

InfiniVault - Leading the Way with Green Information Storage

The increasing demands on Information Technology for more storage capacity create impacts that are especially felt in the areas of power, cooling, and space requirements. As capacity increases there are increasing operational costs for power and cooling. Additionally, infrastructure changes may be required which can be very costly or impractical to accomplish in a reasonable amount of time.

IT professionals are looking for alternatives to alleviate or mitigate some of the problems associated with the impacts of increasing storage capacity. With much publicity around power consumption and the ecological impact, the solutions are being categorized as “**green**” offerings.

There are different approaches to improve the situation, each of which has a much different result. Historically, readily accessible data resides on spinning disks while data that is not needed immediately is stored on removable media. Spinning disks have the greatest negative impact on power and cooling while removable media has the greatest positive impact. One of the advances made recently was to power down ranks of disk drives in disk arrays for periods of time after they had been inactive for some predetermined amount of time. Powering down these types of disks in disk systems was not a normal usage case and requires the disks to be spun up periodically to be tested and cycled again.

The greatest advancement in addressing the power and cooling requirements has come with the ProStor Systems InfiniVault™ and its use of online removable disk for long-term data retention. With the use of RDX® removable disk technology, the ProStor InfiniVault can have over 50 TB of online capacity behind the Active Archive.

The InfiniVault **online** capacity is inherently a **green** solution:

- The RDX removable disks, with up to 100 online and available disk cartridges in the active archiving system are spun down when not actually transferring data.
- The RDX removable disks do not need to be powered up and tested periodically because they use mobile hard drives with ramp-loaded heads. The disk drives are made to be powered down frequently and the heads do not come into contact with the media and do not land in the surface lubricant when powered down. The heads retract onto the ramp when no longer transferring data.

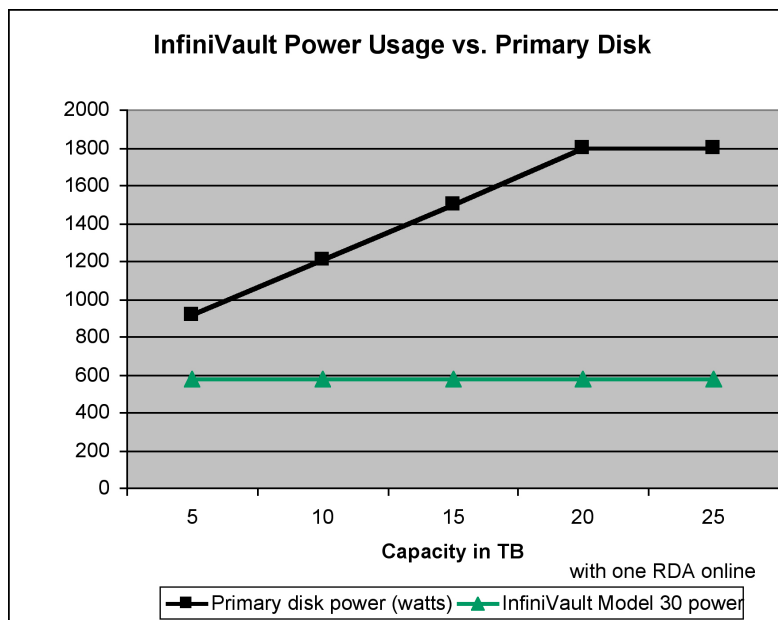
InfiniVault™



InfiniVault™ Product Family

The InfiniVault's use of **offline** removable disk achieves the most **green** of all information storage implementations. When the RDX cartridges are removed and archived to a shelf or in a vault, they are not consuming anything except the physical space where the disk cartridges are stacked.

To illustrate the power savings with an InfiniVault system, a comparison between storing information on a popular primary disk system and storing the same amount on InfiniVault will highlight the advantages. The graph below shows the power requirements for InfiniVault with a Model 30 controller and RDX removable disk cartridges to contain information at various capacity points. Contrasted with that are the power requirements for a widely sold primary disk system at the same capacity points. Since the primary disk system increases in capacity by adding disk shelves, the breakpoints in power usage are not exactly linear.



The ProStor Systems InfiniVault sets a new standard for **green** storage, providing users with the lowest power and cooling requirements and the ultimate savings of removable disk media.