# Resource Optimization to Reduce IT-Costs at

# Gothaer Systems

EPV User Group, October 9th 2014, Rome

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Gothaer Systems GmbH

# Überblick

Gothaer

| | | |
|---|---|---|
| Bruttobeitragseinnahmen | 4.301,2 | Mio. Euro |
| Kapitalanlagen | 25.551,6 | Mio. Euro |
| Eigenkapital | 1.519,4 | Mio. Euro |
| Ergebnis nach Steuern | 106,8 | Mio. Euro |
| Mitglieder | > 3,5 | Mio. |
| Mitarbeiter | 5.979 | |

Marken

Gothaer asstel janitos Ein Unternehmen der Gothaer

Quelle:

Geschäftsbericht Gothaer Konzern 2013

GoSys

Gothaer Systems GmbH

| | |
|---|---|
| Umsatz | 139 Mio EUR |
| Mitarbeiter | ca. 250 AE |
| | ca. 220 Services |
| | ca. 150 Externe (nach Bedarf) |

Zahlen aus 2013

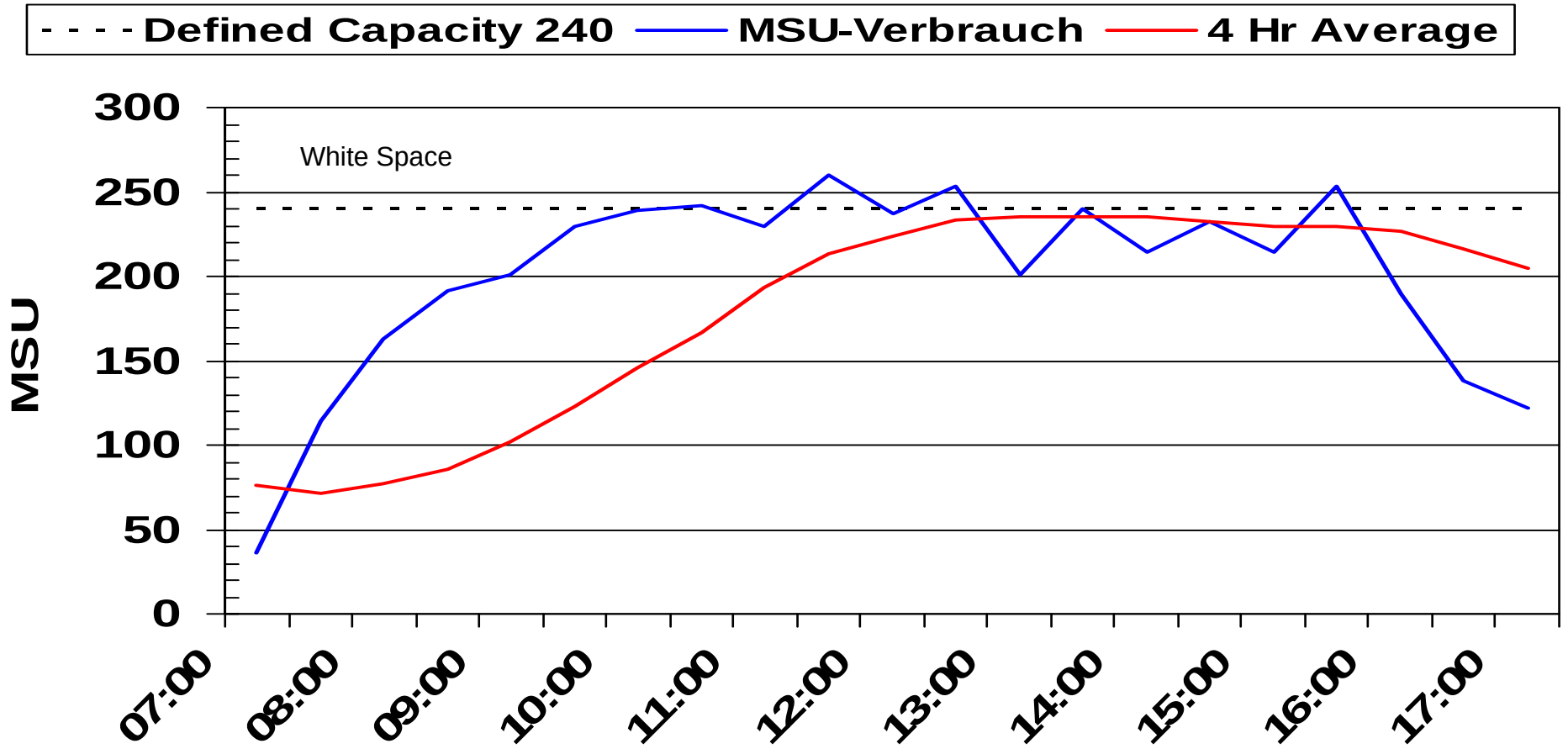
# Content

1. Initial Position
2. Changes to the Workload Management
3. Possible Methods to Achieve Sustained Savings
4. Reporting Requirements
5. Tool Selection
6. Using the new Reporting and the Results

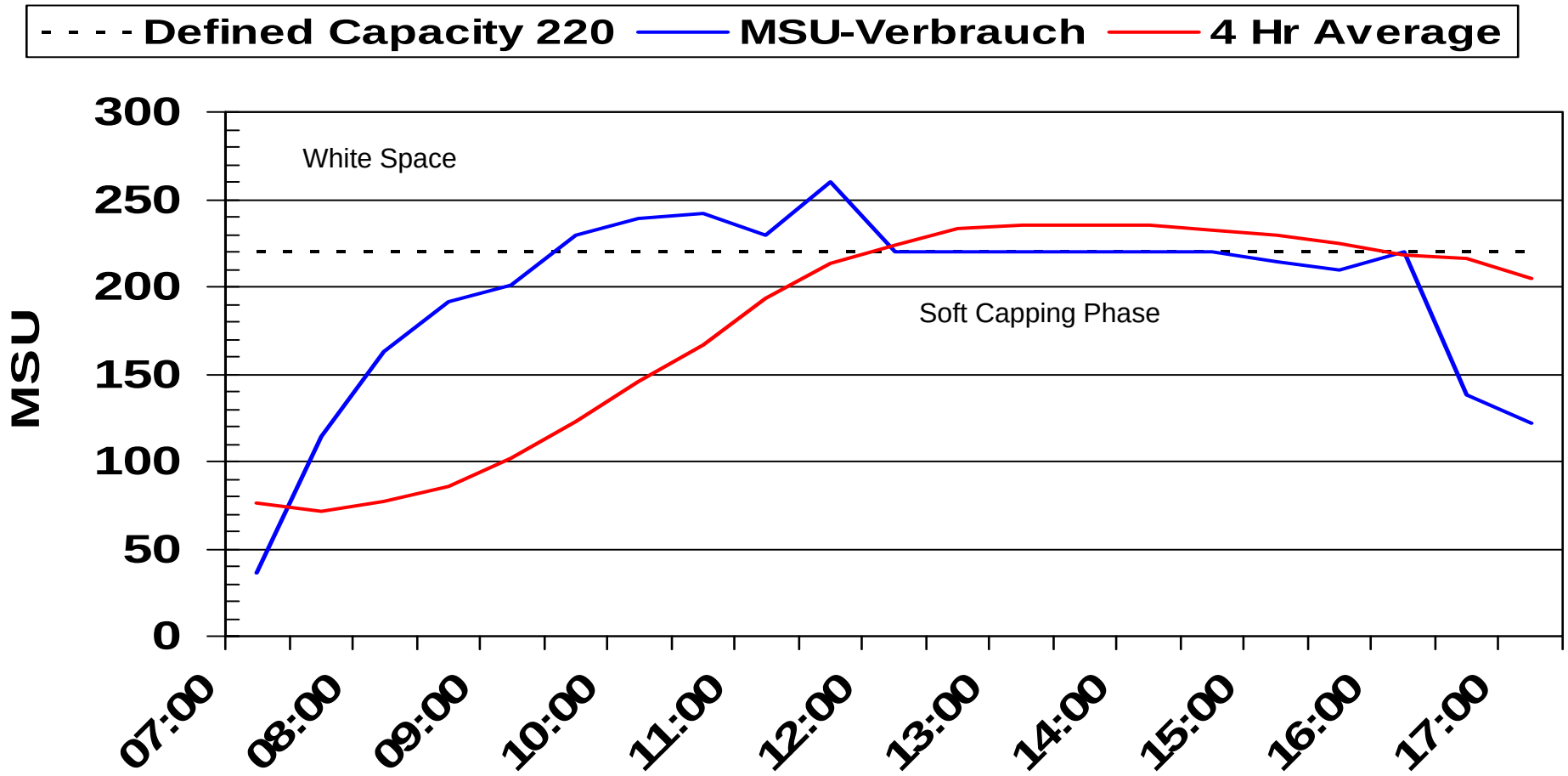
# Initial Position

- **Cost reduction is a permanent subject**
- **Hardware costs decreasing, Software costs increasing**
- **MLC – Products take a big part of mainframe costs**
- **Cost reduction by effective and consistent workload management**

# Changes to the Workload Management
# Workload Profile on the IMS/Batch LPAR until 2013
# with the „old“ Workload Management and Capacity Planning



# Changes to the Workload Management
# Expected Workload Profile on the IMS/Batch LPAR from 2013
# with the „new“ Workload Management



# Possible Methods to achieve sustained Savings

- **Consulting?**
- **Expansion of the existing,  self coded SAS-reporting?**
- **Installing a „new“ Reporting ( Tool ) ?**

- **Decision: Looking for a Tool**

- **Creation of a catalogue of requirements for the „new“ reporting in consideration of the actual and future technical  projects/trends and human skills.**

- **Technical:** **Installation of a highly available LPAR - environment,  „new“ workloads ( JAVA ), etc.**
- **Personell:** **SAS- and z/OS-Skills go into retirement**
- **Reliability of investments**

# Tool Requirements for the „new“ Mainframe Reporting

- **Good References and Good Support**
- **Preferably no Self Coding**
- **Simple Customization**
- **Tool integrated z/OS-Skill**
- **Extensive Workload-  and Performance Reports**
- **Extensive Trending Reports**
- **Automatically documented Threshold Violations**
- **Drill Down Functions for Quick Analysis**
- **Storage Reporting**
- **Change Reporting**
- **Calendar Function**
- **ROI**

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# the winner was…

## the product that fits the requirements best

# A Look at our Environment via the Management Summary (1)

## z/OS MANAGEMENT SUMMARY

created on 07OCT2014 with 0 management exceptions

### HARDWARE UTILIZATION — EPV

| | | CPU MIPS | | | ELIGIBLE MIPS | | |
|---|---|---|---|---|---|---|---|
| CEC | DATE | INST | USED | USED % | ZAAP | ZIIP | USED % |
| ALL | 2014-10 | 6.460 | 3.340 | 52 | 0 | 8 | 0 |
| ALL | 2014-09 | 6.460 | 3.206 | 50 | 0 | 3 | 0 |
| ALL | 2014-08 | 6.460 | 3.535 | 55 | 0 | 2 | 0 |

| | | ZAAP MIPS | | | ZIIP MIPS | | |
|---|---|---|---|---|---|---|---|
| CEC | DATE | INST | USED | USED % | INST | USED | USED % |
| ALL | 2014-10 | . | . | . | 5.160 | 267 | 5 |
| ALL | 2014-09 | . | . | . | 5.160 | 255 | 5 |
| ALL | 2014-08 | . | . | . | 5.160 | 324 | 6 |

| | | DISK TB | | | TAPE TB | | |
|---|---|---|---|---|---|---|---|
| CU | DATE | INST | USED | USED % | INST | USED | USED % |
| ALL | 2014-10 | 147 | 80 | 54 | . | . | . |
| ALL | 2014-09 | 147 | 87 | 59 | . | . | . |
| ALL | 2014-08 | 147 | 85 | 58 | . | . | . |

### SOFTWARE MSU USAGE — CEC:1238

| | | MSU USAGE | | | | |
|---|---|---|---|---|---|---|
| CEC | DATE | INST | USED | BASELINE | DIFFERENCE | BALANCE |
| 1238 | 2014-10 | 283 | 139 | 233 | -94 | -431 |
| 1238 | 2014-09 | 283 | 161 | 233 | -72 | -337 |
| 1238 | 2014-08 | 283 | 223 | 233 | -10 | -266 |
| 1238 | 2014-07 | 283 | 167 | 233 | -66 | -256 |
| 1238 | 2014-06 | 283 | 164 | 233 | -69 | -190 |
| 1238 | 2014-05 | 283 | 166 | 233 | -67 | -121 |
| 1238 | 2014-04 | 766 | 175 | 233 | -58 | -54 |
| 1238 | 2014-03 | 766 | 222 | 218 | 4 | 4 |
| 1238 | 2014-02 | 766 | 166 | 210 | -44 | -189 |
| 1238 | 2014-01 | 766 | 165 | 230 | -65 | -145 |
| 1238 | 2013-12 | 766 | 164 | 205 | -41 | -79 |
| 1238 | 2013-11 | 766 | 167 | 205 | -38 | -38 |
| 1238 | 2013-10 | 766 | 195 | . | . | . |

### THROUGHPUT

| | thousand TRANSACTIONS | | | | | |
|---|---|---|---|---|---|---|
| DATE | CICS | DDF | IMS | JOB | MQS | TSO |
| 2014-10 | 8.133 | 25.313 | 7.979 | 85 | 12.021 | 664 |
| 2014-09 | 55.971 | 143.282 | 55.560 | 627 | 60.401 | 4.707 |
| 2014-08 | 53.368 | 116.850 | 51.407 | 784 | 130.150 | 4.985 |
| 2014-07 | 62.360 | 137.362 | 61.235 | 723 | 150.576 | 5.300 |
| 2014-06 | 52.349 | 122.339 | 52.009 | 578 | 118.209 | 4.651 |
| 2014-05 | 56.732 | 128.951 | 54.741 | 605 | 131.655 | 5.355 |
| 2014-04 | 58.435 | 124.946 | 54.914 | 606 | 123.756 | 5.290 |
| 2014-03 | 62.484 | 135.560 | 57.925 | 617 | 134.429 | 5.881 |
| 2014-02 | 59.790 | 137.683 | 59.683 | 629 | 136.338 | 5.974 |
| 2014-01 | 68.597 | 139.544 | 66.950 | 628 | 143.311 | 6.405 |
| 2013-12 | 49.243 | 115.842 | 52.209 | 597 | 93.912 | 4.497 |
| 2013-11 | 53.496 | 132.190 | 59.656 | 698 | 127.696 | 6.286 |
| 2013-10 | 53.550 | 140.107 | 54.424 | 774 | 95.352 | 6.399 |

# A Look at our Environment via the Management Summary (2)

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## z/OS MANAGEMENT SUMMARY

created on 07OCT2014 with 0 management exceptions

**HARDWARE UTILIZATION** EPV

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|---|---|---|---|---|---|---|---|
| CEC | DATE | INST | USED | USED % | INST | USED | USED % |
| ALL | 2014-10 | . | . | . | 5.160 | 267 | 5 |
| ALL | 2014-09 | . | . | . | 5.160 | 255 | 5 |
| ALL | 2014-08 | . | . | . | 5.160 | 324 | 6 |

| | | DISK TB | | | TAPE TB | | |
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| ALL | 2014-10 | 147 | 80 | 54 | . | . | . |
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| ALL | 2014-08 | 147 | 85 | 58 | . | . | . |

**SOFTWARE MSU USAGE** CEC:5626

| | | MSU USAGE | | | | |
|---|---|---|---|---|---|---|
| CEC | DATE | INST | USED | BASELINE | DIFFERENCE | BALANCE |
| 5626 | 2014-10 | 514 | 283 | 422 | -139 | -559 |
| 5626 | 2014-09 | 514 | 293 | 364 | -71 | -419 |
| 5626 | 2014-08 | 514 | 319 | 361 | -42 | -349 |
| 5626 | 2014-07 | 514 | 295 | 361 | -66 | -307 |
| 5626 | 2014-06 | 514 | 291 | 364 | -73 | -240 |
| 5626 | 2014-05 | 514 | 291 | 360 | -69 | -168 |
| 5626 | 2014-04 | 514 | 295 | 360 | -65 | -98 |
| 5626 | 2014-03 | 421 | 312 | 345 | -33 | -33 |
| 5626 | 2014-02 | 421 | 344 | 337 | 7 | -57 |
| 5626 | 2014-01 | 421 | 342 | 367 | -25 | -64 |
| 5626 | 2013-12 | 421 | 335 | 352 | -17 | -39 |
| 5626 | 2013-11 | 421 | 330 | 352 | -22 | -22 |
| 5626 | 2013-10 | 421 | 306 | . | . | . |

**THROUGHPUT**

| | thousand TRANSACTIONS | | | | | |
|---|---|---|---|---|---|---|
| DATE | CICS | DDF | IMS | JOB | MQS | TSO |
| 2014-10 | 8.133 | 25.313 | 7.979 | 85 | 12.021 | 664 |
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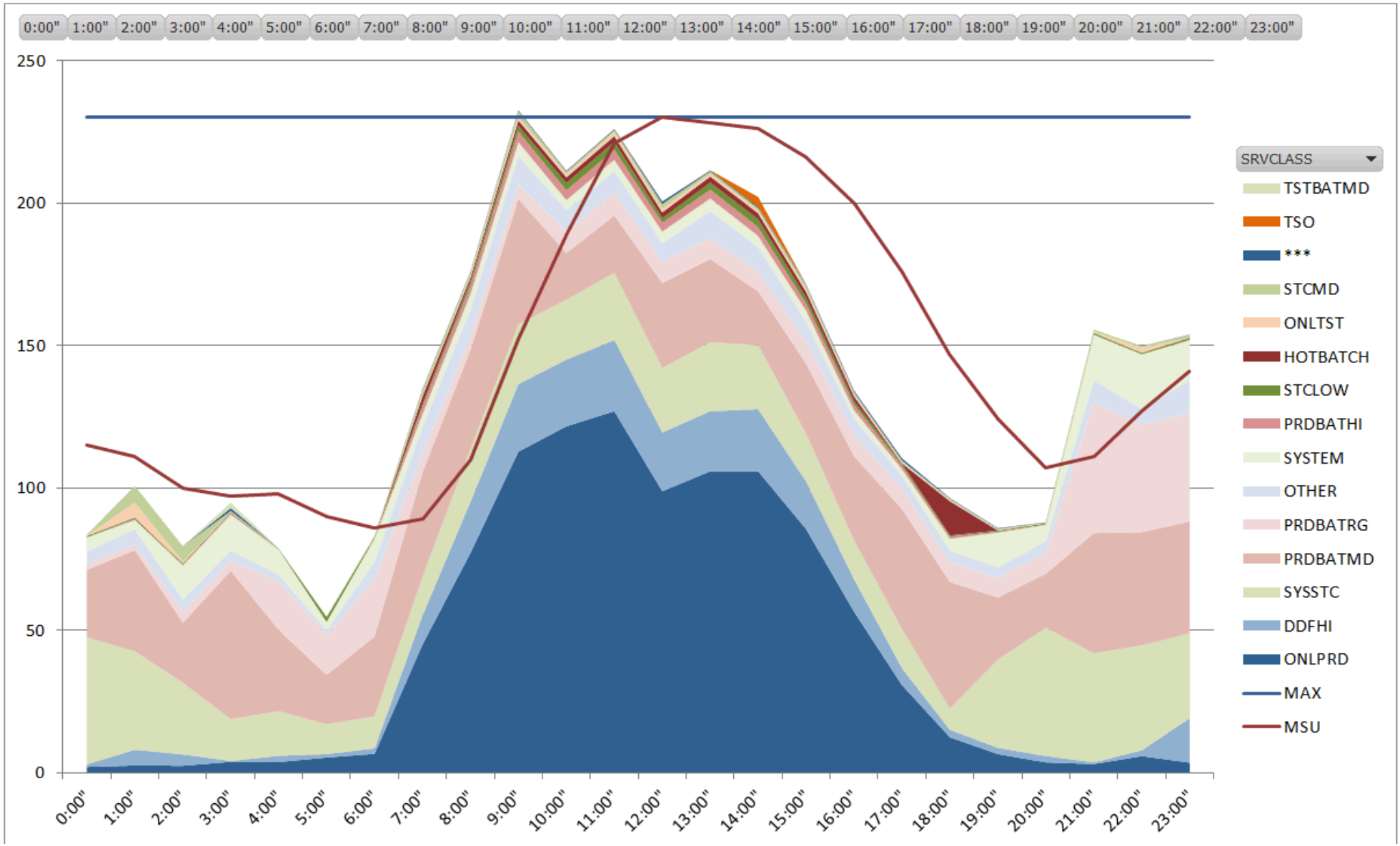
| 2013-11 | 53.496 | 132.190 | 59.656 | 698 | 127.696 | 6.286 |
| 2013-10 | 53.550 | 140.107 | 54.424 | 774 | 95.352 | 6.399 |

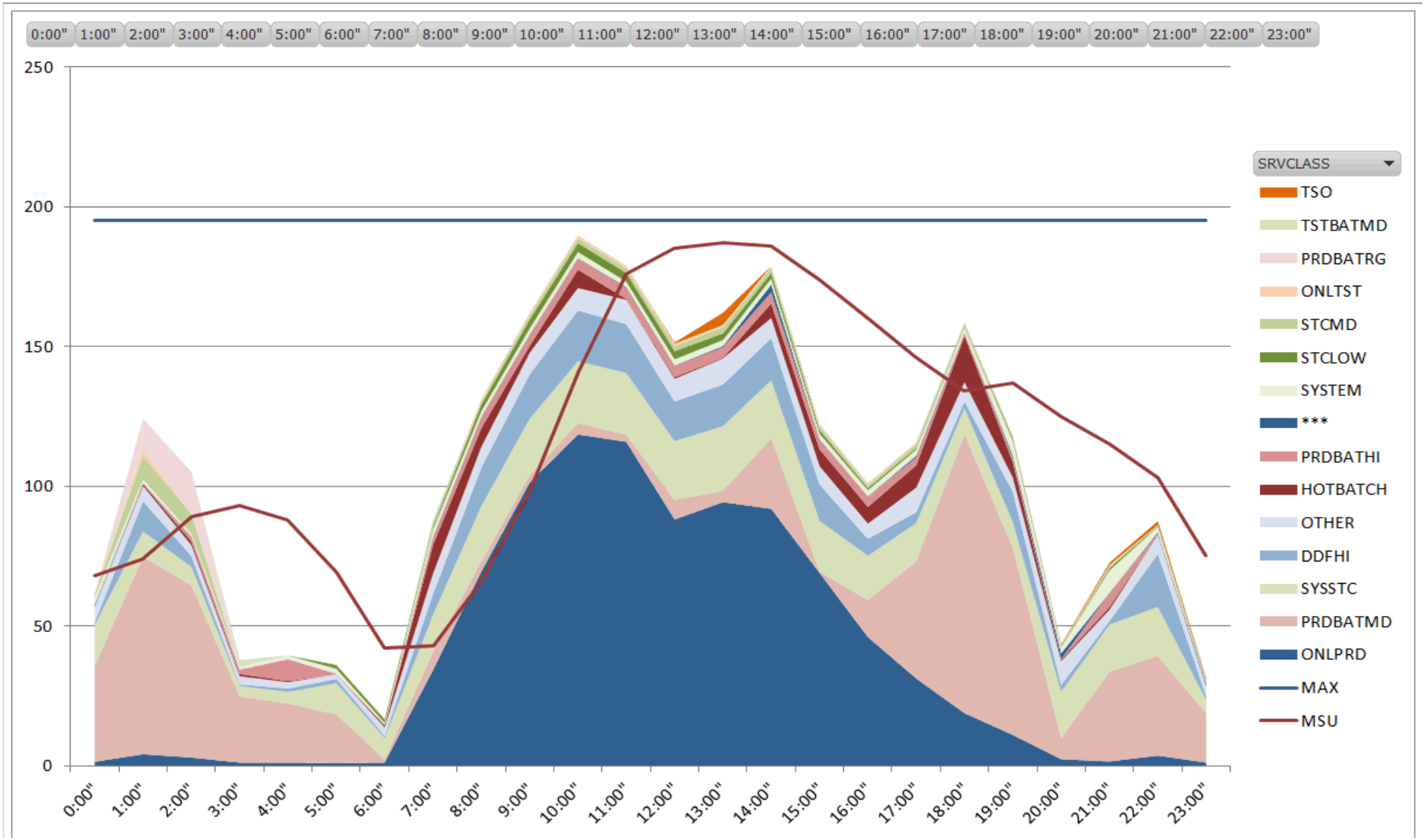
# Using the new Reporting and the Results

## Typical Workload Profile in March 2013



# Using the new Reporting and the Results

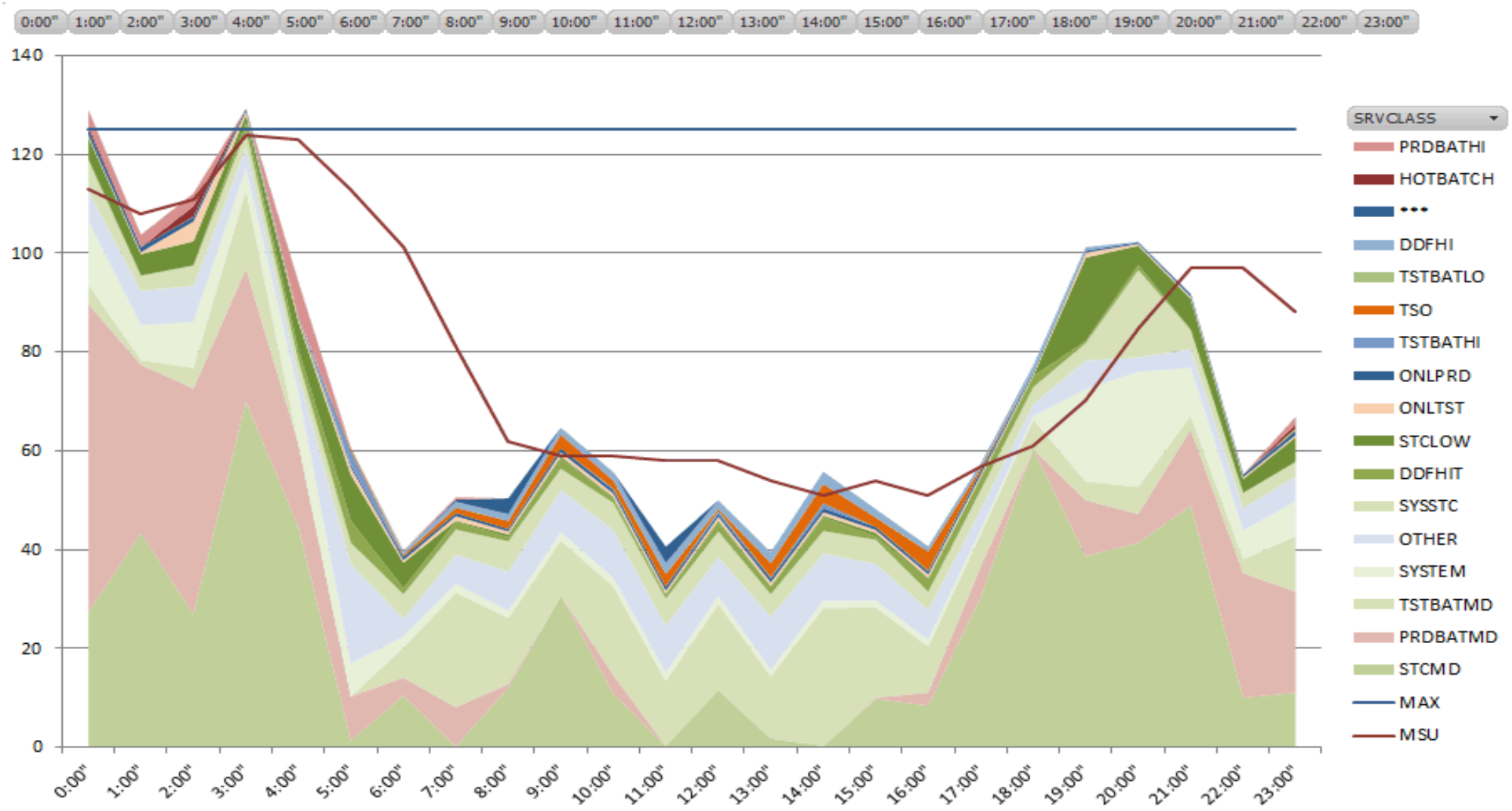
## „New“ Workload Profile in March 2014 due to Analysis with EPV



# Using the new Reporting and the Results

## Use of the Product to make a „What – If“ – Szenario

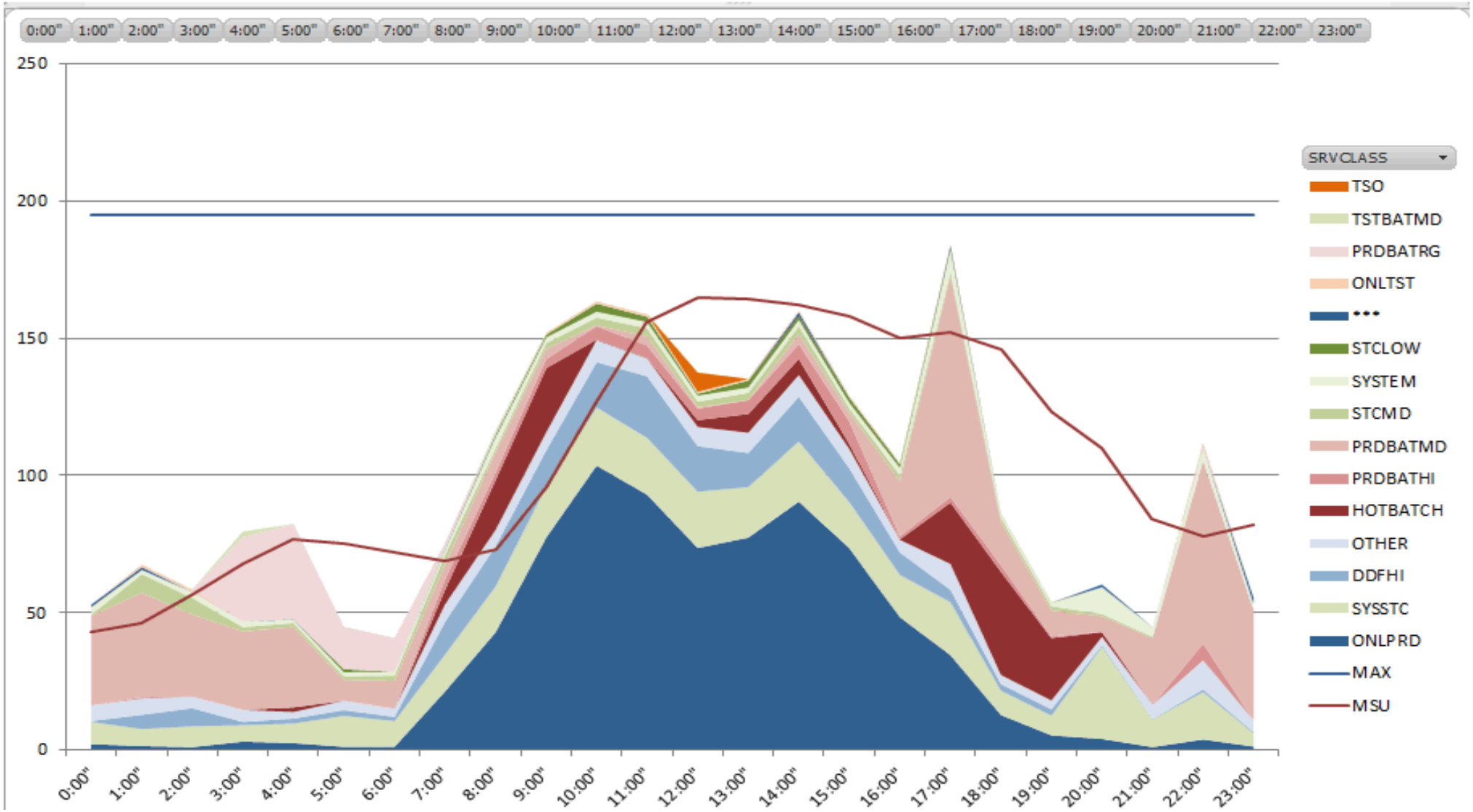
## Moving PRDBAT* - Workload from this LPAR…



# Using the new Reporting and the Results

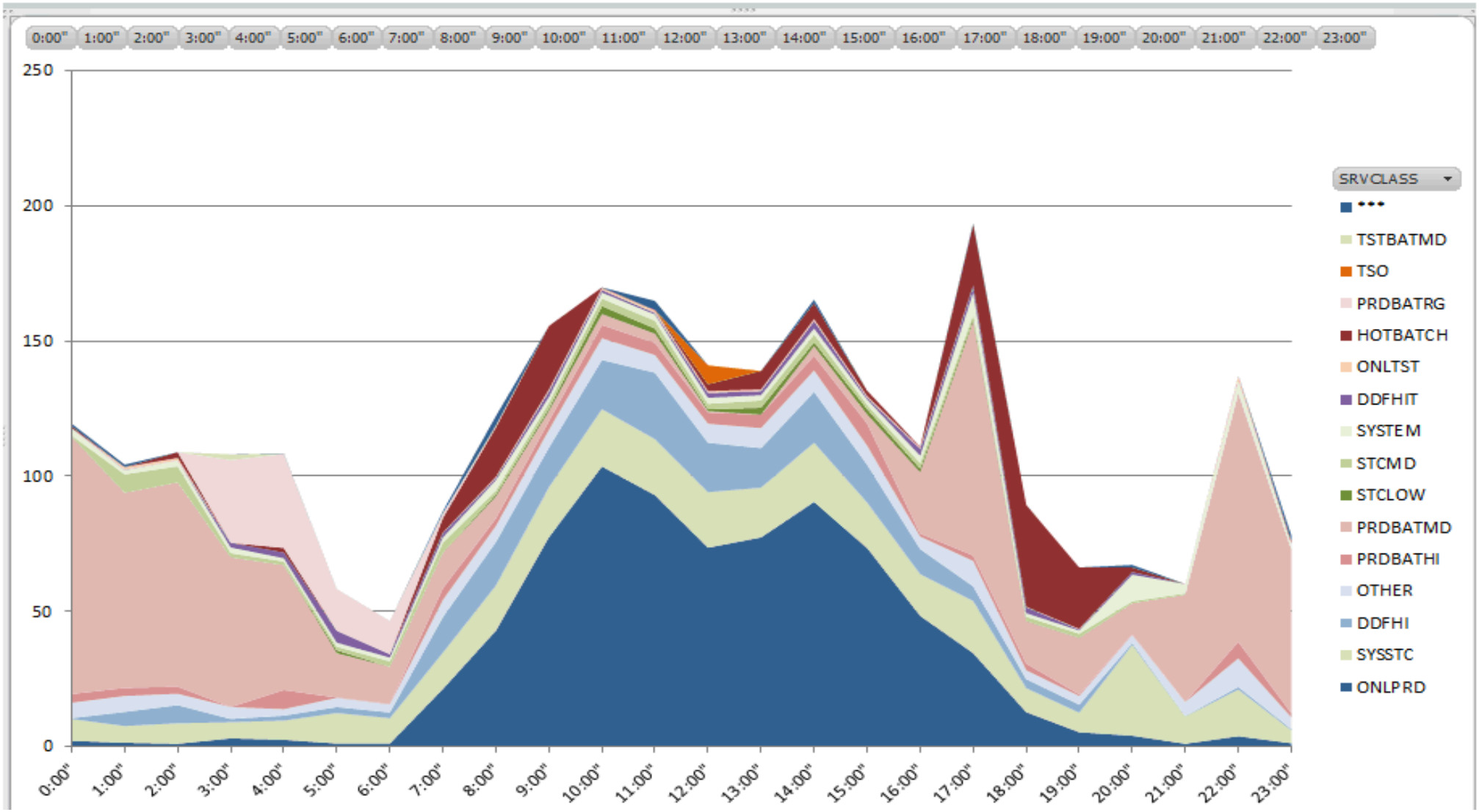
## Use of EPV to make a „What – If“ – Szenario

## … to this LPAR results in …



# Using the new Reporting and the Results

## … no problem to do so in this particular case.



# Using the new Reporting and the Results

**The cost savings and the enhanced effectivity of the daily work exceeds all of our expectations.**

**Using the Excel Exports and after that the Pivot Tables makes us able to analyse in a granularity and visibility we never had before – and not only for workload profiles.**

**Early identification of changes in workload behaviour enables earlier reactions to keep the cost savings.**

**Especially the trending reports provide security for a more reasonable capacity planning on the IBM-Mainframe Platform than we had before.**

**The z/OS–Skill provided in this product is great and very helpful – not only for the younger generation of the z/OS System Programmers.**

**Having a tool with the capabilities of this product was a quantum jump for Gothaer Systems relating to the informations we had with our „old“ reporting.**

# Resource Optimization to Reduce IT-Costs at Gothaer Systems

# Thank you for your attention!

# Do you have questions?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