

## Safer ship travel with Axis network cameras.

Fire on board resulted in a new level of safety on Hurtigruten's vessels.



**Organization:**  
Hurtigruten ASA\*

**Location:**  
Norway

**Industry segment:**  
Transportation

**Application:**  
Safety and security

**Axis partners:**  
Milestone, NCMC AS,  
Com-Scan A/S

\*Hurtigruten ASA is a merger of the shipping companies Ofotens og Vesteraalens Dampskibsselskab and Troms Fylkes Dampskibsselskap ASA

### Mission

Hurtigruten is a traditional ferry service for the transportation of goods and passengers between Bergen and Kirkenes in Norway. More than 230,000 passengers sail on one of Hurtigruten's vessels every year. On September 15, 2011 a disaster occurred. On one of Hurtigruten's vessels, MS Nordlys, an explosive fire broke out in the engine room and the passengers and crew were safely evacuated from the vessel. In connection with the renovation of MS Nordlys, it was decided to replace parts of the communication system and infrastructure. Some systems were obsolete and new technology was installed. The consultancy firm NCMC AS was engaged to ensure that the solutions installed were identical to the standard that the company had chosen and that NCMC AS was developing.

### Solution

The old infrastructure on board the MS Nordlys was based on an analog matrix that was completely destroyed in the fire. When the new telephone cables were laid, a modern new IP network was also installed.

This allowed the old analog cameras on board to be replaced with the latest in IP camera technology: Axis network cameras. 23 Axis cameras were installed, along with Milestone XProtect® Professional video management software. The surveillance system was thus integrated with the rest of the infrastructure and MS Nordlys got a state-of-the-art surveillance system that enhances the safety and security of the passengers and crew, as well as improved communication on board the vessel.

### Result

Several essential functions on board the vessel use and benefit from the surveillance system. Reception, the shop, unloading /loading, landing, the car deck, bridge and engine room all represent tasks for the crew, who gain enhanced safety as a result of the cameras. The cameras in the engine room help the engineers on board make sure everything is in order and provide additional safety for the crew in the engine room as their colleagues can warn them in time when incidents occur. The camera up on the mast also provides additional safety and allows the head of the engine room to see the color of the smoke.

**“When we develop new solutions for a customer, we never consider only the price. The solution is what is important.”**

Idar Flø, CEO of i Norwegian Centre of Maritime Communication AS.

### Innovative new high-quality technology

Hurtigruten has served the coastal population since 1866 and was appreciated from the start not only as a transport route but also as a tourist attraction. The route currently employs 11 vessels that call at 34 ports every day, 365 days a year. More than 230,000 passengers sail on one of Hurtigruten's vessels every year.

On September 15, 2011 a disaster occurred. On one of Hurtigruten's vessels, MS Nordlys, an explosive fire broke out in the engine room and the passengers and crew were safely evacuated from the vessel. The fire caused great damage to the vessel, which remained in a shipyard for repairs for five months. Nordlys was only able to re-enter service on March 20, 2012. In connection with the renovation, it was decided to replace parts of the communication system and infrastructure. Some systems were obsolete and new technology was installed.

The consultancy firm NCMC AS was engaged to ensure that the solutions installed were identical to the standard that the company had chosen and that NCMC AS was developing. NCMC AS is a consultancy firm for maritime IT system solutions and evaluates new technologies to find the very best solutions for all individual needs on board a vessel. The objective is to install innovative new technology of the highest quality with the best functionality.

Milestone XProtect® video management software is based on open standards and supports over 1,500 different models of network camera via LAN, WAN or the internet. “The total surveillance solution was very good as Axis has products that fit into many different environments. Milestone's software is flexible, reliable and easy to use. My objective is always to find the state of the art and the Axis/Milestone combination provided this,” says Idar Flø, CEO of NCMC AS.

The Nordlys has a dedicated VLAN for CCTV, which is also standardized, making it easy to extend the system to other ships. Installing IP networks on board vessels can be a challenge as the ship moves all the time.

On MS Nordlys this was solved by using 3 different network technologies that complement and back each other up, guaranteeing contact with the control rooms in ports. “By using a common IT-based standard for the infrastructure, this can also be implemented on other ships. It is then easier for the control rooms on shore to communicate with the ships in service,” says Flø. The camera models used are AXIS P3343, AXIS P3344, AXIS P1343 and AXIS P1344, and AXIS M3204 in the shop on board the vessel. PTZ model AXIS P5534-E is used on the car deck. The cameras are housed in stainless steel to cope with the extreme external stresses, both from wind and weather but also from moisture and heat down in the engine room. Several essential functions on board the vessel use and benefit from the surveillance system. Reception, the shop, unloading/loading, landing, the car deck, bridge and engine room all represent tasks for the crew, who gain enhanced safety as a result of the cameras.

The cameras in the engine room help the engineers on board make sure everything is in order and provide additional safety for the crew in the engine room as their colleagues can warn them in time when incidents occur. The camera up on the mast also provides additional safety, allowing the color of the smoke to be seen.

“The image quality from the Axis cameras is very high. We have also benefited greatly from Milestone's solution. It provides overview and control and is easy and intuitive to use, as well as providing enhanced safety for the passengers,” says Ole Johan Andreassen, Captain of MS Nordlys. Hurtigruten may need to add more cameras in the future. The company is also looking at introducing intelligent video. ‘People counting’ is an example of intelligence that can be of great benefit in emergency situations, for example an evacuation of the vessel.

### Unique requirements for shipping industry

During the work on installing the new surveillance system on MS Nordlys, NCMC worked with Axis's/Milestone's distributor Com-Scan A/S. Com-Scan A/S is one of the most experienced suppliers to the shipping industry and knows the specific requirements well.



“We have worked within this segment for a long time and have great experience of installations of safety solutions for the shipping industry. The conditions on board a vessel are special and experience is required to find optimum solutions and be able to install them,” says Thor Heggedal of Com-Scan A/S..

