

Reference	IT-ST-93
Project/ Activity	CTA operational tools and monitoring
Duration	1 year
Description	<p>CERN's tape storage systems constitute the primary archive for the physics data from the LHC. The role involves evolving the systems' operational tools, monitoring and alerting. We are looking for someone to help in the following two related projects:</p> <p>The ongoing production deployment of the first CERN Tape Archive (CTA) instances for the LHC experiments requires provision of new operational tools and monitoring/alerting systems. While basic solutions have been anticipated and are in place, we are now starting to get real production experience and a full picture, both from operators and users (experiments), of what is required. CERN's backup service is planning a migration of operational and monitoring tools to Grafana and Influxdb.</p>
Profile	<p>We are looking for the following skills: Linux operating system experience Python programming knowledge Monitoring and visualisation, particularly Grafana and Influxdb</p>
Specific details	<p>Initial tasks will concentrate on adapting monitoring and alerting systems in the light of CTA production experience, creating new data sources and visualisations following user and operator requirements. Similarly, operational tools, written in Python on Linux and wrapping native client utilities, need to be optimised and extended.</p> <p>Remove dependency of the CERN backup infrastructure (currently based on IBM Spectrum Protect) on the Splunk Enterprise product (www.splunk.com). Externalize and rewrite the backup management and monitoring tasks with tools currently used in the CERN IT department such as Python and Grafana.</p> <p>Expansion of the role into other areas of team activity will be welcome, depending on candidate profile and aspirations.</p>