

CSC Data Center Consolidation.

In reference to the CSC Data Center consolidation, it would be difficult to assess an accurate plan from a high level slide presentation although I will share my thoughts.

1. Don't try to make (major) application design changes during consolidation effort. They should be noted and addressed after new data center is stabilized. There might be a few exceptions where heritage applications have affinity to infrastructure that is going obsolete, but surely there should be few and far between.

2. Assign an OWNER to each phase of transition. That person acts as the coordinator/facilitator for a specific part of project. They are the point-to-person for status and schedules (not the "how do I do this" person).

3. Ensure a backout plan is available for each phase of consolidation. Migrating to a newer release of hardware or software may initially appear simple. The business still needs to continue to operate in all cases. If feasible, exercise the plan prior to 'actual' migration.

3. Ensure EVERYONE involved knows their role of responsibility from both client and IBM side. Document roles so that there are no surprises during critical events or deadline situations. Establish a hierarchy call list containing names and cell numbers. Let the teams know on-call sequence for each scheduled event.

4. Review inventory of all currently used (and installed) products (obtain via SMF Records). Assess when license agreements are terminating ensuring only ' best-of-breed ' products are considered in new environment. Keep in mind older applications may be dependent on products being considered for extinction. In those situation(s) a bridge utility or license extension may be negotiated. The earlier this is identified the better position you are in to meet schedules.

5. SLAs may need to be renegotiated during migration and after new data center stabilization. Set end-user expectations early on response time objectives during transition.

6. Establish naming and standards conventions early. Data Center consolidations can impose name conflicts. Without best-practice procedures in place this can inhibit growth and scalability with new infrastructure.

7. Ensure System parameters are reviewed for those applications and subsystems being merged on same Hardware and LPAR images. Review HMC and IOCP configurations for channel and device consolidation. Subsystems such as CICS, DB2, IMS have threshold settings that have to be assessed for workload consolidation. Use the 'z/OS Health Checker' when appropriate for proactive changes and configuration suggestions.

8. Look at "msys for setup" which offers an updated approach for installing and configuring z/OS and products running on z/OS (coming from those older systems) which result in major productivity improvements. Msys for Setup allows for the usage of consistent interfaces with wizard-like configuration dialogs. These dialogs reduce the skill requirements for setting up products, freeing up scarce and valuable personnel for other tasks. Msys for Setup is built upon the web-based wizard technology that has been introduced in a number of areas.

9. Storage Management Subsystem ACS (DASD) routines need to be revised when moving devices between different LCSS. Likely new ACS routines need to be created and deployed .

NOTE: Settings in USS (BPXPARMxx) are use for entire z/OS image not just for a subsystem. There are a 1/2 dozen or so thresholds that have to be considered moving new workload in to LPARs considered for consolidation .

10. If the transition is from older 9672 machines to 2094 (z9), keep in mind clock speed and general (App&Sys) timers. There maybe instances with time dependent applications are affected due to speed of new processors (timer pops earlier than what it was originally coded for throwing off a business process). Moving to the newer machines will alleviate their current technology limitations as noted in their Inhibitors Slide.

11. Ensure end-user locations continue to be "reachable" when making network changes. Removing or eliminating NCPs (3745s) for OSA cards or use of CCL should be performed prudently. Remember that the business stills needs to operate during this transition.

12. Ensure Operational Runbooks are kept in sync with new procedures and note changes for data center staff. Keep operational personnel abreast of planned phases to ensure there are no SLA disruptions.

13. Older executing programs (i.e. VS COBOL) will likely need to be recompiled for support of Enterprise COBOL. Assign production control staff for this analysis early.

14. Review and establish new Security Procedures as appropriate. Do not let this vital component become an after thought as consolidation occurs.

15. Establish Service Upgrade Policies early. New levels of OS and associated subsystem code needs to have stringent procedures in place since runtime errors using new consolidated environment might be due to just a maintenance (PTF) fix/upgrade rather than related to application(s).

<< In general all Policy-based subsystems (WLM, CF, etc.) will need to be adjusted >>.

16. Ensure Error Messages and System Codes Publications are readily made available to appropriate personnel during testing and migration efforts. Without access to these books will lead to major delays and missed deadlines. Being able to debug and address errors quickly can lead to early success.

17. Plan for Knowledge Transfer. Consultants and specialists need to coordinate skills turnover "during" each phase of the effort. Don't wait until project is coming to an end before doing this. Lost info may lead to early critsit problems.

18. Gap Analysis Team needs to be formed to ensure schedules are met.

19. If there are large batch runs, it would be beneficial to investigate batch-pipes (hiperbatch) to decrease the batch window. This is easy to do although affects operational runbooks. Investigating what can be eliminated in business flows can be assigned to a separate team.

20. Billing process procedures need to be revisited. New infrastructure will change Charge Back reporting. This is the most **important** point since this makes or breaks the reason for consolidation (*Move this up to #1*). ;-}

21. The necessary evil. Research applications or processes not eligible to be a true mainframe user. Older applications may benefit (long term) being off the z9 running on smaller infrastructure. In other words, the cost of running on Z is greater than the revenue it returns to the customer.

22. MVS and Subsystem Exits need to be revisited to ensure there is no affinity or special logic written for applications. If the same exit name is used by different systems (CECs) which one will be used on the consolidated machine.

23. The SYSTEM Symbols will likely change for new environment, i.e. IEASYMxx. at IPL.

In reference to line items in the presentation:

- Multiple clients at most sites with no need to share data
- Multiple sysplexes for clients who do NOT want to be in a common sysplex (Meriden)

Sysplex can also establish a means of resource sharing which is different from data sharing. Devices, catalogues, Logs, consoles, tapes can be consolidated and used by multiple images for major cost savings. This reduces redundancy in skills, administration, networking and hardware infrastructure.

- Sysplex timer plan - We are slowly transitioning away from the 9037 Timer to a new Server Timer Protocol (STP) starting with z9. I will have to surrender this assessment to the hardware folks for comment. STP is the SOD, but we are not there yet although planning should be part of the effort.