
I-0375: Elements Requiring Authentication Mechanism

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STATUS: Reposted for External Review
TYPE: NIAP Interpretation

TITLE: Elements Requiring Authentication Mechanism
COMMENTS DUE BY: Monday, February 5, 2001 to IWG@gibraltar.ncsc.mil

SOURCE REFERENCE: CC v2.1 Part 2 Subclause G.4 FIA_UAU
RELATED TO: <None>

ISSUE:

PP/ST authors should be able to specify the authentication mechanisms that a TOE must supply. This is easily done by using FIA_UAU.5 when there are multiple authentication mechanisms. When there is only one authentication mechanism, however, the CC words do not make it clear how the PP/ST author is to specify the authentication mechanism.

STATEMENT OF INTERPRETATION:

For interfaces that use a single authentication mechanism, the authentication mechanism is specified through refinement of FIA_UAU.1.2 or FIA_UAU.2.1.

SPECIFIC INTERPRETATION:

To address this interpretation, the following changes are made to CC v2.1 Part 2:

- In Subclause G.4, FIA_UAU.1, "Operations", the following text is added:

Refinement:

FIA_UAU.1.2 should be refined to indicate any specific TSF mechanism that must be used for authentication. This levies a requirement on the TSF to provide the specified authentication mechanism.

Iteration:

The FIA_UAU.1 component can be iterated, with each iteration changing FIA_UAU.1.2 to provide distinct authentication mechanisms for distinct user interfaces, as long as all user interfaces to the TSF are addressed.

- In Subclause G.4, FIA_UAU.2, an "Operations" section is added, consisting of the following paragraphs:

Refinement:

FIA_UAU.2.1 should be refined to indicate any specific TSF mechanism that must be used for authentication. This levies a requirement on the TSF to provide the specified authentication mechanism.

Iteration:

The FIA_UAU.2 component can be iterated, with each iteration changing FIA_UAU.2.1 to provide distinct authentication mechanisms for distinct user interfaces, as long as all user interfaces to

the TSF are addressed.

PROJECTED IMPACT:

Negligible impact anticipated.

SUPPORT:

This interpretation addresses the ISSUE by using the approach of refining FIA_UAU.1.2 or FIA_UAU.2.1 to indicate the method of authentication that must be used (e.g., "...to be successfully authenticated using a TSF-provided password mechanism..."). Such a refinement implies that the TSF must provide the indicated mechanism.

Additionally, the CC is unclear on how to handle differing authentication mechanisms for different interfaces (e.g., multiple-use passwords on internal network connections and single-use passwords for external accesses). This interpretation provides clarification that iteration to address individual interfaces is the appropriate manner of specification. For example, FIA_UAU.1 might be iterated to require passwords for external connections, but biometric authentication for local connections.