



## Interview with Audun Faaberg, Performance Specialist

# Mainframe optimization in an outsourced environment

With over 9.000 employees DNB is one of the largest Financial Services groups in the Nordic region. DNB has an outsourced mainframe installation and a big and complex IT environment. DNB's IT Department consists of 830 people.

Like most of the banks, DNB has a multitude of legacy systems. Even if their functionality and consumption trends are well known by the employees in the Application and Platform Optimization (APO) team, when new problems arise, finding the actual origin of the incident can be challenging. For this reason, since 2011, DNB has been using ITBITM for z/OS to watch over the outsourced Mainframe and support the APO-team in their daily activities. Using ITBlaaS for z/OS, the APO team has succeeded in reducing its total MIPS consumption by 25% within one year, by identifying a long-term trend, finding its origin, and solving it over a number of steps.

"If anyone would have told me few years ago: you will find 25% of MIPS savings in your Mainframe installation I would have said: "You are slightly optimistic here, aren't you?"

Audun Faaberg, Performance Specialist at DNB has a long experience in optimizing Mainframe capacity, as well as finding and fixing all possible issues that can affect performance, capacity usage and costs on the Mainframe. Audun and the rest of the APO-team at DNB therefore did not expect to be able to find significant savings on their outsourced Mainframe.

Nonetheless, during the autumn of 2019, looking at the big picture and the long-term developments of MIPS consumption, Audun noticed that the MIPS usage was showing a constant increase over time passing from ca. 14.000 in January 2018 to ca. 22.000 MIPS in September 2019. This close to 55% increase over a couple of years, was not justifiable in terms of business volume growth and was leading to significant extra costs.



### **About DNB**

DNB is Norway's largest financial services group and among the biggest in the Nordic region. The group offers a broad range of financial services and has several international branches and representative offices, among which operations in Sweden and private banking in Luxembourg.

The bank employs over 9.500 people and has ca. 2 million private customers and 210.000 corporate customers.



The analysis of the consumption patterns during the banks working hours (8-16) highlighted that a large percentage of the MIPS consumption (ca.32% in average) was due to an integration component. The DNB APO-team had already significant experience optimizing DB2, DL1, CICS, and batch jobs, but not with the kind of integration component that was found to be "guilty" of such a large usage.

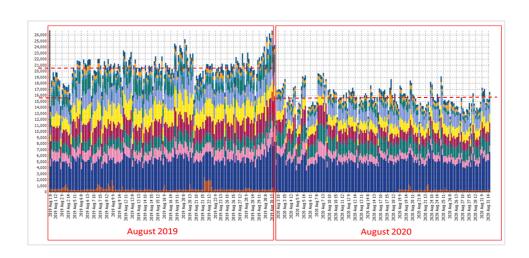
Due to the high level of MIPS consumption from the integration component, the optimization task was immediately prioritized by the IT management. An optimization of this kind is not done overnight. It requires a constant attention and repeated adjustments. Small changes were implemented and monitored over time as they were taken into production. Visualizing the effects on MIPS consumption of the different mitigating actions and intervention is not only a technical requirement but also an important practise to ensure management attention and the willingness to continue funding the optimization efforts.

"The data extracted by ITBI helped us visualize the story" says Audun Faaberg "and was therefore a fundamental element in guaranteeing the needed management support for the optimization project, ultimately leading to very impressing savings."

After one year of work, the MIPS consumption was basically taken back to the level of April/May 2018 notwithstanding a constantly increasing functionality and business volumes handled by the systems. The result was of course achieved with a number of different changes, not with one fix. The changes included among others: removing double format conversion, removing 90% of information logging, restarting brokers regularly, removing some broker traffic, optimizing batch jobs outside online time that spill into online time at peak days, optimizing a few SQLs, adjusting partition sizes and priorities.

Comparing August 2019, where the optimization work started, with August 2020 – corresponding to a year of work – DNB's total MIPS Consumption was reduced by ca. 25%, corresponding to about 5000 MIPS. This is a significant amount of money especially in an outsourced environment.







The major advantages of using ITBI during the optimization process were:

- · Providing the big picture and the trends over time.
- Highlighting the most important areas to focus on, in order to prioritize efforts and optimize ROI.
- Monitoring and visualizing the effects of the efforts over time, and quantifying those effects in financial terms in order to secure management commitment and funding for the optimization project.

"There is no doubt that this was a career-defining project for me and the rest of the APO-team. ITBI was confirmed to be a powerful tool in helping an experienced team focus on the right things at the right time and gathering our as well as the management's attention on what was really important to solve a serious issue and create tremendous savings for DNB." says Audun Faaberg.



#### Challenge

Discovering suspicious consumption trends

Identifying the origin of the incidents

Monitoring mitigating actions over time



## Action

Utilizing ITBI for z/OS Saas



#### Results

25% Reduction of total MIPS consumption over 1 year

Trustworthty and fact-based dialog with management and project reporting

Significant cost savings



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