AWS Glacier use at PDS SBN. P. J. Lawton[1], J. M. Bauer[2], and J. H. Padams[3], [1]University of Maryland (Department of Astronomy, Physical Sciences Complex (415), Rm 1113, 4296 Stadium Drive, University of Maryland, College Park, MD 20742-2421, plawton@umd.edu), [2]University of Maryland (Department of Astronomy, Physical Sciences Complex (415), Rm 1113, 4296 Stadium Drive, University of Maryland, College Park, MD 20742-2421, gerbsb@umd.edu), [3]Jet Propulsion Laboratory (4800 Oak Grove Drive, Pasadena, CA 91109, Jordan.H.Padams@jpl.nasa.gov).

Introduction: The Planetary Data System (PDS) Small Bodies Node (SBN) has been involved in a pilot use of Amazon Web Services (AWS) Glacier as an offsite backup.

Cloud Use: The use of various Cloud services has become increasingly popular. The robustness of cloud services copies, in conjunction with the availability of multiple remote storage sites makes cloud storage an appealing solution to PDS's backup storage requirements. PDS is approaching the cloud usage by considering practical, enabling, and cost effective implementations. Cost is a major concern related to cloud use. A full-cost accounting model has been developed to balance costs against recovery utility. Uploading data to the cloud is inexpensive. Storage costs vary based on storage type and speed of access, while providing the advantages of easy expandability. However, the egress costs can be detrimental to budgets [1].

Pilot Study: SBN's use of Glacier as offsite storage has served as a remote backup of the data while providing cost information in a controlled environment where access is limited to a few members of the SBN staff. The PDS Engineering Node (EN) facilitated use of AWS Glacier through their agreement with Amazon. This is one of multiple cloud use pilots being conducted by the PDS. For some other examples, please see references [2, 3].

Summary: Lessons learned will be presented, along with potential future applications of the cloud that are being explored at SBN.

References: [1] NASA Office of Inspector General (2020) NASA's Management of Distributed Active Archive Centers, https://oig.nasa.gov/doc/IG-20-011.pdf. [2] Padams, J. et al. (2019) *PDW 2019*, Poster #7105. [3] Politte, D. V. et al. (2021) *LPSC 2021*, Number 2548.