Macintosh HD:Users:33i:Desktop:Communication_definitsion.emf

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| **Message Name** | **Information** |
| Send\_setpoints | * Definition: Setpoints sent from EMS to SCADA for dispatch of resources * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of variable name (unsigned 8-bit), variable name (string), setpoint (double precision floating point) |
| Send\_setpoints\_success | * Definition: Confirmation of success of application of set points sent from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of variable name (unsigned 8-bit), variable name (string) |
| Send\_setpoints\_failure | * Definition: Notice of failure of application of set points sent from IED to SCADA to EMS or from SCADA to EMS. * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of variable name (unsigned 8-bit), variable name (string), string length of error information (unsigned 32-bit integer), error information (string) |
| Send\_measurements | * Definition: Measurements data from SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of measurement name (unsigned 8-bit), measurement name (string), measurement (double precision floating point) |
| Send\_measurements\_success | * Definition: Notice of success of application of measurement data sent from EMS to SCADA. * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of measurement name (unsigned 8-bit), measurement name (string) |
| Send\_measurements\_failure | * Definition: Notice of failure of application of measurement data sent from EMS to SCADA. * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of measurement name (unsigned 8-bit), measurement name (string), measurement (double precision floating point) |
| Island\_control | * Definition: Transition to off-grid (change source controller from P/Q to V/f) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Island\_control\_success | * Definition: Confirmation of success of Island control command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Island\_control\_failure | * Definition: Notice of failure of Island control command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Island\_relay | * Definition: Transition to off-grid (open relay) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Island\_relay\_success | * Definition: Confirmation of success of Island relay command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Island\_relay\_failure | * Definition: Notice of failure of Island relay command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Sychronize\_control | * Definition: Transition to on-grid (change source controller from V/f to P/Q) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Synchronize\_control\_success | * Definition: Confirmation of success of Synchronize control command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Synchronize\_control\_failure | * Definition: Notice of failure of Synchronize control command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Sychronize\_relay | * Definition: Transition to on-grid (close relay) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Synchronize\_relay\_success | * Definition: Confirmation of success of Synchronize relay command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Synchronize\_relay\_failure | * Definition: Notice of failure of Synchronize relay command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| CID\_file\_send | * Definition: Send SCADA .CID individual file * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string), length of file (unsigned 32 bit), file (string) |
| CID\_file\_received | * Definition: Received confirmation that file has been received. * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string) |
| CID\_file\_error | * Definition: Notice from SCADA to EMS that there was a problem parsing/using a given .CID file. * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string), string length of error information (unsigned 32-bit integer), error information (string) |
| CID\_load | * Definition: Notification from EMS to SCADA to load defined .CID file and to perform initial connection to IED * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string), string length of IED name (unsigned 8-bit), IED name (string) |
| CID\_load\_success | * Definition: Notification of successfully loading .CID file and performing initial connection to IED sent from SCADA to EMS. * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string), string length of IED name (unsigned 8-bit), IED name (string) |
| CID\_load\_failure\_load | * Definition: Notification from SCADA to EMS that the .CID file was not loaded successfully. * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string) , string length of IED name (unsigned 8-bit), IED name (string), string length of error information (unsigned 32-bit integer), error information (string) |
| CID\_load\_failure\_communication | * Definition: Notification from SCADA to EMS that initial communication was not successful. * Message Content: string length of CID file name (unsigned 8-bit), CID file name (string) , string length of IED name (unsigned 8-bit), IED name (string), string length of error information (unsigned 32-bit integer), error information (string) |
| CID\_unload | * Definition: Notification from EMS to SCADA to unload defined IED and close communication. * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| CID\_unload\_success | * Definition: Notification of successfully unloading IED sent from SCADA to EMS. * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| CID\_unload\_failure | * Definition: Notification from SCADA to EMS that the IED was not unloaded successfully. * Message Content: string length of IED name (unsigned 8-bit), IED name (string), string length of error information (unsigned 32-bit integer), error information (string) |
| Device\_activate | * Definition: Set turn on sequence for device (close relays and perform device startup) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Device\_activate\_success | * Definition: Confirmation of success of Device Activate command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Device\_activate\_failure | * Definition: Notice of failure of Device Activate command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Device\_deactivate | * Definition: Set turn off sequence for device (perform shutdown and open relays) * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Device\_deactivate\_success | * Definition: Confirmation of success of Device Deactivate command and confirmation from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Device\_deactivate\_failure | * Definition: Notice of failure of Device Deactivate command from IED to SCADA to EMS * Message Content: string length of IED name (unsigned 8-bit), IED name (string) |
| Unknown\_message | * Definition: Message sent from EMS to SCADA or vice-versa if an undefined message was sent. * Message Content: string length of message name (unsigned 8-bit integer), message name (string) |
| Bad\_message | * Definition: Message sent from EMS to SCADA or vice-versa if a message is incorrectly formatted. * Message Content: string length of message name (unsigned 8-bit integer), message name (string), size of original message content (unsigned 32-bit integer), Original message content (string) |
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