

Tdoc S4-080490

# eCall Host Lab Presentation of Results



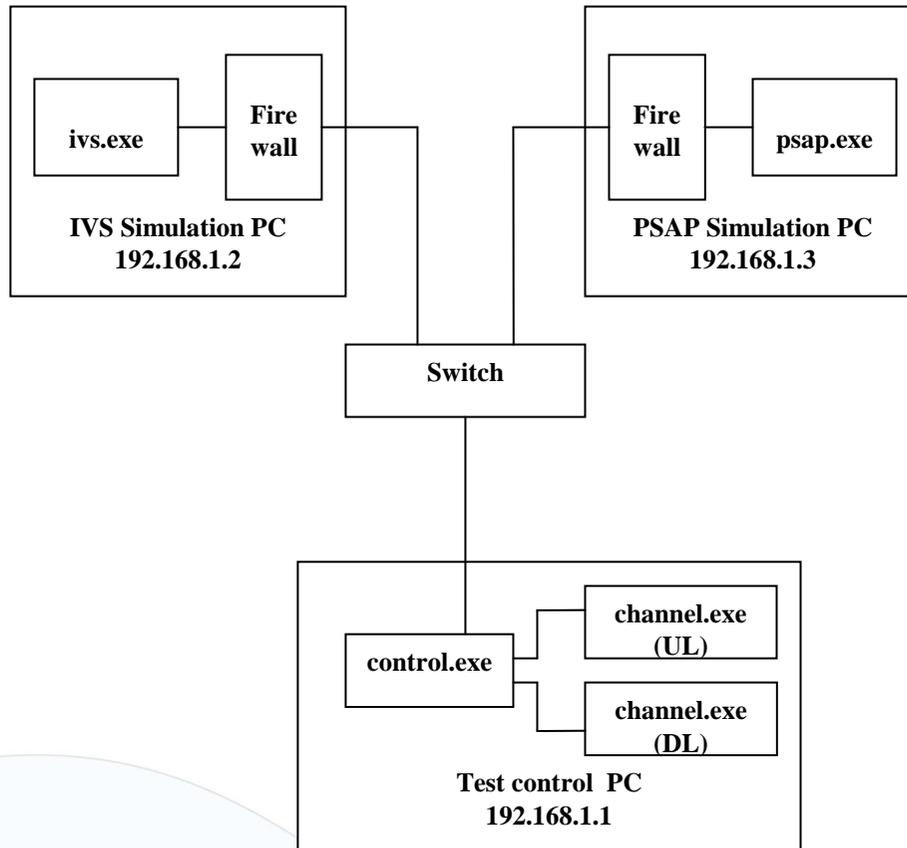
3GPP TSG SA WG4 Meeting #50  
18-22 August 2008, Sophia Antipolis, France.



*Málaga - Sevilla - Madrid  
Herndon, VA - USA*



# HOST LAB SETUP



- 3 PCs with Intel Core 2 Duo Processors
- Windows XP Professional Operating System
- *Outpost Pro* firewall from *Agnitum*
- *10/100 Fast Ethernet Switch (D-Link)*

- **Common conditions:**

- Same *Test Configuration File* for all candidates:
  - File with 2600 unordered tests covering 100 executions of each of 26 pre-defined conditions.
  - Random MSD, Random delays, random VAD, random index for error patterns.
- Same ‘demosock’ batch execution for all candidates:
  - Startframe:50
  - Totalframes:10000 (equivalent to 200 seconds)
- Same firewall settings:
  - IVS and PSAP cannot communicate directly.
  - Both communicate with Control PC only with IP addresses

# SUMMARY OF RESULTS – CANDIDATE 1



<b>FINAL RESULTS</b>	<b>Unit</b>	<b>Candidate 1</b>			<b>Requirement</b>
<b>Figure of Merit</b>	Frames	<b>885,23</b>			
	Seconds	<b>17,70</b>			
<b>Number of timeouts</b>	---	<b>5</b>			
<b>Incorrect MSD's reported</b>	---	<b>0</b>			Compliant!
<b>Average time in Optimal conditions</b> (Error free radio channel, FR and AMR 12.2 codecs)	Seconds	<b>3,60</b>			
<b>Error free: FR codec tmin/tmax/average</b>	Seconds	<b>3,58</b>	<b>3,62</b>	<b>3,60</b>	Compliant!
<b>Error free: AMR 12.2 codec tmin/tmax/average</b>	Seconds	<b>3,58</b>	<b>3,62</b>	<b>3,61</b>	Compliant!
<b>Number of false trigger detections</b>	---	<b>0</b>			Compliant!

# SUMMARY OF RESULTS – CANDIDATE 1

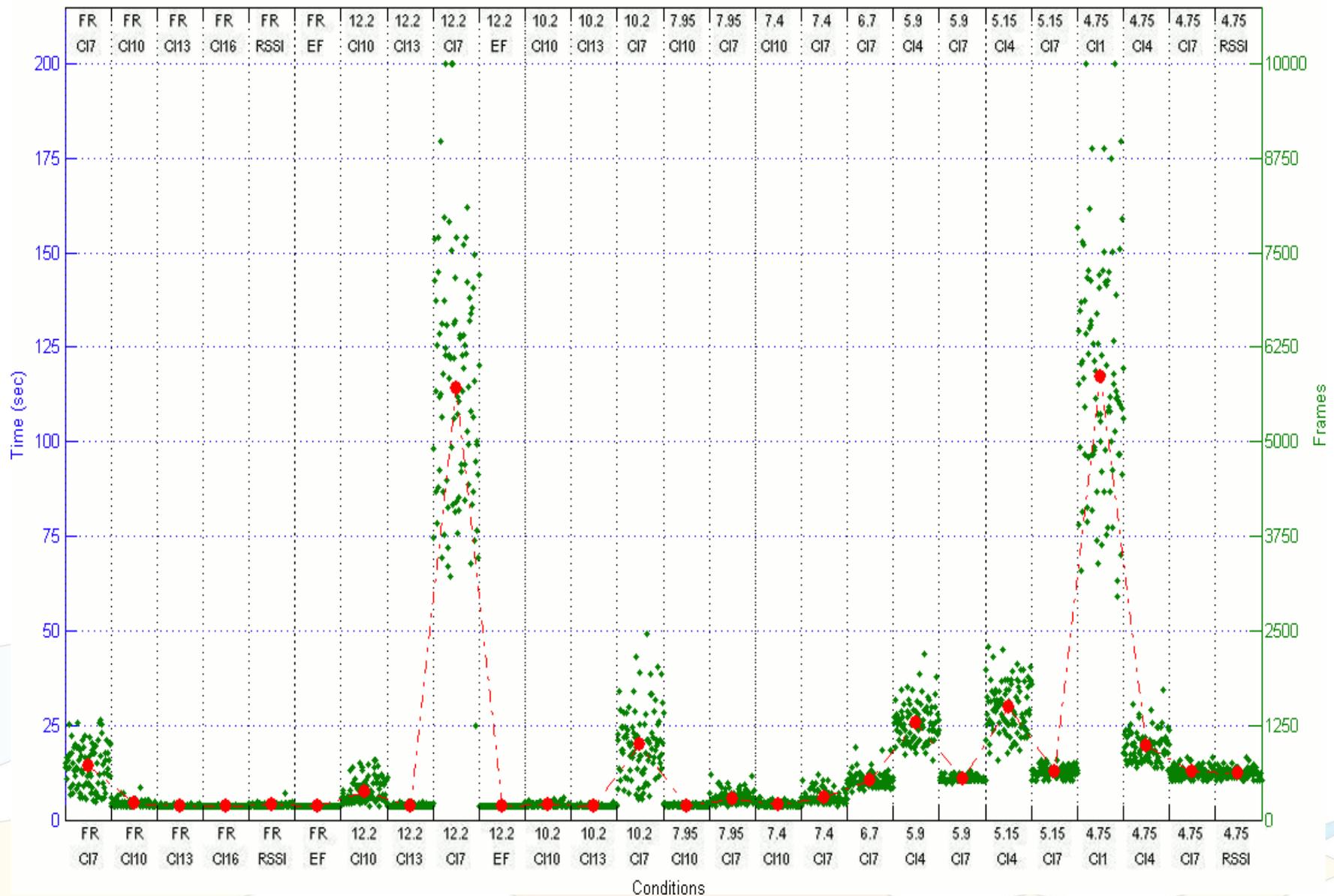


Candidate 1	Average MSD transmission time (in seconds) per Condition								
	GSM_FR	AMR 12.2	AMR 10.2	AMR 7.95	AMR 7.4	AMR 6.7	AMR 5.9	AMR 5.15	AMR 4.75
C/I = 1dB	-	-	-	-	-	-	-	-	117,06
C/I = 4dB	-	-	-	-	-	-	25,82	29,71	19,61
C/I = 7dB	14,06	113,97	20,06	5,66	5,99	10,52	10,90	12,66	12,61
C/I = 10dB	4,28	7,48	4,02	3,78	4,02	-	-	-	-
C/I = 13dB	3,66	3,75	3,66	-	-	-	-	-	-
C/I = 16dB	3,61	-	-	-	-	-	-	-	-
Error Free	3,60	3,61	-	-	-	-	-	-	-
RSSI = -100dBm	3,81	-	-	-	-	-	-	-	12,34

# SUMMARY OF RESULTS – CANDIDATE 1



MSD Transmission Time (Candidate 1)



# SUMMARY OF RESULTS – CANDIDATE 2



FINAL RESULTS	Unit	Candidate 2			Requirement
Figure of Merit	Frames	360,39			
	Seconds	7,21			
Number of timeouts	---	0			
Incorrect MSD's reported	---	0			Compliant!
Average time in Optimal conditions (Error free radio channel, FR and AMR 12.2 codecs)	Seconds	3,12			
Error free: FR codec tmin/tmax/average	Seconds	3,08	3,48	3,13	Compliant!
Error free: AMR 12.2 codec tmin/tmax/average	Seconds	3,10	3,12	3,11	Compliant!
Number of false trigger detections	---	0			Compliant!

# SUMMARY OF RESULTS – CANDIDATE 2

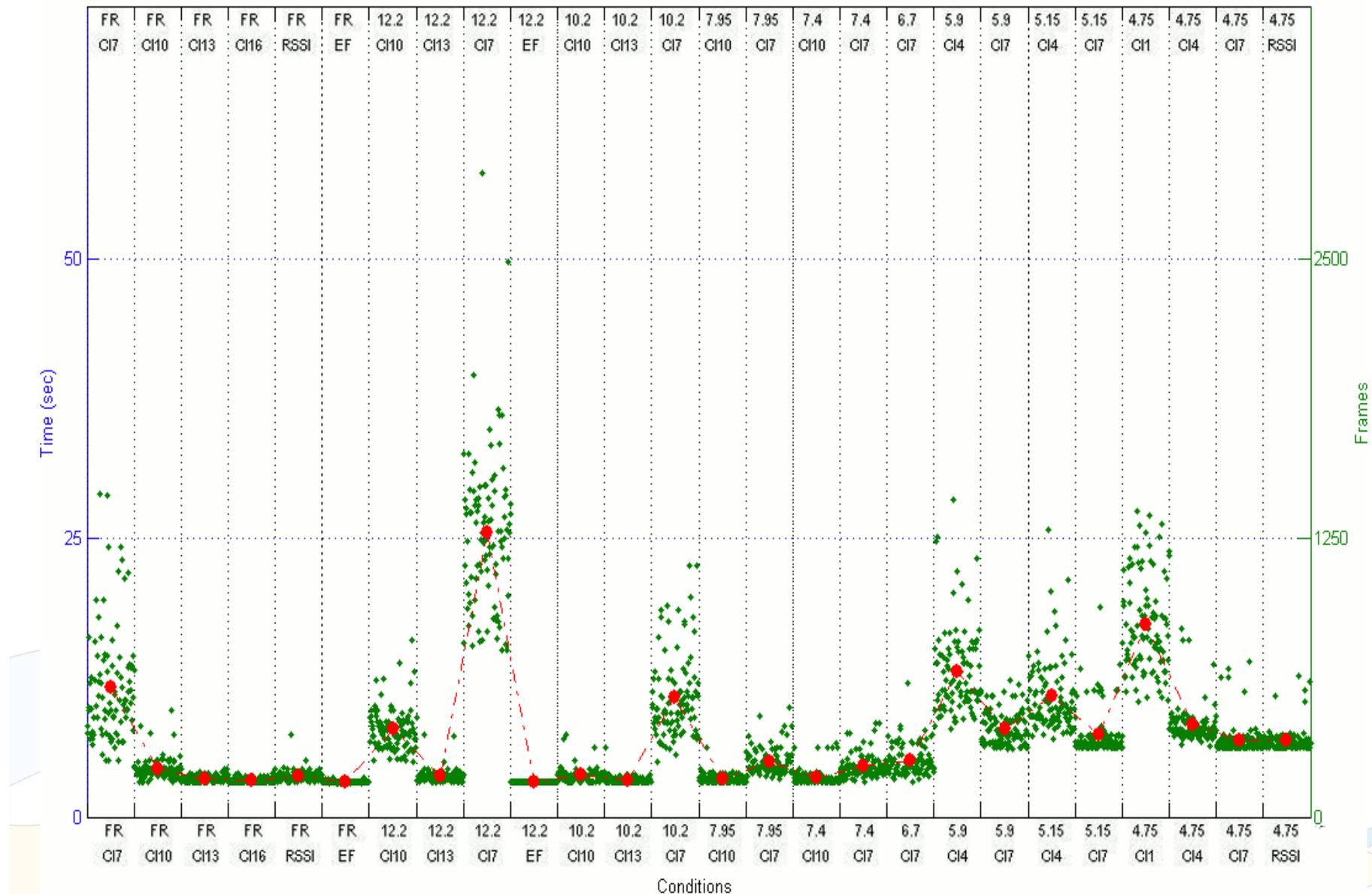


Candidate 2	Average MSD transmission time (in seconds) per Condition								
	GSM_FR	AMR 12.2	AMR 10.2	AMR 7.95	AMR 7.4	AMR 6.7	AMR 5.9	AMR 5.15	AMR 4.75
C/I = 1dB	-	-	-	-	-	-	-	-	17,28
C/I = 4dB	-	-	-	-	-	-	13,09	10,78	8,22
C/I = 7dB	11,61	25,43	10,77	4,97	4,57	5,09	7,95	7,37	6,88
C/I = 10dB	4,34	7,84	3,75	3,43	3,53	-	-	-	-
C/I = 13dB	3,45	3,66	3,28	-	-	-	-	-	-
C/I = 16dB	3,24	-	-	-	-	-	-	-	-
Error Free	3,13	3,11	-	-	-	-	-	-	-
RSSI = -100dBm	3,70	-	-	-	-	-	-	-	6,87

# SUMMARY OF RESULTS – CANDIDATE 2



MSD Transmission Time (Candidate 2)



# SUMMARY OF RESULTS – CANDIDATE 3



<b>FINAL RESULTS</b>	<b>Unit</b>	<b>Candidate 3</b>			<b>Requirement</b>
<b>Figure of Merit</b>	Frames	<b>101,85</b>			
	Seconds	<b>2,04</b>			
<b>Number of timeouts</b>	---	<b>0</b>			
<b>Incorrect MSD's reported</b>	---	<b>0</b>			Compliant!
<b>Average time in Optimal conditions</b> (Error free radio channel, FR and AMR 12.2 codecs)	Seconds	<b>1,36</b>			
<b>Error free: FR codec tmin/tmax/average</b>	Seconds	<b>1,34</b>	<b>1,7</b>	<b>1,36</b>	Compliant!
<b>Error free: AMR 12.2 codec tmin/tmax/average</b>	Seconds	<b>1,34</b>	<b>1,38</b>	<b>1,35</b>	Compliant!
<b>Number of false trigger detections</b>	---	<b>0</b>			Compliant!

# SUMMARY OF RESULTS – CANDIDATE 3

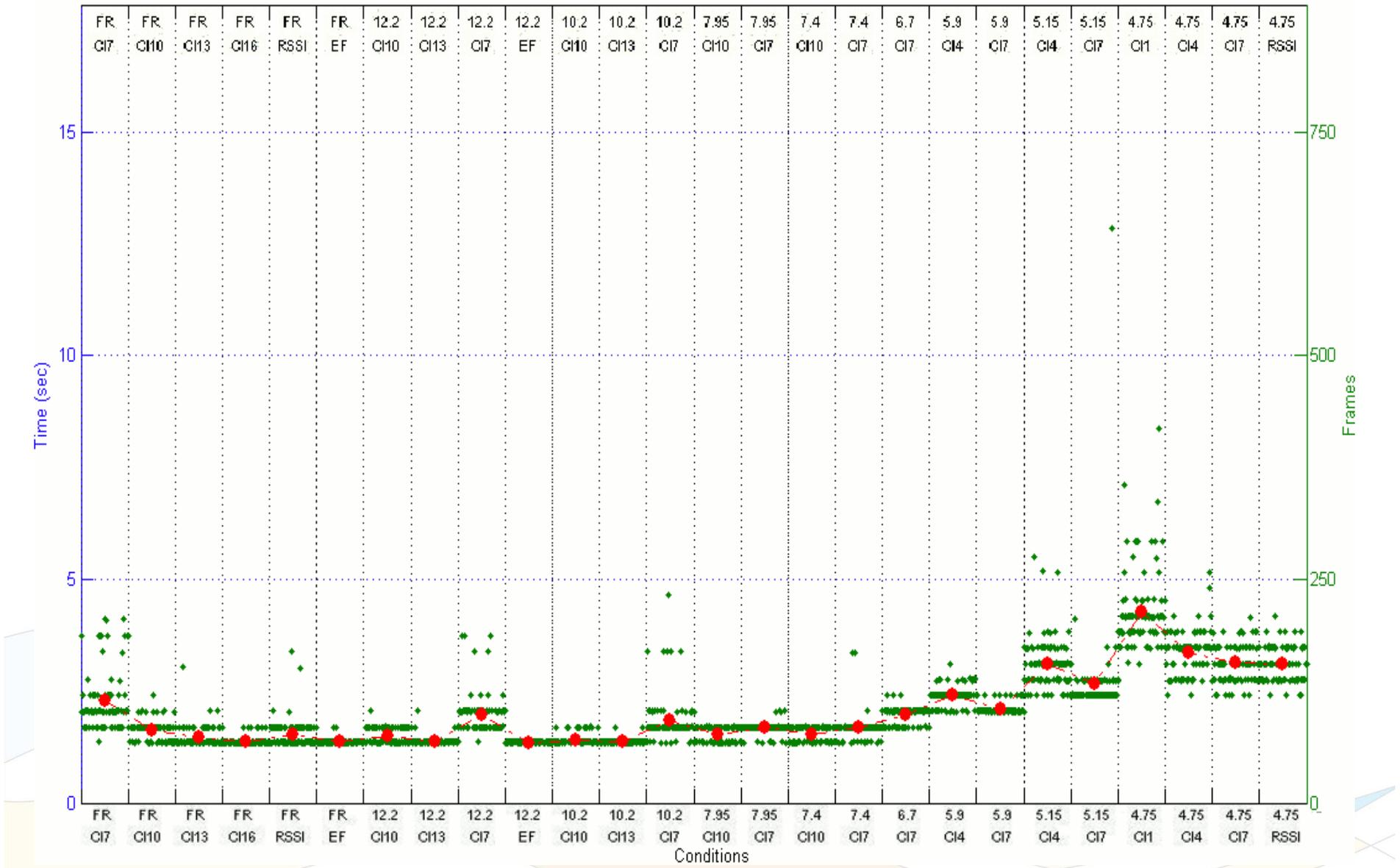


Candidate 3	Average MSD transmission time (in seconds) per Condition								
	GSM_FR	AMR 12.2	AMR 10.2	AMR 7.95	AMR 7.4	AMR 6.7	AMR 5.9	AMR 5.15	AMR 4.75
C/I = 1dB	-	-	-	-	-	-	-	-	<b>4,29</b>
C/I = 4dB	-	-	-	-	-	-	2,41	3,12	<b>3,36</b>
C/I = 7dB	2,27	1,97	1,83	1,68	1,68	1,97	2,09	2,65	<b>3,12</b>
C/I = 10dB	1,61	1,51	1,40	1,53	1,53	-	-	-	-
C/I = 13dB	1,46	1,37	1,36	-	-	-	-	-	-
C/I = 16dB	1,37	-	-	-	-	-	-	-	-
Error Free	1,36	1,35	-	-	-	-	-	-	-
RSSI = -100dBm	1,52	-	-	-	-	-	-	-	<b>3,11</b>

# SUMMARY OF RESULTS – CANDIDATE 3



MSD Transmission Time (Candidate 3)

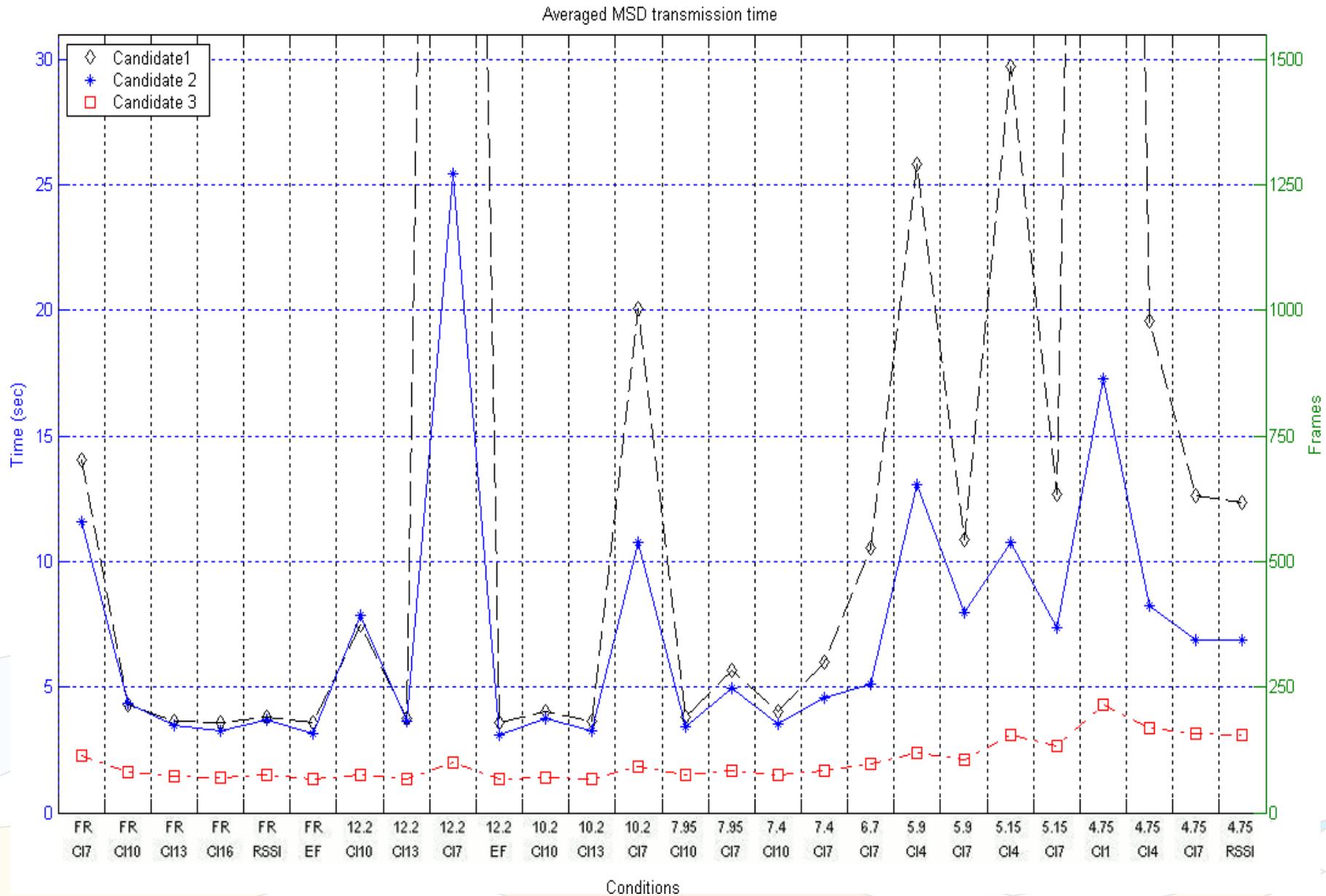


# SUMMARY OF RESULTS



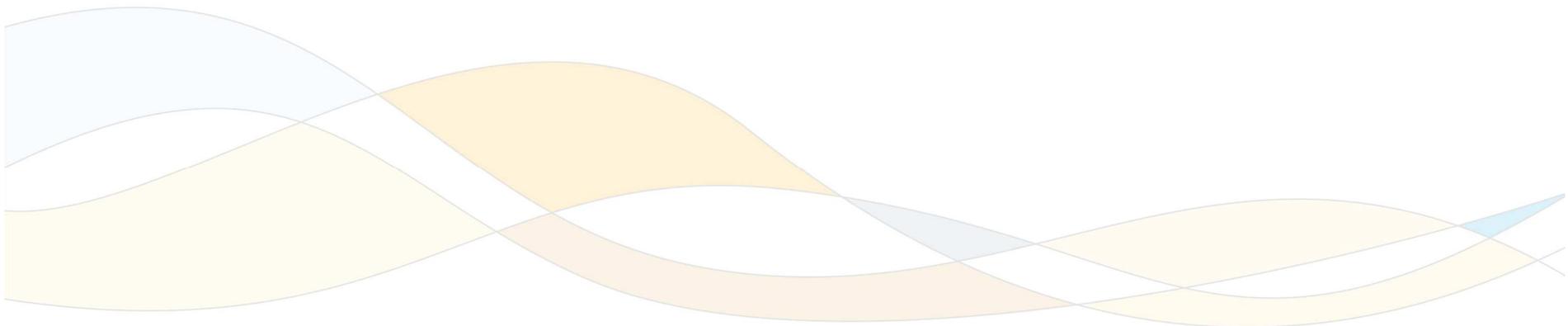
<b>Summary of results for 3 candidates</b>				
	<b>Unit</b>	<b>Candidate 1</b>	<b>Candidate 2</b>	<b>Candidate 3</b>
<b>Figure of Merit</b>	<b>Frames</b>	<b>885,23</b>	<b>360,39</b>	<b>101,85</b>
	<b>Seconds</b>	<b>17,70</b>	<b>7,21</b>	<b>2,04</b>
<b>Number of timeouts</b>	<b>---</b>	<b>5</b>	<b>0</b>	<b>0</b>
<b>Incorrect MSD's reported</b>	<b>---</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Average time in Optimal conditions (Error free radio channel, FR and AMR 12.2)</b>	<b>Seconds</b>	<b>3,60</b>	<b>3,12</b>	<b>1,36</b>
<b>Number of false trigger detections</b>	<b>---</b>	<b>0</b>	<b>0</b>	<b>0</b>

# SUMMARY OF RESULTS



- Tests evaluated so far:
  1. Official test campaign results (unordered test configuration file)
  2. False trigger detection test.
- Additional tests executed by the Host Lab:
  3. Execution of alternative test campaign (second test configuration file), as a double check of the main figures.
  4. Execution of ordered official test campaign, and comparison of results with the official tests

- Results with alternative test campaign:
  - All candidates show similar values to the ones obtained with the official test configuration file:
    - FoM difference: <0.4%
    - No Incorrect MSD's reported by anyone



- Results with Ordered test campaign:
  - It is used to evaluate how many (if any) differences are compared with the Official Test File:

Summary of Differences			
	Candidate 1	Candidate 2	Candidate 3
Number	0	34	1

In candidate 2, no relation was found in the difference regarding the codec type or error pattern.

**Thank you for your  
attention**

**How can we help more?**



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