



# Mainframe as a managed service: Don't forget performance management!

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## Questions?

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# Abstract



The Mainframe Service Provider (MSP) industry has been growing at a steady rate with many companies engaging with MSPs to outsource the management of their mainframe environments. Companies do this for a wide variety of reasons including staffing flexibility, environmental and maintenance costs, and growth flexibility. With an interest in capacity planning and performance management, Scott Chapman and Peter Enrico of Enterprise Performance Strategies, have worked with both MSPs and clients who outsourced their environments to MSPs. They have also worked with clients that were just mulling over the idea of doing so. Their experience has enabled them to develop a unique level of insight.

During this presentation, Scott Chapman and Peter Enrico, will discuss common pitfalls and issues related to the performance management of a mainframe environment that has been outsourced. If your mainframe environment is currently outsourced, or you are thinking of outsourcing, and want to learn more about these pitfalls, then this webinar is for you.

# Sign up for our bi-weekly Performance Webinars!



- Free z/OS Performance Educational webinars!
  - These were the titles for our Spring/Summer 2022 webinars:
    - ✓ *SMF Recording Options to Improve Your Performance Analysis*
    - ✓ *SMF 98 and 99: Pinpointing Transient Performance Problems*
    - ✓ *Exploring z/OS Processor Storage Measurements*
    - ✓ *Exploring PR/SM Physical and Logical CPU Utilization Measurements*
    - ✓ *Exploring Locking and Locking Measurements on z/OS (with Bob Rogers)*
    - ✓ *Exploring z/OS SMF 30 Address Space CPU Measurements*
    - ✓ *More Details - Exploring z/OS SMF 30 Address Space CPU Measurements*
    - ✓ *Exploring z/OS WLM CPU Measurements: SUs vs CPU Secs vs APPL% vs Workload%*
    - ✓ *Exploring the Coupling Facility Lock Structure Measurements*
    - *Exploring z/OS SMF 14 / 15 Records for Tape and DASD File Activity*
    - **Mainframe as a Managed Service – Don't forget about Performance Management!**
  - We are currently working on the subjects of our Fall/Winter 2022/2023 webinars
    - Sign up!
    - Any suggestions or requests?
- Also, if you want a free cursory review of your environment, let us know!
  - We're always happy to process a day's worth of data and show you the results
  - See also: <http://pivotor.com/cursoryReview.html>

# EPS: We are z/OS Performance!



- Pivotor
  - Performance reporting and analysis of your z/OS measurements
  - Example: SMF, DCOLLECT, other, etc.
  - Not just reporting, but cost-effective analysis-based reporting based on our expertise
- Performance Educational Workshops (while analyzing your own data)
  - Essential z/OS Performance Tuning
  - Parallel Sysplex and z/OS Performance Tuning
  - WLM Performance and Re-evaluating Goals
- Performance War Rooms
  - Concentrated, highly productive group discussions and analysis
- MSU reductions
  - Application and MSU reduction

# z/OS Performance workshops available



During these workshops you will be analyzing your own data!

- Essential z/OS Performance Tuning
  - October 3-7, 2022
- WLM Performance and Re-evaluating Goals
  - September 12-16, 2022
- Parallel Sysplex and z/OS Performance Tuning
  - Next on is winter 2023
- Also... please make sure you are signed up for our free monthly z/OS educational webinars! (email [contact@epstrategies.com](mailto:contact@epstrategies.com))

# Mainframe Outsourcing is Increasing



- It seems that there's an increasing number of small to medium mainframe environments that are being outsourced from one degree or another
- Sometimes this process is not as smooth as one might hope
- Sometimes there's hidden performance challenges
- Understand that the client customer and the MSP may have different interests and concerns regarding the area of capacity and performance



Hardware



Software



People/Staff

- The MSP may take over ownership and/or management of some, or all, of these
- The MSP does not take over your business
  - The hardware, software, and staff all exist to provide those business functions
  - The business is just now paying an additional vendor, that happens to provide the services that were previously handled in-house



# Typical Hardware Scenarios



- MSP takes over, and manages, hardware in customer's datacenter
- Customer migrates to dedicated machines in MSP's datacenter
- Customer migrates to shared machine(s) in MSP's datacenter

Each of these scenarios have different performance, capacity, and cost implications



Hardware

# Typical Software Scenarios

## Who licenses the software?



- Customer still pays IBM/ISVs for their software; same as usual
- MSP licenses the software, and then charges Customer to use it
  - The license metric between the MSP and Customer may be new and different
- May be a mixture of both the previous 2 scenarios

In general, the software licensing scenario may depend on existing customer contracts

- And software licenses can be quite varied!



Software

# Typical People / Staffing Scenarios

## What about the people?



- Some number of staff may go over to the MSP
  - How many are transferred to MSP? ? How many are left with the customer?
- Some support staff may now off-shore
  - This can present operational benefits/difficulties due to factors such as time-zone differences
- Some functions may be left behind?
  - Example: Maybe all “hands on keyboard” rolls are now with the MSP, but customer provides high-level direction
- Changes in management is usually more involved
- A big question is: “Who’s responsible to the business?”



People



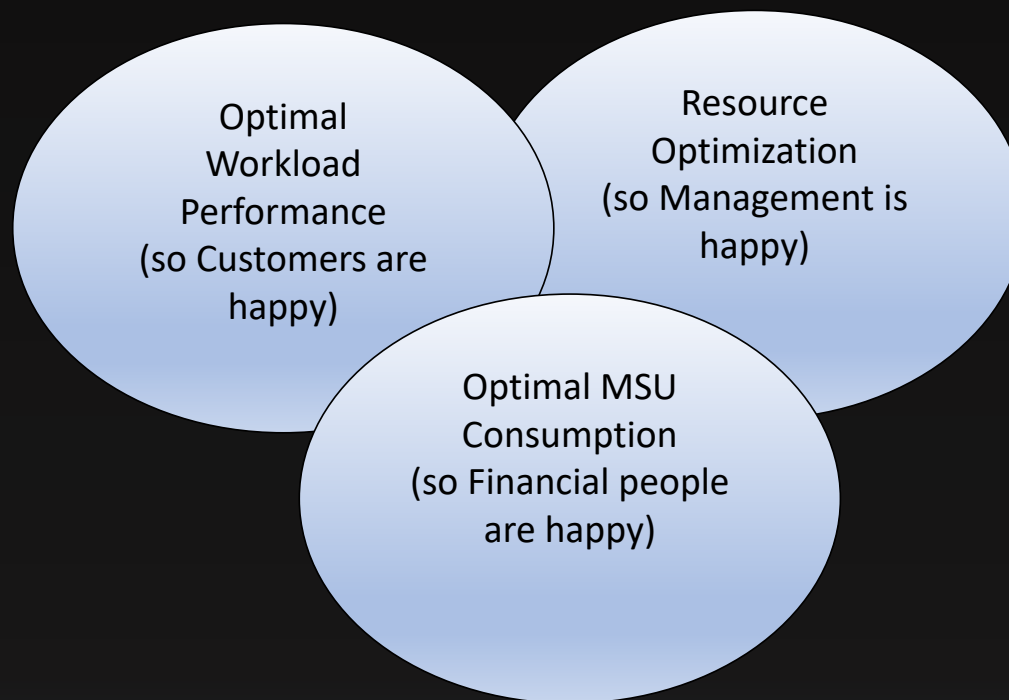
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# Now let's talk a little more about Performance Management

# The Performance Balancing Act



- Performance on z/OS is about finding an optimal balance of the following:



Mainframe Service Providers have the same performance objectives:

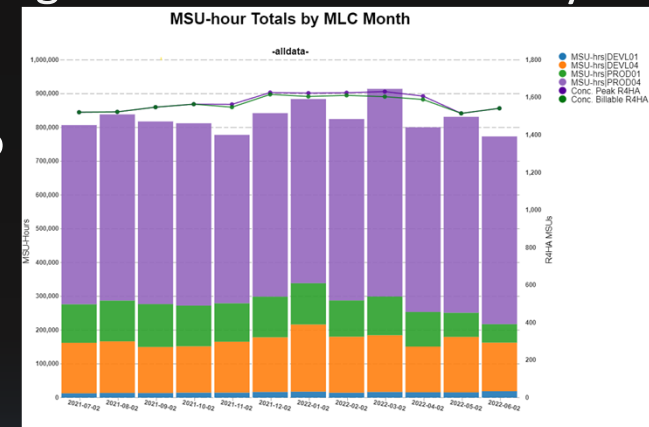
- For their clients
- For themselves

Naturally, choices need to be made, and contracts need to be followed.

# Processor Capacity issues with MSPs



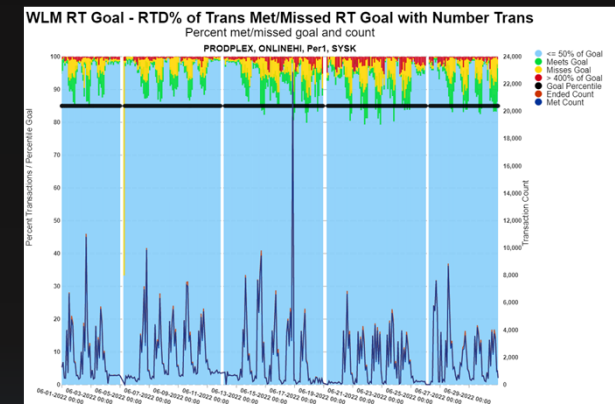
- Consider:
  - How much capacity you have access to will likely impact performance
  - How much capacity you use will likely determine your cost
  - Different issues between shared and dedicated environments
    - In shared environment, you may no longer have control over the processor capacity
- Ensure you can track capacity metrics (both before and after)
  - If your software cost metric is changing, ideally start tracking the new metric before you change to being charged based on that new metric
- Understand the process for acquiring more capacity?
  - How are hardware upgrades decided?
  - How are prices determined?
  - Is a hard cap part of the contract?



# Business / Workload Performance



- Business depends on a certain level of performance and availability
  - Also remember that performance also affects both hardware and software costs
  - Understand your business metrics, and how they correlate to performance metrics!
- Make sure performance satisfaction metrics are well-documented
  - What performance levels are expected?
    - Equal to, or better, performance should be in writing
  - What metrics are used measure performance satisfaction
  - What constitutes “available”?
- Track these metrics both before MSP and during
  - Don't forget to put in context of business metrics, as well
- Understand and agree to SLAs with MSPs
  - As well as potential penalties and remediations



# Performance Management and MSPs



- Performance management responsibilities and expectations must be understood
  - Monitoring
  - Measurements
  - Analysis and tuning
  - Performance debug
- Who has responsibility for these performance management responsibilities?
  - MSP may be responsible for some, and customer may be responsible for others
- Regardless, customer's IT is still usually responsible to make sure the business performance is adequate
- Have common reports been agreed upon?



# Big Question: Who owns your SMF data?



- We have seen instances where some MSPs have restricted customer's access to the SMF data for their systems
  - **We think this is wrong!**
- The SMF data is arguably metadata about your business processes
  - You own the business processes, so you should retain ownership of the metadata too
- The SMF data can help you audit your performance and capacity
- Relying on the MSP to provide you that reporting *may* be ok
  - MSPs generally do want your business to succeed!
  - ... but you do need to trust, but you also need to be able to verify
  - Always ensure you have the ability to send the data to a third party if need be

# Additional recommendations:

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- We always recommend that the client company stays fully engaged, and in some level of control, with the MSP with performance management.
- We also recommend that the client company engage in some third-party for advocacy to help represent the client company to the MSP to gauge performance satisfaction

# Next Session... August 31, 2022



- We will be more technical, and we will be looking through some Pivotor reports that will be of particular interest to:
  - Customers who have outsourced some, or all, of their mainframe environment
  - Customers considering outsourcing
  - MSPs and what they should be looking at
- So, if you want to understand some key metrics and reports relative to customers and MSPs, sign up for this webinar!
  - Visit our website ([www.epstrategies.com](http://www.epstrategies.com))
  - Or send an email to [contact@epstrategies.com](mailto:contact@epstrategies.com)
  - Workshop questions/registration: [Jamie.Novotny@epstrategies.com](mailto:Jamie.Novotny@epstrategies.com)



Questions?