



| 13-121v0 (aka 12-459v1)

FDF Joining Distributed Switch Fabric Serialization

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Relevant Distributed Switch FCDF Text

Current FC-SW-6 (section 17.9.2) text:

“When becoming operational (i.e. when in state P2 or S2 of the Controlling Switch Redundancy Protocol, see 1.3) a Controlling Switch instantiates ASLs with the FCDFs that are directly reachable and are part of its FCDF Set.

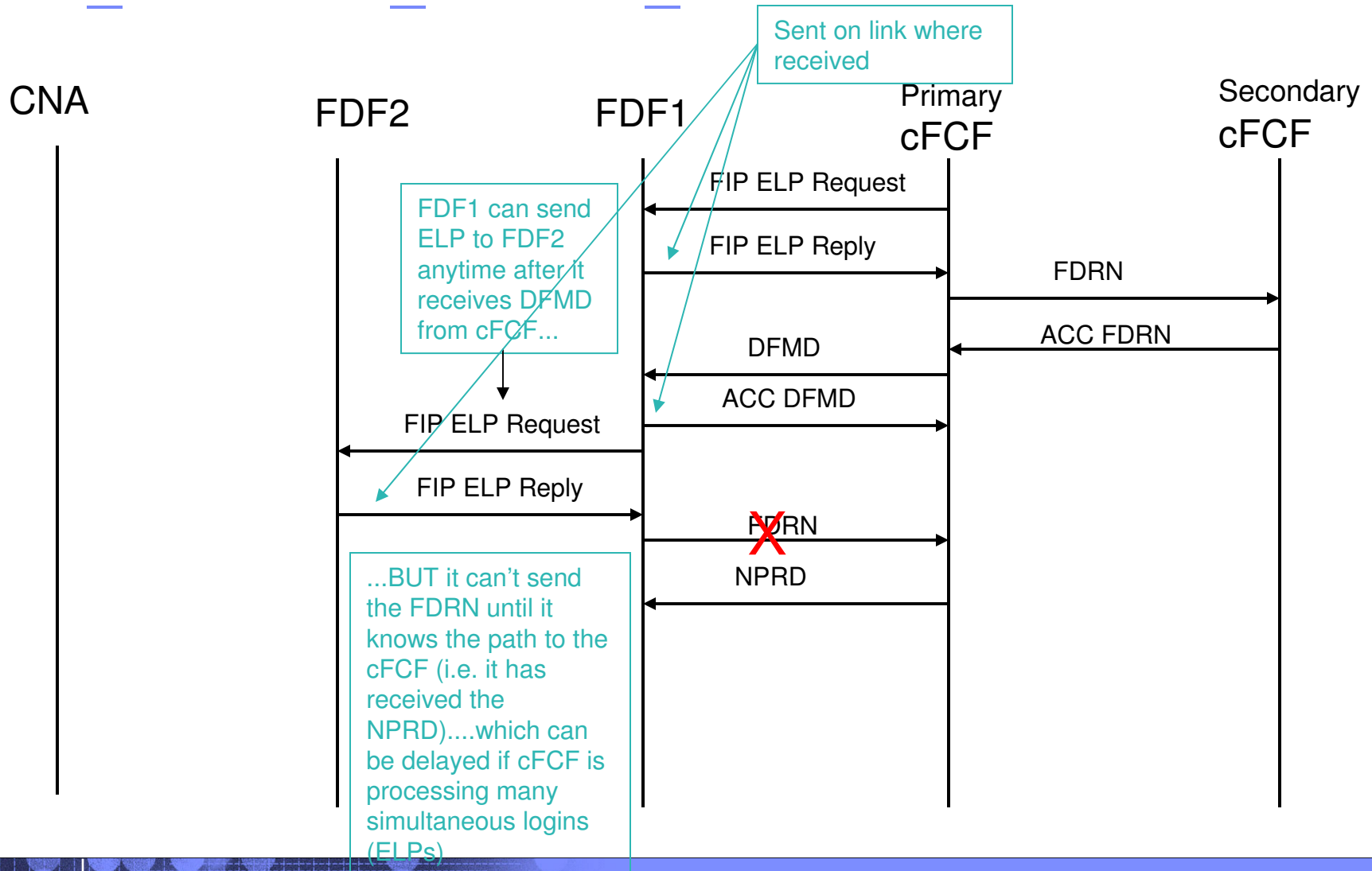
Upon instantiating an ASL with an FCDF, the Primary Controlling Switch shall initiate an FDRN Exchange describing that link with the Secondary Controlling Switch, if available, to keep the state synchronized.

Upon completion of this FDRN Exchange, the Primary Controlling Switch shall provide to that FCDF the Distributed Switch Membership information through a DFMD Exchange. **At this point the instantiated ASL becomes part of the Distributed Switch internal topology (i.e., the set of ASLs internal to the Distributed Switch).**

The Primary Controlling Switch shall recompute the N_Port_ID routes and distribute them to each FCDF belonging to the Distributed Switch through NPRD Exchanges.“

“When becoming operational, an FCDF waits for a Controlling Switch or another FCDF to initiate an ELP exchange with it, in order to set up a ASL. **Upon completing the DFMD Exchange with the Primary Controlling Switch, an FCDF becomes able to initiate ELP Requests to instantiate other ASLs with other FCDFs. Upon completing the NPRD Exchange with the Primary Controlling Switch, an FCDF becomes able to set up proper forwarding tables to forward FC frames inside and outside the Distributed Switch. At this point the FCDF enables its ports for logins from Nodes;** any FLOGI received on a FCDF port before this point is responded by the FCDF with a LS_RJT having reason code ‘Logical Busy’ and reason code explanation ‘No additional explanation’.”

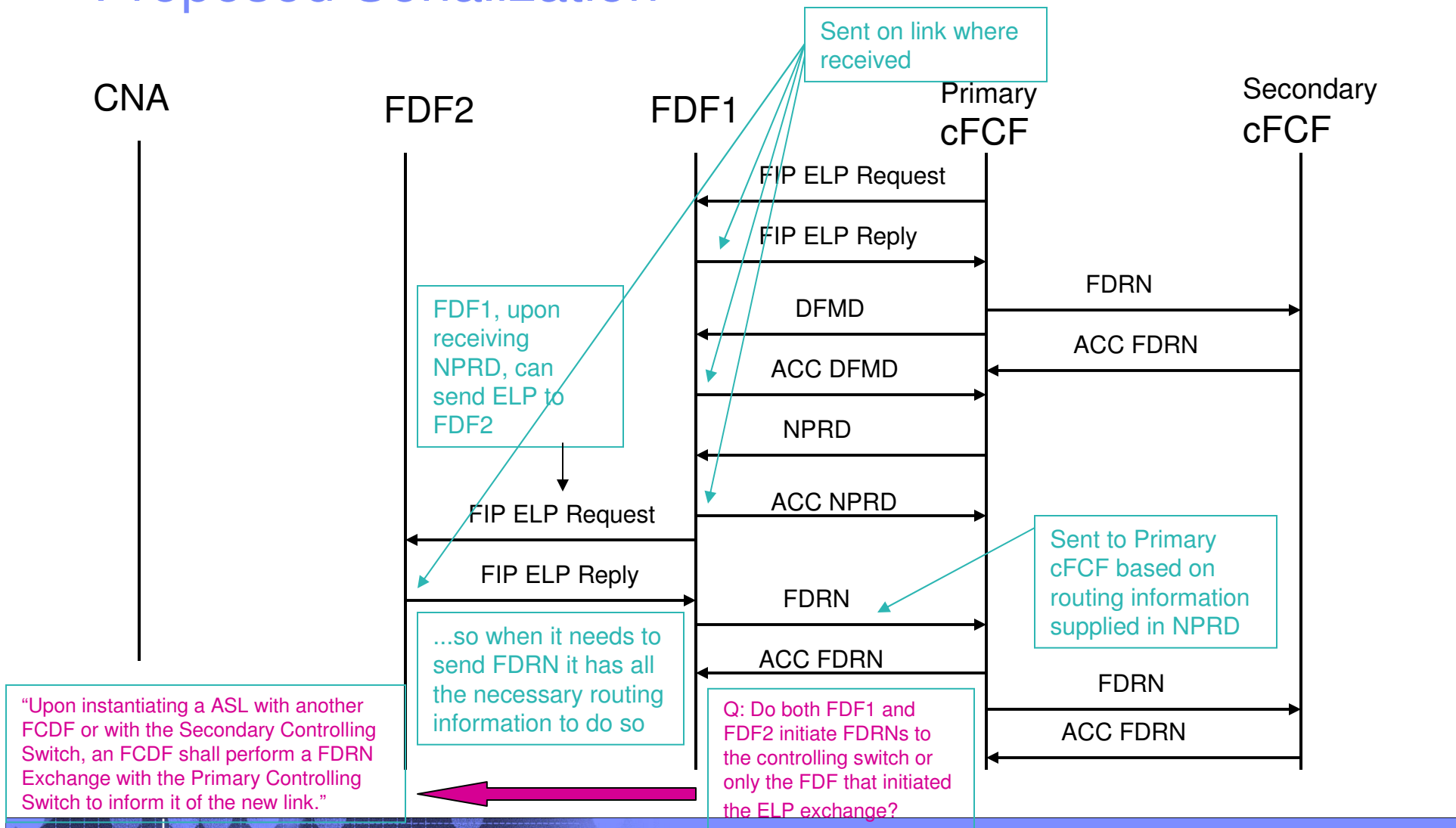
VA_Port to VA_Port SW_ILS Flows



Related Information

- **Same issue applies to case where the Secondary sends an ELP to instantiate an ASL with an FDF before the Primary instantiates one with that FDF, and FDF is obligated to send an FDRN to the Primary after an ASL with the Primary is instantiated and DFMD is completed**
- **FDF knows switch name of Primary because it is the one that sent the DFMD (and originating switch name is included in first two fields of payload of SW_ILS), but it does not readily know how to reach the Primary**

Proposed Serialization



Proposed Text Change (FC-SW-6 section 17.9.2)

“When becoming operational (i.e. when in state P2 or S2 of the Controlling Switch Redundancy Protocol, see 1.3) a Controlling Switch instantiates ASLs with the FCDFs that are directly reachable and are part of its FCDF Set.

Upon instantiating an ASL with an FCDF, the Primary Controlling Switch shall initiate an FDRN Exchange describing that link with the Secondary Controlling Switch, if available, to keep the state synchronized.

Upon completion of this FDRN Exchange, the Primary Controlling Switch shall provide to that FCDF the Distributed Switch Membership information through a DFMD Exchange.

~~At this point the instantiated ASL becomes part of the Distributed Switch internal topology (i.e., the set of ASLs internal to the Distributed Switch).~~

The Primary Controlling Switch shall recompute the N_Port_ID routes and distribute them to each FCDF belonging to the Distributed Switch through NPRD Exchanges. **At this point the instantiated ASL becomes part of the Distributed Switch internal topology (i.e., the set of ASLs internal to the Distributed Switch).**”

“When becoming operational, an FCDF waits for a Controlling Switch or another FCDF to initiate an ELP exchange with it, in order to set up a ASL. Upon completing the DFMD and NPRD Exchanges with the Primary Controlling Switch, an FCDF becomes able to initiate ELP Requests to instantiate other ASLs with other FCDFs. ~~Upon completing the NPRD Exchange with the Primary Controlling Switch, an FCDF becomes able to set up proper forwarding tables to forward FC frames inside and outside the Distributed Switch.~~ At this point the FCDF enables its ports for logins from Nodes; any FLOGI received on a FCDF port before this point is responded by the FCDF with a LS_RJT having reason code ‘Logical Busy’ and reason code explanation ‘No additional explanation’.”

Additional Text Change Needed

In FC-SW-6 section 17.6, page 278:

”After having received from the Primary Controlling Switch the Distributed Switch’s FCDF Set through the DFMD SW_ILS and routing information through the NPRD SW_ILS, the ports of an FCDF that have completed Link Initialization, except the one from which the DFMD Request has been received, shall transmit an ELP Request with the FDF/FCDF flag set to one.”

Thank you!