

Facility Infrastructure for the APS renewal

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The Facility infrastructure heading broadly encompasses two main areas. The first may be considered as Conventional Facilities. That is buildings and utilities. The second is the computing infrastructure provided by the APS. When considering the needs of the facility over the next five years the following projects are among those being contemplated

Conventional Facilities

- LOM437 build out: The building would be fitted out to support beamlines in the area.
- LOM office space expansion: The LOM units would be extended to provide more office space.
- Additional LN2 storage tank: To accommodate the increased demand from additional beamlines.
- Computer Room Extension: To house the ever increasing amount of additional computing equipment required by the facility.
- APS Storage Facility: As the final beamlines are built out items currently stored in the empty sectors will need to be relocated. A Storage Facility adjoining the LINAC would allow us to store items close to the APS.
- Air Distribution System Overhaul: Improvements and component replacements to ensure continuing reliability

Computing Infrastructure

- Upgrade Network Backbone to 10Gb/s: Required to support transfer of ever increasing amounts of data.
- Installation of two tier backup system: To ensure reliable backup of XOR data without impacting operations.
- Central Server Refresh: To address obsolescence
- Update User Facing Business Software: Current systems (GUP, ESAF, User registration etc) are based upon old, proprietary technology. These systems would be re-written to make use of the advantages offered by a Service Oriented Architecture. Providing more power and flexibility to users of both the front and back ends of the system.