



DNP3 Application Note AN2018-002

DNP3 Conformance Procurement Guidelines

1 Introduction

This document provides a template table that can be used in Request For Quote (RFQ) documents for procurement of DNP3 subset level 1, 2, or 3 conformant equipment. Use of the template table will allow end users to request a statement of compliance from manufacturers, in an appropriately worded format. The template is intended to ensure that equipment is conformant with DNP3 specifications (and technical bulletins that affect conformance), and that outstation conformance has been verified by the DNP3 IED Certification Procedures.

Specific requirements beyond those supported by DNP3 subset level 1, 2, or 3 need to be added by the purchaser as required.

2 Word Usage

The words *shall*, *should*, *may*, and *can* use the definitions in the IEEE-SA Standards Board Operations Manual. The following excerpt is reproduced from the 2014 IEEE Standards Style Manual:

“In this document, the word *shall* is used to indicate a mandatory requirement. The word *should* is used to indicate a recommendation. The word *may* is used to indicate a permissible action. The word *can* is used for statements of possibility and capability.”

It is the manufacturer’s responsibility to ensure the correct interpretation when responding to the requirements specified within this document.

3 Compliance Classification

Responses to specific requirements shall use the following classifications:

- **Compliant** – The manufacturer’s outstation meets or exceeds all of the stated requirements.
- **Partially Compliant** – The manufacturer’s outstation meets or exceeds some of the stated requirements. The manufacturer shall clearly identify all of the non-compliant requirements.
- **Non-compliant** – the manufacturer’s outstation does not support the stated requirements.

4 Requirements

Note: The following are sample requirements. The end user is encouraged to expand or clarify these requirements to address their specific needs.

For example: If a system requires a specific form or level of compliance, the following should be altered to reflect those specific requirements. That means: Change the following requirements to specify what you want or need.

The following is a suggestion for specifying the latest versions of DNP3 implementation and how the offered system is to remain current as revisions are released up to the time of delivery of the equipment.

The documents referenced in the following table are those published at the time of delivery.

The purchaser reserves the right to require that the supplier implement revisions to the DNP3 specifications that occur prior to provision of the system as follows:

- New IEEE Std 1815 versions should be implemented within 12 months of the publication date and shall be implemented within 24 months of the publication date.
- Revisions to the Device Profile template should be implemented within 12 months of the publication date and shall be implemented within 24 months of the publication date.
- Revisions to the IED certification procedures should be applied within 12 months of the publication date and shall be applied within 24 months of the publication date. Technical bulletins, applicable to the IED certification procedures, published by the DNP Users Group should be adopted within 24 months.
- IED Certification Procedures test results that are more than 24 months older than the publication date of the latest revision of the IED Certification Procedures or applicable technical bulletins shall be retested according to the latest procedure.

Requirement	Compliance	Comment
The DNP3 implementation shall comply with the latest version of IEEE Std 1815™.		
The manufacturer shall provide an XML Device Profile using the latest template published by the DNP Users Group.		
<p>Purchasers may optionally require that the offered devices or system shall meet the requirements of a DNP3 Device Profile supplied by the purchaser, as described in the following text:</p> <p>The equipment shall provide the specific functionality identified in the attached DNP3 Device Profile.</p>		

Where the requested system includes DNP3 outstations, purchasers shall include the following requirements:

A representative sample of the outstation shall have been tested for conformance to DNP3 using the latest DNP3 IED Certification Procedure published by the DNP Users Group.		
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Outstations shall be registered as a DNP3 conformant device on the DNP Users Group web site ¹ .		
<p>Purchasers shall select either one of the following:</p> <ul style="list-style-type: none"> a) The results and logs of the successfully completed DNP3 IED Certification Procedure for the offered equipment shall be made available for review within 5 business days of receiving the request to provide this information. b) The results and logs of the successfully completed DNP3 IED Certification Procedure for the offered equipment shall be provided prior to delivery of the first unit. 		

5 Summary

This application note is intended as a guidance for specifying the requirement for DNP3 Conformance in RFQ documents.

This application note does not address DNP3 Secure Authentication-related requirements. Refer to AN2017-001 Secure Authentication Procurement Guidelines.

6 Submitted By

DNP Technical Committee.

7 Disclaimer

Application Notes contain application information developed by users and are provided for the benefit of other users. This note illustrates how the features of DNP3 are used to meet specific user requirements. This Application Note has been reviewed by the DNP Technical Committee. It does not contain all of the details that are mandatory for a complete DNP3 implementation, and the Committee does not warrant that the approach taken is the only way to use DNP3 to meet the user requirements.

¹ If the manufacturer has taken the necessary steps to register the device as DNP3 conformant with the DNP Users Group but is waiting for a response from the DNP Users Group, mark "Partially compliant" and provide a date for when the request was sent to the DNP Users Group.