# IEEE 802.1 Working Group July 10-14, 2023 Plenary Session Berlin, Germany – Mixed Mode Session Minutes

The Working Group (WG) Chair, Glenn Parsons, presided and had requested that subgroup Chairs in remote attendance had on-site individuals acting on their behalf as needed to help conduct proceedings with both local and remote participants.

The Recording Secretary, Jessy Rouyer, wrote and/or edited the minutes in part based on input from subgroup Chairs and their Secretaries.

Note that, throughout this document, minuted/recorded inputs from any attendee can not/shall not be assumed to represent a position of their employer or affiliated organization. Discussion points captured do not necessarily reflect the views of the presenter, discussion leader or minute taker, and do not imply consensus unless that is explicitly minuted. The content of draft standards is determined by the ballot process; other formal decisions are the subject of Working Group motions.

### 1 Attendance and affiliation

The table in this section reflects the attendance (denoted by the ● symbol) and affiliation of attendees in all 802.1 WG and subgroup meetings held in this session. Also see section 4.

|                                                                                                                   | ,                                                                                                                                                      | 2.1 VVO and babgroup moot                     | ;   | <del></del> |      | <u> </u> | <u>и</u> ! |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          | -18: | :00 | CES |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----|-------------|------|----------|------------|------|----------|-------|----------|------|-------|------|------|------|----------|----|----|----|---|-----|----------|------|-----|-----|
| TSN - IEC/IEEE 60802, Fri Jul 14, 2023, 13:30-18:00 CEST TSN - IEC/IEEE 60802, Fri Jul 14, 2023, 10:30-12:30 CEST |                                                                                                                                                        |                                               |     |             |      |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   | TSN, Fri Jul 14, 2023, 8:00-10:00 CEST                                                                                                                 |                                               |     |             |      |          |            |      |          |       |          |      |       |      |      | "    |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      |          |            |      |          | _     | Clos     | ina  | Dla   | an   |      |      |          |    | _  |    |   |     |          | _    | Ή.  |     |
|                                                                                                                   | Closing Plenary, Thu Jul 13, 2023, 13:30-18:00 CEST  TSN - IEC/IEEE 60802, Thu Jul 13, 2023, 10:30-12:30 CEST  TSN, Thu Jul 13, 2023, 10:30-12:30 CEST |                                               |     |             |      |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      |          |            |      | •••      |       | ,        | _    | _     |      | _    | _    |          |    |    | _  |   | _   | ĭ        |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      |          |            | TS   | N -      | PRO   | 12.1     |      |       |      |      |      | 3, 8     |    |    |    |   | i I |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      |          |            |      |          |       |          | _    |       |      |      |      | 3:00·    |    |    |    | 7 |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     | TSI         | N -  | IEC      | /IEI       | EE 6 |          |       |          |      |       |      | _    | _    | )-18     |    |    | _  |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      |          |            |      |          | _     |          |      | _     |      | _    |      | 3:00     |    | _  |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             |      | Se       | uri        | ity, | We       | d Ju  | l 12     | , 20 | )23,  | 13:3 | 30-1 | 8:00 | CES      | šΤ |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN -                                         | IEC | /IEI        | EE 6 | 508      | 02,        | We   | d Ju     | ıl 12 | 2, 20    | )23  | 10:   | 30-1 | 12:3 | O CE | ST       |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               |     |             | TS   | SN,      | We         | d Ju | ul 1     | 2, 2  | 023      | , 10 | :30-  | 12:3 | 0 C  | EST  |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               | Sec | curi        | ity, | We       | d J        | ul 1 | 2, 2     | 023   | , 10     | :30  | -12:  | 30 C | EST  |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        |                                               | 1   | ΓSN         | , w  | /ed      | Jul        | 12,  | 202      | 23, 8 | 3:00     | -10  | :00   | ES.  | Г    |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | P802-R                                        | EVc | , W         | /ed  | Jul      | 12,        | 202  | 23,      | 8:00  | )-10     | :00  | CES   | Т    |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   | Nendica, Tue Jul 11, 2023, 19:00-21:00 CEST                                                                                                            |                                               |     |             |      |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   | 802.1/802.15 Joint, Tue Jul 11, 2023, 18:00-19:00 CEST                                                                                                 |                                               |     |             |      |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | YANGsters, Tue J                              |     | _           |      |          |            |      |          | _     | ST       |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN - P802.1DP/AS6675, Tue Jul 1              | _   |             | _    |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN - P802.1DP/AS6675, Tue Jul 11, 2          |     | _           |      |          |            |      | 7        |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN - IEC/IEEE 60802, Tue Jul 11, 202         |     |             |      |          | _          | -    |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN - P802.1DG, Tue Jul 11, 2023, 1           |     |             |      |          | 7          |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | Maintenance, Tue Jul 11, 2023, 8:0            |     |             |      | _        |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | TSN, Mon Jul 10, 2023, 13:30-1                |     |             | _    | 1        |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   |                                                                                                                                                        | Opening Plenary, Mon Jul 10, 2023, 10:30-12:3 |     | _           | 1    |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
|                                                                                                                   | T                                                                                                                                                      | TSN, Mon Jul 10, 2023, 8:00-10:00 C           | EST |             |      |          |            |      |          |       |          |      |       |      |      |      |          |    |    |    |   |     |          |      |     |     |
| Last name                                                                                                         | First name                                                                                                                                             | Affiliation                                   | -   | -           | +    | ╄        |            | -    | <u> </u> |       |          |      | 4     | +    | -    |      | $\vdash$ |    | +  | ╄  | Н |     | _        | _    | 4   |     |
| Akizuki                                                                                                           | katsuyuki                                                                                                                                              | NEC Communication Systems, Ltd.               | _   | _           | _    | •        | _          | •    | •        | •     | _        | •    | +     | •    | _    | •    | $\vdash$ | •  | _  | +  | • |     |          | •    | +   | +   |
| Alexandris                                                                                                        | Konstantinos                                                                                                                                           | Huawei Technologies Duesseldorf GmbH          | _   | _           | •    | _        | •          | -    | -        | •     | •        | +    | •     | •    | _    | •    | $\vdash$ | •  | _  | •  | _ | •   | _        | _    | _   | • • |
| Assmann                                                                                                           | Ralf                                                                                                                                                   | Marvell Semiconductor, Inc.                   | •   | •           | _    | •        | _          | _    | •        | •     | -        | •    | •     | •    | +-   | •    | $\vdash$ | •  | +  |    | • | •   |          | •    | _   | • • |
| Bao                                                                                                               | Huajie                                                                                                                                                 | Huawei Technologies Co., Ltd                  | +   | +           | _    | ŀ        |            | -    |          | •     |          | •    | -     | +-   | 4    | •    | ⊣        | +  | •  | ┞• |   | •   | •        | _    | _   | •   |
| Belliardi                                                                                                         | Rudy<br>Catherine                                                                                                                                      | Schneider Electric IEEE                       | +•  | ۲           | ۴    | ۴        | ľ          | ÷    | ۲        | •     | $\dashv$ | •    | •   ; | -    | +    | H    | •        | +  | +• | ╁  |   | -   | -        | +    | +   | +   |
| Berger<br>Boen                                                                                                    | Ali                                                                                                                                                    | *                                             | +   | $\vdash$    | ╁    | ╁        | -          | ╀    | -        | Н     |          |      | +     | +    | +    | H    | $\vdash$ | -  | +  | ┢  | • | Н   |          | +    | +   | -   |
| Boiger                                                                                                            | Christian                                                                                                                                              | Infineon Technologies                         | -   | -           | ١.   | •        | -          | +    | •        | •     | _        | •    | +     |      | +    | •    | $\vdash$ | ٠, | +  | +  | • | •   | $\vdash$ | •    | _   | • • |
| Bottorff                                                                                                          | Paul                                                                                                                                                   | Hewlett-Packard Development Company, L.P.     |     |             |      | •        |            |      | •        | •     | _        |      | •     |      | •    | Ť    | $\vdash$ | •  | 4  | •  | _ | H   | _        | •    | +   | +   |
| DOLLOTTI                                                                                                          | ı auı                                                                                                                                                  | newicte rackard Development Company, L.P.     |     |             |      |          |            | 1    | _        | _     |          | •    | ٠,    | ·    |      |      |          | ,  | _  |    | ш |     |          | •    |     |     |

|                      | ·                 |                                                                           | -       |          | -     |          |       |      | -        |      | •               | TSN       | V - 16 | EC/I                                             | EEE   | 60        | 802      | , Fri     | Jul       | 14,       | 2023               | 3, 13        | 3:30          | -18          | :00     | CES          |
|----------------------|-------------------|---------------------------------------------------------------------------|---------|----------|-------|----------|-------|------|----------|------|-----------------|-----------|--------|--------------------------------------------------|-------|-----------|----------|-----------|-----------|-----------|--------------------|--------------|---------------|--------------|---------|--------------|
|                      |                   |                                                                           |         |          |       |          |       |      |          |      | TSI             | N - I     | EC/    | IEEI                                             | 60    | 802       | , Fr     | i Jul     | 14,       | 202       | 3, 1               | 0:30         | )-12          | :30          | CES     | ĭΤ           |
|                      |                   |                                                                           |         |          |       |          |       |      |          |      |                 |           |        |                                                  |       | _         |          |           | _         | _         | 8:0                |              |               | _            | ST      |              |
|                      |                   |                                                                           |         |          |       |          |       |      |          |      | Closin          | _         |        | •                                                |       |           |          | _         | _         |           |                    |              | $\overline{}$ | ST           |         |              |
|                      |                   |                                                                           |         |          |       |          |       | 15   | N -      | IEC, | /IEEE           |           |        |                                                  |       |           | _        | _         |           |           | 12:30<br>30 CI     | _            | 1 I           |              |         |              |
|                      |                   |                                                                           |         |          |       |          |       | TS   | N -      | P80  | )2.1D           |           | _      |                                                  |       | _         |          |           |           |           |                    | 1            | H             |              |         |              |
|                      |                   |                                                                           |         |          |       |          |       |      |          |      | lica,           | _         |        |                                                  | _     |           | _        |           |           |           | _                  |              | H             |              |         |              |
|                      |                   |                                                                           |         | TSN      | N - I | EC/      | IEE!  | E 6  | 080      | ۱, ۱ | Ned .           | lul 1     | L2, 2  | 2023                                             | 3, 13 | 3:30      | -18      | :00 (     | CES       | Т         |                    |              | H             |              |         |              |
|                      |                   |                                                                           |         |          |       |          |       | TS   | Ν,       | Wed  | l Jul           | 12, :     | 2023   | 3, 1                                             | 3:30  | )-18      | 3:00     | CES       | т         |           |                    |              | H             |              |         |              |
|                      |                   |                                                                           |         | _        |       |          |       | •    |          |      | l 12,           |           | _      |                                                  |       |           | _        | ST        |           |           |                    |              | H             |              |         |              |
|                      |                   | TSN                                                                       | - IEC   | /IEE     | _     | _        |       | _    | _        | _    |                 |           | _      | _                                                | _     | _         | ST       |           |           |           |                    |              | H             |              |         |              |
|                      |                   |                                                                           | ٠       |          |       |          |       |      |          |      | 023, :<br>, 10: |           |        |                                                  | _     | ST        |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   |                                                                           |         |          | •     |          |       |      | _        |      | 3:00-           |           |        |                                                  | 1 1   |           |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   | P802-                                                                     |         |          |       |          |       | _    |          | _    |                 |           |        | 1                                                |       |           |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   | Nendio                                                                    |         |          |       |          | _     |      | _        |      |                 |           | _      |                                                  |       |           |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   | 802.1/802.15 Joint,                                                       | Tue J   | ul 1:    | 1, 2  | 023      | 3, 18 | 8:00 | 0-19     | 9:00 | CES.            | Г         |        |                                                  |       |           |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   | YANGsters, Tue                                                            | Jul 1   | 1, 2     | 023   | 3, 1     | 6:00  | 0-18 | 3:00     | ) CE | ST              |           |        |                                                  |       |           |          |           |           |           |                    |              | H             |              |         |              |
|                      |                   | TSN - P802.1DP/AS6675, Tue Ju                                             | _       |          | _     |          |       |      |          | ST   |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ιĺ            |              |         |              |
|                      |                   | TSN - P802.1DP/AS6675, Tue Jul 11                                         |         | _        |       |          |       |      | :ST<br>I |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ιĺ            |              |         |              |
|                      |                   | TSN - IEC/IEEE 60802, Tue Jul 11, 20<br>TSN - P802.1DG, Tue Jul 11, 2023, |         |          |       |          |       | 3 F  |          |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ιĺ            |              |         |              |
|                      |                   | Maintenance, Tue Jul 11, 2023, 8                                          |         |          |       |          |       |      |          |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ηĺ            |              |         |              |
|                      |                   | TSN, Mon Jul 10, 2023, 13:30                                              |         |          |       | 1        |       |      |          |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ιĺ            |              |         |              |
|                      |                   | Opening Plenary, Mon Jul 10, 2023, 10:30-12                               |         |          | 1     |          |       |      |          |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ηĺ            |              |         |              |
|                      |                   | TSN, Mon Jul 10, 2023, 8:00-10:00                                         | CEST    |          |       |          |       |      |          |      |                 |           |        |                                                  |       |           |          |           |           |           |                    |              | Ιĺ            |              |         |              |
| Last name            | First name        | Affiliation                                                               |         | _        |       |          | Щ     |      |          | Ц    | $\perp$         | $\perp$   |        |                                                  |       |           | _        | 1         | 4         | $\perp$   | $oldsymbol{\perp}$ | $oxed{oxed}$ | Ц             | $\downarrow$ | $\perp$ | $\downarrow$ |
| Canchi               |                   | Kyocera International Inc                                                 | •       | -        |       | _        | •     |      |          | Ц    | _ •             | _         | _      | 1                                                |       | Ш         | _        | _         | 4         | <u>•</u>  | •                  | •            | $\sqcup$      | _            | •       | 4            |
| Chen                 | Feng              | Siemens AG                                                                | •       | •        | •     | •        | •     | Н    | •        | •    | •               | +         | +      | •                                                |       | •         | 4        | •         | 1         | +         | •                  | •            | Н             | •            | 4       | •            |
| Chng                 | Shi Baw<br>Pablo  | BAWMAN LLC<br>NXP*                                                        |         | -        |       | H        |       |      |          | Н    | - 1             | _         | +      |                                                  |       | $\dashv$  | _        | -         | +         | +         |                    | <u> </u>     | Н             | +            | +       | +            |
| Corbalan<br>DeSanti  | Claudio           | Dell                                                                      | ╁       | ┢        | •     | H        |       | H    |          | •    | _               | +         | ┿      | <del>                                     </del> | H     |           | -        | +         | +         | ┿         | ╁                  | ⊢            | $\vdash$      | •            | •       | •            |
| Dorr                 | Josef             | Siemens AG                                                                |         |          | •     |          |       | •    |          | •    |                 | +         | ╁      |                                                  |       |           | •        | _         | +         | ,         | +-                 | •            | H             | •            |         | •            |
| Du                   | Zongpeng          | China Mobile Limited                                                      | •       | 1        | •     | •        | •     | Ť    | •        | •    |                 | T         | +      | •                                                |       | •         | -        | ١,        | , [       | +         | •                  | •            | П             | -+           |         | •            |
| Echeverri            | Daniel            | SoC-e                                                                     |         |          |       |          |       |      | •        | •    |                 |           | T      |                                                  |       |           | •        | ١,        | +         | 1         | $\top$             | m            | П             | 十            | $\top$  | 寸            |
| Farkas               | Janos             | Ericsson AB                                                               | •       | •        | •     | •        | •     |      | •        | •    | •               | •         | T      | •                                                |       | •         | T        | -         | • •       | •         | •                  | •            | П             | •            | • •     | •            |
| Fedyk                | Donald            | LabN Consulting, L.L.C.                                                   | •       | •        | •     | •        | •     |      | •        |      | •               |           |        |                                                  | •     |           |          | •         | •         |           | $oxed{L}$          | •            |               | •            |         | I            |
| Fellhauer            | Felix             | Robert Bosch GmbH                                                         | •       |          |       |          |       |      |          | Ш    |                 |           |        |                                                  |       |           |          |           | _         | •         | _                  |              | Ш             | _            |         | 4            |
| Finn                 | Norman            | Huawei Technologies Co., Ltd                                              | •       | •        | •     | ٠        | •     | •    |          | Н    | • •             | •         | •      |                                                  |       | •         |          | _ •       | 1         | +         | •                  | •            | Н             | •            | • •     | •            |
| Fischer              | Kai               | Siemens AG                                                                | +       | -        | L     | H        | _     | •    | _        | H    | _               | +         | ╁      | -                                                |       | -         |          |           | +         | +         | +-                 | H            | Н             | _            | +       | +            |
| Frank<br>Furch       | Aaron<br>Andreas  | Curtiss Wright Corporation Siemens AG;Siemens Corporation                 | •       | •        | •     |          | •     | _    | •        | •    |                 | +         | ╁      | •                                                |       |           |          | +         | +         | +         | •                  | •            | H             | •            | +       | •            |
| Garner               | Geoffrey          | Analog Devices                                                            | •       | •        |       | •        | •     | •    | •        | •    | ٦,              | +         | ╁      | •                                                |       |           | •        | _         | +         |           | •                  | •            | H             | •            | •       | •            |
| Gelish               | Joseph            | ANSI, SAE, NIST, DOE, ITS America                                         | Ť       | Ť        | Ť     | ř        | Ť     |      | •        | •    | -               | +         | +      | Ť                                                |       |           | Ť        | $\dashv$  | Ť         | +         | Ť                  | Ť            | H             | Ť            | +       | Ť            |
| Gilb                 | James             | GA-ASI, USD, Gilb Consulting, Inc.                                        |         | •        | •     | Г        |       |      | •        | П    |                 | T         | •      |                                                  |       |           |          | $\top$    | Ť         | T         | $\top$             | т            | П             | 十            | 十       | T            |
| Gopal                | Amrit             | Ford Motor Company                                                        |         |          |       |          | •     |      |          |      |                 |           | T      |                                                  |       |           |          |           |           |           |                    |              | П             | T            | T       | T            |
| Goto                 | Hideki            | Toyota Motor Corporation                                                  |         |          |       |          | •     |      |          |      |                 |           |        |                                                  |       |           |          |           |           |           | •                  |              |               |              |         | I            |
| Gravel               | Mark              | Hewlett Packard Enterprise                                                | •       | •        | •     | ٠        | •     |      | •        | •    | •               | _         | _      | •                                                | •     |           |          | •         | •         |           | •                  | •            | Ц             | •            | $\bot$  | 4            |
| Grosswindhage        |                   | NXP Semiconductors                                                        | $\perp$ | <u> </u> | _     | _        | Щ     |      |          | Н    | _ •             | 4         | _      |                                                  |       |           | _        | _         | 4         | $\perp$   | 4                  | $\vdash$     | $\sqcup$      | $\downarrow$ | _       | 4            |
| Gubow                | Martin            | Keysight Technologies                                                     | •       | •        | •     | _        | Н     |      | L        | H    | _               | +         | +      | •                                                |       | -         | •        | _}        | +         | +         | •                  | •            | Н             | -            |         | •            |
| Gunther              | Craig             | LabN Consulting, L.L.C.                                                   | •       | •        | •     | •        | •     |      | •        | •    | •               | +         | +      | •                                                |       | •         | $\dashv$ | -+        | •         | +         | •                  | •            | Н             | _            | •       | $\dashv$     |
| Gutierrez<br>Haddock | Marina<br>Stephen | L-Acoustics Stephen Haddock Consulting, LLC                               | •       | •        | _     | •        | ·     | H    | •        | •    | • •             | _         | •      | ·                                                | H     | •         | +        | _         | +         | +         | •                  | •            | Н             | •            | • •     | •            |
| Hajduczenia          | Marek             | Charter Communications                                                    | +       | Ť        | ř     | ř        |       |      | ۴        | H    | •               | +         | ┿      |                                                  |       | ⊣         | +        | +         | +         | +         | Ť                  | Ť            | H             | +            | +       | +            |
|                      |                   | China Mobile Communications Corporation                                   | $\top$  | t        | Т     | Т        |       | H    |          | H    |                 | $\dagger$ | T      | 1                                                |       | $\exists$ | $\dashv$ | $\dagger$ | $\dagger$ | $\dagger$ | T                  | Ħ            | П             | $\dagger$    | 十       | $\dagger$    |
| Han                  | Ruibo             | (CMCC)                                                                    | •       | •        | •     | L        | •     | •    | •        | •    | •               |           |        | •                                                |       | •         | •        | _]^       | Ľ         | <u>'</u>  | •                  | •            | Ll            | •            | •       | •            |
| Hantel               | Mark              | Rockwell Automation                                                       | •       | •        | •     | 匚        | •     | •    |          | •    |                 | I         | Γ      | •                                                |       |           | •        | I         | Ŀ         | •         | •                  |              | •             | •            | • •     | •            |
| Haojie               | Jin               | Aviage Systems*                                                           |         |          | L     | L        | Щ     | Ш    | •        | Ц    | $\perp$         | L         |        |                                                  |       | Ш         | _[       | _         | 1         | L         | $\perp$            | $oxed{oxed}$ | பு            | $\downarrow$ | $\perp$ | $\downarrow$ |
| Henry                | Jerome            | Cisco Systems, Inc.                                                       | $\bot$  | <u> </u> | _     | _        | H     |      |          | Ц    | _ •             | 4         | _      |                                                  |       | Ш         | _        | _         | 4         | $\perp$   | 4                  |              | Н             | 4            | 4       | 4            |
| Hernandez            | Marco             | National Institute of Information and                                     |         |          |       |          |       |      |          |      | ١.              |           |        |                                                  |       |           |          |           |           |           | 1                  |              | Ηĺ            |              |         |              |
| Hoffleit             |                   | Communications Technology (NICT)                                          | +       | •        | •     | $\vdash$ | •     | H    | •        | •    | ١.              | +         | +      | •                                                | H     | •         | +        | ٠,        | +         | +         | •                  | •            | $\vdash$      | ᆉ            | +       | •            |
| Hoffleit<br>Holness  | Thorsten<br>Marc  | Renesas Electronics Corporation Ciena Corporation                         | +       | -        | •     | $\vdash$ | -     |      | •        | •    | •               | _         | +      | •                                                |       | -         | +        | _         | •         | +         | ÷                  | ۲            | H             | •            | +       | +            |
| Hopf                 | Daniel            | Continental Automotive Technologies GmbH                                  | •       | •        | •     | •        | •     |      | •        | •    | 1               | Ť         | T      | •                                                |       | •         | $\dashv$ | _         | +         | +         | •                  | •            | Н             | •            | +       | $\forall$    |
| Hoshino              | Masayuki          | Continental Automotive                                                    | Ť       | Ė        | •     | Ħ        | •     |      |          | П    | $\dashv$        | T         | T      | Ė                                                |       | $\exists$ | $\dashv$ | Ť         | T         | $\top$    | Ť                  | Ħ            | П             | $\dagger$    | 十       | $\forall$    |
|                      | Ron               | IEEE STAFF                                                                |         | •        | •     |          | •     |      |          | •    |                 | Ť         | Τ      | •                                                |       | •         | ╗        | _         | •         | 丁         | •                  | •            | ┌┤            | •            |         | •            |
| Hotchkiss            |                   | Aptiv                                                                     | $\top$  | Г        | Γ     | Γ        |       |      | Г        | П    |                 |           |        |                                                  |       |           |          | •         | •         | •         | Т                  | П            | П             | •            | I       | I            |
| Hotchkiss<br>Hu      | Mark              | Aptiv                                                                     |         | _        | _     | _        |       | _    | _        | -    |                 |           |        |                                                  |       |           |          |           |           | _         | _                  | -            | -             | _            |         |              |
|                      | Mark<br>Woojung   | Microchip Technology, Inc.                                                | •       | •        | •     |          | •     |      | •        | •    |                 |           |        | •                                                |       | •         |          | •         | •         | Ţ         | •                  | •            | Ц             | •            | • •     | •            |
| łu                   |                   |                                                                           | •       | •        | •     |          | •     | •    | •        | •    |                 |           |        | •                                                |       | •         |          |           | •         | +         | •                  | •            | H             | •            |         | •            |

|                    |                    |                                                                        |         |      |       |          |      |     |     |          | т.       |                |              | _    |      |           |          |     |     | _   | , 202<br>23, 1 | _         |                                                  |    |                   | _         | ST |
|--------------------|--------------------|------------------------------------------------------------------------|---------|------|-------|----------|------|-----|-----|----------|----------|----------------|--------------|------|------|-----------|----------|-----|-----|-----|----------------|-----------|--------------------------------------------------|----|-------------------|-----------|----|
|                    |                    |                                                                        |         |      |       |          |      |     |     |          | - 13     | SIN -          | IEC/         | ICCI |      |           |          |     |     |     | 3, 8:0         |           |                                                  |    | _                 | 31        | l  |
|                    |                    |                                                                        |         |      |       |          |      |     |     |          | Clos     | ing I          | Plen         | ary, |      |           |          |     |     |     | :30-1          |           |                                                  |    |                   | ŀ         | l  |
|                    |                    |                                                                        |         |      |       |          |      | TS  | N - | IEC      | /IEI     | E 60           | 802          | , Th | ı Ju | ıl 13     | 3, 20    | 23, | 10: | 30- | -12:3          | O CI      | EST                                              |    |                   | ŀ         | l  |
|                    |                    |                                                                        |         |      |       |          |      |     |     |          |          |                | _            |      |      | _         |          |     |     |     | 30 C           | _         |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         |      |       |          |      | TS  |     |          |          |                |              |      | _    |           | _        |     |     |     | CEST           | Г         |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         | TCI  | M     | EC       | /IEE | E 6 |     |          |          | , Thu<br>I Jul |              |      |      |           |          |     |     | _   | ,1             |           |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         | 131  | 4 - 1 | LC       | ILL  |     |     | _        |          | l 12,          | _            |      | -    |           |          |     | _   | "   |                |           |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         |      |       | Sec      | urit |     |     |          |          | , 202          |              |      |      |           |          | _   |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    | TSN -                                                                  | IEC     | /IEI |       |          |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         |      |       |          |      |     |     | _        |          | , 10:          |              |      | _    | ST        |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    |                                                                        |         |      | •     |          |      |     | _   |          | _        | :30-           |              |      | ST   |           |          |     |     |     |                |           |                                                  |    |                   | - }       | ı  |
|                    |                    | D002.1                                                                 |         |      | _     |          |      | _   |     | _        |          | -10:0          |              | 1    |      |           |          |     |     |     |                |           |                                                  |    |                   | - }       | ı  |
|                    |                    | P802-I<br>Nendic                                                       |         | _    |       |          | _    |     | _   |          |          |                | _            |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    | 802.1/802.15 Joint, T                                                  |         |      |       |          |      |     |     |          |          | _              | 1            |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    | YANGsters, Tue                                                         |         |      |       |          |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | - }       | l  |
|                    |                    | TSN - P802.1DP/AS6675, Tue Jul                                         |         | _    |       | _        |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   |           | l  |
|                    |                    | TSN - P802.1DP/AS6675, Tue Jul 11,                                     |         |      |       |          |      | _   | ST  |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    | TSN - IEC/IEEE 60802, Tue Jul 11, 20                                   | _       |      |       |          | _    | ST  |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | l  |
|                    |                    | TSN - P802.1DG, Tue Jul 11, 2023,<br>Maintenance, Tue Jul 11, 2023, 8: |         |      |       |          | SΤ   |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   |           | l  |
|                    |                    | TSN, Mon Jul 10, 2023, 13:30-                                          |         |      |       | 1        |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | ŀ         | ı  |
|                    |                    | Opening Plenary, Mon Jul 10, 2023, 10:30-12:                           |         |      | 7     |          |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   |           | ı  |
|                    |                    | TSN, Mon Jul 10, 2023, 8:00-10:00                                      |         | _    | 1     |          |      |     |     |          |          |                |              |      |      |           |          |     |     |     |                |           |                                                  |    |                   | -         | ĺ  |
| Last name          | First name         | Affiliation                                                            | 1       |      | L     | L        |      |     |     |          |          |                | L            |      |      |           |          |     |     | ⅃   | $\perp$        |           |                                                  | Ш  |                   |           |    |
| Jabbar             | Abdul              | General Electric Company (GE)                                          | 1       | L    | •     | Ĺ        | Щ    |     | •   | •        | Ц        | •              | Ĺ            |      |      |           | Ц        | -   | _   | •   | $\perp$        | •         | Ĺ                                                | Ц  | $oldsymbol{\bot}$ | •         | _  |
| Kabra              | Lokesh             | Synopsys, Inc.                                                         | $\perp$ |      | •     | L        | Щ    |     | •   | •        | Ц        | •              | $\downarrow$ | •    |      | •         | •        | _   | _   | •   | •              | +-        | •                                                | Ц  | $\dashv$          | •         | ٠  |
| Karl               | Michael            | Marvell Semiconductor, Inc.                                            | •       | _    | •     | •        | •    | •   |     | •        | •        | • •            | _            |      |      |           | •        | 4   | -   | •   | •              | •         | _                                                | •  | •                 | _         | •  |
| Kehrer             | Stephan            | Hirschmann Automation and Control, Inc.                                | •       | •    | •     | •        | •    | •   |     | Ļ        | •        | • •            | +            | •    |      | •         |          | -   | •   | +   | +              | •         | -                                                | •  | •                 | •         | ·  |
| Kerry<br>Kiessling | Stuart<br>Marcel   | OK-Brit;Self  Beckhoff Automation                                      | •       | •    | •     |          |      | •   |     | •        | H        | •              | ╁            | •    | •    |           |          |     | • ( | •   | • •            | •         | <u> </u>                                         | •  | •                 | $\dashv$  | _  |
| kim                | ajung              | sejong                                                                 | Ť       | Ť    | Ť     | H        |      | •   |     | •        |          | Ť              | ╁            | Ť    | Ť    | •         | -        | -   | •   | +   | Ť              | Ť         | <del>                                     </del> | •  | Ť                 | $\dashv$  | Τ  |
| Kitazawa           | Shoichi            | Muroran IT                                                             |         |      |       |          |      |     |     | •        |          | •              | T            |      |      | Ť         |          |     |     | 1   | +              | 1         |                                                  | Ħ  | 寸                 | $\dashv$  | _  |
| Kivinen            | Tero               | Self Employed                                                          | 1       |      | Г     |          |      |     |     |          |          | •              | T            |      |      |           | T        | T   |     | T   | T              | 1         |                                                  | П  | T                 | $\neg$    | ī  |
| Kobayashi          | Takumi             | Nitech/YRP-IAI*                                                        |         |      |       |          |      |     |     |          |          | •              |              |      |      |           |          |     |     |     | I              |           |                                                  |    |                   |           |    |
| Kohno              | Ryuji              | YNU/YRP-IAI                                                            |         |      | L     |          |      |     |     |          |          | •              | _            |      |      |           |          |     | •   | 1   | 4              |           | _                                                | Ш  |                   |           | L  |
| KONDO              | Kenji              | Yaskawa Electric Corp                                                  | •       | •    | •     |          | •    | •   |     |          |          | _              | +            | -    |      |           | •        | 4   | •   | •   | +              | •         | <u> </u>                                         | •  | 4                 | •         | •  |
| Krebs<br>Lai       | Ann<br>Gavin       | Apple* Moxa Networking Co., Ltd.                                       | •       | •    |       | H        | •    | •   | •   | •        |          | •              | +            | •    |      | $\vdash$  | •        | +   | +   | •   | +              | •         | <u> </u>                                         |    | •                 | •         |    |
| Lemsitzer          | Stephan            | NXP Semiconductors*                                                    | Ť       | Ť    | ۲     | H        | Ť    | •   | Ť   | ۲        |          | •              | ╁            | Ť    |      |           | Ť        | +   | Ŧ   | +   | +              | Ť         | <del>                                     </del> | H  | Ť                 | Ť         | Ť  |
| Levy               | Joseph             | InterDigital, Inc.                                                     |         |      | t     | Н        |      |     |     |          |          | Ť              | •            |      |      |           |          | 1   | 1   | †   | +              |           |                                                  | Ħ  |                   | $\exists$ | Τ  |
| Li                 | Xin                | Huawei Technologies Co., Ltd                                           | 1       | •    | Г     |          |      |     |     |          |          |                | T            |      |      |           | T        | T   |     | T   | $\top$         | 1         |                                                  | П  | T                 | $\neg$    | ī  |
| Li                 | Yizhou             | Huawei Technologies Co., Ltd                                           | •       |      |       | •        |      |     | •   | •        |          | • •            | ·            | •    | •    | •         |          |     | •   |     | • •            | •         |                                                  | •  |                   | •         | Ī  |
| Li                 | zhiqiang           | lizhiqiangdx@163.com                                                   | •       | +    | •     | •        | •    | •   | •   | •        |          | •              | _            |      |      |           |          |     | _   | 1   | 4              |           |                                                  | Ш  | _                 |           | H  |
| Liu                | Peng .             | Huawei Technologies Co., Ltd                                           | •       | _    | _     |          |      |     |     |          |          | _              | +            | •    |      |           | _        | 4   | _   | -   | • •            | _         | <u> </u>                                         | Н  | 4                 | •         | •  |
| Lopes              | Joao               | Qualcomm Incorporated                                                  | •       | _    | •     | ·        | •    | •   | _   | •        | •        | • •            | +            | •    | _    | -         | •        | _   | +   | -   | • •            | _         | -                                                | •  | •                 | •         | •  |
| Lv<br>Mangin       | Lily<br>Christophe | Huawei Technologies Co., Ltd  Mitsubishi Electric Corporation          | ┿       | •    | •     | $\vdash$ | •    | •   | •   | •        | H        | •              | +            | •    | •    | $\exists$ | •        | •   | •   | •   | •              | •         | $\vdash$                                         | •  | $\dashv$          | •         | _  |
| Mansfield          | Scott              | Telefon AB LM Ericsson                                                 | •       | +    | •     | •        | •    | •   |     | ŕ        | •        | Ť              | •            | Ť    | •    | $\exists$ | _        | •   | +   | -   | • •            | _         | •                                                | •  | •                 | •         | •  |
| McCall             | David              | Intel                                                                  | •       | •    | •     | •        | •    |     | •   | •        |          | ┱              | Ţ            | •    |      |           | •        |     | Ţ,  | •   | 丁              | •         |                                                  | •  | ∄                 | •         | •  |
| Meisinger          | Andreas            | Siemens AG                                                             | •       | •    | •     | •        | •    |     | •   |          | •        | $\Box$         | Ι            | •    |      |           | •        | 1   | •   | I   | •              | •         |                                                  | •  | •                 | •         | _  |
| Nakano             | Hiroki             | CAHI Corporation;Kyoto University;National                             | •       | •    |       |          | •    |     | •   | •        |          | •              | , [ ]        | •    |      | •         |          |     | •   |     | •              | •         |                                                  | •  | •                 | •         | 1  |
|                    |                    | Institute of Information and Communications                            |         | 1    | ₩     | Ė        |      | H   |     |          | Н        | +              | +            | Ė    |      |           | 4        | _   | _   | +   | +              |           | ┡                                                | Ш  | $\dashv$          | 4         | _  |
| Niess<br>Obradovic | Adriaan<br>Dragan  | Robert Bosch GmbH<br>Siemens AG                                        | •       | _    | •     | $\vdash$ | •    | •   | •   | •        | Н        | •              | +            | •    |      | •         | •        | +   | •   | •   | •              | •         | •                                                | •  | •                 | •         | •  |
| Orlando            | Christian          | IEEE STAFF                                                             | +       | Ť    | ۲     | $\vdash$ | Ť    | •   | Ť   | ř        | $\vdash$ | +              | +            | Ť    |      | $\vdash$  | •        | +   | _   | •   | +              | +         | Ť                                                | H  | H                 | -         | j  |
|                    |                    | National Institute of Information and                                  | $\top$  | 1    | t     | Т        | Ħ    |     |     | Н        | H        | $\dashv$       | $\dagger$    | 1    |      | $\exists$ | Ť        | +   | 1   | †   | 十              | $\dagger$ | t                                                | П  | $\dashv$          | $\neg$    | _  |
| Osuga              | Toru               | Communications Technology (NICT)                                       |         |      |       | L        |      |     | L   |          |          |                |              |      |      |           |          |     | •   | _]  |                |           |                                                  |    | [                 | _         | L  |
| Parsons            | Glenn              | Ericsson AB                                                            |         | •    | •     | •        | •    |     | •   | •        | •        | • •            | •            |      | •    | •         | •        | •   | • • | •   | •              | •         |                                                  | •  | •                 | •         | Ī  |
| Pearn              | Richie             | NXP Semiconductors                                                     | _       | •    | •     |          | •    |     | •   | •        | Ц        | •              | $\bot$       |      |      |           | •        | 4   | _   | •   | $\bot$         | •         | <u> </u>                                         | •  | _                 | •         | ⊢  |
| Proell             | Dieter             | Siemens AG                                                             | •       | •    | •     | •        | •    | •   | -   | $\vdash$ | •        | +              | +            | •    |      | Ц         | •        | -   | 4   | •   | •              | •         | ┡                                                | •  | •                 | •         | •  |
| Randall            | Karen              | INDEPENDENT; Tallac Networks,                                          | 1       | •    | •     | •        | •    | •   |     |          | •        | -              | ٠.           |      | •    | •         |          |     | •   |     |                | •         |                                                  | •  |                   | ŀ         | ĺ  |
| Riegel             | Maximilian         | Inc;Tallac/Self Nokia                                                  | +       | +    | H     | H        | H    | •   | -   | H        | Н        | +              | +            | 1    |      | Н         | $\dashv$ | +   | +   | +   | +              | +         | <u> </u>                                         | •  | $\dashv$          | $\dashv$  | _  |
| Rodine             | Craig              | Sandia National Laboratories                                           | •       | •    | •     | •        | •    | •   | •   |          | H        | •              | +            | •    | •    | $\dashv$  | $\dashv$ | •   | ٦,  | •   | •              | •         | H                                                | •  | $\dashv$          | $\dashv$  | _  |
| Rodrigues          | Silvana            | Huawei Technologies Co., Ltd                                           | •       | +    | •     | •        | •    |     | •   | •        | H        | $\top$         | T            | •    |      | П         | •        | 1   | +   | •   | •              | _         | T                                                | -  | •                 | •         | •  |
| Rouyer             | Jessy              | Nokia                                                                  |         | •    | •     | •        | •    |     | •   |          |          | • •            | •            |      |      | •         |          |     | •   |     | •              | •         |                                                  | •  |                   |           | Ī  |
| Roy                | Rajeev             | NXP Semiconductors                                                     |         | •    | •     | •        | •    | •   | •   | •        | Ц        |                | Ļ            | •    |      | •         | Ц        | _[  | •   | ⅃   | •              | •         | L                                                | •  | •                 | •         | •  |
| Sand               | Stephan            | *                                                                      | 1       | 1    |       |          |      |     |     |          |          | •              | 1            |      |      |           |          |     | 1   |     |                | 1         | 1                                                | Ιl | . 1               | ļ         | ı  |

|                     | +                                                                                                            |                                                   |         |       |       |          | -    |          |          | -        |          | т,       |          | IFC      | /IFF     | F 60     | 1802     | Fr | i lul    | 114      | 20       | 23  | 13:3  | .0_1: | 2·00     | n C | FST |
|---------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------|-------|-------|----------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|----------|----------|----------|-----|-------|-------|----------|-----|-----|
|                     |                                                                                                              |                                                   |         |       |       |          |      |          |          |          | т.       |          |          |          |          |          |          | _  |          |          | _        | _   | :30-1 |       |          |     | _   |
|                     |                                                                                                              |                                                   |         |       |       |          |      |          |          |          | - '      | ) N      | · ILC    | <i>,</i> |          |          |          |    | _        | _        | _        |     | -10:0 |       | _        | 7   | 1   |
|                     |                                                                                                              |                                                   |         |       |       |          |      |          |          |          | Clos     | ing      | Ple      | narv     |          | _        |          |    | _        |          | _        |     |       |       | 7        |     |     |
|                     | Closing Plenary, Thu Jul 13, 2023, 13:30-18:00 CEST TSN - IEC/IEEE 60802, Thu Jul 13, 2023, 10:30-12:30 CEST |                                                   |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     | TSN, Thu Jul 13, 2023, 10:30-12:30 CEST                                                                      |                                                   |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     | TSN - P802.1DG, Thu Jul 13, 2023, 8:00-10:00 CEST<br>Nendica, Thu Jul 13, 2023, 8:00-10:00 CEST              |                                                   |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         | TS    | N - I | IEC,     | /IEI | EE 6     |          |          |          |          |          |          | 23, 1    |          |          |    |          | _        |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         |       |       |          |      | TS       | N,       | We       | d Ju     | l 12     | , 20     | 23,      | 13:3     | 0-1      | 8:00     | CE | ST       |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         |       |       | Sec      | uri  | ty,      | We       | d Ju     | ıl 12    | , 20     | )23,     | 13:      | 30-1     | 8:0      | O CE     | ST |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | TST                                               | I - IEC | /IE   | EE 6  | 5080     | )2,  | We       | d Ju     | ıl 1:    | 2, 20    | 023      | , 10:    | 30-      | 12:3     | 0 CI     | EST      |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         |       | TS    | SN,      | We   | d Ju     | ul 1     | 2, 2     | 023      | , 10     | :30-     | 12:3     | 30 C     | EST      | 1        |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   | Se      | cur   | ity,  | We       | d J  | ul 1     | 2, 2     | 023      | 3, 10    | :30      | -12:     | 30 C     | EST      | 1        |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              |                                                   |         | TSN   | , w   | ed.      | Jul  | 12,      | 202      | 23, 8    | 8:00     | -10      | :00      | CES      | г        |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | P802                                              | -REV    | , W   | /ed   | Jul      | 12,  | 202      | 23,      | 8:00     | )-10     | :00      | CES      | Т        |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | Nend                                              | ca, Tı  | ıe J  | ul 1  | 1, 2     | 02   | 3, 1     | 9:0      | 0-2:     | 1:00     | CE       | ST       |          |          |          |          |    |          |          |          |     |       |       |          | 1   |     |
|                     |                                                                                                              | 802.1/802.15 Joint,                               | Tue J   | ul 1  | 1, 2  | 2023     | 3, 1 | 8:0      | 0-1      | 9:00     | ) CE     | ST       |          |          |          |          |          |    |          |          |          |     |       |       |          | 1   |     |
|                     |                                                                                                              | YANGsters, Tu                                     | e Jul 1 | 11, 2 | 2023  | 3, 1     | 6:0  | 0-1      | 8:0      | CE       | ST       |          |          |          |          |          |          |    |          |          |          |     |       |       |          | 1   |     |
|                     |                                                                                                              | TSN - P802.1DP/AS6675, Tue Ju                     | _       |       | _     |          |      |          |          | ST       |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          | 1   |     |
|                     |                                                                                                              | TSN - P802.1DP/AS6675, Tue Jul 1                  | _       | _     |       |          |      |          | -        | l        |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          | 1   |     |
|                     |                                                                                                              | TSN - IEC/IEEE 60802, Tue Jul 11, 2               | 023, 1  | L3:3  | 0-1   | 5:3      | O CI | EST      |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | TSN - P802.1DG, Tue Jul 11, 2023                  |         |       |       |          | 7    | 1        |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | Maintenance, Tue Jul 11, 2023,                    |         |       |       | _        |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | TSN, Mon Jul 10, 2023, 13:30                      |         |       | -     | 1        |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | Opening Plenary, Mon Jul 10, 2023, 10:30-1        |         | _     | 1     |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | TSN, Mon Jul 10, 2023, 8:00-10:00                 | CEST    | Г     | ┖     | ┖        |      |          | L        |          |          |          | 4        |          |          |          | Ш        |    | _        | _        | _        |     |       | 丄     | Ш        |     | 丰   |
| Satou               | Atsushi                                                                                                      | Yokogawa*                                         |         | 1     | _     | _        |      | <u> </u> |          |          |          |          | _        |          | Щ_       | <u> </u> |          |    |          | _        | _        | -   | •     | ┺     |          |     | 丰   |
| Schewe              | Frank                                                                                                        | Phoenix Contact                                   | •       |       | •     | +        | •    | •        | <u> </u> | L        | •        | _        | 4        | •        | _        | <u> </u> | Ш        |    | -        | •        | _        | _   | •     | •     | Щ        | •   | •   |
| Seewald             | Maik                                                                                                         | Cisco Systems, Inc.                               | •       | •     | •     | _        | •    | •        |          | •        |          | _        | 4        | •        | <u> </u> |          | •        |    | _        | •        | •        |     | •     | •     | •        | •   | •   |
|                     |                                                                                                              | Analog Devices, Inc.; Mitsubishi Electric         |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
|                     |                                                                                                              | Corporation; Phoenix Contact GmbH & Co.           |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
| Specht              | Johannes                                                                                                     | KG;PROFIBUS Nutzerorganisation e.V.;Self;S        | elf     | •     | •     |          | •    |          | •        | •        |          | •        | •        | ١.       | ١.       | •        |          |    | •        | •        | •        |     | •     | •     |          | •   | •   |
|                     |                                                                                                              | Employed;Siemens AG;Texas Instruments, Ir         |         |       |       |          |      |          |          |          |          |          |          |          |          |          |          |    |          |          |          |     |       |       |          |     |     |
| a                   |                                                                                                              | · · ·                                             | _       | -     | 1     | ┞        | -    |          |          |          |          | 4        | +        | 4        | -        | <u> </u> | Н        |    | _        | 4        | _        | 4   | +     | +     | Н        | -   | +   |
| Stanica             | Marius                                                                                                       | ABB AB                                            | •       | •     | •     | _        | •    | •        | •        | ┝        |          | _        | •        | •        | +-       | -        | •        |    | -        | •        | _        | 4   | -     | ┿     | H        | -   | +   |
| Steiner             | Wilfried                                                                                                     | TTTech Computertechnik AG                         | _       | ╄     | ╀     | •        | •    | -        | •        | •        |          | •        | •        | •        | +        | -        | H        |    | -        | 4        | +        | •   | -     | ┿     | H        | -   | +   |
| Steyer-Ege          | Janik                                                                                                        | Robert Bosch GmbH                                 | _       | ╀     | ╀     | ┢        | -    | -        |          | ┝        |          | $\dashv$ | +        | +        | +        | -        | H        |    | -        | 4        | •        | 4   | +     | +     | H        | -   | +   |
| Strohmeier          | Heiko                                                                                                        | Robert Bosch GmbH  Dlink*                         | _       | +-    | ╁     | ╀        |      | -        | -        | H        |          | -        | +        | -        | +        | +        | Н        |    | $\dashv$ | +        | •        | +   | +     | +     | Н        | -   | +   |
| Tao                 | Roger<br>Geoff                                                                                               | Self, GraCaSI Standards Advisors                  | •       | +     | +     | +        | ┢    | $\vdash$ | ┢        | ┝        | Н        | +        | +        | •        | +        | ┝        | Н        | +  | $\dashv$ | $\dashv$ | +        | +   | +     | +     | Н        | ╁   | +   |
| Thompson<br>Tse     | Richard                                                                                                      | Microchip Technology, Inc.                        | +       | +     | +     | $\vdash$ | •    | ┢        | •        |          | $\vdash$ | $\dashv$ | +        | +        | +        | ┝        | $\vdash$ | +  | $\dashv$ | $\dashv$ | +        | •   | +     | +     | $\vdash$ | ╁   | +   |
| Varga               | Balazs                                                                                                       | Ericsson AB                                       | +       |       |       | ١.       | :    | ┝        | :        | :        | $\vdash$ | $\dashv$ | +        | ٠.       | +        |          | $\vdash$ | +  | •        | $\dashv$ | _        | _   | •     | •     | •        | •   | +   |
| Wang                | Jing                                                                                                         | China Mobile Limited                              | ١.      | _     |       | •        | Ť    | $\vdash$ | •        | •        | $\vdash$ | ┪        | +        | +        | ╁        | ŀ        | $\vdash$ | +  | •        | $\dashv$ |          | -   | •     | _     |          |     |     |
| Weber               | Karl                                                                                                         | Beckhoff Automation                               | -       | _     |       | _        | H    | ┢        | •        | •        | H        | •        | +        | •        | +        | ۲        | •        | +  | _        | •        | •        | _   | •     | Ť     | H        | ť   | Ť   |
| Wendt               | Matthias                                                                                                     | Signify                                           | +       | ╁     | ╀     | H        | H    | H        | ┢        | ř        | $\vdash$ | •        | +        | +        | +        | H        | -        | +  | $\dashv$ | -        | +        | +   | +     | +     | $\vdash$ | H   | +   |
| Winkel              | Ludwig                                                                                                       | PNO e.V.                                          | •       | •     | •     | •        | •    | •        | H        | H        | •        | -        | +        | ١,       | +        | H        | •        | +  | $\dashv$ | •        | •        | +   | •     | •     | •        | •   |     |
| Wood                | Tim                                                                                                          | General Electric Company (GE)                     | ٠.      | +-    | _     | •        | _    | Ť        | •        | •        | H        | •        | +        |          | -        |          | -        | -  | •        | +        | ╁        | +   | +     | ┿     | Ť        | •   | _   |
| Yamaura             | Takahiro                                                                                                     | TOSHIBA Corporation                               | ٠.      | _     | •     | _        | •    | •        | Ť        | ٠        | Н        | ┪        | +        | +        | +        | Ť        | Н        | -  | -        | $\dashv$ | +        | •   | •     | ١.    | •        | ۲   | ╁   |
| Yao                 | Kehan                                                                                                        | China Mobile Limited                              | Ť       |       | Ť     | ۴        | Ť    | Ť        | H        | ř        | H        | +        | $\dashv$ | ť        | +        | Ť        | H        | 1  | ┪        | $\dashv$ | +        | +   | +     | ┿     | ۲        | t   | +*  |
|                     | _                                                                                                            |                                                   |         | +*    | +     | +        | H    | +        | +        | $\vdash$ | H        | _        | +        | +        | +        | +        | Н        |    | +        | $\dashv$ | +        | +   | +     | +     | Н        | H   | +   |
| Yao                 | Ni                                                                                                           | IAviage Systems*                                  |         |       | 1     |          | •    |          |          |          |          |          |          | ,        |          | 1        |          |    |          |          |          | - 1 |       |       |          |     |     |
| Yao<br>Yufit        | Ni                                                                                                           | Aviage Systems*  CEVA DSP*                        | +       | +     | ┢     | ┢        | •    | -        | •        | •        |          |          | +        | +        |          | -        | Н        |    | $\dashv$ | $\dashv$ | $\dashv$ | +   | +     | +     | H        |     | 十   |
| Yao<br>Yufit<br>Zeh | Ni<br>Alex<br>Alexander                                                                                      | Aviage Systems*  CEVA DSP*  Infineon Technologies |         | •     | •     | •        | •    | •        | •        | •        |          | •        | 1        | _        | •        |          |          |    | •        | 4        |          | •   | •     |       | •        | •   | Ļ   |

<sup>(\*)</sup> Last and first names and affiliation possibly incorrect as based on Webex access information or otherwise, and either outdated or not provided in IMAT.

# 2 802.1 Officers and Leadership

- Chair: Glenn Parsons
- Vice-Chair and Recording Secretary: Jessy Rouyer
- Executive Secretary: Stephan Kehrer
- Liaison Secretary: Karen Randall
- Maintenance TG Chair: Vacant
- Security TG Chair: Mick Seaman
  - Security TG Vice-Chair: Karen Randall
- TSN TG Chair: János Farkas
  - o TSN TG Vice-Chair: Craig Gunther
  - o TSN TG Secretary: Johannes Specht
  - IEC/IEEE 60802 Joint Project Chair: Ludwig Winkel
  - o IEC/IEEE 60802 Joint Project Secretary: Josef Dorr
  - o IEC/IEEE 60802 Joint Project System ad hoc Chair: Mark Hantel
  - o IEC/IEEE 60802 Joint Project Time Sync ad hoc Chair: David McCall
  - o IEEE P802.1DP/SAE AS6675 joint project co-Chairs: Abdul Jabbar & János Farkas
  - o IEEE P802.1DP/SAE AS6675 joint project Secretary: Marina Gutiérrez
- Nendica Chair: Roger Marks
- YANGsters Chair: Scott Mansfield
  - o YANGsters Vice-Chair and Secretary: Stephan Kehrer
- Maintenance of Email exploder: Mark Hantel and Hal Keen
- · Maintenance of website: Mark Hantel, Roger Marks, John Messenger

# 3 Opening Plenary Meeting

See section 1 for attendance and affiliation information.

**Call to order** Jul 10, 2023 at 10:30 CEST by the Chair who presided. The Recording Secretary wrote the minutes.

The Chair presented "Opening Plenary July 2023" finalized as <a href="http://www.ieee802.org/1/files/public/minutes/2023-07-opening-plenary-slides.pdf">http://www.ieee802.org/1/files/public/minutes/2023-07-opening-plenary-slides.pdf</a>.

During this presentation, the Chair:

- Introduced the agendas on slide 2 that were tacitly approved.
- Reminded all participants that access to this session requires a registration fee (slide 3)
- Provided mixed mode session information (slide 4) and mixed mode guidelines (slides 5-7).
- Reviewed meeting decorum, including the policies on public reporting, and on photography or recording (slide 8).
- Asked participants to record attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker (slide 9).
- Presented slide 10 thereby providing the following information:
  - IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual:
  - Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.
- Showed IEEE SA Copyright Policy slides 11 and 12.

 Showed slides 13 through 17 (reproducing slides 0 through 4 of the IEEE SA PatCom Patent Slides for Standards Development Meetings, separately available at <a href="http://standards.ieee.org/about/sasb/patcom/materials.html">http://standards.ieee.org/about/sasb/patcom/materials.html</a>).

#### The Chair:

- Presented information on these slides including:
  - Instructions for the WG Chair;
  - Participants have a duty to inform the IEEE;
  - Ways to inform IEEE;
  - Other guidelines for IEEE Working Group meetings; and
  - Patent-related information.
- Advised WG attendees that:
  - IEEE's patent policy is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
  - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
  - There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- Made the "Call for Potentially Essential Patents", i.e. provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard.
  - There were no responses to the call.
- Presented slides 18 through 20 reproducing the IEEE SA slides 1 through 3 approved by SASB in June 2019 regarding IEEE Codes of Ethics and Conduct, participation in the "individual process", and dominance, thereby conveying that:
  - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics
     & Conduct;
  - Participants in the IEEE-SA "individual process" shall act independently of others, including employers; and
  - IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints.
- Made subgroup announcements (slide 21) thereby reminding subgroup Chairs of their obligation to:
  - Remind participant at the start of the first subgroup meeting that the meeting is subject to the policies in "MEETING INTRODUCTION" presentations made available beforehand (as announced in the opening plenary meeting) and, in the case of a Task Group (TG), to make the "Call for Potentially Essential Patents" and minute any responses to it;
  - After any recess, announce that the meeting remains subject to the policies as read and displayed in the opening plenary meeting; and
  - At meeting start and after any recess, ask participants to record attendance in IMAT and, if unable to do so, to promptly provide their affiliation to the minute taker.
- Reminded participants of the various plenary session registration fees applying and attendant registration details (slide 22), noting fee waivers may be granted in advance, exceptionally.
- Shared information about food and social logistics (slide 23).
- Provided general information regarding meeting contributions, minutes, schedule for all Working Groups, website (slide 24).

- Introduced 802.1 officers and leadership (slide 25).
- Discussed 802.1 WG Process (slide 26) including the "New work" process as previously introduced and leveraging Nendica towards vetting all new 802.1 work.
- Provided an update on current joint development procedures (slide 27).
- Reminded 802.1 voting members of their obligations regarding declaring affiliation(s) and employer(s) (slide 28), electronic ballots (ePolls) conducted between sessions (slide 29), requesting and retaining voting membership (slide 30), and responding to WG ballot series (including ePolls) as well as regarding the consequences of not responding to WG ballot series (including ePolls) (slide 31).
- Reviewed the list of 802.1 voters (slide 32), including information about individuals who
  may gain (slides 33 and 34), will lose (slide 35), may lose (slide 36) 802.1 voting
  membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this session (slide 37).
- Had the Executive Secretary introduce information about:
  - o The Sep 11-15, 2023 interim session (slide 38).
  - An offer to host the Jan 2024 interim session (slide 39).
    - Nader Zein presented "Proposal Hosting IEEE802.1 January 2024 Interim in Heidelberg Germany"
       <a href="https://www.ieee802.org/1/files/public/docs2023/admin-Zein-Heidelberg-interim-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/admin-Zein-Heidelberg-interim-0723-v01.pdf</a>, which was discussed.
  - The May 2024 interim session (slide 40).
- Had the Executive Secretary provide an overview of the schedule for future interim sessions (slide 41):
  - o September 11-15, 2023
    - Hosted by GE in Niskayuna, NY, USA as in-person session with provisions to support mixed mode
  - January 22-26, 2024
    - Offer from NEC Laboratories Europe in Heidelberg, Germany as inperson session with provisions to support mixed mode
  - May 12-17, 2024
    - Hosted by 802 wireless group as in-person session with provisions to support mixed mode (tbc)
      - Location: Warsaw. Poland
  - September 2024
    - Possible option to co-locate with the 802 wireless group is currently being discussed
      - Date: September 8-13, 2024
      - Waikoloa, HI, USA
- Had the Executive Secretary provide an overview of the schedule for future plenary sessions (slide 42):
  - o July 9-14, 2023 Berlin, Germany
    - Estrel Berlin
  - November 12-17, 2023 Honolulu, HI, USA
    - Hawaiian Village
  - March 10-15, 2024 Denver, CO, USA
    - Hyatt Regency Denver at Colorado Convention Center
  - July 14-19, 2024 Montreal, QC, Canada
    - Sheraton Le Centre Montreal
  - o November 10-15, 2024 Vancouver, BC, Canada
    - Hyatt Regency

- March 9-14, 2025 Atlanta, GA, USA
  - Hilton Atlanta
- Conducted the following straw polls (slide 43):
  - 1. If you will attend one of the three meetings on Friday, July 14 2023 (802 EC Closing Plenary, the 802.11 Closing Plenary or the 802.1 " IEC/IEEE 60802" meeting) will you participate (eat/drink):

With breakfast? - 50
With the AM Break? - 44
With lunch? - 43
With the PM Break? - 34

- 2. If the 2023 November 802 Plenary Session were held at the Hilton Hawaiian Hotel in Honolulu, HI, USA as an in-person only session, would you attend?
  - Yes 30 No 26 Abstain 8 Did not respond 11
- 3. If the 2023 November 802 Plenary Session were held at the Hilton Hawaiian Hotel in Honolulu, HI, USA as mixed-mode session, will you attend:
  - Attend In-person 28
     Attend Virtually (remotely)- 27
     Will not attend plenary 6
     Did not respond 15
- Previewed the straw poll regarding this plenary session to be conducted during the 802.1 closing plenary meeting (slide 44):
  - o 1. Would you like to come back to this venue?
    - Yes No Did not respond -
  - 2. Did you go to the social?
    - Yes No Did not respond -
  - o 3. Did you like the social?
    - Yes No Did not respond -
- Provided pointers to the LMSC schedule of EC/WG/TAG meetings to be held during this plenary session (slide 45).
- Reported the following items out of the 802 Executive Committee (EC) plenary session #133 (slide 46):
  - o IEEE 802 chair election March 2024
    - Paul Nikolich will not run for IEEE 802 chair, James Gilb has declared his candidacy
    - The 802 chair also appoints several EC positions. Anyone can be nominated.
  - IEEE SA 25<sup>th</sup> Anniversary
    - Celebration event Nov 6-8, Shenzhen, China
  - IEEE 802 Milestone (EC-23-129)
    - Silicon Valley at Computer History Museum current process delay
    - Nearly 30,000 pages in IEEE 802 standards
  - o 802 rules update (<u>EC-23-123</u>)
    - FrameMaker license distribution policy
  - Venues (EC-23-130)
    - July 2023 544 in-person, 384 remote attendees including ~30 students
    - Future in person venues contracted into 2027, RFP will be sent out shortly for remaining slots
    - Proposal to reinstate extra fee for not staying at meeting hotel
      - This last item was discussed in this 802.1 meeting.
  - Treasurer (EC-23-119)
    - Current cash balance over \$1.8M due to increase in attendance, reserve target \$1.5M on track

- 2023 budget is for break even and is on track July may be a surplus
- Introduced IEEE SA staff supporting IEEE 802 (slide 47):
  - Jodi Haasz
    - IEEE 802 lead, supports dot03 and dot18 groups title:
    - Operational Program Management Senior Manager
  - Ron Hotchkiss
    - supports dot01 group
    - Operational Program Management Program Manager
  - Christy Bahn
    - supports dot11, dot15, dot19 and, dot24 groups
    - Operational Program Management Senior Program Manager
  - Catherine Berger
    - 802 editorial support
    - Senior Program & Special Project Manager
  - Lisa Perry
    - 802 editorial support
    - Content Production management
  - Christian Orlando (remote)
    - assisting Jodi, Ron, and Christy
    - Operational Program Management Program Manager
- Encouraged voting in IEEE elections taking place August 15 October 2, 2023 (slide 48).
- Provided IEEE 802 program status pointers (slide 49), mentioning the following notable items (slide 50):
  - o 802.1 3<sup>rd</sup> in standards downloads with 17k
  - o 802.1Qcz-2023 & 802.1AEdk-2023 publications scheduled for August 2023
  - myProject and DVL udpates
  - o 802.1BR expired
  - Expiring PARs Dec 2023
    - P802.1Qcj, P802.1Qcw, P802.1DF, P802.1DG, P802.1Qdj
- Provided information about public review (slide 51).
- Pointed out 802.1 PARs, PAR modifications and CSDs (slide 52) as well as 802.11bn PAR and CSD (slide 53) that are up for vote or finalization during this IEEE 802 plenary session.
- Had János Farkas introduce the tutorial to be held at this plenary session (slide 54).
- Had the Liaison Secretary co-present liaison resources (slide 55), and present the set
  of incoming liaisons to be handled by specific subgroups as listed on slide 56 as well as
  the status of outgoing liaisons, either sent since the previous plenary session or to be
  completed (slide 57).
- Summarized IETF coordination items (slide 58).
  - Items 25 and 27 were discussed. The latter is to be discussed in YANGsters.
- Provided information about JTC1/SC6 coordination (slide 59) and about meetings to be held with other 802 WGs (802.15 and 802.3) during this plenary session (slide 60).
- Noted P3400 is developing a standard on inclusive language, which has relevance in the context of P802.1ASdr (slide 61).
- Discussed promotion of the work of the WG (slide 62) and 802.1 public visibility messaging (slide 63) noting the extensive 802.1 work on YANG could be the subject of a blog post.
- Reminded nominations are welcome for the various types of IEEE awards (slide 64) highlighting the various deadlines and encouraging nominations.
- Noted upcoming WG Chair Awards to follow the publication of IEEE Std 802.1Qcz-2023 and IEEE Std 802.1AEdk-2023 (slide 65).

- Provided the anticipation of next actions with respect to the more than 30 projects in the WG's current workload (slide 66).
- Reviewed the timeline for 802.1Q (slide 67) and 802.1AS (slide 68) revisions and amendments.
- Showed the 802.1 schedule for this plenary session, which was tacitly approved (slide 69).
- Listed 802.1 leadership and editors' meetings (slide 70).
- Reminded the Working Group of the logistics orientation information available
   <a href="https://1.ieee802.org/orientation/">https://1.ieee802.org/orientation/</a> and of the possibility to practice the web-based voting tool to be used at the 802.1 closing plenary meeting (slide 71).
- Requested that subgroup agendas be presented (slide 72):
  - Jessy Rouyer presented the Maintenance TG agenda on slide 73.
  - o The Security TG Chair presented the agenda on slide 74.
  - The IEC/IEEE 60802 Joint Project Chair, TSN TG Vice-Chair and TSN TG Chair presented the agenda on slide 75.
  - Jessy Rouyer presented the Nendica report on slides 76 and 77, and the agenda on slide 78.
  - The YANGsters Chair presented the agenda on slide 79, a summary of activity since the May 2023 interim session on slide 80, a list of ongoing YANG projects on slide 81, and an update on YANG validation on slide 82.
- Called for Any Other Business (slide 83).
  - No other business was discussed in this meeting.

12:45 CEST adjournment

# 4 802.1/802.15 Joint Meeting

Between this session and the preceding session, the following 802.1/802.15 joint meetings were held whose minutes are incorporated to these session minutes by reference as follows:

None

See section 1 for 802.1 attendance and affiliation information and 802.15 session minutes for 802.15 attendance and affiliation information.

The minutes of the 802.1/802.15 joint meeting held Jul 11, 2023 are on pages 6-7 of "802.15 WG & CAC Minutes July 2023 Hybrid Plenary" <a href="https://mentor.ieee.org/802.15/dcn/23/15-23-0321-01-0000-802-15-wg-cac-minutes-july-2023-hybrid-plenary.docx">https://mentor.ieee.org/802.15/dcn/23/15-23-0321-01-0000-802-15-wg-cac-minutes-july-2023-hybrid-plenary.docx</a>.

# 5 Maintenance Task Group

Between this session and the preceding session, the IEEE 802.1 Maintenance Task Group (TG) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Maintenance TG meeting held 2023-05-31 11:00 11:28 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;928de4f6.23&S=
- Minutes of the Maintenance meeting held 2023-06-20 11:03-12:05 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c94a6f00.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c94a6f00.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c94a6f00.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c94a6f00.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;c94a6f00.23&S=</a>
- Minutes of the Maintenance meeting held 2023-07-06 12:00-1:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;5916bd3b.23&S=

See section 1 for attendance and affiliation information.

**Call to order** Jul 11, 2023 at 8:07 CEST by Jessy Rouyer, acting IEEE 802.1 Maintenance TG Chair (acting Chair), who presided and wrote the minutes assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

#### Agenda items and dispositions:

- 1. Meeting introduction. The acting Chair reminded that Paul Congdon stepped down as IEEE 802.1 Maintenance TG Chair and encouraged anyone willing to step up in this role to inform the WG Chair or Vice-Chair.
  - The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf</a>.
  - The acting Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.
  - The acting Chair made the Call for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to this Call prior to the end of the meeting.
  - The acting Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
- 2. Approval of agenda. The acting Chair presented the agenda in <a href="https://1.ieee802.org/july-2023-plenary-session-maintenance-tg-agenda/">https://1.ieee802.org/july-2023-plenary-session-maintenance-tg-agenda/</a>.
  - **Disposition:** The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented.
- 3. Maintenance Project Status. The acting Chair presented "Maintenance TG Project Status" in <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a>. **Disposition:** For information.
- 4. Review of Maintenance Motions. The acting Chair presented "Motions Summary" in "Maintenance Task Group Mixed Mode Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a> and led the discussion of draft Maintenance TG motions.
  Disposition: Draft Maintenance TG motions up for vote at the 802.1 closing plenary
- meeting.

  5. 802 PARs Under Consideration. The acting Chair led the discussion and drafting of 802.1
- comments on the P802.11bn PAR and CSD. The initial set of 802.1 comments had been drafted pre-session in "Comments on IEEE P802.11bn PAR & CSD"

  <a href="https://www.ieee802.org/1/files/public/docs2023/admin-PAR-CSD-comments-802-11bn-0723.pdf">https://www.ieee802.org/1/files/public/docs2023/admin-PAR-CSD-comments-802-11bn-0723.pdf</a>.
  - **Disposition:** Set of 802.1 comments updated per discussion as "Comments on IEEE P802.11bn PAR & CSD" <a href="https://www.ieee802.org/1/files/public/docs2023/admin-PAR-CSD-comments-802-11bn-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/admin-PAR-CSD-comments-802-11bn-0723-v02.pdf</a>.
- 6. Liaison Activity. Karen Randall, IEEE 802.1 Liaison Secretary, led the review and discussion of "Incoming Liaisons (new)" in "Maintenance Task Group Mixed Mode Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a> and the review, discussion and drafting of outgoing liaisons per "Maintenance Task Group Mixed Mode Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a>:
  - "Liaison to ITU-T SG 15 on OTNT Standardization Work Plan"
  - "Liaison to ITU-T JCA on IMT2020 Roadmap"

 Liaison to SC6 responses to ballot comments on IEEE 802.1ACct, IEEE 802.1BA and IEEE 802.1Q.

**Disposition:** Draft outgoing liaisons up for vote at the 802.1 closing plenary meeting.

- 7. P802.1CS-2020/Cor1 Comment Resolution. Norman Finn, P802.1CS-2020/Cor1 editor, presented the disposition <a href="https://www.ieee802.org/1/files/private/cs-2020-cor-1-drafts/d1/802-1CS-2020-Cor1-d1-3-dis.pdf">https://www.ieee802.org/1/files/private/cs-2020-cor-1-drafts/d1/802-1CS-2020-Cor1-d1-3.pdf</a>.
  - **Disposition:** For information. (also see agenda item 15).
- SC6 Status. Karen Randall, 802.1 Liaison Secretary, presented "ISO/IEC JTC1 SC6 STATUS July 2023" slides in "Maintenance Task Group Mixed Mode Meeting" <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a>.
   Disposition: For information.
- Document Vehicle Status. The acting Chair presented "Brief Vehicle Status Update" in "Maintenance Task Group Mixed Mode Meeting"
   <a href="https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/maint-rouyer-hy-0723-v01.pdf</a>. The incorporation (e.g. in 802.1AS) of older open items (among 75 such items) should be confirmed so they can be closed. Some of the open items waiting for 802.1Q-2002-Rev may require further discussion.
   Disposition: A dedicated Maintenance TG meeting will be scheduled to review open
  - items and clean up the IEEE 802.1 maintenance database at <a href="https://www.802-1.org/home">https://www.802-1.org/home</a>.
- 10. New Maintenance Requests. The acting Chair led the discussion of new maintenance request 0362: "IEEE 802.1AS REVISION REQUEST on Invoking the MDpDelay SMs w/o CMLDS".
  - **Disposition:** Further discussion is needed in the TSN TG, based on the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>, before further Maintenance TG discussion.
- 11. Existing Maintenance Requests. The acting Chair led the discussion of "Existing Maintenance Requests (requiring further discussion)":
  - 0242: IEEE Std 802.1Qcp-2018: Collected YANG issues Johannes Specht
  - 0248: Managed objects for ECP in 802.1Q-2018 Norman Finn
  - 0312: Stream ID as a Key for YANG lists Don Fedyk
  - 0343: Handling of stream handle in Active Stream Max Turner

The following was not discussed, in the absence of the submitter:

• 0314: network media and PHY – Johannes Specht

The following were not discussed by lack of time:

- 0360: syncReceiptTimeout and announceReceiptTimeout need range specified Geoff Garner
- 0361: Add a managed object to control the use of signal Guenter Steindl

**Disposition:** Details for discussion on all items are logged in the IEEE 802.1 maintenance database at <a href="https://www.802-1.org/home">https://www.802-1.org/home</a> where items progressed at the meeting can be reviewed by selecting 'Meetings'.

12. Any Other Business. No other business was discussed in this meeting.

10:07 CEST recess

**Call to order** Jul 12, 2023 at 8:03 CEST by Jessy Rouyer, acting IEEE 802.1 Maintenance TG Chair (acting Chair), who presided and wrote the minutes assisted by Karen Randall, IEEE 802.1 Liaison Secretary.

13. Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf</a>.

The acting Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.

The acting Chair made the Call for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to this Call prior to the end of the meeting.

The acting Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

- 14. Approval of agenda. The acting Chair presented the agenda in <a href="https://1.ieee802.org/july-2023-plenary-session-maintenance-tg-agenda/">https://1.ieee802.org/july-2023-plenary-session-maintenance-tg-agenda/</a>.
  - **Disposition:** The agenda was reviewed, and agreed (informally, none dissenting) as presented.
- 15. P802-REVc comment resolution. James Gilb, P802-REVc editor, presented "IEEE P802-REVc Working Group Ballot #1 Comment Discussion, July" <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0019-01-Mntg-p802-revc-july-discussions.odp">https://mentor.ieee.org/802.1/dcn/23/1-23-0019-01-Mntg-p802-revc-july-discussions.odp</a>, and led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/P802-REVc-d1-0.pdf">https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/P802-REVc-d1-0.pdf</a> and the discussion of the incorporation of P802f.

**Disposition:** Comments 81, 98, 109 were discussed per updated "IEEE P802-REVc Working Group Ballot #1 Comment Discussion, July" <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0019-02-Mntg-p802-revc-july-discussions.odp">https://mentor.ieee.org/802.1/dcn/23/1-23-0019-02-Mntg-p802-revc-july-discussions.odp</a>. Final disposition (provided post-session): <a href="https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/1-23-0008-15-Mntg-802-revc-comments-wg-lb1-pdis.pdf">https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/1-23-0008-15-Mntg-802-revc-comments-wg-lb1-pdis.pdf</a>. Two two-hour Maintenance TG electronic meetings would be scheduled Jul 25 and 26, 2023 10:00 – 12:00 ET to review the incorporation of P802f into P802-REVc by the editor of the latter: the acting Chair drafted a suitable Maintenance TG motion up for vote at the 802.1 closing plenary meeting. P802-REVc comment resolution would be scheduled during the Sep 2023 IEEE 802.1 interim session and coordinated across 802.3, 802 wireless groups and 802.1 that are all holding mixed mode interim sessions during the same week.

16. Any Other Business. Additional approve votes with no new comments were submitted on <a href="https://www.ieee802.org/1/files/private/cs-2020-cor-1-drafts/d1/802-1CS-2020-Cor1-d1-3.pdf">https://www.ieee802.org/1/files/private/cs-2020-Cor1-d1-3.pdf</a>; updated final disposition: <a href="https://www.ieee802.org/1/files/private/cs-2020-cor-1-drafts/d1/802-1CS-2020-Cor1-d1-3-dis-v2.pdf">https://www.ieee802.org/1/files/private/cs-2020-cor-1-drafts/d1/802-1CS-2020-Cor1-d1-3-dis-v2.pdf</a>. No other business was discussed in this session.

10:01 CEST adjournment

# 6 Security Task Group

Between this session and the preceding session, the IEEE 802.1 Security Task Group (Security TG) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Security TG meeting held 2023-05-01 11:00 12:07 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;edfae29c.23&S=
- Minutes of the Security TG meetings held during the 2023-05-15 2023-05-19 session https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;841c8846.23&S=

See section 1 for attendance and affiliation information.

**Call to order** Wednesday Jul 12, 2023 at 10:30 CEST by Mick Seaman, IEEE 802.1 Security TG Chair, who presided and wrote the minutes assisted by Karen Randall, IEEE 802.1 Security TG Vice-Chair.

Agenda items and dispositions:

- Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright
  and Participation Policies were provided beforehand as part of MEETING
  INTRODUCTION" <a href="https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf">https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf</a>. The Security TG Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.
  - The Security TG Chair made the Calls for Potentially Essential Patents thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session.
  - The Security TG Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
- Approval of agenda. The Security TG Chair presented the agenda in <a href="https://1.ieee802.org/july-2023-plenary-session-security-tg-agenda/">https://1.ieee802.org/july-2023-plenary-session-security-tg-agenda/</a>.
   Disposition: The agenda was reviewed discussed and updated as recorded by
  - **Disposition:** The agenda was reviewed, discussed and updated as recorded by these minutes.
- P802.1Qdt Priority-based Flow Control Enhancements. Lily Lv, P802.1Qdt Editor, presented "Headroom Measurement Protocol Design" <a href="https://www.ieee802.org/1/files/public/docs2023/dt-lv-design-topics-0723-v1.pdf">https://www.ieee802.org/1/files/public/docs2023/dt-lv-design-topics-0723-v1.pdf</a>.
   <a href="Discussion:">Discussion:</a>
  - Recap from previous discussion of timestamp measurement points.
  - Piggybacking: purpose of prior piggybacking suggestion is not to save bandwidth, but to minimize delay in obtaining measurement results in cases where both ends of the link do not come up at the same time.

While local underlying MAC layer may indicate link up, that is not a guarantee that peer-to-peer connectivity is available at that time (possible intervening technologies such as DWDM carrier, which is of more relevance in this case than with internal data center connectivity where the PFC delay is likely dominated by delays within the connected systems rather than wire transmission delays).

 Averaging: While there might be considerable variation in measurements, reliable no-loss operation as soon as the link is up indicates starting with some upper bound estimate and then refining that over following successive measurements.

- Possible PFC sending and reaction time delays per priority? Current assumption is no, or little difference. PFCs themselves (and measurement requests/responses) need to be sent with high priority independent of the priority level to be controlled, otherwise they will not be effective.
- Need field for t2-t3 adjustment.

**Disposition:** Discussion to be continued.

- 4. Any Other Business
- 4.1. Potential MACsec optimizations for automotive (shared media configurations, preshared keys). James McIntosh presented "MACsec with Shared Media" <a href="https://www.ieee802.org/1/files/public/docs2023/ae-mcintosh-macsec-w-shared-media-2307-v03.pdf">https://www.ieee802.org/1/files/public/docs2023/ae-mcintosh-macsec-w-shared-media-2307-v03.pdf</a>.

#### Discussion:

- The shared media case is applicable to 10BASE-T1S (low speed).
- Goal is to minimize storage and processing for simple devices, particular edge/leaf nodes.
- Can save keys (SAKs) through shared media/pseudo shared media though possibly not SAs/SCIs.
- Replay protection is important in control environments to prevent reissue of a previously valid simple command, which requires PN state at a 'head node' for each 'leaf node'.
- The use of long-term PSKs/CAKs as per 802.1AE is possible in these
  environments where integrity protection rather than confidentiality protection is
  important and perfect forward secrecy (PFS) is not important. Note that MACsec
  relies on the use of a fresh CAK (as a result of fresh EAP operation, or new PSK
  distribution by other means) which rules out factory CAK installation where PFS is
  required.
- Possible to use the shared media case, with each participant (head node and leaf nodes) using the same CAK in MKA and using the same SAK(s), distributed by the head node acting as Key Server, but with each leaf node simply not installing SCs/SAs for reception from other leaf nodes. Applicable where prior certification of leaf nodes is deemed sufficient protection against one leaf node masquerading as another or as the 'head node' (masquerading to other leaf nodes in the CA). Potentially interesting where leaf nodes are simple sensors, or have only limited reconfiguration possibilities. Factory installed SAKs not useful in this scenario, factory installed CAKs possible, each leaf node required to be able to accept group CAK from Key Server.
- Further reduction in counters possible in this deployment case, prior component certification can be sufficient guard against implementation error, and remedial actions for failing/out of spec components may be limited to replacement.
- Note that P802.1Qdy YANG for MSTP to support deployment in and repair of industrial networks, by providing connectivity (for enrollment, key distribution to new devices, diagnostics, etc.) wherever possible may also be applicable to automotive, relaxing constraints on build/replacement order.

**Disposition:** Discussion to be continued.

5. Review potential Security TG Motions/Liaisons for Closing Plenary. **Disposition:** None required, apart from addition to the general list of permissions to hold electronic meetings prior to the next plenary session (with 10-day notice to the 802.1 subgroup agendas and minutes list, as usual).

6. Future meetings. The Chair polled the meeting for likely attendance at the Sep 2023 interim session.

**Disposition:** Announced at the closing 802.1 plenary meeting that the Security TG would not meet during the Sep 2023 interim session.

12:34 CEST adjournment

# 7 Time-Sensitive Networking Task Group

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on generic TSN topics whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the TSN TG meeting held 2023-06-26, 11:00–13:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;ac3f20e4.23&S=
- Minutes of the TSN TG meeting held 2023-06-19, 11:00–12:49 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;23c4c8ff.23&S=
- Minutes of the TSN TG meeting held 2023-06-12, 11:00–11:37 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;4784ff9d.23&S=
- Minutes of the TSN TG meeting held 2023-06-05, 11:00–13:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;5a48f7f.23&S=

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on P802.1DG whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEEE P802.1DG meeting held 2023-07-04 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;cce52afd.23&S=
- Minutes of the IEEE P802.1DG meeting held 2023-06-27 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;d1cc9ef8.23&S=
- Minutes of the IEEE P802.1DG meeting held 2023-06-20 9:00 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;884d0edd.23&S="https://listserv.ieee.
- Minutes of the IEEE P802.1DG meeting held 2023-05-30 9:00 9:23 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;25e3f811.23&S=

See section 1 for attendance and affiliation information.

Minutes of the IEC/IEEE 60802 Joint Project electronic meetings are in section 7.1.

Minutes of the IEEE P802.1DP/SAE AS 6675 joint project electronic meeting are in section 7.2.

**Call to order** Jul 10, 2023 8:00 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

Agenda items and dispositions:

 Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf</a>. The Chair showed this presentation advising that the following, provided beforehand, applies:

- IEEE's Patent Policy is described in Clause 6 of the IEEE SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which IEEE is not aware. Additionally, neither IEEE, the WG, nor the WG Chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
- Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The Chair made the Calls for Potentially Essential Patents at the beginning of each TG meeting during this session thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session.

- The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 2. Approval of agenda. The Chair presented the agenda in <a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/">https://1.ieee802.org/2023-07-plenary-tsn-agenda/</a>.
  - **Disposition:** The agenda was reviewed, and updated as recorded by these minutes.
- Geoffrey Garner, P802.1ASdm editor, presented "P802.1ASdm/D1.1 Editor's Report Proposed Comment Resolution for WG Ballot Version 0" <a href="https://www.ieee802.org/1/files/public/docs2023/dm-garner-d1-1-wg-ballot-editors-report-0723-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dm-garner-d1-1-wg-ballot-editors-report-0723-v00.pdf</a> and led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>.

**Disposition:** Comments 17-21, 23, 32, 36, 51, 72-74, 94, 97, 117-120 and 132 resolved. Disposition per agenda item 42.

#### 10:00 CEST recess

**Call to order** Jul 10, 2023 13:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

4. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

- 5. The Chair showed the incoming liaisons and communication:
  - "Access to IEEE 802.1 Drafts" <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-LNI40-testbedwhitepaperanddraftaccess-0423.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-LNI40-testbedwhitepaperanddraftaccess-0423.pdf</a> with attached "LNI 4.0 Testbed TSN – Whitepaper OPC UA over TSN"

    <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-LNI40-WhitepaperOPCUAoverTSNv17-0423.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-LNI40-WhitepaperOPCUAoverTSNv17-0423.pdf</a>.
  - "LS/r on work items related to deterministic networking and deterministic communication service in ITU-T SG13 (IEEE 802.1-LS71)"
     <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-itu-t-SG13-DetermNetworkingandCommunics-0523.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-itu-t-SG13-DetermNetworkingandCommunics-0523.pdf</a>.

**Disposition:** Incoming liaisons and communication discussed. Further discussion needed. The chair noted ongoing work on two potential liaisons to IEEE 1588 on draft sharing and terminology, and to IEEE 3400 on terminology.

Stephan Kehrer, P802.1Qdj editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf</a>.
 Disposition: Comments 14 and 48-54 resolved. Disposition per agenda item 17.

15:45 - 16:15 CEST recess

- 7. Paul Bottorff, P802.1Qcj editor, and Mick Seaman, P802.1Q editor, presented the disposition <a href="https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-5-dis-v01.pdf">https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-5-dis-v01.pdf</a> of the ballot on <a href="https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-5.pdf">https://www.ieee802.org/1/files/private/cj-drafts/d2/802-1Qcj-d2-5.pdf</a>. Disposition: For information.
- Johannes Specht, P802.1ASdn editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdn-drafts/d1/802-1ASdn-d1-1.pdf">https://www.ieee802.org/1/files/private/asdn-drafts/d1/802-1ASdn-d1-1.pdf</a>.
   Disposition: Comment 2 resolved. Final disposition: <a href="https://ieee802.org/1/files/private/asdn-drafts/d1/802-1ASdn-d1-1-dis-v01.pdf">https://ieee802.org/1/files/private/asdn-drafts/d1/802-1ASdn-d1-1-dis-v01.pdf</a>.
- Stephan Kehrer, P802.1Qdj editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf</a>.
   Disposition: Comments 2, 3, 15, 16 and 18-21 resolved. Disposition per agenda item 17.

18:05 CEST recess

**Call to order** Jul 11, 2023 10:30 CEST by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair (Chair), who presided and wrote the minutes.

- 10. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 11. The Chair reviewed the agenda in <a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN">https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN</a> 8211 P8021DG.

**Disposition:** The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented.

12. Max Turner, P802.1DG editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0.pdf">https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0.pdf</a>, and presented "P802.1DG D2.0 Editors Report V07" <a href="https://www.ieee802.org/1/files/public/docs2023/dg-Turner-EditorsReport-0623-v07.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-Turner-EditorsReport-0623-v07.pdf</a>.

**Disposition:** Partial disposition: <a href="https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0-pdis-v06.pdf">https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0-pdis-v06.pdf</a>.

#### 12:30 CEST recess

**Call to order** Jul 11, 2023 16:00 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 13. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 14. Geoffrey Garner, P802.1ASdm editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>.

**Disposition:** Comments 122 and 125 resolved. Partial disposition per agenda item 42.

#### 18:00 CEST recess

**Call to order** Jul 12, 2023 08:02 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 15. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 16. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- Stephan Kehrer, P802.1Qdj editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1.pdf</a>.
   Disposition: Comments 1, 4-13, 17, 22-47 and 56-60 resolved. Final disposition: <a href="https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1-dis-v01.pdf">https://www.ieee802.org/1/files/private/dj-drafts/d1/802-1Qdj-d1-1-dis-v01.pdf</a>.
- Geoffrey Garner, P802.1ASdm editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>.
   Disposition: Comments 79, 124 and 128 resolved. Partial disposition per agenda item 42.

#### 10:00 - 10:30 CEST recess

19. The Chair led the discussion of comments received on the draft P802.1Qdj PAR extension in <a href="https://www.ieee802.org/1/files/public/docs2023/dj-draft-PAR-extension-0523-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-draft-PAR-extension-0523-v01.pdf</a> and their resolution.

**Disposition:** Comments resolved.

- Comments and their resolution: <a href="https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-comments-responses-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-comments-responses-0723-v01.pdf</a>.
- Updated PAR extension: <a href="https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-0723-v01.pdf</a>.
- 20. The Chair led the discussion of comments and their resolution on the draft P802.1DG PAR extension in <a href="https://www.ieee802.org/1/files/public/docs2023/dg-draft-PAR-extension-0523-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-draft-PAR-extension-0523-v01.pdf</a>.

#### **Disposition:** Comments resolved.

- Comments and their resolution: <a href="https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-comments-responses-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-comments-responses-0723-v01.pdf</a>.
- Updated PAR extension: <a href="https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-0723-v01.pdf</a>.
- 21. The Chair led the discussion of comments and their resolution on the draft P802.1Qdy PAR in <a href="https://www.ieee802.org/1/files/public/docs2023/dy-draft-PAR-0523-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-draft-PAR-0523-v01.pdf</a> and CSD in <a href="https://www.ieee802.org/1/files/public/docs2023/dy-draft-CSD-0523-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-draft-CSD-0523-v01.pdf</a>. Disposition: Comments resolved.
  - Comments and their resolution: <a href="https://www.ieee802.org/1/files/public/docs2023/dy-PAR-CSD-comments-responses-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-PAR-CSD-comments-responses-0723-v01.pdf</a>
  - Updated PAR: <a href="https://www.ieee802.org/1/files/public/docs2023/dy-PAR-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-PAR-0723-v01.pdf</a>
  - Updated CSD: <a href="https://www.ieee802.org/1/files/public/docs2023/dy-CSD-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-CSD-0723-v01.pdf</a>
- 22. Norman Finn, P802.1DC editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dc-drafts/d2/802-1DC-d2-2.pdf">https://www.ieee802.org/1/files/private/dc-drafts/d2/802-1DC-d2-2.pdf</a>.
  Disposition: <a href="https://www.ieee802.org/1/files/private/dc-drafts/d2/802-1DC-d2-2-dis-v01.pdf">https://www.ieee802.org/1/files/private/dc-drafts/d2/802-1DC-d2-2-dis-v01.pdf</a>.
- 23. Outgoing liaisons and communication.

**Disposition:** Outgoing draft responses finalized as:

- https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-SG13-<u>DetermNetworkingandCommunics-0723-v01.pdf</u> in response to "LS/r on work items related to deterministic networking and deterministic communication service in ITU-T SG13 (IEEE 802.1-LS71)"
   https://www.ieee802.org/1/files/public/docs2023/liaison-itu-t-SG13-DetermNetworkingandCommunics-0523.pdf.
- "Liaison to IEEE1588 on draft sharing and inclusive terminology": https://www.ieee802.org/1/files/public/docs2023/liaison-IEEE1588-draft-sharing-and-terminology-0723-v01.pdf.
- "Liaison to IEEE 3400 on inclusive terminology": <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-IEEEP3400-terminology-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-IEEEP3400-terminology-0723-v01.pdf</a>.
- 24. Hiroki Nakano, P802.1Qdq editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4.pdf">https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4.pdf</a>. **Disposition:** Disposition per item 25.

12:05 CEST recess

**Call to order** Jul 12, 2023 13:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

25. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.

26. Hiroki Nakano, P802.1Qdq editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4.pdf">https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4.pdf</a> and presented "Text contribution for P802.1Qdq" <a href="https://www.ieee802.org/1/files/public/docs2023/dq-osuga-text-contribution-0723-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dq-osuga-text-contribution-0723-v00.pdf</a>.

**Disposition:** Partial disposition: <a href="https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4-pdis-v01.pdf">https://www.ieee802.org/1/files/private/dq-drafts/d0/802-1Qdq-d0-4-pdis-v01.pdf</a>.

27. Norman Finn, P802.1Qdv editor, presented "P802.1Qdv/D0.2" <a href="https://www.ieee802.org/1/files/private/dv-drafts/d0/802-1Qdv-d0-2.pdf">https://www.ieee802.org/1/files/private/dv-drafts/d0/802-1Qdv-d0-2.pdf</a>. <a href="Disposition">Disposition</a>: Draft discussed. Further discussion needed.

28. Yizhou Li presented "P802.1Qdv contribution – Leftover Frames Catchup" <a href="https://www.ieee802.org/1/files/public/docs2023/dv-yizhou-leftover-frames-catchup-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dv-yizhou-leftover-frames-catchup-0723-v01.pdf</a>

**Disposition:** Presentation discussed. Further discussion needed.

15:30 - 16:00 CEST recess

29. Steve Haddock presented "802.1AXdz – Link Aggregation YANGProject Proposal: July 2023 Version 1" <a href="https://www.ieee802.org/1/files/public/docs2023/dz-haddock-Link-Aggregation-YANG-proposal-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dz-haddock-Link-Aggregation-YANG-proposal-0723-v01.pdf</a>, draft PAR for P802.1AXdz <a href="https://www.ieee802.org/1/files/public/docs2023/dz-haddock-draft-PAR-0723-v00.pdf">https://www.ieee802.org/1/files/public/docs2023/dz-haddock-draft-PAR-0723-v00.pdf</a> and draft-CSD-0723-v00.pdf.

**Disposition:** Presentation, draft PAR and draft CSD discussed. Further discussion needed.

30. Konstantinos Alexandris presented "Extensions on the TSN UNI traffic specification proposal" <a href="https://www.ieee802.org/1/files/public/docs2023/new-alexandris-extensions-on-the-tsn-uni-traffic-specification-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/new-alexandris-extensions-on-the-tsn-uni-traffic-specification-0723-v01.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

31. Andreas Meisinger presented "Proposed RAP Extensions for RA Class Templates to support LNI Usecases" <a href="https://www.ieee802.org/1/files/public/docs2023/dd-Meisinger-LNI40-Qdd-LNI40-RA-class-template-contribution-0723-v02.pdf">https://www.ieee802.org/1/files/public/contribution-0723-v02.pdf</a> and "LNI 4.0 Contribution to IEEE P802.1Qdd D0.7 Template support based on a Time Aware Shaper Traffic Class" <a href="https://www.ieee802.org/1/files/public/docs2023/dd-Meisinger-LNI40-Qdd-LNI40-RA-class-template-contribution-text-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dd-Meisinger-LNI40-Qdd-LNI40-RA-class-template-contribution-text-0723-v02.pdf</a>.

**Disposition:** Contributions discussed. Further discussion needed.

32. Feng Chen, P802.1Qdd editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-7.pdf">https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-7.pdf</a>. **Disposition:** Comments 46-61 resolved. Final disposition:

https://www.ieee802.org/1/files/private/dd-drafts/d0/802-1Qdd-d0-7-dis-v01.pdf.

33. Johannes Specht, P802.1DU editor, presented "P802.1DU/D0.0" <a href="https://www.ieee802.org/1/files/private/du-drafts/d0/802-1-DU-d0-0.pdf">https://www.ieee802.org/1/files/private/du-drafts/d0/802-1-DU-d0-0.pdf</a>.

**Disposition:** Draft discussed. Further discussion needed.

18:00 CEST recess

**Call to order** Jul 13, 2023 08:00 CEST by Craig Gunther, IEEE 802.1 TSN TG Vice-Chair (Chair), who presided and wrote the minutes.

- 34. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 35. The Chair reviewed the agenda in <a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN">https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN</a> 8211 P8021DG-2.
  - **Disposition:** The agenda was reviewed, discussed and agreed (informally, none dissenting) as presented.
- 36. Max Turner, P802.1DG editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0.pdf">https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0.pdf</a>, and presented "P802.1DG D2.0 Editors Report V08" <a href="https://www.ieee802.org/1/files/public/docs2023/dg-Turner-EditorsReport-0623-v08.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-Turner-EditorsReport-0623-v08.pdf</a>.

**Disposition:** Partial disposition: <a href="https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0-pdis-v07.pdf">https://www.ieee802.org/1/files/private/dg-drafts/d2/802-1DG-d2-0-pdis-v07.pdf</a>.

#### 10:00 CEST recess

**Call to order** Jul 13, 2023 10:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 37. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 38. Abdul Jabbar presented "P802.1Qdx: YANG Data Models for the Credit-Based Shaper" <a href="https://www.ieee802.org/1/files/public/docs2023/dx-markham-CBS-YANG-Model-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dx-markham-CBS-YANG-Model-0723-v01.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

39. Geoffrey Garner, P802.1ASdm editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>.

**Disposition:** Comments 29,58-71,111 and 121 resolved. Disposition per item 40.

#### 12:30 CEST recess

**Call to order** Jul 14, 2023 10:30 CEST by János Farkas, IEEE 802.1 TSN TG Chair (Chair), who presided. Johannes Specht, IEEE 802.1 TSN TG Secretary (Secretary), wrote the minutes.

- 40. The Chair announced that this meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the Secretary.
- 41. Max Turner presented 'CMLDS vs. "per Domain" pDelay' <a href="https://www.ieee802.org/1/files/public/docs2023/as-turner-CMLDSmaintID0362-0623-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/as-turner-CMLDSmaintID0362-0623-v01.pdf</a>.

**Disposition:** Presentation discussed. Further discussion needed.

42. Geoffrey Garner, P802.1ASdm editor, continued the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf">https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1.pdf</a>. **Disposition:** Comments 130 and 131 resolved. Partial disposition:

https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-1-pdis-v01.pdf

12:30 CEST recess

# 7.1 IEC/IEEE 60802 Joint Project

Between this session and the preceding session, the IEC/IEEE 60802 Joint Project held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-05-26 9:00 09:30 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;5996bc40.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-02 9:00 10:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b6b877a9.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-05 9:00 10:05 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a83790ec.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-09 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;b0d14530.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-12 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a174fdb8.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-16 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;24e066a2.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meeting held 2023-06-26 9:00 11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;7eef00c3.23&S=
- Minutes of the IEC/IEEE 60802 Joint Project meetings held during the 2023-07-03 2023-07-07 ad hoc session <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3a0eef9f.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3a0eef9f.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3a0eef9f.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;3a0eef9f.23&S=</a>

Between this session and the preceding session, the IEC/IEEE 60802 Joint Project Time Sync ad hoc (Time Sync ad hoc) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the IEC/IEEE 60802 Joint Project Time Sync Ad Hoc meeting held 2023-06-23
   9:00 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;512ebc6f.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;512ebc6f.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;512ebc6f.23&S=</a>
- Minutes of the IEC/IEEE 60802 Joint Project Time Sync Ad Hoc meeting held 2023-06-30 9:00 11:00 ET <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;37de7ab7.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;37de7ab7.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;37de7ab7.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;37de7ab7.23&S=</a>

See section 1 for attendance and affiliation information.

**Call to order** Jul 11, 2023, at 13:30 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair), who presided. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary (60802 Secretary), wrote the minutes.

Agenda items and dispositions:

 Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf">https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf</a>.

The 60802 Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.

The 60802 Chair made the Calls for Potentially Essential Patents at the beginning of the session thereby providing an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of

which the participant is personally aware and that may be essential for the use of that standard: there were no responses to these Calls prior to the end of the session. The 60802 Chair explained that the IEC/IEEE 60802 Joint Project also follows the usual IEC patent <a href="https://www.iec.ch/members">https://www.iec.ch/members</a> experts/tools/patents/patent policy.htm and copyright

https://www.iec.ch/standardsdev/resources/draftingpublications/overview/rules requirements/copyright.htm policies.

The 60802 Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

2. Approval of agenda. The 60802 Chair presented the agenda in <a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN-8211">https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN-8211</a> IECIEEE 60802.

**Disposition:** The agenda was reviewed, discussed, and updated as recorded by these minutes.

- 3. Editor's report. Jordon Woods, IEC/IEEE 60802 Joint Project Editor (60802 Editor), presented "Editor's Report 60802 Draft 2.0" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-woods-D2-0-update-0723-v02.pdf</a>. **Disposition:** For information.
- NACM based access control for IEC/IEEE 60802 resources. Kai Fischer presented "NACM based access control for IEC/IEEE 60802 resources" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Fischer-et-al-NACM-60802-resources-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Fischer-et-al-NACM-60802-resources-0723-v01.pdf</a>.

**Disposition:** NACM usage in IEC/IEEE 60802 is to be specified as recommendation with a default configuration. More discussion needed.

NETCONF over TLS 1.2 or TLS 1.3. Stephan Kehrer presented "IEC/IEEE 60802 |
 NETCONF over TLS 1.2 or TLS 1.3?"
 https://www.ieee802.org/1/files/public/docs2023/60802-kehrer-netconf-over-tls1-3-0723-v02.pdf.

**Disposition:** More discussion is needed.

6. NETCONF-over-TLS 1.3. Kai Fischer presented "NETCONF-over-TLS 1.3" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Pfaff-et-al-NETCONF-over-TLS13-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Pfaff-et-al-NETCONF-over-TLS13-0723-v01.pdf</a>.

**Disposition:** The stepwise approach, which is proposed in the presentation, is followed. More discussion is needed.

7. 60802 D2.0 WG ballot comment resolution. Jordon Woods, 60802 Editor, led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-0.pdf">https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-0.pdf</a>.

**Disposition:** Partial disposition.

Previously resolved ballot comment 58 was discussed but not revised.

#### 15:30 CEST recess

**Call to order** Jul 12, 2023, at 10:30 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary), wrote the minutes.

8. Meeting introduction and other administrative items. The 60802 Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

The 60802 Chair proposed to cancel:

- The IEC/IEEE 60802 Joint Project weekly meeting on Jul 17, 2023,
- The IEC/IEEE 60802 Joint Project Time Sync ad hoc weekly meeting on Jul 21, 2023, and
- The IEC/IEEE 60802 Joint Project Time Sync ad hoc weekly meeting on Jul 28, 2023,

due to many participants being unavailable: proposal agreed (informally, none dissenting).

 60802 D2.0 WG ballot comment resolution. The 60802 Editor led the resolution of comments received on <a href="https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-0.pdf">https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-0.pdf</a>.

**Disposition:** Final disposition.

- Ballot comments 602, 631, 184, 632, 633, 634, 635, 235, 615, 616 were resolved.
- Ballot comments 650, 305, 306, 309, 307, 308 were revised based on discussions.
- Nemanja Stamenic presented "IEC/IEEE 60802 Normative reference to DHCP" <a href="https://www.ieee802.org/1/public/docs2023/60802-Stamenic-DHCP-0723-v01.pdf">https://www.ieee802.org/1/public/docs2023/60802-Stamenic-DHCP-0723-v01.pdf</a>.
   <a href="Ballot comments">Ballot comments 312, 53 were revised based on the presentation.</a>
- The comment dispositions are documented in https://www.ieee802.org/1/files/private/60802-drafts/d2/60802-d2-0-dis-v01.pdf.

#### 12:10 - 13:30 CEST recess

Comments and their resolution on IEC/IEEE 60802 PAR modification (unmodified CSD).
 János Farkas, IEEE 802.1 TSN TG Chair (TSN TG Chair), led the discussion on
 comments (https://www.ieee802.org/1/public/docs2023/60802-PAR-modification comments-responses-0723-v00.pdf) received on the IEC/IEEE 60802 PAR modification in
 https://www.ieee802.org/1/files/public/docs2023/60802-draft-PAR-modification-0523 v01.pdf.

**Disposition:** Updated PAR modification:

https://www.ieee802.org/1/files/public/docs2023/60802-draft-PAR-modification-0723-v01.pdf.

11. Time Sync ad hoc. David McCall presented "Monte Carlo Simulations with RR & NRR Drift Tracking and Compensation – Results Part 2"

https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Monte-Carlo-Sim-with-RR-NRR-Drift-Tracking-Comp-Results-Part-2-0723-v01.pdf.

- 12:10 13:30 CEST recess
- David McCall continued the presentation.

**Disposition:** The presentation was updated based on the discussion to include the Recommended Time Series Simulation Parameters and Values <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Monte-Carlo-Sim-with-RR-NRR-Drift-Tracking-Comp-Results-Part-2-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Monte-Carlo-Sim-with-RR-NRR-Drift-Tracking-Comp-Results-Part-2-0723-v02.pdf</a>. More discussion needed.

#### 18:00 CEST recess

**Call to order** Jul 14, 2023, at 10:30 CEST by Ludwig Winkel, IEC 65C/WG18 Convenor and IEC/IEEE 60802 Joint Project Chair (60802 Chair. Josef Dorr, IEC/IEEE 60802 Joint Project Secretary), wrote the minutes.

- 12. Meeting introduction and other administrative items. The 60802 Chair announced that the meeting remains subject to the Policies mentioned in agenda item 1 and asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
- Two-Port End Stations. Johannes Specht presented "Two-Port End Stations" <a href="https://www.ieee802.org/1/files/public/docs2023/new-specht-tpes-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/new-specht-tpes-0723-v01.pdf</a>.
   <a href="https://www.ieee802.org/1/files/public/docs2023/new-specht-tpes-0723-v01.pdf">Disposition: More discussion needed.</a>
- 14. Time Sync ad hoc.
  - Dragan Obradovic presented "Quantization in the Modeling of the Message Propagation and Estimation of Required variables (i.e. pDelay, nRR, RR, etc.) in TimeSeries Simulation" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Obradovic-ArrivalTime-Quanization-TimeSeries-Simulation-July23.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Obradovic-ArrivalTime-Quanization-TimeSeries-Simulation-July23.pdf</a>.
    - Discussion started.
    - 12:30 13:30 CEST recess
    - Discussion continued.

**Disposition:** More discussion needed.

 David McCall led the discussion on "Recommended Time Series Simulation Parameters and Values" described in "60802 Time Sync – Monte Carlo Simulations with RR & NRR Drift Tracking and Compensation – Results Part 2" <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Monte-Carlo-Simwith-RR-NRR-Drift-Tracking-Comp-Results-Part-2-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Monte-Carlo-Simwith-RR-NRR-Drift-Tracking-Comp-Results-Part-2-0723-v02.pdf</a>.

**Disposition:** More discussion needed.

- o 15:35 16:00 CEST recess
- Günter Steindl presented "Getting into Sync or loosing Sync"
   <a href="https://www.ieee802.org/1/files/public/docs2023/60802-Steindl-Getting-into-Sync-or-loosing-Sync-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-Steindl-Getting-into-Sync-or-loosing-Sync-0723-v01.pdf</a>.

   The sync or loosing Sync o

**Disposition:** More discussion needed.

 David McCall presented the textual contribution "IEC/IEEE 60802 Contribution – Time Sync Informative Annex"
 <a href="https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Time-Sync-Informative-Annex-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-McCall-Time-Sync-Informative-Annex-0723-v01.pdf</a>.

**Disposition:** The textual contribution was updated based on the discussion.

- 15. IEC/IEEE 60802 timeline. The 60802 Chair stated that the IEEE ballot of the next 60802 draft 2.1 is intended to be closed before the Sep 2023 IEEE 802.1 interim session. The next IEC/IEEE 60802 draft 2.1 is to be reviewed by IEC as well and therefore the Draft-pdf generation must be synchronized with the IEC TC65 Sc65C Secretary.
- 16. Draft Minutes review. The review of the draft minutes was skipped by lack of time. The IEC/IEEE 60802 Joint Project agreed (informally, none dissenting) to post the draft minutes to the reflector for review. Comments can be reported to the 60802 Chair for review and potential revision of these minutes.

18:00 CEST adjournment

# 7.2 IEEE P802.1DP/SAE AS6675 joint project

Between this session and the preceding session, the IEEE 802.1 Time-Sensitive Networking (TSN) Task Group (TG) held electronic meetings on P802.1DP/SAE AS 6675 whose minutes are incorporated to these session minutes by reference as follows:

Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2023-06-07 10:02 - 11:23
 ET, https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;80091ee0.23&S=

Minutes of the IEEE P802.1DP/SAE AS6675 meeting held 2023-07-05 10:00 - 11:42
 ET, https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;a3c70cef.23&S=

See section 1 for attendance and affiliation information.

**Call to order** July 11, 2023 at 13:35 CEST by János Farkas, IEEE 802.1 TSN TG Chair. Abdul Jabbar and János Farkas, IEEE P802.1DP/SAE AS6675 joint project co-Chairs, presided. Marina Gutiérrez, IEEE P802.1DP/SAE AS6675 Secretary, wrote the minutes.

Agenda items and dispositions:

- Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf">http://www.ieee802.org/1/files/public/templates/admin-TG-intro-0323-v01.pdf</a>.
  - János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting. János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
  - János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, explained that the IEEE P802.1DP/SAE AS6675 Joint Project also follows the usual SAE IP and copyright <a href="https://www.sae.org/about/legal-policies/intellectual-property">https://www.sae.org/about/legal-policies/intellectual-property</a> policies.
- 2. Approval of agenda. János Farkas, IEEE P802.1DP/SAE AS6675 co-Chair, presented the agenda in <a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN">https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN</a> 8211 P8021DPAS6675.
  - **Disposition:** The agenda was reviewed, discussed and updated as recorded by these minutes.
- 3. Abdul Jabbar, IEEE P802.1DP/SAE AS6675 editor, gave an editor's update on <a href="https://www.ieee802.org/1/files/private/dp-drafts/d1/802-1DP-d1-0.pdf">https://www.ieee802.org/1/files/private/dp-drafts/d1/802-1DP-d1-0.pdf</a>.
  - **Disposition:** For information only. Anticipated next: first Task Group ballot.
- 4. Wilfried Steiner presented "State-of-the-Art Fault-Tolerant Clock Synchronization for Ultrahigh Reliable Systems" <a href="https://www.ieee802.org/1/files/public/docs2023/dp-wsteiner-fault-tolerant-clock-sync-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dp-wsteiner-fault-tolerant-clock-sync-0723-v02.pdf</a>.
  - **Disposition:** Presentation was discussed. More discussion is needed.
- 5. Wilfried Steiner presented "Design Considerations of IEEE 802.1CB with End-to-End Safety Protocols" <a href="https://www.ieee802.org/1/files/public/docs2023/dp-wsteiner-design-considerations-CB-E2E-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/dp-wsteiner-design-considerations-CB-E2E-0723-v02.pdf</a>.

**Disposition:** Presentation was discussed. More discussion is needed.

15:28 CEST adjournment

# 8 Nendica

Between this session and the preceding session, the IEEE 802 "Network Enhancements for the Next Decade" Industry Connections Activity (Nendica) held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the Nendica meeting held 2023-06-29 09:00-11:00 ET (revised)
   https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S=
- Minutes of the Nendica meeting held 2023–06-15 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;49b62bf.23&S=

 Minutes of the Nendica meeting held 2023–05-25 09:00-11:00 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;9119ece2.23&S=

See section 1 for attendance and affiliation information.

**Call to order** July 11, 2023 19:00 CEST by Jessy Rouyer, Acting Chair ("Chair"), who presided. Johannes Specht, Acting Secretary ("Secretary"), wrote the minutes.

Agenda items and dispositions:

- Meeting introduction and other administrative items. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="https://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0323-v01.pdf">https://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0323-v01.pdf</a>. The Chair showed this presentation advising that the following applies:
  - IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual;
  - Any material submitted during the Nendica meeting, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.

The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

- Approval of agenda. The Chair presented the agenda at <a href="https://1.ieee802.org/802-nendica-agenda-2023-07-11/">https://1.ieee802.org/802-nendica-agenda-2023-07-11/</a> and noted the Mentor server document list.
   Disposition: The agenda was reviewed and agreed (informally, none dissenting) as presented.
- 3. Nendica organization. The Chair led the development of "802.1 response to 802.15 comments on Nendica ICAID renewal" <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0020-00-lCne-802-1-response-to-802-15-comment-on-nendica-icaid-renewal.pptx">https://mentor.ieee.org/802.1/dcn/23/1-23-0020-00-lCne-802-1-response-to-802-15-comment-on-nendica-icaid-renewal.pptx</a>.

**Disposition:** Motion:

- "Forward the Nendica ICAID Renewal <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0004-06-ICne-draft-nendica-icaid-renewal-to-september-2025.docx">https://mentor.ieee.org/802.1/dcn/23/1-23-0004-06-ICne-draft-nendica-icaid-renewal-to-september-2025.docx</a> to 802.1 Working Group."
  - Mover: Johannes Specht
  - Seconder: Nader Zein
  - Passed by acclamation.
- 4. Any Other Business. No other business was discussed by Nendica in this meeting.

19:50 CEST recess

**Call to order** July 13, 2023 08:00 CEST by Jessy Rouyer, Acting Chair of this Nendica meeting ("Chair"), who presided. Johannes Specht, Acting Secretary ("Secretary"), wrote the minutes.

- 5. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="https://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0323-v01.pdf">https://www.ieee802.org/1/files/public/templates/admin-prePAR-intro-0323-v01.pdf</a>. The Chair showed this presentation advising that the following applies:
  - IEEE SA's copyright policy is described in Clause 7 of the IEEE SA Standards Board Bylaws and Clause 6.1 of the IEEE SA Standards Board Operations Manual:

- Any material submitted during the Nendica meeting, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy.
- The Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.
- Approval of agenda. The Chair presented the agenda at <a href="https://1.ieee802.org/802-nendica-agenda-2023-07-13/">https://1.ieee802.org/802-nendica-agenda-2023-07-13/</a> and noted the Mentor server document list.
   Disposition: The agenda was reviewed and agreed (informally, none dissenting) as presented.
- 7. Minutes. The Chair reviewed the draft "Minutes of the Nendica meeting held 2023–06-29 09:00-11:00 ET" <a href="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;891c93c5.23&S="https://
  - **Disposition:** It was agreed (informally, none dissenting) to approve the minutes.
- 8. Vetting and New Topics. Huajie Bao presented "Industrial Campus Network for Virtual Programmable Logic Controller" <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0018-01-ICne-industrial-campus-network-for-virtual-plc.pdf">https://mentor.ieee.org/802.1/dcn/23/1-23-0018-01-ICne-industrial-campus-network-for-virtual-plc.pdf</a>.
  - **Disposition:** Further discussion needed.
- 9. Nendica organization. The Chair led the discussion and finalization of the draft Nendica ICCOM report in <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0007-02-ICne-draft-nendica-iccom-report.pptx">https://mentor.ieee.org/802.1/dcn/23/1-23-0007-02-ICne-draft-nendica-iccom-report.pptx</a>.
  - **Disposition:** Agreed (informally, none dissenting) to approve new revision 3 of draft Nendica ICCOM report in <a href="https://mentor.ieee.org/802.1/dcn/23/1-23-0007-03-ICne-draft-nendica-iccom-report.pptx">https://mentor.ieee.org/802.1/dcn/23/1-23-0007-03-ICne-draft-nendica-iccom-report.pptx</a> for confirmation and forwarding to ICCOM at the 802.1 closing plenary meeting.
- 10. Future Meetings. The Chair presented the future meetings plan.

**Disposition:** Motion:

- "Nendica authorized to meet alternate Thursdays 09:00-11:00 ET; additional meetings as announced at least 10 days in advance"
  - Mover: Glenn Parsons
  - Seconder: Ludwig Winkel
  - Passed by acclamation.
- 11. Any Other Business. No other business was discussed by Nendica in this meeting.

9:42 CEST adjournment

## 9 YANGsters

Between this session and the preceding session, YANGsters held electronic meetings whose minutes are incorporated to these session minutes by reference as follows:

- Minutes of the YANGsters meeting held 2023-06-06 10:01 –10:38 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;f6738b38.23&S=
- Minutes of the YANGsters meeting held 2023-06-20 10:03 –10:49 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;15a9ab1d.23&S=
- Minutes of the YANGsters meeting held 2023-07-04 10:00 –10:18 ET https://listserv.ieee.org/cgi-bin/wa?A2=STDS-802-1-MINUTES;2e52f0b9.23&S=

See section 1 for attendance and affiliation information.

**Call to order** Jul 11, 2023, at 16:01 CEST by Scott Mansfield, YANGsters Chair, who presided. Stephan Kehrer, YANGsters Secretary, wrote the minutes.

Agenda items and dispositions:

 Meeting introduction. The IEEE SA slides on IEEE Patent Policy and IEEE SA Copyright and Participation Policies were provided beforehand as part of "MEETING INTRODUCTION" <a href="https://www.ieee802.org/1/files/private/templates/admin-prePAR-intro-0323-v01.pptx">https://www.ieee802.org/1/files/private/templates/admin-prePAR-intro-0323-v01.pptx</a>.

The YANGsters Chair announced that the meeting is subject to these Policies as read and displayed at the opening plenary meeting.

The YANGsters Chair asked participants to record their attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker.

Approval of agenda. The YANGsters Chair presented the agenda in <a href="https://1.ieee802.org/july-2023-plenary-session-berlin-germany-yangsters/">https://1.ieee802.org/july-2023-plenary-session-berlin-germany-yangsters/</a>.
 Disposition: The agenda was reviewed, discussed, and agreed (informally, none dissenting) as presented.

- 3. Introduction to YANGsters. The YANGsters Chair introduced YANGsters by presenting
  - https://1.ieee802.org/yangsters/, and
  - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/.

**Disposition:** For information.

- 4. Status. The YANGsters Chair introduced the topic by showing "YANGsters Status" <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-berlin-status-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-berlin-status-0723-v02.pdf</a>.
  - The following topics have been discussed in YANGsters since the last plenary session:
    - MAC merge input per "YANG model for 802.3 MAC Merge Sublayer"
       https://www.ieee802.org/1/files/public/docs2023/yangsters-gutierrez-mac-merge-0623-v01.pdf
    - 802.3 LLDP YANG input per "LLDP Extensions in 802.3"
       <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-lldp-802dot3-0523-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-lldp-802dot3-0523-v02.pdf</a>
    - 802.1AX YANG input per "IEEE 802.1AX YANG modeling completion" <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-hartley-1AX-yang-modeling-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-hartley-1AX-yang-modeling-v01.pdf</a>
  - The YANG "sanity" overview was presented, and YANG validation was discussed. **Disposition:** For information.
- 5. Response to BBF Liaison related to YANG. The YANGsters Chair presented the BBF Liaison in <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-BBF-ONUMgmt-0623.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-BBF-ONUMgmt-0623.pdf</a> and led the discussion.
  - A draft response was presented and discussed. Suggested wording changes to update the draft response were proposed.

**Disposition:** Agreed (informally, none dissenting) that an updated version of the draft response, implementing the suggested changes, needs to be crafted, further discussed, and presented to IEEE 802.3 for 802.3 approval.

- 6. IEEE 802.3 YANG progress on LLDP work. Scott Mansfield presented "IEEE 802.3 YANG progress on LLDP work" <a href="https://www.ieee802.org/3/2/a/public/202307/80232a-202307-mansfield-802-3-2a-lldp-draft-yang.pdf">https://www.ieee802.org/3/2/a/public/202307/80232a-202307-mansfield-802-3-2a-lldp-draft-yang.pdf</a> and led the discussion.
  - Scott Mansfield showed the draft YANG module in <a href="https://www.ieee802.org/3/2/a/public/202307/80232a-202307-ieee802-ethernet-lldp.yang">https://www.ieee802.org/3/2/a/public/202307/80232a-202307-ieee802-ethernet-lldp.yang</a>.

**Disposition:** For information.

- 7. IEEE 802.3 MAC Merge work. Ganesh Venkatesan presented "YANG model for 802.3 MAC Merge Sublayer" <a href="https://www.ieee802.org/3/2/a/public/202307/80232a-202307-gutierrez-mac-merge-0707-v02.pdf">https://www.ieee802.org/3/2/a/public/202307/80232a-202307-gutierrez-mac-merge-0707-v02.pdf</a> and led the discussion.
  - The presentation provided an overview of the MAC Merge Sublayer model that is intended to be integrated into IEEE 802.3.2.
  - It also was explained how P802.1Qcw intends to make use of and leverage the MAC Merge Sublayer.

**Disposition:** For information.

- 8. ASdm discussion. Martin Mittelberger presented "ASdm YANG Draft Questions / Discussion" <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-mittelberger-ASdm-YANG-draft-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-mittelberger-ASdm-YANG-draft-0723-v01.pdf</a> and led the discussion.
  - Some questions in the presentation were discussed and clarifications were provided by YANGsters.

**Disposition:** Agreed (informally, none dissenting) that the guidance provided by YANGsters should be integrated into the P802.1ASdm draft YANG module.

- 9. IEEE 802.1AX information. Steve Haddock presented the topic.
  - A presentation on the topic will be presented in the afternoon TSN TG meeting on Wednesday, Jul 12, 2023 (<a href="https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN-3">https://1.ieee802.org/2023-07-plenary-tsn-agenda/#TSN-3</a>).
  - Participants interested in the topic are encouraged to join this meeting of the TSN TG for further information.

**Disposition:** For information.

- 10. Discussion Topics. None.
- 11. Request for next calls. The YANGsters Chair introduced the topic and led the discussion.
  - A motion is planned for the IEEE 802.1 closing plenary meeting to request the
    continuation of the YANGsters electronic meetings every two weeks, as shown in
    <a href="https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-berlin-status-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/yangsters-smansfield-berlin-status-0723-v02.pdf</a>, page 4. In addition, the motion is written to allow for additional electronic meetings, as needed.
  - If the motion passes, YANGsters' next electronic meeting will be Aug 1, 2023.
  - Information on YANGsters electronic meetings can be found at https://1.ieee802.org/yangsters/yangsters-call-information/.
- 12. Any Other Business. No other YANGSters business was discussed in this meeting.

17:45 CEST adjournment

# **10 Closing Plenary Meeting**

**Call to order** Jul 13, 2023 at 13:37 CEST by the Chair who presided. The Recording Secretary wrote the minutes.

See section 1 for attendance and affiliation information.

The Chair presented "Closing Plenary July 2023" finalized as <a href="https://www.ieee802.org/1/files/public/minutes/2023-07-closing-plenary-slides.pdf">https://www.ieee802.org/1/files/public/minutes/2023-07-closing-plenary-slides.pdf</a>.

During this presentation, the Chair:

- Introduced the agenda on slide 2 that was tacitly approved.
- Reminded all participants that access to this session requires a registration fee (slide 3).

- Reviewed mixed mode guidelines (slide 4), audio guidelines for in-person attendees (slide 5), electronic meeting guidelines supporting mixed mode (slide 6), meeting decorum, including the policies on public reporting, and on photography or recording (slide 7), and called for any members of the press (i.e., anyone reporting publicly on this meeting) who have not already announced themselves to announce their presence.
  - There were no responses to the call.
- Asked participants to record attendance in IMAT and, if they are unable to do so, to promptly provide their affiliation to the minute taker (slide 8).
- Reminded participants of their obligation to declare affiliation(s) which includes employer(s) (slide 9).
- Announced that this closing plenary meeting remains subject to the IEEE SA Copyright Policies (slides 10 to 12), IEEE Patent Policy (slides 13 to 17) and IEEE SA Participation policies (slides 18 to 20) made available beforehand (as announced in the opening plenary meeting – see section 3) and made the "Call for Potentially Essential Patents", i.e. provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard.
  - There were no responses to the call.
- Reminded participants of the various plenary session registration fees applying and attendant registration details (slide 21).
- Provided general information regarding meeting contributions, minutes, schedule for all Working Groups, website (slide 22).
- Showed 802.1 officers and leadership (slide 23) and recognized the editors of current projects (slide 24).
- Recognized IEEE SA Staff supporting IEEE 802.1 (slide 25) now and going forward, thanking Ron Hotchkiss for his service to the WG.
- Reminded participants and 802.1 voting members of obligations regarding 802.1 voting membership and how voting membership may be requested and retained (slide 26).
- Reminded 802.1 voting members of their obligations regarding responding to WG letter ballot series (WG ballots + ePolls) as well as regarding the consequences of not responding to WG letter ballot series (slide 27).
- Reviewed the list of 802.1 voting members (slide 28), including information about individuals who gained (slide 29), may gain (slide 30), will lose (slide 31), or could lose (slide 32) 802.1 voting membership.
- Reminded individual participants of 802.11 reciprocal credit, which was continued at this session (slide 33).
- Asked the 802.1 Executive Secretary to summarize information about upcoming sessions, starting with the Sep 2023 (slide 34), Jan 2024 (slide 35) and May 2024 (slide 36) interim sessions, and continuing with the schedule for future interim (slide 37) and plenary (slide 38) sessions, which remained unchanged from the opening plenary meeting.
- Conducted the following straw polls regarding future interim sessions (slide 39):
  - o 1. Would you like to come back to this venue?
    - Yes 31No 21Did not respond 20
  - 2. Did you go to the social?
    - Yes 42No 6Did not respond 24

- 3. Did you like the social?
  - Yes 31No 10Did not respond 31
- Provided the anticipation of next actions with respect to projects in the WG's current workload (slide 40).
- Showed the schedule of 802.1 meetings at this plenary session (slide 41) and the list of upcoming 802.1 leadership meetings (slide 42).
- Requested that the subgroup Chairs provide reports on the activities of their subgroups during this plenary session (slide 43) (see individual subgroup minutes above for details):
  - Jessy Rouver presented the Maintenance TG report on slides 44-45.
  - The Security TG Chair presented the report on slide 46.
  - The IEC/IEEE 60802 Joint Project Chair, the TSN TG Vice-Chair, and the TSN TG Chair presented the report on slide 47.
  - Jessy Rouyer presented the Nendica report on slides 48.
  - The YANGsters Vice-Chair presented for the YANGsters Chair the YANGsters report on slides 49-51.
- Summarized the various types of IEEE Awards encouraging nominations (slide 52).
- Had the Liaison Secretary summarize liaison resources (slide 53) and the set of new and previously-received (slide 54) incoming liaisons, and had (slide 55):
  - The TSN TG Chair lead the final review of draft liaison responses prepared and reviewed in the TSN TG during this plenary session.
  - The Liaison Secretary lead the final review of draft liaison responses prepared and reviewed in the Maintenance TG.
- Talked about "Liaison response on draft-ietf-intarea-rfc7042bis, "IANA Considerations and IETF Protocol and Documentation Usage for IEEE 802 Parameters""
   https://www.ieee802.org/1/files/public/docs2023/liaison-IETF-RFC7042bis-0723.pdf
   received from IETF on Jul 13, 2023, planning to provide 802.1 feedback in-person at IETF 117.
- Discussed promotion of the work of the WG (slide 56) and in so doing:
  - Data Center webinar on Sep 27, 2023 to be delivered by Lily Lv.
  - A 25% discount is available to 802.1 participants by request to the Chair, Vice-Chair or TSN TG Chair.
- Pointed out the 802 PARs, CSDs, PAR modifications (slide 57) that are up for vote or finalization during this IEEE 802 plenary session.
- Noted other 802 PARs this session (slide 58) and that 802.1 responses to the 802.11bn PAR and CSD were accepted.
- Provided guidance on using DirectVoteLive to vote on motions (slide 59).
- Following 15:20 15:56 CEST recess, showed the 802.1 consent agenda items for the LMSC closing plenary meeting (slides 60-61).
- Conducted votes on the following motions (slides 62-125) that all passed unless indicated otherwise. (Supporting information is available in "Closing Plenary July 2023" finalized as <a href="https://www.ieee802.org/1/files/public/minutes/2023-07-closing-plenary-slides.pdf">https://www.ieee802.org/1/files/public/minutes/2023-07-closing-plenary-slides.pdf</a>.)

#### Motions for 802 EC Consent Agenda ICAID to ICCom

#### Motion

Forward Nendica ICAID Renewal
 https://mentor.ieee.org/802.1/dcn/23/1-23-0004-06-ICne-draft-nendica-icaid-renewal-to-september-2025.docx, including Nendica ICCom Report https://mentor.ieee.org/802.1/documents?is group=ICne&is year=2023
 &is dcn=0007 for information, to ICCom

In the WG, Proposed: Jessy Rouyer Second: Norm Finn

o (y/n/a): 41, 2, 5

Motions for 802 EC Consent Agenda Drafts to SA Ballot

#### Motion

- Approve sending P802.1ASdr D2.0 to Standards Association ballot
- Confirm the CSD for P802.1ASdr in <a href="https://mentor.ieee.org/802-ec/dcn/21/ec-21-0097-00-ACSD-p802-1asdr.pdf">https://mentor.ieee.org/802-ec/dcn/21/ec-21-0097-00-ACSD-p802-1asdr.pdf</a>
- P802.1ASdr D1.2 had 98% approval at the end of the last WG ballot
- In the WG, Proposed: Silvana Rodrigues, Second: János Farkas
  - Sending draft (y/n/a): 52, 1, 1
  - o CSD (y/n/a): 49, 1, 1 (1 unexercised)

#### Motion

- Approve sending P802.1CS-2020/Cor1 D2.0 to Standards Association ballot
  - Note: there is no CSD statement since this maintenance project is not intended to provide any new functionality
- P802.1CS-2020/Cor1 D1.3 had 100% approval at the end of the last WG ballot
- In the WG, Proposed: Jessy Rouyer, Second: Norm Finn
  - Sending draft (y/n/a): 50, 1, 1

#### Motion

- Conditionally approve sending P802.1ASdn D2.0 to Standards Association ballot
- Confirm the CSD for P802.1ASdn in <a href="https://mentor.ieee.org/802-ec/dcn/20/ec-20-0202-00-ACSD-p802-1asdn.pdf">https://mentor.ieee.org/802-ec/dcn/20/ec-20-0202-00-ACSD-p802-1asdn.pdf</a>
- P802.ASdn D1.1 had 98% approval at the end of the last WG ballot
- In the WG, Proposed: János Farkas, Second: Ludwig Winkel
  - Sending draft (v/n/a): 51, 2, 1
  - o CSD (y/n/a): 50, 1, 2 (1 unexercised)

#### Motion

- Conditionally approve sending P802.1DC D3.0 to Standards Association ballot
- Confirm the CSD for P802.1DC in <a href="https://mentor.ieee.org/802-ec/dcn/18/ec-18-0091-00-ACSD-802-1dc.pdf">https://mentor.ieee.org/802-ec/dcn/18/ec-18-0091-00-ACSD-802-1dc.pdf</a>
- P802.1DC D2.2 had 98% approval at the end of the last WG ballot
- In the WG, Proposed: Norm Finn, Second: János Farkas
  - Sending draft (y/n/a): 51, 2, 1
  - o CSD (y/n/a): 48, 2, 3 (1 unexercised)

#### Motions for 802 EC Consent Agenda Drafts to RevCom

#### Motion

- Approve sending P802.1Qcj to RevCom
- Approve CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/21/ec-21-0195-00-ACSD-p802-1qci.pdf">https://mentor.ieee.org/802-ec/dcn/21/ec-21-0195-00-ACSD-p802-1qci.pdf</a>
- P802.1Qcj D2.5 had 100% approval at the end of the last SA ballot
- In the WG, Proposed: Paul Bottorff, Second: János Farkas
  - Sending draft (y/n/a): 46, 2, 5
  - o CSD (y/n/a): 44, 1, 5 (1 unexercised)

#### Motion

- Approve sending P802.1Qcw to RevCom
- Approve CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/21/ec-21-0196-01-ACSD-p802-1qcw.pdf">https://mentor.ieee.org/802-ec/dcn/21/ec-21-0196-01-ACSD-p802-1qcw.pdf</a>
- P802.1Qcw D2.2 had 98% approval at the end of the last SA ballot
- In the WG, Proposed: Marina Gutiérrez, Second: János Farkas
  - Sending draft (y/n/a): 49, 2, 2
  - o CSD (y/n/a): 50, 0, 3

#### Motion

- Conditionally approve sending P802f to RevCom
- Approve CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/19/ec-19-0217-00-ACSD-p802f.pdf">https://mentor.ieee.org/802-ec/dcn/19/ec-19-0217-00-ACSD-p802f.pdf</a>
- P802f D2.1 had 94% approval at the end of the last SA ballot
- In the WG, Proposed: Jessy Rouyer, Second: János Farkas
  - Sending draft (y/n/a): 47, 3, 5
  - CSD (y/n/a): 44, 3, 6 (1 unexercised)

#### Motions for 802 EC Consent Agenda PARs to NesCom

#### Motion

- Approve forwarding P802.1DG PAR extension documentation in <a href="https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dg-PAR-extension-0723-v01.pdf</a> to NesCom
- Approve (unmodified) CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/18/ec-18-0242-00-ACSD-p802-1dg.pdf">https://mentor.ieee.org/802-ec/dcn/18/ec-18-0242-00-ACSD-p802-1dg.pdf</a>
- In the WG, Proposed: Max Turner, Second: János Farkas
  - o PAR (y/n/a): 47, 1, 3
  - CSD (y/n/a): 43, 1, 4 (3 unexercised)

#### Motion

- Approve forwarding P802.1Qdj PAR extension documentation in <a href="https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dj-PAR-extension-0723-v01.pdf</a> to NesCom
- Approve (unmodified) CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/19/ec-19-0139-00-ACSD-p802-19dj.pdf">https://mentor.ieee.org/802-ec/dcn/19/ec-19-0139-00-ACSD-p802-19dj.pdf</a>
- In the WG, Proposed: Stephan Kehrer, Second: János Farkas
  - o PAR (y/n/a): 51, 1, 0 (1 unexercised)
  - o CSD (y/n/a): 51, 1, 1

- Motion
  - Approve forwarding P60802 PAR modification documentation in <a href="https://www.ieee802.org/1/files/public/docs2023/60802-PAR-modification-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/60802-PAR-modification-0723-v01.pdf</a> to NesCom
  - Approve (unmodified) CSD documentation in <a href="https://mentor.ieee.org/802-ec/dcn/18/ec-18-0088-01-ACSD-p60802.pdf">https://mentor.ieee.org/802-ec/dcn/18/ec-18-0088-01-ACSD-p60802.pdf</a>
  - In the WG, Proposed: Martin Mittelberger, Second: Ludwig Winkel
    - PAR (y/n/a): 51, 2, 1 (1 unexercised)
    - o CSD (y/n/a): 49, 1, 3 (1 unexercised)
- Motion
  - Approve forwarding P802.1Qdy PAR documentation in <a href="https://www.ieee802.org/1/files/public/docs2023/dy-PAR-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/dy-PAR-0723-v01.pdf</a> to NesCom
  - Approve CSD documentation in https://www.ieee802.org/1/files/public/docs2023/dy-CSD-0723-v01.pdf
  - In the WG, Proposed: Josef Dorr, Second: János Farkas
    - o PAR (y/n/a): 51, 1, 2
    - o CSD (y/n/a): 48, 1, 2 (1 unexercised)

# Motions for 802 EC Consent Agenda Liaisons and external communications (ME)

- Motion
  - Approve submission of the following draft(s) to ISO/IEC JTC1/SC6 for information under the PSDO agreement, once SA balloting begins.
    - o IEEE P802.1ASdn, IEEE P802.1ASdr, IEEE P802.1DC
  - In the WG, Proposed: Jessy Rouyer
    Second: Karen Randall
    - Sending draft (y/n/a): 50, 1, 2
- Motion
  - Approve submission of the following draft(s) to ISO/IEC JTC1/SC6 for adoption under the PSDO agreement, once approved and published.
    - o IEEE 802.1Qcj, IEEE 802.1Qcw, IEEE 802f
  - In the WG, Proposed: Jessy Rouyer Second: Karen Randall
    - Sending draft (y/n/a): 50, 2, 2
- Motion
  - Approve submission of the following comment responses to ISO/IEC JTC1/SC6 for information under the PSDO agreement:
    - IEEE 802.1ACct-2021
      - https://www.ieee802.org/1/files/public/docs2023/liaisonrandall-SC6CommentResponseACct-0723.pdf
    - IEEE 802.1BA-2021
      - https://www.ieee802.org/1/files/public/docs2023/liaisonrandall-SC6CommentResponseBA-0723.pdf
    - o IEEE 802.1Q-2022
      - https://www.ieee802.org/1/files/public/docs2023/liaisonrandall-SC6CommentResponseQRev-0723.pdf
  - In the WG, Proposed: Jessy Rouyer
    Second: Karen Randall
  - Sending draft (y/n/a): 46, 1, 3

#### Motions for 802 EC Consent Agenda Liaisons and external communications (II)

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-jca-IMT2020-0723.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-jca-IMT2020-0723.pdf</a> as communication to ITU-T JCA on LS13: IMT-2020 RoadMap, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
  - This approval is under LMSC OM "Procedure for public statements to government bodies"
- In the WG, Proposed: Jessy Rouyer Second: Karen Randall
  - Sending draft (y/n/a): 44, 1, 4

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-sg15-otnt-swp-0723.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-sg15-otnt-swp-0723.pdf</a> as communication to ITU-T SG15 on LS58: OTNT Standardization Work Plan Issue 32, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
  - This approval is under LMSC OM "Procedure for public statements to government bodies"
- In the WG, Proposed: Jessy Rouyer Second: Karen Randall
  - Sending draft (y/n/a): 46, 1, 3

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-SG13-DetermNetworkingandCommunics-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-response-itu-t-SG13-DetermNetworkingandCommunics-0723-v01.pdf</a> as communication to ITU-T SG13 granting the IEEE 802.1 WG chair (or his delegate) editorial license.
  - This approval is under LMSC OM "Procedure for public statements to government bodies"
- In the WG proposed: János Farkas, Second: Karen Randall
- (y/n/a): 45, 1, 4

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-BBF-ONUManagementYANG-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-BBF-ONUManagementYANG-0723-v01.pdf</a> as communication to the Broadband Forum (BBF), granting the IEEE 802.1 WG chair (or his delegate) editorial license.
- Proposed: Scott Mansfield
- Second: János Farkas
- In the WG (y/n/a): 46, 1, 4

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-lEEE1588-draft-sharing-and-terminology-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-lEEE1588-draft-sharing-and-terminology-0723-v01.pdf</a> as communication to IEEE 1588 WG, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
- Proposed: Silvana Rodrigues
- Second: János Farkas
- In the WG (y/n/a): 48, 0, 1

#### Motion

- Approve <a href="https://www.ieee802.org/1/files/public/docs2023/liaison-lEEEP3400-terminology-0723-v01.pdf">https://www.ieee802.org/1/files/public/docs2023/liaison-lEEEP3400-terminology-0723-v01.pdf</a> as communication to IEEE P3400, granting the IEEE 802.1 WG chair (or his delegate) editorial license.
- Proposed: János Farkas
- Second: Jessy Rouyer
- In the WG (y/n/a): 48, 1, 4

#### Motion

- Approve sharing the latest revision of the IEEE P802.1Qdd and IEC/IEEE 60802 drafts with Labs Networks Industrie 4.0 (LNI 4.0).
- Proposed: János Farkas
- Second: Josef Dorr
- In the WG (y/n/a): 46, 3, 3

# Administrative WG Motions

#### Motion

- 802.1 approves the March 2023 (plenary) and May 2023 (interim) session minutes:
  - https://www.ieee802.org/1/files/public/minutes/2023-03minutes.pdf
  - https://www.ieee802.org/1/files/public/minutes/2023-05minutes.pdf
- Proposed: Jessy Rouver
- Seconded: János Farkas
- Approved by acclamation

#### Motion

- 802.1 approves to hold an 802.1 interim session January 22-26, 2024 in Heidelberg, Germany hosted by NEC Laboratories Europe as in-person session with provisions to support mixed mode.
- Proposal in <a href="https://www.ieee802.org/1/files/public/docs2023/admin-Zein-Heidelberg-interim-0723-v02.pdf">https://www.ieee802.org/1/files/public/docs2023/admin-Zein-Heidelberg-interim-0723-v02.pdf</a>
- Proposed: Stephan Kehrer Seconded: Jessy Rouyer
- Yes: 47 No: 2 Abstain: 2

#### Meetings motion

- 802.1 authorizes the noted subgroups to hold the meetings in the following future meetings table with announcement requirement, agenda and access information as indicated
- Proposed: Jessy Rouyer
- Seconded: János Farkas
- Passed by acclamation

#### Future meetings table

| Subgroup       | Topic                       | Date           | Time             | Recurrence | Date       | Agenda           | Agenda                     | Access Information                     |
|----------------|-----------------------------|----------------|------------------|------------|------------|------------------|----------------------------|----------------------------------------|
| Jungroup       | Торіс                       | Date           | Time             | Recuirence | annoucemei | nts (days prior) | Agenua                     | Access information                     |
| YANGsters      | per agenda                  | Tue 2023-08-01 | 10:00 - 11:00 ET | every two  | motion     | 5 days           | 802.1 Minutes email list   | https://1.ieee802.org/yangsters/yang   |
|                |                             |                |                  | weeks      |            |                  |                            | sters-call-information/                |
| YANGsters      | per agenda                  | i              | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | https://1.ieee802.org/yangsters/yang   |
|                |                             |                |                  |            |            |                  |                            | sters-call-information/                |
| Maintenance TG | address TG matters and      | i              | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | https://1.ieee802.org/category/maint   |
|                | progress resolution of      |                |                  |            |            |                  |                            | enance-tg-agenda/                      |
|                | maintenance items in        |                |                  |            |            |                  |                            |                                        |
|                | https://1.ieee802.org/mai   |                |                  |            |            |                  |                            |                                        |
|                | ntenance/database/          |                |                  |            |            |                  |                            |                                        |
| Maintenance TG | progress P802-REVc          | Tue 2023-07-25 | 10:00 - 12:00 ET | none       | motion     | 5 days           | 802.1 Minutes email list   | https://1.ieee802.org/category/maint   |
|                |                             | Wed 2023-07-26 | 10:00 -12:00 ET  | none       | motion     | 5 days           | 802 Architecture list      | enance-tg-agenda/                      |
| Maintenance TG | progress P802-REVc          | a a            | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | https://1.ieee802.org/category/maint   |
|                |                             |                |                  |            |            |                  | 802 Architecture list      | enance-tg-agenda/                      |
| Security TG    | P802.1Qdt and TG matters    | a a            | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | https://1.ieee802.org/security/securit |
|                | arising                     |                |                  |            |            |                  |                            | <u>y-task-group-agenda/</u>            |
| TSN TG         | per agenda                  | Mon 2023-11-13 | 8:00 - 10:00     | none       | motion     | 14 days          | https://1.ieee802.org/cate | https://1.ieee802.org/meetings/        |
|                |                             |                |                  |            |            |                  | gory/tsn-tg-agenda/        |                                        |
| TSN TG         | progress IEC/IEEE 60802     | Fri 2023-11-17 | 8:00 - 17:00     | none       | motion     | 14 days          | https://1.ieee802.org/cate | https://1.ieee802.org/meetings/        |
|                | Joint Project and other     |                |                  |            |            |                  | gory/tsn-tg-agenda/        |                                        |
|                | TSN TG work                 |                |                  |            |            |                  |                            |                                        |
| TSN TG         | per agenda                  | Mon 2023-07-17 | 11:00 - 13:00 ET | weekly     | motion     | 5 days           | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
| TSN TG         | progress TG projects and    | i              | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
|                | TG matters arising          |                |                  |            |            |                  |                            |                                        |
| TSN TG         | progress IEC/IEEE 60802     | Mon 2023-07-17 | 9:00 - 11:00 ET  | weekly     | motion     | 5 days           | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
|                | Joint Project work with IEC |                |                  |            |            |                  |                            |                                        |
|                | 65C/WG18                    |                |                  |            |            |                  |                            |                                        |
| TSN TG         | progress IEC/IEEE 60802     | Fri 2023-07-21 | 9:00 - 11:00 ET  | weekly     | motion     | 5 days           | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
|                | Joint Project work with     |                |                  |            |            |                  |                            |                                        |
|                | IEC 65C/WG18                |                |                  |            |            |                  |                            |                                        |
| TSN TG         | progress P802.1DG           | Tue 2023-07-25 | 9:00 - 11:00 ET  | every two  | motion     | 5 days           | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
|                |                             |                |                  | weeks      |            |                  |                            |                                        |
| TSN TG         | progress P802.1DP / SAE     | Wed 2023-07-19 | 10:00 - 12:00 ET | every two  | motion     | 5 days           | 802.1 Minutes email list   | http://www.ieee802.org/1/tsn           |
|                | AS6675 Joint Project work   |                |                  | weeks      |            |                  |                            |                                        |
|                | with SAE AS6675             |                |                  |            |            |                  |                            |                                        |
| Nendica        | per agenda                  | Thu 2023-07-27 | 9:00 - 11:00 ET  | every two  | motion     | 5 days           | 802.1 Minutes email list   | https://1.ieee802.org/802-nendica/     |
|                |                             |                |                  | weeks      |            |                  |                            |                                        |
| Nendica        | per agenda                  |                | as announced     |            | 10 days    | 10 days          | 802.1 Minutes email list   | https://1.ieee802.org/802-nendica/     |

#### Nendica WG Motions

#### YANGsters WG Motions

# Maintenance TG WG Motions

#### Motion

- 802.1 authorizes Mick Seaman, the Editor of P802.1Q-2022-REV, Standard for Local and Metropolitan Area Networks: Bridges and Bridged Networks, to prepare drafts for and conduct Task Group balloting.
- Proposed: Jessy Rouyer
- Second: Karen Randall
- In the WG (y/n/a): 46, 1, 2 (1 unexercised)

#### Motion

- 802.1 authorizes Silvana Rodrigues, the Editor of P802.1AS-2020-REV, Standard for Local and Metropolitan Area Networks: Timing and Synchronization for Time-Sensitive Applications, to prepare drafts for and conduct Task Group balloting.
- Proposed: Jessy Rouyer
- Second: Karen Randall
- In the WG (y/n/a): 47, 1, 1 (2 unexercised)

- Motion
  - 802.1 authorizes the Maintenance TG to generate PAR and CSD at the September 2023 interim session for pre-circulation to the EC for an amendment to IEEE 802.1AC to include 802.15.6
  - Proposed: Jessy Rouyer
  - Second: Norman Finn
  - In the WG (y/n/a): 46, 2, 3
- The Chair provided a summary of discussion in the joint 802.1/802.15 meeting held this plenary session and future meeting plan with 802.15.

# Security TG WG Motions

#### TSN TG WG Motions

- Motion
  - 802.1 authorizes Abdul Jabbar, the Editor of P802.1Qdx Standard for Local and Metropolitan Area Networks: Bridges and Bridged Networks – Amendment: YANG Data Models for the Credit-Based Shaper to prepare drafts for and conduct Working Group balloting.
  - Proposed: János Farkas
  - Second: Ludwig Winkel
  - In the WG (y/n/a): 49, 3, 1
- Motion
  - 802.1 authorizes Johannes Specht, the Editor of P802.1DU Standard for Local and Metropolitan Area Networks: Cut-Through Forwarding Bridges and Bridged Networks to prepare drafts for and conduct Task Group balloting.
  - Proposed: János Farkas
  - Second: Jordon Woods
  - In the WG (y/n/a): 46, 2, 4
- o Motion
  - 802.1 authorizes Norman Finn, the Editor of P802.1Qdv Standard for Local and Metropolitan Area Networks: Bridges and Bridged Networks – Amendment: Enhancements to Cyclic Queuing and Forwarding to prepare drafts for and conduct Task Group balloting.
  - Proposed: János Farkas
  - Second: Stephan Kehrer
  - In the WG (y/n/a): 46, 2, 3 (1 unexercised)
- Motion
  - 802.1 conditionally authorizes Martin Mittelberger, the Editor of P802.1Qdy Standard for Local and Metropolitan Area Networks: Bridges and Bridged Networks – Amendment: YANG for the Multiple Spanning Tree Protocol to prepare drafts for and conduct Working Group balloting after the SASB approval of the PAR.
  - Proposed: Mick Seaman
  - Second: János Farkas
  - In the WG (y/n/a): 45, 2, 4

- Motion
  - 802.1 authorizes the TSN TG to generate PAR and CSD at the September 2023 interim session for pre-circulation to the EC for an amendment to IEEE 802.1AX on YANG for Link Aggregation.
  - Proposed: Stephen Haddock
  - Second: János Farkas
  - In the WG (y/n/a): 44, 2, 5
- Motion
  - 802.1 authorizes the TSN TG to generate PAR and CSD at the September 2023 interim session for pre-circulation to the EC for an amendment to IEEE 802.1Q on Extensions to the TSN UNI.
  - Proposed: Konstantinos Alexandris
  - Second: Stephan Kehrer
  - Motion to table:
    - o Proposed: Stephan Kehrer
    - o Second: Craig Gunther
  - In the WG (y/n/a): 38, 2, 3
- Called for Any Other Business (slide 128).
  - No other business was discussed in this meeting.

18:45 CEST adjournment

# 11 Next Session

Sep 11-15, 2023 mixed mode interim session in Niskayuna, New York, USA.