Fringe CPA-2013 (*)

- All of Peter Welch's senders get xchan-ready (true) when the connection with the receiver was committed. After xchan-ready (true) the sender must send, and this is the only place to send. This algorithm also fully implements the original XCHAN semantics. We could call this the *«preconfirmed»* solution
- The original XCHAN paper may start sending any time, but if sending fails then the xchan-ready is signalled when the connection with the receiver is fully committed. So, this «classic» solution only uses xchan-ready to send after an initial failure

(*) The model was presented at the *fringe* at CPA-2103 (the year after) An occam Model of XCHANs Peter H. WELCH (a) and Øyvind TEIG (b) (a) School of Computing, University of Kent, UK (b) Autronica Fire and Security AS, Trondheim, Norway See http://wotug.org/cpa2013/programme.shtml#paper63

Attempt to model in CSPm with FDR2

- A model of this has been (attempted) to be developed in CSPm, verified with FDR2
- It also models the preconfirmed solution
- Since the classic solution probably also includes modeling the scheduler as well as the internal synchronization of the ALT. Much more complicated
- Did not succeed with simulating PRI ALT in CSPm, but Thomas Gibson-Robinson and Michael Goldsmith today told that «prioritise(...)» will do it

(*) Lecture NTNU "Becoming textual: attempting to model 'XCHAN' with CSPm" "Using FDR2 and ProBE tools when state-ing is not enough"

Presented in a blog note at <u>http://www.teigfam.net/oyvind/home/technology/063-lecture-ntnu/</u> Read presentation at <u>http://www.teigfam.net/oyvind/blog_notes/063/Teig_at_NTNU_2013_08.pdf</u>

«Feathering» (tomorrow)

I think can only be done with the classic XCHAN solution



Øyvind Teig, Edinburgh, 26 August 2013

