

PROACT

NetApp

CASE STUDY

# The Swedish Pensions Agency

Powerful storage platform and convenient self-service portal boost productivity

PENSIONS  
MYNDIGHETEN

## Summary

### Challenge

Cloning databases for testing and troubleshooting purposes was a time-consuming task. To make clones, database administrators had to rely on external expertise which increased lead times.

### Solution

NetApp FAS storage with snapshot cloning (asynchronous replication using Oracle Data Guard). Integration between NetApp storage and Oracle Enterprise Manager, enabling self-service for database provisioning and cloning. Expert assistance for performance optimisation of Oracle databases on NetApp storage.

**In Sweden, 2.2 million people received national retirement pension in 2018. 7.5m current and future pensioners were issued with individual orange envelopes presenting their updated pension forecast. The Swedish Pensions Agency's total payments for pensions and other benefits amounted to SEK 350 billion in 2018. Behind these figures, there is a digital shake-up at the Pensions Agency which is being driven by huge amounts of data.**

The Pensions Agency has defined an IT strategy to support its mission and goals – to make pensions management more cost-effective and accommodating for the public. The IT function motto is: "we shall be the best IT department in Sweden".

The team is trying to make this a reality by introducing new technology so it can offer innovative services that create value for everyone who interacts with the Pensions Agency.

### The challenge

As the Pensions Agency's contract with its data centre service provider was due to expire, the agency decided to expand its collaboration with another large government organisation, the Social Insurance Agency (Swedish: Försäkringskassan). When thinking about how to migrate IT operations to the Social Insurance Agency from its previous data centre, the Pensions Agency identified several opportunities for improvement. One of these was the need for an improved change management process, in addition to a more productive test and development environment.

## Benefits

- Quicker troubleshooting and shorter lead times for changes
- Self-service using flexible and effective web interface
- Increased capacity and availability of testing environment
- Reduced license fees from fewer servers being used
- Reduced storage volumes for database clones
- More time to spend on enterprise development and support

The Pensions Agency's databases also require considerable maintenance. They are hosted in an Oracle environment and are huge in size – in Terabyte-class. The procedures for troubleshooting, patching and testing started by making clones of the production databases, a process which was very time consuming.

**"If we have a production issue, we naturally look to solve it as soon as possible. Cloning a database used to take several hours which really held us back,"** says Johan Wik, database administrator (DBA) at the Swedish Pensions Agency.

This was an obvious candidate for change for the Pensions Agency when migrating its data centre operations to the Social Insurance Agency. Furthermore, the existing server and storage systems were so complex that database cloning could only be performed using outside assistance from experts. The Pensions Agency's IT staff therefore had to resort to a formal request procedure which was rather cumbersome and added to lead times.

**"We wanted to rely on our own skills and resources throughout the workflow, and saw an opportunity to use Oracle's management tool, which could be handled by our DBAs. Our developers and testers would then be able to create database clones by themselves,"** says Johan Wik.

This would make the process quicker and automated. Another requirement was that database cloning should not compromise the performance of the production environment. The solution also had to maintain a high degree of security. For instance, the agency wanted to achieve this by anonymising certain data when it was being used outside the production environment.

## The solution

The first step towards a new solution for the Pensions Agency's databases was to select a data centre storage platform. Several options were evaluated but the conclusion was that NetApp's snapshot cloning technology was the most cost-efficient alternative and this also combined well with the NetApp storage systems that were already in place at the Social Insurance Agency.

The other options the Pensions Agency considered would have inflicted additional costs for both hardware investments and software licenses. The chosen solution introduces net savings since databases can be run using fewer servers - this translates to lower license fees.

With snapshot technology, there is no need to make a full copy of the database every time. Instead, a snapshot image of the database is created, reducing the disk space required to make a usable database clone by an order of magnitude – from terabytes to gigabytes. It also means that the cloning process runs much faster.

Snapshot clones are made using a secondary server, which is synchronised with the production database using replication. This setup ensures that there is practically no impact on the performance of live enterprise applications.

## How Proact helped

Concurrently with the migration of the Pension Authority's data centre, experts from Proact and NetApp were assigned to optimise the performance of the databases.

**"We made good use of their knowledge and the overall database operation has become more effective,"** says Johan Wik.

Database clones are now created directly by the Pension Agency's software developers and testers, using a self-service portal. As Oracle provides active support for NetApp's storage architecture, they can use Oracle Enterprise Manager, the database management tool that was already in place, to perform the cloning.



**As users it's great to have a solution that works and we now get more time to spend on other tasks. We have better availability to our development environment because we have a good, automated solution"**

**Johan Wik,**  
Database administrator (DBA),  
The Swedish Pension Agency

## The results

Creating a database clone now takes less than ten minutes, a process which used to take three hours when full copies had to be made. The new solution also offers greater capacity. Approximately ten test environments can now be up and running simultaneously, where all users previously had to share three between them.

Developers are able to respond faster to address issues that arise. They can create database clones by themselves and make patches to solve each problem.

Users also appreciate that the web interface helps make database management for test and development more effective and flexible. They can retroactively specify the time on which the clone should be based and can save a database clone for an extended time period when needed. The snapshot solution also delivers adequate performance to execute any type of test.

**"As users it's great to have a solution that works and we now get more time to spend on other tasks. We have better availability to our development environment."**

## The benefits



### Shorter lead times

Quicker troubleshooting and change management



### Lower license fees

Through unified storage and fewer servers



### Self-service

Flexible, effective web interface for testing and development teams



### Disk space savings

Greatly reduced data volumes using snapshots instead of full database clones



### Increased capacity

Higher availability to testing environments



### More productive testing

More time to spend on enterprise development and support

## About the Swedish Pension Agency

The Swedish Pensions Agency manages and pays out the national retirement pension, and also provides general and specific pensions-related information. The Pensions Agency employs about 1,200 persons at eight sites across the country. The Director General and staff functions are based in Stockholm.

## About Proact

Proact is Europe's leading specialist in data and information management with focus on cloud services and data centre solutions. We help our customers to store, connect, protect, secure and drive value through their data whilst increasing agility, productivity and efficiency.

We've completed thousands of successful projects around the world, have more than 4,000 customers and currently manage hundreds of petabytes of information in the cloud. We employ over 1,000 people in 15 countries across Europe and North America.

Founded in 1994, our parent company, Proact IT Group AB (publ), was listed on Nasdaq Stockholm in 1999 (under the symbol PACT).

# PROACT

info@proact.eu  
[www.proact.eu](http://www.proact.eu)

