Clause 50 (WIS) Status

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WIS Clause Structure

- ## Patterned after Clause 36 (802.3z PCS/PMA)

  - **Overview**: scope, objectives, layer model, functional summary, conventions

  - **Service Interface**: simple, only 2 primitives
    - WIS_UNITDATA.request(tx_data-unit<15:0>)
    - WIS_UNITDATA.indicate(rx_data-unit<15:0>)

  - **Functions**: payload mapping, Transmit and Receive frame generation processes, overhead bytes, Defects and Anomalies, scrambling, frame delineation, error propagation, layer management
    - Based on Blue Book WIS presentation (figueira_1_0700.pdf)
    - Uses ANSI T1.416-1999 as a primary reference for all overhead bytes, defects+anomalies, etc.

  - **State Diagrams**: frame/octet synchronization (only one so far)

  - **Environmental Specifications**: boilerplate

  - **PICS Proforma**: currently a placeholder, boilerplate filled in

Current Status

- ## All major parts in place except for PICS

  - Service interface defined and described
  - Functional description complete as per San Diego contributions
  - Layer management registers defined
  - Error handling and error propagation defined
  - Synchronization State Machine defined and described

- ## Remaining items

  - PICS proforma must be filled in
  - Final resolution on some overhead bytes and error handling
  - State diagrams? (e.g., pointer processing)
  - Some editorial issues

Major Issues

- ## Overhead bytes
  - Should we include B2/M0/M1 support?
  - Should we include trace messaging in J1?
    - If so: only support 64-byte CLLI message, or 16-byte E.164 address as well?

- ## Need definition of error propagation delay bounds
  - Also, PCS must interpret a back-to-back stream of zeros (current error propagation method) as a WIS sync failure

- ## Internationalization of WIS spec?
  - We may alienate European community by excluding all references to ITU standards

- ## Should pointer interpreter state machine be defined?
  - ANSI specs don't define this; ITU G.783 does provide one

- ## PICS is essentially blank, must fill this in
  - Adapt from ATM Forum Test SWG SONET PICS?

Minor Issues

- Layer management register definition details
  - Clause 33 or Clause 50?

- Incorporation of definitions and abbreviations
  - Currently just referenced in T1.416; copy into WIS Clause?

- SUPI should be shown in layer diagram

- Reconcile WIS and PCS service interfaces
  - Also reconcile WIS and PMA service interfaces

- Should H1/H2 concatenation indication be checked?
  - Also, should it be made consistent with ITU specs?

Authorization Required

- Inclusion of references to ANSI T1.105-1995
  - Blue Book presentation in San Diego (figueira_1_0700.pdf) stipulated that only ANSI T1.416-1999 was to be used
  - However, T1.416 does not specify or make any references to the scrambler function for SONET
  - T1.105 does specify the scrambler
  - Thus the spec includes references to T1.105-1995.

- Error propagation by WIS
  - Propagation of errors detected by the WIS to the PCS has not been covered by any contribution so far
  - It was felt that this would be a good thing (facilitates early detection of line problems at the PCS, rather than waiting for layer management to catch up)
  - Thus a propagation mechanism was defined whereby fatal errors cause the WIS to send all-zeros to the PCS via the WIS Service Interface.