

*Sannitidsprogrammering*

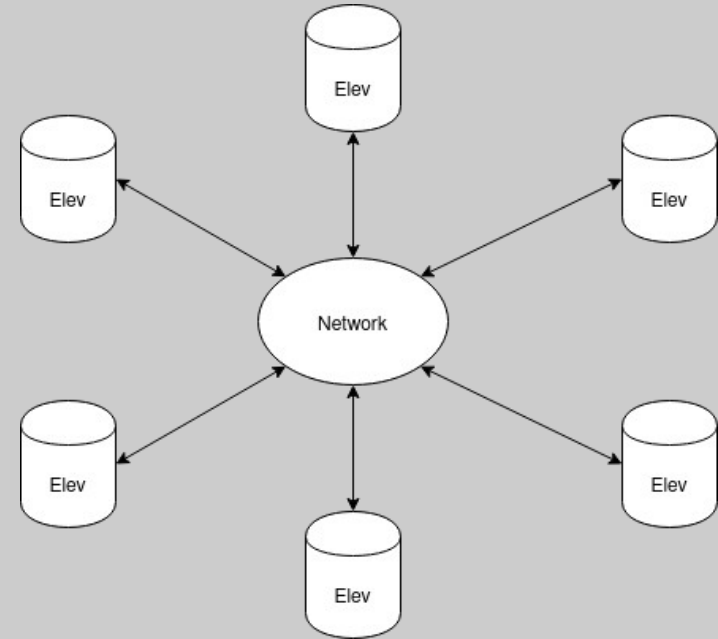
# Design Review Presentation

TTK4145 – Group 17

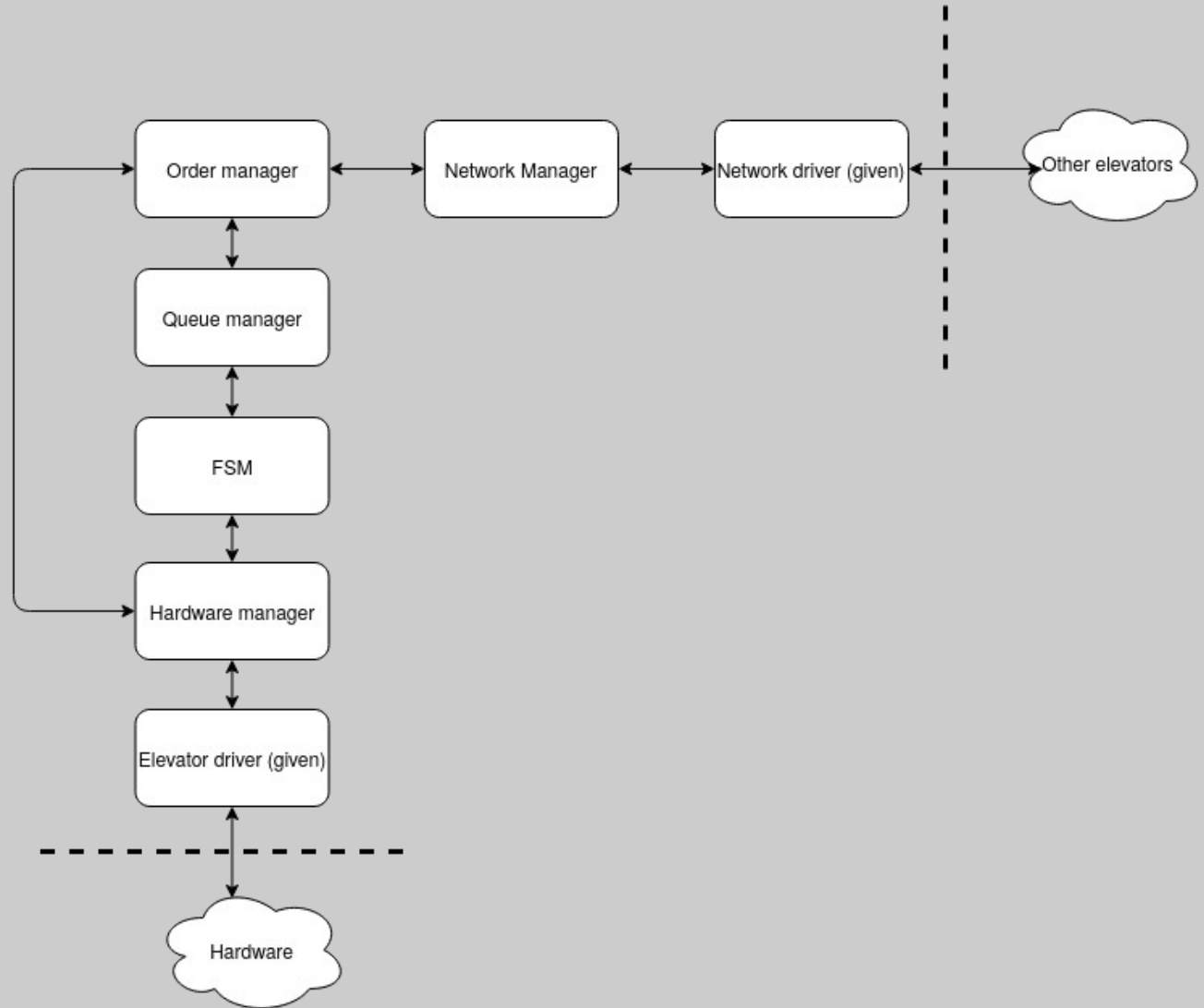
# Overall design consideration

- Mesh network topology
- Local queue only
- Orders always\* backed up by another elevator
- Decentralized order decision making
- All elevators run the same code

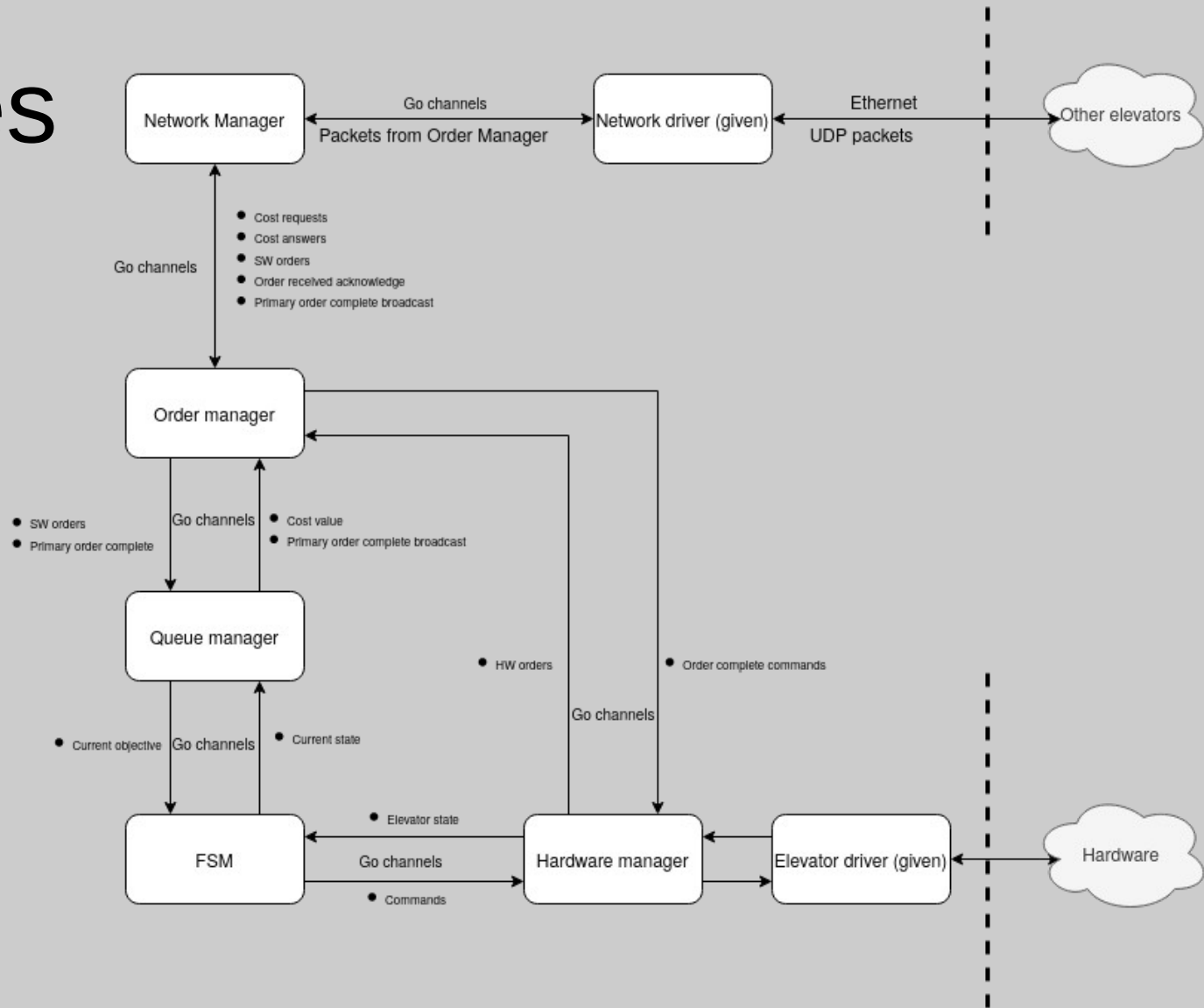
\* Unless elevator is alone on network



# Modules



# Interfaces



# Error handling – General errors

- Standalone watchdog for restarting entire program
  - Program sends some kind of IAmAlive message to watchdog via pipes
- All modules may trigger a restart on failure

# Error handling - Network

- Network connection errors transparent to all modules except Network Manager
  - Same behavior for localhost as when connected
- Packet loss handled by Network Manager
  - Transparent to all other modules
  - Transmitting: Send X duplicates
  - Receiving: Log recent messages to detect duplicates

# Error handling – Orders

- All elevators have primary and backup queues
  - Primary orders are the order to be executed by the elevator
  - Both queues are saved locally
- All orders are sent to primary and backup elevator
  - Backup becomes primary after timeout