Overview

Shared medium

A
B
C
D
E
The shared medium

Shared medium

A
B
C
D
E
Scenario

Alice wants to call Bob

B
C
D
E

Shared medium
Scenario

Alice sends “calling packets” to Bob
Upon picking up, Bob’s FPGA starts sending “voice packets”
A two-people conference call is established
Charles calls either A or B and is automatically added to the conference.
Scenario

A and B hanged up; C automatically disconnects
Project Diagram
Modules – Bit Stuffer

Bit Stuffer

Din [7:0] (From TCU)
WE (From TCU)

Dout [13:0] (delayed by 1 clock cycle)

WE (delayed by 1 clock cycle)

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Questions?
Modules

Sync Remover

(from destuffer) RE
Data Stream In

Busy (to the WMCU)
Empty (to the destuffer)
Dout [13:0]

Parity Bit Destuffer

(from Sync remover) Empty
(from Sync remover) Din[8:0]
(from TCU) RE

Empty (to TCU)
Dout [7:0]
RE (to Sync Remover)