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The Emirates Mars Mission Science Data Center

James Craft (1), Omran Al Hammadi (2), Alexandria DeWolfe (1), Bryan Staley (1), Corey Schafer (1), and Chris Pankratz (1)

(1) Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder, United States (james.craft@lasp.colorado.edu), (2) Mohammed Bin Rashid Space Center, Dubai, United Arab Emirates (omran.alhammadi@mbrsc.ae)

The Emirates Mars Mission (EMM), led by the Mohammed Bin Rashid Space Center (MBRSC) in Dubai, United Arab Emirates, is expected to arrive at Mars in January 2021. The EMM Science Data Center (SDC) is to be developed as a joint effort between MBRSC and the University of Colorado's Laboratory for Atmospheric and Space Physics (LASP). The EMM SDC is responsible for the production, management, distribution, and archiving of science data collected from the three instruments on board the Hope spacecraft.

With the respective SDC teams on opposite sides of the world evolutionary techniques and cloud-based technologies are being utilized in the development of the EMM SDC. This presentation will provide a top down view of the EMM SDC, summarizing the cloud-based technologies being implemented in the design, as well as the tools, best practices, and lessons learned for software development and management in a geographically distributed team.