

# S4 expansion update

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Quarterly Project Progress Report  
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## **Phase 1 (Planned December 2013)**

COMPLETE - Meet with STAR management and science integrators, reviewed implementation plan and status.

COMPLETE - System Purchased

ONGOING - Delivery of system

ONGOING - Science Integrators - provide software requirements list

We have received information (from Jim Jung, not integrators) about compiler requirements.

ONGOING - STAR POC and SSEC - Identify and draft any new policies required

## **Phase 2 - (Planned January 2014)**

ONGOING - Physical Installation

The majority of the hardware has been ordered and arrived.

Major components not yet delivered are:

A) 2 of the 5 compute blade systems. Each compute blade system contains 320 processing cores.

B) Infiniband Cables

All deliveries should be complete by the middle of February.

The installation of the S4 expansion requires electrical work to install, test and properly wire the large 100KVA UPS supporting the system. This work is scheduled to be performed the last week of February. However, I assume this part of the project has more risk of delay than others stages due to the outside (of SSEC) labor requirements and scheduling issues. We are assuming this may slip to March and planning accordingly.

However, we have enough capacity in general SSEC datacenter areas (not on the S4 UPS) to set up and run 2 of the 5 computer racks of equipment. Two of the compute enclosures are delayed until February for shipping in any case. So we are first assembling a subset of the system. This will allow for the majority of the SSEC system administration and software setup work to be done immediately, and science codes can be ported and initial testing begin. When the final power is ready we will then simply absorb the additional systems into the cluster.

This initial testing system will provide 640 processing cores and all of the scratch filesystem space.

ONGOING - System software installation

System software installation should start 1/24 and expected completion by February

## FUTURE Phases

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Currently we consider the future phases to be on schedule.

### **Phase 3 - February / March 2014**

SSEC and Integrators – develop user develop documentation

SSEC – system testing (reliability and performance)

Science integrators gain access

Science integrators begin to port and test applications, benchmark, etc.

## **Phase 4 - March 2014**

Small group (4) of advanced users - Must be tolerant of interruption and changes/debugging

Science integrators complete testing

## **Phase 5 - April 2014**

Open for all users