

ITk DAQ / DCS / Lab-equipment interface

Ben Smart,
on behalf of all those involved

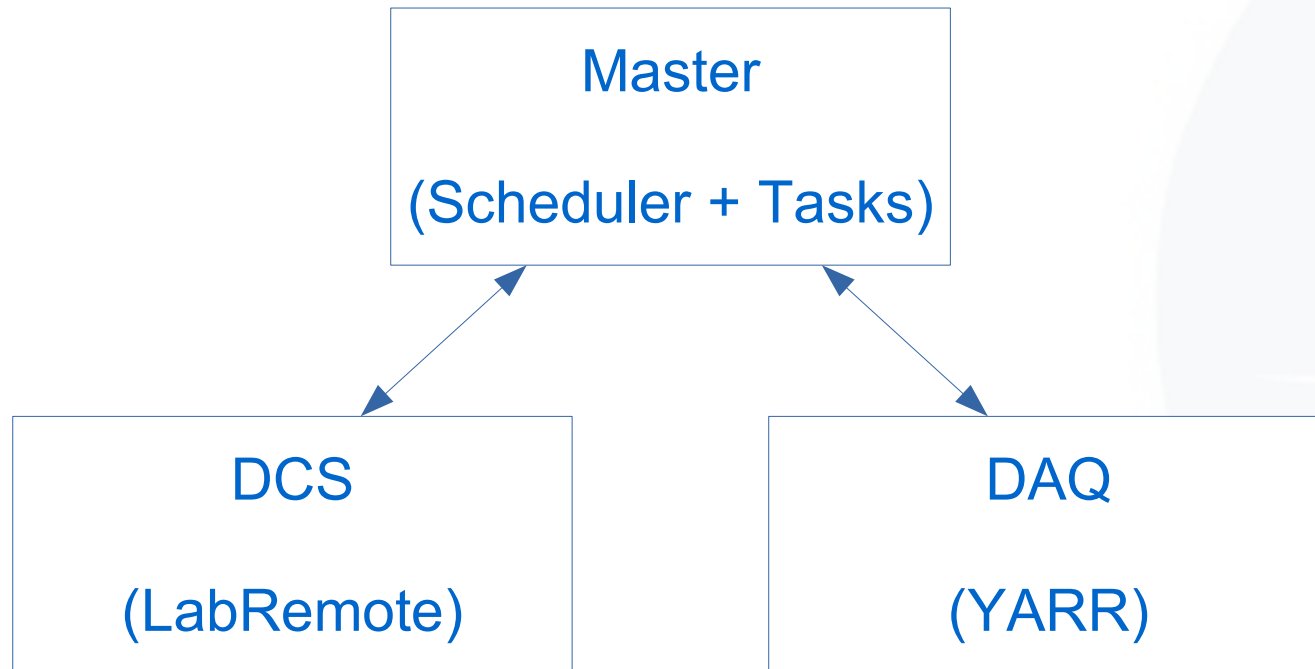


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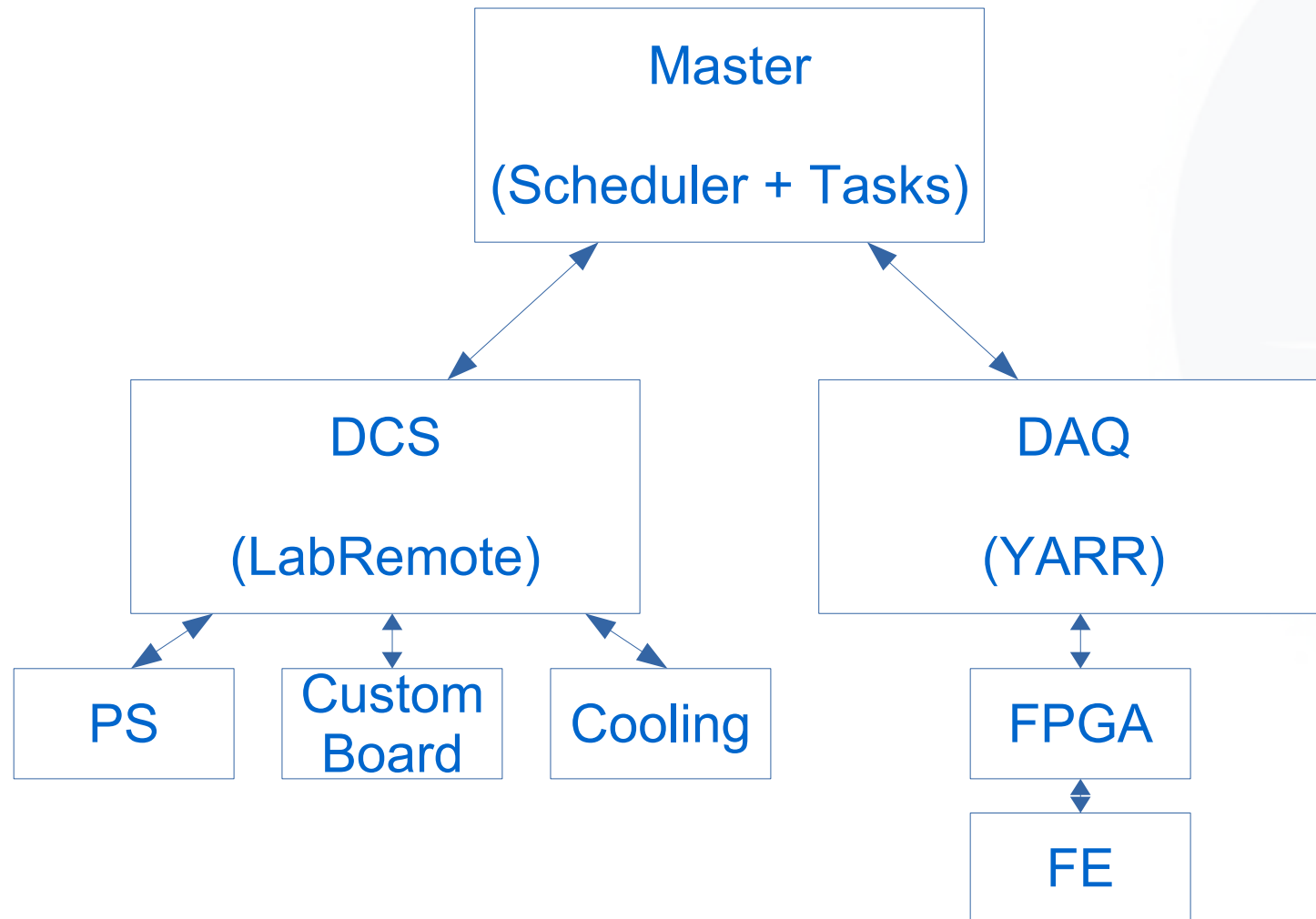


- Many institutes are running custom DAQ systems with lab equipment.
 - Some big systems, some small.
 - Some that run short tests, some that run continuous tests for days.
- Everyone is free to keep using their own institute-built systems.
- We'd like to provide a framework, a set of tools, for building such systems.
- This will allow consistency for things such as reception-testing.
- We want this to be flexible, easy to use, and scalable (big and small), with an eye towards the final ITk DCS.

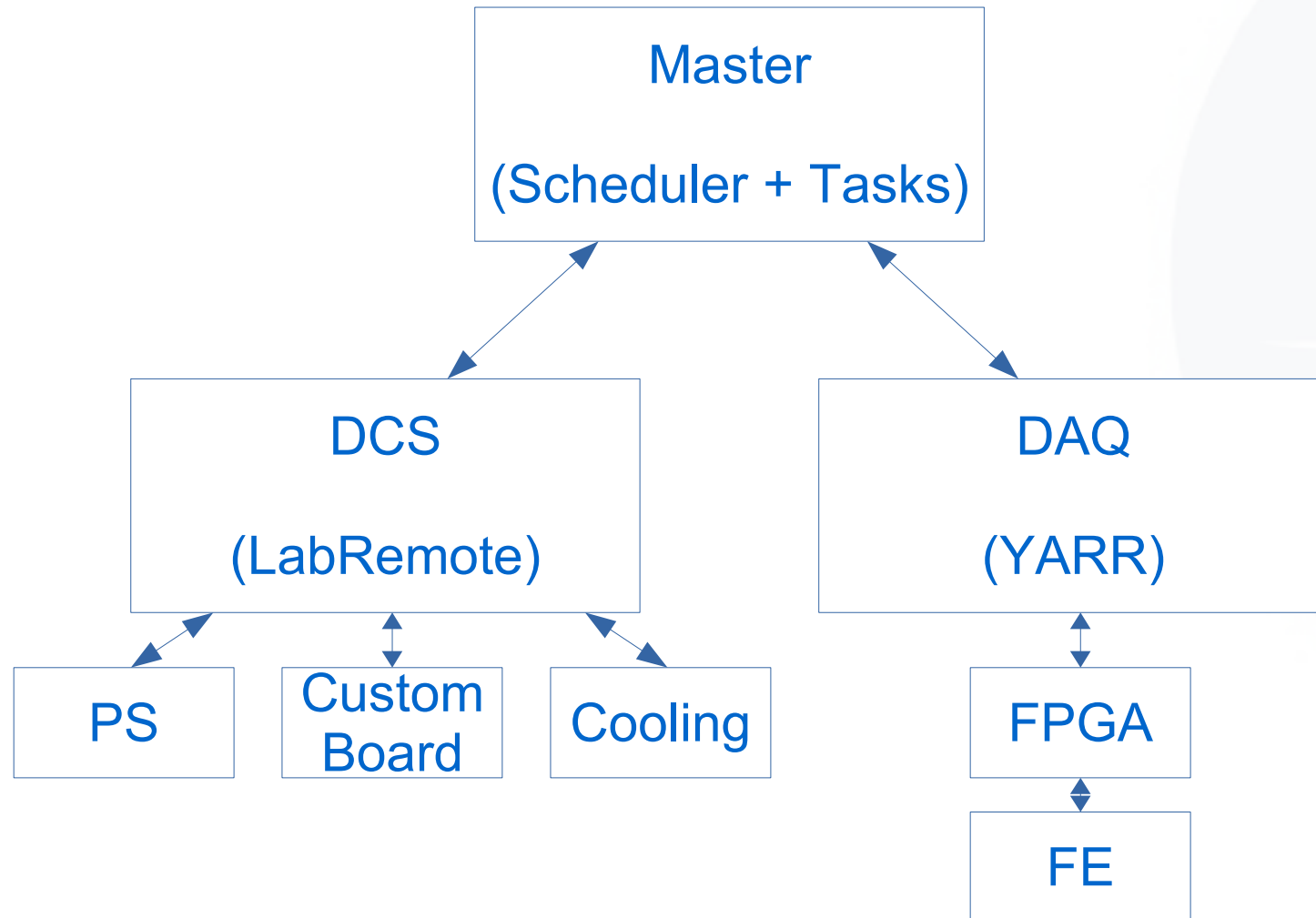
- Users write the master in whatever language they want.
- Tools / code / interfaces will be provided to make this easy.



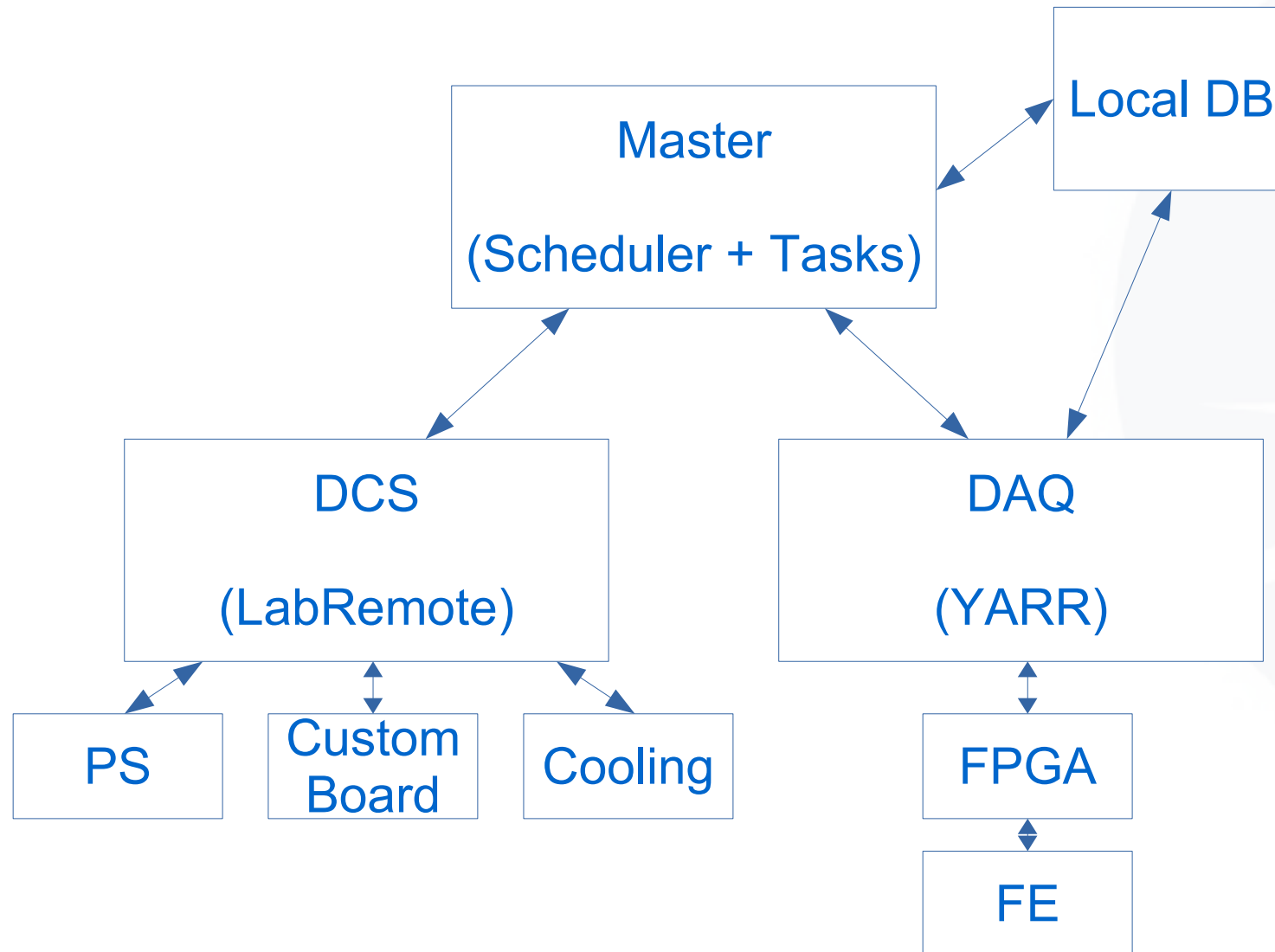
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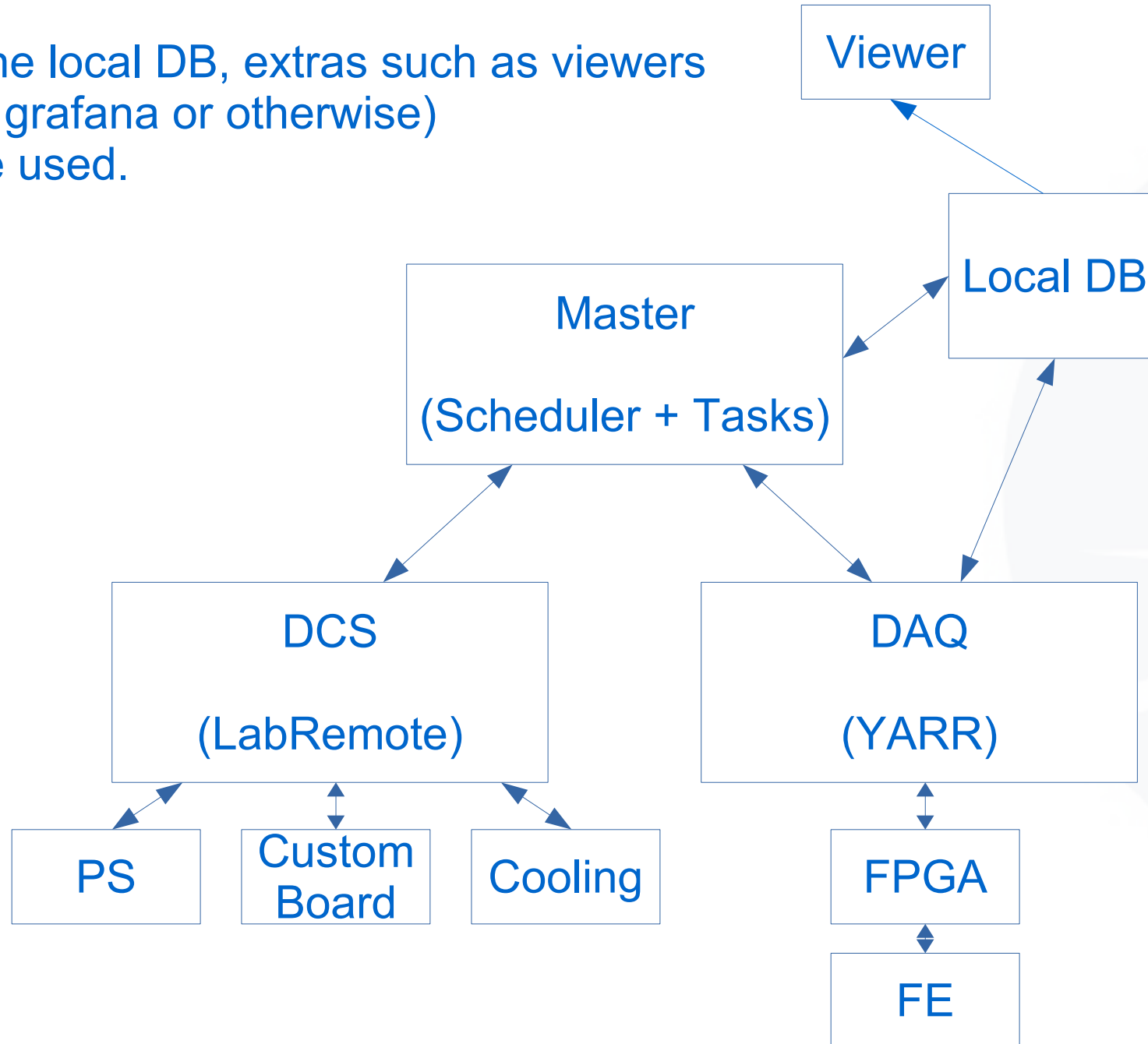
- Talking with Strips, this follows their current DAQ / DCS design logic.
- We discussed various options (LabRemote / NI-VISA, etc.) and arrived at this.



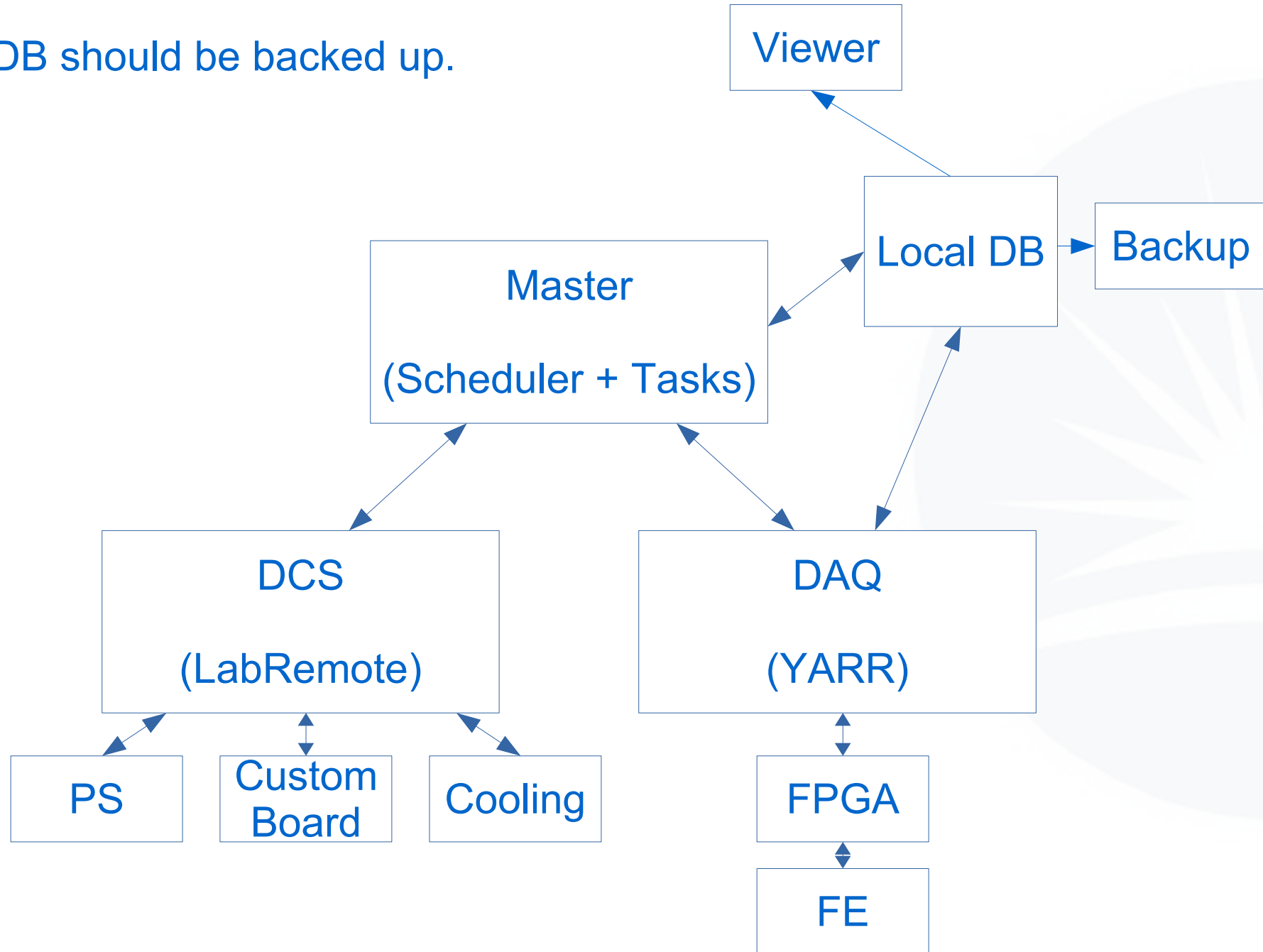
- Various components can read to and write from the local DB.



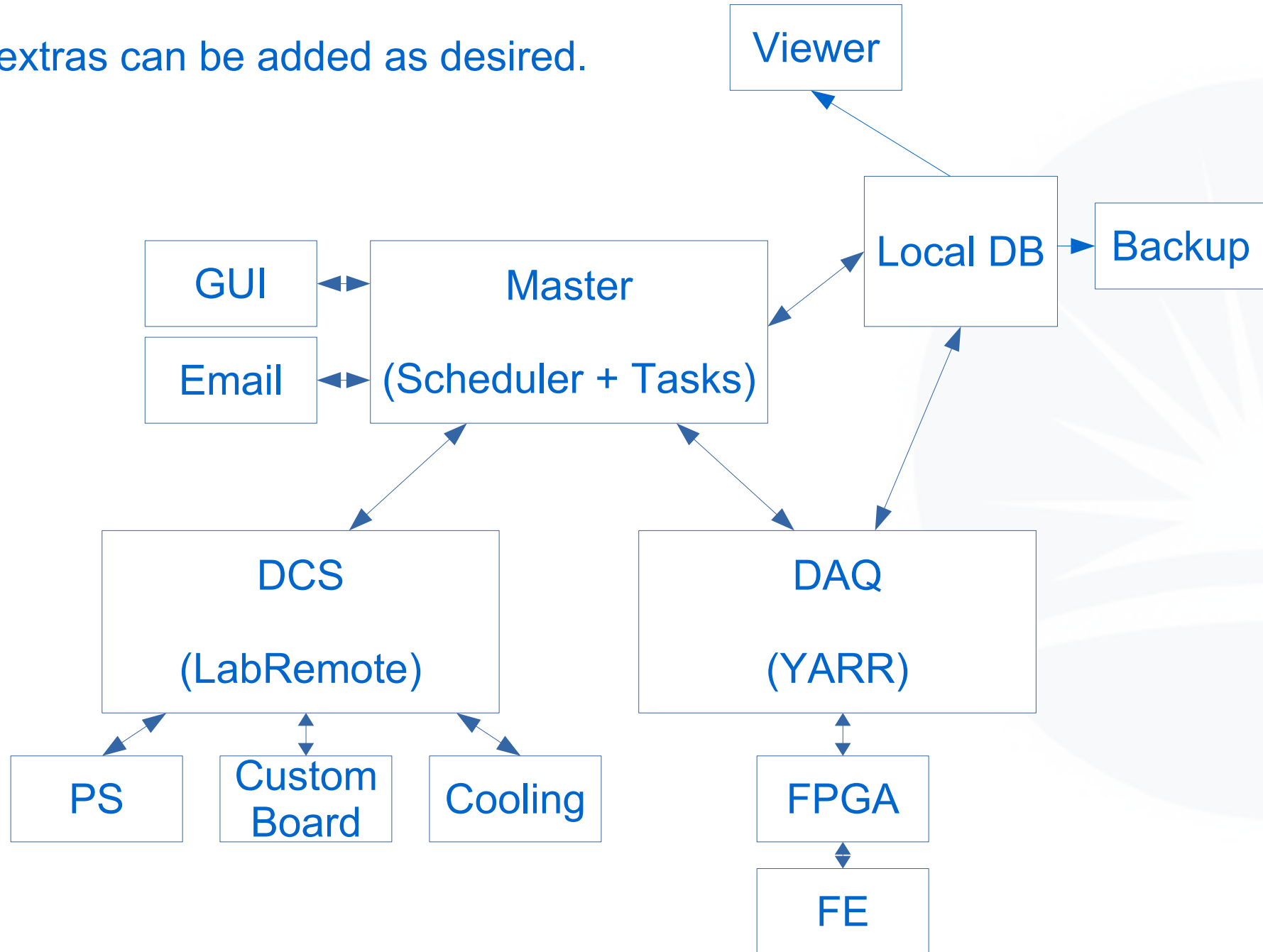
- With the local DB, extras such as viewers (web / grafana or otherwise) can be used.



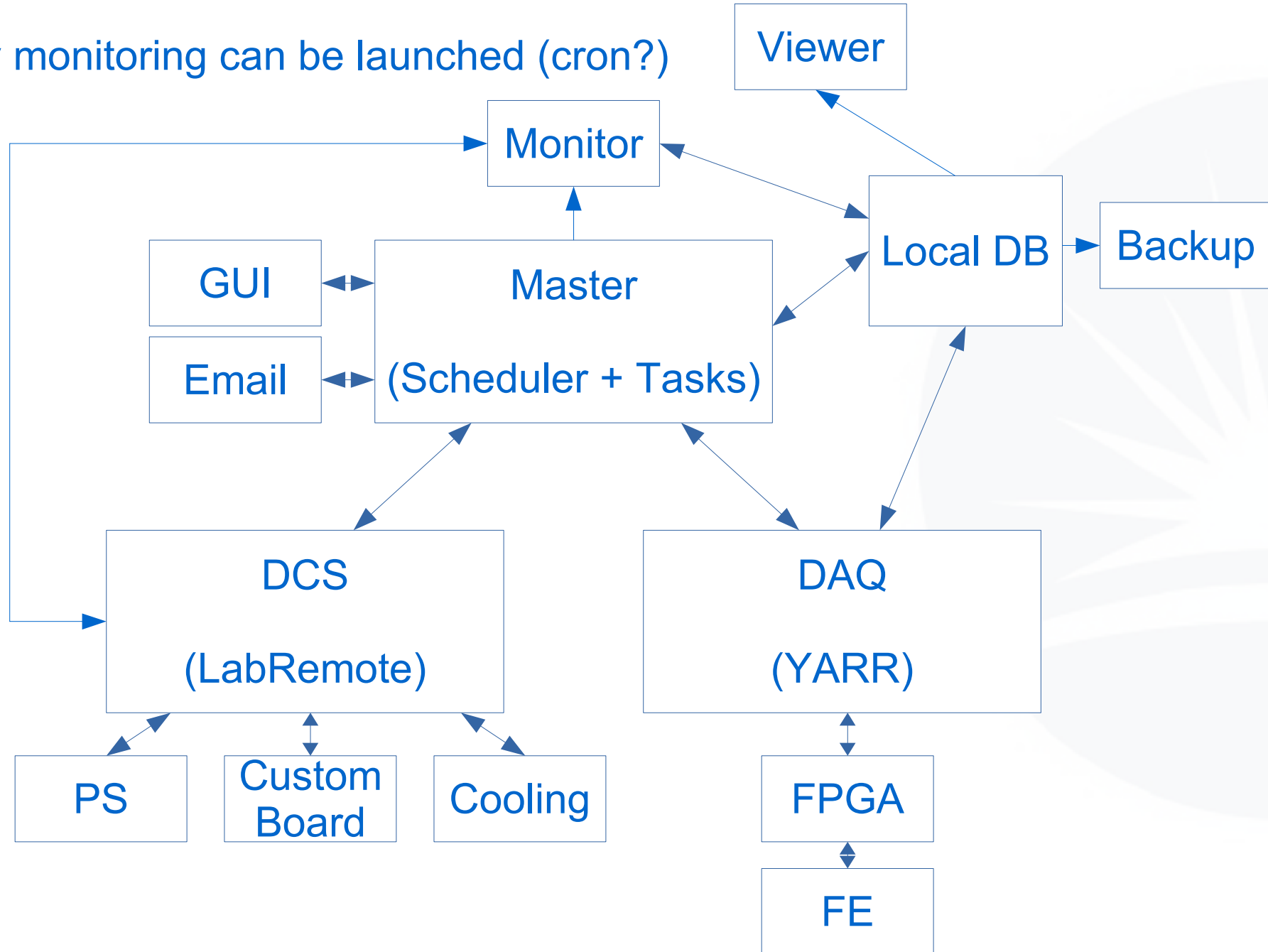
- Local DB should be backed up.

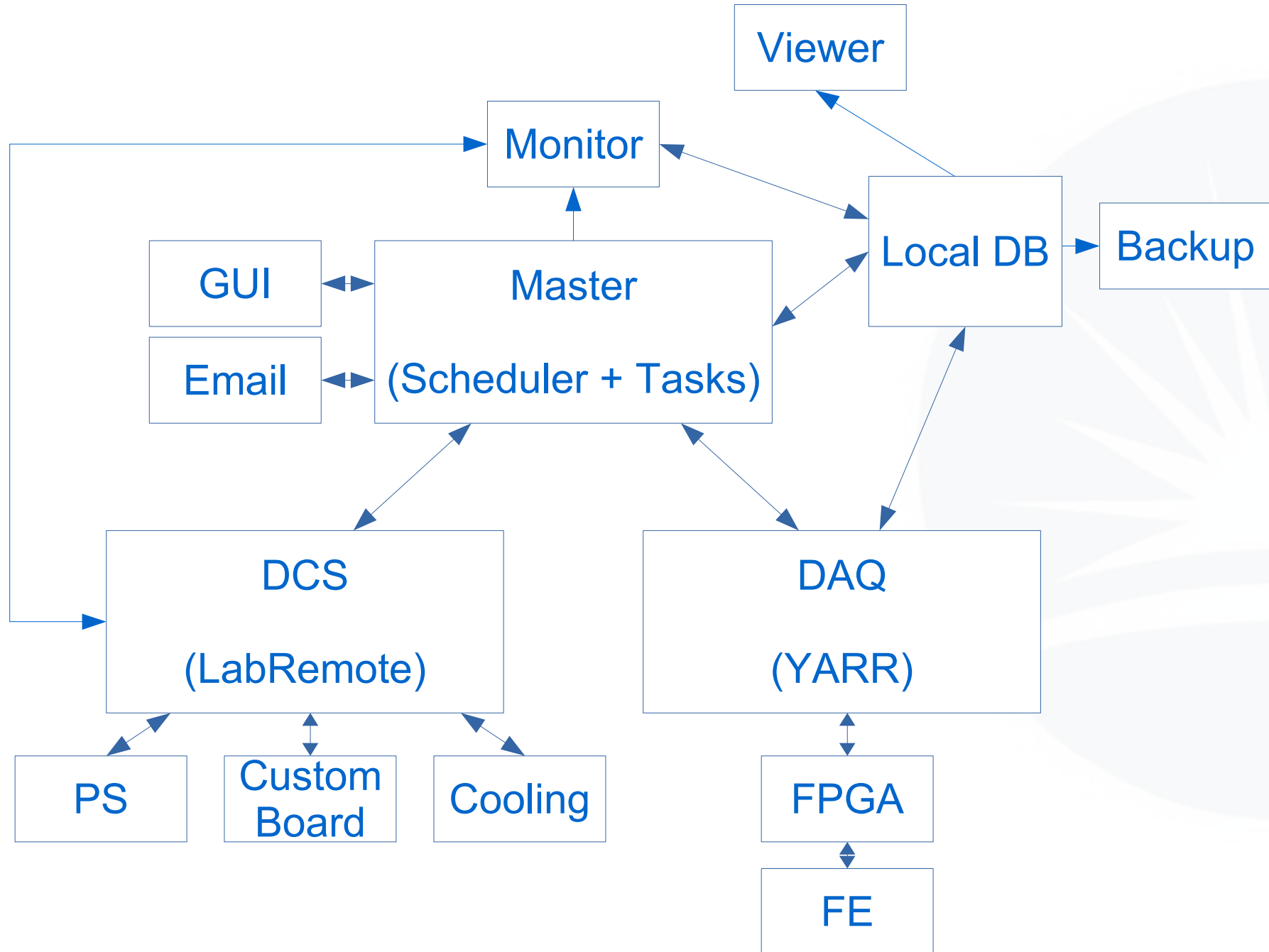


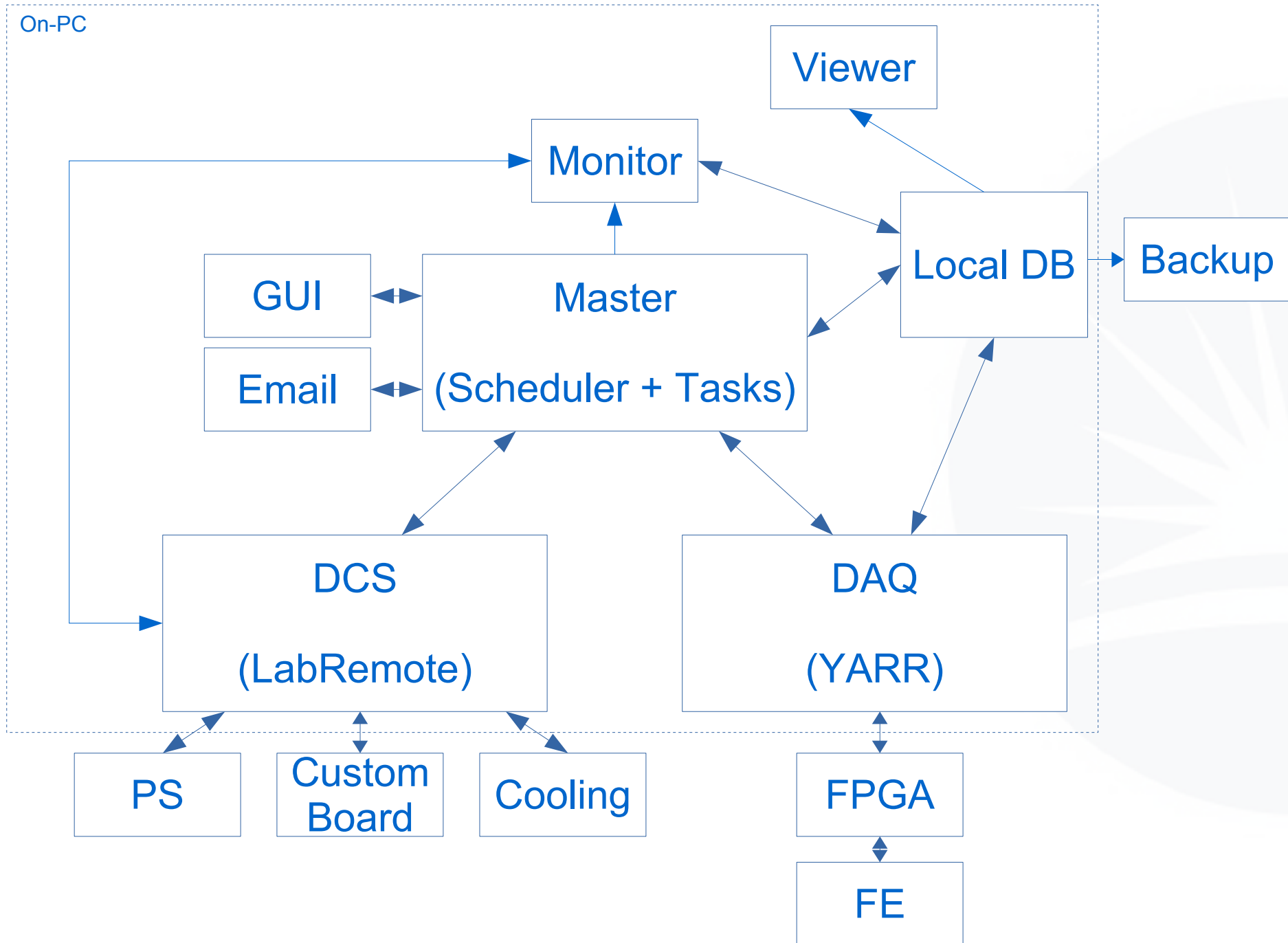
- Other extras can be added as desired.



- Safety monitoring can be launched (cron?)







Next Steps

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- Aim is to quickly get code together, and create some examples.
- Then we will make this code available to the community, to allow many people to contribute, and turn this into a useful and workable tool.
- I will also create a CERN mailing list.
- I will be in touch with ITk DCS people not present at this workshop.

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Thank you to Timon, Aleksandra, et al. for this workshop,
and for everyone who contributed!