

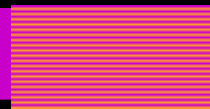


PWG 1394 Imaging Device Proposal

How far have we come?

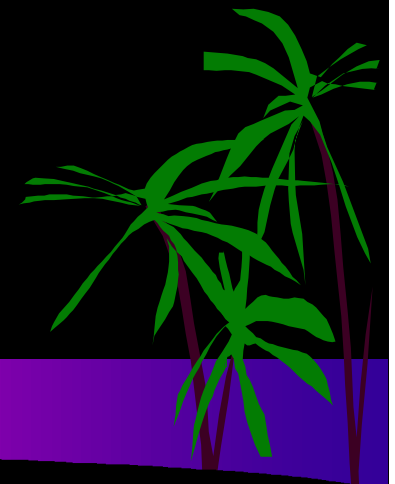
Key Features

- s Transport-only Command Set
- s Extended Access Control Policy
- s Ordered Task Processing Model
 - Confirmed Buffer Transfers
 - Unsolicited Buffer Available indication
- s Built upon stable SBP-2 protocol
- s Does not preclude Function Discovery Mechanism



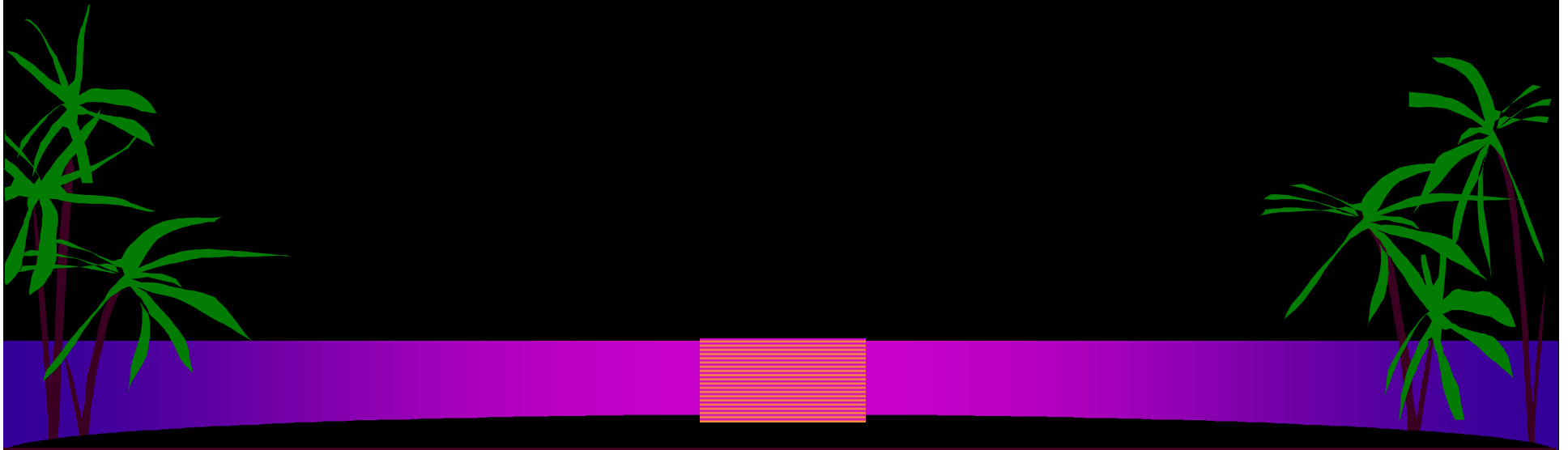
Command Set

- s Send Data-in: transfer buffer to initiator
- s Receive Data-out: transfer buffer to target
- s Maximum buffer transfer sizes negotiated per direction
- s Reserved fields for future extensions
- s Buffers tagged as out-of-band in CDB
- s Target may “ping” the initiator



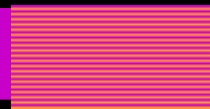
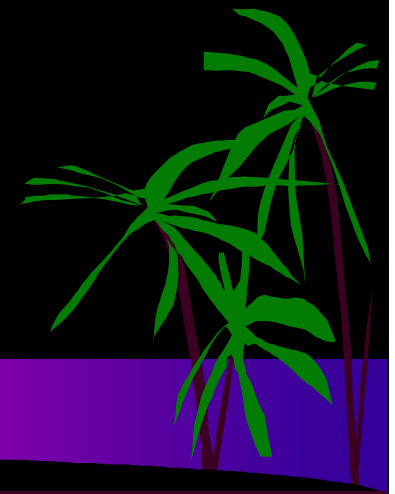
Access Control Extensions

- s Policy mirrors Login behavior
- s Reservation keys exist for verification
- s Resumption timeout negotiated during Login
- s Resumption timer takes effect upon a failed reconnect



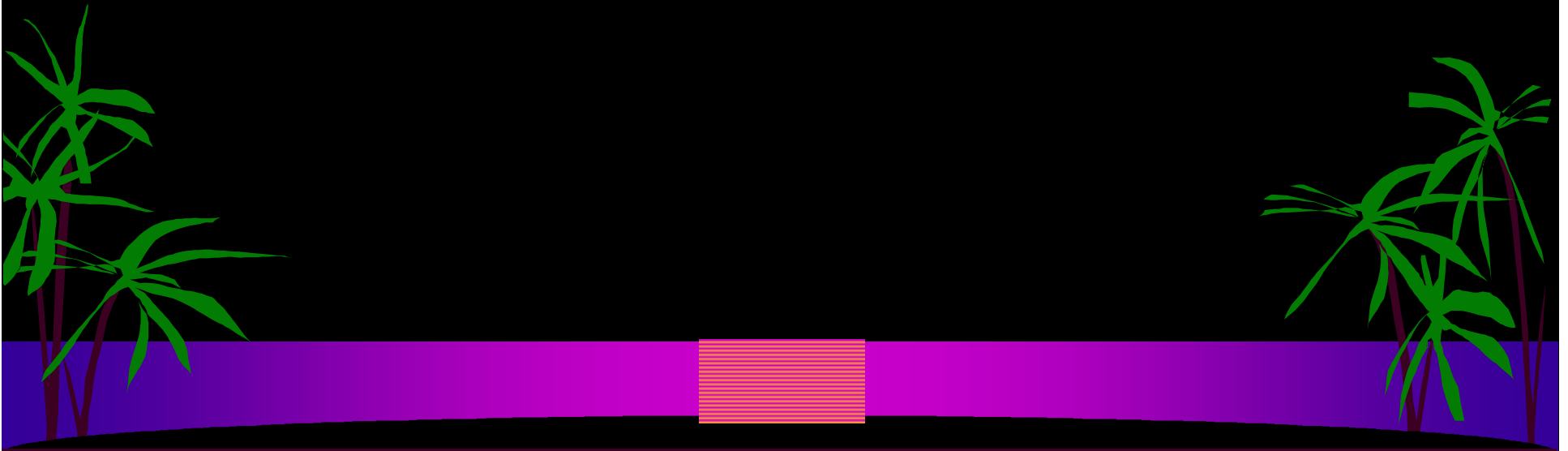
Ordered Processing Model

- s Initiator manages sequencing of transfers
- s Target may abort the task set to avoid deadlock
- s Task completion notification required
- s Buffer Available indicated
 - synchronously with task completion
 - asynchronously with Unsolicited Status



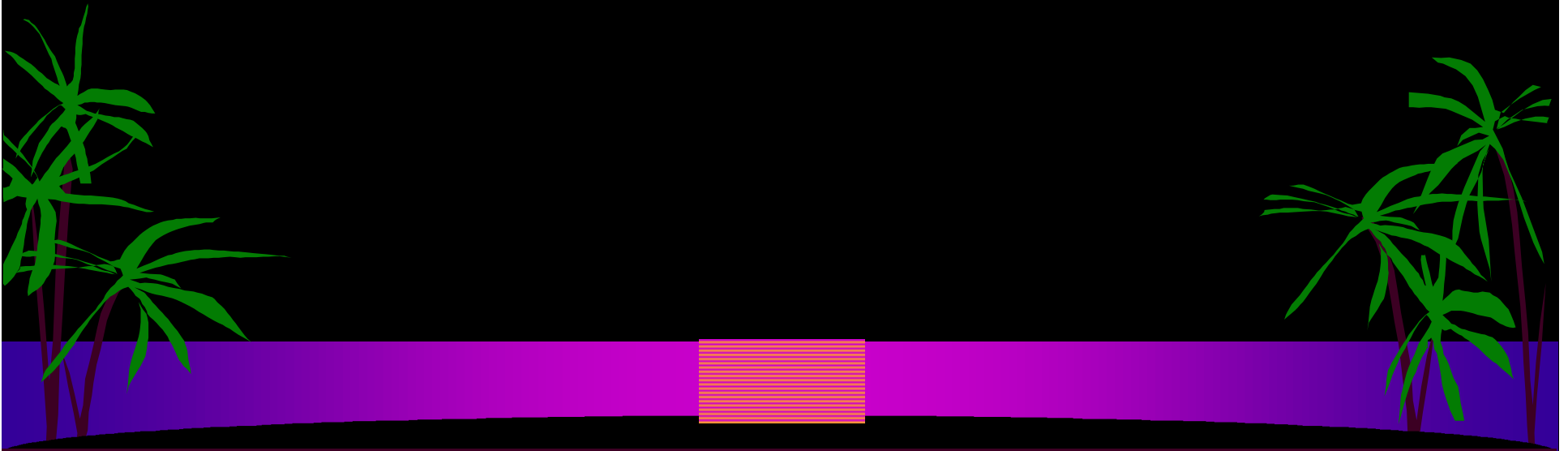
New

- s Command Set and Unsolicited Status defined
- s Transient Link Interruption support specified
- s Task request processing model specified
- s Mechanism to verify initiator alive defined



Differences

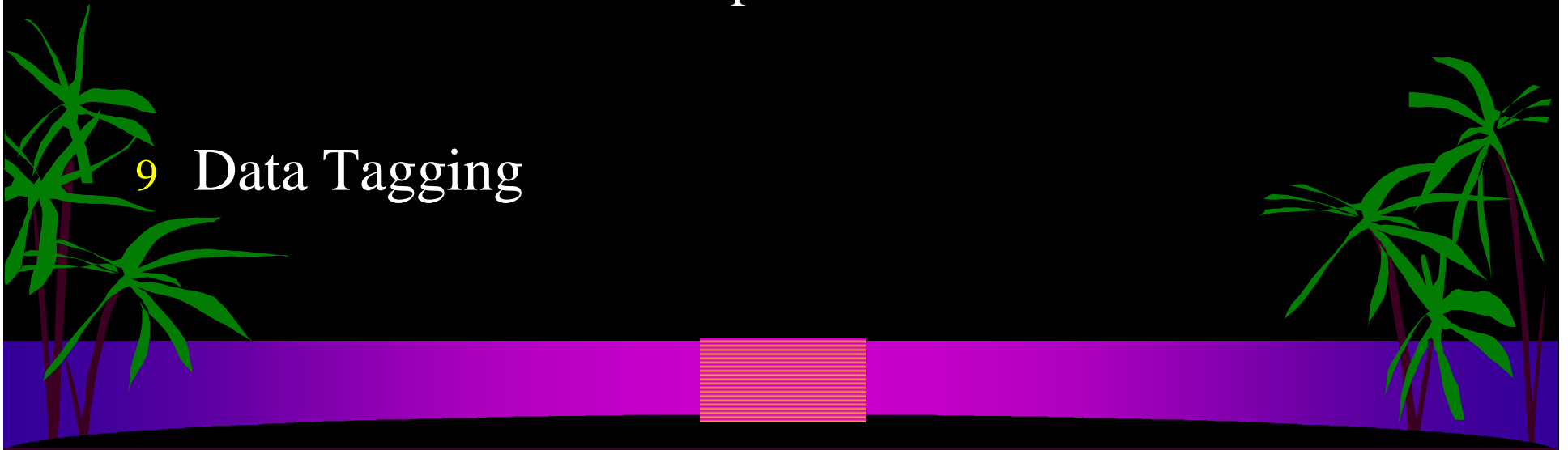
- s IEEE 1284.4 transport protocol not required
- s Ambiguous Out-of-order model removed
- s Each service modeled as a separate Unit



Proposal Supports

- 4 Multiple, Concurrent, Independent, Symmetrical Connections
- 4 In-order Byte- and Buffer-mode data delivery
- 4 Data, Application, and O/S independent
- 4 Transient Link Interruptions

9 Data Tagging



Proposal Lacks

8 Directory Service Support

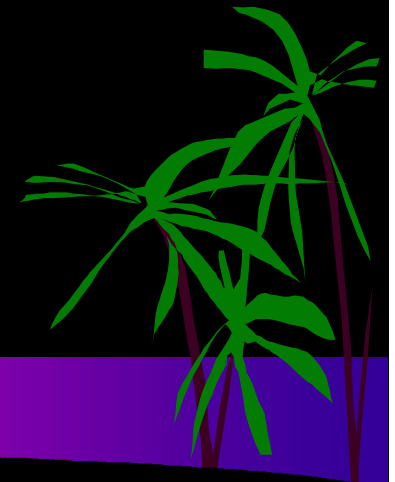
5 Connectionless Service

5 Multi-casting Service

5 Bus-independent Protocol

5 Fair Access Management

5 Selectable Quality of Service



Pending Issues

- s How to provide a Directory Service?
- s How to encode transport client command set in Unit Directory structure?
- s How to resolve issues with Microsoft's SBP-2 Login policy?
- s How does Plug-n-Play work with this proposal?

