



## **DNP USERS GROUP**

### **Member Update**

December 2019

As you might expect, the DNP-UG leadership team, the Technical Committee (TC), Test Management Committee (TMC), the Secure Authentication Task Force (SATF) and the Test Procedure Subcommittee (TPSC) have all had a very busy year. As you will see below, each group has their plate full of important activity and most have demanding timelines. We continue to see an amazing (approximately) 4,000 hours of volunteer annual effort by many smart and dedicated people!

#### **1 Conformance Test Review (CTR) Program**

One of the most demanding (to support) services offered by the UG is our CTR program. We believe this is also one of the most important things we do. By supporting improved interoperability between different vendor's devices, we enable utilities and vendors to reduce their risk with installation projects and product releases. This is an important step that all vendors should be pursuing and all utilities requiring of their vendors. Our [DNP3 Conformance Procurement Guideline](#) specifies this. [See this Overview](#)

Our newly updated CTR process is showing good results. We have broken the CTR process into two phases with Phase 1 Review focusing on the Device Profile and the Phase 2 Review focusing the test logs. In addition, we have now released a new CTR Certificate that vendors can share with their customers. For further information please contact our Coordinator, Conformance Test Reviews at [conformancetesting@dnp.org](mailto:conformancetesting@dnp.org)

#### **2 Technical Committee Annual Meeting (Face to Face)**

Our annual Face to Face meeting occurred from November 18-22 in Reno, NV with 15 attendees. Highlights from the five days include; progress on key security areas (see below) while coordinating with the editor of IEC 62351 Part 5, Master Station Test Procedure (MSTP) review, updates to IEEE 1815, IP section update and a new Device Profile Guide.

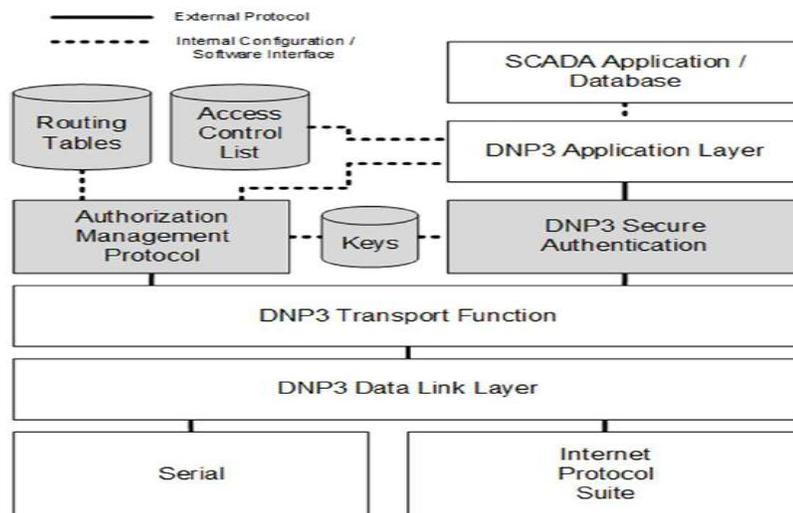


### 3 Security

The SATF have continued to work toward the ambitious goals of updating our current Secure Authentication Version 5 (SAv5) to the new SAv6 and defining a new mechanism for authorizing communications relationships between devices called Authorization Management Protocol (AMP). The primary motivations and benefits for developing SAv6 are to; reduce complexity, address vulnerabilities, reduce overhead, update cryptographic algorithms, move to a separate layer, add encryption and gain the benefits from AMP. SAv6 also provides a simpler and more secure enrollment process with a low-overhead method in place of using pre-shared keys while reducing the probability of a human seeing a key. As with all DNP3 communications, DNP3 security protocols may operate over either serial links or Internet protocol suites. [See this Overview](#)

Also included in this development is AMP which replaces the DNP Key Management Protocol (DKMP). AMP is used together with the DNP3 Application Layer and DNP3-SAv6 to centrally manage which devices are authorized to communicate. AMP builds its own routing tables to direct messages between masters, outstations and a Central Authority. AMP may be also used to perform role-based access control (RBAC).

Also important is continuing to coordinate closely with a parallel updating of IEC 62351-5.



### 4 New Test Procedures

Significant progress has been made in the area of Master Station Test Procedures (MSTPs) with the test process and test planning definitions now completed and the detailed test procedures well underway. In addition, plans are in place to begin updating the Outstation Test Procedures (OSTPs) in the coming months.



## 5 IEEE Std 1815™ Update for 2021/2022

The DNP Technical Committee is continuing a major update to the IEEE 1815 standard. This involves incorporating all Technical Bulletins (revisions and extensions) issued since 2012, revamping the IP Networking section, updating the section on interoperability, incorporating the new SAV6 specification, correcting other errata and addressing editorial areas.

## 6 New Device Profile Guide

As part of our renewed emphasis on the CTR process to better support the vendor and utility communities, we are developing a new and valuable document: DNP3 Device Profile Guide. We anticipate the first full draft of this document to be ready in Q2 of 2020.

## 7 DNP3 Profile for Distributed Energy Resource (DER) Communications

In late 2018, the DNP-UG released this significant new profile defining a standardized list of DNP3 points, services and settings for DER communications. The profile is designed based on the structured data models specific to DER devices as defined in IEC-61850-7-420. This profile complies with California 21 and is specifically (normatively) referenced in IEEE Std. 1547™ – 2018. See [DNP3 Application Note AN2018-001 – DNP3 Profile for Communications with Distributed Energy Resources](#)

The project was a collaborative effort led by the Electric Power Research Institute (EPRI), and included the DNP-UG, the MESA Standards Alliance (MESA), SunSpec Alliance, EnerNex, and Xanthus Consulting.

## 8 New Fee Structure for 2020

Although the DNP-UG has continued to support many key initiatives, the leadership has concluded that our organizational structure of 100% volunteers was not sustainable. At the annual meeting in February 2019 a proposal to change the structure of the UG was approved by the members. We then entered a process of defining a new fee structure which was open and transparent with lots of opportunity for input from our members. The proposed fees were established with reference to and value comparison with other similar industry groups. This was followed by a vote by all members on a new fee structure concluding in July 2019. The vote was approved by a wide margin. The new fees take effect on January 1, 2020. A separate [Member Fee Guide](#) explains this new structure. Other relevant documents include Member Value Propositions and Member Fee Backgrounder. Note the website update is delayed with an expected go-live date of February 1, 2020.