

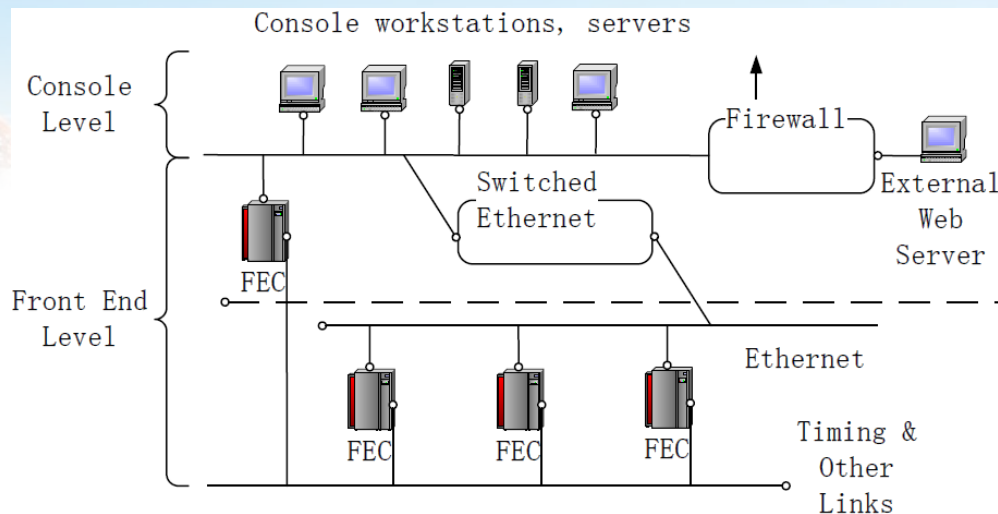


A New Simulation Architecture for Improving Software Reliability in Collider-Accelerator Control Systems

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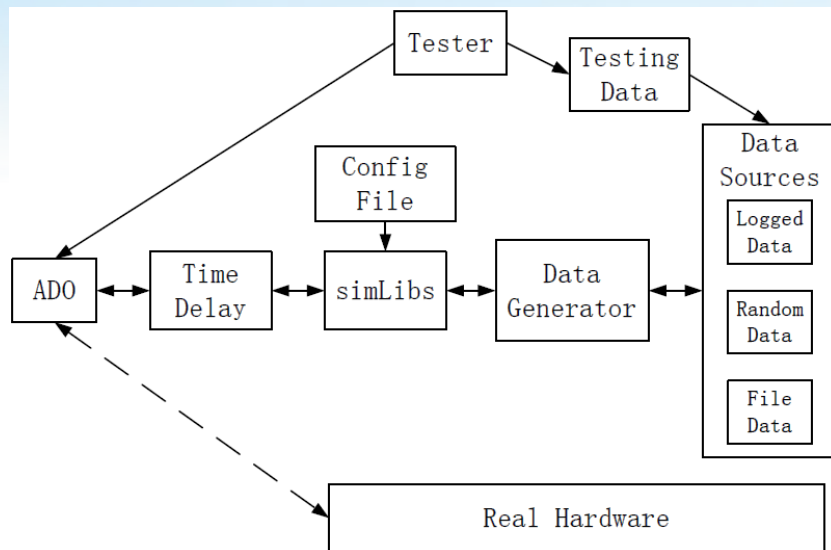
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RHIC Control System Overview



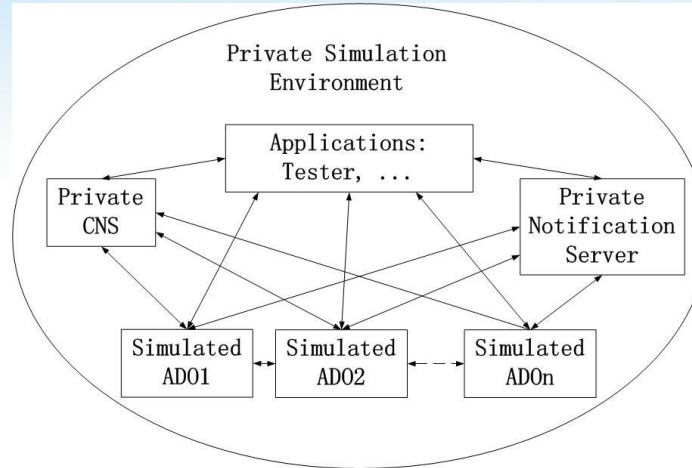
- It has two physical layers: Console level and front end level;
- System components: ADO, CNS, logging system, notification server...
- System tools: Parameter Editing Tool (PET), Gpm, LogView...

Simulation Structure



- Switch working mode at run time;
- Accommodate various hardware;
- Automated testing;

Next Stage



- Construct a completely self-contained simulation environment, which allows doing simulation in all aspects of the system without impact on the real operations;
- Improve the user interfaces, and automated testing procedure;
- The current simulation framework contains just the basic elements. Many other components remain to be built;