## HTTP-draft-04/2.0 Stream State Transition Table (2013/08/01)

blue: Normal, red: Error or Ignore

Stream State	frame action	Receive									
	frame type	DATA		HEADERS		PRIORITY	RST_STREAM	PUSH_PROMISE	WINDOW_UPDATE		
	frame flags	END_STREAM	others	END_HEADERS+ END_STREAM	END_HEADERS			END_PUSH_PROMISE			
idle		Connection Error(*4) (PROTOCOL_ERROR)	Connection Error(*4) (PROTOCOL_ERROR)	→half closed(remote)	→open	Connection Error(*4) (PROTOGOL_ERROR)	(*1) Connection Error (PROTOCOL_ERROR)	Connection Error(*4) (PROTOCOL_ERROR)	Connection Error(*4) (PROTOCOL_ERROR)		
reserved(local)		Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)	→closed	Stream Error (PROTOGOL_ERROR)	Stream Error (PROTOGOL_ERROR)		
reserved(remote)		Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)	→closed	→half closed(local)	Stream Error (PROTOCOL_ERROR)	→closed	Stream Error (PROTOCOL_ERROR)	Stream Error (PROTOCOL_ERROR)		
open		→half closed(remote)	UNCHANGED	→half closed(remote)	UNCHANGED	UNCHANGED	→closed	associated stream:     UNCHANGED promised-stream:     if state is idle:     idle → reserved(remote)     else:         Connection Error         (PROTOCOL_ERROR) (*2)	UNCHANGED		
half closed(local)		→closed	UNCHANGED	→closed	UNCHANGED	IGNORED	→closed	associated stream:    UNCHANGED promised-stream:    if state is idle:    idle → reserved(remote)    else:    Connection Error    (PROTOCOL_ERROR) (*2)	IGNORED		
half closed(remote)		Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	→closed	Stream Error (STREAM_CLOSED)	UNCHANGED		
closed	no RST_STREAM and no END_STREAM flag received	ACCEPTED	IGNORED	ACCEPTED	IGNORED	IGNORED	ACCEPTED	associated stream: UNCHANGED promised-stream: if state is idle: idle → reserved(remote) else: Connection Error (PROTOCOL_ERROR) (*2)	IGNORED		
	RST_STREAM or END_STREAM flag already received	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)	(*3) Connection Error (STREAM_CLOSED)	Stream Error (STREAM_CLOSED)		
	•	(444) to be discussed	•	•	<u> </u>	•	(#1) OII #176	(±0) OH #170 (±0) OH #177	<u>'</u>		

(\*4) to be discussed updated on 2013/07/23

(\*1) GH-#176 (\*2) GH-#179 , (\*3) GH-#177

Stream State	frame action	Send								
	frame type	DATA		HEADERS		PRIORITY	RST_STREAM	PUSH_PROMISE	WINDOW_UPDATE	
	frame flags	END_STREAM	others	END_STREAM	others			END_PUSH_PROMISE		
dle		MUST NOT	MUST NOT	→half closed(local)	→open	MUST NOT	MUST NOT	MUST NOT	MUST NOT	
reserved(local)		MUST NOT	MUST NOT	→closed	→half closed(remote)	MUST NOT	→closed	MUST NOT	MUST NOT	
reserved(remote)		MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	→closed	MUST NOT	MUST NOT	
open		→half closed(local)	UNCHANGED	→half closed(local)	UNCHANGED	UNCHANGED	→closed	associated stream:     UNCHANGED  promised−stream:     idle → reserved(local)	UNCHANGED	
nalf closed(local)		MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	→closed	MUST NOT	UNCHANGED	
half closed(remote)		→closed	UNCHANGED	→closed	UNCHANGED	MUST NOT	→closed	associated stream:     UNCHANGED  promised−stream:     idle → reserved(local)	MUST NOT	
closed		MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	MUST NOT	