NASA's Earth Science Data Systems Standards Process Experiences

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NASA has impaneled several internal working groups to provide recommendations to NASA management on ways to evolve and improve Earth Science Data Systems. One of these working groups is the Standards Process Group (SPG). The SPG is drawn from NASA-funded Earth Science Data Systems stakeholders, and it directs a process of community review and evaluation of proposed NASA standards. The working group's goal is to promote interoperability and interuse of NASA Earth Science data through broader use of standards that have proven implementation and operational benefit to NASA Earth science by facilitating the NASA management endorsement of proposed standards. The process is fundamentally different from past standards strategies in several ways. The focus on communities of practice to propose and comment is a key component. So too, is the emphasis on endorsement of demonstrated practices as an additional source of common practices apart from the traditional standards making bodies. Only after practices have been judged to have useful implementation and beneficial operational experience will they be endorsed. We contrast this community led approach to a "top down" or the "every project chooses their own" models. We will describe our Standards Process; the Technical Specification review, the Usability review, and the Operational Readiness review. The SPG now has two years of experience with this approach to identification of standards. We will discuss real examples of the different types of candidate standards that have been proposed to NASA's Standards Process Group such as OPeNDAP's Data Access Protocol, the Hierarchical Data Format, and Open Geospatial Consortium's Web Map Server. We will discuss how we are conducting reviews of different types and how we match these different aspects of "proven implementation" and "operational benefit" to candidate standards in the NASA Earth Science Data Systems environment.