

Hard Dollar Savings with ATAM

BY CHUCK SIEMEN

Many years ago, IBM Global Services South data centers located in Lexington, KY and Raleigh, NC installed the Legent Corporation software product called MIM/MIA (later purchased by Computer Associates) in order to share tape drives to reduce the size and cost of I/O resources. In 2001, an internally developed tool (known as "Autotape") was made available as a part of a software conversion strategy away from CA products to IBM Solutions. While Autotape was made available with support provided by IBM in the United Kingdom, the core of that code was significantly enhanced, fully documented, improved to production-ready "commercial" status and brought to market as an official IBM product named *Automated Tape Allocation Manager (ATAM)*.

Our Lexington and Raleigh data centers participated aggressively in early code testing for ATAM in 2002, installing it first on a 12-LPAR "ATAM-plex" in Lexington (all running JES2), and then on a 5-LPAR group of JES3 systems in Raleigh. Next, ATAM was installed onto a 14-LPAR group (JES2) in Raleigh, and then a 3-LPAR group in Lexington. The 12-way group in Lexington shares three IBM VTS devices, and an assortment of other IBM tape devices. The 14-way and 5-way groups in Raleigh share three IBM VTS devices and several other IBM drives. The 3-way group shares some non-VTS tape devices. Between our two data centers, combined, ATAM is managing 750 devices on 34 images.

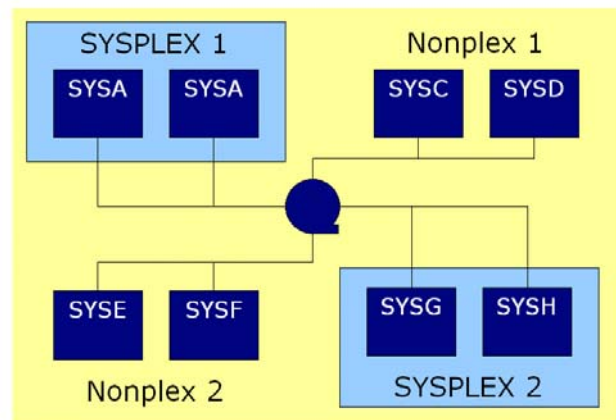
During our testing, a key issue was identified: a problem with MVS Allocation that MIM/MIA had 'covered up'. Each VTS was configured in its own Storage Class in DFSMS, but when multiple Storage Classes were presented as potentials for allocation, only the last Storage Class listed was considered and used. This led to an imbalance in "scratch" allocations to a single VTS device.

After pursuing this MVS Allocation issue through the IBM Support Center (who discovered and documented the problem) and IBM Development organizations (who accepted the requirement to resolve in a future release), the ATAM development lab (Rocket Software, Inc.) sent a senior developer to spend a week with us in Lexington working with MVS Support to trace, dump, and analyze the flow. The result was the development of a Load Balancing exit for ATAM, which solved the problem. This new exit, which installs dynamically at ATAM startup, is user-configurable through the use of a table, making it scaleable to customer systems large and small.

The original Autotape internal product had no user interface: strictly Operator Modify commands. The ATAM product contains an ISPF interface that is extremely simple to setup and use. This interface provides panel-driven configuration parameters as well as online historical allocation reporting for the system. Rocket Software has recently developed and provided us with an early look at their new TCP/IP-based infrastructure, which provides task-to-task communication between ATAM instances within the tapeplex. This facilitates central control and query from any system and offers a number of new product-specific operator commands.

By using ATAM, the South Data centers have reduced their OEM/ISV software costs, and continue to drive down the cost of the I/O Infrastructure through the sharing of devices and resources.

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ATAM for z/OS shares resources across disparate environments including Sysplex and Non-plex, and varying levels of MVS, OS/390 and z/OS.

IBM Automated Tape Allocation Manager for z/OS (5697-H62) maximizes the use of tape devices while reducing costs. ATAM provides tape sharing in any xplex: sysplex, non-plex, multiples or any combination. ATAM operates at the hardware level and does not require the use of a shared control file to do its job. For more information visit: www.ibm.com/software/stormgmt/atam/.