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Information Management
Enterprise Change Control Policy

NOAA Fisheries Enterprise Change Control Board (ECCB)
Operating

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Signed _____ //s// _____ January 1, 2002

Larry Tyminski

Date

NMFS Chief Information Officer



NATIONAL MARINE FISHERIES SERVICE



NOAA FISHERIES SERVICE



**NOAA National Marine Fisheries Service
Enterprise Change Control Board (ECCB) Charter**

Version 1.6

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RELEASE AUTHORIZATION

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1 Purpose

The purpose of this document is to establish the Enterprise Change Control Board (ECCB) for enterprise systems in operation under the NMFS OCIO. It provides administrative guidance and best management practices for the review and approval of changes to the NOAA Fisheries Wide Area Network (WAN), Active Directory, and Video Teleconference assets.

1.1 Scope and Applicability

This guidance applies to NOAA Fisheries WAN facilities, including sites currently connected or proposed for connection, and is promoted by the agency and its Chief Information Officer (CIO).

1.2 Terms and Definitions

Access Control List (ACL) – A list kept by routers to control access to or from the router for a number of services (for example, to prevent packets with a certain IP address from leaving a particular interface on the router). Access Lists control access by filtering according to allowed/disallowed by source addresses, destination addresses, directionality (incoming or outgoing), and by type of service.

Change Priorities – SCR priority controls the rate/precedence of change. Under ideal conditions and planning, most SCRs should be prioritized as Routine implementations. However, there are times when an Emergency or Urgent implementation cannot wait until the next ECCB meeting and must be implemented to avoid service, project, or business disruptions. Whenever security issues, operational, or prevention of service disruptions are involved prioritizing an SCR for Emergency or Urgent implementation may be required.

- **Emergency Change** – A change needed to correct an immediate security or operational necessity that would otherwise result in a work stoppage. Emergency changes are submitted to the NMFS Change Manager who will then coordinate it with the Enterprise Change Control Board for their review and approval.
- **Urgent Change** – A change needed to correct an immediate security or operational necessity that would otherwise result in a work stoppage. Urgent changes are submitted to the NMFS Change Manager who will schedule the change for review in the weekly Technical Impact Analysis team meeting. If there are no issues the change will be sent to the Enterprise Change Control Board for their review and approval.
- **Routine Change** – A modification of the WAN configuration with a non-recurring cost of less than \$5,000, a recurring cost of less than \$10,000/year or changes affect only one FMC. These changes are reviewed and approved in the bi-weekly Enterprise Change Control Board meeting. Typical routine changes include router operating



system/firmware upgrades, modifications to router WAN hardware, and the modification of WAN routing tables or an Access Control List.

- **Significant Change** – A modification of the WAN configuration with a non-recurring cost of \$5,000 or more, a recurring cost of \$10,000/year or more, or changes affecting more than one FMC. These changes are reviewed and approved by the Enterprise Change Control Board. These changes may then be forwarded to the CIO for concurrence in consultation with the Enterprise Change Change Board.

Configuration Item – A configuration item (CI) is an asset, service component, or other item that is (or will be) under configuration management control.

CSU/DSU – (Channel Service Unit/Data Service Unit) – A hardware device that converts digital data from the communications technology used on a local area network (LAN) into the communication technology appropriate to a WAN, and vice versa.

Emergency Change – An emergency change is the highest priority change that can be defined. Emergency changes are defined as changes that need to be evaluated, assessed and either rejected or approved in a short space of time.

Firewall – Combination of hardware and software systems designed to help enforce a corporate security policy.

Firmware – Programming that is inserted into programmable read-only memory, thus becoming a permanent part of a computing device.

Fisheries WAN – The telecommunication lines, as well as the CSU/DSU and routers that connect all NOAA Fisheries offices to the agency's Intranet. Equipment shared by the WAN and WANs is considered a part of the Fisheries WAN for the purpose of this document.

Frame Relay – A telecommunication service designed for data transmission for intermittent traffic between LANs and between end points in a WAN.

IT Architecture – The set of policies, principles, guidelines and best practices for acquiring, deploying and using information technology at NOAA NMFS.

LAN (Local Area Network) – A high-speed (2 MBPS to 10 GBPS) data communications system connecting devices in a building or group of buildings within a few square kilometers, including workstations, servers, peripherals, switches, gateways, and routers.

Router – A device that links a local network to another network; a router is typically used to connect one LAN to another LAN, WAN, or the Internet.



Routing Table – A series of instructions, installed on a router, which dictates how data are moved across a network.

Enterprise System Change Request (SCR) – An official request for a proposed change that impacts some or all of the NOAA Fisheries WAN.

SCR Records – SCR Records include:

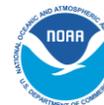
- SCR Change Schedule
- SCR Change Calendar
- SCR file share
- OCIO NMFS Electronic Document Management System (EDMS) DocuShare
- Google Docs SCR system
- OCIO Helpdesk ticket system

WAN (Wide Area Network) – A computer network that spans great distances; it usually connects many LANs together. A WAN circuit is a closed electrical network loop with a defined path for the current. The WAN topology is the way in which the network's devices (switches, cards, routers, firewalls, etc.) see their logical relations to one another.

1.3 Background and Need

The Fisheries WAN spans the United States to support NOAA Fisheries in its stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems. Configuration change control for such an expansive, complex network is required to manage risks via a controlled, structured process. A simple change to a router's configuration can unintentionally introduce confusion in the routing process and result in loss of connectivity to an individual site and, in some cases, the entire WAN. Firewalls assist in securing NMFS infrastructure from the Internet, but changes to firewalls must be done with great care to ensure they serve their intended purpose while not limiting necessary access to WAN sites downstream. Access Control Lists (ACLs), like firewalls, limit access to the network. Because ACLs are deployed at the local router, changes made at a particular site do not typically affect other WAN sites. However, ACL changes can cause a loss of access to services at the site where the change was made, and can also result in easing the method by which security intrusions may occur. With both ACLs and firewalls, once a trusted WAN site has been compromised, the same intruder may be able to victimize all member sites.

Enterprise systems provide critical services for both headquarters and field operations. Membership in the NMFS ECCB from both Headquarters and field staff is imperative to ensure that technical impacts, communication and coordination are occurring in a deliberate and transparent manner. Past experience has shown that without ECCB oversight even simple changes can result in unexpected results. This document establishes the NMFS ECCB and



identifies its membership; and roles and responsibilities. Changes to OCIO enterprise systems (as defined in the attached appendices) will only be authorized after first being approved by the ECCB.

2 Roles and Responsibilities

2.1 Roles

Enterprise Change Control Board: The ECCB reviews and approves changes to NMFS WAN, Active Directory, and Teleconference assets. Voting membership consists of the Fisheries Program Manager, ITSO, and three of the twelve Regional Information Technology Coordinators (RITCs), nominated by the CIO for rotating, one-year terms that expire at the beginning of the fiscal year; other information management officials may serve the Board in a nonvoting, advisory capacity.

NMFS Chief Information Officer (CIO): Serves as the sponsor of the ECCB.

NMFS IT Program Manager: Under the NMFS CIO, the NMFS IT Program Manager will chair ECCB meetings.

NMFS IT Network Operations Manager: Serves as the backup for the NMFS IT Program Manager and will serve as alternate chair for ECCB meetings.

Information Technology Security Officer (ITSO): Under the NMFS CIO, the ITSO is a voting ECCB member who is responsible for the development and implementation of the NOAA NMFS information technology security program.

LAN Administrators. These are the individuals responsible for operating each Fisheries' LAN and who coordinate with the Fisheries Network Administrator on all WAN-related issues.

Regional Information Technology Coordinator (RITC): The 12 RITCs are representatives from each Regional Office, Fishery Science Center, Office of Law Enforcement, and Science and Technology, appointed by and accountable to the respective NOAA Fisheries Deputy Regional Administrator. They serve as the regional contacts for implementing IT and IM policies, procedures, and guidelines, and for communicating needs and problems to the CIO.

SL (System Lead) - A system administrator, responsible for ensuring that the operations of the system are carried out efficiently and effectively. The SL may also be, but is not necessarily, the primary administrator for the particular system components (i.e. The SL for Windows operating systems may be the Windows system administrator). SLs are responsible for ensuring that the NOAA4010 policies and procedures are enforced within the boundaries of the system.



Change Manager (CM): Serves as secretariat at ECCB meetings and is the manager of the ECCB and System Change Request process.

Technical presenters and observers: Technical presenters and observers are non-voting members who may attend ECCB meetings as desired or as needed to support the ECCB.

2.2 Voting Members

OCIO Voting Members: The following are voting ECCB members;

- Fisheries OCIO Program Manager – Chairperson
- Fisheries ITSO
- Regional IT Coordinator - Representative 1
- Regional IT Coordinator - Representative 2
- Regional IT Coordinator - Representative 3

3 Procedures

3.1 Policy

A configuration change to an existing WAN site that has the potential to impact other WAN sites, or the addition of a new site, requires CIO approval. Configuration changes that must be approved by the CIO include:

1. Changes to the WAN routing protocol
2. WAN router operating system/firmware upgrades
3. WAN router hardware modifications
4. Modification of WAN routing tables
5. Modification of the WAN circuit
6. Additions or Changes to Active Directory
7. Additions or Changes to Teleconference configuration items

3.2 Procedure

The following procedures are used for proposed changes to the WAN, including the addition of a new WAN site:

1. For a WAN change, the pertinent RITC will submit a System Change Request (SCR) form to the Fisheries Change Manager, including, at a minimum, the following information:
 - a. Name, telephone number, and e-mail address of the requestor
 - b. Name(s) of site(s) for which the change is requested
 - c. Model and serial number of affected equipment



- d. Functional description of the problem or enhancement; if a router change is requested, this includes an image of the proposed configuration
 - e. Description of current conditions, and if there is a problem, the intended solution
 - f. Anticipated benefits to the user and/or entire WAN that will result from the change
 - g. Potential impacts on other WAN sites, if known
 - h. Pertinent information on any contract or other agreement associated with local use of the WAN site.
2. For addition of a new WAN site, the pertinent RITC will submit a SCR form to the Fisheries Change Manager including, at a minimum, the following information:
 - a. Name, telephone number, and e-mail address of the requestor
 - b. Name(s) of site(s) to be added
 - c. Number of users at each proposed site, and data requirements
 - d. Proposed connection type (i.e., Frame Relay, DSL, dedicated circuit, etc.) and service provider
 - e. Cost of circuit
 - f. Network security plan for the new site(e.g., firewalls and ACLs)
 - g. Pertinent information on any contract or other agreement associated with local use of the WAN site
3. The Change Manager will enter the SCR into the SCR Tracking System for purposes of tracking, and evaluate the potential impacts of the requested change for security vulnerabilities, impact on other WAN sites and compliance with the following change standards:
 - a. Performance
 - b. Reliability
 - c. Maintainability
 - d. Interoperability
 - e. Compliance with IT architecture
 - f. Resources required, including costs
4. The Fisheries Change Manager will add the SCR to the next weekly Technical Impact Analysis review meeting. If there are no issues, the Change Manager will add the SCR to the next Enterprise Change Control Board meeting. The Board may consult as necessary with a representative of the site requesting the change and should work with the submitting site to resolve problems associated with the request. If consensus—concurrence or disapproval—is not reached (every voting Board member agreeing), the Board will seek a simple majority decision. The Board will document the discussion points and, if not a majority opinion, reasons for dissent. The Board will issue an



approval, disapproval or request for more information within 5 working days of receipt of the SCR.

5. For routine changes, the Deputy CIO will be the final approval authority within 48 hours of board approval if no clarification is required.
6. For significant changes (a modification of the WAN configuration with a non-recurring cost of \$5,000 or more, a recurring cost of \$10,000/year or more, or changes affecting more than one FMC.), the Enterprise Change Control Board will submit the Change Request and associated documentation to the CIO for concurrence or disapproval in consultation with the HQ Advisory Board. The Advisory Board will meet no later than 10 business days after receiving the Enterprise Change Control Board's final recommendations.
7. A requester may appeal an ECCB SCR decision to the CIO.
8. Every two weeks a list and status of the past SCRs and all open SCRs will be provided to the RITCs.
9. All changes will be documented within 10 working days of the completed modification.

4 LAN Configuration Changes

4.1 Policy

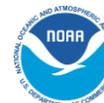
Configuration changes to the HQ NMFS LAN that can potentially impact critical operations require CIO approval. Configuration changes that must be approved by the CIO include:

1. New server
2. Version change of operating system
3. Reconfigure/update network

4.2 Procedure

The following procedures are used for proposed changes to the LAN

1. For a LAN change, the pertinent SL will submit a System Change Request (SCR) form to the Fisheries Change Manager, including, at a minimum, the following information:
 - a. Name, telephone number, and e-mail address of the requestor;
 - b. Model and serial number of affected equipment;
 - c. Functional description of the problem or enhancement;
 - d. Description of current conditions, and if there is a problem, the intended solution;



- e. Anticipated benefits to the user;
 - f. Potential impact, if known
2. The Fisheries Change Manager will submit the SCR to the Enterprise Change Control Board electronically for review and recommendation. The Board may consult as necessary with a representative of the site requesting the change and should work with the submitting site to resolve problems associated with the request. If consensus—concurrence or disapproval—is not reached (every voting Board member agreeing), the ECCB will seek a simple majority decision. The Board will document the discussion points and, if not a majority opinion, reasons for dissent. The Board will issue an approval, disapproval or request for more information within 5 working days of receipt of the SCR.
 3. For routine changes, the Deputy CIO will be the final approval authority within 48 hours of board approval if no clarification is required
 4. For significant changes (a modification of the LAN configuration with a non-recurring cost of \$5,000 or more, a recurring cost of \$10,000/year or more, or changes affect a major application, the Enterprise Change Control Board will submit the SCR and associated documentation to the CIO for concurrence and the HQ OCIO Advisory Board.
 5. A requester may appeal an SCR decision to the CIO.
 6. All changes will be documented within 10 working days of the completed modification.

4.3 Emergency Configuration Changes

A LAN Administrator has the authority to make changes in the WAN router configuration or LAN in an emergency situation without approval from the CIO. The change will be documented and reviewed with the Fisheries Network Administrator (Change Manager?) the next working day to determine if this change should be established as the new baseline configuration or if the change should be rolled back to the original state.

4.4 Firewall Policy Modifications

Fisheries firewalls are maintained at the local level in accordance with Fisheries security policies. The Fisheries Network administrator will maintain a current configuration document for each Fisheries firewall, to be supplied by the local system administrator. When changes are made to a firewall, an updated configuration document with a description of the change will be provided to the Fisheries Network Administrator. The Enterprise Change Control Board will review such changes for compliance with Fisheries security policy. The Board will recommend methods for bringing firewall rules into compliance to the local system administrator.



4.5 Monitoring and Evaluating Fisheries WAN Sites and Activities

The Fisheries Change Manager should be notified of any anticipated change to Fisheries WAN operations other than those indicated in this document, of any change that has occurred without official approval; and of problems with implementing an approved change. RITCs are expected to work closely with the Fisheries Change Manager to monitor activities associated with the Fisheries WAN, especially compliance with pertinent directives and standards; network security issues; anticipated policy and technology developments; and other activities that may require WAN changes or additions.

At the direction of the CIO, a yearly report of Fisheries WAN operations will be prepared, including: all approved, implemented and disapproved change requests and additions; anticipated needs; compliance with pertinent standards; recommendations of the Enterprise Change Control Board; and other such events and documents as will accurately portray the Fisheries ECCB function.

4.6 Additions or Changes to Technical Impact Analysis

The ECCB shall engage subject matter experts as needed from the NMFS technical community, to perform a support role by evaluating possible impacts of submitted enterprise System Change Requests (SCRs) before they are reviewed and approved by the ECCB.

4.7 ECCB Decision Making Process

The ECCB will strive for consensus when voting on requested changes to the enterprise environment and establishing priorities for implementation. In the absence of consensus, the decision will be made by the NMFS CIO.

4.8 Change Process Flow, Tracking, and Communication

The ECCB shall utilize an SCR tracking system to document SCRs, track member comments and decisions, monitor status and provide notifications (via e-mail) to ECCB members throughout the change control process (see figure 1). The tracking system shall be accessible to all ECCB members, RITCs, and other appropriate staff. The Change Manager shall be responsible for entering all SCRs into the tracking system within 24hrs of receipt and updating the status of requests at the conclusion of meetings, when decisions are made or change-related actions are taken.



Figure 1: High level change process flow

The process steps are summarized below:

Step	Description
1. Generate SCR	A change requestor completes a SCR Form and sends the completed form to the CM.
2. Record SCR Status	The CM records the SCR into the SCR tracking system. The SCR’s status is updated throughout the SCR process as needed.
3. Evaluate SCR	Appropriate Enterprise Technical Impact Groups, SMEs and ECCB members review the SCR and assess the cost and scope.
4. Authorize	Approval to implement requested change.
5. Implement	If approved, implement the requested change and communicate SCR status to the requestor and other stakeholders.

Please see Appendix E for the detailed Enterprise System Change Request process flow.

4.9 Evaluating and Authorizing Change Requests

Requests for bandwidth increases must be reviewed by the NMFS CIO before the request is submitted to the ECCB.

In order for the ECCB to evaluate and authorize a change request, the “scope” and “cost” of the change are taken into consideration.

Scope: Scope of change is defined as the total number of NMFS sites that could be impacted by the change¹, **or** the potential to increase the utilization of enterprise system resources².

Cost: Implementation costs are defined as the total cost of labor and/or material not born by the originator of the request.³

¹ **Negative Impacts:** Potential for outage, degradation in performance, loss of functionality, or exposure to security risks.

² **Increase in Utilization of Enterprise System Resources:** For example, a site implements a digital asset management system that is hosted in the federal cloud. While this may not require a specific change in configuration, it increases the risk on the enterprise resources and has the potential for increased usage, degradation in performance, loss of functionality, or exposure to security risks. Such activity should be examined in light of the baseline in the project planning phase.

³ **Implementation Costs:** For example, if a router is purchased by a NMFS site (costing \$2,500) and the cost for the NMFS OCIO network engineer to configure and deploy it is (\$3,000) --- the implementation cost is \$3,000.



4.10 System Change Request Types

Change requests are evaluated and assigned change types according to Appendix B.

All **Major** change types will require the approval of NMFS CIO in addition to the approval of the ECCB. The ECCB may refer a **Minor** change type for NMFS CIO approval if the impact of such change may severely disrupt business operations or has the potential to increase security risks.

4.11 Change Control Record

A Change Control Record (CCR) (Appendix D) will be used to update an already approved and signed SCR rather than modify the originally approved and signed SCR, the CCR can be used for;

- Changes to SCR IP addresses
- Changes to planned completion dates

This document will be maintained by the SCR Requestor and submitted to the Change Manager when:

- Changes to an approved SCR need to be reviewed by the Technical Impact Analysis Team and, as needed, the appropriate change board. Examples of Documenting SCR closure as a record of all changes being complete and their actual completion date(s).

The SCR Change Manager will:

- Present changes during the Technical Impact Analysis meeting for approval and append record of approved changes to the approved SCR.
- If changes require additional review by the CCB or ECCB, coordinate review and document approval or disapproval.
- Append to the approved SCR as record of SCR closure.

4.12 Meetings

The ECCB will meet bi-weekly or as needed to address urgent issues and concerns. The meeting agenda will list SCRs for review along with additional discussion items.

5 Enterprise Baseline

The enterprise baseline is a fixed reference configuration established by defining and recording the approved configuration at a milestone event or at a specified time. Configuration baseline items can include enterprise technologies (i.e. Active Directory, the Wide Area Network, Video Teleconferencing, etc.) and secure configurations (i.e. USGCB, FDCC, etc.).



Changes to the enterprise baseline require technical review, impact analysis, risk assessment, coordination, and approval of submitted SCRs. Final approval of each SCR is performed by the ECCB. Changes to the baseline will be tracked through SCRs, helpdesk tickets, and supporting SCR records.

6 Guiding Principles

The ECCB shall operate as a technical and management decision board. The ECCB will strive to make effective technical decisions concerning operations of NMFS enterprise systems. The ECCB group will operate under the following guiding principles:

- Provide sound technical evaluations of proposed changes.
- Minimize impacts and outages to operational systems.
- Maintain or improve the overall security posture of the enterprise.
- Perform cost effective decision making.
- Ensure communication of proposed changes in advance to all stakeholders.
- Ensure that the SCR Requestor follows a sound system development and testing methodology.
- Conduct proceedings in an open and transparent manner.
- Follow a repeatable process with supporting documentation and metrics.

7 Systems under ECCB Control and Detailed Procedures

- Details and procedures will be provided as appendices to this document. These will provide repeatable and verifiable processes for the enterprise environment.
- Generic flow diagrams will also be provided as appendices (TBD). These will provide high level views of the enterprise processes.



Appendix A: List of NMFS Regional Offices and Science Centers

NMFS Regional Offices	NMFS Science Centers
Alaska Region P.O. Box 21668 709 W. 9th St. Room 420 Juneau, AK 99802-1668	Alaska Fisheries Science Center 7600 Sand Point Way N.E. Bin C15700 Building 4 Seattle, WA 98115-0070
West Coast Region (WCR) 7600 Sand Point Way Northeast Seattle, WA 98115	Southwest Science Center 8901 La Jolla Shores Drive La Jolla, CA 92037-1508
Greater Atlantic Region 55 Great Republic Drive Gloucester, MA 01930-2298	Northeast Fisheries Science Center 166 Water Street Woods Hole, MA 02543-1097
Southeast Region 263 13 th Avenue South St. Petersburg, FL 33701	Southeast Fisheries Science Center 75 Virginia Beach Drive, Room 207 Miami, FL 33149
Pacific Islands Region 1845 Wasp Boulevard, Building 176 Honolulu, HI 96828-2396	Pacific Islands Fisheries Science Center 1845 Wasp Boulevard, Building 176 Honolulu, HI 96818-2396



Appendix B: SCR Change Types

Type	Description
Minor	Impacts more than the requesting site and the cost of implementation is less than \$5000 or impacts enterprise resource utilization.
Major	Impacts more than the requesting site or the cost of implementation is greater than or equal to \$5000.



Appendix C: ECCB System Change Request (SCR)



National Oceanic and Atmospheric Administration
National Marine Fisheries Service

Please complete Sections 1 through 4 by providing the details describing and supporting the change you are requesting.

Section 1: Contact Information		SCR # Provided by OCIO/ICM
Name:		Date:
Email:	System & Site Name	Telephone:

Section 2: Change Information	
Change Type:	
WAN / MPLS <input type="checkbox"/> Enterprise Active Directory <input type="checkbox"/> Enterprise VTC <input type="checkbox"/> Other Enterprise System <input type="checkbox"/>	
List all sites that will be affected by this change:	
Date this change is needed (mm/dd/yyyy):	Has this change been approved by your RITC (Y/N)
	Yes <input type="checkbox"/> No <input type="checkbox"/>
Network Team Implementation/Maintenance Window: Starttime - End time (e.g. 6:30am-8:30am PT/9:30am-11:30am ET)	
Priority ¹ :	
Routine <input type="checkbox"/> Urgent <input type="checkbox"/> Emergency <input type="checkbox"/>	
Urgent/Emergency Priority Justification:	

¹
Emergency: A change that will have significant negative impact to operations or security unless implemented immediately.
Urgent: A change that, if not implemented prior to the next ECCB, will have significant negative impacts to service, project or business processes.
Routine: A change that can be planned, scheduled, and prioritized.



Description of requested change:

Section 3: Required Background Information	
Describe Current Condition	
What are the major impacts of the requested change?	
What business process / projects will be affected by the change?	
Anticipated impacts if not approved?	
What is the rollback / recovery procedure? <ul style="list-style-type: none"> Describe rollback plan Resources (Includes personnel, hardware, and software) Estimated total time to recover (Worst case situation estimate) Are all required resources on site? 	<ul style="list-style-type: none"> Describe rollback plan: Resources (Includes personnel, hardware, and software): Estimated total time to recover (Worst case situation estimate): Are all required resources on site?

Section 4: Roles and Responsibilities	
Who needs to be involved in executing the change?	
Identify the implementation workflow	
Provide all project / task support documents (e.g., Network map, site closure document, but not procurement documents, product literature)	
Identify associated SCRs (SCR #, Date, or description)	



Section 5: NMFS OCIO ITSO Security Evaluation

ITSO Comments (Unless otherwise noted: No Comment)	
ITSO Approval Signature	Date

Section 6: ECCB Approval

General ECCB Board Comments: (Unless otherwise noted: No Comment)		
Approved / Disapproved	Signature	Date:
NMFS CIO (Y / N)		
NMFS ECCB Chair (Y / N)		
Rob Bistodeau (Y / N)	See attached email	
Alicia Matter (Y / N)	See attached email	
David Buker (Y / N)	See attached email	
Alternate (Y / N)	Name of alternate will be provided during vote	



Appendix D: Change Control Record (CCR)

Update to CCB/ECCB SCRYY-

This Change Control Record (CCR) will be maintained by the SCR Requestor and submitted to the Change Manager when:

- Changes to an approved SCR need to be reviewed by the Technical Impact Analysis Team and, as needed, the appropriate change board. Examples of changes include IP address changes, changes to planned completion dates, etc.
- Documenting SCR closure as a record of all changes being complete and their actual completion date(s).

The SCR Change Manager will:

- Present changes during the Technical Impact Analysis meeting for approval and append record of approved changes to the approved SCR.
- If changes require additional review by the CCB or ECCB, coordinate review and document approval or disapproval.
- Append to the approved SCR as record of SCR closure.

Change Requested:

Change Activity	Planned Completion (Date & Time)*	Approval	Actual Completion (Date & Time)*

* Note: Production deployments must be implemented during non-business hours.

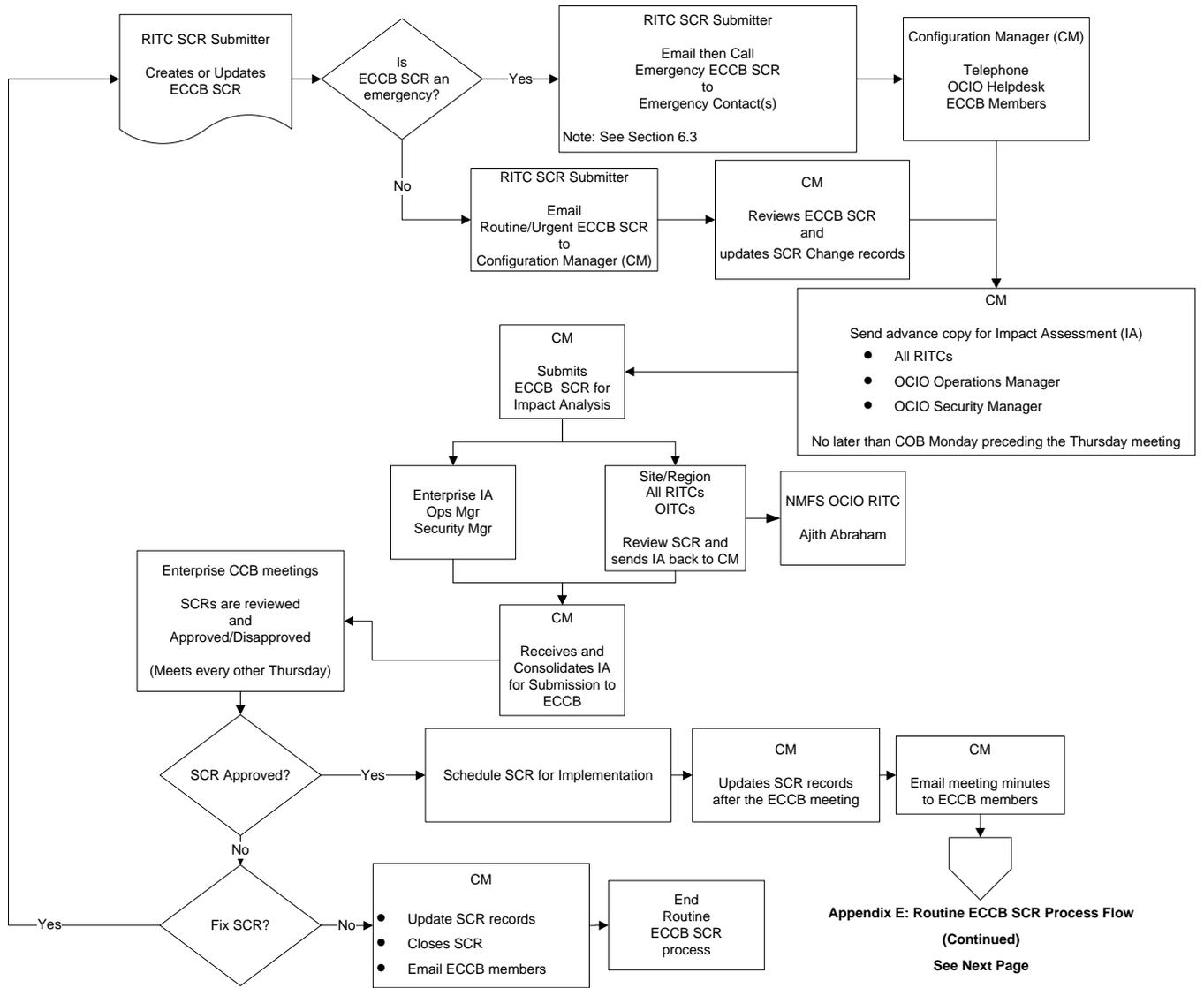
** Initials and date of approval required by Technical Impact Analysis Lead for planned changes

Does change require the SCR to be put on hold? (Yes / No) If yes, provide brief explanation:

Comments: (Only if needed or helpful for documenting SCR closure)



Appendix E: ECCB System Change Request Process Flow

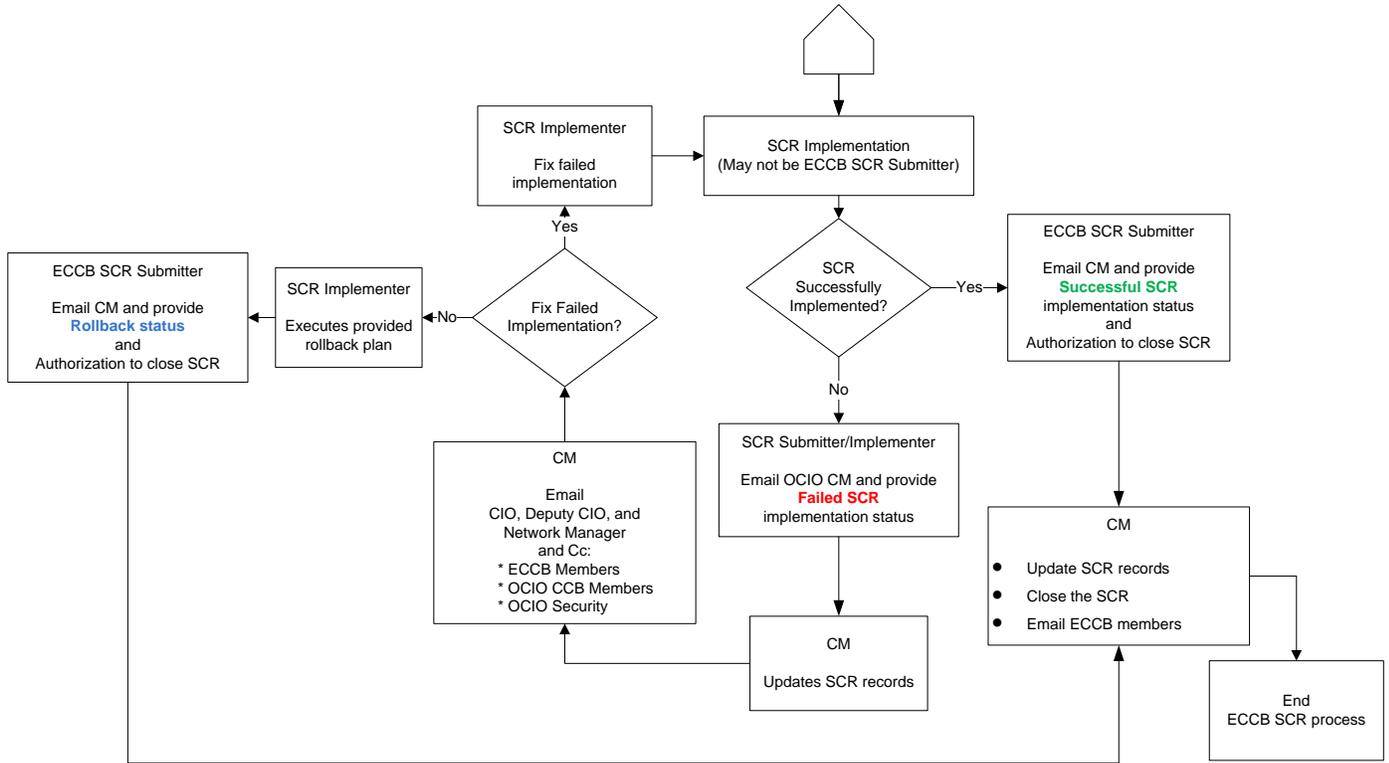




Appendix F: ECCB System Change Request Process Flow (Continued)

Appendix E: Routine ECCB SCR Process Flow

See Previous Page





Appendix G: Wide Area Network (WAN) System Change Request Criteria

Purpose for WAN

The NOAA Fisheries Wide Area Network (WAN) is a Federal Government network that interconnects NOAA Fisheries offices located around the United States.. WAN management includes its design, engineering, building and operation, and uses technologies including Multiprotocol Label Switching, Firewalls, Intrusion Detection Systems (IDS), Routers, Switches, Virtual Private Networks (VPN), leased telecommunication networks, proxy servers, Network Address Translation, and related equipment.

Scope

WAN configuration change control items that initiate an SCR to prevent service disruption and security vulnerabilities include the following:

Description of Change	Required	Informational	Not Required
Adding or changing MPLS equipment or related hardware on the WAN	X		
Add/remove/modify WAN Firewalls	X		
Modifications to Enterprise VPN connections or equipment	X		
Adding users to Enterprise VPN			X
Modification to WAN ACL	X		
WAN Routing protocol changes	X		
Change to WAN circuits or related connections	X		
WAN router operating system/firmware upgrades	X		
WAN router hardware modifications	X		
Modification of WAN routing tables	X		
WAN Firewall rule changes	X		
WAN IDS changes	X		
Applications or systems configuration change that utilize the WAN	X		
LAN changes that will affect WAN (performance, access, or security baseline)	X		
Adding new sites to the WAN	X		
Procurement or use of externally hosted services (e.g. Cloud or remote hosting)	X		
WAN architecture changes	X		
DNS changes (non-local)	X		
Adding external connections (Internet / Wireless)	X		
Major LAN architectural changes		X	
Network expansion	X		
Addition of DMZ segments at existing site(s)	X		
Addition of new sites	X		
New connections or changes to interconnected non-NMFS networks	X		
New connections to the Internet	X		



Partnerships with Non-NMFS entities that will require data exchange over the WAN	X		
Design and feature enhancements of applications that require additional bandwidth or improved WAN performance	X		
Support for additional protocol(s)	X		

Related Information

- Internetworking Technology Handbook (http://docwiki.cisco.com/wiki/Internetworking_Technology_Handbook)
- NIST FISMA Implementation (<http://csrc.nist.gov/groups/SMA/fisma/overview.html>)
- NOAA Administrative Order 212-13, Information Technology Security Management (<http://www.rdc.noaa.gov/~nao/212-13.html>) and all referenced orders and guidance therein.
- Department of Commerce Information Technology (IT) Restructuring Plan, Secretarial Directive, June 13, 2001.
- NOAA IT Architecture Guidance <http://www.hpcc.noaa.gov/docita>



Appendix H: Active Directory System Change Request Criteria Purpose for Enterprise Active Directory

NMFS enterprise Active Directory (AD) provides a solid foundation for building enterprise services, including:

- Single Sign-on Access to Multiple Systems
- Improvement of Government Operations
- Business Continuity and Disaster Recovery
- Leveraging Existing Resources

Scope

AD configuration change control items that require an SCR to prevent service disruption and security vulnerabilities include the following:

Description of Change	Required	Informational	Not Required
Changes to the Enterprise Active Directory design	X		
Changes to the Enterprise Domain Controller (DC) configuration, including new software installation	X		
Installation of operating system and software updates on the Enterprise Domain Controllers (DC)			X
Extension of or changes to the Enterprise Active Directory schema	X		
Changes to the Enterprise AD-integrated DNS configuration	X		
Changes to the Enterprise Flexible Single Master Operations (FSMO) placement	X		
Changes to the Enterprise Global Catalog (GC) placement	X		
Changes to the Enterprise Active Directory replication topology	X		
Changes to the Enterprise Active Directory Sites and/or Subnets	X		
Creation, deletion, linking of or changes to the Enterprise level Group Policy Objects (GPO)	X		
Creation, delegation and deletion of Enterprise top level (site) OU's	X		
Changes to the Enterprise Lightweight Directory Access Protocol (LDAP) configuration	X		
Authorization of Enterprise AD-integrated Dynamic Host Configuration Protocol (DHCP) servers			X
Changes to the member workstation configuration, including new software installation			X



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Installation of operating system and software updates on the member workstations			X
Changes to the member server configuration, including software installation			X
Installation of operating system and software updates on the member servers			X
Creation, deletion, or changes to the Enterprise Active Directory user objects			X
Creation, deletion, or changes to the Enterprise Active Directory group objects			X
Creation, deletion, linking of or changes to the Enterprise site level Group Policy Objects (GPO)			X
Creation, delegation, modification, and deletion of Enterprise OU's under the top level site OU			X



Appendix I: References

1. NOAA Administrative Order 212-13, Information Technology Security Management.
<http://www.rdc.noaa.gov/~nao/212-13.html> and all referenced orders and guidance therein.
2. Department of Commerce Information Technology (IT) Restructuring Plan, Secretarial Directive, June 13, 2001.
3. NOAA IT Architecture Guidance
<Http://www.hpcc.noaa.gov/docita>
4. NOAA Fisheries Architecture Guidance
<Http://www.nmfsweb.ssp.nmfs.gov/arch>
5. Charter and Operating Agreement, NOAA Fisheries National Information Management Board
<Http://nmfsweb.ssp.nmfs.gov/itweb>