

AIM

stor™

User Success Story

IPC Logistics Delivers Cloud Service with 99.99% Uptime

Overview: IPC Logistics Corporation (IPC) is the industry recognized leader in providing complete Aviation Data Solutions to a wide range of aviation clients via the IPC Online Aviation Scheduling Integration Service called OASIS. IPC is required to maintain a serious level of availability, roughly 99.99% uptime, or less than 1 hour of downtime per year in order to service their clients effectively.

The IT Infrastructure at IPC consists of a mix of physical and Hyper-V application servers and web servers. For the past 2 years, IPC has run had performance and configuration problems running their previous purchases of (Symantec) BackupExec™ and (Vision Solutions) DoubleTake™ software to help backup and replicate their entire server infrastructure.

IPC recently embarked on a full virtual upgrade consisting of highly available Dell servers running Windows 2003 and Windows 2008, servicing multiple performance hungry Windows Hyper-V virtual machines per physical Dell host.

IPC now uses AIMstor™ from Cofio to protect all machines, hosts and VMs with real-time replication, real-time CDP and live Backup – all unified in a single application solution.

Critical Issues: IPC is currently delivering over 7,000,000 records of real-time data to clients each day. All data is related to important aviation logistics. IPC serves data on a 7/24/365 basis.

The previous backups were heavy and slow on physical and VM machines like, and restores were unreliable. The previous replication method, implemented for VM failover, required exact OS machines for mirrors, and any changes to the configurations resulted in drawn out service calls.

Before and After Scenarios

IPC not only consolidated VMs onto fewer Host machines, they enabled Real-Time protection of Hyper-V images with full deduplication and multiple Recovery Point Objectives.

“AIMstor provides us with real-time protection on every level, and is hands down the fastest recovery we have seen . . . it is simply easier to test, faster to implement, and far more reliable than anything we have used. ‘Unified and Real-Time’ is the optimal way to go.”

Pete Musacchio,
President of
Operations at IPC
Logistics

Hyper-V Server Consolidation with Unified Backup and Replication



Batch Backup & Separate Replication for each physical machine

- ✓ Painful Restore and Complex Failover
- ✓ Heavy System I/O & Network Traffic
- ✓ Rigid Recovery Points, maybe daily

Unified & Real-Time Backup and Replication for Physical Hosts and VM's

- ✓ Instant Restore & Failover
- ✓ 95% Reduced I/O & Network Traffic
- ✓ Flexible Recovery Points, 1-sec or Greater

Unifying Real-Time Replication with Live Backup and CDP

IPC implemented a planned upgrade of their Dell hardware and networks. When the new machines arrived, they decided to research real-time replication alternatives for Windows and came upon Cofio. They also searched for real-time backup, and real-time CDP, and again, found Cofio.

IPC was intrigued because AIMstor offered one single Windows application to handle “zero-window” backups, continuous data protection (CDP) for physical and virtual machines for their entire all Hyper-V infrastructure, and real-time replication of VMs, hosts and VHD files.

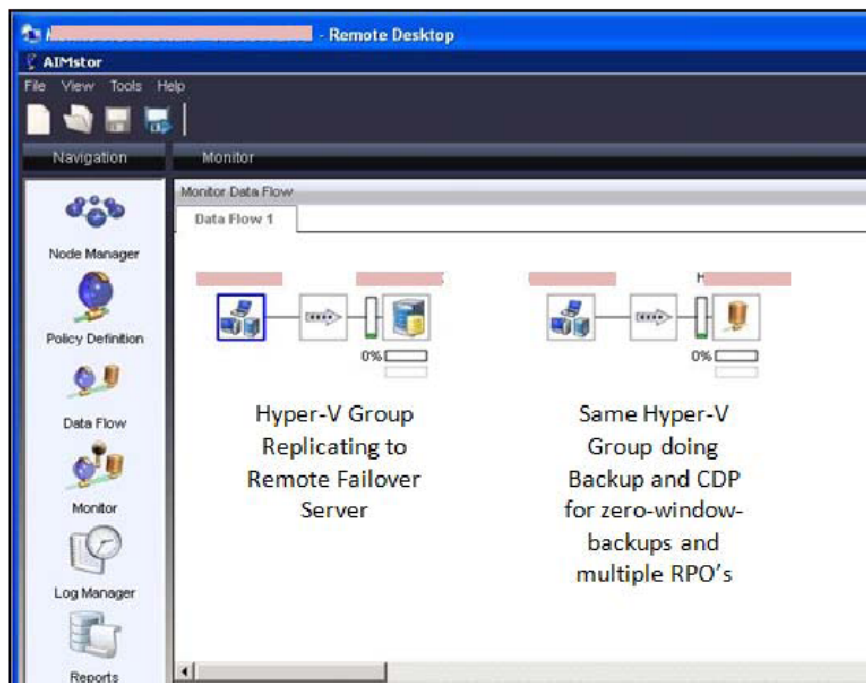
At first, IPC began with AIMstor Replication, using the real-time changed byte transfer within AIMstor to move VM’s across the network to a secure site for failover. To their surprise, the AIMstor solution allowed IPC to replicate data to different OS’s (Win2003 to Win2008R2), and to select data based on flexible data classifications. IPC standardized on replicating live VHD files to standby physical hosts.

IPC then began mixing continuous backups of the physical hosts and the individual VMs using AIMstor Backup and CDP tools. Ultimately, IPC began sending data to both the AIMstor repository for Backup and Backup snapshots, and to the Failover Hyper-V host to enable stand-by servers for their critical applications.

Workflow for Data Management and Protection

IPC was able to create Hosts and VM groups in AIMstor for easy application of certain policies and data flows. This allowed for whole-environment policy changes within seconds. After running AIMstor Replication and Live Backup and CDP, IPC was able to:

- Failover VMs in minutes with real-time consistency.
- Restore entire VMs to other Hyper-V hosts within minutes.
- Restore specific files within any machine as needed, within seconds or minutes.



Screenshot shows Hyper-V groups unifying data flow to move data to replication targets for failover, and repository target for restore of VHD files, individual data, or whole VMs.

➤ Results

IPC now boasts 99.99% uptime, and is able to recover and restore VMs on in seconds and on the fly. If a VM or host is corrupted or fails in some way, they can rebuild the Hyper-V host or VM at will.

➤ Unified Data Movement

When data recovery, restore and recovery functions are separate, there is an unaccounted cost that comes with such separation: bandwidth impact, I/O impact, CPU cycles, etc. IPC learned that by unifying such functions into a single solution with a shared framework, they could avoid redundant use of valuable resources.

➤ Performance

Backup windows no longer exist, and snapshots are offloaded to the AIMstor repository, thus eliminating the processing load from the VMs and their hosts.

➤ Flexible RPO's

Retention of any snapshot is tuned to IPC's needs; one hour, one day, or several years, with almost no added capacity impact.

➤ Administrative Workload Unified

AIMstor's unified approach saves huge amounts admin time and allows one person to administer the whole environment with multiple tools and a single workflow.

For more info on Cofio's AIMstor software for Windows and Linux, contact us at:

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