1.1 Project Number: P1815.1
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std 1815 (Distributed Network Protocol - DNP3)

3.1 Working Group: Substations Working Group C14 (PE/SUB/C14-1815.1_WG)
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3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Substations (PE/SUB)
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2012
4.3 Projected Completion Date for Submittal to RevCom: 10/2013

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This document specifies the standard approach for mapping between IEEE Std 1815 (Distributed Network Protocol (DNP3)) and IEC 61850 (Communications Networks and Systems for Power Utility Automation). Two primary use cases are addressed:
A) Mapping between IEEE 1815 based master(s) and IEC 61850 based server(s)
B) Mapping between IEC 61850 based client(s) and IEEE 1815 basedoutine(s).

Mapping aspects included in the standard are: conceptual architecture; general mapping requirements; the mapping of Common Data Classes, Constructed Attribute Classes and Abstract Communication Service Interface (ASCI); cyber security requirements, the architecture of a gateway used for translation and requirements for embedding mapping configuration information into IEC 61850 System Configuration Language (SCL) and DNP3 Device Profile. This specification addresses a selection of features, data classes and services of the two standards.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This document will not include a purpose clause.
5.5 **Need for the Project:** To provide a standard for mapping between IEEE 1815 and IEC 61850 protocols for use in a broad range of Smart Grid applications.

5.6 **Stakeholders for the Standard:** Electric utilities and other end users, manufacturers and system integrators.

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**Intellectual Property**

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes (Item Number and Explanation): 5.2: Both protocols, DNP3 (now IEEE 1815) and IEC 61850, are identified by the National Institute of Science and Technology (NIST) as key standards for the Smart Grid. NIST and the Smart Grid Interoperability Panel (SGIP) are working to accelerate the development of this standard. See also Priority Action Plan (PAP) - 12. PAP12 is a part of the SGIP activity which is devoted to mapping IEEE 1815 to IEC 61850 objects. Reason for Modified PAR: The change was generated from a discussion related to comments submitted during ballot, where the terminology used need adjustment to better align to the IEEE 1815 standard.