The Joint Dark Energy Mission (JDEM) is a collaboration between NASA and the U.S. Department of Energy (DOE) to build a space telescope for the study of dark energy using several complementary techniques. The primary scientific objective is to determine the nature of dark energy in the universe by measuring the expansion history and the growth rate of large scale structure. DOE’s responsibilities include the fabrication of a major science instrument and the development of a Science Operations Center.

The Compact Muon Solenoid (CMS) experiment is one of the colliding beam experiments that will begin operating at the Large Hadron Collider (LHC) at CERN in 2009. In the U.S., the LHC Physics Center at Fermilab provides science support to CMS scientists. Remote operations capabilities are expected to help streamline CMS operations. The development of these capabilities began at Fermilab with the LHC@FNAL Remote Operations Center and has evolved into numerous remote operations and monitoring centers around the world.

Capabilities similar to those developed for CMS at Fermilab can be used for JDEM science computing and operations, and to support science teams. This includes computing, networking and mass storage infrastructure, as well as quality control, provenance tracking, and workflow management. Compared to the computing resources that Fermilab has deployed for CMS, JDEM will need a small fraction of available resources and can therefore leverage existing capabilities.