Updated USLP Telecon #4

Meeting Minutes

March 9, 2016

Topic: Chapter 3: USLP Services

Attendees: Greg Kazz, Ed Greenberg, Matt Cosby, Gian Paolo Calzolari, Lee Pitts, Kevan Moore, Victor Sank, Bob Nice, Tomaso DeCola, Stefan Veit, Gilles Moury

1. We discussed the new MAP\_PDU Service. Perhaps a better name for this service would be MAP\_UPDU for upper layer PDU. It allows for the transfer of CCSDS recognized PDUs to be transferred across the USLP Space Data Link. These PDUs are defined in SANA already. Should USLP allow only PDUs that contain a defined length field or should USLP also allow PDUs that do not have a defined length field such as DTN Bundles and LTP Segments (within the spanning rules “000”)?.  This capability can be transmitted using rule “001” or MAP-ACCESS Service.  After this meeting, I have asked Keith Scott, the SIS Area Director for guidance. He will meet with SLP in Cleveland to discuss options for this. For these types of PDUs the user must chain from one field to the next to sum up the length in order to delimit that kind of PDU. GPC questioned the usefulness of allowing these types of PDUs needing extensive operations for data extraction that could impact performance. For these types of PDUs the encapsulation service remains a user option . Therefore USLP requires that PDUs transferred by this service using rule “000” must be self-delimiting, and have a USLP Protocol ID (UPID) registered by SANA. How the length of the PDU is passed to the USLP API is the subject of Keith Scott’s future discussion at the Cleveland meeting.
2. I made a simple change to the document in 3.5.3.2 from OCTET STREAM TO OCTET\_STREAM throughout all the section defining the OCTET STREAM SERVICE PRIMITIVES.
3. I also made a change from: PID to UPID (USLP Protocol Data Unit) so there will be no future collisions with the overloaded term, PID in SANA including “See SANA UPID registry”.
4. Greg went over all of the Services defined in Chapter 3. The VC Packet Service is called the “MAP Packet Service”. The VC access service equivalent is the MAP Access Service. In fact, as the MAP Identifier is a mandatory field in USLP (while in TC it was optional), in general there is no sense in distinguish services limited to a VC from services limited to a MAP. Exception are services that affect all maps of the given VC, i.e.: VC\_OCF, VC Octet Stream, VC Frame, and VC On-demand Insert.  
   There are two new services: MAP\_PDU service and the VC On-Demand\_Insert\_Service. The On-demand Insert Zone will be debated at the meeting in CLE.
5. There was discussion again concerning the COP Management Service. This service is defined in TC and allows for the transfer of control directives by the link layer protocol for the COP. Currently, the draft USLP book does not contain this service but refers to COP-1 (UPID = “00000”) and COP-P books as appropriate. The rationale for not including it is: USLP defines a field (USLP Protocol Identifier for the COP-1 in the TFDF header which is the currently defined mechanism in USLP to identify these control commands i.e., “BC Frames” for COP-1. Note that currently there is no “Control Command Flag” as there is in TC in the Transfer Frame Header but rather the specified value of that field is used as control flag to signal the presence of COP-1 directives.
6. Lee Pitts, Kevan Moore, Stefan Veit along with any other members of SLP WG will discuss USLP test plans at the Cleveland meeting on April 6 (Wed.). Lee Pitts will send out an email to the SLP WG announcing the room and time.
7. Thanks to all participants. This is the last telecon before the SLP WG meeting in Cleveland on April 4-5. The draft USLP White Book for review at that meeting will contain March 8 or later date in the filename.