

## Server - Issues #5286

### Not every Sample rate/nofASDU combination is tested for SV publishers/subscribers

01/17/2022 07:40 PM - Bruce Muschlitz

<b>Status:</b> Closed	<b>Due date:</b>
<b>Priority:</b> Normal	
<b>Assignee:</b>	
<b>Category:</b>	
<b>Target version:</b>	
<b>Discuss in Upcoming Meeting:</b> No	<b>Updated Test Document:</b> Server Ed2.1 TP1.2
<b>Clause Reference:</b> 61869-9 6.903.5 (LPHD.NamVariant)	<b>Test Case ID:</b> sSvp18, sSvs16
<b>61850 Standard:</b> 9-2	<b>Closed Reason:</b> Test Procedure Update
<b>Triggering Tissue:</b>	<b>Triggering Tissue 2:</b>
<b>Final Decision:</b>	<b>Triggering Tissue 3:</b>
<b>Initial Test Document:</b> Amd1 TP1.1	
<b>Description</b>	
UCAlug Server test procedures for Ed2+Am1 do not verify that the publisher can emit frame for each claimed sample-rate/nofASDU combinations. Simple test is needed to verify these combinations. Results of this test can be used to populate the fields within the certificate database.  Proposed test procedure for SV publishers is attached.  Furthermore, the list of tested combinations shall appear on the conformance certificate (note that there is a maximum of 8 possible combinations)	
<b>Related issues:</b>	
Related to Server - Issues #5308: SV Publisher/subscriber maximum dataset siz...	<b>Closed</b>

## History

### #1 - 01/18/2022 03:05 AM - Richard Schimmel

About the certificate I propose to add the SV publish and SV subscribe variants as part of the product details (below software/hardware version):  
SV publish : F4000S1, F4800S1, F4800S2, F5760S1, F12800S8, F14400S6, F15360S8, F96000S1 (delete what is not supported)  
SV subscribe: F4000S1, F4800S1, F4800S2, F5760S1, F12800S8, F14400S6, F15360S8, F96000S1 (delete what is not supported)  
As such end-users can easily select/check a matching rate.

### #2 - 01/20/2022 09:58 AM - Richard Schimmel

- Status changed from New to In Progress
- Initial Test Document set to Amd1 TP1.1
- Test Case ID set to sSvp18
- 61850 Standard 9-2 added

Similar for SV subscribe. Add test case to proof that DUT can subscribe to each (PIXIT) claimed FxxxxSx?

### #3 - 01/21/2022 02:44 AM - Richard Schimmel

- File Solution 5286 sSvp18\_sSvs16\_20220121.docx added
- Subject changed from Not every Sample rate/nofASDU combination is tested for SV publishers to Not every Sample rate/nofASDU combination is tested for SV publishers/subscribers
- Test Case ID changed from sSvp18 to sSvp18, sSvs16

Added SV subscribe to the attachment and updated certificate template

### #4 - 01/25/2022 09:17 AM - Richard Schimmel

- Status changed from In Progress to Resolved

Approved TPWG

#### #5 - 03/30/2022 02:42 AM - Thierry Dufaure

testing all combination is against the decision of the random configuration chosen by the lab, and is increasing the effort and costs for certification. I understood that conclusions are: document tested configuration variant on the certificate and not to test all combination. What come next? test entire range of multicast address?

#### #6 - 03/30/2022 08:14 AM - Bruce Muschlitz

Resolution of this issue does NOT require testing "all combinations" but only those declared by the DUT to be interoperable with other devices meeting the standard.

Typical 61869-9 devices are expected to declare exactly 1 or legacy and preferred variants so this resolution simply requires that both legacy and preferred variants be tested.

Which of these 2 variants do you NOT want to test but still provide users with confidence that both legacy and preferred are functional?

I suppose we could test only 9-2LE variants and ASSUME (without testing) that the device can also support 61869-9 communications. Is this what you want?

There never was discussion of testing multicast addressing by the TPWG.

If such tests were proposed then all of the TPWG has the ability to argue for denial of such a request.

But let us please concentrate on one issue at a time and not worry about "possible future tests" in every Redmine discussion.

#### #7 - 03/30/2022 08:55 AM - Thierry Dufaure

Typical 61869-9 devices are expected to declare exactly 1 or legacy and preferred variants

-> we should not limit the discussion to typical 1 variant - because if only one variant is supported, the random test will pick that variant. Flexible devices are here on concern.

"Repeat the test for all unique combinations of declared "F" and "S" values".

Let's take the example of a device declaring:

F4000S1I0-24U0-24;F4800S1-2I0-24U0-24;F14400S6I0-24U0-24;F12800S8I0-24U0-24;F15360S8I0-24U0-24;

This means 6 different tests are required with the new publisher test approach only during the sSvp18!!!!

With the current agreed and published test procedures

1) one backward compatible configuration is used: e.g either F4000S1 or F4800S1

2) 1 preferred is tested: e.g FF4800S2

3) 1 max is tested: FxSy

4) 1 random is tested

-> 4 different configurations over 15 tests!

This is a major difference.

I disagree with the resolution conclusion. I ask to reopen the discussion, as the TPCL 1.2 has not been published.

#### #8 - 03/30/2022 10:04 AM - Bruce Muschlitz

Sorry, there was a typo in the previous comment:

"Typical 61869-9 devices are expected to declare exactly 1 OF legacy and preferred variants"

The intent of this phrase was to demonstrate that exactly 2 tests would be needed for sSvp4.

Concerning the list of declared variants:

"F4000S1I0-24U0-24;F4800S1-2I0-24U0-24;F14400S6I0-24U0-24;F12800S8I0-24U0-24;F15360S8I0-24U0-24"

most of these are not allowed by 61869-9. For both F4000S1 and F4800S1 and F12800S8 and F15360S8, only I4U4 is allowed.

The count of tests is exactly 6 with 4 of those 6 having exactly the same test setup (only the DUT configuration changes).

For the other 2 tests, assuming the PIXIT-specified maximum channel count=24, there would be an additional 2 test setups (one with 24 current channels and the other with 24 voltage channels)

I also do not understand why the previous comment assumes that that 15 tests would be altered each to test every FxxxxSy combination because that was never proposed.

#### #9 - 04/05/2022 04:36 AM - Thierry Dufaure

Proposed sSvp18 is requiring for this NamVariant of a flexible device: 6 tests, while the testing of sSvp1 to sSvp17 is already testing 3 of the variants:

1) one backward compatible configuration is used: e.g with F4000S1 or F4800S1

2) 1 random IEC 61869-9 preferred is tested: for instance F4800S2

3) 1 max is tested: FxSyInUm

The configurations 1) 2) and 3) are already chosen to have 3 combinations tested.

Any reconfiguration is increasing the effort and the cost of the type conformance test.

Limiting the sSvp18 to test the FxSy variants that were not already covered with sSvp1, sSvp17 - restricted to one of the I<z>U<r> used in previous

test, could be a compromise to not increase the testing effort and cost dramatically.

**#10 - 04/05/2022 08:14 AM - Herbert Falk**

- Related to Issues #5308: SV Publisher/subscriber maximum dataset size is untested added

**#11 - 06/02/2022 02:55 PM - Bruce Muschlitz**

- Status changed from Resolved to Closed

- Updated Test Document set to Server Ed2.1 TP1.2

- Closed Reason Test Procedure Update added

- Closed Reason deleted (--Not Set--)

**#12 - 06/14/2022 08:33 AM - Bruce Muschlitz**

- Discuss in Upcoming Meeting changed from Yes to No

**Files**

---

sSvp18_20220117.docx	14.2 KB	01/18/2022	Bruce Muschlitz
Solution 5286 sSvp18_sSvs16_20220121.docx	18.5 KB	01/21/2022	Richard Schimmel