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, "Reducing planned outages", and was presented by Betty Patterson, IMS Chief Architect at IBM.

Betty is an IBM Distinguished Engineer and Chief Architect for Information Management System (IMS) product and is responsible for IMS architecture and design.

Betty has a long history of leadership and innovation in driving the transformation of IMS's capabilities. She drove innovations in IMS in the areas of system management, automation, operations, parallel sysplex, and shared message queues. She is currently focused on reducing the total cost of ownership for IMS,

Figure 1: No outages!

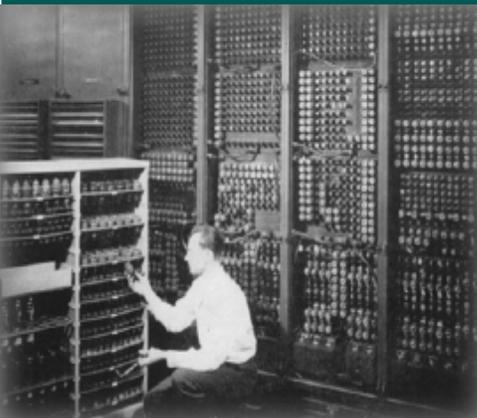improving ease of use, and system availability.

Betty is based at the IBM Silicon Valley Laboratory in San Jose, California, and is a member of the IBM Academy of Technology.

Betty started the presentation by saying that she would overview the cost of outages and then look at the capabilities that can reduce planned outages in relation

to databases, transaction management, and general system functions. She would also look at other considerations.
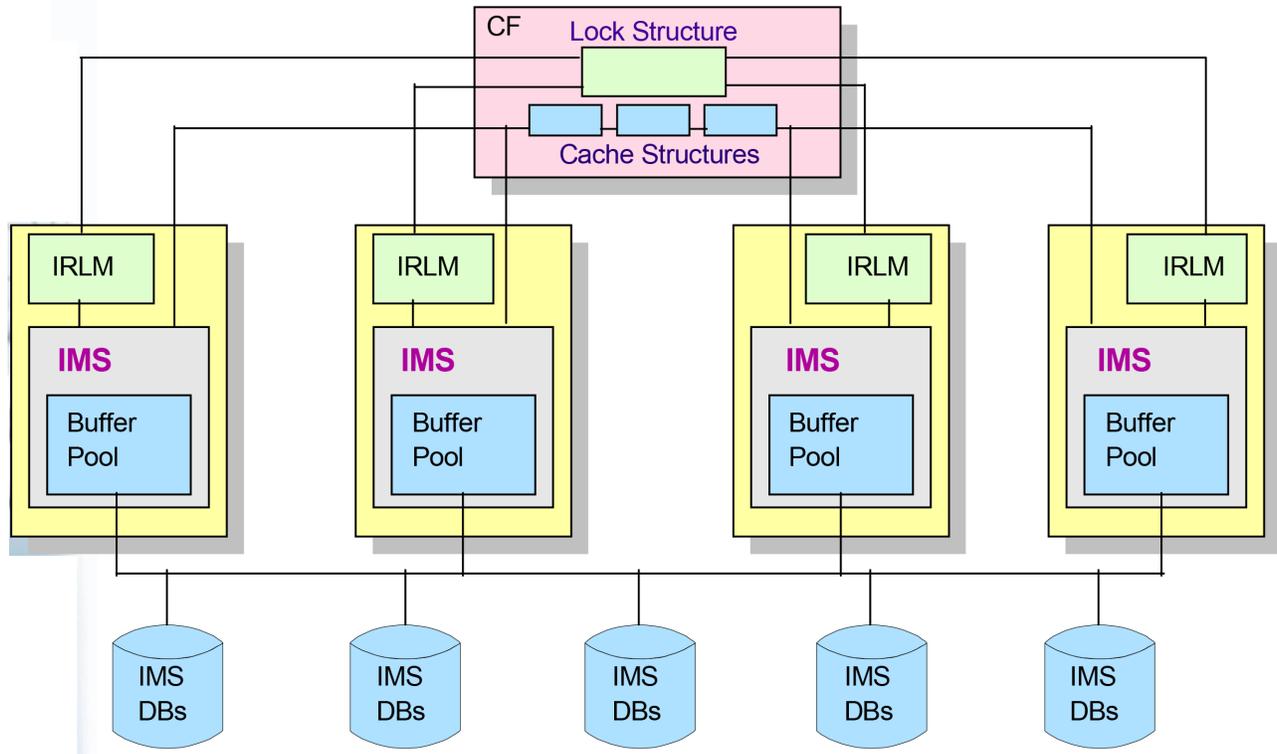
Contents:

Figure 2: Database sharing configuration

The first question to ask, Betty suggested, is how much interruption can your business tolerate? Some businesses can be down for only seconds (like banks) others can tolerate longer periods.

To ensure business continuity, the disaster recovery plan must be able to restore business after an unplanned outage. High-availability is needed to meet service availability objectives, eg 99.9% availability or 8.8 hours of down-time per year. And continuous availability means no downtime (whether planned or not).

Global Enterprises that operate across time zones no longer have any 'off-hours' window. Continuous Availability is required.

Betty asked: "What is the cost of 1 hour of downtime during core business hours?"

The top causes of business interruption are:

• Planned maintenance – system and software upgrades or reconfiguration, and database administration.

• Component failure – caused by operator errors, software defects,

disk failure, subsystems, hardware, power grid. The data is recoverable, but, changes might be stranded until the component is restored.

• Disaster – flood, earthquake, fire, hurricane, loss of a site. The data is not recoverable.

The Recovery Time Objective (RTO) is how much time is needed to restore business operations.

The Recovery Point Objective (RPO) is how much data you could afford to lose.
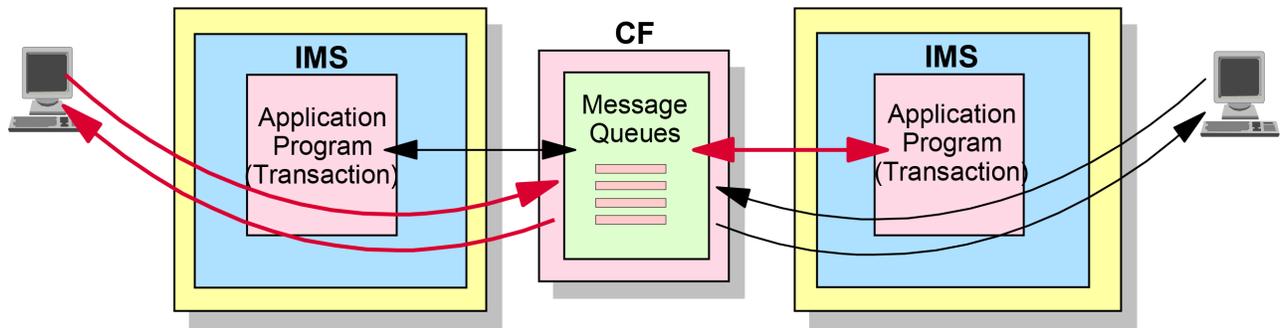
Figure 3: Shared message queues

The main considerations are:

- Redundancy – spare components to avoid single points of failure.

- Isolation – to minimize disturbances from other systems.

- Concurrency – perform maintenance and support concurrently with ongoing operations.

- Automation – automate operations as much as possible.

- Scope – determine availability needs for single IMS, Sysplex, and/ or multiple sites.

For databases, the things to consider are:

- Datasharing/Sysplex (see Figure 2)

- Dynamic LOCKTIME

- DB Quiesce

- Database Utilities

- Dynamic DB buffers

- CA Reclaim

- Database versioning

- HALDB Alter

- DEDB Alter.

When looking at Transaction Manager/connectivity Betty suggested that the things to consider were:

- Shared message queues (see Figure 3)

- Dynamic change of OTMA descriptors

- Dynamic IMS Connect configuration

- MSC Considerations.

When looking at system issues, Betty discussed:

- Dynamic Resource Definitions (DRD)

- Member OLC

- ACB enhancements

- Refreshable user exits.

And other considerations, Betty looked at DBRC and planned site outages.

Talking about DBRC, Betty informed the group that an upgrade does not require IMSs to be shut down. She said that best practice is to 'clean' RECONs before an upgrade to minimize duration:

- DELETE.LOG INACTIVE – clean up old PRILOG information.

- CLEANUP.RECON – clean up recovery-related records to a specified timestamp. You can then upgrade each IMS individually so no total outage.

Betty also said that IMS does not need to be shut down during time change. Although, she warned, you may still have applications that cannot tolerate the time change and may require an outage.

A copy of Betty's presentation is available for download from the Virtual IMS user group Web site at www.fundi.com/virtualims/presentations/Planned_Outage_ReductionAug14.pdf.

You can see and hear the whole user group meeting by downloading the WMV file from www.fundi.com/virtualims/presentations/2014-08-05meeting.wmv.

Meeting dates

- On 7 October 2014, we have SQData's Scott Quillicy talking about, "Best Practices – Populating Big Data Repositories from IMS".

- On 2 December 2014, it's Rocket Software's Bill Morton.

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Recent IMS articles

IMS 13 Enhancements Achieve Performance Benchmark by Ben Johnson, Dave Cameron, and Jack Yuan in *IBM Systems Magazine (*July 2014). You can find the article at `http://www.ibmsystemsmag.com/mainframe/administrator/ims/IMS-13-Enhancements/`.

Replicate Data Easily With InfoSphere Classic Change Data Capture for z/OS by by Karen Durward in *IBM Systems Magazine (*August 2014). You can find the article at `http://www.ibmsystemsmag.com/mainframe/administrator/ims/Classic-CDC/`.

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.