R-REQUEST, C-CONFORMATION
State   Type   Request/Conformation   Reason

Black – Current Spec (SAS r00c)Wording; Blue- Change to Spec

SSP Port Connection Layer to Transport Layer (TL) Communication

PC_OC1   R   ~~Open Req(Interlocked)~~ Transmit Frame(Interlocked)   Request by the TL for an interlocked frame tx R,P
         R   ~~Open Req(Non-Interlocked)~~ Transmit Frame(Non-Interlocked) Request by the TL for a non interlocked frame tx
         R   Cancel   Cancel transmit port functions for this Transport layer,
         Stop Arb if arbitrating, terminate frame transmit being serviced, Don't terminate any receive function, Don't close connection
         R   Accept_Reject Opens(Accept)   Request by the TL that Opens be rejected
         R   Accept_Reject Opens(Reject)   Request by the TL that Opens be accepted

         C   Cancel Acknowledge   Everything cleared out
         C   Transmission Status(Frame Transmitted)   Frame transmitted confirmation from the link layer

         C   ~~ConnectionResult(Connected)~~
         C   ~~ConnectionResult(Wait)~~
         C   ~~ConnectionResult(No Destination)~~ Transmission Status(Open Failed-No Destination)
         C   ~~ConnectionResult(Open Timeout)~~ Transmission Status(Open Failed –Open Timeout)
         C   ~~ConnectionResult(Connection Lost)~~ Transmission Status(Connection Lost)
         C   ~~ConnectionResult(Disconnect in Process)~~ Transmission Status(Disconnect in Process)

         C   ~~Open Failed(Retry)~~ Transmission Status(Open Failed-Retry)
         C   ~~Open Failed(Wrong Destination)~~ Transmission Status(Open Failed –Wrong Destination)
         C   ~~Open Failed(Link Rate Not Supported)~~ Transmission Status(Open Failed –Link Rate Not Supported)
         C   ~~Open Failed(Protocol Not Supported)~~ Transmission Status(Open Failed –Protocol Not Supported)
         C   ~~Open Failed(Pathway Blocked)~~ Transmission Status(Open Failed –Pathway Blocked)
         C   ~~Open Failed(Open Timeout Occurred)~~ Transmission Status(Open Failed –Open Timeout Occurred)
         C   ~~Open Failed(Port Layer Request))~~ Transmission Status(Open Failed –Port Layer Request)
         C   ~~Open Failed(Break Received)~~ Transmission Status(Open Failed –Break Received)
         C   ~~Open Failed(No Destination)~~ Transmission Status(Open Failed –No Destination)
         C   ~~Open Failed(Bad Destination)~~ Transmission Status(Open Failed –Bad Destination)
         C   ~~Open Failed(STP Resources Busy)~~ Transmission Status(Open Failed –STP Resources Busy)
         C   Transmission Status(Open Failed –I_T Nexus Loss Timeout)
         C   Transmission Status(Open Failed –Physical Not Ready)
         C   Transmission Status(Credit Timeout)

         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION REJECTED-RETRY~~
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION~~ ~~EXITED~~REJECTED ~~-INVALID~~ PROTOCOL ~~TYPE~~ NOT SUPPORTED
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION~~ ~~EXITED~~REJECTED ~~-~~ WRONG DESTINATION
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION~~ ~~EXITED~~REJECTED ~~-~~ BAD DESTINATION
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION~~ ~~EXITED~~REJECTED ~~-~~ NO DESTINATION
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION~~ ~~EXITED~~REJECTED ~~-INVALID~~ LINK RATE NOT SUPPORTED

         ~~C~~   ~~Conn Status (to i);~~ ~~CONNECTION EXITED-NO ERRORS OCCURRED~~

         C   Connection Closed(Break Received)
         C   Connection Closed (Close Timeout)
         C   Connection Closed (Link Broken)

         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION EXITED-CLOSE~~ ~~TIME-OUT~~ TIMEOUT
         ~~C~~   ~~Conn Status (to i);~~ ~~Port Status;~~ ~~CONNECTION EXITED-LINK BROKE~~
         ~~C~~   ~~Conn Status (to i);~~ ~~DISCONNECT IN PROCESS-DISCON/RECON LIMIT EXCEEDED~~

PC_T1   C   ACK Received   An ACK was just received (for a frame transmitted)
         C   NAK Received   A NAK was just received (for a frame transmitted)
         C   ACK/NAK ~~time-out~~ Timeout: An ACK or a Nak was not received within 1 ms from last frame tx

PC_R1   C   Frame Received(ACK/NAK Balanced)   frame successfully received, Acks balanced at time of reception)
         C   Frame Received(ACK/NAK Not Balanced)   frame successfully received, Acks not balanced at time of reception

SMP Port Connection Layer to Transport Layer (TL) Communication

	R	SMP Transmit Frame	Request by the SMP TL for an interlocked frame transmission
	R	SMP Transmit Break	Request by the SMP TL for a BREAK to be transmitted
	R	Accept_Reject Opens(Accept)	Request by the TL that Opens be rejected
	R	Accept_Reject Opens(Reject)	Request by the TL that Opens be accepted
	C	Transmission Status(Frame Transmitted)	
	C	Transmission Status(Open Failed-Retry)	
	C	Transmission Status(Open Failed –Wrong Destination)	
	C	Transmission Status(Open Failed –Link Rate Not Supported)	
	C	Transmission Status(Open Failed –Protocol Not Supported)	
	C	Transmission Status(Open Failed –Pathway Blocked)	
	C	Transmission Status(Open Failed –Open Timeout Occurred)	
	C	Transmission Status(Open Failed –Port Layer Request)	
	C	Transmission Status(Open Failed –Break Received)	
	C	Transmission Status(Open Failed –No Destination)	
	C	Transmission Status(Open Failed –Bad Destination)	
	C	Transmission Status(Open Failed –STP Resources Busy)	
	C	Transmission Status(Open Failed –I_T Nexus Loss Timeout)	
	C	Transmission Status(Open Failed –Physical Not Ready)	
	C	Transmission Status(Credit Timeout)	
	C	Connection Closed(Break Received)	
	C	Connection Closed (Close Timeout)	
	C	Connection Closed (Link Broken)	
PC_R1	C	SMP Frame Received	frame successfully received
	C	SMP Frame Received Failure	Failure due to protocol, or CRC Error

Physical Layer to Link/Port Layer Communications

SP0	R	ULP phy reset	perform a physical general reset
SP13	C	Phy Status; PHYRDY	Physical not ready to open a connection
	C	Phy Status; -CominitDet&SignalDet	Phy reset sequence complete
DWS0	C	Dword Sync Status; Receive input invalid	Not in Dword synchronization
DWS3	C	Dword Sync Status; Receive input valid	In Dword synchronization

SSP Port Connection Layer to Transport Layer (TL) Arguments Communication

For a Transmit Request from Transport Layer

The Destination Frame WWN's (note port will add Arbitration Wait time-Transport layer will know its own source name, link layer will add source WWN to Open frame.)
The Frame (The Frame Header (includes the hashed source and destination address) and Information Unit)
~~The Tag Value for this frame (Contained in Frame Header) a unique value for each transport layer application client,(for transmit conformations just say port will send confirmation to the transport layer,   on receive frames just send to the transport layer)~~
~~The Protocol –Is no Argument for this from the transport layer –Determined by transport layer location of transmit request-determined by port layer on which link layer we send it on (SSP, SMP, STP)~~
Link Rate – From the transport layer
Initiator bit - From the transport layer
Initiator Connection Tag - From the transport layer

For a Receive Frame for the Transport Layer at frame received time

The Frame Source WWN

The Frame (The Frame Header and Information Unit)

~~The Tag Value for this frame (Contained in Frame Header) a unique value for each transport layer~~

The Link Rate-received and passed from the link to the port to the transport

~~The Protocol – know by which link layer received on and determines which transport layer frame goes to – no value given to Transport layer~~

Initiator bit-received and passed from the link to the port to the transport

Initiator Connection Tag -received and passed from the link to the port to the transport