The Federation for Identity and
Cross-Credentialing Systems®

FiXs® Configuration Control Board Procedures
Version 3.1
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1.0 General Requirements and Definitions

The CCB reports directly to the Executive Committee for recommendations on necessary implementation of changes that affect the day-to-day operations of these Network, products, or services. This document defines the role of the FiXs Configuration Control Board (CCB) in configuration and change management processes as it applies to FIXS; the FiXs Network; any service providers providing products or services related to FiXs or using FiXs-branded products or services, or otherwise utilizing the FiXs Network. It defines the details of CCB operations, including the scope, membership, responsibilities, and operating procedures.

The CCB is responsible for recommending changes to the FiXs Technical Architecture and Specifications document and is responsible for the advising on the technical development and modification of FiXs products and services, to include development and maintenance of FiXs software, site certification requirements, security, and the interface specifications to be used in the FiXs Trust Broker (FTB) configuration(s).

2.0 Applicability

This document defines development, change and configuration management (CM) processes used to manage the FiXs baseline, including but not limited to hardware, software, commercial off-the-shelf (COTS), licenses, documentation, schedule, processes and procedures along with any interfaces, as applicable. The configuration of the FiXs baseline shall not be changed without CCB recommendation to the Executive Committee and subsequent approval. Such configuration changes include changes to the software, hardware, COTS products, and the documentation defining the program configuration and operation.

3.0 Scope

The FiXs CCB is the single point of coordination for change management recommendations and requirements related to the configuration and evolutionary development of FiXs.

4.0   References and Standards

The following standards will be used for reference in the CM process outlined in this procedure.

- CMMI for Systems Engineering/Software Engineering/Integrated Product and Process Development/Supplier Sourcing, Version 1.1, Carnegie Mellon Software Engineering Institute, March 2002 *(as updated).*

- National Consensus Standard for Configuration Management, Electronic Industries Alliance, EIA 649-A, 01-Oct-2004 *(as updated).*

5.0   CCB Inputs and Outputs

Any change to the configuration baseline must be managed using the configuration change management process (see Figure 1), and must be accepted by the FiXs CCB and forwarded to the Executive Committee for approval. The FiXs CCB manages changes to the configuration baselines by using Request for Changes (RFCs) or Engineering Change Proposals (ECPs). To perform its review, the CCB requires input from the members of the FiXs CCB.

The output of the FiXs CCB review is a decision on whether or not to recommend initiation of the change. For those changes which are approved, the CCB will also prioritize the changes to indicate a preferred or desired sequence in which the changes should be implemented.

6.0   Activities

A typical CCB meeting may include, but is not limited to, the following activities:

- Review/approval of minutes from the previous meeting (if any)

- Review and status reporting of open CCB action items

- Review of RFC's and ECP's presented for CCB consideration. This review may address the following considerations:

    – Strategic plan impacts

    – Schedule impacts

    – Cost and budget impacts

- – Documentation requirements

- – Security accreditation impacts

- – Interface impacts

- Closure of completed RFC's and ECP's

- Status of other open RFC's or ECP's, including status of ongoing development, testing, or deployment activities

- Report of ongoing test and evaluation activities by Testing and Evaluation

- Consideration of the total impact of each proposed change followed by a decision by the CCB membership whether to forward a recommendation

- Review of any new action items created and assigned by the CCB Chairperson

7.0   Roles and Responsibilities

7.1 Membership

In accordance with the Bylaws, the FiXs CCB is limited to members of the Board of Directors. By approval of the Board, the Chair is the FiXs Vice President. There shall be no more than five (5) voting members of the CCB. In addition to the voting members, other personnel may be assigned to support the deliberations of the CCB, as needed, from each of the following areas of specialization:

- Configuration Management (CM) – including but not limited to equipment, software, licenses

- Systems Engineering

- Software Development

- Installation and Deployment

- Integration & Test

- Logistics (documentation, support, training, spares)

- Quality Assurance

- Budget

The CCB will meet periodically, as determined by the Chairperson (or designated alternate) or directed by the Executive Committee. A quorum consisting of at least 50% of the CCB Board members plus the Chairperson (or designated alternate) is required for a meeting to

proceed. With proper advance notice, these meetings may be attended by non-voting members, to assist in clarifying specific change requests. All CCB members are encouraged to attend these meetings in person. However, meetings *may* be conducted by means of telephone conference or similar communication equipment by means of which all persons participating in the meeting hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

Emergency meetings may be called by the Chairperson or as directed by the Executive Committee to handle unexpected developments, situations or circumstances requiring more urgent response. CCB members may attend these emergency meetings in person, or dial in via telephone. Further, members who are unable to attend emergency sessions may submit their inputs via e-mail in advance of the emergency meeting to the Chairperson or to a designated representative/alternate.

7.2 Recommendations

CCB recommendations are determined by the CCB Board members with additional input being considered from non-voting attendees. Non-voting members may be excused from the meeting, in order for the CCB Board members to discuss and deliberate the issues and to reach a decision.

Typically, one of the following recommendations is rendered by the CCB, for each proposed change:

- "Approve As-Is"

- "Approve with Noted Change/s"

- "Disapprove" (reason will be stipulated)

- "Hold" or "Defer" (reason will be stipulated)

A simple majority of votes cast by "members present" (see Paragraph 7.1 above for definition) carries any action except where provided otherwise by law or by the FiXS governance requirements and subject to any coordination necessary with other committees, as applicable (i.e. Legal and Privacy Committee, Security Committee, etc. Further, voting may take place in person or by proxy with advance written notice. All votes shall be recorded in the meeting minutes. Votes may also be cast orally via conference call or via email either during or after a conference call. In each instance, the voting records will be recorded and reported in the meeting minutes.

The results of all recommendations, along with the assigned priorities, shall be presented to the Executive Committee, at their next regular meeting for final adjudication.

7.3 Meeting Logistics

FiXs CCB meetings are held as directed by the CCB Chairperson. If the CCB Chairperson or a designated alternate is not available to chair a scheduled meeting, the meeting will be re-scheduled.

8.0 CCB Activities Associated with the Configuration Change Management Process

Any change to the configuration of the FiXs baseline must be approved through the CCB. During the development of a configuration change, the CCB must recommend continuation of work following each test phase.

All engineering work products identified as required CM artifacts are placed under CM control. The members of the CCB perform a technical evaluation of the recommendation and the supporting artifacts. Work products are analyzed for completeness and accuracy. Once required artifacts have been provided and accepted, the ECP is then ready for CCB consideration. The CCB makes a programmatic decision whether to authorize continuation of work on the changes.

The CCB considers:

- Analysis and recommendation of Subject Matter Experts (SMEs)

- Whether expected interface, schedule, cost, infrastructure, documentation, migration, and other impacts are acceptable (risk management)

- Whether CM documentation requirements have been met

8.1 Emergency Meetings

In addition to the routine CCB meeting(s), there may be occasions where an emergency meeting is required. Conditions which warrant these added meetings include configuration change recommendations required to either continue system functionality; to meet schedule; or to preclude extensive delay in meeting deadlines.

When an emergency or urgent action is required by the CCB, the Chairperson (or designated alternate) is notified by the requesting member and provided with suitable justification. If the Chairperson agrees with the emergency session request, the Chairperson or a CM representative will:

- Arrange a schedule and location for the meeting,

- Contact all CCB members or alternates and communicate the nature of the problem and the schedule for the meeting.

- Make copies of the agenda package and distribute at the earliest opportunity.

The minimum quorum for an emergency CCB meeting is 3 members plus the Chairperson for a total of 4 standing CCB members.

The requesting member will present the issue or requested change. Each participating member will estimate the impact to their functional area. After considering the problem and impact assessment, the members of the CCB will render an appropriate decision, assign an appropriate priority (if approved), assigns the appropriate action item(s) (if necessary), or provides other direction as required to resolve the issue.

Any proposed CCB changes to address an urgent matter must be approved, by the FiXs President and at least one other officer of the Federation.

After the meeting, the CCB will complete the post-meeting actions.

At the next formal meeting, the CCB will officially address all emergency CCB issues for closure of paperwork as needed.

8.2 Closure of Proposed Changes

All changes proposed to the CCB (such as ECP's and RFC's) can only be closed by the CCB. Generally, the CCB closes an ECP or RFC when all development, CM, and deployment activities have been completed and an acceptable after-action report has been provided. Some of the other reasons for closing ECP's include:

- An ECP or RFC was superseded by a related ECP or RFC

- Development of a change was cancelled after initiation of work

8.3 Action Item Management

The CCB uses "action items" to record and track the resolution of all actions assigned to CCB members and others at CCB meetings by the Chairperson. A review of open action items takes place at each CCB meeting, and each meeting concludes with a reiteration of new action items assigned at the meeting.

The following information is recorded for each CCB action item:

- Date action initiated

- Title of action

- Description of action

- Priority (1-5; 1 is most urgent priority)

- Originator

- Assignee

- Due date

The following additional information may be recorded for CCB action items:

- Meeting at which the action was assigned

- ECP or RFC with which the action is associated

Each time an action is reviewed by the CCB, the review date and a description of actions taken by the CCB and/or the assignee are recorded. When the assigned action is complete, the action is closed by recording the closure date, the individual who closed the action (usually the Chairperson), and a summary description of what was done to complete the action.

The CCB Chair is responsible for recording and updating CCB action items in the Action Item Database following each meeting. The CCB Chair is also responsible for preparing a list of open CCB action items for review at each CCB meeting.

8.4 Test and Evaluation Activities

At each CCB meeting, a Testing and Evaluation representative may provide a summary status of developmental and operational test activities in progress. The Testing and Evaluation representative may also summarize the current status of test activities being performed and provide a schedule of planned test activities.

9.0   Amendments to the CCB Procedures

The FiXs Executive Committee shall provide the overall guidance in the framework and operating procedures for the CCB. Any changes resulting from this guidance shall be incorporated into these procedures.

Administrative changes to these procedures shall be incorporated into the Procedures by the CCB Chairperson or a designated alternate. Such changes shall constitute a "minor" revision change in the numbering of this document. All proposed changes shall be reviewed by the members of the CCB Board. The CCB Board members shall vote on the proposed changes, either individually, or taken as a whole. All such changes are to

be provided to the Executive Committee for final approval and/or submission to the Board of Directors as required.

10.0 REVISION HISTORY

Version	Date	Comments
0.1	Nov 10, 2005	Initial release
0.2	Nov 15, 2005	Clarified Membership, Added section on Changes & Revisions to these Procedures
0.9	Nov 16, 2005	Minor changes based on CCB meeting review & comments – Applicability, Membership, Decisions, and Figure 1.
2.0	March 29, 2007	Changed version number for FiXs documents consistency
2.1	Jan. 31, 2008	Modified to add language regarding the CCB responsibilities, to Section 1.0, General Requirements and Definitions; update Section 7.1 Membership, to be in accordance with the Bylaws; minor editorial changes
3.0	Sept. 2010	Minor changes and edits made in preparation of baseline with DMDC and based on latest Board review/recommendations (Board Meeting 8.14.10)
3.1	Dec. 11, 2015	To reflect changes to FTB and Security Guidelines

Appendix – Acronym List

CCB   Configuration Control Board

CM   Configuration Management

CMMI   Capability Maturity Model – Integration

COTS   Commercial Off-the-Shelf

DW   Deviation/Waiver

ECP   Engineering Change Proposal

FiXs   Federation for Identity and Cross-credentialing Systems

I&T   Integration and Test

QA   Quality Assurance

PM   Program Manager

RFC   Request for Change

SD   Software Development

SE   Systems Engineering

SME   Subject Matter Expert

Process Flowchart

| Change Request (CR) is submitted to CCB Chair | CCB Chair develops agenda and sends to CCB Members | CCB Reviews change

Votes on change (approve/reject/other)

Approved: Assigned

PM begins work | Change is Tested

CCB reviews results of test and approves for next phase. After final testing is complete, CCB reviews, approves and change is fielded | After action report is submitted and all documentation and drawings updated to reflect change | CCB approves CR closure based on after action reports and all documentation updated |

Disapproved request returns to originator

Figure 1