

SJSU Unidata Equipment Proposal (2018)

Final Report

Professor Alison Bridger

The Department of Meteorology and Climate Science at San Jose State University operates a meteorological data center that used by faculty and students at SJSU, as well as some outside users. Both faculty and students use the center for education (classwork) and research (undergraduate and graduate student thesis research, faculty research). Data ingested from sources such as the Unidata stream are analyzed, and used to create displays hosted at our Weather Center. We are beginning the process of upgrading these displays, in part as a results of the new hardware from this project.

Using a previous Unidata grant, we purchased a high-end server to ingest and process the Unidata stream, and maintain our suite of weather products for teaching and research use. Since this server is now over 5 years old, our prime objective here was to replace it for newer hardware. Our secondary objective was to increase our processing capability to allow for ingesting and processing new GOES imagery and data, especially as it pertains to the west coast.

The new server ("*Vulcan*") has been purchased, configured and installed. Over summer 2019, the old ("*Titan*") and new servers will be swapped so that *Vulcan* will handle all data ingest and processing, while *Titan* will be dedicated to GOES tasks. This swap was been delayed while we awaited new IT staff, but is now underway.

The initial swap-in has been made and is seamless. LDM and related Unidata software has been installed. In-house users have noticed no changes, as expected. The specs for *Vulcan* can be provided if desired, and the cost was a smidge under \$10K.

The department emphasizes weather analysis and forecasting in its undergraduate meteorology program, and research in the graduate program. The new server will maintain our ability to have instant access to weather data (observations, simulations), and will allow us to expand our offerings related to west coast weather. These capabilities benefit research and student education.