

October 31, 2023

Update to the Edition 2.0 and Edition 2.1 Conformance Testing Policy

The UCAIug IEC 61850 Test Procedure Working Group (TPWG) has been actively developing IEC 61850 Edition 2 Amendment 1 also known as Edition 2.1) conformance test procedures. Normal UCAIug policy would dictate that conformance testing for Edition 2.0 implementations would end January 2022 since IEC views Edition 2.1 as the current Edition 2.0 standard.

There were two important issues and discussions that occurred:

- Several users are in the process of actively requesting Edition 2.0 systems and a quick termination of Edition 2.0 conformance testing would jeopardize these systems and the investment of the users.
- During the development of these tests several changes were discovered between Edition 2 and Edition 2.1 that could potentially break interoperability within a mixed edition system.

Substantial effort has been invested into creating a whitepaper documenting these issues and their potential mitigations. This document is available to UCAIug members at: www.ucaiug.org under Testing/Shared Documents/ApplicationNotes/UCA Update on Edition Compatibility_Final_Draft.pdf.

The following policy attempts to address the needs of the industry while promoting the improvements in Edition 2.1.

The revised policy regarding Edition 2.0 and Edition 2.1 conformance testing follows.

Protecting Users: UCAIug Edition 2.0/2.1 Conformance Testing Policy

UCAIug will be adhering to the following policy (within the current process specified by the IEC 61850 QAP). This methodology protects end-users and the industry moving into the future.

- **Server Conformance Testing:** Conformance testing of Edition 2.0 Server implementations, without requiring testing Edition 2.1, shall be allowed until January 2024. If the testing is started, or contracted, prior to January 2024, then Edition 2.0 conformance will be allowed. However, the testing must be completed prior to December 31, 2024. Proof of starting prior to 2024 will be required of the submitting Test Laboratories.

A vendor whose implementation has passed Edition 2.1 conformance may request that the implementation also be tested for Edition 2.0 conformance. The Edition 2.1 test procedures do include backward compatibility tests for ED2.0.

- **Client Conformance Testing:** Conformance testing of Edition 2.0 Client implementations, without requiring testing Edition 2.1, shall be allowed until June 30, 2024. If the testing is started, or contracted,
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prior to June 2024 then Edition 2.0 conformance will be allowed. Proof of starting prior to June 2024 will be required of the submitting Test Laboratories. Edition 2.0 only conformance certification should continue as needed until June 2024.

- **SCT/ICT Conformance Testing:** The test procedures for Edition 2.1 conformance testing for SCTs or ICTs are still under development. Therefore, conformance testing of these implementations shall be exempt from ED2.1 testing until the test procedures are published and the six(6) month adoption period has expired.
- If a new amendment to IEC 61850 is published, that amendment's conformance testing, will replace the Edition 2.1 testing if required by the amendment.
- When a new release of IEC 61850 occurs (e.g., Edition 3.0), this policy shall remain in place per the IEC 61850 QAP minimum period of ten(10) years.

The result of this policy is that implementations will be able to be tested for Edition 2.0 conformance at least until 2028. The caveat is that those implementations shall pass Edition 2.1+ conformance prior to being conformance tested for Edition 2.0 per above.

If you have questions, please feel free to contact me at: herb@ucaiug.org.

Sincerely,

Herbert Falk
Vice-President of Testing
UCA International Users Group
