

# Aker MH CCTV

## Improving safety

# Drilling CCTV purpose

Drilling Closed Circuit Television System (CCTV):

- Enable remote safe operation of drilling equipment by improved overview of operation and surroundings
- Cameras can be located where access is limited
- Possibility for monitoring/recording at other locations offshore and/or onshore
- Record operation for analyzing safety of operations
- Record and view incidents
- Record operation for training purpose
- Record operation for documentation to third parties

# Drilling CCTV purpose

- The main object of the CCTV system is to improve safety. The view from the Driller's position can always be improved. Examples are views of Fingerboards, Drawwork drum, Roughneck, Derrick Drilling Machine (DDM) etc.
- The focus on rig safety has reduced the number of people working in noisy areas, such as shale shaker rooms, mud pump room and close to hydraulic power units. By using CCTV cameras these areas can be monitored without having personnel in the area.
- If an incident happens during normal operation, the recording of the CCTV will give valuable information to the course of events.

# Drilling CCTV purpose

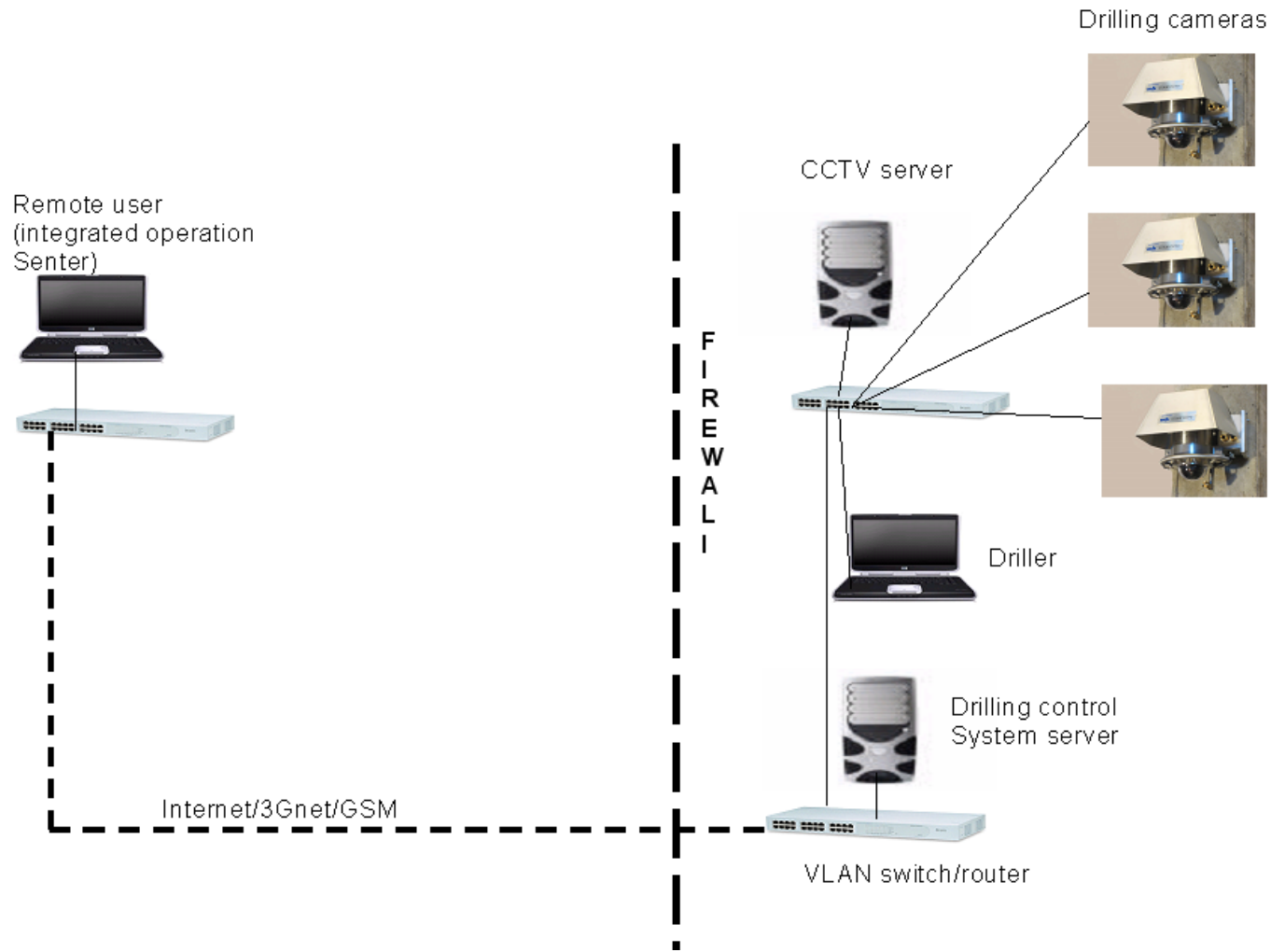
- The recording of operations is very useful in training of personnel. This training effect is improved when the CCTV recording is combined with the drilling control system recording. The effect of control signals will then be presented directly.
- When commissioning a drilling system, a large number of parameters need to be set. By recording the CCTV pictures together with the new settings, the rig can be tuned for optimal performance.

# Aker MH CCTV IP

There has been a great development the recent years from analogue to digital CCTV solutions:

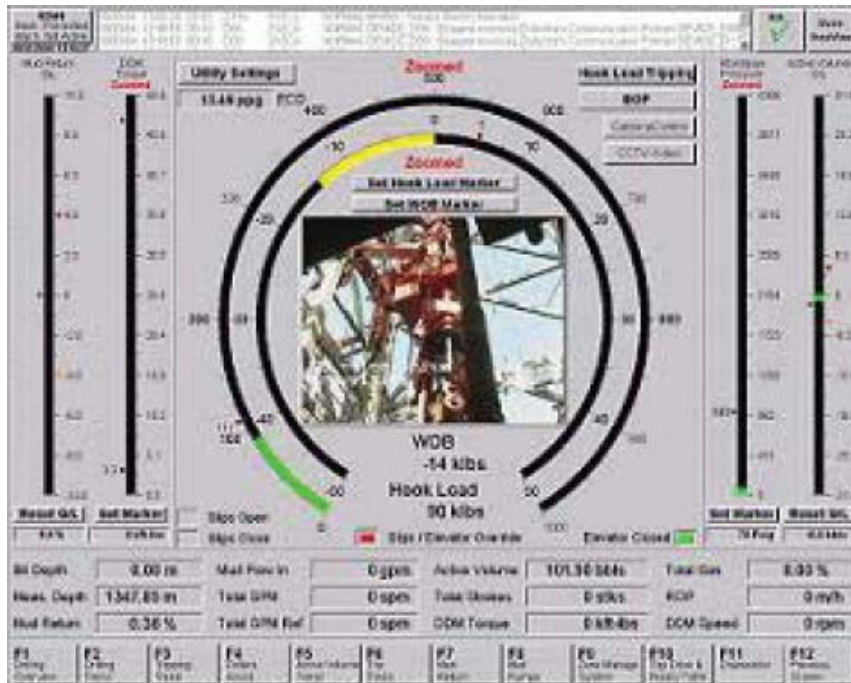
- Using existing Ethernet network instead of extra analogue cables and extra graphic cards
- Improved flexibility of network setup
- Easy to distribute files
- Possible to monitor at other locations (onshore/offshore)
- Aker MH supply a well proven CCTV IP solution delivered to a variety of new and existing rigs
- By using movement as an event trigger, storage capacity is reduced and viewing of recordings made more easy

# IP based CCTV in Drilling



CCTV integrated in network

# IP based CCTV in Drilling



CCTV as part of DrillView HMI



CCTV as part of DrillView HMI

# IP based CCTV in Drilling



Typical CCTV screenshot



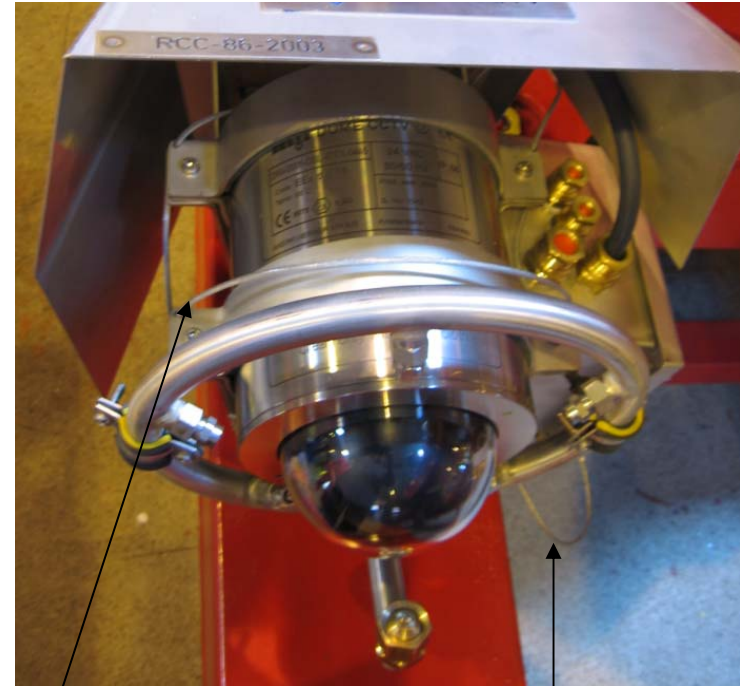
# IP based CCTV in Drilling



Pan tilt zoom (PTZ) camera



Water flushing tank



Safety wire for camera and sunshield

Safety wire for junction box door

ATEX certified cameras for zone 1 and 2

# IP based CCTV in Drilling



Wide angle fixed camera



Fixed camera

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