

Netally VoIP Evaluator

Comprehensive Evaluation Report

Prepared by Viola Networks

Thursday, January 16, 2003 6:07 PM

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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.

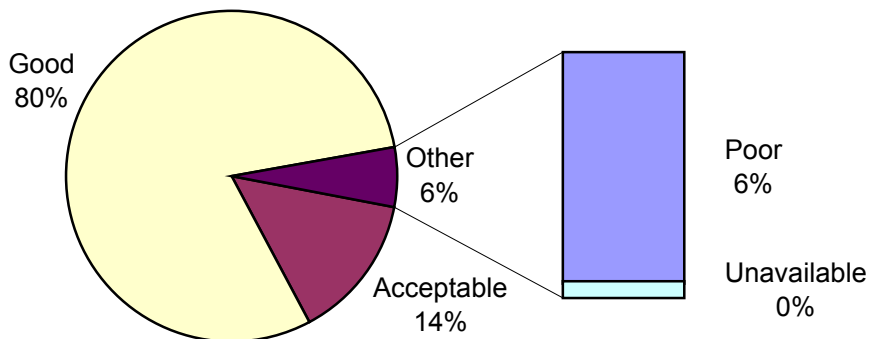
2 Summary of Results

2.1 Test Point Pairs Result Table

Test Point Pairs	Evaluated Number of Calls	MOS	Codec
Accounting_Dept. – HR_Dept.	11	4.1	G.711
IT_Dept. – Home_Office	6	4	G.711

2.2 G.711 Codec

- Average MOS for all test point pairs: **4.1**
- Voice Quality Rating: **Good Quality**



3 Procedural Details

- Start Date and Time: Mon Jan 13 19:02:27 IST 2003
- Stop Date and Time: Mon Jan 20 19:02:27 IST 2003
- During the evaluation, full duplex VoIP tests with a fixed number of calls were carried out among the designated test point pairs every 15 minutes
- The detailed results aggregated per pair, day and hour appear in the following pages.

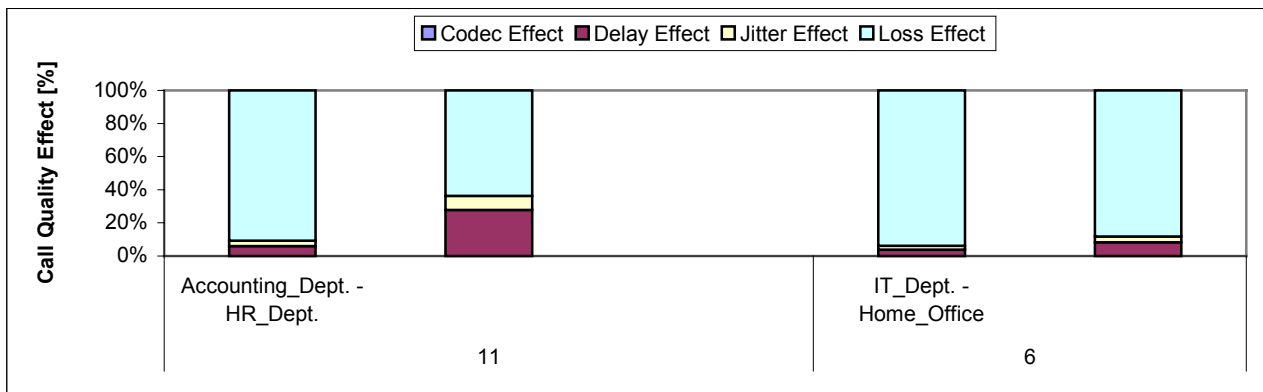
4 Aggregated Codec Results

4.1 G.711 - Per Test Point Pair

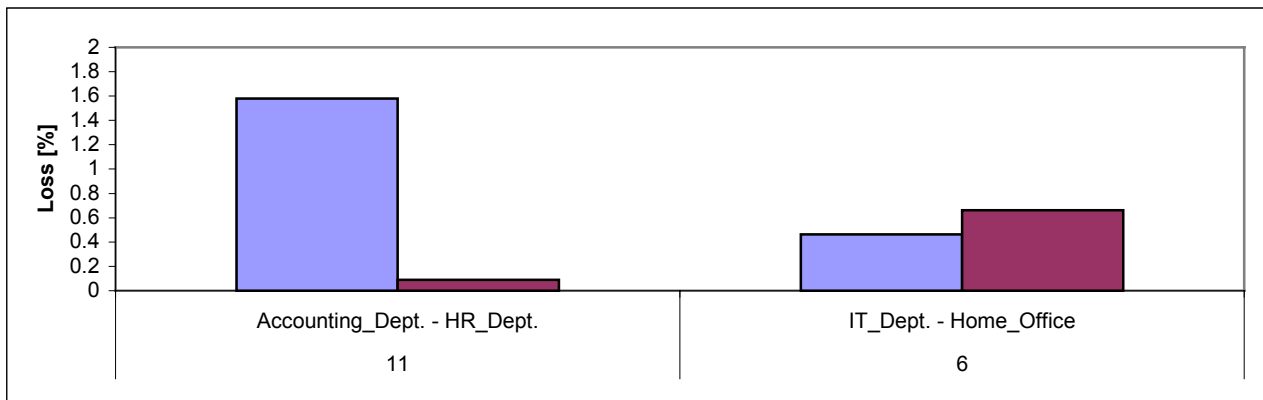
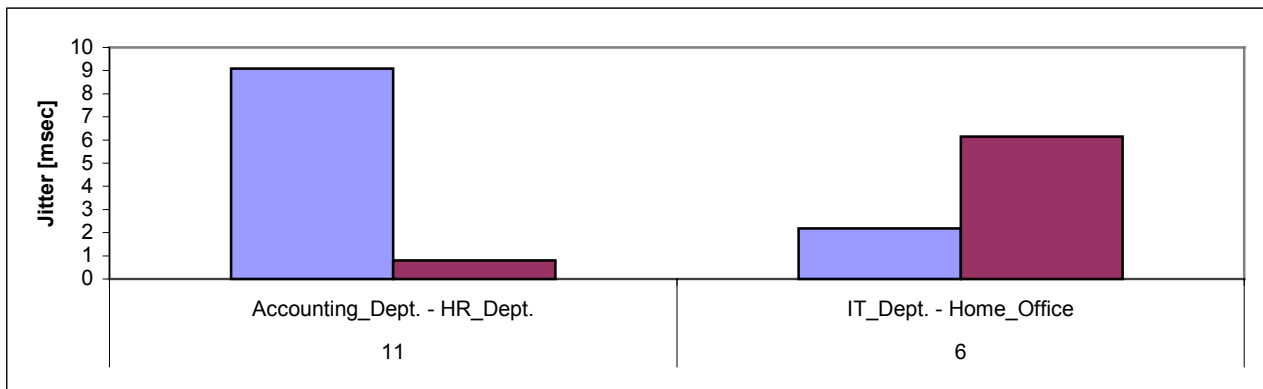
The following chart illustrates the average quality of calls for all the test point pairs that used the G.711 Codec.



The following chart illustrates the relative effects of the Codec, delay, jitter and loss impairments on the call quality of calls for all the test point pairs that used the G.711 Codec.

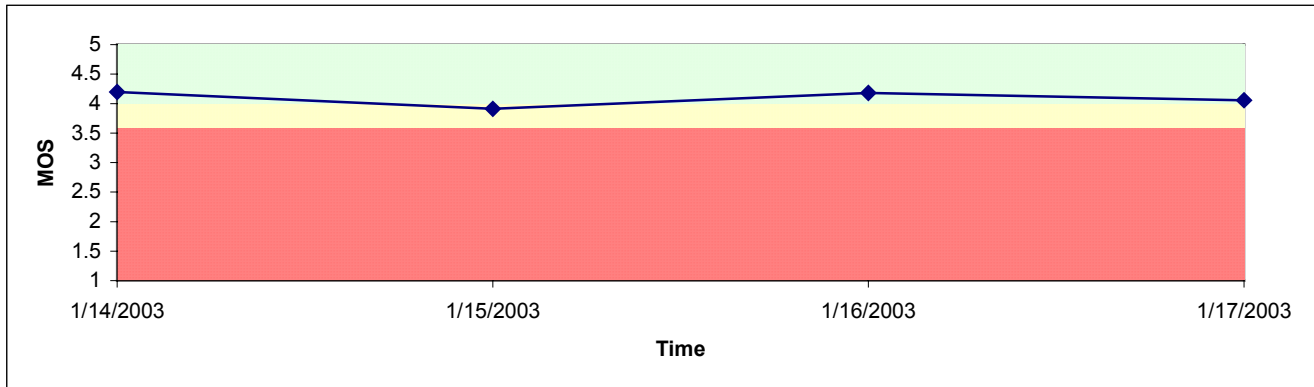


The following three charts illustrate the average delay, the average jitter and the average loss values, of calls for all the test point pairs that used the G.711 Codec.

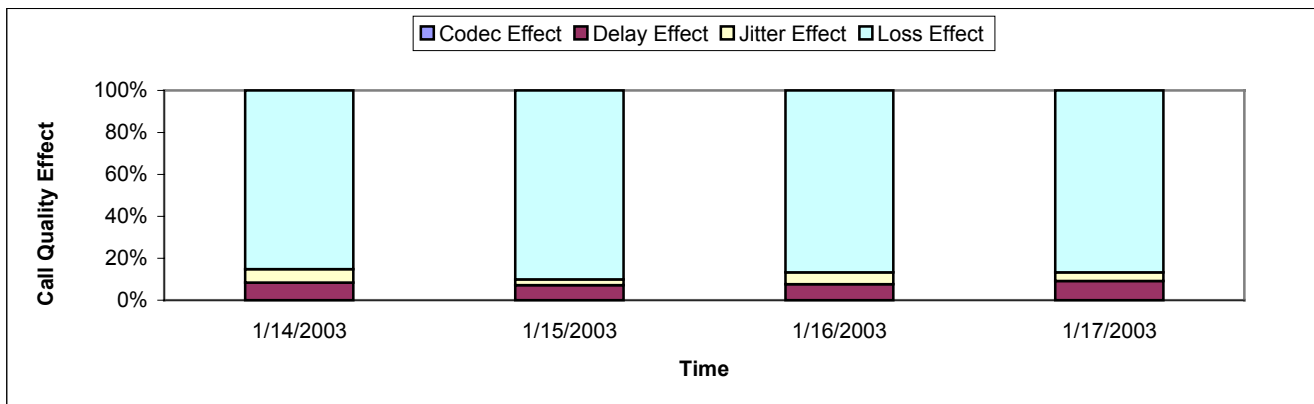


4.2 G.711 - Daily Summary

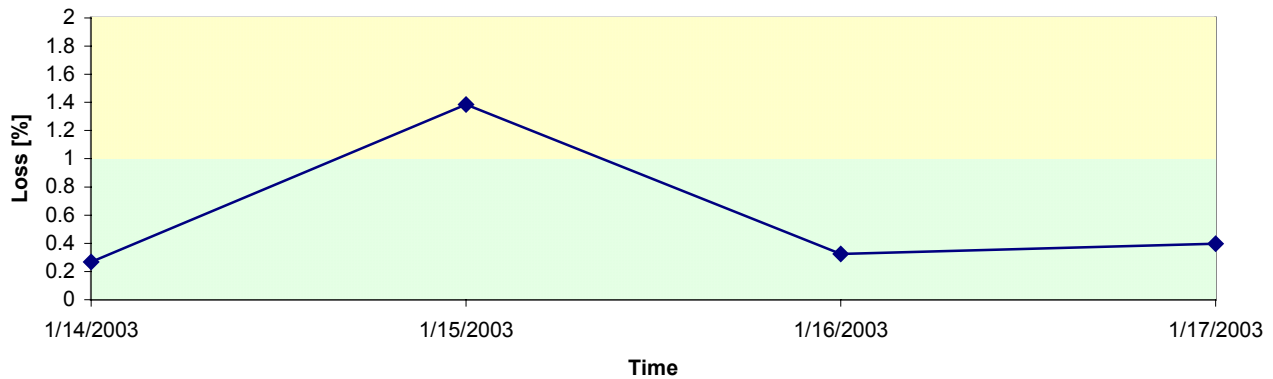
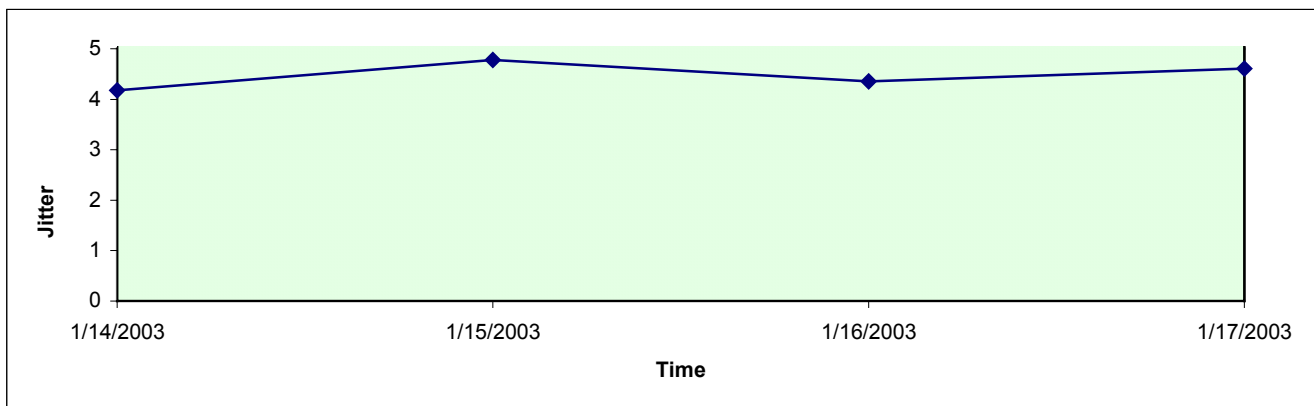
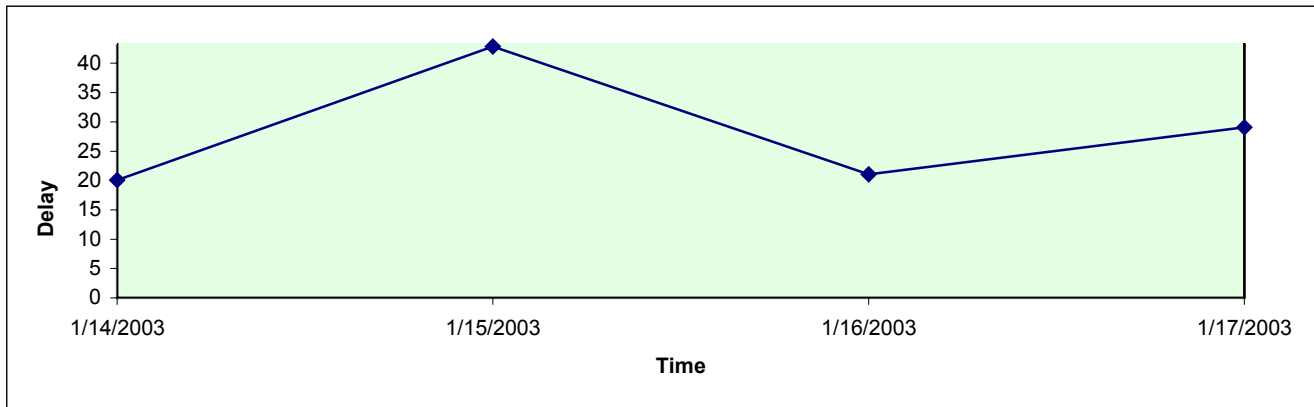
The following chart illustrates the average quality of calls for all the test point pairs that used the G.711 Codec during each day of the evaluation.



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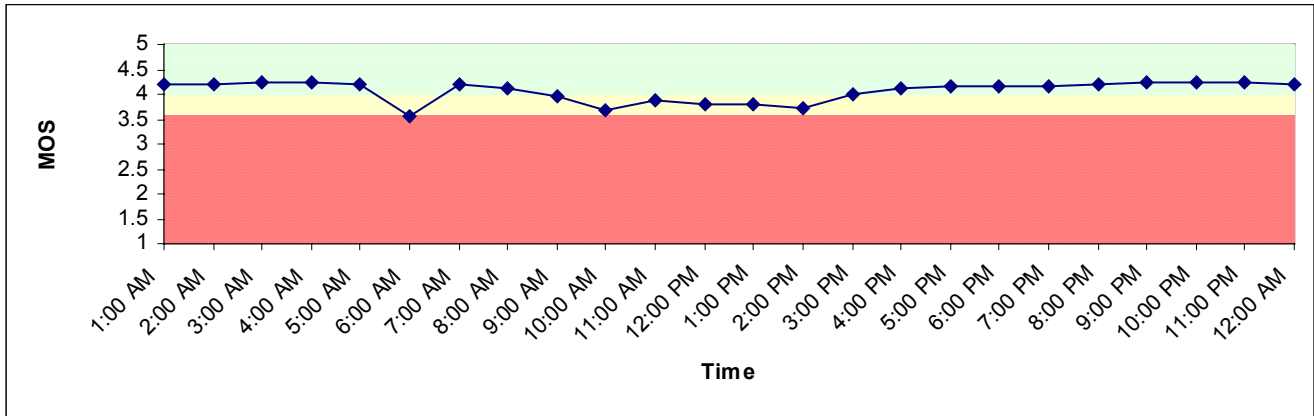


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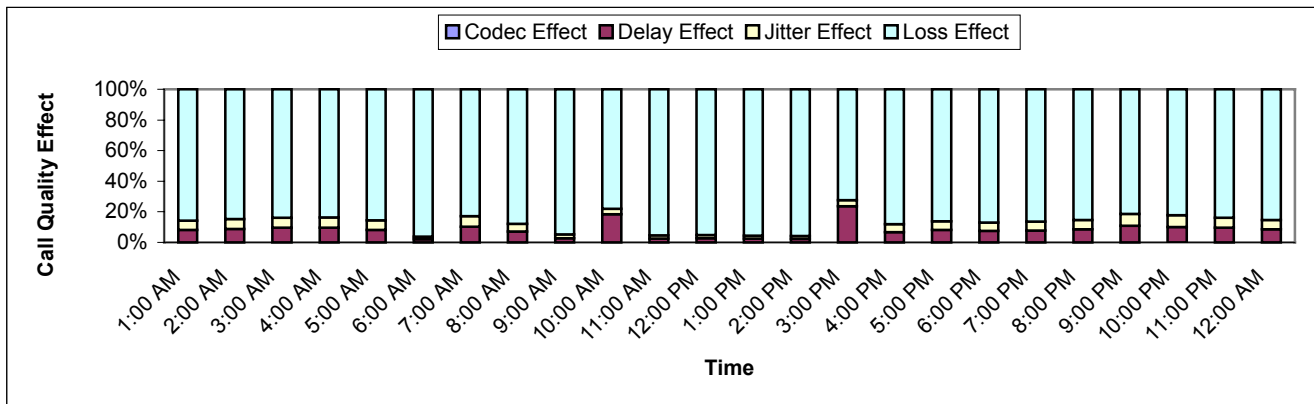


4.3 G.711 - Hourly Summary

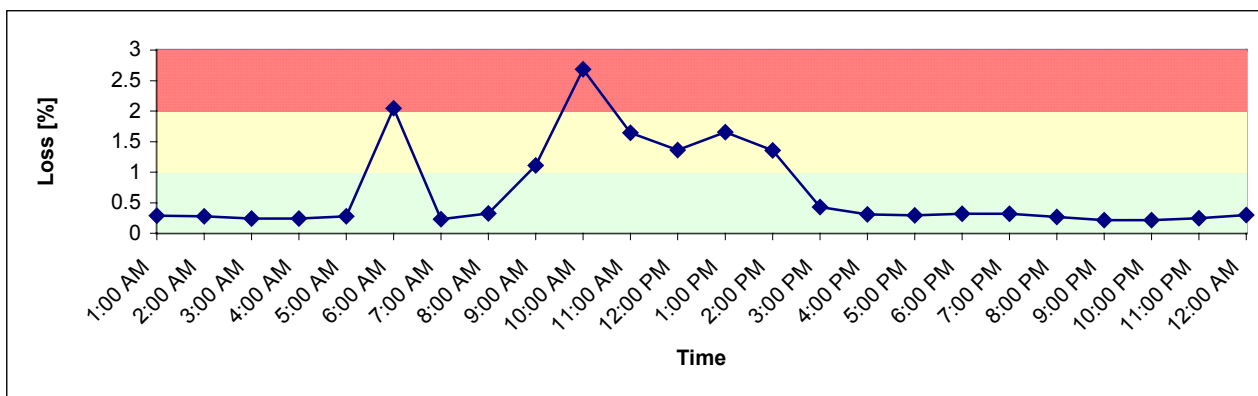
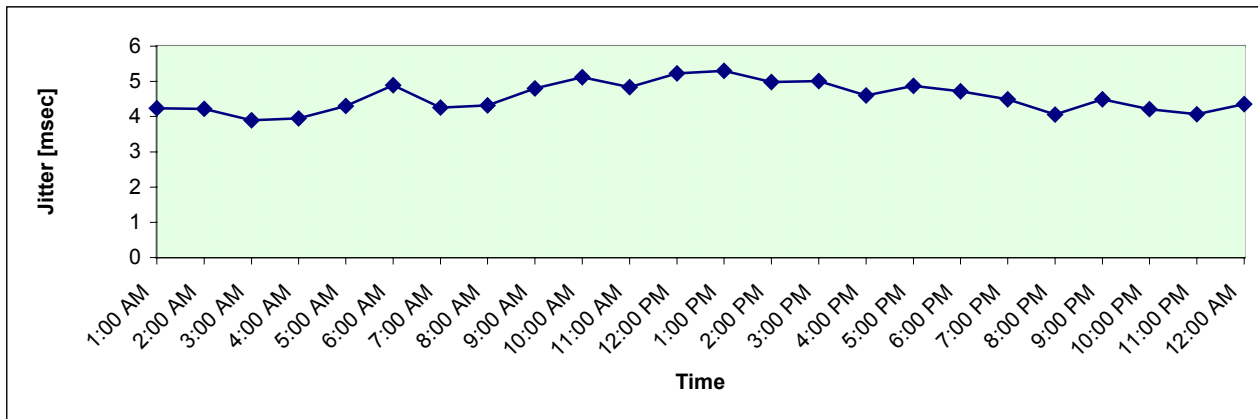
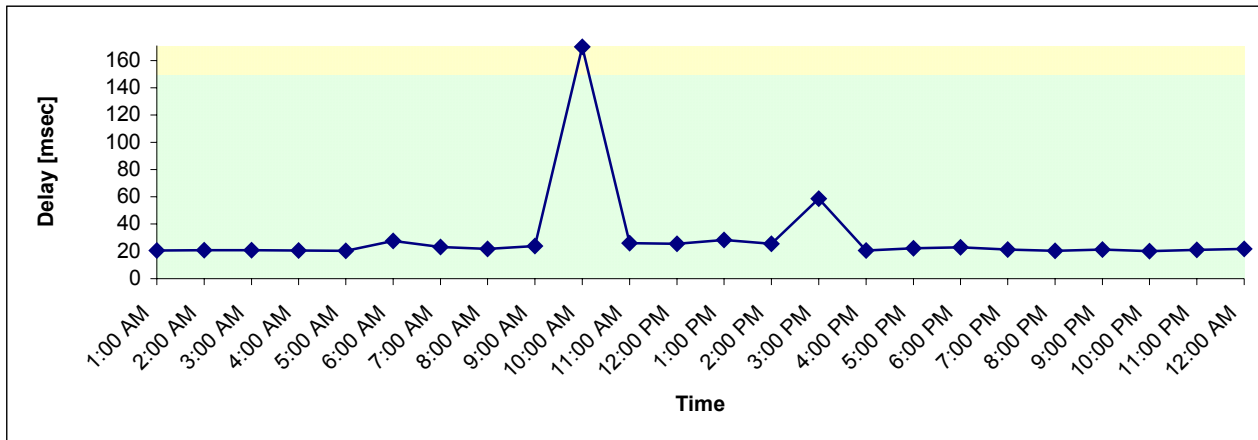
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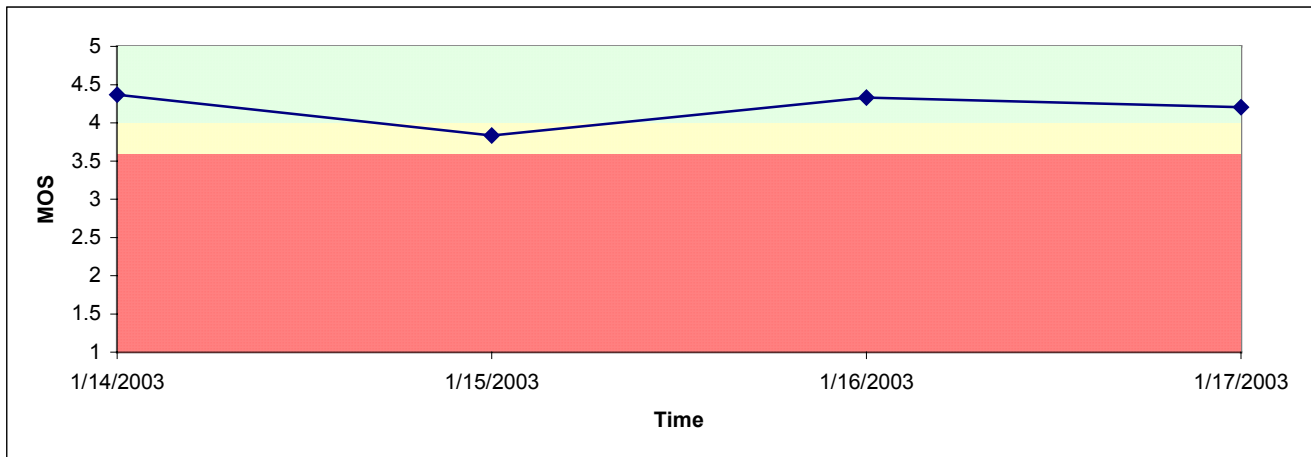


5 Aggregated Test Point Pairs Results

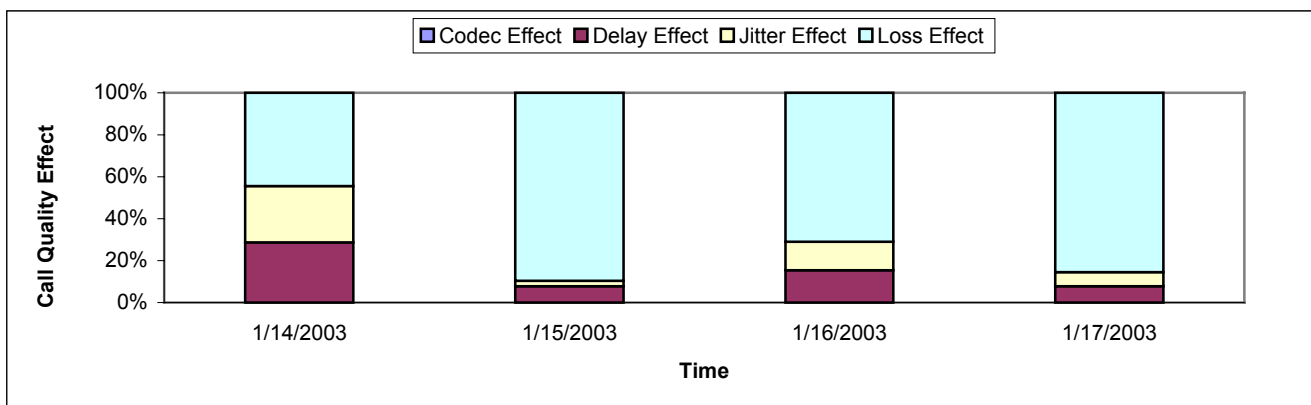
5.1 Test Point Pair: Accounting_Dept. - HR_Dept.

Daily Summary

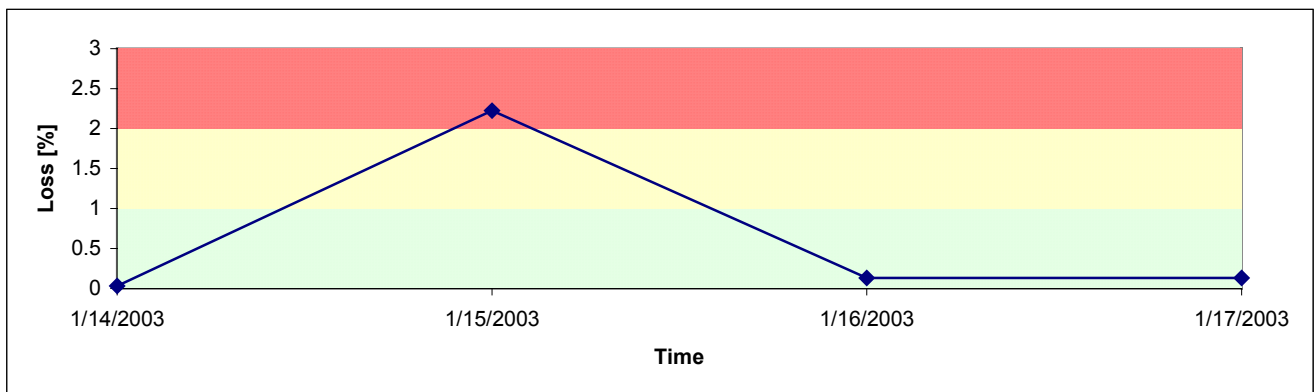
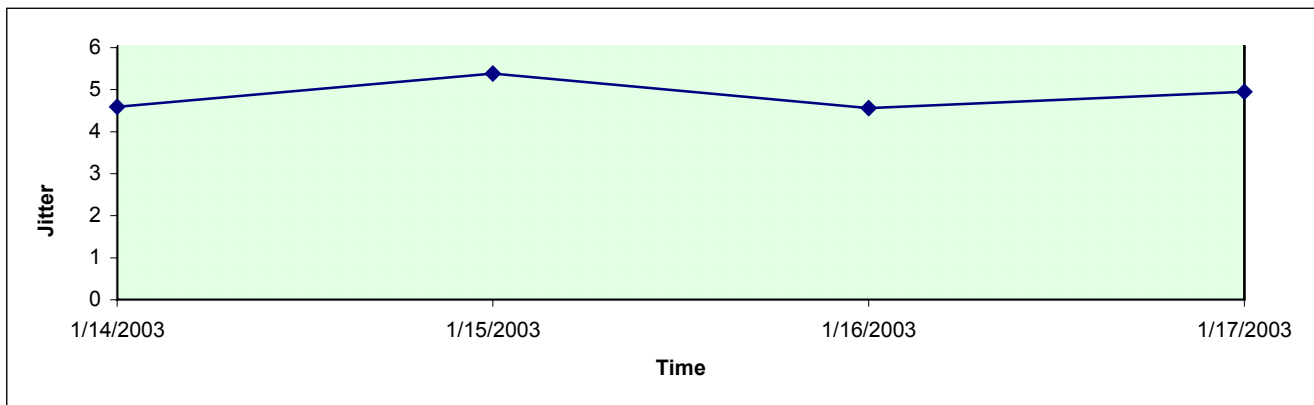
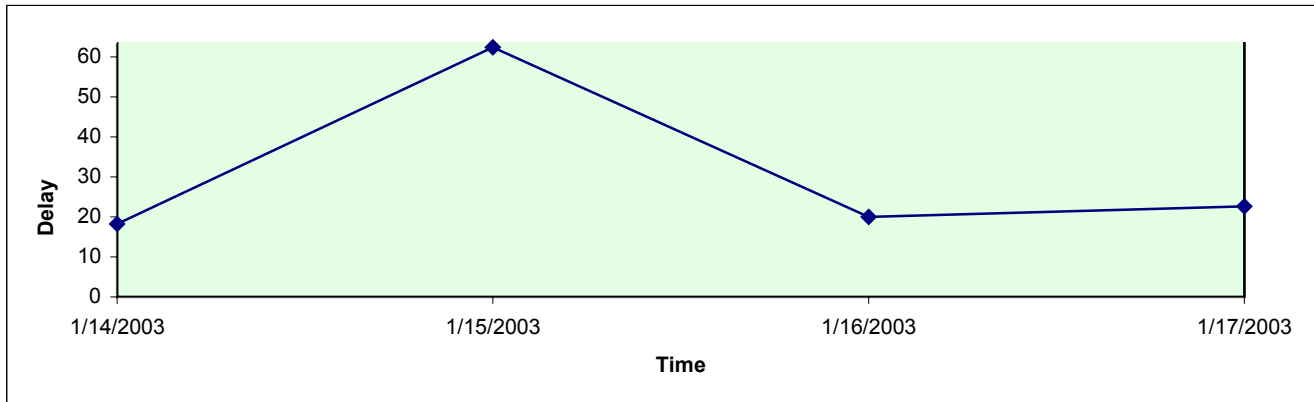
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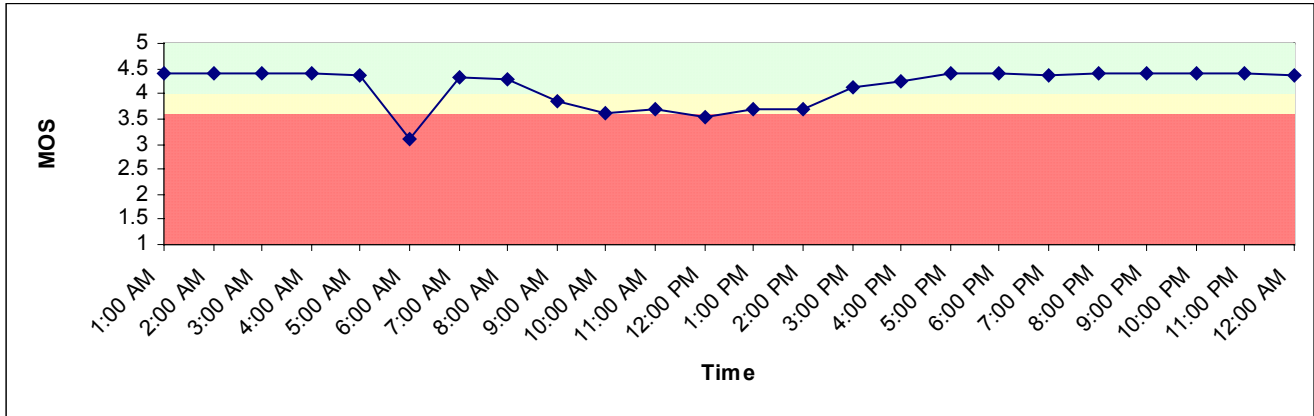


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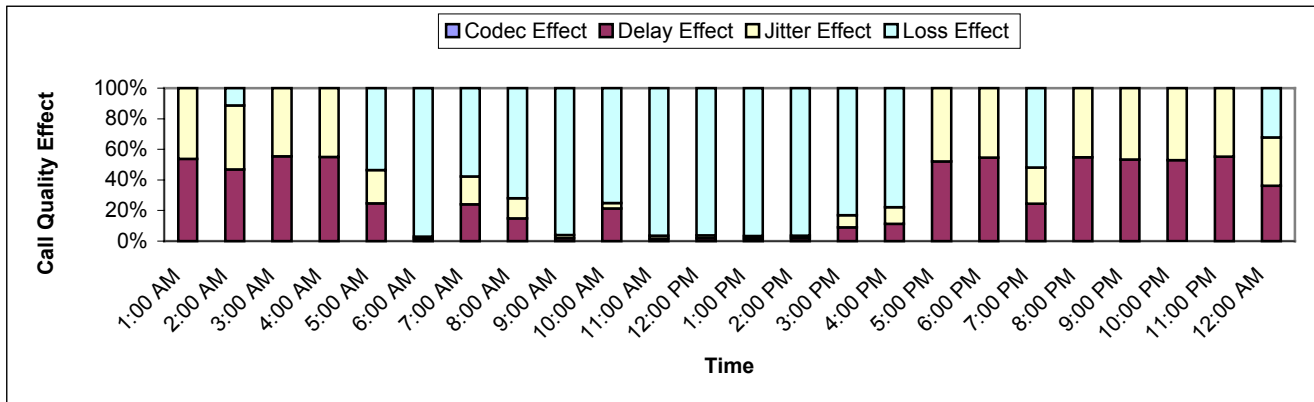


Hourly Summary

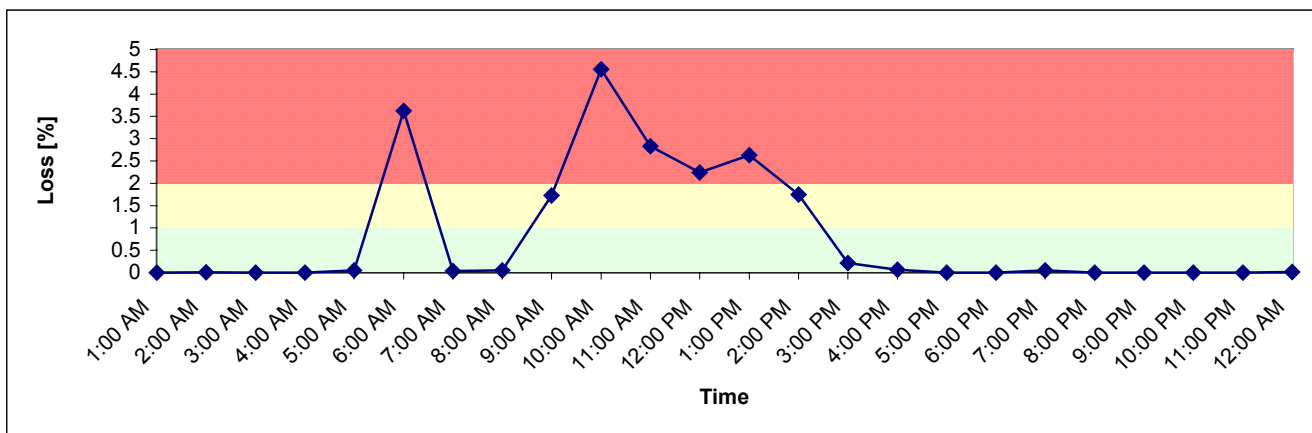
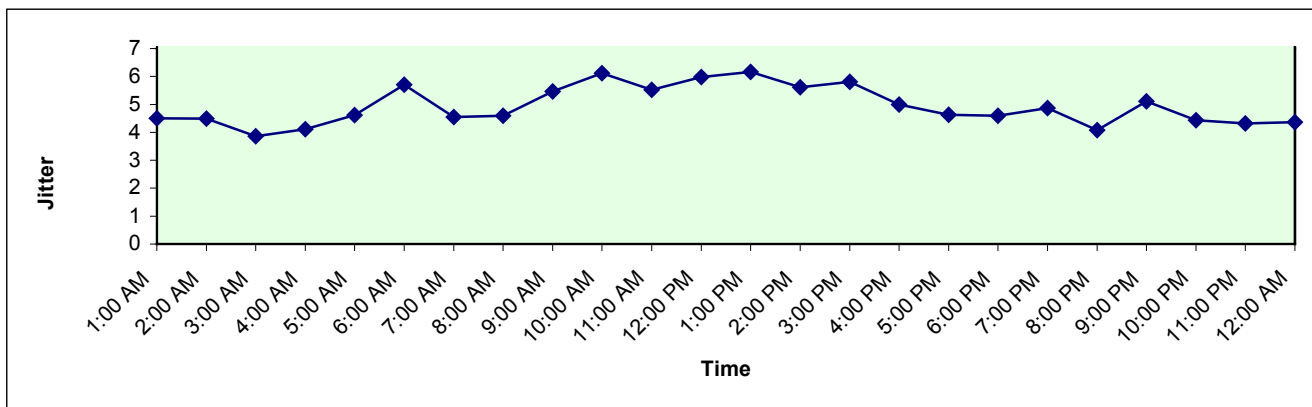
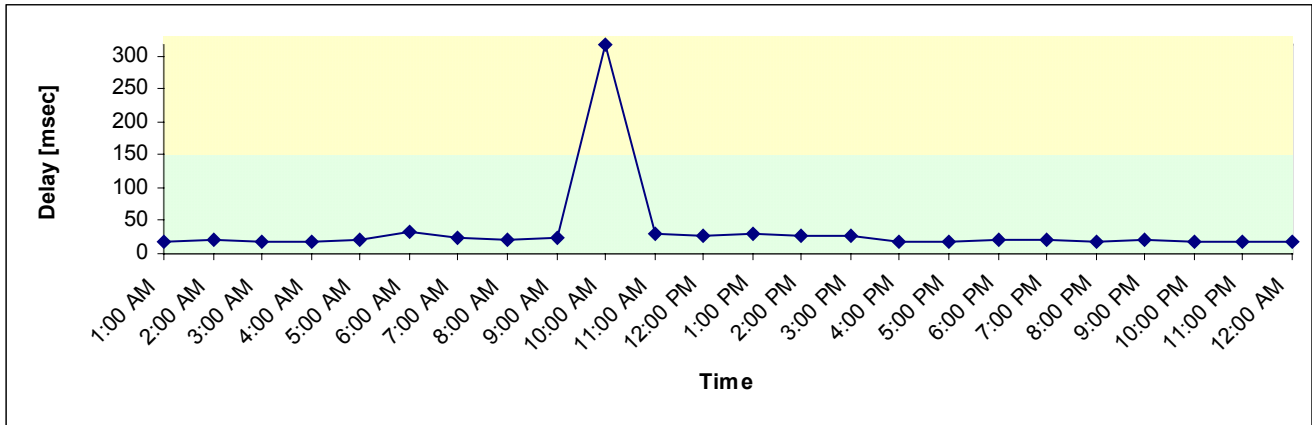
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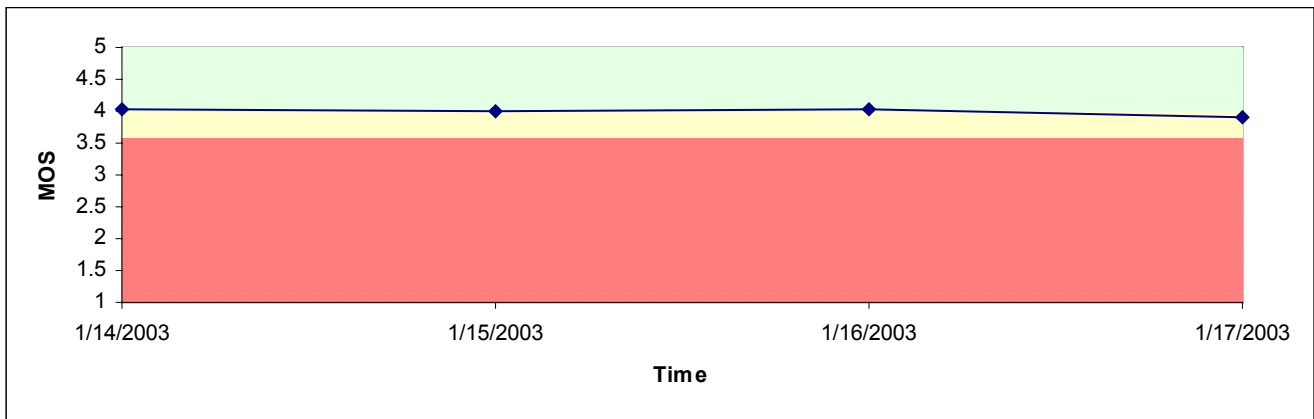
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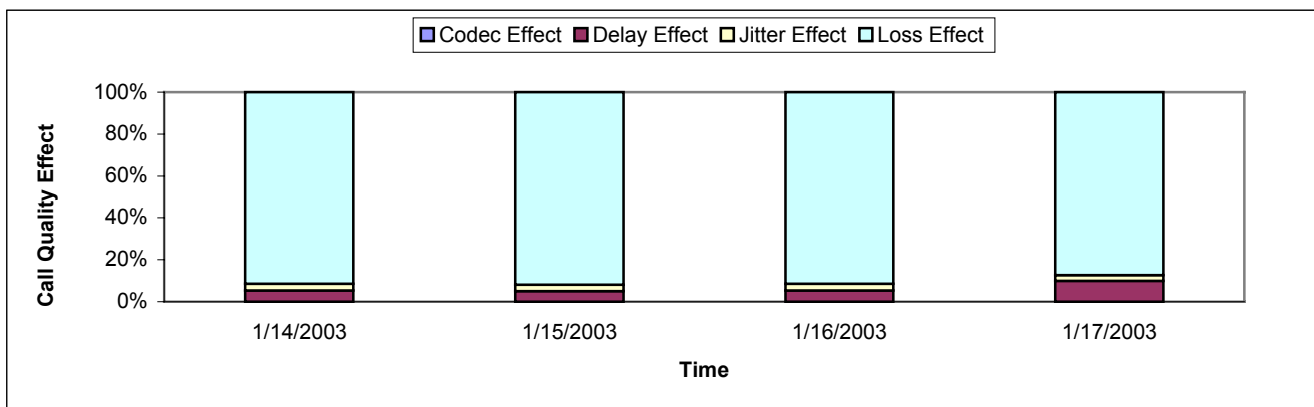
5.2 Test Point Pair: IT_Dept. - Home_Office

Daily Summary

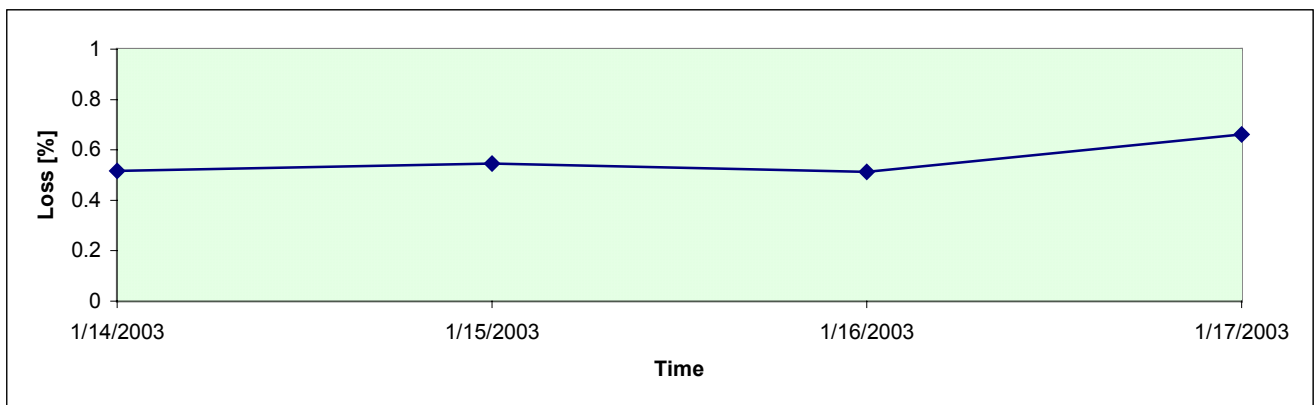
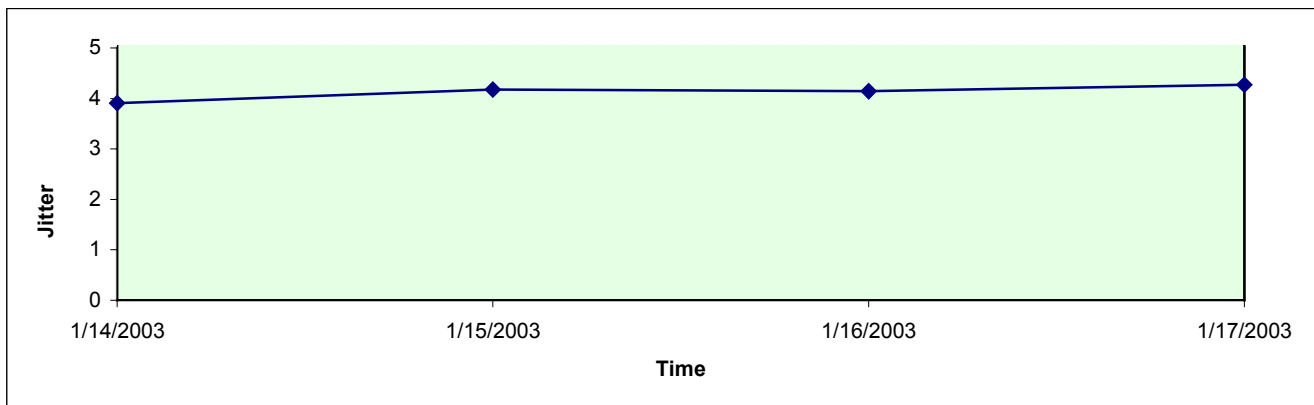
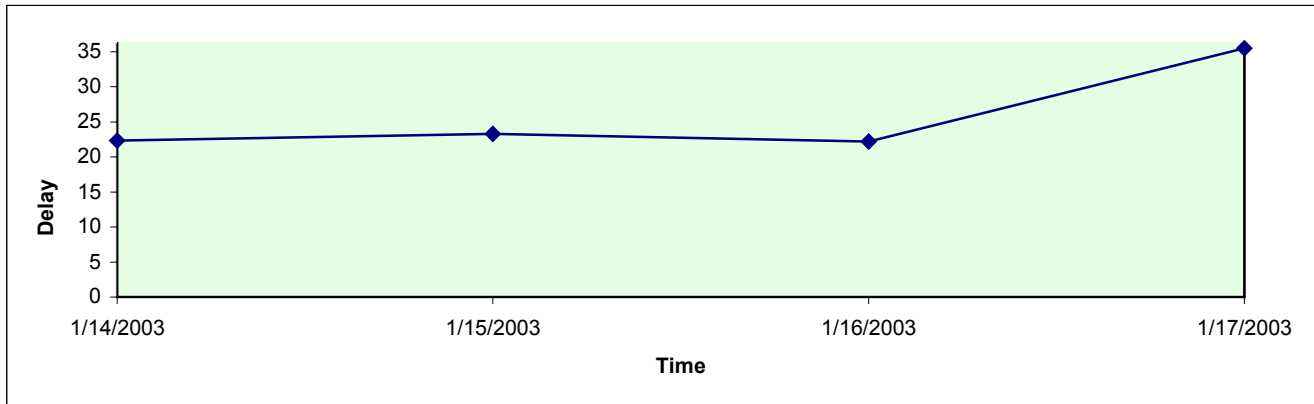
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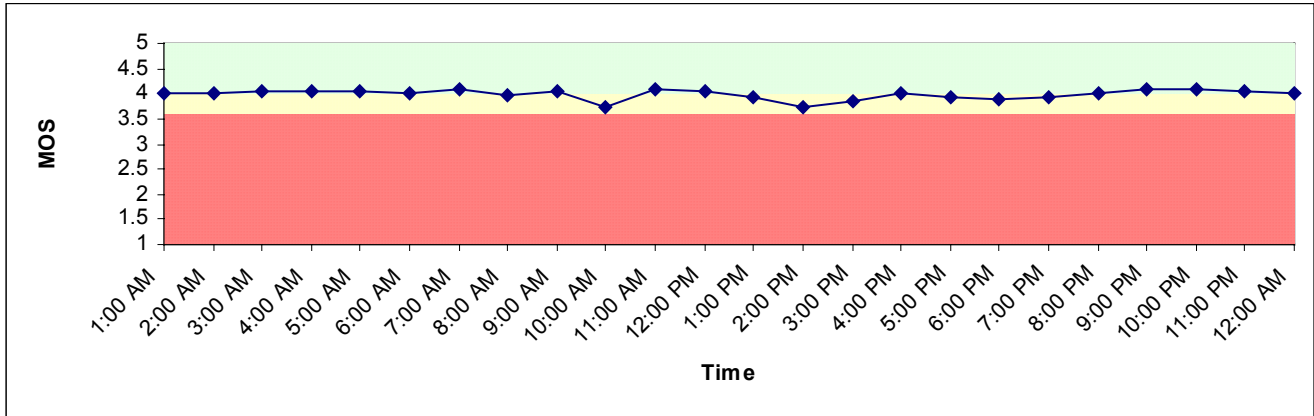


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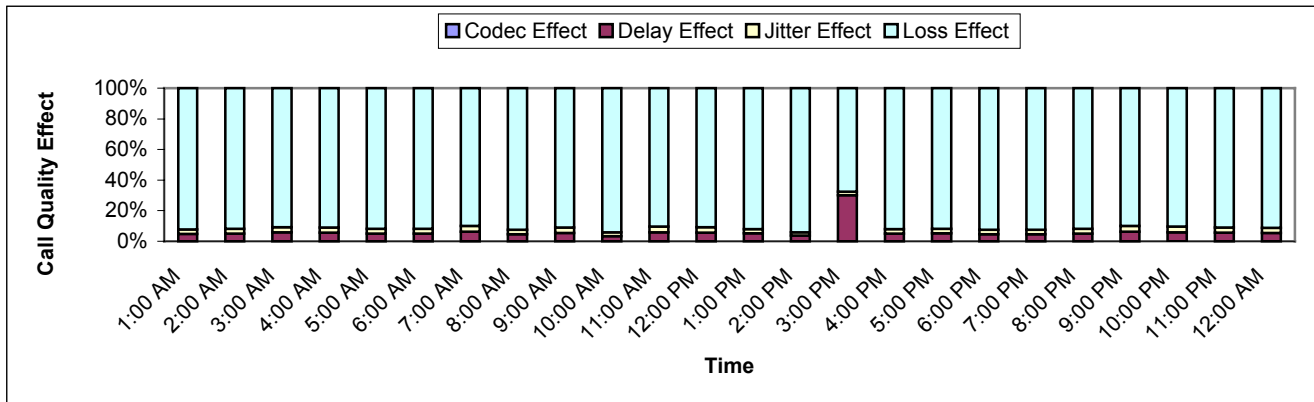


Hourly Summary

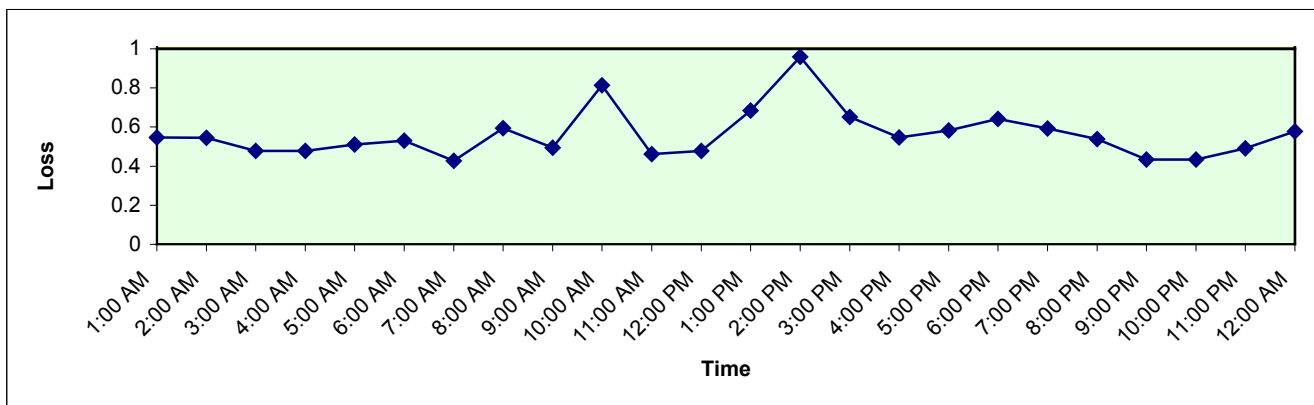
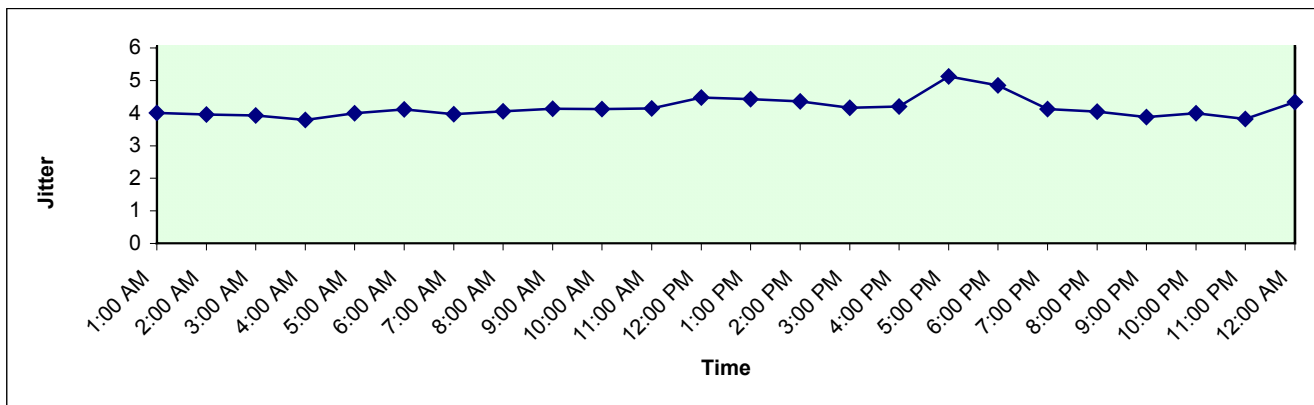
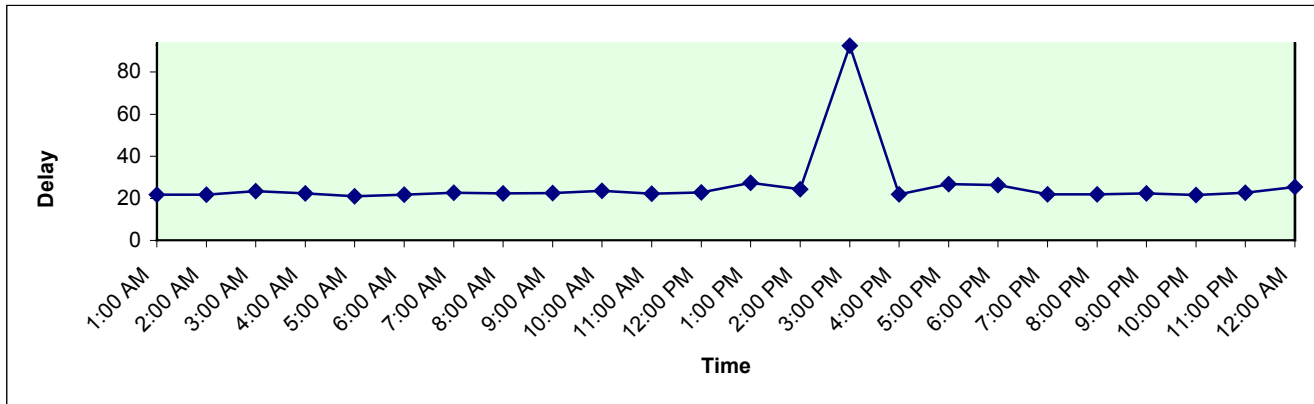
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6 Additional Information

Threshold Table

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
Delay (msec)	Below 150.0	150.0 to 400.0	Above 400.0
Jitter (msec)	Below 30.0	30.0 to 60.0	Above 60.0
Loss (%)	Below 1.0	1.0 to 2.0	Above 2.0

The following tables contain designation parameters for each test point pair.

Test Point Pair: Accounting_Dept. - HR_Dept. G.711

Name	Value	Units
Number of Measurements	1	
Base RTP Port	0	
Jitter Buffer	No	
Jitter Buffer Length	4	packets
Initial Playout Delay	2	packets
Quality of Service	0	
Frame Packing	20 msec (2 samples)	
G711 Payload Type	PCMU 64000	
Use PLC	No	
Silence Suppression	No	
Min number of calls:	10	
Max number of calls:	15	
Iteration:	1	

Test Point Pair: IT_Dept. - Home_Office G.711

Name	Value	Units
Number of Measurements	1	
Base RTP Port	0	
Jitter Buffer	No	
Jitter Buffer Length	4	packets
Initial Playout Delay	2	packets
Quality of Service	0	
Frame Packing	20 msec (2 samples)	
G711 Payload Type	PCMU 64000	
Use PLC	No	
Silence Suppression	No	
Min number of calls:	3	
Max number of calls:	8	
Iteration:	1	

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