



# User Success

Examples of how some Customers use EPV® for z/OS to improve their z/OS Environments



## Automating Control of the Top Consumers

1. At one large bank site, EPV highlighted an STC (used in Netview automation), which used over 800 MIPS. They re-compiled the Netview EXECs and the usage dropped down to only 100 MIPS.
2. After EPV was installed at another site, performance analysts there discovered that the RMFGAT task used only about 4 - 5 MIPS on some LPARs, 15 - 16 MIPS on a different 10 LPARs, and 20 MIPS on one other. After closer analysis of the RMF options, they found that detailed CACHE data were being collected on the 10 LPARs, and that the sampling CYCLE had been set too high on the 20 MIPS LPAR. By simply setting the appropriate RMF options, they were able to save 125 MIPS.
3. Upon analyzing page fault trends, an EPV customer discovered an ISV tool which ran every Monday morning, caused heavy stress on the system memory, which consequently degraded application performance. By shifting the tool's run time to a different segment of the batch cycle, the overall memory usage was smoothed.

## Automatic Performance Evaluation

1. A customer recently upgraded to new IBM machines, increasing capacity by 2,000 MIPS. There were more LPARs concentrated on the same machine and yet the performance was worse than before. EPV highlighted the PRSM overhead due to high logical to physical CP ratio. The customer reduced the number of logical CPs assigned to each LPAR and was able to reclaim more than 1,000 MIPS - and the expected performance.
2. EPV highlighted a high page fault rate on a customer production system. This was impacting CICS applications. Performance analysts at the site, looking at the memory assigned to each LPAR in the machine, discovered 16 GB offline to all LPARs which were once dedicated to another production system. The other production system had since been migrated to a different CEC. They used part of the "lost" memory to reduce the page fault rate to zero and improved application performance.




## Automatic Reporting

1. After EPV was installed, performance analysts at a large outsourcing site were able to save 90% of their time which they had previously spent dedicated to producing technical reports for management and customers.
2. One particular bank site had an employee who prepared technical reports and graphs every day. That person dedicated 100% of their time to this task. Due to the complexity of the material, however, they were only able to produce the final reports in the afternoon.  
After EPV was installed, the employee only had to perform a quick check in the morning and all of the reports and graphs were ready by 8:00 a.m. - freeing the worker up for other tasks.
3. One medium-sized site was having trouble maintaining their reports and keeping them up-to-date due to the numerous newer technologies that have been introduced in recent years, (such as zAAP, zIIP, WLC, Hip-erDispatch, etc.). Thanks to EPV, this is no longer a problem.

## Internal Skills Improvement

1. Many customers use EPV as a powerful self-training tool to improve the technical knowledge of their employees - especially the less experienced ones.  
Each EPV report provides an associated help page. The page describes the fields included in the report and discusses related technical issues, suggested navigation, applied thresholds, etc.
2. A large insurance site automatically includes EPV reports and the associated help pages in any document they send to management. This provides evidence of critical issues and helps to explain them.

## Embedded Capacity Planning Methodology

1. An important government agency was able to reduce the time required to complete a capacity planning study by 50% by utilizing the EPV trend reports in their analyses.
  2. EPV provides a set of powerful indexes which enable customers to estimate the resource requirements for new applications - even at the very early stages of development, when no "actual" measurements are possible.  
Many customers use EPV indexes in situations like this to improve the accuracy of their "manual" estimates.
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## Application Statistical Control

1. At a government site, EPV highlighted an IMS transaction which had jumped to a much higher number of executions, causing a usage of 150 MIPS during peak hours. After quickly checking with the group supporting the application, performance analysts discovered that the “wake up” parameter had erroneously been set to zero. This caused the transaction to run continuously, searching for work to do. By setting the correct parameter, the MIPS usage dropped to only 10.
2. EPV highlighted a statistically abnormal response time for a business-critical CICS transaction. A further analysis showed that the increase was due to time spent in DB2 conducting a table space scan. Upon analyzing the DB2 statistics further, the DBAs realized that a RUNSTAT had been performed on the prior day when the table was empty leading to the wrong access path being used. Re-running the RUNSTAT “cured” the problem.

## Control of Configuration Changes

1. One Monday morning, a production system was suffering from a strong CPU constraint. After analyzing EPV Configuration Changes, performance analysts were able to verify that on the prior Saturday a CP had been taken from production and assigned to another LPAR in order to run some tests. Unfortunately, nobody remembered to give the CP back to production.
2. Configuration changes at one site showed that the system service unit rate had changed. It was 1/4 less than normal. All of the transactions in the WLM multi period service classes were ending in the first period, and, as a consequence, were degraded by TSO. After a quick search, performance analysts found both the PTF causing the problem and the one to solve it.

## Exceptions and Alerts

1. At many customer sites, performance analysts conduct a global daily check in just a few minutes - even in very complex environments - by using the Exceptions pages built in to EPV for z/OS.
  2. Several customer sites distribute the EPV alerts automatically to the relevant team members, thus avoiding the risk of “orphan” problems not being addressed within the shortest time possible.
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## Metrics and Reports Standardization

1. At a service provider site, the EPV reports are used as a common standardized source of information for their customers. The EPV architecture provides a convenient method for team members with little or no programming skills to quickly access the information they require with just a few mouse clicks.
2. At two specific bank sites, the EPV reports and values are considered to be the "gold standard". These values help to avoid the endless discussions which used to take place prior to EPV being installed, as each technical group had their own reports and results.

## Summary

A simple presentation of complex metrics provides the most useful basis for planning and decision analysis.

More often than not, the answers to seemingly complex or mysterious issues are simple too. But unless you know where to look, many hours or even days can be spent hunting down the causes - especially in large, complicated environments, where workers may be spread over different locations and time zones.

Optimizing and tuning complex environments can easily save tens of thousands of dollars within a very short time.

EPV for z/OS provides a trusted source on which to base decisions, empowering data center employees to keep business humming right along.

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