



All Pro Solutions, Inc.
Optical Disc Archiving & Data Storage Solutions

Olympus Optical Disc Archiving Systems & DiscStor 900 Optical Disc Storage System

Solution Overview



All Pro Solutions, Inc.
Optical Disc Archiving & Data Storage Solutions

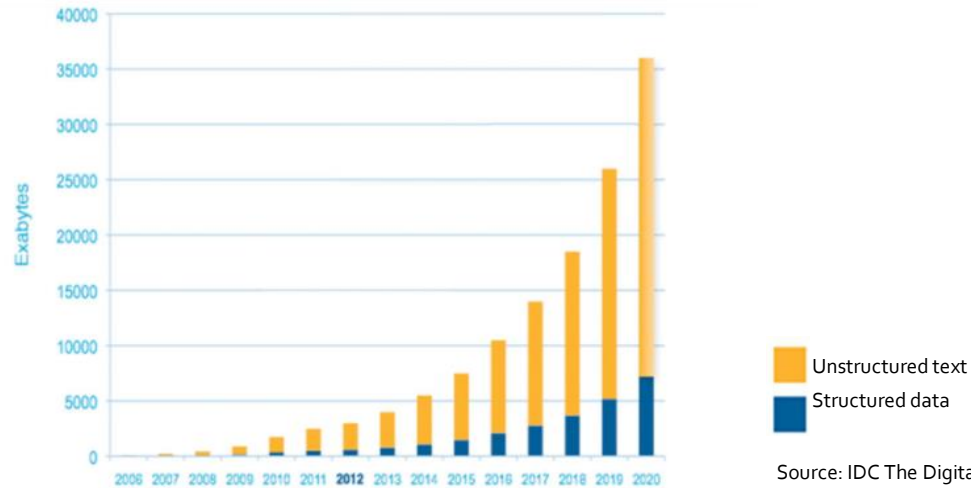
The Company – All Pro Solutions, Inc.

- Leading manufacturer of automated disc duplicating, printing & publishing systems.
- Started in 1996 manufacturing floppy disk duplication systems.
- Family-owned and operated.
- In South Carolina since 2009.
- Provides services like document scanning, imaging, converting.
- Expanded into data storage and archiving industry.
- Whatever the problem, we find a solution.

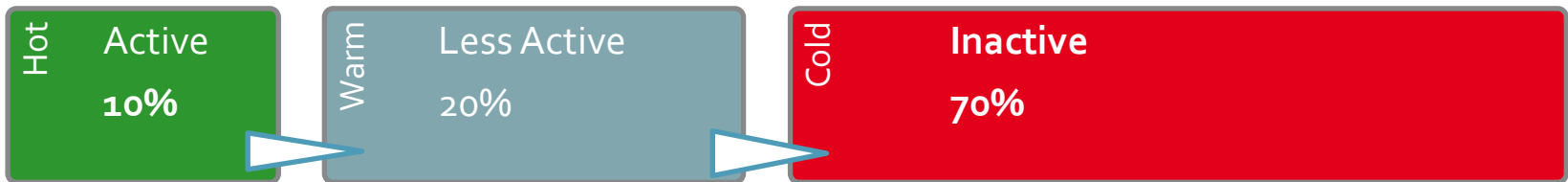


The Challenge

Worldwide Corporate Data Growth



80% of Corporate Data is Unstructured File Data





All Pro Solutions, Inc.
Optical Disc Archiving & Data Storage Solutions

The Solution



Blu-Ray Disc – The ideal media for long-term archival

- Longevity
- Security
- Data Migration
- Compliance
- Green Technology
- Capacity - Extendable
- Removability
- Accessibility
- Compatibility
- Power Consumption

Networked Client Workstations



LAN



Primary Network Servers



The Solution



Blu-Ray Disc – The ideal media for long-term archival

- Longevity
- Security
- Data Migration
- Compliance
- Green Technology
- Capacity - Extendable
- Removability
- Accessibility
- Compatibility
- Power Consumption

Networked Client Workstations



LAN



Primary Network Servers

Olympus Archiving System



DiscStor 900 Storage System



The Solution



Blu-Ray Disc – The ideal media for long-term archival

- Longevity
- Security
- Data Migration
- Compliance
- Green Technology
- Capacity - Extendable
- Removability
- Accessibility
- Compatibility
- Power Consumption

Networked Client Workstations

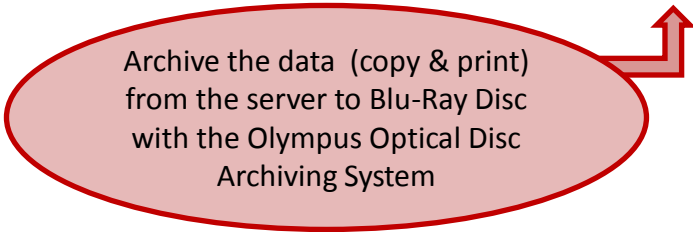


LAN



Primary Network Servers

Olympus Archiving System



DiscStor 900 Storage System



The Solution



Blu-Ray Disc – The ideal media for long-term archival

- Longevity
- Security
- Data Migration
- Compliance
- Green Technology
- Capacity - Extendable
- Removability
- Accessibility
- Compatibility
- Power Consumption

Networked Client Workstations

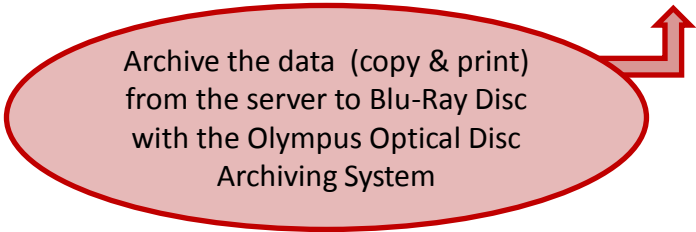


LAN



Primary Network Servers

Olympus Archiving System



Archive the data (copy & print) from the server to Blu-Ray Disc with the Olympus Optical Disc Archiving System



DiscStor 900 Storage System



The Solution



Blu-Ray Disc – The ideal media for long-term archival

- Longevity
- Security
- Data Migration
- Compliance
- Green Technology
- Capacity - Extendable
- Removability
- Accessibility
- Compatibility
- Power Consumption

Table of contents from each disc will be read into a database. The software will determine the disc placement inside the DiscStor 900. LEDs will light up to mark the slot the disc will be placed in.

Networked Client Workstations



Primary Network Servers

Olympus Archiving System



Archive the data (copy & print) from the server to Blu-Ray Disc with the Olympus Optical Disc Archiving System



DiscStor 900 Storage System



All Pro Solutions, Inc.
Optical Disc Archiving & Data Storage Solutions

Olympus 4H AE Optical Disc Archiving System

- Made in the U.S.A. by All Pro Solutions
- Standalone Self-Contained System
- Embedded PC w/ Windows 10 Pro
- POINT Storage Manager Archiving Software
- 4 Blu-Ray / DVD / CD Combo Drives
- SpeedJet HP Inkjet Printer
- 420 Disc Input & Output Capacity
- Industrial Grade Robotics - Metal mechanical parts
- Modular system – removable drive tower and printer.
- Open Design – free airflow without any restrictions from any enclosures.
- 3 independent power supplies - autoloader/PC, printer, drive tower.
- Ability to add or remove discs from bins while jobs are processing





All Pro Solutions, Inc.

Optical Disc Archiving & Data Storage Solutions

DiscStor 900 Optical Disc Storage System

- Standalone Optical Disc Storage System
- Rugged Metal Construction
- 34"W x 77"H x 14"D dimensions
- Embedded Touchscreen computer w/ Windows 7 & Disc Manager database software.
- 900 total disc capacity - 450 Slots w/ 2-Disc Cases included
- LED lights to identify location of discs.
- Ethernet connection.
- Expandable - up to 16 units can be operated from one unit.
- Door locking mechanism included.





All Pro Solutions, Inc.

Optical Disc Archiving & Data Storage Solutions

Top 10 Reasons for Archiving to Blu-Ray Disc

1. Best TCO (Total Cost of Ownership)

The total cost of ownership of Blu-ray storage for archival purposes is less than half the cost for alternatives like Hard Disk and tape, thanks to low energy consumption and cooling costs and no need for data migration and constant data back-up. Compliance

2. Compliance

Blu-ray media offers a true WORM recording medium which can't be altered with software hacks or viruses. This is essential considering today's requirements for multi-year data retention periods and growing regulatory compliancy requirements for unalterable, non-erasable storage capabilities. Optical technology meets these requirements as part of its standard



Top 10 Reasons for Archiving to Blu-Ray Disc

3. Capacity

Blu-ray Disc format is easily extendable (future-proof) as it includes support for multi-layer discs. This allows the storage capacity to increase the current 100-128GB/disc capacity to 200GB in the near future simply by adding more layers to the discs.




Because a disc is so small physically, the total storage capacity can be multiplied by thousands and millions of discs and still be stored efficiently.



Top 10 Reasons for Archiving to Blu-Ray Disc

4. Compatibility

Optical media has industry standard formats; ISO 9660 and UDF (Universal Disk Format) which are supported on every operating system including Windows, Linux, UNIX and MAC OS X. This avoids the direct need for additional client software as data can still be read in a standard drive in a standard PC, yielding complete vendor Independence. The Blu-ray Disc is the de facto standard for large-capacity optical discs, and is supported by about 170 major corporations, assuring long-term readability.

	2010-	2020-	2030-	2040-	
 BD	BD Media (UDF format) BD Drive				Because it is a de facto standard, the supply of BD drives and parts can be expected to continue for a long time.
 Tape	Tape Media Tape Drive				The drive becomes obsolete in about 10 years, resulting in the need for a format change.
 HDD					Since it is assumed that HDDs will be replaced, data migration is frequently required.



All Pro Solutions, Inc.

Optical Disc Archiving & Data Storage Solutions

Top 10 Reasons for Archiving to Blu-Ray Disc

5. Access

Blu-ray technology offers random access to any file on Blu-ray Discs. Unlike with Hard Disk storage, media is not spinning and less subject to physical damage, viruses, etc. Tape drives provide sequential access and recovery times are slow as the tape needs to spool to find the file.

6. Removability

Off-line management of very old information is not possible with magnetic hard disks as they can't be safely removed and stored long-term outside of the archive. Tape can be removed and stored offline, however, tape needs periodic re-tensing to prevent tape adhering together and is like hard disk vulnerable to (electro) magnetic radiation. Blu-ray Discs can be safely removed and stored offline, offering unlimited archive storage capacity.



Top 10 Reasons for Archiving to Blu-Ray Disc

7. Innovation

While maintaining all benefits of a standardized format, Blu-ray technology is available as a best-of-breed hybrid solution technology for organizations. Combining the removability and longevity of Blu-ray with direct access and speed of hard disk yields easy to deploy and maintain appliance type solutions.

8. Cloud & Blu-Ray

Cloud storage has some advantages, but many companies choose for a mixed model to implement a secure, physical archive in place which is less susceptible to outages, network bandwidth and privacy breaches.

9. Green Technology

Blu-ray technology offers a sustainable archiving technology. Blu-ray media consume zero power when not being accessed, reducing power consumption, air conditioning needs and CO2 emission. As there is no need for frequent data migrations, less waste products will be generated by having to replace devices.



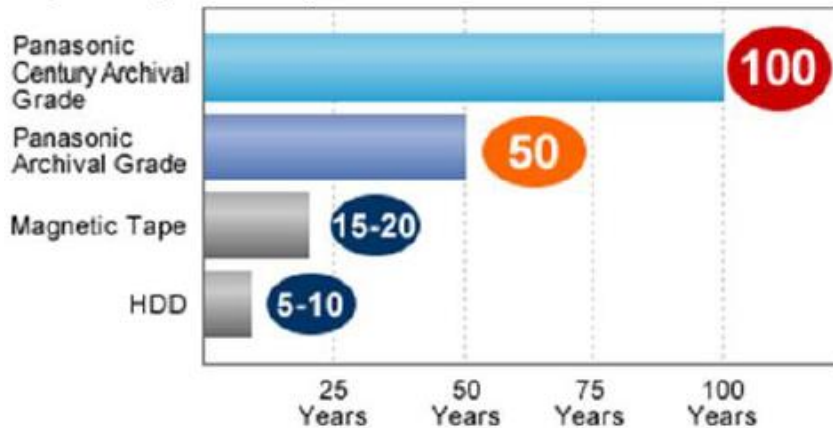
All Pro Solutions, Inc.

Optical Disc Archiving & Data Storage Solutions

Top 10 Reasons for Archiving to Blu-Ray Disc

10. Long-Term / Longevity

- Due to its advanced media lifetime of 50+ years, standardized format and removability, Blu-ray technology offers the possibility to build long-term infinite offline media archives.
- Compared to magnetic tape and HDD, it is less likely to be affected by humidity, temperature and light, and resists changes over time.
- Unlike magnetic tape and HDDs, there is no contact between the optical pickup (OPU) and the disc, so it maintains excellent durability even after repeated reading and writing.



- Panasonic Blu-ray™ discs have an archival life of 50 or 100 years, in contrast to an HDD's 5 to 10-year and magnetic tape's 15-20-year archival life. This allows data to be stored for longer periods of time.



All Pro Solutions, Inc.

Optical Disc Archiving & Data Storage Solutions

www.allprosolutions.com