatively, you may choose to either adjust your backup schedule for this type of data or archive some of it completely.

Checklist



Get a clear picture of all the servers, apps and data silos you need to back up



Speak to the relevant stakeholders for that data to understand its importance to your business



Arrange them in descending order in terms of data criticality and then volume to be backed up



Identify which data is high volume but low importance and identify whether it can be treated differently to avoid impacting on the security of your core backups

Step #2: Identify dangerous bottlenecks

Although much of the discussion on backing up data revolves around volume and capacity issues, 'time' is always the key focus when there is a problem. Simply, you need to know how quickly your business can get back up and running after an incident. Will it take seconds, hours or days?

Your backup strategy more than likely has established Recovery Time Objectives (RTOs) in place which identify how quickly any lost data must be recovered in an emergency. You will also have Recovery Point Objectives (RPOs) outlining the amount of data your business is prepared to lose in any single event. But for both RTOs and RPOs, if you're to achieve aggressive targets, you need to make full use of the backup windows you have available.

The problem is: With the exponential growth in data, these backup windows are becoming ever tighter and if your critical data misses its slot, your RTO and RPO targets could be placed in serious jeopardy. And that's why step #2 focuses on identifying bottlenecks.

"If you're to achieve aggressive targets, you need to make full use of the backup windows you have available."



Get close to the backup process

To get a clear picture of any real or potential bottlenecks, whether related to data, systems or people, you need put the entire backup process under scrutiny.

The data volumes audit from step #1 will help, but you also need to track each step of the backup process to see where time is being lost and where new approaches could reduce or eliminate bottlenecks, helping to protect your business.

Put mission-critical data first

By auditing the entire backup process, you can take active steps to ensure your most important data is always backed up without fail (even if this comes at the expense of other less mission-critical information). Because, ultimately, nothing should compromise your ability to backup the right data at the right time.

Checklist

- Take a long hard look at whether you're able to meet your RTOs and RPOs within your current backup window
- Project this forward six months - will you still be able to meet those objectives when data volumes have risen?
- Break down the entire backup process by its constituent steps. Make sure you include both machine and human activity
- Understand how much time is being spent on each step (again, both by people and systems)
- For each of these stages, first identify any areas that can be eliminated (e.g. by archiving a set of data)
- Then look at where time-saving efficiencies can be found (e.g. better deduplication, automation, reconfiguring hardware, upgrading systems, moving to new technology etc.)

KEY LEARNING: It's not just how much data you need to back up that's important, but which data gets priority.

Step #3: Ensure your backup strategy supports your business strategy

Yes, a key focus of most backup strategies is to protect the business's data. But all too often, this leads to companies adopting a hoarding approach – treating all data the same, no matter what its level of importance, and then retaining it forever. Or else they develop very granular policies that create high levels of complexity – consuming more IT resources than necessary and increasing opportunities for costly mistakes.

A better solution is to create a backup strategy that supports and protects your core business. To do this you need a clear view of the data within your business and how it should be treated. This is where a backup catalogue has infinite value.

“With this foundation in place, you can create specific data backup policies focused on serving the core needs of your business.”



Get clarity with a backup catalogue

At its core, a backup catalogue matches the needs of your business with the critical recovery times for key data sets – both for onsite and offsite data even in the cloud whether structured or unstructured. In essence, it needs to document not just what you're backing up but why and for how long.

Your backup catalogue should begin with identifying the key business objectives related to different data sets. It

should specify meaningful RTOs and RPOs for each data type together with any specific retention rules (e.g. where your business needs to comply with industry regulations on data retention). With this foundation in place, you can create specific data backup policies focused on serving the core needs of your business and make realistic investments based on both tangible business value and compliance requirements.

Checklist

- Use the list of data sources you assembled in step #1 as a master list of data to be backed up
- For each group, assign an RPO, RTO and retention period
- Putting the data groups in order of RTO should mean the most important data to the business comes at the top of the list
- If all data groups have the same RTO and RPO, you're probably giving low-value data too high a prominence (which could potentially compromise the performance of your backup regime)
- Look for any data groups that don't conform to this priority rating – do they deserve their rank?
- Re-assign RTOs and RPOs in line with the data's real importance to the business

KEY LEARNING: Use a backup catalogue to align your data protection strategy with your wider business strategy.

Step #4: Take advantage of technology innovations

There are many tools and technologies that businesses use to provide their backup and recovery capability. Often they are deployed and never reviewed. With increased data volumes and higher risks of downtime business need to take advantage of technology innovations regardless of platform to ensure they are fully protected.

“Shouldn’t you be re-evaluating whether it’s still the best option for your business today?”



Stay on track to get ahead

You can’t afford to be complacent. You need to review your business’s backup strategy on a regular basis (at least yearly). Or when there’s a major event, like a merger or a new site, which will have a material impact on your data volumes. By doing so, many organisations have identified key changes which have resulted in them re-evaluating their backup and recovery solution.

Back up for the future

Newer technologies tackle the issues of increasing data, ransomware and cloud replication head on with new capabilities totally aligned to the daunting levels of data enterprises must deal with today.

Levels of de-duplication, automation of tasks provide greater performance and better support for today’s apps and operating systems including cloud-based environments. It can help you decrease the amount of data you must back up, lessening capacity pressures and reducing costs.

Which all begs the question: If you’re on an old outdated system for backup and recovery shouldn’t you be re-evaluating whether it’s still the best option for your business today?

Checklist

- Check what technology you are using and whether it is current and offers what you need
- Assess the improvements you could achieve by upgrading to different, newer technology offering greater capacity, reduced bottlenecks, better performance, support for the latest applications and alternative storage deployment models, etc.
- Look at whether this could deliver the protection you need at an acceptable ROI

KEY LEARNING: Enterprise data has moved on, make sure your backup and recovery solution keeps pace.

Backup & Recovery Headache?

Get an expert Heathcheck today

Data is the life force that drives your business, so it's imperative to ensure your backup solution is as healthy as it should be!

Luckily, the Tectrade experts have the tools, experience and knowledge to help diagnose your unique data challenges and provide consultative advice on what to do next.

We'll help you find a solution that helps meet your business goals, and turn your backup solution into a more powerful tool than you've ever realised by ensuring you have the right solution for your business.

It's easier than you think.

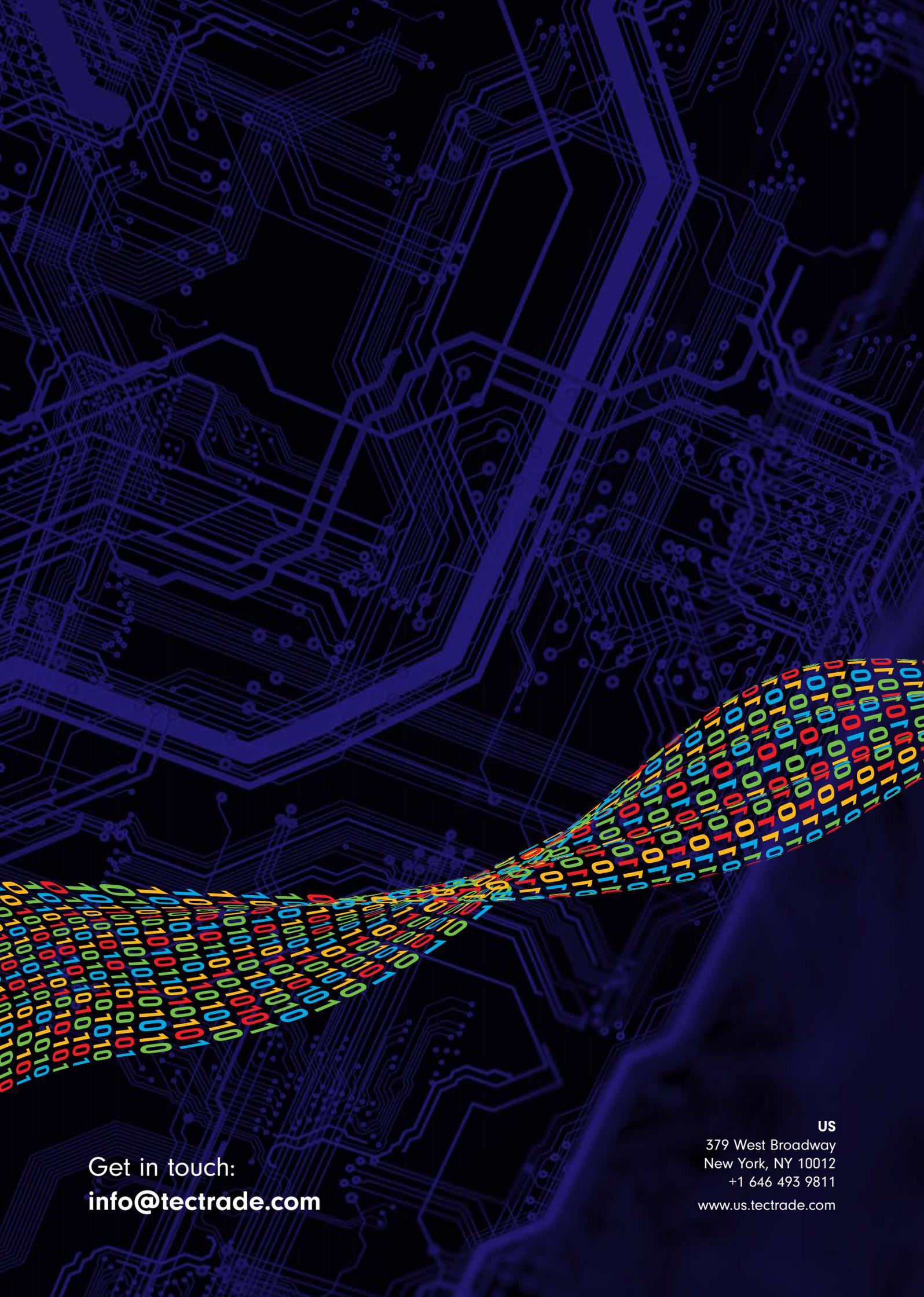
Here's our promise

We will take personal responsibility for ensuring you achieve your data protection goals

The current explosion in volume, velocity and variety of data has left many organisations battling to realise data's value, and minimise its cost.

Tectrade protect, recover, manage, store and secure petabytes of data for organisations around the world.

With decades of experience, certifications in proven enterprise-class technologies, a proven track record with a customer list that spans industries and continents, and a relish for tackling new problems, we are confident we can deliver above and beyond your expectations.



Get in touch:
info@tectrade.com

US
379 West Broadway
New York, NY 10012
+1 646 493 9811
www.us.tectrade.com