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### Roadmap to the DMAC Plan

This detailed, phased Implementation Plan for the Data Management and Communications (DMAC) Subsystem of the Integrated Ocean Observing System (IOOS) was prepared at the request of Ocean.US, the IOOS National Office. The Plan is organized into three main parts:

- Part I is intended for a semi-technical audience, including potential IOOS partners and users. It presents an overview of the unique challenges and requirements of the DMAC Subsystem, and proposes strategies and a technical design for addressing them. Subsystem management, oversight and coordination are discussed, and a summary cost model (preliminary in this draft) is included. Part I concludes with a section outlining the highest priority activities for implementation.
- Part II is intended for a highly technical audience, including software engineers, information management specialists and IOOS program planners. It presents a detailed Phased Implementation Plan for DMAC using many of the formalisms of software engineering. It summarizes the formal requirements for all parts of the subsystem, and suggests a number of coordinated activities through which the DMAC Subsystem may be built.
- Part III includes appendices which provide in-depth discussions of: (1) Metadata and Data Discovery, (2) Data Transport, (3) Data Archive and Access, (4) User Outreach, (5) System Engineering, (6) Technology Refreshment and Maintenance, (and 7) Biological Data Considerations. Appendices 1-4 were prepared by Expert Teams appointed by the DMAC-SC. Each appendix is intended for readers with significant technical expertise in the topic addressed.

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