

MANAGEMENT AND GOVERNANCE OF HIGH PERFORMANCE COMPUTING

SECTION 1. PURPOSE.

This Order establishes a National Oceanic and Atmospheric Administration (NOAA) policy for managing high performance computing resources as a corporate asset in support of NOAA's mission.

SECTION 2. SCOPE.

This Order applies to all NOAA high performance computing and to the personnel and organizations which use it, including Line Offices and Goal and Subgoal teams.

SECTION 3. POLICY.

.01 High Performance Computing (HPC) will be managed for the benefit of NOAA as a whole.

.02 The NOAA Environmental Modeling Program (EMP) will manage NOAA's HPC through an HPC Board to meet NOAA's goals and subgoals.

.03 The HPC Board will oversee and integrate the execution of prioritized and funded requirements using HPC.

SECTION 4. RESPONSIBILITIES.

.01 The EMP Program Manager and the NOAA Chief Information Officer (CIO) are responsible for implementing this Order.

.02 The CIO, or a designee (subject to the concurrence of the EMP Program Manager), will chair the HPC Board.

.03 The EMP will:

- a. establish and appoint the HPC Board;
- b. provide prioritized and funded requirements to the HPC Board;

- c. have oversight to ensure that HPC has been used in accordance with NOAA's goals and subgoals, and priorities;
- d. promote and support the use of HPC to non-traditional HPC users across NOAA;
- e. work with the affected Mission Goal Leads, with the support of the HPC Board, to satisfy Mission Goal requirements that are identified outside the scope of the EMP; and
- f. ensure that additional costs associated with requirements emanating from programs other than EMP shall be funded by the program to which the requirements are attributable.

.04 The CIO Council will:

- a. review, in conjunction with the NOAA Information Technology Review Board (NITRB) and enterprise architecture activities, all proposed NOAA information systems with high performance computing requirements to ensure compliance with this policy; and
- b. review and approve all changes to the HPC architecture plans.

.05 The HPC Board ensures that HPC meets NOAA's goal and subgoal requirements, and will:

- a. define, acquire, and deliver HPC to meet business needs;
- b. establish and oversee a multi Line Office Integrated Management (IM) Team and function;
- c. manage HPC performance to maximize its efficient use;
- d. receive reports and recommendations from the HPC IM Team;
- e. report to the EMP manager the status of the funded EMP requirements allocated to HPC;
- f. advise EMP of the HPC necessary to fulfill EMP and other NOAA requirements;
- g. form sub-committees or technical teams as required to carry out its duties;
- h. support the EMP in working with the goals and subgoals to satisfy HPC requirements outside the scope of EMP; and
- i. assign the primary responsibilities to the Line Offices for the daily execution of a component of the NOAA HPC system.

.06 Mission Goal Leads will resolve conflicts:

- a. of cross goal requirements;

- b. of cross goal funding for HPC resources and services; and
- c. of NOAA HPC requirement priorities.

.07 The NOAA HPC Integrated Management (IM) Team will be responsible for:

- a. the successful integrated management of the following HPC functions:
 - 1. Acquisition Management;
 - 2. Resource Management;
 - 3. Architecture Management;
 - 4. Long-Term Planning;
 - 5. External HPC Collaboration Management; and
 - 6. Communications; and
- b. HPC monitoring and reporting activities to the HPC Board and EMP manager.

.08 The Line Offices will:

- a. manage the day-to-day execution of the HPC as assigned by the HPC Board; and
- b. ensure access to HPC to those users who require it.

SECTION 5. DEFINITION.

High Performance Computing (HPC) – The unified system for solving NOAA's largest computational problems, composed of supercomputer systems and associated communications, analysis, visualization and storage systems, and application and systems software with all components well integrated and linked over a high speed network.

SECTION 6. REFERENCES.

The OCIO will maintain a list of applicable reference materials and access to their electronic editions on the OCIO website at <http://www.cio.noaa.gov/nao.html>. The following are some of the primary reference materials related to this Order.

- a. NOAA Enterprise Architecture.
- b. Office of Management and Budget (OMB) Circular No. A-130, Management of Federal Information Resources.

SECTION 7. EFFECT ON OTHER ISSUANCES.

None.

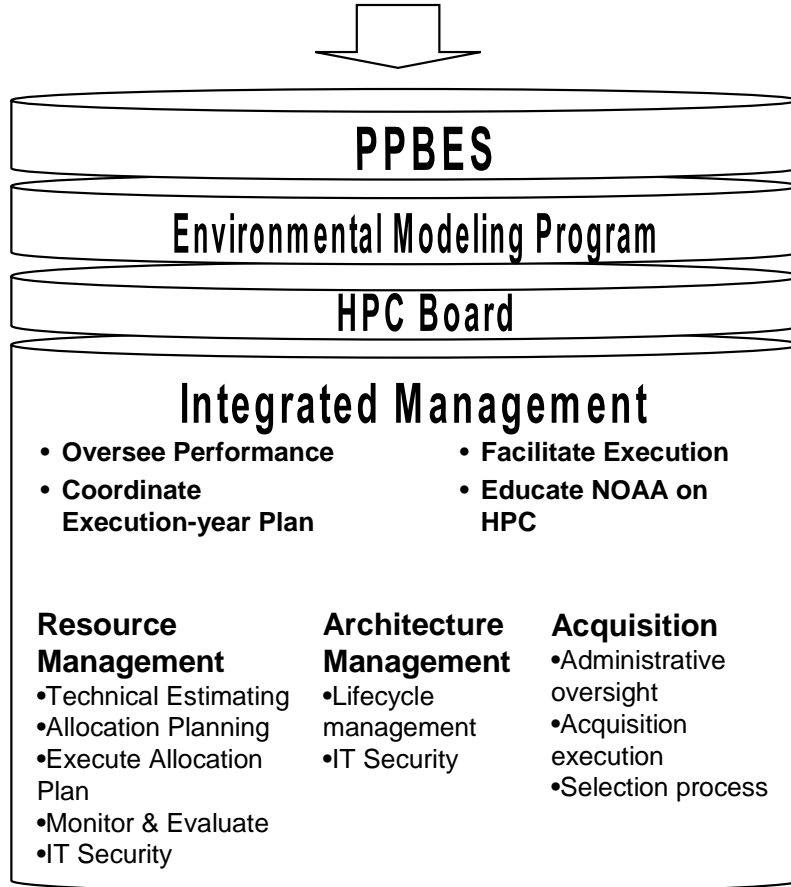
Signed
Under Secretary of Commerce for
Oceans and Atmosphere

Attachment

Office of Primary Interest:
NOAA Office of the Chief Information Officer (OCIO)

HPC Management Approach

HPC Management Concept



HPC Governance

