



The Integrated Alarm System for the Alma Observatory

A.Caproni, E.Schmid

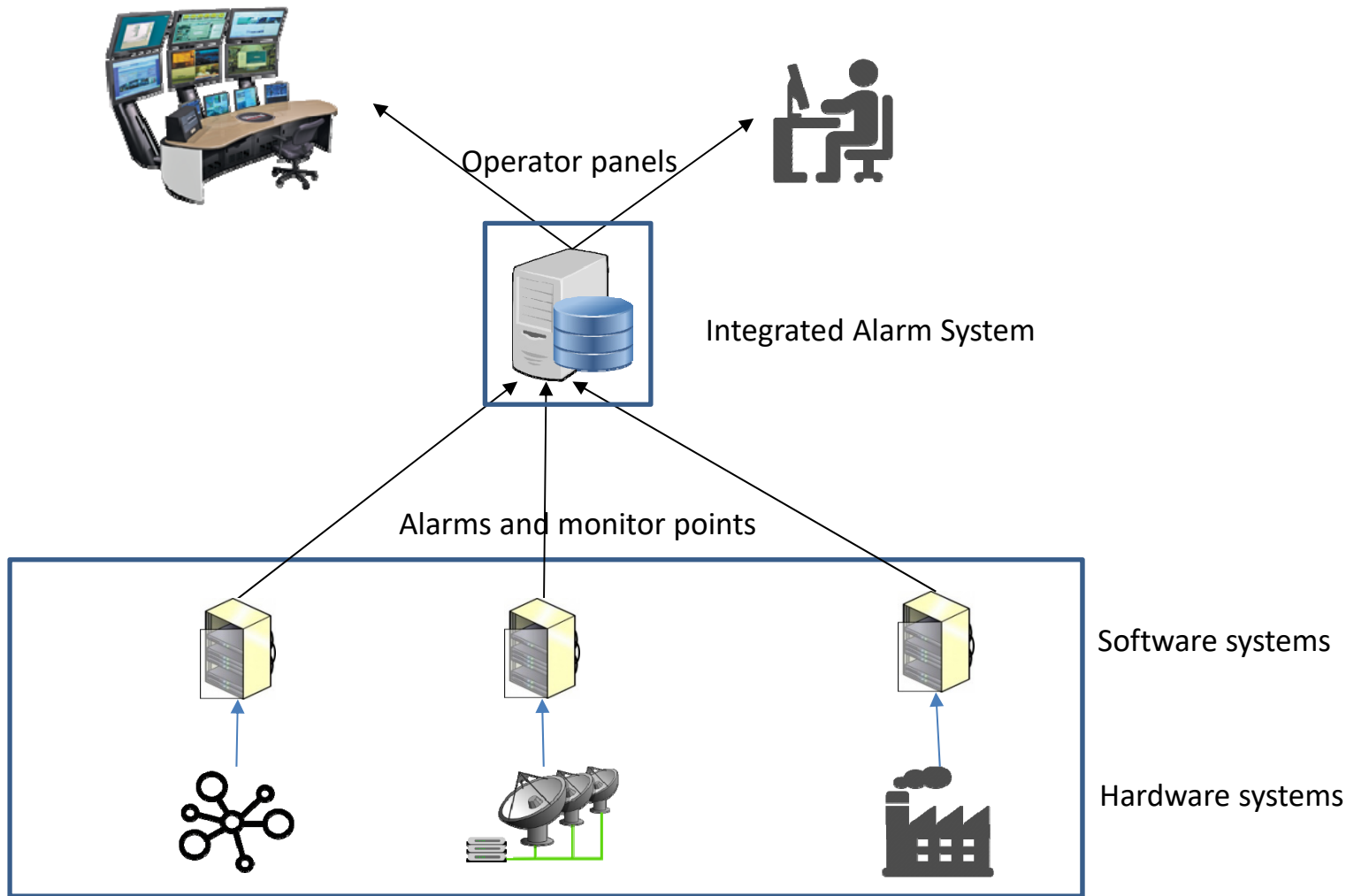
Organisation for Astronomical Research in the
Southern Hemisphere (ESO)



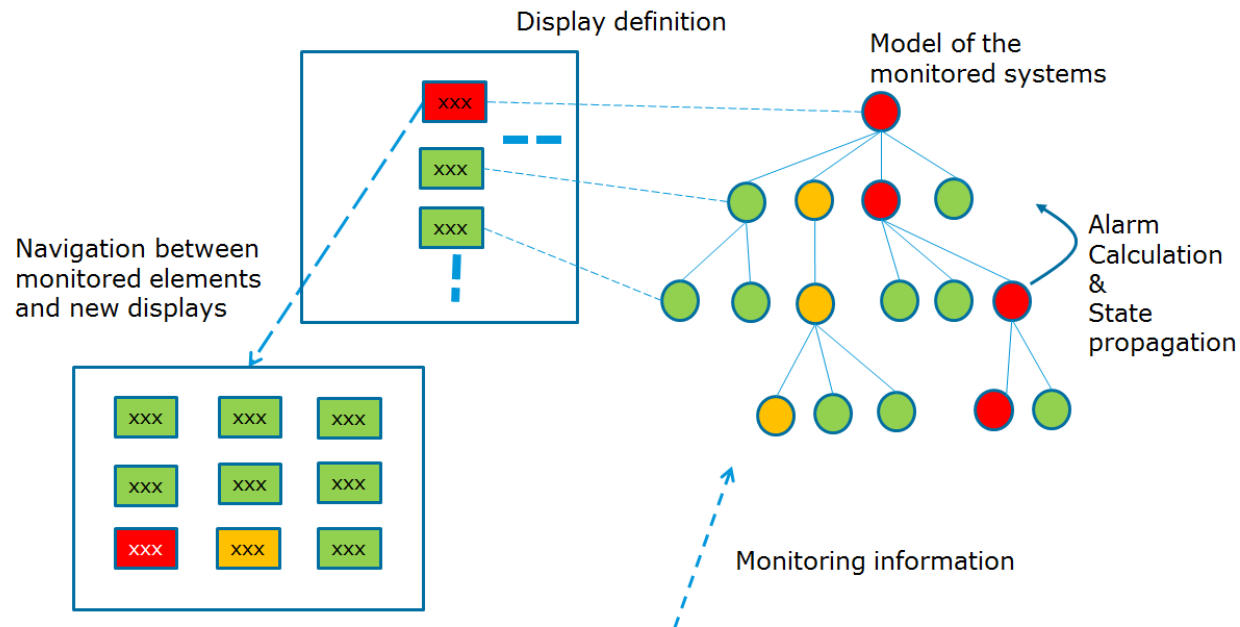
Motivation

- Current alarm system is not enough
 - Operator panels
 - Misses alarms from external systems
- ALMA facility is not only the ARRAY
- Have the facility under control 24/7
- Increase operators and engineers awareness
- Reduce the failure-to-reaction time
- Improve telescope efficiency

High level

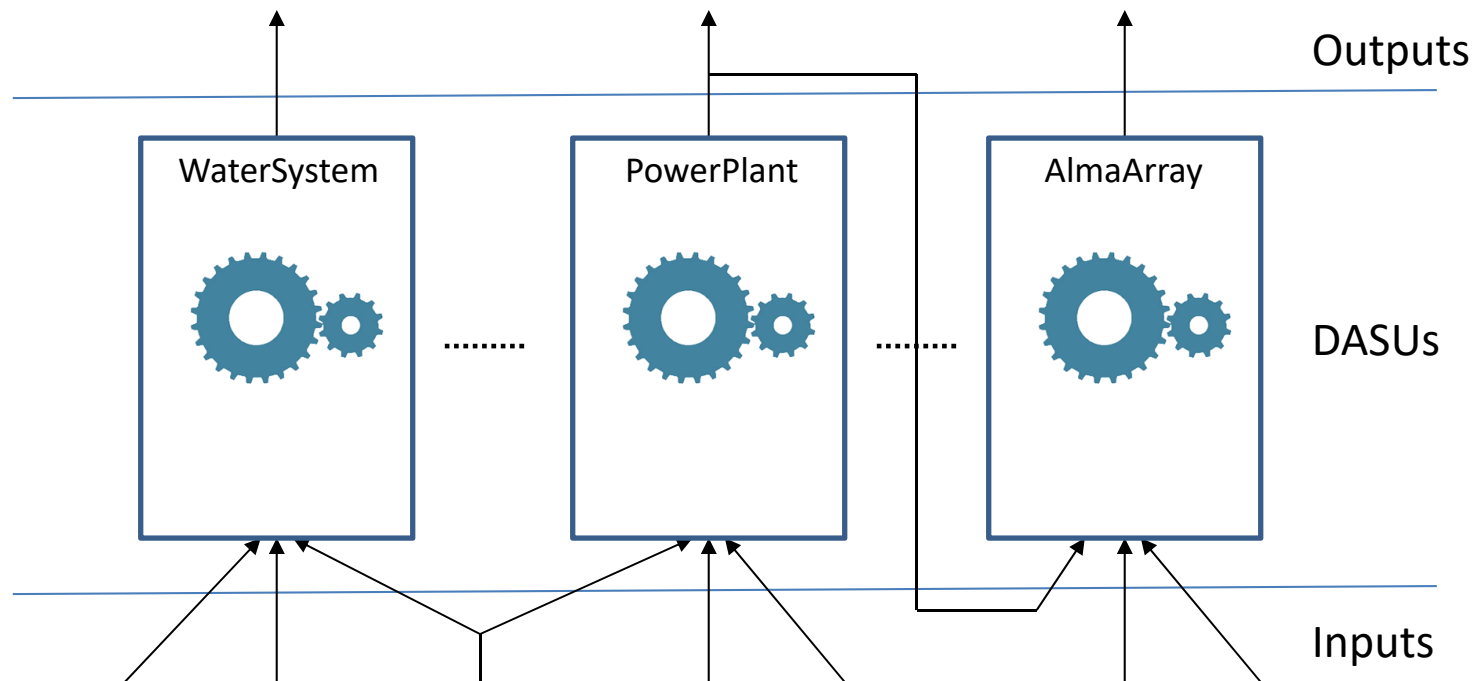


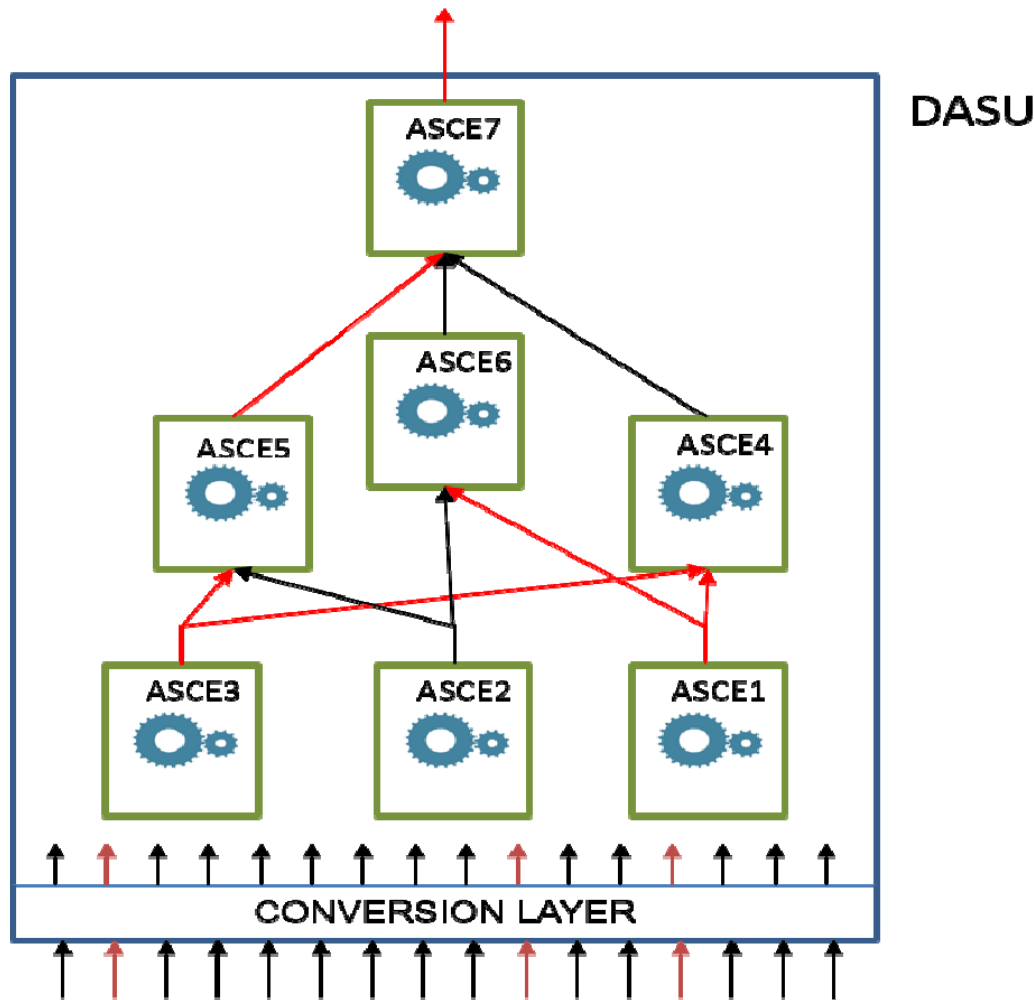
Integrated Alarm System model





AIS core – Distributed Alarm System Units



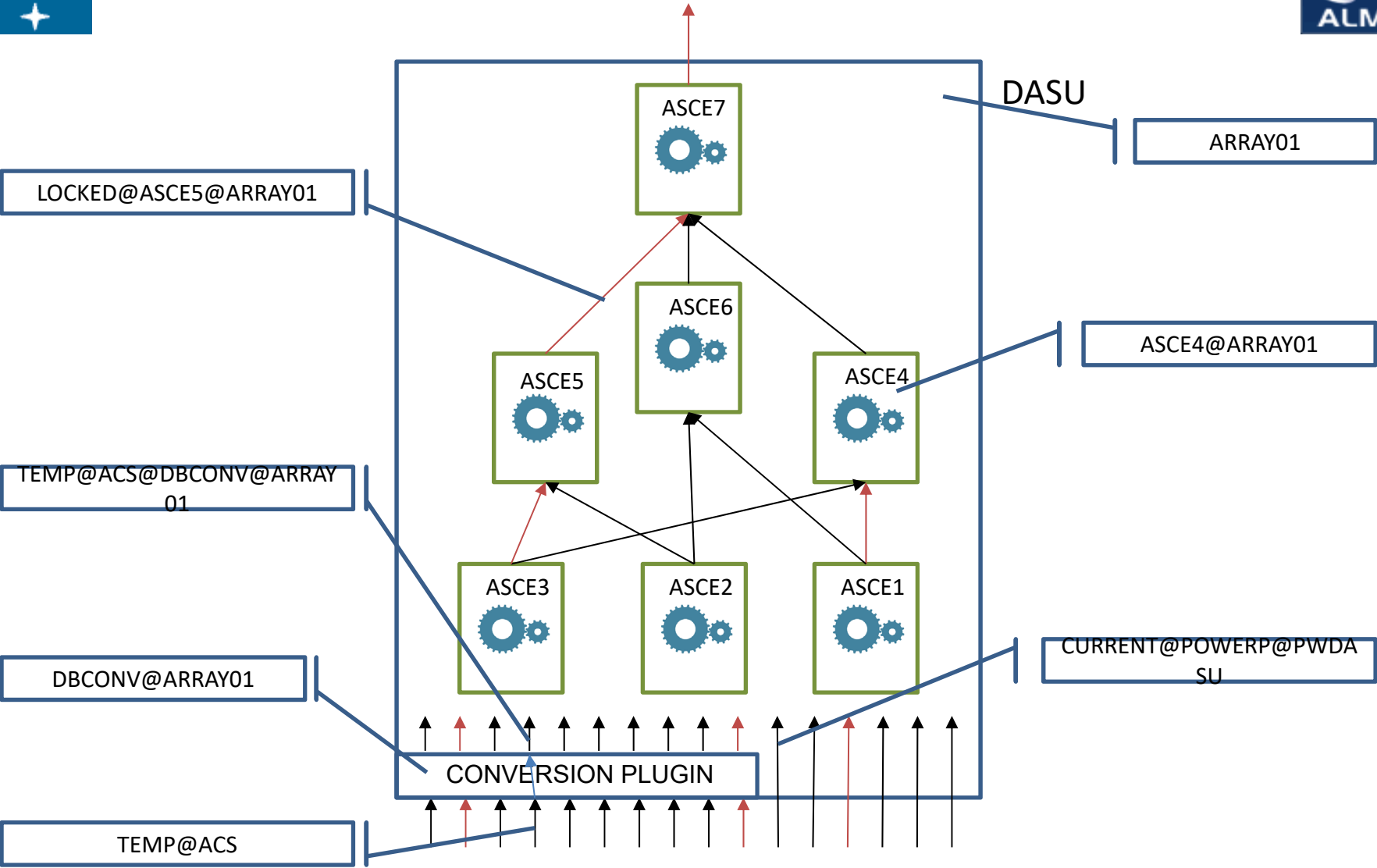


Transfer function

$$O_E = \sum_{i=1}^n I_i$$

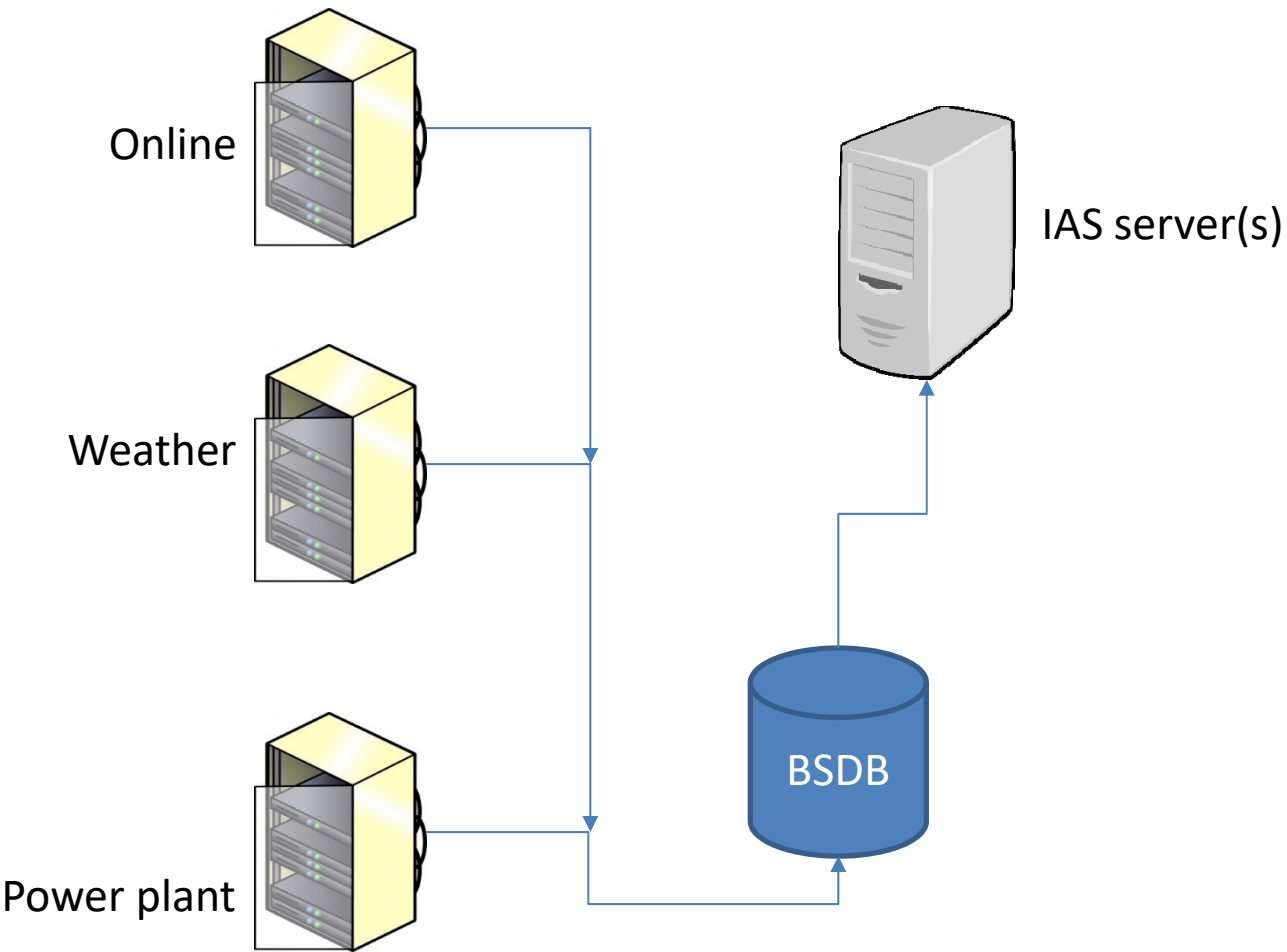


Identifiers



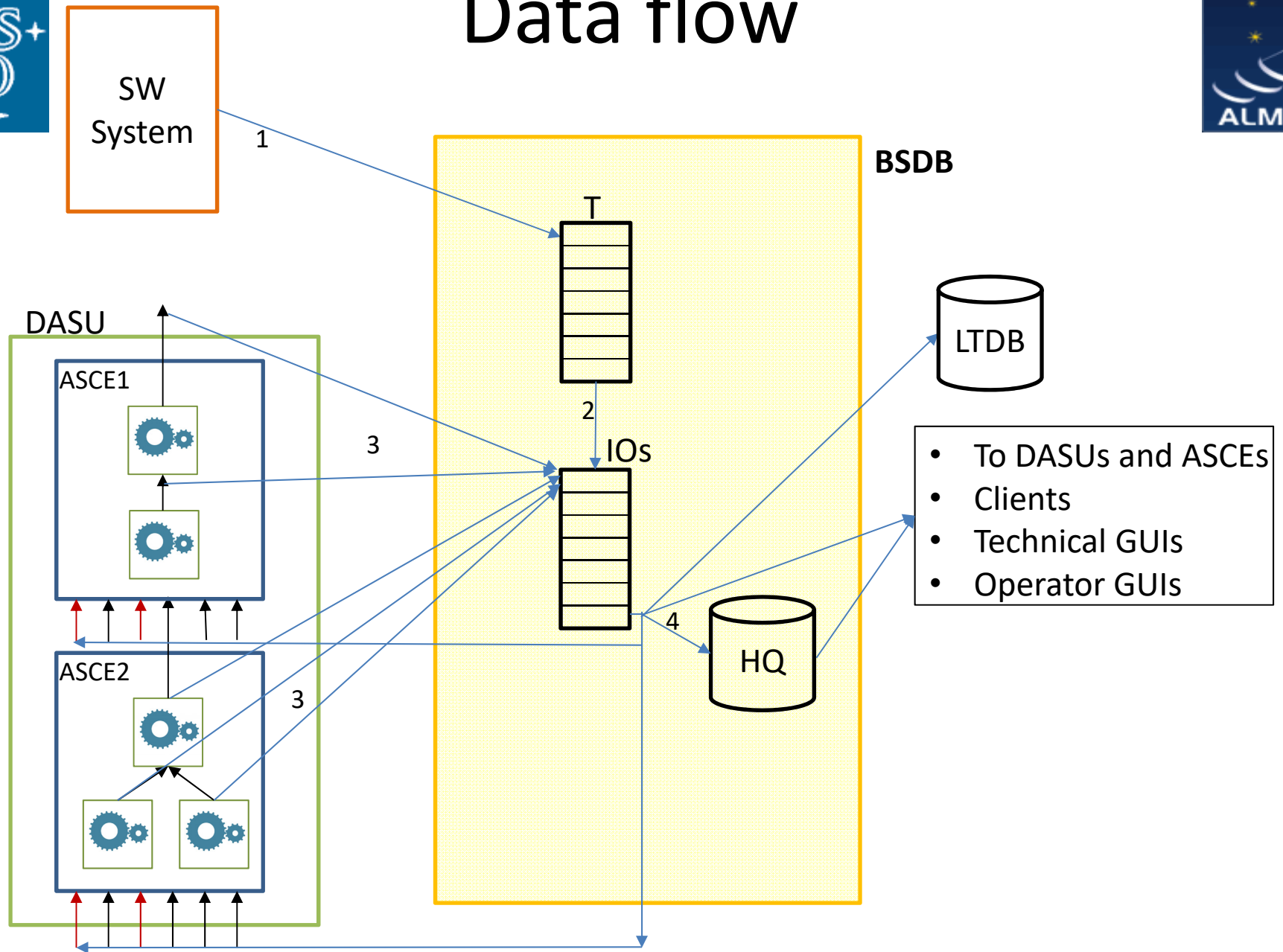


Communication with subsystems

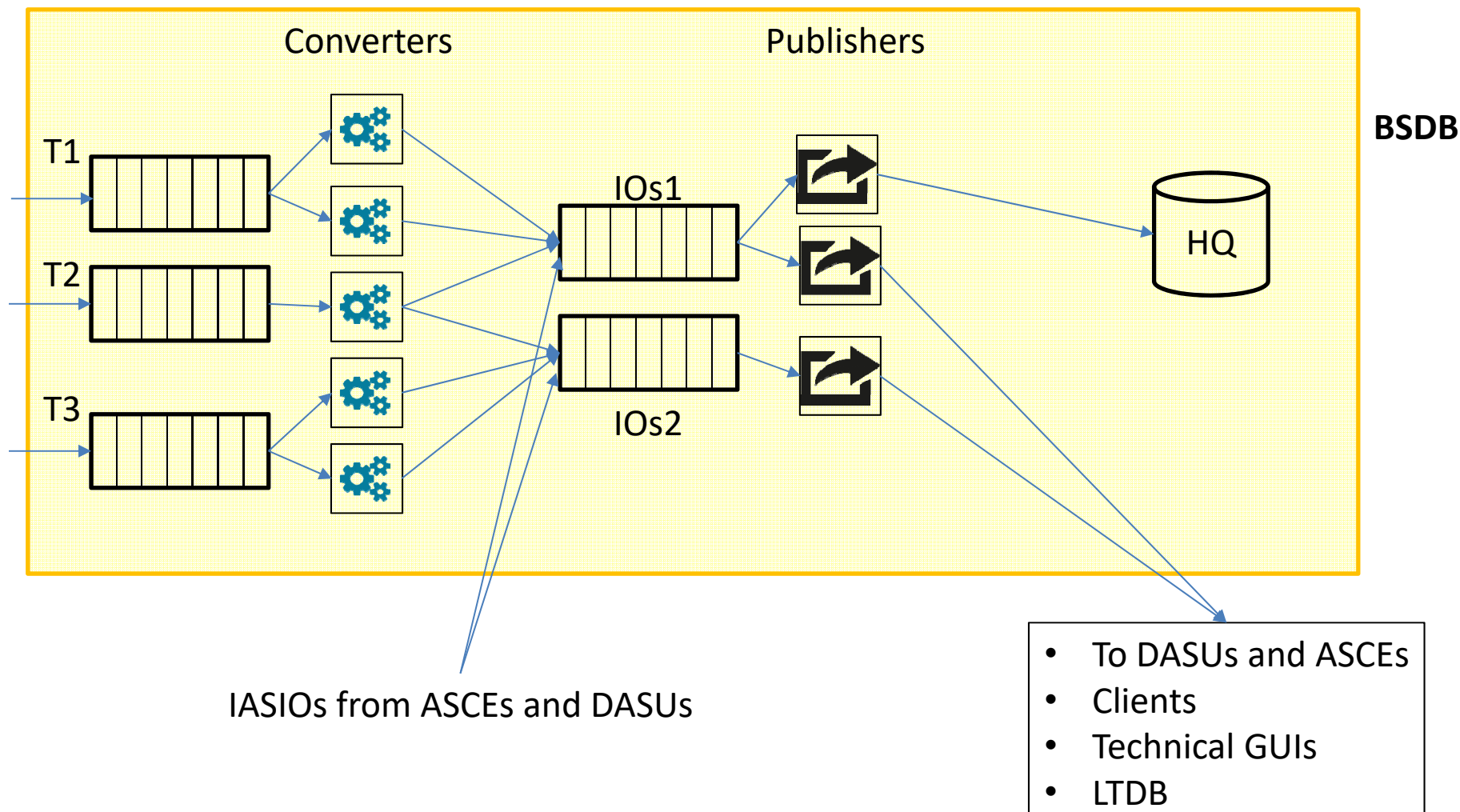




Data flow

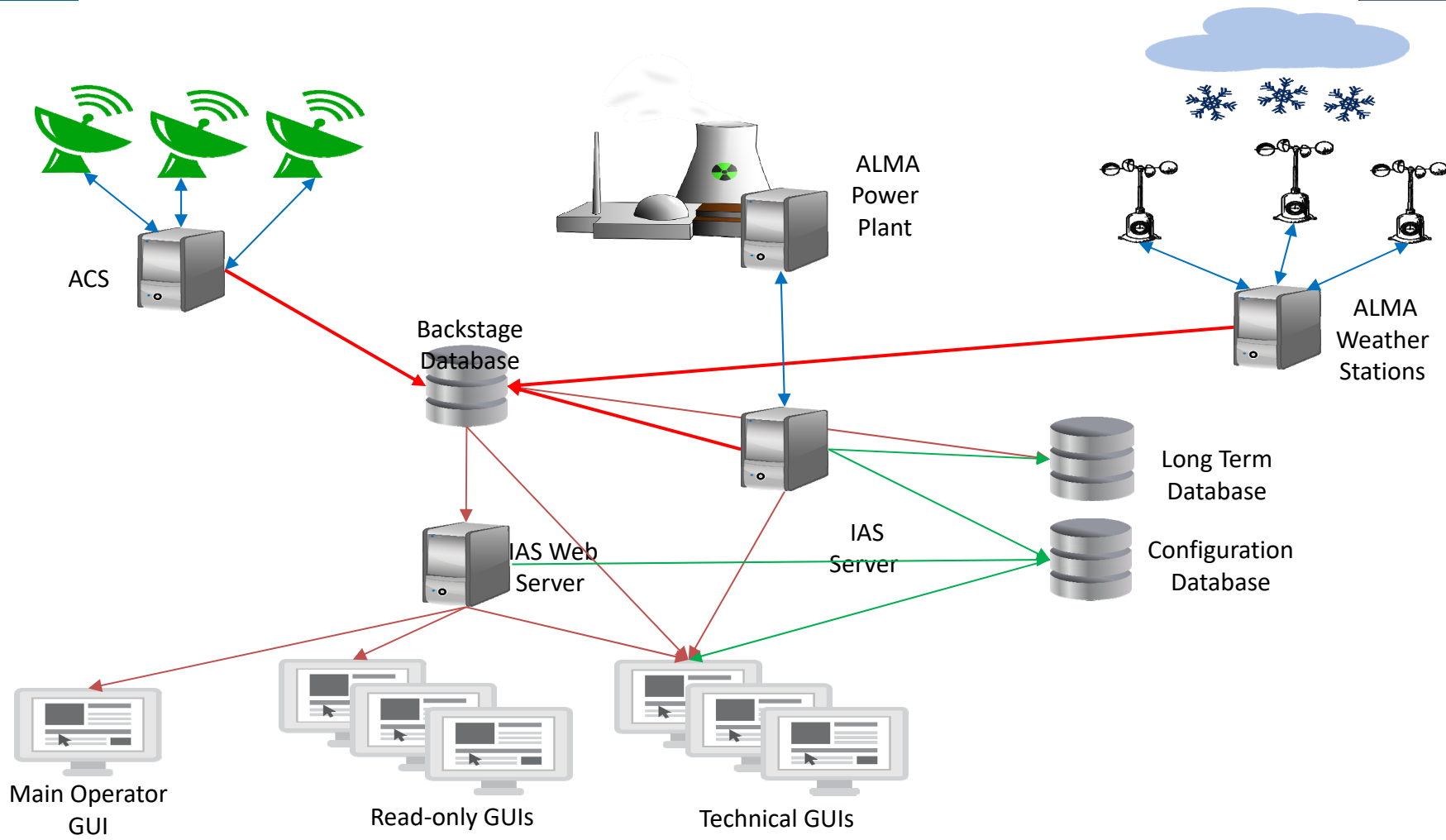


BSDB

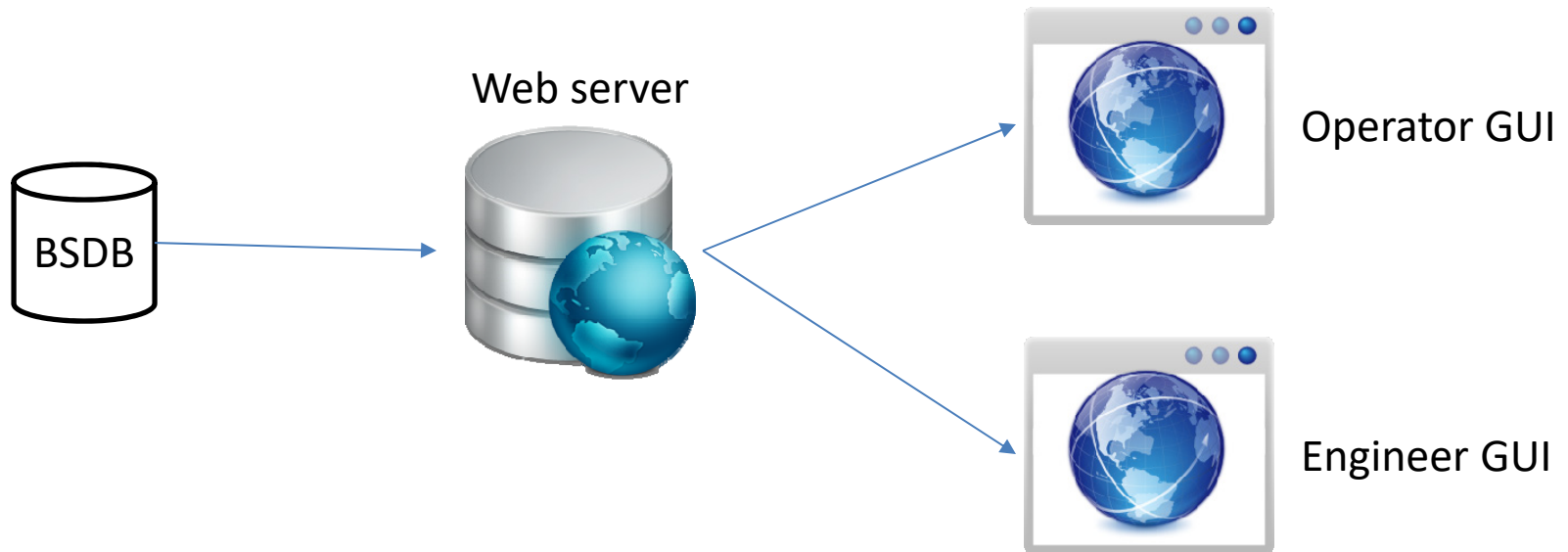




Overview

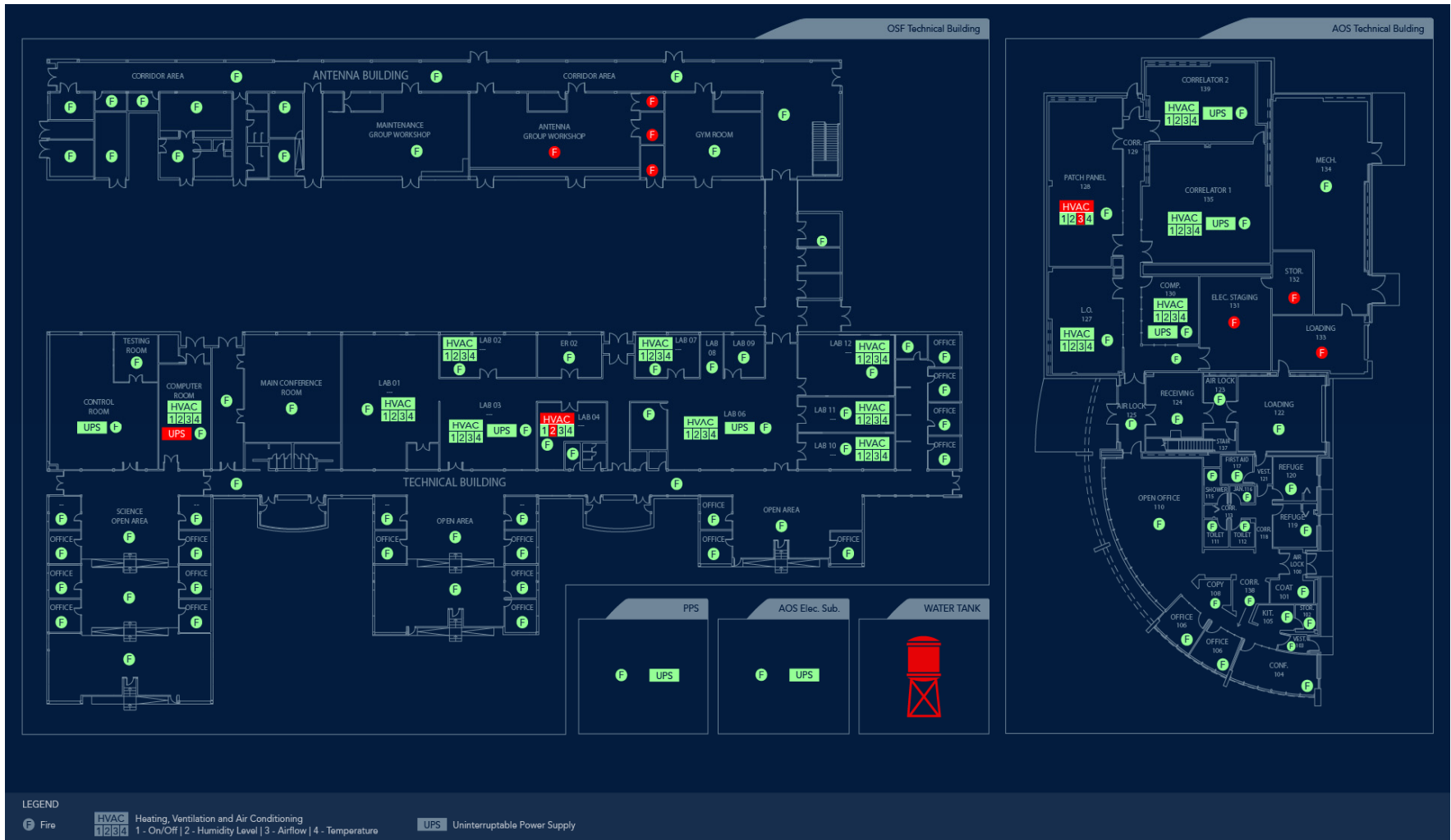


Operator GUIs





GUI mock up





Conclusions

- LGPL
- <https://github.com/IntegratedAlarmSystem-Group>
- First version to be installed early next year
- In operation at the end 2018