



Welcome to the Virtual IMS user group newsletter. The Virtual IMS user group at www.fundi.com/virtualims is an independently-operated vendor-neutral site run by and for the IMS user community.

Virtual IMS user group presentation

The latest webinar from the Virtual IMS user group was entitled, “Simplify and improve database administration by leveraging your storage system”, and was presented by Ron Haupert, a Senior Technologist with Rocket Software.

Ron is a database professional with over 30 years of related experience. He has developed relational database software, implemented large database systems, conducted database design reviews, and consulted with companies around the world on various aspects of relational database technology, database management tools, and integrated data management solutions. His primary focus areas include: database architecture, database design

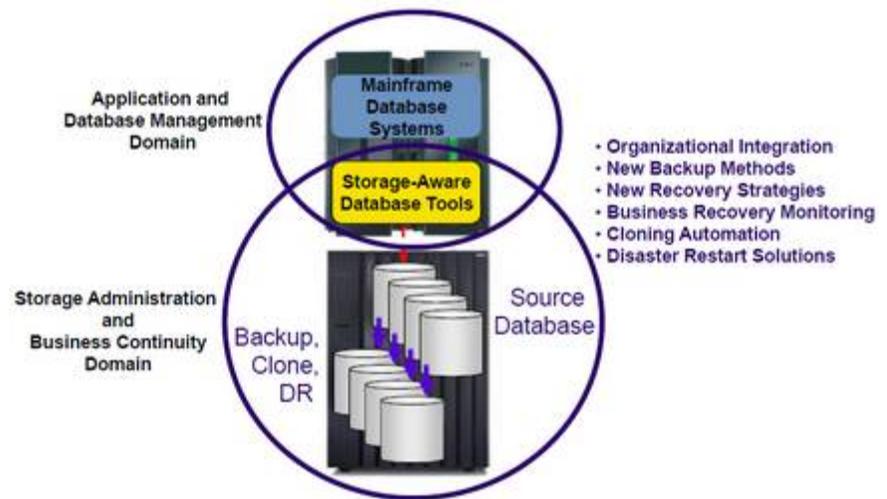


Figure 1: Database and storage integration

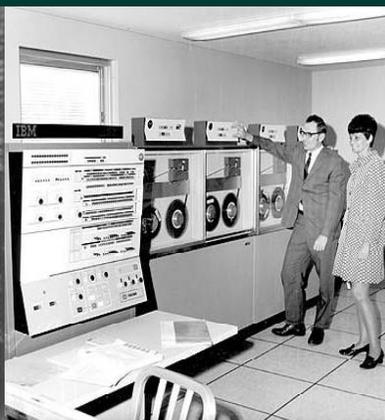
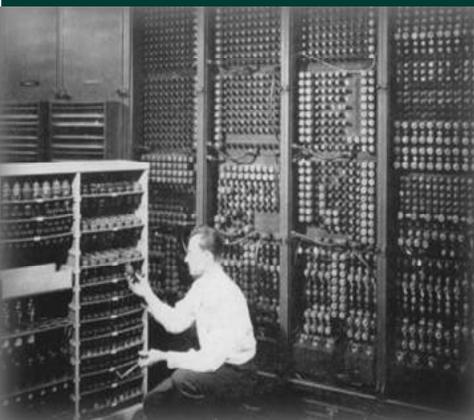
and usage, federated database interoperability and management, high availability, backup/recovery, business continuity, and storage system integration.

Ron’s presentation looked at storage-aware data management tools. He told the user group that these tools integrate storage-based fast-replication facilities with database management systems to provide fast and

non-disruptive IMS and DB2 backup and cloning solutions (see Figure 1).

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Storage-aware data management tools improve database backup, recovery, and cloning solutions by using storage-based fast-replication facilities to copy data – saving time and host CPU and I/O resources (see Figure 2). The presentation also explored how storage-based fast-replication facilities offered by IBM, EMC, and Hitachi storage systems can be used to backup, recover, clone, and refresh IMS and DB2 systems.

Ron explained about storage-aware DB2 and IMS backups. You can integrate DB2 and IMS backup, restore, and recovery processes with storage-based fast replication. It provides easy and fast backup and restore of DB2 and IMS systems and applications. And it supports common storage systems like IBM FlashCopy (FC), EMC TimeFinder/Mirror/Clone/Snap, FC, HDS Shadow Image, FC

Ron informed us that the feature requirements include:

- DB2 and IMS system discovery and configuration management
- DB2 and IMS system backup and recovery operations
- System backup validation
- Application and object data set backup (DB2)

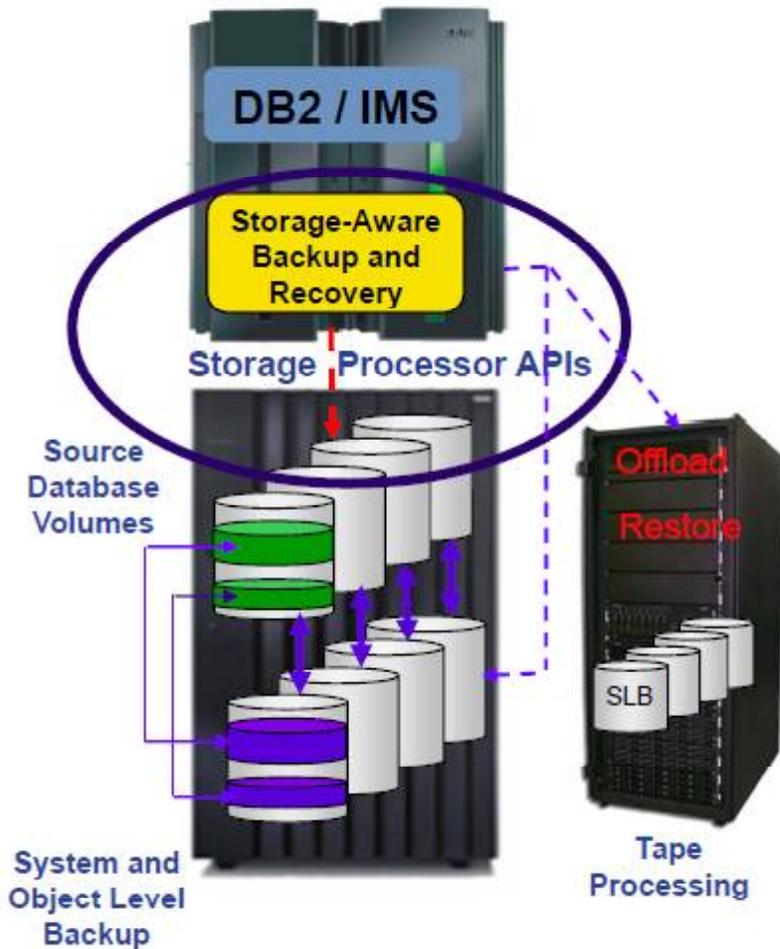


Figure 2: Storage-aware DB2 and IMS backup

- Image copy creation (DB2)
- DB2 object and application recovery
- IMS database and application recovery
- Active metadata repository
- Encrypted tape offload support
- DR preparation and management.
- Batch window requirements are eliminated
- Image copies can be created and registered in DB2 syscopy
- I/O contention to maintain production performance is eliminated
- All image copies are created at the same point in time
- Recovery time is reduced.

Ron went on to compare image copies created from a system level backup and from data set fast replication with those created from a system level backup, saying:

Image copies created from a data set fast-replication:

- Can be share level change or reference
- Share level reference performs tablespace quiesce before data set fast-replication operations
- FlashCopy copies can be deleted after image copy creation
- Fast-replication backups can be persistent, registered in repository, and used for restore and recovery operations.

When it comes to cloning (see Figure 3) DB2 and IMS systems, Ron told us it was possible to perform DB2 and IMS cloning automation, which:

- Simplifies database system cloning processes
- Reduces cloning time and administration costs.

Tools can leverage fast-replication facilities to clone data, allowing data to be cloned while online or offline.

Tools can perform rapid volume reconditioning and data set renaming on cloned database volumes, which is a critical component of the database system cloning process.

Tools adjust a DB2 target database system to accommodate and accept the cloned data (DB2 catalog, directory, BSDS, active / archive log, etc).

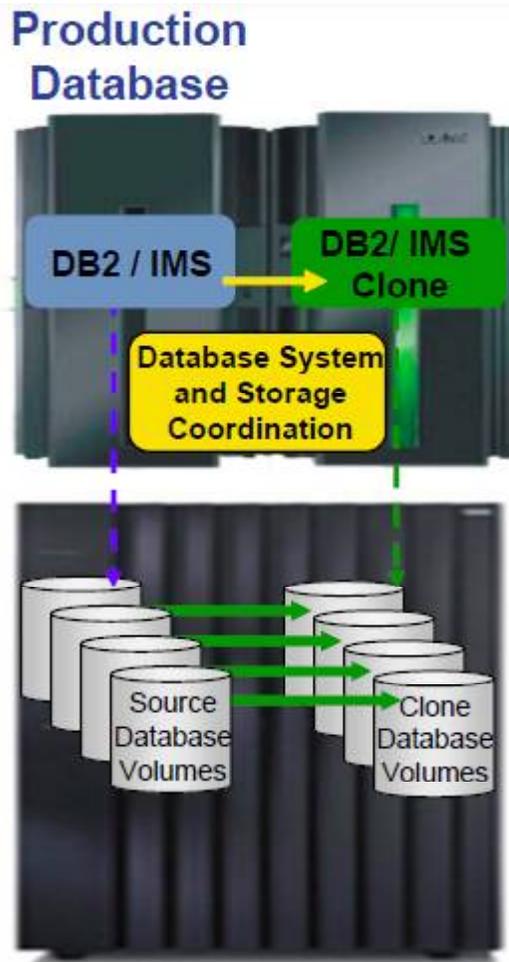


Figure 3: Cloning

Tools can adjust the target IMS system to accommodate and accept the cloned data (including IMS RECONS, PROCLIB, JOBS, JCL, and MDA members).

Ron listed a number of products that are storage-aware.

He then moved on to look at implementing planning considerations. Among the areas he listed for consideration were:

- System level backup usage – determining how SLB(s) will be used

- SLB type – deciding on full, data-only, or partial SLB requirements
- Backup frequency and space utilization – determine backup frequency, performance, and space efficient fast-replication requirements
- Disaster restart considerations – determine offsite disaster restart resources and preferences (RTO, RPO) to define appropriate disaster recovery profiles
- Copy blade selection – determine storage processor capabilities, available facilities and fast-replication preferences.

With IMS system level backup, the data-set layout for system recovery is shown in Figure 4.

Ron also looked at the differences between full and space-efficient volumes. With a full volume fast-replication copy:

- Full volume copy (the target is the same size as the source).
- Relationship can be retained with the production volume

IMS Application Environment

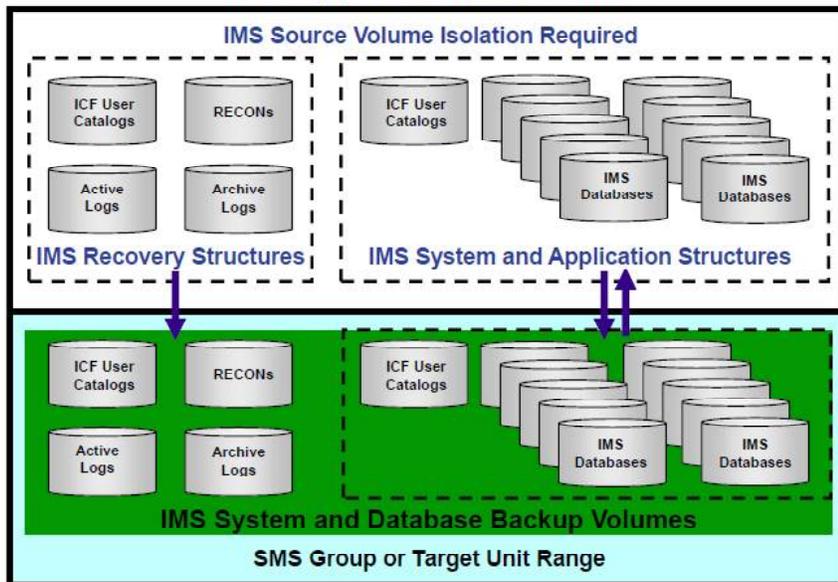


Figure 4: Dataset layout for recovery

- Allows incremental resynchronization.

presentations/2011-04-12meeting.wmv.

With a space efficient copy:

- Change tracks copied before update
- Allows incremental restore
- Can have multiple space-efficient volumes associated with a production volume.

Ron provided much more detailed information than there's room to summarize here.

A copy of Ron's presentation is available for download from the Virtual IMS user group Web site at www.fundi.com/virtualims/presentations/leveragelogs.pdf.

You can see and hear the whole user group meeting by downloading the WMV file from www.fundi.com/virtualims/

Meeting dates

The following meeting dates have been arranged for the Virtual IMS user group:

- 14 June 2011 – Verna Bartlett, Head of Marketing, Data Kinetics.
N “MSU reduction due to in-memory table management with (any) IMS applications”.
- 9 August 2011 – Scott Quillicy, SQData.
E “IMS replication for high-availability”.

Recent IMS articles

Preparing for IMS 24x7 Availability by Ronald Weinger and John Maiorelli in *z/Journal* (April/May 2011). You can find the article at

www.maintenancezone.com/it-management/preparing-for-ims-24x7-availability.

IMS news

SQData has announced an IMS data replication utility that enables customers with mission-critical applications a high-availability, disaster tolerant framework to minimize outages. Product highlights include: Active-active IMS data replication; multiple IMS data capture options; IMS Sysplex ready; IMS Fastpath and full-function support; allows for recovery of changed data. SQData's LiveCheck for IMS monitors data consistency during high-speed replication, while LiveSync resynchronizes data without having to take active databases offline. Full details can be found at www.sqdata.com/aaimsrep.htm.

About the Virtual IMS user group

The Virtual IMS user group was established as a way for individuals using IBM's IMS hierarchical database and transaction processing systems to exchange information, learn new techniques, and advance their skills with the product.

The Web site at www.fundi.com/virtualims provides a central point for coordinating periodic meetings (which contain technically-oriented topics presented in a webinar format), and provides articles, discussions, links, and other resources of interest to IBM IMS practitioners. Anyone with an interest in IMS is welcome to join the Virtual IMS user group and share in the knowledge exchange.

To share ideas, and for further information, contact trevor@itech-ed.com.

The Virtual IMS user group is free to its members.