



Comprehensive VoIP Evaluation Report



Sample Timeline
Tuesday, December 14, 2004 15:13:39 GMT
to
Saturday, December 18, 2004 11:58:41 GMT

Generated on
Saturday, December 18, 2004 12:00 PM

Total pages 17

1. Comprehensive Evaluation

The Comprehensive Evaluation procedure is characterized by VoIP test procedures whose primary objective is to measure the expected voice quality over a long time period. The procedure runs evaluation tests periodically among the designated test point pairs, and reports the aggregated results as well as per-pair results.

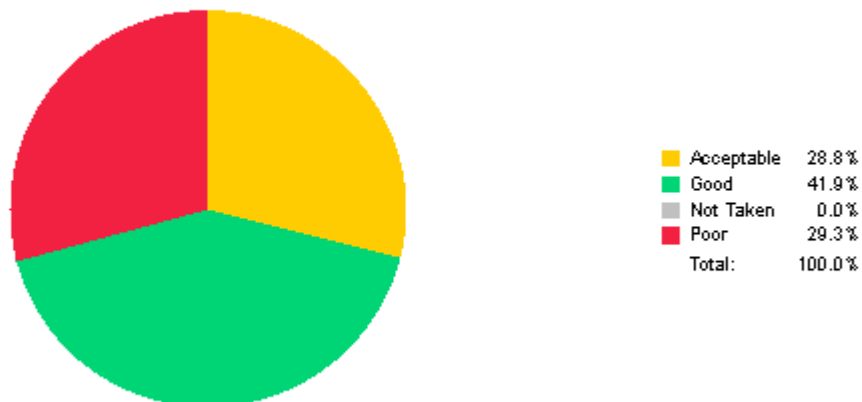
2. Summary of Results

Test Point Pairs	Evaluated Calls	MOS	Codec
HQ – Remote Site # 1	5	3.8	G.711



2.1. G.711 Codec

Average MOS for all test point pairs: **3.8**
 Voice quality rating: **Acceptable Quality**



3. Procedural Details

During the procedure, full duplex VoIP tests with fixed number of calls were carried out among the designated test point pairs every 2 minutes.

The detailed results aggregated per pair, day and hour appear in the pages that follow.

- Start date and time: Tuesday, December 14, 2004 15:13:39 GMT
- End date and time: Saturday, December 18, 2004 11:58:41 GMT
- Conversation Duration: 240 sec
- Signaling protocol used: None
- Single Receiving Port: Not used



4. Aggregated Codec Results

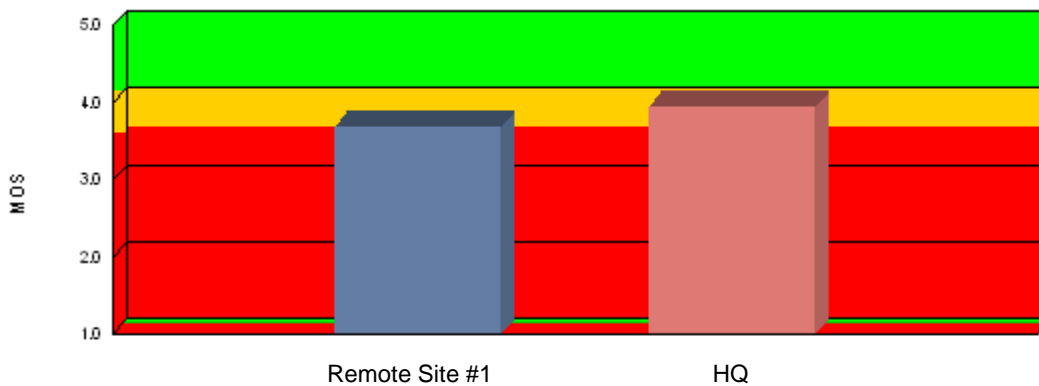
4.1. G.711 Codec Results

4.1.1. All Test Point Pairs

4.1.1.1. Pairs 1 to 10

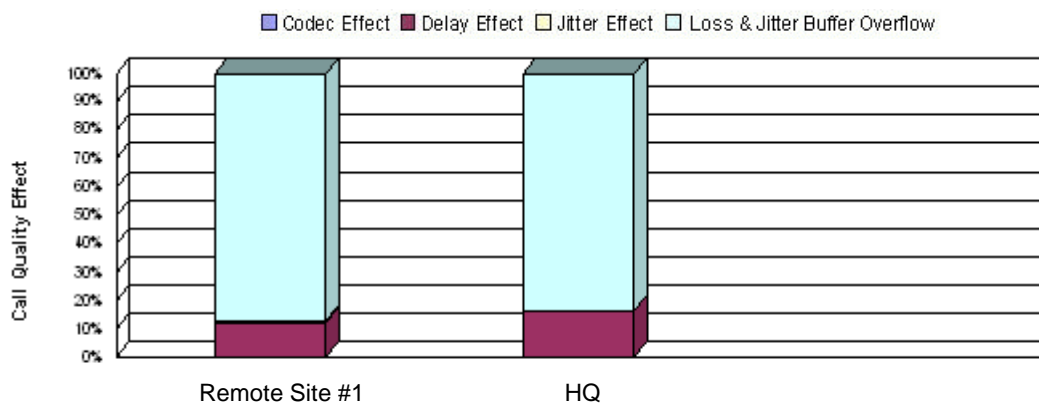
The following chart illustrates the average quality of calls for test points pairs 1 to 10 that used the G.711 codec.

The parentheses indicate the number of calls emulated by the test point pair.



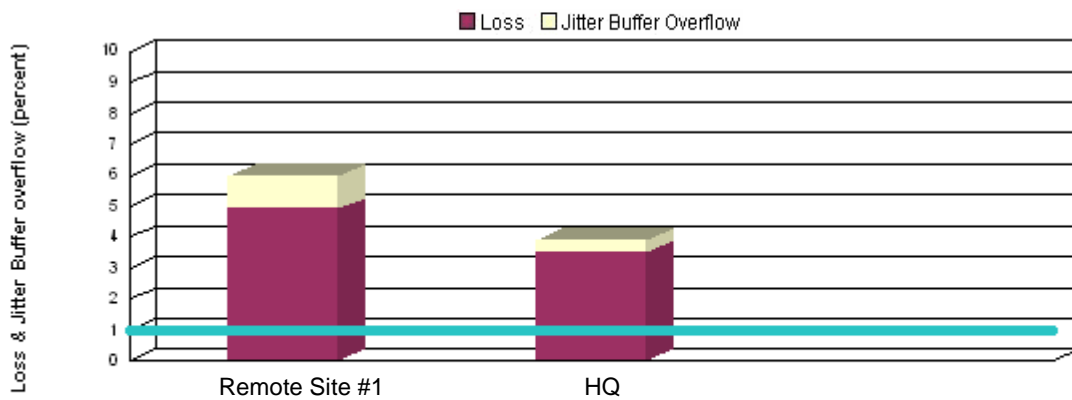
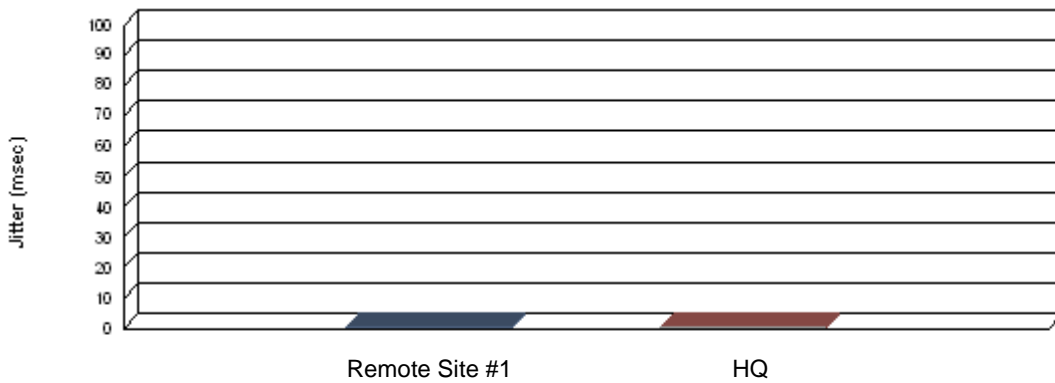
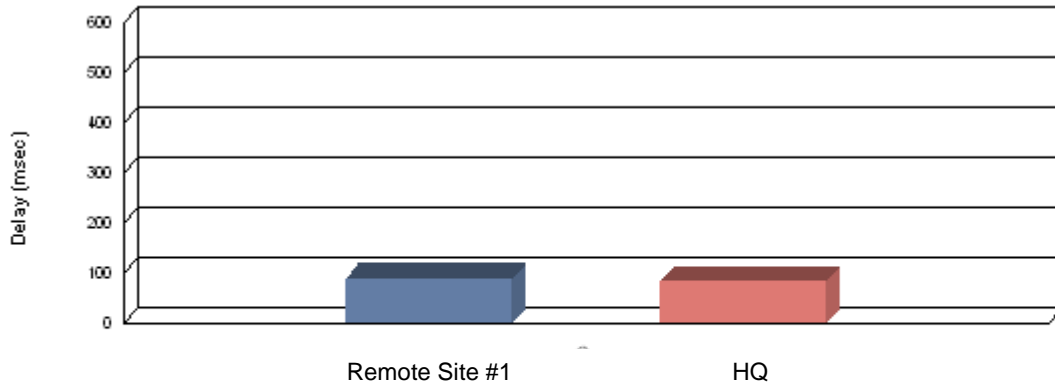
The following chart illustrates the relative effects of the codec, delay, jitter and loss & jitter buffer overflow impairments on the call quality of calls for test points pairs 1 to 10 that used the G.711 codec.

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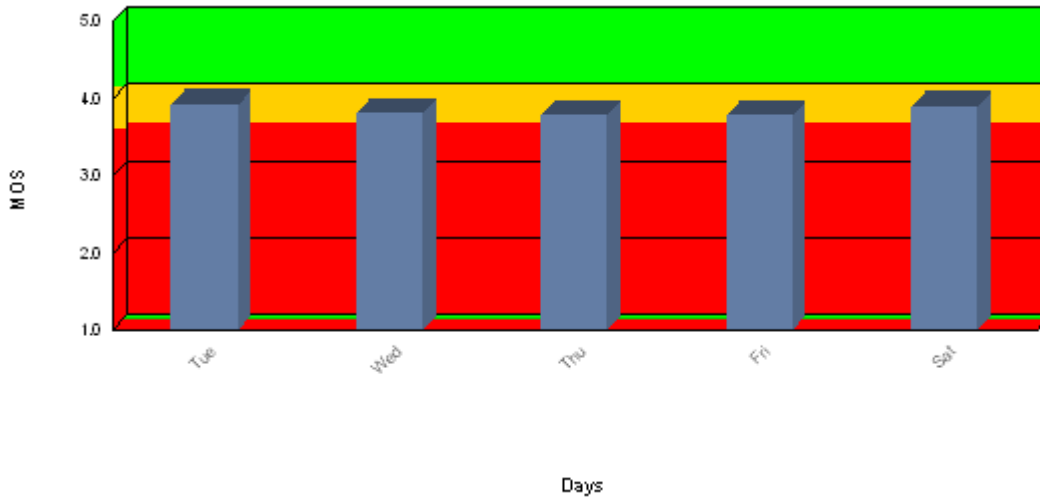
The following three charts illustrate the average delay, the average jitter and the average loss & jitter buffer overflow values, of calls for test points pairs 1 to 10 that used the G.711 codec.

The parentheses indicate the number of calls emulated by the test point pair.



4.1.2. G.711 - Daily Summary

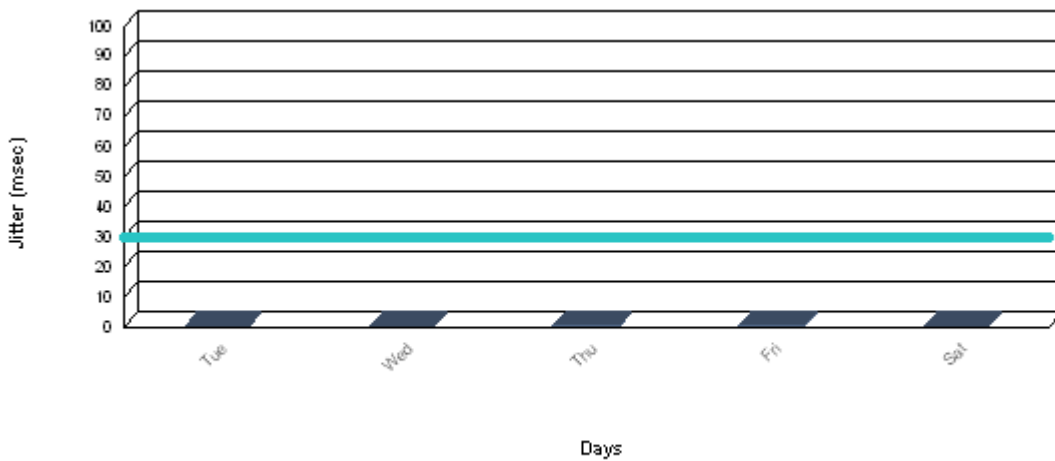
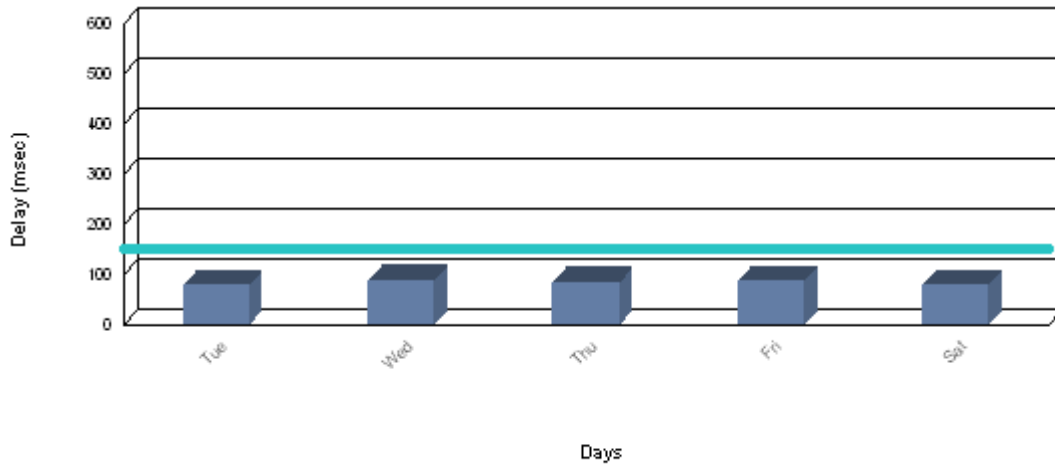
The following chart illustrates the average quality of calls for all the test point pairs that used the G.711 codec during each day of the evaluation.



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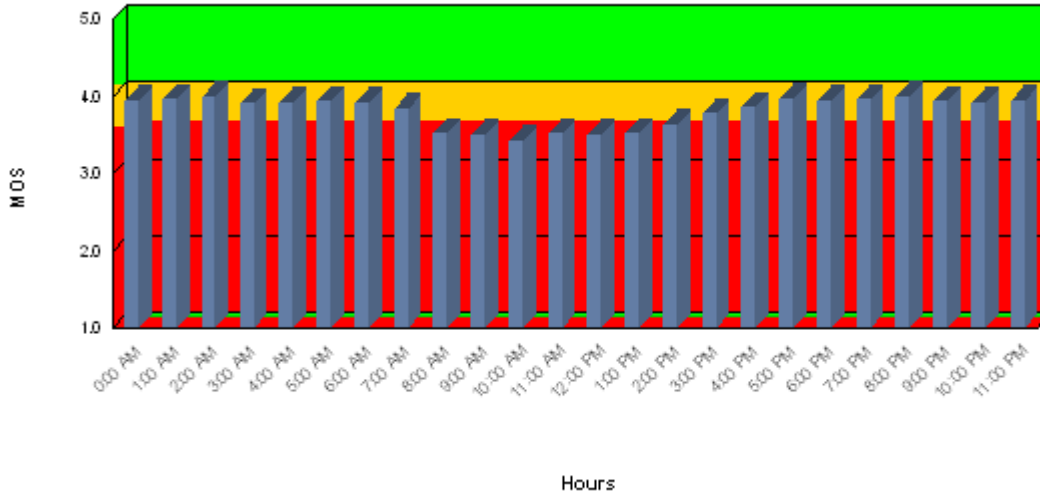


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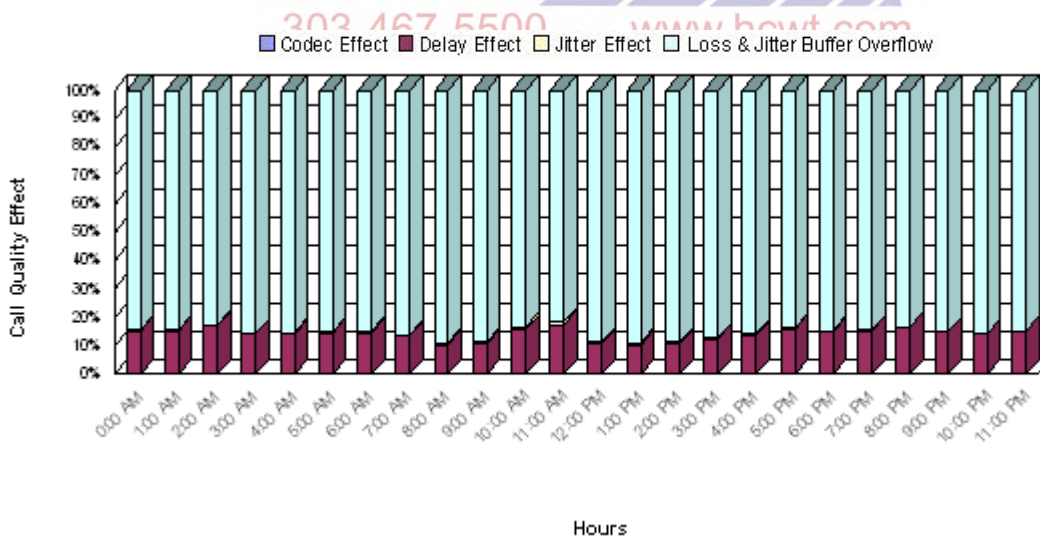


4.1.3. G.711 - Hourly Summary

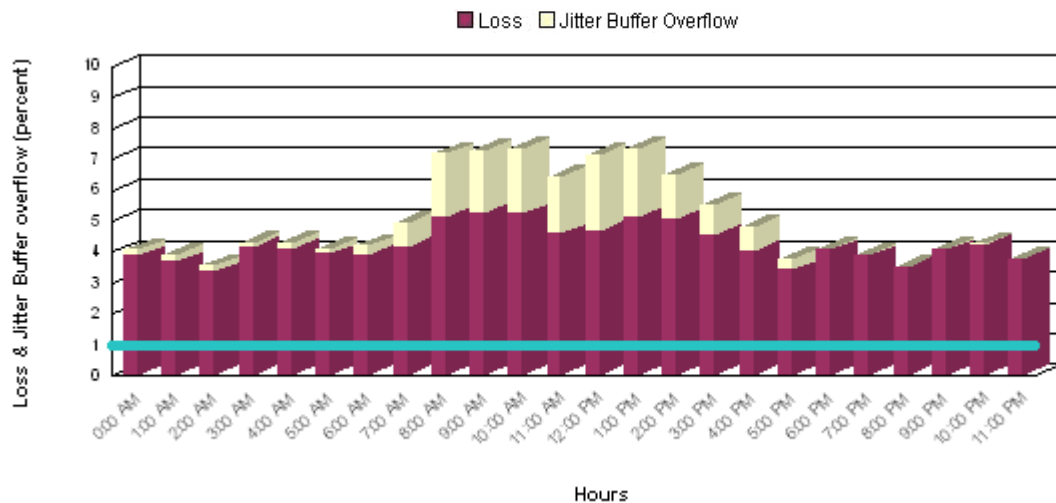
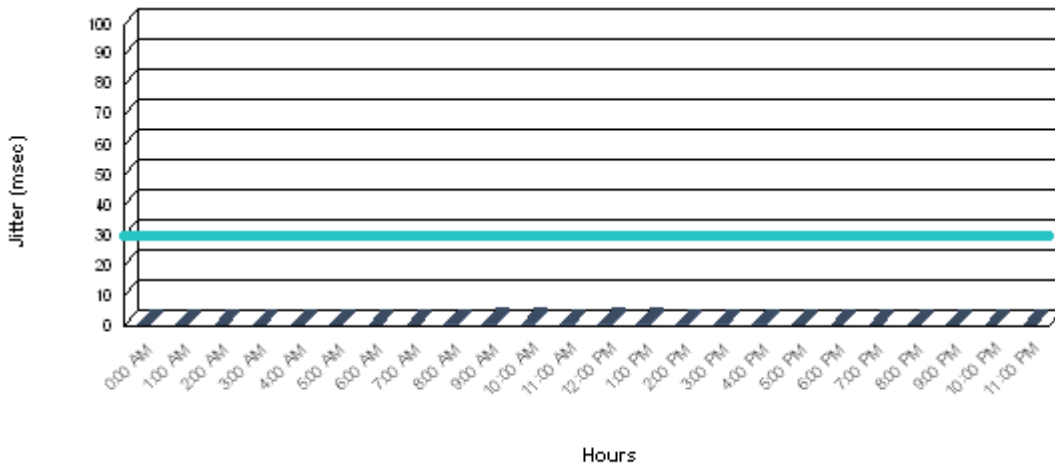
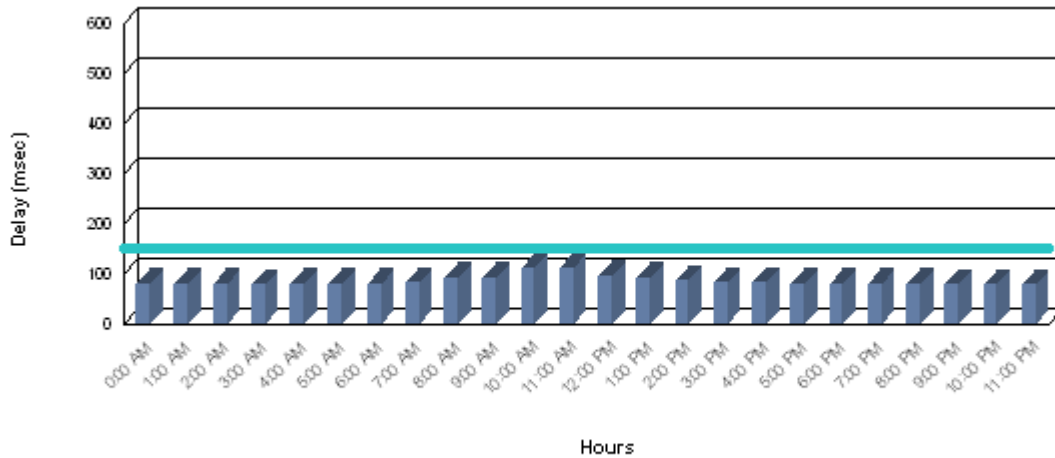
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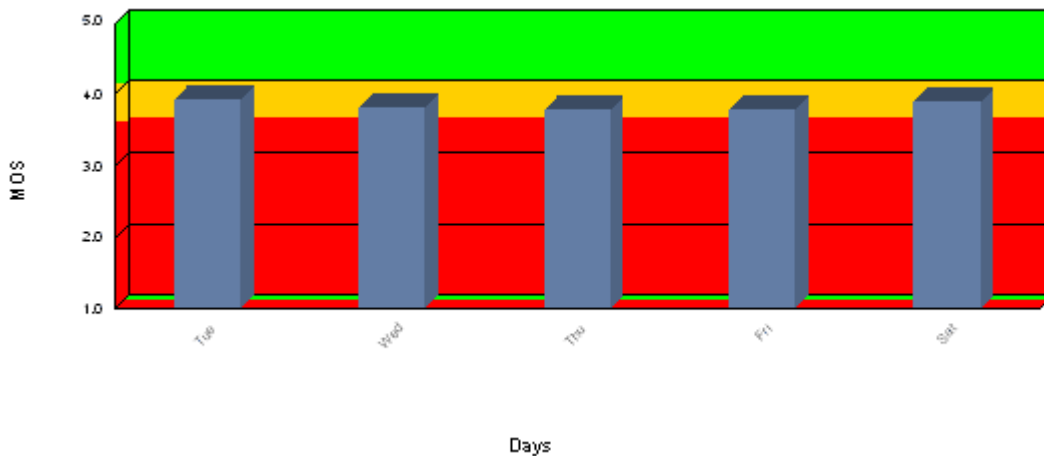


5. Aggregated Test Point Pairs Results

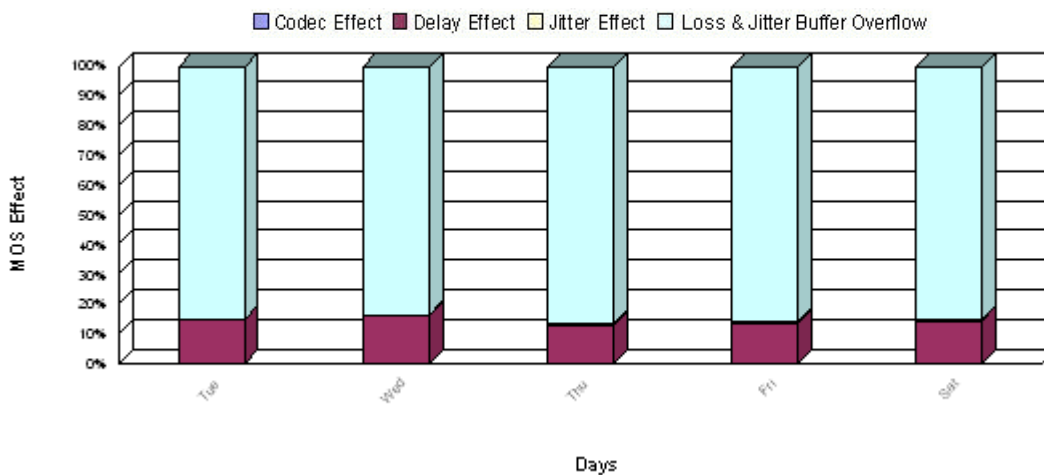
5.1. Test Point Pair: HQ – Remote Site # 1

5.1.1. Daily Summary

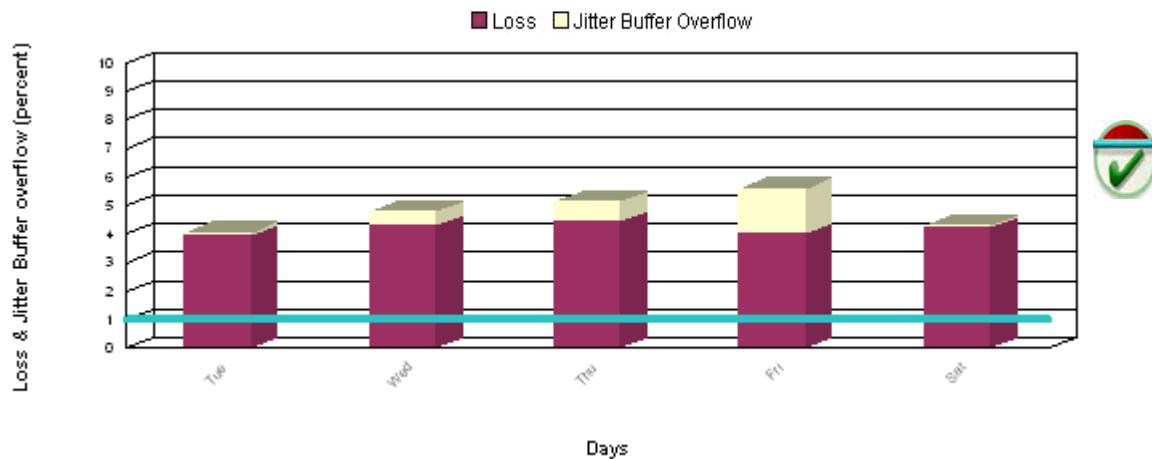
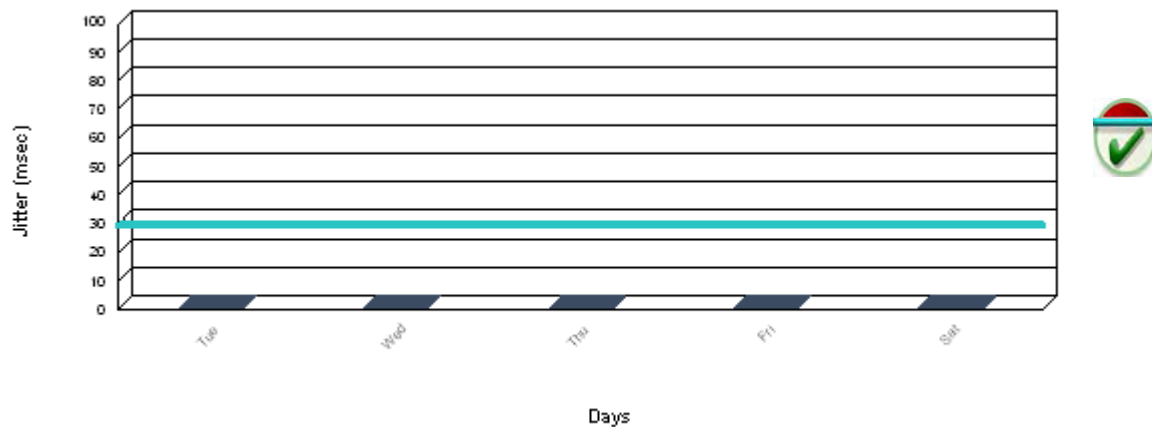
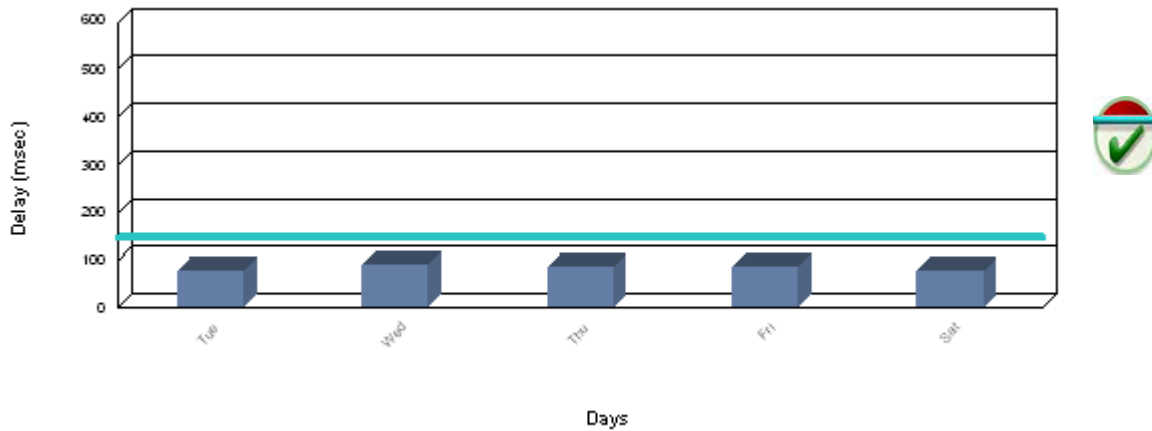
The following chart illustrates the average quality of calls for the test point pair HQ – Remote Site # 1 that used the G.711 codec during each day of the evaluation.



The following chart illustrates the relative effects of the codec, delay, jitter and loss & jitter buffer overflow impairments on the call quality of calls for the test point pair HQ – Remote Site # 1 that used the G.711 codec during each day of the evaluation.

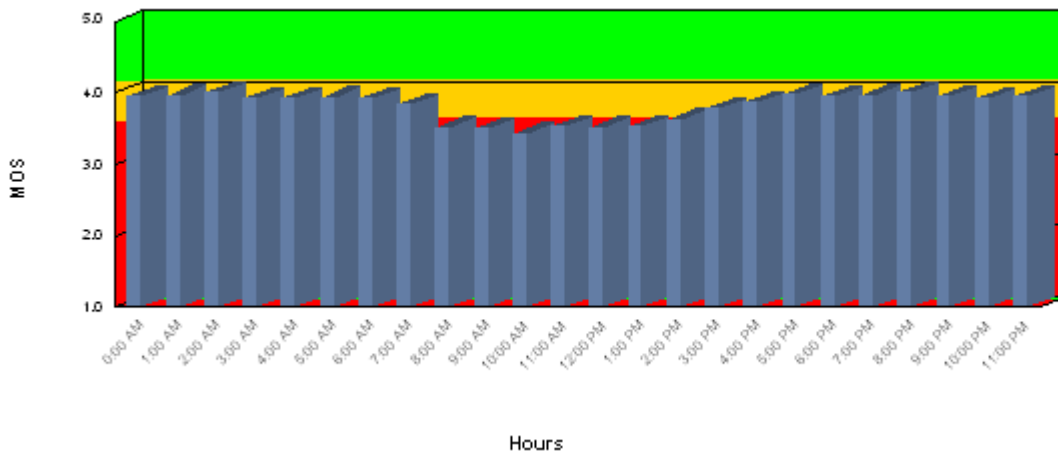


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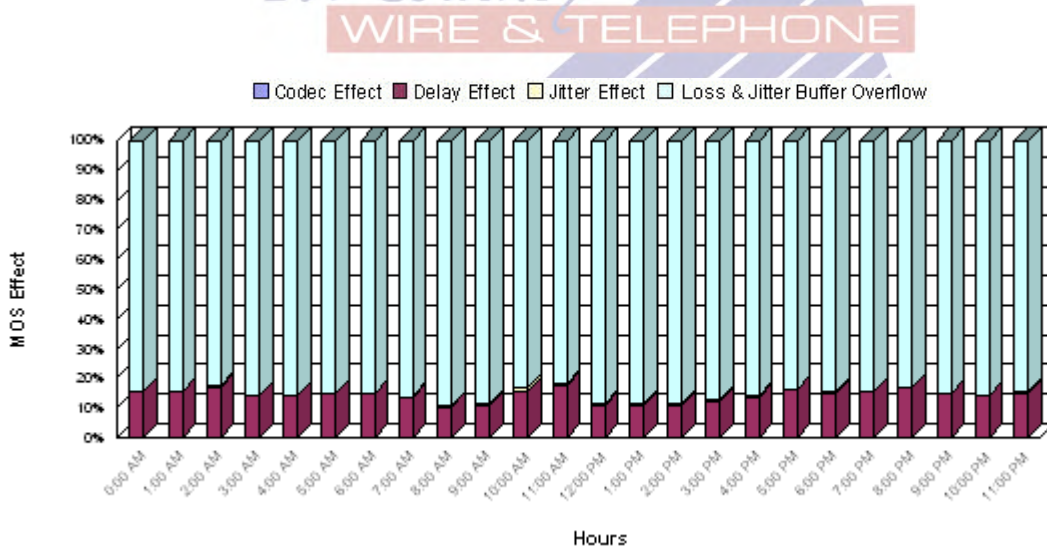


5.1.2. Hourly Summary

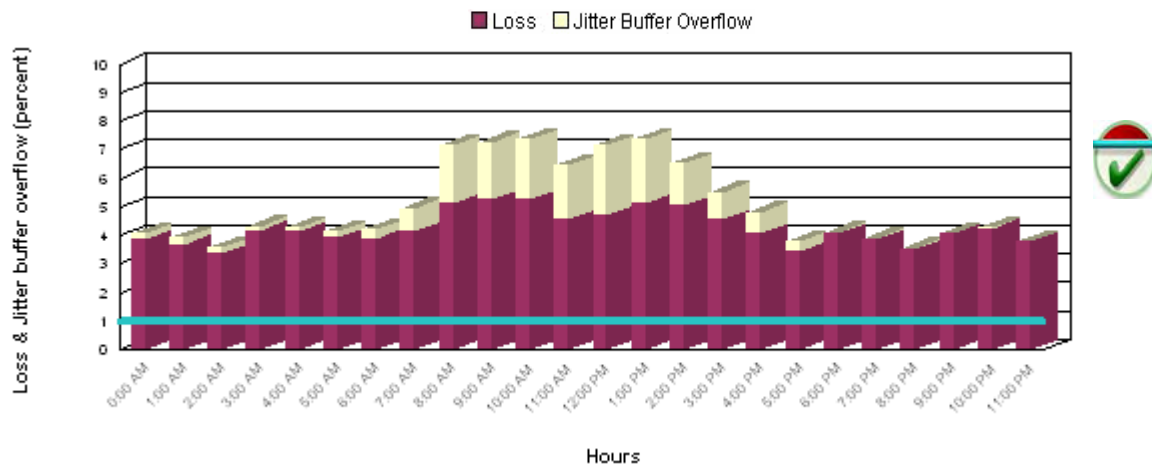
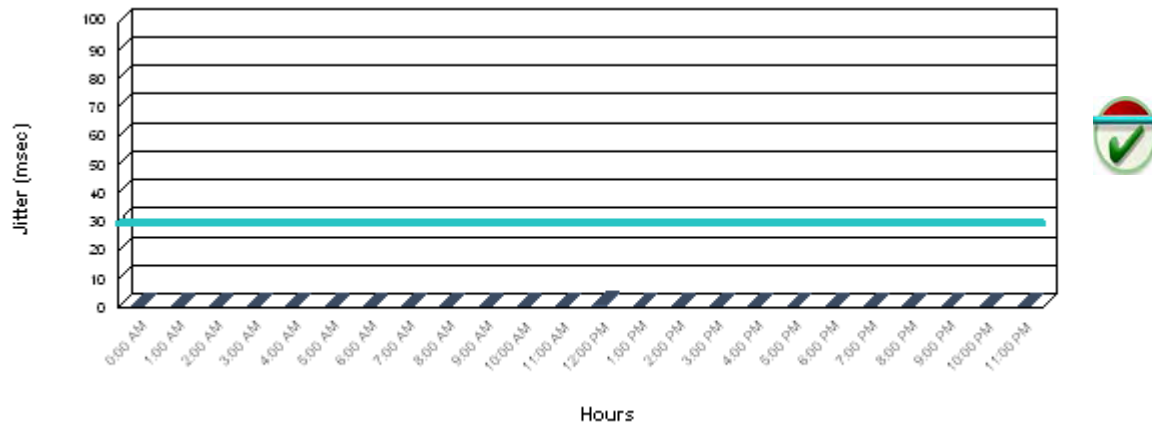
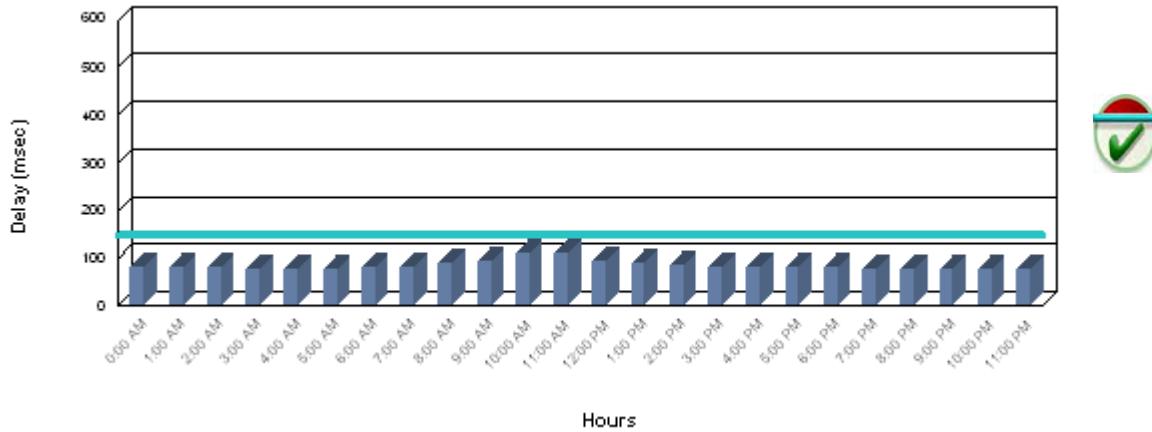
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6. Additional Information

The following table contains the thresholds that were used during this evaluation.

Measurement	Good	Acceptable	Poor
MOS	Above 4.0	4.0 to 3.6	Below 3.6

Measurement	Good	Poor
Delay (msec)	Below 150.0	Above 150.0
Jitter (msec)	Below 30.0	Above 30.0
Loss (percent)	Below 1.0	Above 1.0

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The following table contains designation parameters for each test point pair.

Test Point Pair: HQ – Remote Site # 1

Codec: G.711

Name	Value	Unit
Number of Measurements	1	
Base RTP Port	0	
Jitter Buffer	Use (40,20)	
Quality of Service	0	
Frame Packing	20	sec
G711 Payload Type	PCMU	
Use PLC	true	
Silence Suppression	false	
Min Number of Calls	1	
Max Number of Calls	1	
Step	1	
Number of Calls	5	

