

Use Case: *Submit Analysis Job using a GSI-enabled Environment*

Identifier	<i>UC # SAJ-GSI</i>
Goals in Context	<i>Submit an analysis job (job description, executable, configuration files, dataset definition) to be executed in a GSI-enabled environment (enhanced sam client/servers, globus submission mechanisms (condor-g/GRAM), GridFTP for file transport)</i>
Actors	<i>Physicist</i>
Triggers	<i>Conference deadline, angry supervisor.</i>
Included Use Cases	<i>Input and Output File Transfers.</i>
Extended Use Cases	<i>Submit Analysis Job</i>
Pre-conditions	<i>User has a valid GSI proxy. Dataset definition. Job description. Output File Definition.</i>
Post-conditions	<i>Job terminates after processing the dataset, given the job description file, sending back the indicated output files.</i>
Basic Flow	<i>User grid-proxy-init and sam submit; user proxy is sent by the GSI-enabled sam-client to the GSI-enabled sam-station; sam station contact an Authorization Service to authorize the authenticated subject to use DZero resources; sam station receives a sam service proxy from the Authorization Service; sam station asks the client to submit job using user proxy; sam station send the service proxy to stager/e-worker/transport mechanism (GridFTP); input files are delivered and analysis runs.</i>
Devious Flow(s)	<i>Errors in Authentication and Authorisation mechanisms. Errors in job submission due to expired user proxy. Errors in transport mechanism due to expired service proxy.</i>
Importance and Frequency	<i>Enables GSI authentication mechanisms for data analysis. Introduces the GSI subject as a way to identify univocally sam users</i>
Additional Requirements	<i>All the sites runs GSI; users start requesting GSI certificates; Authorization Service is deployed and maintained.</i>