

ACRONIS® FOR EDUCATION AND RESEARCH

WHY CHOOSE ACRONIS

- Acronis products protect over 1,700 colleges, universities, and research centers in over 130 countries
- Acronis can both protect your data and let your researchers share data with approved internal and external colleagues
- Acronis sells products in 14 languages
- Acronis provides exclusive pricing for academic organizations
- Acronis provides dedicated, multilingual technical support
- Acronis has received over 45 awards for product excellence and innovation since 2009
- Most recently, Acronis received the 'best product of the year' awards from [Network Computing](#), [TechTarget](#), and [IT Professional](#)

One of the ways your institution competes for the best students is by offering extensive research programs and centers for undergraduates, graduates, and post-graduates. These programs and initiatives are fueling and increasing the continued explosive growth in data volume and complexity. In turn, this expands your institution's role as a creator of data to a custodian of information. Your institution needs to make research data available to other universities, research organizations, and government agencies so that it can be validated, tested, and reused by others in new research. For these reasons, your institution needs to consider the protection and access of data an important priority.

According to the EDUCAUSE Center for Analysis and Research (ECAR), "digital preservation of research data" is on the list of forecasted technologies with 30 percent of universities forecasting to implement this in 2014 and 50 percent forecasting to implement by 2017.

WHY PROTECT YOUR RESEARCH DATA

Backing up your data is the only way to protect and preserve your research investment. Consider the cost, and more importantly, the time lost if you have a catastrophic failure and lose critical data.

Researchers also need the ability to securely share information and collaboratively work on files with other researchers who may wish to evaluate or use the results to explain or augment subsequent research.

Research universities are also subject to a substantial number of compliance regulations such as grant regulations including effort reporting and grant accounting, responsibility integrity including conflicts of interest and research misconduct, human subject research, animal research, export controls, and biosafety. If your data is lost, destroyed, or compromised, your institution cannot comply with these regulations.

THE CHALLENGE WITH RESEARCH DATA

Over 1,700 colleges and universities around the world use Acronis products to protect and access their institutional data including their financial, clinical, operational, and research data. That experience underscores why research data is very different from other types of institutional data.

- There are broad categories of data within the research spectrum including observational, experimental, simulation, derived or compiled, and reference data. Each category of data may require a different type of data management plan. Some types of data are irreplaceable. Others are replaceable but at great expense.
- The volume of research data will far outweigh the volume of your other institutional data. Research data has helped birth today's notion of Big Data. Half of the U.S. academic research libraries hold a petabyte of data or 1,000,000,000,000,000 kilobytes of data, roughly the same amount of data as the Atmospheric Science Data Center (ASDC)¹.
- There is no consistency on the amount of time research data must be stored. In some cases, the time is at the discretion of the principal investigator. Some institutions require that data be retained for a minimum number of years while other universities have no set policies. A funder can dictate data retention and many leading journals also require that the underlying datasets be accessible to support published articles.
- Unlike other types of institutional data, a plethora of collaborators and research experts around the globe – both internal to the university and across public and private institutions – can create data for a single funded program. Any given university can have hundreds of funded research programs in play at any given time. It is a much more open environment of users.
- The management of research data is highly variable depending on the university and the research project. In all research university settings, larger projects that receive substantial levels of funding are usually subject to a data planning process. Smaller projects do not have this level of formality.

For all of these reasons, research data is more complex, which can make the management of data complex as well. Acronis products help universities and colleges protect and share their data. These include Acronis Backup Advanced, Acronis Backup as a Service (BaaS), Acronis Access, Acronis ExtremeZ-IP, and Acronis Snap Deploy®.

¹<http://myasadata.larc.nasa.gov/science-processes/data-volume-and-units/>

WHY CHOOSE ACRONIS

Acronis' products are designed to handle the complexities associated with protecting and accessing research data by providing solutions that are easy, complete, and safe.

- **Easy** – Acronis products are easy to install and easy to use, letting your research team focus on the business of research and not waste time learning and managing new technologies.
- **Complete** – Powered by the Acronis AnyData Engine, Acronis products provide a complete solution to manage all of your data protection and data access needs, regardless of the:
 - technology environment
 - volume of data
 - number of researchers and their affiliation and geography
 - storage and data management requirements
- **Safe** – Acronis products ensure that your data is secure and protected from user errors, hardware failures, security breaches, viruses, loss or theft of devices, natural disasters, and problems with software / hardware upgrades / updates. Only authorized researchers – internal to your institution or affiliated with other universities, research institutions, or agencies - have access to your data whether they use a PC®, Mac®, laptop, iPhone®, iPad®, or Android® phone or tablet.

Founded in 2002, Acronis is a global provider of robust, yet easy-to-use backup, disaster recovery, and secure access solutions.

All Acronis products are powered by the Acronis AnyData Engine, a set of unique, deep, and powerful new generation data protection technologies that capture, store, recover, control, and access data.

ACRONIS BACKUP AND STORAGE MANAGEMENT

Acronis Backup Advanced

Many universities use Acronis Backup Advanced to create data backups in the event of a disaster and to migrate data to other systems to foster collaboration and the sharing of data. Powered by the Acronis AnyData Engine, Acronis Backup Advanced uses a single-pass disk imaging technology that takes a snapshot of an entire research environment on any hardware or virtual machine, including the operating systems, applications, user preferences, data, etc. The institution can then store this data on disk, tape, or in the cloud and recover it to any other physical or virtual machine in any location. In spite of large volumes of data, you can easily and quickly backup and restore your research, regardless of the platform or system configuration. In addition, data is encrypted in transit and at rest to ensure privacy and security.

Acronis Backup as a Service (BaaS)

Acronis Backup as a Service (BaaS) is a comprehensive and cost-effective local and cloud backup and recovery solution. A university can choose to store their backups at an Acronis (Cloud) Data Center or use their own storage (cloud or local) infrastructure. Distributed IT organizations can also offer Acronis BaaS to the business and academic units within their institution, providing usage reports and supporting the "internal customer" sign-up process.

ACRONIS SNAP DEPLOY®

Acronis Snap Deploy® lets you provision hundreds of workstations and servers as fast as you can provision one. Create an exact disk image of any standard configuration you choose and simultaneously deploy the image to multiple machines – even different brands and types of PCs and servers - in one easy step. Primarily used in lab and classroom environments, researchers also have a need to create and re-create a stable technology environment for experimental research. Acronis Snap Deploy establishes a consistent technology standard and the physical control required to minimize the risk of errors with experiments and tests.

ACRONIS ACCESS

Acronis Access allows mobile or remote researchers to safely access and share data using any institution-owned or personal device – desktop, laptop, tablet, or smartphone. Researchers can access the content they need from file servers, NAS, and computers and safely share content and files with internal and external colleagues across other institutions or agencies. The solution is easy to use and data is encrypted ensuring security and privacy from unauthorized access. Acronis Access synchronizes data between all devices so that a researcher can work using one device (e.g., a laptop) and access and edit the same work from another device (e.g., a tablet).

ACRONIS ExtremeZ-IP

Although there is no hard evidence that charts the Mac's rise in scientific research, anecdotal evidence suggests that various Apple machines are more widely used today than in previous years. For example, Virginia Tech recently decided to build a supercomputing cluster using Power Mac G5s, and then subsequently upgraded to Xserve G5s when those machines became available. NASA's Jet Propulsion Laboratory (JPL) also primarily uses Apple machines².

If an institution uses Windows® as a standard but has researchers who prefer to use Mac® PCs, Acronis ExtremeZ-IP lets those Mac users work in a Windows environment and eliminates network performance degradation, file corruption, and other incompatibility-related issues caused by the different communication protocols.

SUMMARY

As a researcher, you need to preserve and protect your data and let your research team easily access and share data with both internal and external colleagues. Protecting data is what responsible researchers do, just like using appropriate protocols and protecting human subjects. If your data is lost or compromised, your reputation is on the line, your funding may be at risk, and your colleagues, funding agencies, and publishers can question the validity of your research³. Here are just a few of the top reasons why data protection and secure access are important to your institution and researchers:

- Researchers can always find their data when they need it
- Eliminate unnecessary duplication recollecting or reworking data
- Ensure continuity if project staff leave or new researchers join
- Maintain the data supporting publications and make it available to validate and explain your research
- Your researchers can safely share data with internal and external colleagues, allowing them to collaborate and advance their research
- Other authorized researchers can safely access your data to supplement their research
- Ensure that your research is visible and impactful
- Get recognition when others cite your work
- Establish precedence in the event that similar research is published
- Comply with funder mandates and compliance regulations
- Protect research subjects and researchers in the event of legal allegations
- Transform any device, including institution or personally-owned devices, into a true work platform enabling researchers to access, create, edit and share data anytime, anywhere

Acronis' backup and secure access products protect your research investment and let researchers access and share data wherever they are, using any device they choose. With over 1,700 colleges, universities, and research centers using Acronis products, Acronis offers both proven solutions and the expertise to ensure your investment in your research is protected and secure.

²<http://www.technewsworld.com/story/32837.html>

³http://security.utexas.edu/policies/sensitive_research.html

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