About Proact

Proact is a specialist in storage, archiving and securing large volumes of mission-critical information. As an independent integrator, Proact provides systems, support and consulting services within its focus area of data storage and archiving.

The Proact Group has more than 625 employees and conducts business in Belgium, Czech Republic, Denmark, Estonia, Finland, Great Britain, Latvia, Lithuania, The Netherlands, Norway, Slovakia, Spain and Sweden. Proact was founded in 1994 and its parent company, Proact IT Group AB (publ) has been listed on Nasdaq OMX Stockholm since 1999 under the symbol PACT.

Additional information about Proact is available at www.proact.eu

PROACT

we secure mission-critical information

Proact IT Group AB | Box 1205 | SE-164 28 Kista | +46 8 410 666 00 | www.proact.eu | info@proact.eu

Client reference

100% IT uptime hits the right note for Grieg Star Shipping

With opening hours 24 hours a day, 365 days a year, a huge geographical spread the world over and intensive, high-volume communication, Grieg Star Shipping sets great store by ensuring that its infrastructure and the running of its IT systems remain shipshape. With Proact as a supplier and NetApp systems as a storage solution, they have yet to experience any appreciable downtime after eight years of operation.

It is no exaggeration to say that Grieg Star Shipping operations pose a considerable challenge as far as IT is concerned. They cover the whole world. 24 hours a day. The company faces very unique demands as it has its head office in Bergen and divisional offices in Atlanta, Seoul, Vancouver and Tokyo, as well as agents in every harbour in the world.

Intensive data flow

"Everything moves extremely quickly and there is a constant intensive flow of information," says Kirk Wedge, Vice President, Information Technology. "We handle large communication volumes every day, all relating to ship cargoes, shipping movements, logistics coordination, etc. It is not unusual for people to find several hundred messages in their inboxes when they arrive at work in the morning. You may think handling all this is impossible, but in fact it all works quite well."

24-hour operation, 365 days a year

As a result, GSS has to offer a 24-hour service, 365 days a year, when it comes to IT. They have IT resources on call round the clock, and they achieve this by shifting responsibility around to the divisional offices in the various time zones. They have people working at at least one of the divisional offices at all times. At present, the company has seven IT people working in Bergen, two in Atlanta, three in Vancouver and one in Tokyo.

> "As the need for storage became ever more acute, we had to review all our options for building a basic architecture which we could extend over time."
>
> Morten Kopperud, Operational Supervisor at IFE

"They all work together as a virtual team," explains Wedge. "We have joint global standards for everything we work with in order to make this cooperation as simple as possible. Moreover, we have had this arrangement since the 1970s. We also starting using the Internet very early on, and in fact we switched all communication to the Internet back in 1994. In terms of technology, we try to remain at the 'bleeding edge' so as to achieve advantages over our competitors. Our management team focuses on strong IT solutions and is willing to invest in advanced solutions."

Centralised running of applications

"However, our IT department is relatively traditional," he continues. "Our staff do pretty

much everything, including both programming and operation. We have a lot of in-house solutions due to the fact that we operate in a niche market like shipping. Otherwise everything is more or less centralised. A large Oracle database forms the heart of our application solutions, with Lotus Notes as our e-mail system. Otherwise we use general Windows products like most other companies, but we also use a fair bit of Linux in connection with web systems, system jobs, background jobs, etc.

> "...of course, fast storage systems are required"

The Grieg Star Shipping ERP system is OneWorld, also from Oracle. This is installed and runs in Bergen, but it is also used by all our external offices via the Internet. This system is shared by everyone. Despite the large distances involved, this all works extremely well."

Important shipping systems

"Our shipping route system is no less important to the company," says Kirk Wedge. "Like the other solutions, this system – which is called Dataloy and is supplied by a Bergen company – is operated centrally and used by all the external divisions. As well as this, we use external systems in partnership with other companies, including an agent portal called StarPort. All our agents all over the world receive relevant info via this. This is a system based in Canada which communicates with the system here via the Internet."

Another system, VesselWatch from the same company, is used by Grieg Star Shipping to report shipping movements, fuel consumption and so forth. This information is fed automatically into the ERP and shipping system, which saves on a huge amount of manual input. There is XML exchange between the systems with both StarPort and VesselWatch. This means that there is no problem at all with the systems being located in Canada and closely integrated with the systems in Bergen. All updates take place in more or less real time via the Internet.

NetApp from Proact outstanding

Of course, these huge volumes of data processing and communication require fast storage systems. This is why the group has based all its storage on NetApp's FAS systems over the past seven or eight years. Most servers are now being virtualised, based on VMWare.

> "FAS permits unique flexibility and the freedom to adapt the IT infrastructure simply and effectively, allowing various requirements to be met without major investment."

"However, as the technology has become more and more compressed, both our data rooms and systems have become smaller and smaller," says Wedge. "This is a pleasing development. Despite the huge data capacity we have now, all our hardware in Bergen fits into one rack."

In terms of storage, the company uses a 34 TB FAS 2050 with NearStore and SnapVault as the central storage system, plus a FAS 3140A with a 17 TB disk. There is also a 17 TB FAS 2020A in Atlanta and a FAS 270 in Vancouver. Extensive use of SnapMirror, advanced and very effective mirroring software, plus the Operation Manager and Protection Manager admin software packages gives the company full control over copies and central storage. "We have not had any really appreciable downtime since we started using NetApp," emphasises Kirk Wedge.

Hot backup in Atlanta

To spread the risk and derive the most benefit from its investment in NetApp, Grieg Star Shipping has chosen to locate its mirror system in Atlanta in the USA. A FAS 2020 is used there as both a hot backup system for the primary storage system in Bergen, and as a primary system for the office over there.

"As this equipment does cost quite a lot, we have found it expedient to utilise the system as much as possible. This means that we do not have a 'dead' backup system lying around which might never be used. NetApp's SnapMirror software ensures that all data is constantly mirrored in Atlanta via the Internet so that the backup system always maintains an exact copy of the primary system and can take over if the system in Bergen goes

down. Everything has worked really well so far."

GSS is now also planning a NetApp disk-based backup system to replace a traditional tape-based backup system for long-term data backups.

> "Even if one disk goes down, the system keeps running with no problems. This system has never been down in the entire eighteen months it's been running, and we've never needed to reboot it."

NetApp out in front

"NetApp has worked fantastically well," enthuses Wedge. "This is why we were never in any doubt when the group was to be split and new systems were to be procured. Of course, we did look at other systems as well, but this confirmed to us that NetApp is miles out in front as far as we can see. Certainly, these solutions cost a bit more than other, similar solutions, but in our view these systems are more than worth the additional cost."

> "Using the SnapVault functionality in the system reduces backup administration by up to 75%, the disk space required can be reduced by a factor of 20:1, and the backup time can be brought down by no less than 95%."

Strong support from Proact

Wedge is also very pleased with the support supplied by Proact: "If we are ever wondering about anything, we receive competent answers straight away. They know exactly what equipment and software we have. We even find that they come and fix things before we even realise we have a problem. The NetApp tests itself continuously and reports to Proact if there are any issues. This is all very reassuring and straightforward."

"I can tell you about one fascinating thing that happened with Proact, NetApp and the support team," says Kirk Wedge to conclude. "It was just after we had had the first system installed. Of course, we were a bit nervous about errors and, in a worst-case scenario, the system crashing. One night, we had a problem with the system hanging, so we had to call support. The advice they gave us was to find a little hole on the front of the server box, then get a paperclip and stick the tip in this hole. We were not entirely familiar with this operation and tried to protest, because the production database was what we should have been looking at. But no, we were told we did not have to worry about a thing, because it would not be possible to corrupt anything with NetApp.

And their advice turned out to be correct…"

GRIEG STAR SHIPPING

Technical data

Proact's solution for Grieg Star Shipping

- Proact has designed and supplied data storage solutions based on NetApp to their head office in Bergen and their divisional offices in the USA and Canada.
- A NetApp disk solution has been installed at every office, and business-critical data is mirrored and backed up between the systems using the functionality available in NetApp solutions such as SnapVault, SnapMirror and SnapShot.

This solution comprises:

1 FAS3140A cluster solution disk system

1 NearStore FAS2050

1 FAS2020A in Atlanta

1 FAS270 in Vancouver

Nexsan interim storage

83 TB disk

- Proact is responsible for ongoing support and maintenance.