Solution to redmine 656 and 657

### Publish/subscribe enum with value > 127 and negative

February 21, 2023

Create new sGos16, use Boolean when ENS is not supported.

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| **sGos16** | **Subscribe GOOSE message with enum value >127 and negative** | [ ]  Passed[ ]  Failed[ ]  Inconclusive |
| IEC 61850-7-2 Subclause 18.2.3IEC 61850-8-1 Subclause A.3PIXIT Gs8 |
| Expected result1-2-3. DUT updates the value and sends a GOOSE message with changed ENUM value (when ENS is supported) or Boolean value (when ENS is not supported) |
| Test descriptionTest engineer configures the DUT with subscribed GOOSE (ping-pong mechanism) containing a private ENUM structure with a negative ord value and a >127 ord value and a Boolean. The pong dataset may copy the ENUM value in an INS. When ENS subscription is not supported the pong dataset copies the Boolean value1. Publisher sends GOOSE with ENUM value 1 followed by a Boolean value True
2. Publisher sends GOOSE with ENUM value >127 1 followed by a Boolean value False
3. Publisher sends GOOSE with ENUM value -2 1 followed by a Boolean value True
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| CommentNote: The BER encoding requires 2 bytes for value >127 and <255 |

Add sGos16 to table A.4.2 and certificate template as **mandatory**.