APPENDIX D – MAINTENANCE AND REPAIR METRICS

APPENDIX D - MAINTENANCE AND REPAIR METRICS

A - INTRODUCTION

This Appendix discusses each of the Verizon PA's five (5) Maintenance and Repair metrics, which are comprised of 23 sub-metrics, not including MR-4-09 and MR-4-10 which are not in use in Verizon PA.

For April/May 2003, MR-1-01, MR-1-03, MR1-04, MR-1-06, MR-2-01, MR-2-02, MR-2-03, MR-3-01, MR-3-02, MR-4-01, MR-4-02, MR-4-03, MR-4-08, and MR-5-01 were included in Pennsylvania's Performance Assurance Plan (PA PAP). For June 2003, MR-1-03, MR-1-04, MR-2-01, MR-2-02, and MR-2-03 were removed from the PA PAP, and MR-4-04, MR-4-05, MR-4-06, and MR-4-07 were added to the PA PAP, leaving 13 metrics, specifically MR-1-01, MR-1-06, MR-3-01, MR-3-02, MR-4-01, MR-4-02, MR-4-03, MR-4-04, MR-4-05, MR-4-06, MR-4-07, MR-4-08, and MR-5-01.

Maintenance and Repair Metrics are of two types. MR-1 is an OSS system response time measurement. MR-2 – MR-5 are measurements based on customer trouble report data. Therefore, the following overview discusses how metrics MR-2 – MR-5 are calculated. This overview describes the data mart tables used, business rules, disposition codes, and product codes for these metrics. The comparable discussion for MR-1 is contained within the Section B discussion of that specific metric.

OVERVIEW

In its performance metrics on the Maintenance Domain, Verizon PA measures and reports its performance on:

- Average Time Interval of:

  – Trouble Duration (MR-4-01, MR-4-02, MR-4-03)

- Rate of:

  – Troubles per lines / circuits / trunks in service (MR-2 except MR-2-04)
  – Subsequent Troubles per Initial Troubles (MR-2-04)
  – Installation-related troubles per lines / circuits trunks installed (PR-6)

- Percent of:

  – Troubles which were not Cleared by the committed time (MR-3)
  – Troubles which are Repeats (MR-5)
  – Troubles which are Cleared within 24 hours (MR-4-04)
  – Troubles which remain Out of Service beyond 2, 4, 12, and 24 hours (MR-4-05, MR-4-06, MR-4-07, MR-4-08)

DATA MART TABLES

The Maintenance metrics results are calculated from the data contained in the following 4 data mart tables:

- TB_DM_MNR_TRBL_FACT (MR-2, MR-3, MR-4, MR-5, PR-6 numerators: Plain Old Telephone Service (POTS) troubles, i.e. all except Specials & Trunks)

- TB_DM_MNR_TRBL_FACT_SPL (MR-2, MR-3, MR-4, MR-5, PR-6 numerators: Specials & Trunks)

- TB_DM_MNR_LINE_COUNT_FACT (MR-2 denominators)

Maintenance and Repair POTS Troubles Data Mart

Competitive Local Exchange Carrier (CLEC) and Retail maintenance and repair trouble report records for products other than Specials and Trunks are stored in the M&R POTS Troubles Data Mart.

Global Exclusions: Any of the following conditions will cause a trouble record to be excluded from all the Carrier-To-Carrier (C2C) Maintenance and Repair metrics results:

- A non-null value other than 0 in the EXCLUDE_BY_FST_IND field ("The Final Status Transaction mask or screen in Loop Maintenance Operations System (LMOS) has a field labeled Exclude and when you populate it with an "X" and the Telephone Number field with the TN reported and enter it into the LMOS system the trouble report is negated and not counted in metrics. Only records populated with 0 will be included in the FACT.")

- A value other than "N" in the CORP_TEL_IND field (There are currently 10 MCNs which will generate Corporate Telephone Service (CORP_TEL_IND="Y"))

- A value other than "N" in the fGTE_IND field (which indicates if the line is from a former GTE state).

- A value other than "1" in the REPORT_CATEGORY field

    - "1"- Includes Customer Direct (CD) and Customer Reports (CR)
    - "4" – Includes Auto Detect (AD), Assist Test (AT), Preventive Maintenance (PM), Routine Installation (RI), Release (RL), Referred from Self (RS), and Repair Tracking (RT)
    - "6" – Includes Information (IN))

- A value other than "P" in the SERVICE_LEVEL_CD field

    - P – POTS
    - M – Trunks
    - S – Specials

- A non-blank value other than "N" in the ADMIN_REPEAT_FLAG field (This exclusion is not operative for MR-2-04). The Administrative Repeat Flag is set to "Y" when the closed date is identical and there is a different cleared date for a circuit.

The Final Status Transaction indicator, former GTE state, and Trunks and Specials exclusions are administered prior to the data extract supplied to DCI, so no records will be found satisfying them. The following table lists the frequency of troubles globally excluded due to the other exclusions from all POTS Maintenance and Repair results:

Table D-1 – Globally Excluded POTS Troubles

	April	May	June
Total troubles	95289	105581	131313
Corp Tel Svc	200 (0.21%)	205 (0.19%)	211 (0.16%)
Report Category 4	2635 (2.77%)	2787 (2.64%)	2578 (1.96%)
Report Category 6	933 (0.98%)	989 (0.94%)	1083 (0.82%)
Admin Repeat	2 (0.00%)	1 (0.00%)	1 (0.00%)

Product Disaggregations: Verizon PA determines product disaggregations for its ordering metrics by using the fields PROVIDER_IND, PRODUCT_IND, and RES_BUS_PUB_IND. PROVIDER_IND classifies based on the type of provider, PRODUCT_IND classifies based on product groupings, and RES_BUS_PUB_IND classifies based on whether the service provided is Residential, Business, or Public (Coin). The POTS trouble record breakdown for these three fields is indicated in the following tables:

Table D-2 – Distribution of Products by Provider Type

Provider_Ind	Product_Ind	April	May	June
All troubles which were not globally excluded		91664	101741	127565
'L' (Retail)	*Total*	*78806 (85.97%)*	*87890 (86.39%)*	*110055 (86.27%)*
	DIGITAL	677 (0.86%)	634 (0.72%)	678 (0.62%)
	SIMPLE	78129 (99.14%)	87256 (99.28%)	109377 (99.38%)
'R' (Resale)	*Total*	*774 (0.84%)*	*712 (0.70%)*	*833 (0.65%)*
	DIGITAL	20 (2.58%)	28 (3.93%)	11 (1.32%)
	SIMPLE	754 (97.42%)	684 (96.07%)	822 (98.68%)
'U' (UNE)	*Total*	*9525 (10.39%)*	*10765 (10.58%)*	*13802 (10.82%)*
	@[1]	857 (9.00%)	978 (9.08%)	1291 (9.35%)
	DIGITAL	46 (0.48%)	34 (0.32%)	26 (0.19%)
	LINESHARE	46 (0.48%)	65 (0.60%)	111 (0.80%)
	LINESPLIT	4 (0.04%)	0 (0.00%)	12 (0.09%)
	LOOP	1656 (17.39%)	1782 (16.55%)	2114 (15.32%)
	LOOP XDSL	213 (2.24%)	191 (1.77%)	264 (1.91%)
	PLATFORM	6703 (70.37%)	7715 (71.67%)	9984 (72.34%)
'V' (VADI)	*Lineshare*	*2559 (2.79%)*	*2374 (2.33%)*	*2882 (2.19%)*

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[1] The FACT Table Layout does not show '@' as one of the possible values for PRODUCT_IND. That 9% of each month's UNE troubles get this value and are therefore excluded from metrics results is a metter of concern.

Table D-3 – Distribution of Res_Bus_Pub_Ind by Provider Type

Provider_Ind	Res_Bus_Pub_Ind	April	May	June
All troubles which were not globally excluded		91664	101741	127565
'L' (Retail)	*Total*	*78806 (85.97%)*	*87890 (86.39%)*	*110055 (86.27%)*
	B	11965 (15.18%)	12594 (14.33%)	13871 (12.60%)
	P	1289 (1.64%)	1141 (1.30%)	1433 (1.30%)
	R	65552 (83.18%)	74155 (84.37%)	94751 (86.09%)
'R' (Resale)	*Total*	*774 (0.84%)*	*712 (0.70%)*	*833 (0.65%)*
	B	412 (53.23%)	394 (55.34%)	460 (55.58%)
	R	362 (46.77%)	318 (44.66%)	370 (44.42%)
'U' (UNE)	*Total*	*9525 (10.39%)*	*10765 (10.58%)*	*13802 (10.82%)*
	@	8 (0.08%)	13 (0.12%)	8 (0.06%)
	B	2183 (22.92%)	2524 (23.46%)	3068 (22.23%)
	P	1 (0.01%)	0 (0.00%)	1 (0.01%)
	R	7333 (76.99%)	8228 (76.43%)	10725 (77.71%)
'V' (VADI)	*Total*	*2559 (2.79%)*	*2374 (2.33%)*	*2882 (2.19%)*
	B	34 (1.33%)	29 (1.22%)	40 (1.39%)
	R	2525 (98.67%)	2345 (98.78%)	2835 (98.61%)

Classification into performance measurement product disaggregation codes and their retail comparatives is accomplished by combining PROVIDER_IND, PRODUCT_IND and RES_BUS_PUB_IND categorizations as indicated in the following table:

Table D-3a – POTS Troubles Product Code Determination

Prod Code	Description	Provider _Ind	Product _Ind	Res_Bus _Pub_ind
2100	Resale POTS	R vs L	SIMPLE	R,B[2]
2110	Resale POTS Bus	R vs L	SIMPLE	B
2120	Resale POTS Res	R vs L	SIMPLE	R
2341	Resale 2w Digital ISDN	R vs L	DIGITAL	R,B
3140	UNE POTS Platform	U vs L	PLATFORM vs SIMPLE	R,B[2]
3144	UNE POTS Platform Bus	U vs L	PLATFORM vs SIMPLE	B
3145	UNE POTS Platform Res	U vs L	PLATFORM vs SIMPLE	R
3341	UNE 2w Digital ISDN	U vs L	DIGITAL vs unrestricted	R,B[2]
3342	UNE 2wire xDSL	U vs L	LOOP XDSL vs unrestricted	R,B[2]
3343	UNE LineSharing	U vs V	LINESHARE	R,B
3345	UNE LineSplitting	U vs V	LINESPLITTING vs LINESHARE	R,B
3520	UNE Hot Cut Loops	U	LOOP (& hot_cut_ind='Y')	R,B
3550	UNE POTS Loop	U vs L	LOOP vs SIMPLE	R,B[2]

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[2] Verizon PA also includes P (Public Coin) wherever R,B is indicated. This improperly biases parity comparisons in Verizon PA's favor in the footnoted cases. See Finding s 2, 8, 17 and 19 below.

Maintenance and Repair Specials and Trunks Troubles Data Mart

CLEC and Retail maintenance and repair trouble report records for Specials and Trunks are stored in the M&R Specials and Trunks Troubles Data Mart.

Global Exclusions: Any of the following conditions will cause a trouble record to be excluded from all the C2C Maintenance and Repair metrics results:

- A non-null value other than 0 in the EXCLUDE_BY_FST_IND field ("The Final Status Transaction mask or screen in LMOS has a field labeled Exclude and when you populate it with an "X" and the Telephone Number field with the TN reported and enter it into the LMOS system the trouble report is negated and not counted in metrics. Only records populated with 0 will be included in the FACT.")

- A value other than "N" in the CORP_TEL_IND field (Currently 10 MCNs will generate Corporate Telephone Service (CORP_TEL_IND="Y"))

- A value other than "N" in the fGTE_IND field (which indicates if the line is from a former GTE state).

- A value other than "1" in the REPORT_CATEGORY field

  - "1"- Includes Customer Direct (CD) and Customer Reports (CR)
  - "4" – Includes Auto Detect (AD), Assist Test (AT), Preventive Maintenance (PM), Routine Installation (RI), Release (RL), Referred from Self (RS), and Repair Tracking (RT)
  - "6" – Includes Information (IN))

- For Specials results, a value other than "S" in the SERVICE_LEVEL_CD field;   for Trunks results, a value other than "M" in the SERVICE_LEVEL_CD field

  - P – POTS
  - M – Trunks
  - S – Specials

- A non-blank value other than "N" in the ADMIN_REPEAT_FLAG field. (This exclusion not operative for MR-2-04). The Administrative Repeat Flag is set to "Y" when closed date is identical and there is a different cleared date for a circuit.

- A value other than "B" or "N" in the ACCESS_EXCL_IND (Access Exclusion Indicator) field

  - A – Access
  - N – Non-Access
  - B – Bypass (If provider is UNE then ACCESS_EXCL_IND = 'B')
  - @ – Default value

The Final Status Transaction indicator, former GTE state, and POTS exclusions are administered prior to the data extract supplied to DCI, so no records will be found satisfying them. The following table lists the frequency of troubles globally excluded due to the other exclusions from all Specials and Trunks Maintenance and Repair results:

Table D-4 – Globally Excluded Specials & Trunks Troubles

	April	May	June
Total troubles	11444	12126	13386
Corp Tel Svc	559 (4.88%)	701 (5.78%)	610 (4.56%)
Report Category '4'	1770 (15.47%)	1922 (15.85%)	1903 (14.22%)
Report Category '6'	1937 (16.93%)	1955 (16.12%)	1913 (14.29%)
Report Category '@'	2 (0.02%)	0 (0.00%)	0 (0.00%)
Access Excl Ind '@'	180 (1.57%)	178 (1.47%)	198 (1.48%)
Access Excl Ind 'A'	3349 (29.26%)	3629 (29.93%)	4192 (31.32%)

Product Disaggregations: Verizon PA determines product disaggregations for its ordering metrics primarily by using the fields PROVIDER_IND and DS_LEVEL. PROVIDER_IND classifies based on the type of provider, DS_LEVEL classifies based on whether the product is DS0 or DS1 or DS3. The Specials trouble record breakdown for these two fields is indicated in the following table:

Table D-5 – DS Level by Provider Type

Provider_Ind	DS_Level	April	May	June
All Specials troubles which were not globally excluded		4936	5161	5910
'L' (Retail)	Total	2521 (51.07%)	2631 (50.98%)	2885 (48.82%)
	DS0	1840 (72.99%)	1912 (72.67%)	2112 (73.21%)
	DS1	662 (26.26%)	699 (26.57%)	741 (25.68%)
	DS3	19 (0.75%)	20 (0.76%)	32 (1.11%)
'R' (Resale)	Total	16 (0.32%)	34 (0.66%)	33 (0.56%)
	DS0	15 (93.75%)	31 (91.18%)	28 (84.85%)
	DS1	1 (6.25%)	3 (8.82%)	5 (15.15%)
	DS3	0 (0.00%)	0 (0.00%)	0 (0.00%)
'U' (UNE)	Total	2399 (48.60%)	2496 (48.36%)	2992 (50.63%)
	@	119 (4.96%)	145 (5.81%)	0 (0.00%)
	DS0	2022 (84.29%)	2084 (83.49%)	2506 (83.76%)
	DS1	257 (10.71%)	257 (10.30%)	446 (14.91%)
	DS3	1 (0.04%)	10 (0.40%)	40 (1.34%)

The Trunks trouble record breakdown by PROVIDER_IND is indicated in the following table:

Table D-6 – Trunks Troubles by Provider Type

Provider_Ind	April	May	June
All Trunks troubles which were not globally excluded	27	39	44
'L' (Retail)	*23 (85.19%)*	*34 (87.18%)*	*37 (84.09%)*
'U' (UNE)	*4 (14.81%)*	*5 (12.82%)*	*7 (15.91%)*

Classification into performance measurement product disaggregation codes and their retail comparatives is accomplished by combining PROVIDER_IND and DS_LEVEL categorizations as indicated in the following table:

Table D-7 – Specials & Trunks Product Code Determination

Product Code	Description	Service_ Level_cd	Provider _Ind	DS_Level
2200	Resale Specials	S	R vs L	
2216	Resale POTS DS0	S	R vs L	DS0
2217	Resale POTS DS1 DS3	S	R vs L	DS1, DS3
3200	UNE Specials	S	U vs L	
3216	UNE Specials DS0	S	U vs L	DS0
3217	UNE Specials DS1 DS3	S	U vs L	DS1, DS3
5000	Trunks	M	U vs L	

Line Count Data Mart

Inventory of counts of lines, circuits, and trunks to facilitate the calculation of the MR-2 denominators for POTS, Specials, and Trunks is stored in the Line Count Data Mart.

Global Exclusions: Any of the following conditions will cause a trouble record to be excluded from all the C2C Maintenance and Repair metrics results:

- A value other than "N" in the CORP_TEL_IND field (There are currently 10 MCNs which will generate Corporate Telephone Service (CORP_TEL_IND="Y"))

- A value other than "N" in the fGTE_IND field (which indicates if the line is from a former GTE state).

- A value other than "B" or "N" in the ACCESS_EXCL_IND (Access Exclusion Indicator) field

  - A – Access
  - N – Non-Access
  - B – Bypass (If provider is UNE then ACCESS_EXCL_IND = 'B')
  - @ – Default value

- A value other than "N" in the TEST_ACC_IND field. (A value of "V" is allowed (and required) for the retail comparatives for the Linesharing and Linesplitting product disaggregations)

  - A – Affiliates
  - C – Maintenance Center exclusion
  - F – CAC exclusion
  - M – Master Customer Name Exclusion
  - N – Include for Metrics
  - Q – Measured By Sys/ Measured by Flag exclusion
  - R – Trouble Code exclusion
  - S – Service Code Modifier exclusion
  - V – Vadi Account
  - Z – Test Account
  - P – Specials Project PON exclusion
  - O – Other exclusions

The former GTE state exclusion is administered prior to the data extract supplied to DCI, so no records will be found satisfying it. The following table lists the frequency of line count records globally excluded from MR-2 denominators due to the other exclusions:

Table D-8 – Globally Excluded Line Count Records

	April	May	June
Total line count records	2749	2772	2802
Corp Tel Svc	79 (2.87%)	77 (2.78%)	79 (2.82%)
Access Excl Ind '@'	6 (0.22%)	6 (0.22%)	6 (0.22%)
Access Excl Ind 'A'	202 (7.35%)	203 (7.32%)	204 (7.28%)
Test Acc Ind 'A'	7 (0.25%)	7 (0.25%)	7 (0.25%)
Test Acc Ind 'C'	1 (0.04%)	4 (0.14%)	4 (0.14%)
Test Acc Ind 'V'	54 (1.96%)	51 (1.84%)	52 (1.86%)
Test Acc Ind 'X'	6 (0.22%)	6 (0.22%)	5 (0.18%)
Test Acc Ind 'Z'	286 (10.40%)	286 (10.32%)	286 (10.21%)

Product Disaggregations: Verizon PA determines product disaggregations for its ordering metrics by using the fields PROVIDER_IND and PRODUCT_IND. PROVIDER_IND classifies based on the type of provider, and PRODUCT_IND classifies based on product groupings The POTS trouble record breakdown for these two fields is indicated in the following tables:

Table D-9 – Product by Provider Type Line Count Records

Provider_Ind	Product_Ind	April	May	June
All records which were not globally excluded		2157	2202	2231
'L' (Retail)	*Total*	*303 (13.89%)*	*303 (13.76%)*	*304 (13.63%)*
	DIGITAL	9 (2.97%)	8 (2.64%)	8 (2.63%)
	SIMPLE	18 (5.94%)	18 (5.94%)	18 (5.92%)
	SPECIALS	114 (37.62%)	115 (37.95%)	116 (38.16%)
	TRUNK	150 (49.50%)	150 (49.50%)	150 (49.34%)
	XDSL	12 (3.96%)	12 (3.96%)	12 (3.95%)
'R' (Resale)	*Total*	*718 (32.92%)*	*716 (32.92%)*	*715 (32.05%)*
	DIGITAL	76 (10.58%)	76 (10.61%)	75 (10.49%)
	SIMPLE	481 (66.99%)	481 (67.18%)	483 (67.55%)
	SPECIALS	92 (12.81%)	93 (12.99%)	95 (13.29%)
	XDSL	69 (9.61%)	66 (9.22%)	62 (8.67%)
'U' (UNE)	*Total*	*1135 (52.04%)*	*1161 (52.72%)*	*1190 (53.34%)*
	DIGITAL	10 (0.88%)	11 (0.95%)	10 (0.84%)
	LINESHARE	14 (1.23%)	14 (1.21%)	14 (1.18%)
	LINESPLIT	1 (0.48%)	4 (0.34%)	4 (0.34%)
	LOOP	82 (7.22%)	82 (7.06%)	82 (6.89%)
	LOOP DIGITAL	55 (4.85%)	55 (4.74%)	61 (5.13%)
	LOOP XDSL	74 (6.52%)	75 (6.46%)	76 (6.39%)
	PLATFORM	333 (29.34%)	346 (29.80%)	368 (30.92%)
	SIMPLE	380 (33.48%)	387 (33.33%)	392 (32.94%)
	SPECIALS	103 (9.07%)	104 (8.96%)	101 (8.49%)
	TRUNK	46 (4.05%)	46 (3.96%)	46 (3.87%)
	XDSL	37 (3.26%)	37 (3.19%)	36 (3.03%)
'V' (VADI)	*Total*	*25 (1.15%)*	*22 (1.15%)*	*22 (0.99%)*
	LINESHARE	11 (44.00%)	11 (50.00%)	11 (50.00%)
	PLATFORM	1 (4.00%)	0 (0.00%)	0 (0.00%)
	SIMPLE	6 (24.00%)	5 (22.73%)	5 (22.73%)
	SPECIALS	3 (12.00%)	2 (9.09%)	1 (4.55%)
	XDSL	4 (16.00%)	4 (18.18%)	5 (22.73%)

Classification into performance measurement product disaggregation codes and their retail comparatives is accomplished by combining PROVIDER_IND and PRODUCT_IND categorizations as indicated in the following table:

Table D-10 – Line Counts Product Code Determination

Product Code	Description	Provider _Ind	Product _Ind	Test Acc_ind
2100	Resale POTS	R vs L	SIMPLE	N
2200	Resale Specials	R vs L	SPECIALS	N
2341	Resale 2w Digital ISDN	R vs L	DIGITAL	N
3140	UNE POTS Platform	U vs L	PLATFORM vs SIMPLE	N
3200	UNE Specials	U vs L	SPECIALS	N
3341	UNE 2w Digital ISDN	U vs L	LOOP DIGITAL vs SIMPLE, DIGITAL	N
3342	UNE 2wire xDSL	U vs L	LOOP XDSL vs SIMPLE, DIGITAL	N
3343	UNE LineSharing	U vs V	LINESHARE	N vs V
3345	UNE LineSplitting	U vs V	LINESPLITTING vs LINESHARE	N vs V
3550	UNE POTS Loop	U vs L	LOOP vs SIMPLE	N

Trouble Disposition: Common to all the MR metrics is that the trouble disposition determination is used to identify which sub-metrics the trouble will be reported under.

For POTS Troubles, the DISPOSITION_CD field, which contains the first two digits of the four-digit full disposition code, is used to determine which sub-metrics a trouble is counted in. The following table provides interpretations for the disposition code categories and indicates which submetrics troubles with such disposition codes are counted in:

Table D-11 – Dispostion Code Interpretation and Inclusion in SubMetrics

Disposition Code	Interpretation	Counted in SubMetrics
03xx	Station Wiring	MR-2-02, MR-2-04, MR-3-01, MR-4-01, MR-4-02, MR-4-04, MR-4-05, MR-4-06, MR-4-07, MR-4-08, MR-5-01, PR-6-01
04xx	Outside Plant	
05xx	Verizon Central Office	MR-2-03, MR-2-04, MR-3-02, MR-4-01, MR-4-03, MR-4-04, MR-4-05, MR-4-06, MR-4-07, MR-4-08, MR-5-01, PR-6-01
07xx	Test OK (VZ North)	MR-2-05, MR-3-03, PR-6-03
08xx	Found OK – CO (VZ North)	
09xx	Not Found Troubles	
12xx	Customer Equipment, Wiring	
13xx	Customer Wiring (VZ North)	
01xx		
02xx		
06xx	Customer Action	Excluded from all C2C metrics results
10xx	Referred Out	
11xx		

The following table indicates the distribution of DISPOSITION_CD by PROVIDER_IND for all POTS troubles not globally excluded during April 2003:

Table D-12 – Disposition Codes by Provider - April 2003

Table of DISPOSITION_CD by PROVIDER_IND

DISPOSITION_CD

PROVIDER_IND

Frequency Col Pct	L	R	U	V	Total
01	631 0.80	0 0.00	0 0.00	0 0.00	631
02	284 0.36	0 0.00	1 0.01	0 0.00	285
03	16523 20.97	166 21.45	1594 16.74	49 1.91	18332
04	24839 31.52	293 36.56	3146 33.03	114 4.45	28381
05	4454 5.65	36 4.65	551 5.79	135 5.28	5176
06	3092 3.92	6 0.78	73 0.77	3 0.12	3174
07	1068 1.36	0 0.00	12 0.13	15 0.59	1095
09	10627 13.49	28 3.62	277 2.91	101 3.95	11033
10	201 0.26	0 0.00	4 0.04	0 0.00	205
12	17087 21.68	255 32.95	3865 40.59	2142 83.70	23349
Total	78806	774	9522	2559	91661

The following table indicates the distribution of DISPOSITION_CD by PROVIDER_IND for all POTS troubles not globally excluded during May 2003:

Table D-13 – Disposition Codes by Provider - May 2003

Table of DISPOSITION_CD by PROVIDER_IND

DISPOSITION_CD

PROVIDER_IND

Frequency Col Pct	L	R	U	V	Total
01	571 0.65	0 0.00	2 0.02	0 0.00	573
02	243 0.28	0 0.00	3 0.03	1 0.04	247
03	17891 20.36	141 19.83	1872 17.39	56 2.36	19960
04	28043 31.91	233 32.77	3588 33.33	114 4.80	31978
05	4608 5.24	43 6.05	426 3.96	103 4.34	5180
06	3192 3.63	7 0.98	65 0.60	0 0.00	3264
07	1059 1.20	0 0.00	17 0.16	11 0.46	1087
09	11652 13.26	36 5.06	319 2.96	70 2.95	12077
10	1179 1.34	5 0.70	13 0.12	0 0.00	1197
11	0 0.00	0 0.00	1 0.01	0 0.00	1
12	19452 22.13	246 34.60	4459 41.42	2019 85.05	26176
Total	87890	711	10765	2374	101740

The following table indicates the distribution of DISPOSITION_CD by PROVIDER_IND for all POTS troubles not globally excluded during June 2003:

Table D-14 – Dispostion Codes by Provider - June 2003

Table of DISPOSITION_CD by PROVIDER_IND

DISPOSITION_CD

PROVIDER_IND

Frequency Col Pct	L	R	U	V	Total
01	684 0.62	0 0.00	0 0.00	0 0.00	684
02	325 0.30	0 0.00	1 0.01	3 0.10	329
03	22064 20.05	143 17.21	2318 16.79	41 1.43	24566
04	35887 32.61	309 37.18	4597 33.31	133 4.63	40926
05	4685 4.26	25 3.01	410 2.97	180 6.26	5300
06	3677 3.34	8 0.96	71 0.51	1 0.03	3757
07	1489 1.35	3 0.36	13 0.09	6 0.21	1511
09	15323 13.92	31 3.73	388 2.81	76 2.64	15818
10	637 0.58	3 0.36	18 0.13	0 0.00	658
11	1 0.00	0 0.00	0 0.00	9 0.31	10
12	25283 22.97	309 37.18	5985 43.36	2426 84.38	34003
13	0 0.00	0 0.00	1 0.01	0 0.00	1
Total	110055	831	13802	2875	127563

For Specials and Trunks Troubles, the TROUBLE_CD field is used to determine which sub-metrics a trouble is counted in. TROUBLE_CD values of 'FAC' (Facility) or 'CO' (Central Office) qualify a trouble to be counted in the MR-2-01, MR-4, MR-5, and PR-6-01 submetrics. TROUBLE_CD values other than 'FAC' or 'CO' qualify a trouble to be counted in the MR-2-05 and PR-6-03 submetrics.

B – SPECIFIC METRICS

For all metrics in the maintenance and repair domain, the following occurred:

- Metrics data from the Verizon PA data mart was submitted to DCI for April, May, and June 2003 analysis.

- Metric results in the form of a C2C report were submitted to DCI for April, May, and June 2003 analysis.

- The metric algorithms for this domain originally supplied by Verizon PA to DCI was documented in "February 2003 Data Month based on NY C2C Guidelines - November 2002," which were later replaced by new algorithms documented in "May 2003 Data Month based on PA C2C Guidelines - May 2002(sic)."

- For some metrics, the Structured Query Language (SQL) that comprises the metric algorithm was modified to function properly against data and schema provided to DCI by Verizon PA. The modification required is described as the "DCI Derived Metric Statement" for every metric result finding listed on the following pages.

For audit purposes, DCI selected product code 2000 to perform its MR-1 testing activities.

MR-1: RESPONSE TIME OSS MAINTENANCE INTERFACE

Definition

This metric measures the response time defined as the time, in seconds, that elapses from issuance of a query request to receipt of a response by the requesting carrier. For CLECs this performance is measured at the access platform.[3]

Verizon PA uses two databases to collect maintenance performance data. Coding specified in body of the *C2C Guidelines* documentation is largely POTS services, with special services and trunks coding descriptions included in *Appendix A* to the documentation.[4]

Sub-metrics

MR-1-01: Average Response Time - Create Trouble
MR-1-02: Average Response Time - Status Trouble
MR-1-03: Average Response Time - Modify Trouble
MR-1-04: Average Response Time - Request Cancellation of Trouble
MR-1-05: Average Response Time - Trouble Report History (by TN/Circuit)
MR-1-06: Average Response Time - Test Trouble (POTS only)

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[3] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[4] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)

Although included in Verizon PA's Network Metric Platform (NMP), only MR-1-01, MR-1-03, MR1-04, MR-1-06 were included in Verizon PA's PAP for the period April 2003 to May 2003, and only MR-1-01 and MR-1-06 were included in period June 2003.[5]

Report Dimension

Verizon PA Retail or CLEC Aggregate: Pennsylvania (product is either from Verizon PA Retail or CLEC).[6]

Exclusions

Two types of transactions, CLEC Create Transactions (complex create trouble transactions not available to retail) and EnView transactions, are excluded.[7]

Performance Standard

Parity with retail plus not more than four (4) seconds.[8]

Metric Creation

8:00AM to 5:00PM seven (7) days per week, no holiday exclusions [9]

For VZ retail representatives, retail performance is reported directly from Common Agent Desktop (CAD). Measurements begin when the CAD server receives a request from the Graphical User Interface (GUI) and end when the CAD server sends a response to the GUI. The create, modify, and request cancellation of trouble transaction measurements are the sum of the averages of the response times for the initial inquiry transaction (initiated from the blank Trouble Entry (TE) screen) and the requested create, modify, or cancel (initiated from the Trouble Report (TR) screen). The first measurement captures the response time from the time the CAD receives an inquiry request from the user (who enters a TN) and hits the ok button the TE screen until the data is received from LMOS and CAD sends a TR screen to the user. The second measurement captures the response time from the time CAD receives an action request from the user, to the time the LMOS information is received and sent to the GUI. The action request initiated from the TR screen can be create, modify, or cancel. If the user cancels the transaction between the first and second measurement, the time from the first measurement is still included in the calculation of the average for the first measurement.[10]

For CLEC representatives, actual response times are reported by Repair Trouble Administration System (RETAS). Create Trouble transactions include basic create function.[11]

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[5] Information Response PM-004.8 (Incentive Plan Reports)
[6] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[7] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[8] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[9] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[10] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)
[11] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 2)

MR-1-01: AVERAGE RESPONSE TIME (CREATE TROUBLE)

Formula

MR-1-01 is defined as the sum of all response times from Enter key to reply on screen for Create Trouble transactions divided by the number of Create Trouble transactions. Verizon PA value is determined by summing the P1 and P2 results.[12]

DCI Derived Metric Statement

MR-1-01-2000 CLEC

```
select a11.STATE_CODE STATE_CODE,
a11.CLEC_ID CLEC_ID,
a11.REPORT_PERIOD REPORT_PERIOD,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR101_C
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'RETAS'
and a11.TEST_ACC_IND = 'N'
and a11.BA_GTE_IND = 'N'
and a11.TRANS_TYPE_ID = 'CREATE'
and a11.CKT_ID_TYPE = 'P'
and a11.ICODE_FL = 'N'
and a11.STARMEM_FL = 'N')
group by a11.STATE_CODE,
a11.CLEC_ID,
a11.REPORT_PERIOD
```

MR-1-01-2000 CLEC Aggregate

```
select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR101_CA
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'RETAS'
and a11.TEST_ACC_IND = 'N'
and a11.BA_GTE_IND = 'N'
and a11.TRANS_TYPE_ID = 'CREATE'
and a11.CKT_ID_TYPE = 'P'
and a11.ICODE_FL = 'N'
and a11.STARMEM_FL = 'N')
group by a11.STATE_CODE, a11.REPORT_PERIOD
```

---

[12] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

MR-1-01-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR101_P1
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'CAD'
and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'INQUIRY')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-01-2000 Verizon (P2)

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR101_P2
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'CAD'
and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'CREATE')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-02: AVERAGE RESPONSE TIME (STATUS TROUBLE)

Formula

MR-1-02 is defined as the sum of all response times from Enter key to reply on screen for Status Trouble transactions divided by the number of Status Trouble transactions.[13]

DCI Derived Metric Statement

MR-1-02-2000 CLEC

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR102_C

---

[13] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'STATUS'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N'

and a11.SM_TRB_ORIG <> 'EU')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-02-2000 CLEC Aggregate

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR102_CA

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'STATUS'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N'

and a11.SM_TRB_ORIG <> 'EU')

group by a11.STATE_CODE,

a11.REPORT_PERIOD

MR-1-02-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR102_P1

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'CAD'

and a11.BA_GTE_IND = 'N'

and a11.TEST_ACC_IND = 'N'

and a11.TRANS_TYPE_ID = 'INQUIRY')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-03: AVERAGE RESPONSE TIME (MODIFY TROUBLE)

Formula

MR-1-03 is defined as the sum of all response times from Enter key to reply on screen for Modify Trouble transactions divided by the number of Modify Trouble transactions. Verizon PA value is determined by summing the P1 and P2 results.[14]

DCI Derived Metric Statement

MR-1-03-2000 CLEC

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR103_C
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'RETAS'
and a11.TEST_ACC_IND = 'N'
and a11.BA_GTE_IND = 'N'
and a11.CKT_ID_TYPE = 'P'
and a11.ICODE_FL = 'N')
and (
a11.TRANS_TYPE_ID = 'MODIFY' or
(a11.TRANS_TYPE_ID = 'STATUS' and a11.SM_TRB_ORIG = 'EU') or
(a11.TRANS_TYPE_ID = 'CLOSE' and a11.ERROR_CD = '302.0')
)
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-03-2000 CLEC Aggregate

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR103_CA
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'RETAS'
and a11.TEST_ACC_IND = 'N'
and a11.BA_GTE_IND = 'N'
and a11.CKT_ID_TYPE = 'P'
and a11.ICODE_FL = 'N')
and (

---

[14] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

a11.TRANS_TYPE_ID = 'MODIFY' or
(a11.TRANS_TYPE_ID = 'STATUS' and a11.SM_TRB_ORIG = 'EU') or
(a11.TRANS_TYPE_ID = 'CLOSE' and a11.ERROR_CD = '302.0')
)
group by a11.STATE_CODE,
a11.REPORT_PERIOD

MR-1-03-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR103_P1
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'CAD'
and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'INQUIRY')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-03-2000 Verizon (P2)

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR103_P2
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'CAD'
and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'MODIFY')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-04: AVERAGE RESPONSE TIME (REQUEST CANCELLATION OF TROUBLE)

Formula

MR-1-04 is defined as the sum of all response times from Enter key to reply on screen for Request for Cancellation of Trouble transactions divided by the number of Request for Cancellation of Trouble transactions. Verizon PA value is determined by summing the P1 and P2 results.[15]

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[15] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

DCI Derived Metric Statement

MR-1-04-2000 CLEC

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR104_C

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'CLOSE'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N'

and a11.ERROR_CD <> '302.0')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-04-2000 CLEC Aggregate

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR104_CA

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'CLOSE'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N'

and a11.ERROR_CD <> '302.0')

group by a11.STATE_CODE,

a11.REPORT_PERIOD

MR-1-04-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR104_P1

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'CAD'

and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'INQUIRY')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-04-2000 Verizon (P2)

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR104_P2
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'CAD'
and a11.BA_GTE_IND = 'N'
and a11.TEST_ACC_IND = 'N'
and a11.TRANS_TYPE_ID = 'CLOSE')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

MR-1-05: AVERAGE RESPONSE TIME (TROUBLE REPORT HISTORY (BY TN/CIRCUIT))

Formula

MR-1-05 is defined as the sum of all response times from Enter key to reply on screen for Trouble Report History transactions divided by the number of Trouble Report History transactions.[16]

DCI Derived Metric Statement

MR-1-05-2000 CLEC

select a11.STATE_CODE STATE_CODE,
a11.REPORT_PERIOD REPORT_PERIOD,
a11.CLEC_ID CLEC_ID,
((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /
count(a11.RESPONSE_TIME) MR105_C
from TB_DM_MNR_SYS_RESP_TIME_FACT a11
where (a11.SYSTEM_ID = 'RETAS'
and a11.TEST_ACC_IND = 'N'
and a11.BA_GTE_IND = 'N'
and a11.TRANS_TYPE_ID = 'HISTORY'

---

[16] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-05-2000 CLEC Aggregate

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR105_CA

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'HISTORY'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N')

group by a11.STATE_CODE,

a11.REPORT_PERIOD

MR-1-05-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR105_P1

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'CAD'

and a11.BA_GTE_IND = 'N'

and a11.TEST_ACC_IND = 'N'

and a11.TRANS_TYPE_ID = 'HISTORY')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-06: AVERAGE RESPONSE TIME (TEST TROUBLE (POTS ONLY))

Formula

MR-1-06 is defined as the sum of all response times from Enter key to reply on screen for Trouble Test transactions divided by the number of Trouble Test transactions.[17]

---

[17] Maintenance and Repair Domain Workshop, Philadelphia, PA, June 12, 2003 (Tab 4 - C2C Guidelines.doc, Page 3)

DCI Derived Metric Statement

MR-1-06-2000 CLEC

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR106_C

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'TEST'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N')

group by a11.STATE_CODE,

a11.REPORT_PERIOD,

a11.CLEC_ID

MR-1-06-2000 CLEC Aggregate

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

((sum(a11.RESPONSE_TIME) + sum(a11.ENTITLE_TIME4)) + sum(a11.ENTITLE_TIME5)) /

count(a11.RESPONSE_TIME) MR106_CA

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

where (a11.SYSTEM_ID = 'RETAS'

and a11.TEST_ACC_IND = 'N'

and a11.BA_GTE_IND = 'N'

and a11.TRANS_TYPE_ID = 'TEST'

and a11.CKT_ID_TYPE = 'P'

and a11.ICODE_FL = 'N')

group by a11.STATE_CODE,

a11.REPORT_PERIOD

MR-1-06-2000 Verizon (P1)

select a11.STATE_CODE STATE_CODE,

a11.REPORT_PERIOD REPORT_PERIOD,

a11.CLEC_ID CLEC_ID,

(sum(a11.RESPONSE_TIME) / count(a11.RESPONSE_TIME)) MR106_P1

from TB_DM_MNR_SYS_RESP_TIME_FACT a11

1.   where (a11.SYSTEM_ID = 'CAD'

and a11.BA_GTE_IND = 'N'

and a11.TEST_ACC_IND = 'N'

and a11.TRANS_TYPE_ID = 'TEST')
group by a11.STATE_CODE,
a11.REPORT_PERIOD,
a11.CLEC_ID

M&R METRICS MR-2 – MR-5 – INTRODUCTION

In the following pages, DCI documents the processes Verizon uses to calculate the Maintenance metrics MR-2 through MR-5 from data mart tables through metrics results.

This documentation indicates which data mart tables are used for these metrics, and for each data mart table, the business rules used to globally exclude records from C2C MR metrics results, how Verizon disaggregates its data into product codes using the Provider, Product, and Res_Bus_Pub indicator fields.

Also documented is which disposition code values (for POTS troubles) and which trouble code values (for Specials troubles) are present in the data mart tables and which of them are counted in each submetric.

This general section is followed by sections specific to each of the metrics MR-2, MR-3, MR-4 and MR-5. These individual metric sections document the definition of each metric, how it is calculated, and how its submetrics are determined. They then present DCI's SAS macro specification of the metrics calculations, DCI's recalculation results, and DCI's Findings and, as appropriate, recommendations.

In addition to providing the results of DCI's analyses and its findings, these sections serve to comprehensively document Verizon PA's metrics calculation processes, in a clearer, more concise, and more intuitively understandable fashion than the PA CMA.

MR-2: TROUBLE REPORT RATE

Definition

This metric measures the total initial customer direct or referred troubles reported, where the trouble disposition was found to be in the network, per 100 lines/circuits/trunks in service. MR-2-04 measures subsequent reports, which are additional customer trouble calls while an existing trouble report is pending – typically for status or to change or update information. The following discussion applies to all MR-2 metrics except MR-2-04, which will be discussed separately after the other MR-2 metrics due to its structural differences.

POTS Troubles

Denominator: From the Line Count Data Mart, the values in the LINE_COUNT field of those line count records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the Line Count

Data Mart section above), will be summed to obtain the MR-2 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results.

Numerator: From the POTS Troubles Data Mart, those trouble records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be counted in the MR-2 numerators.

Specials and Trunks Troubles

Denominator: From the Line Count Data Mart, the values in the LINE_COUNT field of those line count records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the Line Count Data Mart section above), will be summed to obtain the MR-2 denominators.

Numerator: From the Specials and Trunks Troubles Data Mart, those trouble records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be counted in the MR-2 numerators.

Sub-Metrics

The following table indicates the number of trouble records which were not globally excluded and are potentially relevant to the MR-2 submetrics, prior to product and provider disaggregation:

Table D-15 – MR-2 SubMetric Eligibility

MR-2 Submetric	POTS Disposition Codes	Specials & Trunks Trouble Codes	April	May	June
MR-2-01		FAC, CO	2185	2395	2591
MR-2-02	03, 04		46713	51938	65492
MR-2-03	05		5176	5180	5300
MR-2-04	03, 04, 05		51889	57118	70792
MR-2-05	07, 08, 09, 12, 13		35477	39340	51333
		Other than FAC, CO	2778	2805	3363

MR-2-04 differs from the other MR-2 submetrics in that instead of measuring rate of initial troubles per lines / circuits / trunks, it measures rate of subsequent troubles per initial trouble. As the numerator and denominator elements for MR-2-04 are all contained within the POTS Trouble Data Mart, the methodology for specifying and calculating MR-2-04 is simpler.

DCI Recalculation Process

DCI developed a SAS macro to calculate metric results based on a clear specification of the metrics definitions. DCI then implemented the information described in the pages immediately above into 2 SAS macro invocations, one for POTS troubles, and one for Specials Troubles. DCI then pooled these results to obtain its metric numerators, denominators, and results. DCI also

automatically extracted Verizon PA's C2C report results to obtain Verizon PA's calculated numerators, denominators, and results. DCI's recalculation program then combines and compares DCI's results and Verizon PA's C2C reported results in an Excel spreadsheet.

DCI presents below the 2 SAS macro invocations which are completely sufficient to calculate all the MR-2 results (except MR-2-04, whose single macro invocation will be presented subsequently):

The first of these calculates all MR-2 trouble rate metric numerator contributions from the POTS Troubles Data Mart, and denominator contributions from the Line Count Data Mart:

SAS Macro Invocation 1: MR-2 – POTS Troubles:

```
%pm_2tbl( tbl_num=mr_dm_trbl_gen, yearmm=&report_month, metric=MR-2

          ,tbl_dnm=mr_dm_line_cnt
        , glblcond_num=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'P'
                        and res_bus_pub_ind in('R','B','P')
        , glblcond_dnm=access_excl_ind in('B','N')
                        and corp_tel_ind eq 'N'
                        and fGTE_ind eq 'N'
                        and service_level_cd eq 'P'
        , submetrics=02 03 05
        , sbpm_typ=Count Count Count
        , eligvars=MR_2_02_elig MR_2_03_elig MR_2_05_elig
        , valucond= disposition_cd in('03','04')
                        :disposition_cd in('05')
                        :disposition_cd in('07','08','09','12','13')
        , valuvars= loop_troubes co_troubles cpe_tok_fok_troubles
        , wt_var_dnm = line_count
        , eligcond= clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :clec_id ne 'RTL9' and test_acc_ind eq 'N'
        , eligcmpr= 1:1:1
        , sm_catgs= 2100:2341:3140:3341:3342:3343:3345:3550
                        |2100:2341:3140:3341:3342:3343:3345:3550
                        |2100:2341:3140:3341:3342:3343:3345:3550
        , sm_conds_dnm= product_ind eq 'SIMPLE' and provider_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R'
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U'
                        :product_ind eq 'LOOP DIGITAL' and provider_ind eq 'U'
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'
                        :product_ind eq 'LINESHARE' and provider_ind eq 'U'
                        :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'
                        :product_ind eq 'LOOP' and provider_ind eq 'U'
                        | product_ind eq 'SIMPLE' and provider_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R'
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U'
                        :product_ind eq 'LOOP DIGITAL' and provider_ind eq 'U'
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'
                        :product_ind eq 'LINESHARE' and provider_ind eq 'U'
                        :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'
                        :product_ind eq 'LOOP' and provider_ind eq 'U'
                        | product_ind eq 'SIMPLE' and provider_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R'
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U'
                        :product_ind eq 'LOOP DIGITAL' and provider_ind eq 'U'
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'
                        :product_ind eq 'LINESHARE' and provider_ind eq 'U'
```

```
                    :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'
                    :product_ind eq 'LOOP' and provider_ind eq 'U'
, sm_cmprs_dnm=product_ind eq 'SIMPLE' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind in('SIMPLE','DIGITAL') and provider_ind eq 'L' and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
, sm_conds_num= product_ind eq 'SIMPLE' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'PLATFORM' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'PLATFORM' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'R'  and test_acc_ind eq 'N'
                    :product_ind eq 'PLATFORM' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESPLITTING' and provider_ind eq 'V'  and test_acc_ind eq 'N'
                    :product_ind eq 'LOOP' and provider_ind eq 'U'  and test_acc_ind eq 'N'
, sm_cmprs_num=  product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'   and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'   and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    | product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'DIGITAL' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L'  and test_acc_ind eq 'N'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'  and test_acc_ind eq 'V'
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V'   and test_acc_ind eq 'V'
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L'  and test_acc_ind eq 'N'
```

The second SAS macro invocation calculates all MR-2 trouble rate metric numerator contributions from the Specials and Trunks Troubles Data Mart, and denominator contributions from the Line Count Data Mart:

SAS Macro Invocation 2: MR-2 – Specials & Trunks Troubles:

```
%pm_2tbl(tbl_num=mr_dm_trbl_spc, yearmm=&report_month, metric=MR-2
        ,       tbl_dnm=mr_dm_line_cnt
        ,       glblcond_num = exclude_by_fst_ind in(0,.)
                                        and corp_tel_ind eq 'N'
                                        and admin_repeat_flag in('N', ' ')
                                        and fGTE_ind eq 'N'
                                        and report_category eq '1'
                                        and service_level_cd eq 'S'
                                        and test_acc_ind eq 'N'
                                        and access_excl_ind in('B','N')
        , glblcond_dnm = access_excl_ind in('B','N')
                                        and corp_tel_ind eq 'N'
                                        and fGTE_ind eq 'N'
                                        and service_level_cd eq 'S'
                                        and test_acc_ind eq 'N'
        , submetrics=01 05
        , sbpm_typ=Count Count
        , eligvars=MR_2_01_elig MR_2_05_elig
        , valucond=    trouble_cd in('FAC','CO')
                                :not(trouble_cd in('FAC','CO'))
        , valuvars= loop_co_troubles cpe_tok_fok_troubles
        , wt_var_dnm = line_count
        , eligcond= 1:1
        , eligcmpr= 1:1
        , sm_catgs= 2200:3200
                                |2200:3200
        , sm_conds_dnm= provider_ind eq 'R':provider_ind eq 'U'
                                | provider_ind eq 'R':provider_ind eq 'U'
        , sm_cmprs_dnm= provider_ind eq 'L':provider_ind eq 'L'
                                | provider_ind eq 'L':provider_ind eq 'L'
        , sm_conds_num= provider_ind eq 'R':provider_ind eq 'U'
                                | provider_ind eq 'R':provider_ind eq 'U'
        , sm_cmprs_num= provider_ind eq 'L':provider_ind eq 'L'
                                | provider_ind eq 'L':provider_ind eq 'L'
```

The following SAS macro invocation calculates the MR-2-04 results, using the POTS Troubles Data Mart:

SAS Macro Invocation 3: MR-2-04:

```
%pm_mr(   tbl=mr_dm_trbl_gen, yearmm=&report_month, metric=MR-2
        , glblcond=exclude_by_fst_ind in(0,.)
                                and corp_tel_ind eq 'N'
                                and fGTE_ind eq 'N'
                                and report_category eq '1'
                                and service_level_cd eq 'P'
        , submetrics=04
        , sbpm_typ=Count
        , eligvars=MR_2_04_elig
        , valuvars=subseq
        , valucond=subsequent_cnt gt 0
        , eligcond= disposition_cd in('03','04','05') and clec_id ne 'RTL9'
                        and test_acc_ind eq 'N' and res_bus_pub_ind in('R','B')
        , eligcmpr= disposition_cd in('03','04','05') and res_bus_pub_ind in('R','B')
        , sm_catgs=2100:2341:3140:3341:3342:3343:3345:3550
        , sm_conds=  product_ind eq 'SIMPLE' and provider_ind eq 'R'
                                :product_ind eq 'DIGITAL' and provider_ind eq 'R'
                                :product_ind eq 'PLATFORM' and provider_ind eq 'U'
                                :product_ind eq 'DIGITAL' and provider_ind eq 'U'
                                :product_ind eq 'LOOP XDSL' and provider_ind eq 'U'
                                :product_ind eq 'LINESHARE' and provider_ind eq 'U'
                                :product_ind eq 'LINESPLITTING' and provider_ind eq 'U'
                                :product_ind eq 'LOOP' and provider_ind eq 'U'

        , sm_cmprs=  product_ind eq 'SIMPLE' and provider_ind eq 'L'
                                :product_ind eq 'DIGITAL' and provider_ind eq 'L'
```

:product_ind eq 'SIMPLE' and provider_ind eq 'L'
:product_ind NE 'XXXXXX' and provider_ind eq 'L'
:product_ind NE 'XXXXXX' and provider_ind eq 'L'
:product_ind eq 'LINESHARE' and provider_ind eq 'V'
:product_ind eq 'LINESHARE' and provider_ind eq 'V'
:product_ind eq 'SIMPLE' and provider_ind eq 'L'

DCI Recalculation Results

The following 9 tables provide the results of DCI's MR-2-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the three months reviewed:

Table D-16 – MR-2-01-2200 Trouble Rate: Resale Specials – April 2003

MR-2-01-2200	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	6	1557	0.39%	598	164426	0.36%	0.00000	0
C2C Report	6	1557	0.39%	598	164426	0.36%	-0.00385	0
Discrepancy	0	0	0.00%	0	0	0.00%	-0.00385	0

Table D-17 – MR-2-01-2200 Trouble Rate: Resale Specials – May 2003

MR-2-01-2200	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	10	1556	0.64%	669	163878	0.41%	-1.21793	-1
C2C Report	10	1556	0.64%	669	163878	0.41%	-1.21785	-1
Discrepancy	0	0	0.00%	0	0	0.00%	0.00008	0

Table D-18 – MR-2-01-2200 Trouble Rate: Resale Specials – June 2003

MR-2-01-2200	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	9	1560	0.58%	706	162871	0.43%	-0.69967	0
C2C Report	9	1560	0.58%	706	162871	0.43%	-0.70345	0
Discrepancy	0	0	0.00%	0	0	0.00%	-0.00378	0

Table D-19 – MR-2-01-3200 Trouble Rate: UNE Specials – April 2003

MR-2-01-3200	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	124	9220	1.34%	598	164426	0.36%	-15.23026	-2
C2C Report	124	9220	1.34%	598	164426	0.36%	<-5.00000	-2
Discrepancy	0	0	0.00%	0	0	0.00%		0

Table D-20 – MR-2-01-3200 Trouble Rate: UNE Specials – May 2003

MR-2-01-3200	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	153	9403	1.63%	669	163878	0.41%	-18.02707	-2
C2C Report	153	9403	1.63%	669	163878	0.41%	<-5.00000	-2
Discrepancy	0	0	0.00%	0	0	0.00%		0

Table D-21 – MR-2-01-3200 Trouble Rate: UNE Specials – June 2003

MR-2-01-3200	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	182	9675	1.88%	706	162871	0.43%	-21.05842	-2
C2C Report	182	9675	1.88%	706	162871	0.43%	<-5.00000	-2
Discrepancy	0	0	0.00%	0	0	0.00%		0

Table D-22 – MR-2-01-5000 Trouble Rate: Trunks – April 2003

MR-2-01-5000	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	0	554507	0.00%	0	376891	0.00%		
C2C Report	3	554507	0.00%	2	376891	0.00%	0.00005	0
Discrepancy	3	0	0.00%	2	0	0.00%		

Table D-23 – MR-2-01-5000 Trouble Rate: Trunks – May 2003

MR-2-01-5000	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	0	553686	0.00%	9	379292	0.00%	2.31112	0
C2C Report	3	553686	0.00%	11	430651	0.00%		
Discrepancy	3	0	0.00%	2	51359	0.00%		

Table D-24 – MR-2-01-5000 Trouble Rate: Trunks – June 2003

MR-2-01-5000	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
DCI calculation	1	550165	0.00%	2	378722	0.00%	1.49257	0
C2C Report	3	550165	0.00%	2	430561	0.00%		
Discrepancy	2	0	0.00%	0	51839	0.00%		

The following 3 tables provide the results of DCI's MR-2-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-25 – MR-2-02 Trouble Rate: POTS Loop Troubles – April 2003 – DCI Calculations

MR-2-02 DCI	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-02-2100	444	87180	0.51%	41079	4853980	0.85%	10.76621	0
MR-2-02-2341	5	1096	0.46%	154	38276	0.40%	-0.11275	0
MR-2-02-3140	3312	421573	0.79%	41079	4853980	0.85%	4.18552	0
MR-2-02-3341	18	2533	0.71%	41233	4892256	0.84%	0.82632	0
MR-2-02-3342	82	18152	0.45%	41233	4892256	0.84%	5.75300	0
MR-2-02-3343	5	5130	0.10%	163	169872	0.10%	0.12246	0
MR-2-02-3345	0	1	0.00%	163	169872	0.10%		
MR-2-02-3550	967	203218	0.48%	41079	4853980	0.85%	17.86040	0

Table D-26 – MR-2-02 Trouble Rate: POTS Loop Troubles – April 2003 – C2C Reported Results

| MR-2-02 C2C | CLEC | | | Retail | | | Stat. | Compliance |
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-02-2100	444	87180	0.51%	41186	4853980	0.85%	> 5.0000	0
MR-2-02-2341	5	1096	0.46%	154	38276	0.40%	-0.11265	0
MR-2-02-3140	3311	421573	0.79%	41186	4853980	0.85%	4.35855	0
MR-2-02-3341	18	2533	0.71%	41364	4892256	0.85%	0.83805	0
MR-2-02-3342	81	23282	0.35%	41364	4892256	0.85%	> 5.0000	0
MR-2-02-3343	3	5130	0.06%	133	169872	0.08%	0.72055	0
MR-2-02-3345	0	1	0.00%	133	169872	0.08%		
MR-2-02-3550	966	203218	0.48%	41186	4853980	0.85%	> 5.0000	0

Table D-27 – MR-2-02 Trouble Rate: POTS Loop Troubles – April 2003 – Discrepancies

| MR-2-02 discrepancy | CLEC | | | Retail | | | Stat. | Compliance |
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-02-2100	0	0	0.00%	107	0	0.00%		0
MR-2-02-2341	0	0	0.00%	0	0	0.00%	0.00010	0
MR-2-02-3140	-1	0	0.00%	107	0	0.00%	0.17303	0
MR-2-02-3341	0	0	0.00%	131	0	0.00%	0.01173	0
MR-2-02-3342	-1	5130	-0.10%	131	0	0.00%		0
MR-2-02-3343	-2	0	-0.04%	-30	0	-0.02%	0.59809	0
MR-2-02-3345	0	0	0.00%	-30	0	-0.02%		
MR-2-02-3550	-1	0	0.00%	107	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-28 – MR-2-02 Trouble Rate: POTS Loop Troubles – May 2003 – DCI Calculations

| MR-2-02 DCI | CLEC | | | Retail | | | Stat. | Compliance |
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-02-2100	369	82429	0.45%	45653	4794067	0.95%	14.79110	0
MR-2-02-2341	5	1014	0.49%	131	36417	0.36%	-0.49937	0
MR-2-02-3140	3950	436403	0.91%	45653	4794067	0.95%	3.10454	0
MR-2-02-3341	19	2542	0.75%	45784	4830484	0.95%	1.15836	0
MR-2-02-3342	69	18363	0.38%	45784	4830484	0.95%	7.98536	0
MR-2-02-3343	3	5678	0.05%	170	171061	0.10%	1.39608	0
MR-2-02-3345	0	7	0.00%	170	171061	0.10%	0.08345	0
MR-2-02-3550	1006	203516	0.49%	45653	4794067	0.95%	20.83553	0

Table D-29 – MR-2-02 Trouble Rate: POTS Loop Troubles – May 2003 – C2C Reported Results

| MR-2-02 C2C | CLEC | | | Retail | | | Stat. | Compliance |
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-02-2100	369	82429	0.45%	45807	4794067	0.96%	> 5.0000	0
MR-2-02-2341	5	1014	0.49%	131	36417	0.36%	-0.49925	0
MR-2-02-3140	3952	436403	0.91%	45807	4794067	0.96%	3.29515	0
MR-2-02-3341	19	2542	0.75%	45914	4830484	0.95%	1.16935	0
MR-2-02-3342	68	24041	0.28%	45914	4830484	0.95%	> 5.0000	0
MR-2-02-3343	1	5678	0.02%	129	171061	0.08%	2.17575	0
MR-2-02-3345	0	7	0.00%	129	171061	0.08%		0
MR-2-02-3550	1006	203516	0.49%	45807	4794067	0.96%	> 5.0000	0

Table D-30 – MR-2-02 Trouble Rate: POTS Loop Troubles – May 2003 – Discrepancies

MR-2-02 discrepancy	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-02-2100	0	0	0.00%	154	0	0.00%		0
MR-2-02-2341	0	0	0.00%	0	0	0.00%	0.00012	0
MR-2-02-3140	2	0	0.00%	154	0	0.00%	0.19061	0
MR-2-02-3341	0	0	0.00%	130	0	0.00%	0.01099	0
MR-2-02-3342	-1	5678	-0.09%	130	0	0.00%		0
MR-2-02-3343	-2	0	-0.04%	-41	0	-0.02%	0.77967	0
MR-2-02-3345	0	0	0.00%	-41	0	-0.02%		
MR-2-02-3550	0	0	0.00%	154	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-31 – MR-2-02 Trouble Rate: POTS Loop Troubles – June 2003 – DCI Calculations

MR-2-02 DCI	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-02-2100	447	80557	0.55%	57655	4745001	1.22%	16.95953	0
MR-2-02-2341	5	1015	0.49%	128	34755	0.37%	-0.44999	0
MR-2-02-3140	5104	450316	1.13%	57655	4745001	1.22%	4.77902	0
MR-2-02-3341	16	2545	0.63%	57783	4779756	1.21%	3.02783	0
MR-2-02-3342	119	18693	0.64%	57783	4779756	1.21%	7.14606	0
MR-2-02-3343	4	6579	0.06%	174	175711	0.10%	1.21285	0
MR-2-02-3345	0	17	0.00%	174	175711	0.10%	0.12981	0
MR-2-02-3550	1127	204230	0.55%	57655	4745001	1.22%	26.78759	0

Table D-32 – MR-2-02 Trouble Rate: POTS Loop Troubles – June 2003 – C2C Reported Results

MR-2-02 C2C	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-02-2100	447	80557	0.55%	57818	4745001	1.22%	>5.0000	0
MR-2-02-2341	5	1015	0.49%	128	34755	0.37%	-0.44985	0
MR-2-02-3140	5104	450316	1.13%	57818	4745001	1.22%	>5.0000	0
MR-2-02-3341	16	2545	0.63%	57955	4779756	1.21%	3.04075	0
MR-2-02-3342	119	25272	0.47%	57955	4779756	1.21%	>5.0000	0
MR-2-02-3343	3	6579	0.05%	143	175711	0.08%	1.27045	0
MR-2-02-3345	0	17	0.00%	143	175711	0.08%		0
MR-2-02-3550	1126	204230	0.55%	57818	4745001	1.22%	>5.0000	0

Table D-33 – MR-2-02 Trouble Rate: POTS Loop Troubles – June 2003 – Discrepancies

MR-2-02 Discrep	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-02-2100	0	0	0.00%	163	0	0.00%		0
MR-2-02-2341	0	0	0.00%	0	0	0.00%	0.00014	0
MR-2-02-3140	0	0	0.00%	163	0	0.00%		0
MR-2-02-3341	0	0	0.00%	172	0	0.00%	0.01292	0
MR-2-02-3342	0	6579	-0.17%	172	0	0.00%		0
MR-2-02-3343	-1	0	-0.02%	-31	0	-0.02%	0.05760	0
MR-2-02-3345	0	0	0.00%	-31	0	-0.02%		0
MR-2-02-3550	-1	0	0.00%	163	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-34 – MR-2-03 POTS Central Office Trouble Rate – April 2003 – DCI Calculations

MR-2-03 DCI	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	35	87180	0.04%	4353	4853980	0.09%	4.84261	0
MR-2-03-2341	1	1096	0.09%	92	38276	0.24%	1.45979	0
MR-2-03-3140	352	421573	0.08%	4353	4853980	0.09%	1.32254	0
MR-2-03-3341	5	2533	0.20%	4445	4892256	0.09%	-1.37905	-1
MR-2-03-3342	13	18152	0.07%	4445	4892256	0.09%	0.98350	0
MR-2-03-3343	4	5130	0.08%	135	169872	0.08%	0.21245	0
MR-2-03-3345	0	1	0.00%	135	169872	0.08%		0
MR-2-03-3550	38	203218	0.02%	4353	4853980	0.09%	10.47272	0

Table D-35 – MR-2-03 POTS Central Office Trouble Rate – April 2003 – C2C Reported Results

MR-2-03 C2C	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	35	87180	0.04%	4344	4853980	0.09%	>5	0
MR-2-03-2341	1	1096	0.09%	92	38276	0.24%	1.45975	0
MR-2-03-3140	352	421573	0.08%	4344	4853980	0.09%	1.28365	0
MR-2-03-3341	5	2533	0.20%	4476	4892256	0.09%	-1.37625	-1
MR-2-03-3342	13	23282	0.06%	4476	4892256	0.09%	2.00285	0
MR-2-03-3343	2	5130	0.04%	59	169872	0.03%	0.07095	0
MR-2-03-3345	0	1	0.00%	59	169872	0.03%		0
MR-2-03-3550	38	203218	0.02%	4344	4853980	0.09%	>5	0

Table D-36 – MR-2-03 POTS Central Office Trouble Rate – April 2003 – Discrepancies

MR-2-03 discrep	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	0	0	0.00%	-9	0	0.00%		0
MR-2-03-2341	0	0	0.00%	0	0	0.00%	-0.00004	0
MR-2-03-3140	0	0	0.00%	-9	0	0.00%	-0.03889	0
MR-2-03-3341	0	0	0.00%	31	0	0.00%	0.00280	0
MR-2-03-3342	0	5130	-0.02%	31	0	0.00%	1.01935	0
MR-2-03-3343	-2	0	-0.04%	-76	0	-0.04%	-0.14150	0
MR-2-03-3345	0	0	0.00%	-76	0	-0.04%		0
MR-2-03-3550	0	0	0.00%	-9	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-37 – MR-2-03 POTS Central Office Trouble Rate – May 2003 – DCI Calculations

MR-2-03 DCI	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	38	82429	0.05%	4540	4794067	0.09%	4.49785	0
MR-2-03-2341	5	1014	0.49%	65	36417	0.18%	-1.73587	-2
MR-2-03-3140	263	436403	0.06%	4540	4794067	0.09%	7.08036	0
MR-2-03-3341	1	2542	0.04%	4605	4830484	0.10%	1.34985	0
MR-2-03-3342	14	18363	0.08%	4605	4830484	0.10%	0.95543	0
MR-2-03-3343	8	5678	0.14%	103	171061	0.06%	-1.92600	-2
MR-2-03-3345	0	7	0.00%	103	171061	0.06%	0.06494	0
MR-2-03-3550	52	203516	0.03%	4540	4794067	0.09%	9.93323	0

Table D-38 – MR-2-03 POTS Central Office Trouble Rate – May 2003 – C2C Reported Results

MR-2-03 C2C	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	38	82429	0.05%	4530	4794067	0.09%	>5	0
MR-2-03-2341	5	1014	0.49%	65	36417	0.18%	-1.73575	-2
MR-2-03-3140	264	436403	0.06%	4530	4794067	0.09%	>5	0
MR-2-03-3341	1	2542	0.04%	4613	4830484	0.10%	1.34515	0
MR-2-03-3342	14	24041	0.06%	4613	4830484	0.10%	2.07605	0
MR-2-03-3343	2	5678	0.04%	37	171061	0.02%	-0.39555	0
MR-2-03-3345	0	7	0.00%	37	171061	0.02%		
MR-2-03-3550	52	203516	0.03%	4530	4794067	0.09%	>5	0

Table D-39 – MR-2-03 POTS Central Office Trouble Rate – May 2003 – Discrepancies

MR-2-03 discrep	CLEC			Retail			Stat. Score	Compliance Score
May 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	0	0	0.00%	-10	0	0.00%		0
MR-2-03-2341	0	0	0.00%	0	0	0.00%	0.00012	0
MR-2-03-3140	1	0	0.00%	-10	0	0.00%		0
MR-2-03-3341	0	0	0.00%	8	0	0.00%	-0.00470	0
MR-2-03-3342	0	5678	-0.02%	8	0	0.00%	1.12062	0
MR-2-03-3343	-6	0	-0.11%	-66	0	-0.04%	1.53045	2
MR-2-03-3345	0	0	0.00%	-66	0	-0.04%		0
MR-2-03-3550	0	0	0.00%	-10	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-40 – MR-2-03 POTS Central Office Trouble Rate – June 2003 – DCI Calculations

MR-2-03 DCI	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-03-2100	25	80557	0.03%	4595	4745001	0.10%	5.95442	0
MR-2-03-2341	0	1015	0.00%	87	34755	0.25%	1.57318	0
MR-2-03-3140	244	450316	0.05%	4595	4745001	0.10%	8.79473	0
MR-2-03-3341	0	2545	0.00%	4682	4779756	0.10%	1.57926	0
MR-2-03-3342	15	18693	0.08%	4682	4779756	0.10%	0.88314	0
MR-2-03-3343	10	6579	0.15%	180	175711	0.10%	-1.03060	-1
MR-2-03-3345	1	17	5.88%	180	175711	0.10%	-2.11144	-2
MR-2-03-3550	40	204230	0.02%	4595	4745001	0.10%	10.99032	0

Table D- 41 – MR-2-03 POTS Central Office Trouble Rate – June 2003 – C2C Reported Results

MR-2-03 C2C	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-03-2100	25	80557	0.03%	4579	4745001	0.10%	>5	0
MR-2-03-2341	0	1015	0.00%	87	34755	0.25%		0
MR-2-03-3140	245	450316	0.05%	4579	4745001	0.10%	>5	0
MR-2-03-3341	0	2545	0.00%	4708	4779756	0.10%		0
MR-2-03-3342	15	25272	0.06%	4708	4779756	0.10%	2.19775	0
MR-2-03-3343	2	6579	0.03%	61	175711	0.03%	0.41245	0
MR-2-03-3345	0	17	0.00%	61	175711	0.03%		0
MR-2-03-3550	40	204230	0.02%	4579	4745001	0.10%	>5	0

Table D-42 – MR-2-03 POTS Central Office Trouble Rate – June 2003 – Discrepancies

MR-2-03 discrep	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-03-2100	0	0	0.00%	-16	0	0.00%		0
MR-2-03-2341	0	0	0.00%	0	0	0.00%		0
MR-2-03-3140	1	0	0.00%	-16	0	0.00%		0
MR-2-03-3341	0	0	0.00%	26	0	0.00%		0
MR-2-03-3342	0	6579	-0.02%	26	0	0.00%	1.31461	0
MR-2-03-3343	-8	0	-0.12%	-119	0	-0.07%	1.44305	1
MR-2-03-3345	-1	0	-5.88%	-119	0	-0.07%	!!!	2
MR-2-03-3550	0	0	0.00%	-16	0	0.00%		0

The following 3 tables provide the results of DCI's MR-2-04 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-43 – MR-2-04 Subsequent Reports Rate – April 2003 – DCI Calculations

MR-2-04 DCI	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	40	479	8.35%	10032	45433	22.08%	7.20668	0
MR-2-04-2341	0	6	0.00%	36	246	14.63%	1.00204	0
MR-2-04-3140	335	3664	9.14%	10032	45433	22.08%	18.16218	0
MR-2-04-3341	2	23	8.70%	10068	45679	22.04%	1.54358	0
MR-2-04-3342	10	95	10.53%	10068	45679	22.04%	2.70462	0
MR-2-04-3343	0	9	0.00%	50	298	16.78%	1.32715	0
MR-2-04-3345				50	298	16.78%		
MR-2-04-3550	491	1005	48.86%	10032	45433	22.08%	-20.24086	-2

Table D-44 – MR-2-04 Subsequent Reports Rate – April 2003 – C2C Reported Results

MR-2-04 C2C	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	40	519	7.71%					
MR-2-04-2341	0	6	0.00%					
MR-2-04-3140	335	3999	8.38%					
MR-2-04-3341	2	25	8.00%					
MR-2-04-3342	10	105	9.52%					
MR-2-04-3343	0	9	0.00%					
MR-2-04-3345								
MR-2-04-3550	491	1496	32.82%					

Table D-45 – MR-2-04 Subsequent Reports Rate – April 2003 – Discrepancies

| MR-2-04 discrepancy | CLEC | | | Retail | | | Stat. | Compliance |
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	0	40	-0.64%					
MR-2-04-2341	0	0	0.00%					
MR-2-04-3140	0	335	-0.77%					
MR-2-04-3341	0	2	-0.70%					
MR-2-04-3342	0	10	-1.00%					
MR-2-04-3343	0	0	0.00%					
MR-2-04-3345								
MR-2-04-3550	0	491	-16.03%					

The following 3 tables provide the results of DCI's MR-2-04 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-46 – MR-2-04 Subsequent Reports Rate – May 2003 – DCI Calculations

| MR-2-04 DCI | CLEC | | | Retail | | | Stat. | Compliance |
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	28	407	6.88%	10568	50194	21.05%	6.98591	0
MR-2-04-2341	1	10	10.00%	35	196	17.86%	0.63280	0
MR-2-04-3140	358	4213	8.50%	10568	50194	21.05%	19.20165	0
MR-2-04-3341	0	20	0.00%	10603	50390	21.04%	2.30820	0
MR-2-04-3342	5	83	6.02%	10603	50390	21.04%	3.35387	0
MR-2-04-3343	1	11	9.09%	60	273	21.98%	1.01198	0
MR-2-04-3345				60	273	21.98%		
MR-2-04-3550	580	1058	54.82%	10568	50194	21.05%	-26.65997	-2

Table D-47 – MR-2-04 Subsequent Reports Rate – May 2003 – C2C Reported Results

| MR-2-04 C2C | CLEC | | | Retail | | | Stat. | Compliance |
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	28	435	6.44%					
MR-2-04-2341	1	11	9.09%					
MR-2-04-3140	358	4571	7.83%					
MR-2-04-3341	0	20	0.00%					
MR-2-04-3342	5	88	5.68%					
MR-2-04-3343	1	12	8.33%					
MR-2-04-3345								
MR-2-04-3550	580	1638	35.41%					

Table D-48 – MR-2-04 Subsequent Reports Rate – May 2003 – Discrepancies

| MR-2-04 discrepancy | CLEC | | | Retail | | | Stat. | Compliance |
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-04-2100	0	28	-0.44%					
MR-2-04-2341	0	1	-0.91%					
MR-2-04-3140	0	358	-0.67%					
MR-2-04-3341	0	0	0.00%					
MR-2-04-3342	0	5	-0.34%					
MR-2-04-3343	0	1	-0.76%					
MR-2-04-3345								
MR-2-04-3550	0	580	-19.41%					

The following 3 tables provide the results of DCI's MR-2-04 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-49 – MR-2-04 Subsequent Reports Rate – June 2003 – DCI Calculations

MR-2-04 DCI	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-04-2100	46	472	9.75%	18135	62250	29.13%	9.23472	0
MR-2-04-2341	0	5	0.00%	52	215	24.19%		
MR-2-04-3140	423	5348	7.91%	18135	62250	29.13%	32.77882	0
MR-2-04-3341	0	16	0.00%	18187	62465	29.12%	2.56325	0
MR-2-04-3342	9	134	6.72%	18187	62465	29.12%	5.70137	0
MR-2-04-3343	0	14	0.00%	27	354	7.63%	1.05451	0
MR-2-04-3345	0	1	0.00%	27	354	7.63%		
MR-2-04-3550	712	1167	61.01%	18135	62250	29.13%	-23.74592	-2

Table D-50 – MR-2-04 Subsequent Reports Rate – June 2003 – C2C Reported Results

MR-2-04 C2C	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-04-2100	46	518	8.88%					
MR-2-04-2341	0	5	0.00%					
MR-2-04-3140	423	5771	7.33%					
MR-2-04-3341	0	16	0.00%					
MR-2-04-3342	9	143	6.29%					
MR-2-04-3343	0	14	0.00%					
MR-2-04-3345	0	1	0.00%					
MR-2-04-3550	712	1879	37.89%					

Table D-51 – MR-2-04 Subsequent Reports Rate – June 2003 – Discrepancies

MR-2-04 discrepancy	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-04-2100	0	46	-0.87%					
MR-2-04-2341	0	0	0.00%					
MR-2-04-3140	0	423	-0.58%					
MR-2-04-3341	0	0	0.00%					
MR-2-04-3342	0	9	-0.42%					
MR-2-04-3343	0	0	0.00%					
MR-2-04-3345	0	0	0.00%					
MR-2-04-3550	0	712	-23.12%					

The following 3 tables provide the results of DCI's MR-2-05 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-52 – MR-2-05 CPE / TOK / FOK Trouble Rate – April 2003 – DCI Calculations

MR-2-05 DCI	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-05-2100	269	87180	0.31%	28108	4853980	0.58%	10.43345	0
MR-2-05-2200	6	1557	0.39%	1061	164426	0.65%	1.27488	0
MR-2-05-2341	14	1096	1.28%	414	38276	1.08%	-0.61775	0
MR-2-05-3140	2971	421573	0.70%	28108	4853980	0.58%	-10.31524	-2
MR-2-05-3200	110	9220	1.19%	1061	164426	0.65%	-6.39235	-2
MR-2-05-3341	23	2533	0.91%	28522	4892256	0.58%	-2.14802	-2
MR-2-05-3342	118	18152	0.65%	28522	4892256	0.58%	-1.18461	-1
MR-2-05-3343	0	5130	0.00%	2258	169872	1.33%	8.19040	0
MR-2-05-3345	0	1	0.00%	2258	169872	1.33%		
MR-2-05-3550	648	203218	0.32%	28108	4853980	0.58%	15.14539	0

Table D-53 – MR-2-05 CPE / TOK / FOK Trouble Rate – April 2003 – C2C Reported Results

MR-2-05 C2C	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-05-2100	269	87180	0.31%					
MR-2-05-2200	6	1557	0.39%					
MR-2-05-2341	14	1096	1.28%					
MR-2-05-3140	2970	421573	0.70%					
MR-2-05-3200	109	9220	1.18%					
MR-2-05-3341	23	2533	0.91%					
MR-2-05-3342	118	23282	0.51%					
MR-2-05-3343	37	5130	0.72%					
MR-2-05-3345	4	1	400.00%					
MR-2-05-3550	647	203218	0.32%					

Table D-54 – MR-2-05 CPE / TOK / FOK Trouble Rate – April 2003 – Discrepancies

MR-2-05 discrepancy	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-2-05-2100	0	0	0.00%					
MR-2-05-2200	0	0	0.00%					
MR-2-05-2341	0	0	0.00%					
MR-2-05-3140	-1	0	0.00%					
MR-2-05-3200	-1	0	-0.01%					
MR-2-05-3341	0	0	0.00%					
MR-2-05-3342	0	5130	-0.14%					
MR-2-05-3343	37	0	0.72%					
MR-2-05-3345	4	0	400.00%					
MR-2-05-3550	-1	0	0.00%					

The following 3 tables provide the results of DCI's MR-2-05 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-55 – MR-2-05 CPE / TOK / FOK Trouble Rate – May 2003 – DCI Calculations

MR-2-05 DCI	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	264	82429	0.32%	31515	4794067	0.66%	11.87467	0
MR-2-05-2200	8	1556	0.51%	1090	163878	0.67%	0.72929	0
MR-2-05-2341	18	1014	1.78%	417	36417	1.15%	-1.86009	-2
MR-2-05-3140	3439	436403	0.79%	31515	4794067	0.66%	-10.22556	-2
MR-2-05-3200	92	9403	0.98%	1090	163878	0.67%	-3.63454	-2
MR-2-05-3341	14	2542	0.55%	31932	4830484	0.66%	0.68610	0
MR-2-05-3342	108	18363	0.59%	31932	4830484	0.66%	1.21695	0
MR-2-05-3343	0	5678	0.00%	2100	171061	1.23%	8.26463	0
MR-2-05-3345	0	7	0.00%	2100	171061	1.23%	0.29496	0
MR-2-05-3550	724	203516	0.36%	31515	4794067	0.66%	16.49188	0

Table D-56 – MR-2-05 CPE / TOK / FOK Trouble Rate – May 2003 – C2C Reported Results

MR-2-05 C2C	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	264	82429	0.32%					
MR-2-05-2200	8	1556	0.51%					
MR-2-05-2341	18	1014	1.78%					
MR-2-05-3140	3441	436403	0.79%					
MR-2-05-3200	89	9403	0.95%					
MR-2-05-3341	14	2542	0.55%					
MR-2-05-3342	108	24041	0.45%					
MR-2-05-3343	54	5678	0.95%					
MR-2-05-3345	0	7	0.00%					
MR-2-05-3550	723	203516	0.36%					

Table D-57 – MR-2-05 CPE / TOK / FOK Trouble Rate – May 2003 – Discrepancies

MR-2-05 discrepancy	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	0	0	0.00%					
MR-2-05-2200	0	0	0.00%					
MR-2-05-2341	0	0	0.00%					
MR-2-05-3140	2	0	0.00%					
MR-2-05-3200	-3	0	-0.03%					
MR-2-05-3341	0	0	0.00%					
MR-2-05-3342	0	5678	-0.14%					
MR-2-05-3343	54	0	0.95%					
MR-2-05-3345	0	0	0.00%					
MR-2-05-3550	-1	0	0.00%					

The following 3 tables provide the results of DCI's MR-2-05 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-58 – MR-2-05 CPE / TOK / FOK Trouble Rate – June 2003 – DCI Calculations

MR-2-05 DCI	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	337	80557	0.42%	41334	4745001	0.87%	13.71314	0
MR-2-05-2200	17	1560	1.09%	1204	162871	0.74%	-1.60846	-1
MR-2-05-2341	6	1015	0.59%	445	34755	1.28%	1.92527	0
MR-2-05-3140	4562	450316	1.01%	41334	4745001	0.87%	-9.79719	-2
MR-2-05-3200	104	9675	1.07%	1204	162871	0.74%	-3.74512	-2
MR-2-05-3341	10	2545	0.39%	41779	4779756	0.87%	2.60701	0
MR-2-05-3342	130	18693	0.70%	41779	4779756	0.87%	2.61871	0
MR-2-05-3343	0	6579	0.00%	2508	175711	1.43%	9.58262	0
MR-2-05-3345	0	17	0.00%	2508	175711	1.43%	0.49612	0
MR-2-05-3550	947	204230	0.46%	41334	4745001	0.87%	19.40031	0

Table D-59 – MR-2-05 CPE / TOK / FOK Trouble Rate – June 2003 – C2C Reported Results

MR-2-05 C2C	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	337	80557	0.42%					
MR-2-05-2200	17	1560	1.09%					
MR-2-05-2341	6	1015	0.59%					
MR-2-05-3140	4564	450316	1.01%					
MR-2-05-3200	103	9675	1.06%					
MR-2-05-3341	10	2545	0.39%					
MR-2-05-3342	130	25272	0.51%					
MR-2-05-3343	97	6579	1.47%					
MR-2-05-3345	11	17	64.71%					
MR-2-05-3550	947	204230	0.46%					

Table D-60 – MR-2-05 CPE / TOK / FOK Trouble Rate – June 2003 – Discrepancies

MR-2-05 discrepancy	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-2-05-2100	0	0	0.00%					
MR-2-05-2200	0	0	0.00%					
MR-2-05-2341	0	0	0.00%					
MR-2-05-3140	2	0	0.00%					
MR-2-05-3200	-1	0	-0.01%					
MR-2-05-3341	0	0	0.00%					
MR-2-05-3342	0	6579	-0.18%					
MR-2-05-3343	97	0	1.47%					
MR-2-05-3345	11	0	64.71%					
MR-2-05-3550	0	0	0.00%					

MR-3: MISSED REPAIR APPOINTMENTS

Definition

This metric measures the percent of reported Network Troubles not repaired and cleared by the date and time committed.

POTS Troubles

From the POTS Troubles Data Mart, those trouble records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be summed to obtain the MR-3 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results. Such records with a value greater than 0 in the MISSED_APPT_CNT field will also be counted in the MR-3 numerator.

The MR-3 metric is only reported on POTS troubles.

Sub-Metrics

The following table indicates the number of trouble records which were not globally excluded and are potentially relevant to the MR-3 submetrics, prior to product disaggregation:

Table D-61 – MR-3 SubMetric Eligibility

MR-3 Submetric	POTS Disposition Codes	April		May		June	
		CLEC	Retail	CLEC	Retail	CLEC	Retail
MR-3-01	03, 04	5188	41525	5834	46104	7367	58125
MR-3-02	05	587	4589	469	4711	435	4865
MR-3-03	07, 08, 09, 12, 13	4437	31040	5077	34263	6730	44603
Excluded	01, 02, 06, 10, 11	84	4211	96	5186	101	5337

DCI Recalculation Process

DCI developed a SAS macro to calculate metric results based on a clear specification of the metrics definitions. DCI then implemented the information described in the pages immediately above into one SAS macro invocation for POTS troubles. DCI then used these results of running this macro to obtain its metric numerators, denominators, and results. DCI also automatically extracted Verizon PA's C2C report results to obtain Verizon PA's calculated numerators, denominators, and results. DCI's recalculation program then combines and compares DCI's results and Verizon PA's C2C reported results in an Excel spreadsheet.

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-3 results:

SAS Macro Invocation 4: MR-3 Calculation:

```
%pm_mr(  tbl=mr_dm_trbl_gen, yearmm=&report_month, metric=MR-3
         , glblcond= exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'P'
         , submetrics=01 02 03
         , sbpm_typ=Count Count Count
         , eligvars=MR_3_01_elig MR_3_02_elig MR_3_03_elig
         , valuvars=  missed missed missed
         , valucond=  missed_appt_cnt gt 0
                        :missed_appt_cnt gt 0
                        :missed_appt_cnt gt 0
```

```
, eligcond=  disposition_cd in('03','04') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                :disposition_cd in('05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                :disposition_cd in('07','08','09','12','13') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
, eligcmpr=  disposition_cd in('03','04')
                :disposition_cd in('05')
                :disposition_cd in('07','08','09','12','13')
, sm_catgs=  2110:2120:2341:3144:3145:3341:3342:3343:3345:3550
             |2110:2120:2341:3144:3145:3341:3342:3343:3345:3550
             |2100:2341:3140:3341:3342:3343:3345:3550
, sm_conds=  product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'B'
                :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
             | product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'B'
                :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                                and not(dispatch_in_cnt eq 1 and dispatch_out_cnt eq 1)
             | product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')

, sm_cmprs=  product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
             | product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
                :product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
             | product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
```

DCI Recalculation Results

The following 3 tables provide the results of DCI's MR-3-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-62 – MR-3-01 % Missed Repair Appointments - Loop – April 2003 – DCI Calculations

MR-3-01 DCI	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	66	227	29.07%	1806	5798	31.15%	0.73137	0
MR-3-01-2120	21	217	9.68%	7305	35281	20.71%	3.99691	0
MR-3-01-2341	2	5	40.00%	74	154	48.05%		
MR-3-01-3144	185	623	29.70%	1806	5798	31.15%	0.78924	0
MR-3-01-3145	354	2689	13.16%	7305	35281	20.71%	9.30210	0
MR-3-01-3341	3	18	16.67%	9185	41233	22.28%	0.83924	0
MR-3-01-3342	7	82	8.54%	9185	41233	22.28%	3.45085	0
MR-3-01-3343	1	5	20.00%	67	163	41.10%		
MR-3-01-3345				67	163	41.10%		
MR-3-01-3550	121	967	12.51%	9111	41079	22.18%	7.15154	0

Table D-63 - MR-3-01 % Missed Repair Appointments - Loop - April 2003 - C2C Reported Results

MR-3-01 C2C	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	66	227	29.07%	1806	5798	31.15%	0.73135	0
MR-3-01-2120	21	217	9.68%	7305	35281	20.71%	4.43315	0
MR-3-01-2341	2	5	40.00%	74	154	48.05%		
MR-3-01-3144	185	623	29.70%	1806	5798	31.15%	0.78925	0
MR-3-01-3145	354	2689	13.16%	7305	35281	20.71%	5	0
MR-3-01-3341	3	18	16.67%	9227	41362	22.31%	0.84245	0
MR-3-01-3342	7	82	8.54%	9227	41362	22.31%	3.45695	0
MR-3-01-3343	1	5	20.00%	67	163	41.10%		
MR-3-01-3345				67	163	41.10%		
MR-3-01-3550	121	967	12.51%	9153	41208	22.21%	5	0

Table D-64 – MR-3-01 % Missed Repair Appointments - Loop – April 2003 – Discrepancies

MR-3-01 discrepancy	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	0	0	0.00%	0	0	0.00%	-0.00002	0
MR-3-01-2120	0	0	0.00%	0	0	0.00%	0.43624	0
MR-3-01-2341	0	0	0.00%	0	0	0.00%		
MR-3-01-3144	0	0	0.00%	0	0	0.00%	0.00001	0
MR-3-01-3145	0	0	0.00%	0	0	0.00%	-4.30210	0
MR-3-01-3341	0	0	0.00%	42	129	0.03%	0.00321	0
MR-3-01-3342	0	0	0.00%	42	129	0.03%	0.00610	0
MR-3-01-3343	0	0	0.00%	0	0	0.00%		
MR-3-01-3345				0	0	0.00%		
MR-3-01-3550	0	0	0.00%	42	129	0.03%	-2.15154	0

The following 3 tables provide the results of DCI's MR-3-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-65 – MR-3-01 % Missed Repair Appointments - Loop – May 2003 – DCI Calculations

MR-3-01 DCI	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	56	186	30.11%	1903	6086	31.27%	0.40884	0
MR-3-01-2120	25	183	13.66%	8050	39567	20.35%	2.43233	0
MR-3-01-2341	0	5	0.00%	62	131	47.33%		
MR-3-01-3144	221	776	28.48%	1903	6086	31.27%	1.63102	0
MR-3-01-3145	405	3174	12.76%	8050	39567	20.35%	10.21372	0
MR-3-01-3341	4	19	21.05%	10015	45784	21.87%	0.31468	0
MR-3-01-3342	3	69	4.35%	10015	45784	21.87%	4.30738	0
MR-3-01-3343	1	3	33.33%	63	170	37.06%		
MR-3-01-3345				63	170	37.06%		
MR-3-01-3550	111	1006	11.03%	9953	45653	21.80%	8.18170	0

Table D-66 – MR-3-01 % Missed Repair Appointments - Loop – May 2003 – C2C Reported Results

MR-3-01 C2C	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	56	186	30.11%	1903	6086	31.27%	0.40885	0
MR-3-01-2120	25	183	13.66%	8050	39567	20.35%	2.43235	0
MR-3-01-2341	0	5	0.00%	62	131	47.33%		
MR-3-01-3144	221	776	28.48%	1903	6086	31.27%	1.63105	0
MR-3-01-3145	405	3174	12.76%	8050	39567	20.35%	5	0
MR-3-01-3341	4	19	21.05%	10055	45934	21.89%	0.31635	0
MR-3-01-3342	3	69	4.35%	10055	45934	21.89%	4.30275	0
MR-3-01-3343	1	3	33.33%	63	170	37.06%		
MR-3-01-3345				63	170	37.06%		
MR-3-01-3550	111	1006	11.03%	9993	45803	21.82%	5	0

Table D-67 – MR-3-01 % Missed Repair Appointments - Loop – May 2003 – Discrepancies

MR-3-01 discrepancy	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	0	0	0.00%	0	0	0.00%	0.00001	0
MR-3-01-2120	0	0	0.00%	0	0	0.00%	0.00002	0
MR-3-01-2341	0	0	0.00%	0	0	0.00%		
MR-3-01-3144	0	0	0.00%	0	0	0.00%	0.00003	0
MR-3-01-3145	0	0	0.00%	0	0	0.00%	-5.21372	0
MR-3-01-3341	0	0	0.00%	40	150	0.02%	0.00167	0
MR-3-01-3342	0	0	0.00%	40	150	0.02%	-0.00463	0
MR-3-01-3343	0	0	0.00%	0	0	0.00%		
MR-3-01-3345				0	0	0.00%		
MR-3-01-3550	0	0	0.00%	40	150	0.02%	-3.18170	0

The following 3 tables provide the results of DCI's MR-3-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-68 – MR-3-01 % Missed Repair Appointments - Loop – June 2003 – DCI Calculations

| MR-3-01 DCI | CLEC | | | Retail | | | Stat. | Compliance |
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	73	217	33.64%	2591	7009	36.97%	1.07269	0
MR-3-01-2120	41	230	17.83%	14860	50646	29.34%	4.08611	0
MR-3-01-2341	2	5	40.00%	61	128	47.66%		
MR-3-01-3144	343	1012	33.89%	2591	7009	36.97%	1.93933	0
MR-3-01-3145	592	4092	14.47%	14860	50646	29.34%	20.09986	0
MR-3-01-3341	2	16	12.50%	17512	57783	30.31%	1.96579	0
MR-3-01-3342	14	119	11.76%	17512	57783	30.31%	4.39657	0
MR-3-01-3343	3	4	75.00%	76	174	43.68%		
MR-3-01-3345				76	174	43.68%		
MR-3-01-3550	149	1127	13.22%	17451	57655	30.27%	12.33671	0

Table D-69 – MR-3-01 % Missed Repair Appointments - Loop – June 2003 – C2C Reported Results

| MR-3-01 C2C | CLEC | | | Retail | | | Stat. | Compliance |
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	73	217	33.64%	2591	7009	36.97%	1.07265	0
MR-3-01-2120	41	230	17.83%	14860	50646	29.34%	4.08855	0
MR-3-01-2341	2	5	40.00%	61	128	47.66%		
MR-3-01-3144	343	1012	33.89%	2591	7009	36.97%	1.93935	0
MR-3-01-3145	592	4092	14.47%	14860	50646	29.34%	5	0
MR-3-01-3341	2	16	12.50%	17562	57951	30.30%	1.96555	0
MR-3-01-3342	14	119	11.76%	17562	57951	30.30%	5	0
MR-3-01-3343	3	4	75.00%	76	174	43.68%		
MR-3-01-3345				76	174	43.68%		
MR-3-01-3550	149	1127	13.22%	17501	57823	30.27%	5	0

Table D-70 – MR-3-01 % Missed Repair Appointments - Loop – June 2003 – Discrepancies

| MR-3-01 discrepancy | CLEC | | | Retail | | | Stat. | Compliance |
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-01-2110	0	0	0.00%	0	0	0.00%	-0.00004	0
MR-3-01-2120	0	0	0.00%	0	0	0.00%	0.00244	0
MR-3-01-2341	0	0	0.00%	0	0	0.00%		
MR-3-01-3144	0	0	0.00%	0	0	0.00%	0.00002	0
MR-3-01-3145	0	0	0.00%	0	0	0.00%	-15.09986	0
MR-3-01-3341	0	0	0.00%	50	168	0.00%	-0.00024	0
MR-3-01-3342	0	0	0.00%	50	168	0.00%	0.60343	0
MR-3-01-3343	0	0	0.00%	0	0	0.00%		
MR-3-01-3345				0	0	0.00%		
MR-3-01-3550	0	0	0.00%	50	168	0.00%	-7.33671	0

The following 3 tables provide the results of DCI's MR-3-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-71 – MR-3-02 % Missed Repair Appointments - Central Office – April 2003 – DCI Calculations

MR-3-02 DCI	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	3	21	14.29%	98	971	10.09%	-0.35163	
MR-3-02-2120	0	14	0.00%	244	3382	7.21%	1.04120	0
MR-3-02-2341	0	1	0.00%	26	92	28.26%		0
MR-3-02-3144	8	95	8.42%	98	971	10.09%	0.67816	0
MR-3-02-3145	12	257	4.67%	244	3382	7.21%	1.73377	0
MR-3-02-3341	0	5	0.00%	368	4445	8.28%		
MR-3-02-3342	1	13	7.69%	368	4445	8.28%	0.45453	0
MR-3-02-3343	0	4	0.00%	41	135	30.37%		
MR-3-02-3345				41	135	30.37%		
MR-3-02-3550	1	34	2.94%	342	4353	7.86%	1.53732	0

Table D-72 – MR-3-02 % Missed Repair Appointments - Central Office – April 2003 – C2C Reported Results

MR-3-02 C2C	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	3	21	14.29%	98	971	10.09%	-0.35155	
MR-3-02-2120	0	14	0.00%	244	3382	7.21%	5	0
MR-3-02-2341	0	1	0.00%	26	92	28.26%		0
MR-3-02-3144	8	95	8.42%	98	971	10.09%	0.67815	0
MR-3-02-3145	12	257	4.67%	244	3382	7.21%	1.73375	0
MR-3-02-3341	0	5	0.00%	370	4454	8.31%		
MR-3-02-3342	1	13	7.69%	370	4454	8.31%	0.45815	0
MR-3-02-3343	0	4	0.00%	41	135	30.37%		
MR-3-02-3345				41	135	30.37%		
MR-3-02-3550	1	23	4.35%	344	4362	7.89%	1.03165	0

Table D-73 – MR-3-02 % Missed Repair Appointments - Central Office – April 2003 – Discrepancies

MR-3-02 discrepancy	CLEC			Retail			Stat.	Compliance
April 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	0	0	0.00%	0	0	0.00%	0.00008	0
MR-3-02-2120	0	0	0.00%	0	0	0.00%	3.95880	0
MR-3-02-2341	0	0	0.00%	0	0	0.00%		
MR-3-02-3144	0	0	0.00%	0	0	0.00%	-0.00001	0
MR-3-02-3145	0	0	0.00%	0	0	0.00%	-0.00002	0
MR-3-02-3341	0	0	0.00%	2	9	0.03%		
MR-3-02-3342	0	0	0.00%	2	9	0.03%	0.00362	0
MR-3-02-3343	0	0	0.00%	0	0	0.00%		
MR-3-02-3345				0	0	0.00%		
MR-3-02-3550	0	-11	1.41%	2	9	0.03%	-0.50567	0

The following 3 tables provide the results of DCI's MR-3-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-74 – MR-3-02 % Missed Repair Appointments - Central Office – May 2003 – DCI Calculations

MR-3-02 DCI	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	0	23	0.00%	123	1013	12.14%	1.76298	0
MR-3-02-2120	0	15	0.00%	199	3527	5.64%	0.94506	0
MR-3-02-2341	0	5	0.00%	17	65	26.15%		
MR-3-02-3144	8	84	9.52%	123	1013	12.14%	0.87860	0
MR-3-02-3145	11	179	6.15%	199	3527	5.64%	-0.16214	0
MR-3-02-3341	0	1	0.00%	339	4605	7.36%		
MR-3-02-3342	1	14	7.14%	339	4605	7.36%	0.40612	0
MR-3-02-3343	3	8	37.50%	25	103	24.27%	-0.45591	0
MR-3-02-3345				25	103	24.27%		
MR-3-02-3550	6	47	12.77%	322	4540	7.09%	-1.19626	-1

Table D-75 – MR-3-02 % Missed Repair Appointments - Central Office – May 2003 – C2C Reported Results

MR-3-02 C2C	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	0	23	0.00%	123	1013	12.14%	5	0
MR-3-02-2120	0	15	0.00%	199	3527	5.64%	5	0
MR-3-02-2341	0	5	0.00%	17	65	26.15%		
MR-3-02-3144	8	84	9.52%	123	1013	12.14%	0.87865	0
MR-3-02-3145	11	179	6.15%	199	3527	5.64%	-0.16205	0
MR-3-02-3341	0	1	0.00%	340	4608	7.38%		
MR-3-02-3342	1	14	7.14%	340	4608	7.38%	0.40855	0
MR-3-02-3343	3	8	37.50%	25	103	24.27%	-0.45585	0
MR-3-02-3345				25	103	24.27%		
MR-3-02-3550	6	37	16.22%	323	4543	7.11%	-1.68505	-2

Table D-76 – MR-3-02 % Missed Repair Appointments - Central Office – May 2003 – Discrepancies

MR-3-02 discrepancy	CLEC			Retail			Stat.	Compliance
May 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	0	0	0.00%	0	0	0.00%	3.23702	0
MR-3-02-2120	0	0	0.00%	0	0	0.00%	4.05494	0
MR-3-02-2341	0	0	0.00%	0	0	0.00%		
MR-3-02-3144	0	0	0.00%	0	0	0.00%	0.00005	0
MR-3-02-3145	0	0	0.00%	0	0	0.00%	0.00009	0
MR-3-02-3341	0	0	0.00%	1	3	0.02%		
MR-3-02-3342	0	0	0.00%	1	3	0.02%	0.00243	0
MR-3-02-3343	0	0	0.00%	0	0	0.00%	0.00006	0
MR-3-02-3345				0	0	0.00%		
MR-3-02-3550	0	-10	3.45%	1	3	0.02%	-0.48879	-1

The following 3 tables provide the results of DCI's MR-3-02 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-77 – MR-3-02 % Missed Repair Appointments - Central Office – June 2003 – DCI Calculations

MR-3-02 DCI	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	2	22	9.09%	98	965	10.16%	0.44359	0
MR-3-02-2120	0	3	0.00%	363	3630	10.00%		
MR-3-02-2341				31	87	35.63%		
MR-3-02-3144	10	71	14.08%	98	965	10.16%	-0.85892	-1
MR-3-02-3145	11	173	6.36%	363	3630	10.00%	1.77854	0
MR-3-02-3341				492	4682	10.51%		
MR-3-02-3342	3	15	20.00%	492	4682	10.51%	-0.82404	-1
MR-3-02-3343	2	10	20.00%	58	180	32.22%	1.17727	0
MR-3-02-3345	0	1	0.00%	58	180	32.22%		
MR-3-02-3550	6	35	17.14%	461	4595	10.03%	-1.10382	-1

Table D-78 – MR-3-02 % Missed Repair Appointments - Central Office – June 2003 – C2C Reported Results

MR-3-02 C2C	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	2	22	9.09%	98	965	10.16%	0.44355	0
MR-3-02-2120	0	3	0.00%	363	3630	10.00%		
MR-3-02-2341				31	87	35.63%		
MR-3-02-3144	10	71	14.08%	98	965	10.16%	-0.85885	-1
MR-3-02-3145	11	173	6.36%	363	3630	10.00%	1.77855	0
MR-3-02-3341				493	4685	10.52%		
MR-3-02-3342	3	15	20.00%	493	4685	10.52%	-0.82185	0
MR-3-02-3343	2	10	20.00%	58	180	32.22%	1.17725	0
MR-3-02-3345	0	1	0.00%	58	180	32.22%		
MR-3-02-3550	6	24	25.00%	462	4598	10.05%	-1.89795	-2

Table D-79 – MR-3-02 % Missed Repair Appointments - Central Office – June 2003 – Discrepancies

MR-3-02 discrepancy	CLEC			Retail			Stat.	Compliance
June 2003	Num	Denom	Result	Num	Denom	Result	Score	Score
MR-3-02-2110	0	0	0.00%	0	0	0.00%	-0.00004	0
MR-3-02-2120	0	0	0.00%	0	0	0.00%		
MR-3-02-2341				0	0	0.00%		
MR-3-02-3144	0	0	0.00%	0	0	0.00%	0.00007	0
MR-3-02-3145	0	0	0.00%	0	0	0.00%	0.00001	0
MR-3-02-3341				1	3	0.01%		
MR-3-02-3342	0	0	0.00%	1	3	0.01%	0.00219	1
MR-3-02-3343	0	0	0.00%	0	0	0.00%	-0.00002	0
MR-3-02-3345	0	0	0.00%	0	0	0.00%		
MR-3-02-3550	0	-11	7.86%	1	3	0.02%	-0.79413	-1

The following 3 tables provide the results of DCI's MR-3-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-80 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – April 2003 – DCI Calculations

MR-3-03 DCI	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	20	269	7.43%	2371	28108	8.44%	0.58757	0
MR-3-03-2341	2	14	14.29%	83	414	20.05%	0.52967	0
MR-3-03-3140	193	2971	6.50%	2371	28108	8.44%	3.61692	0
MR-3-03-3341	1	23	4.35%	2454	28522	8.60%	0.72759	0
MR-3-03-3342	7	118	5.93%	2454	28522	8.60%	1.03280	0
MR-3-03-3343	10	37	27.03%	645	2258	28.57%	0.20544	0
MR-3-03-3345	0	4	0.00%	645	2258	28.57%		
MR-3-03-3550	32	648	4.94%	2371	28108	8.44%	3.16683	0

Table D-81 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – April 2003 – C2C Reported Results

MR-3-03 C2C	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	20	269	7.43%					
MR-3-03-2341	2	14	14.29%					
MR-3-03-3140	193	2971	6.50%					
MR-3-03-3341	1	23	4.35%					
MR-3-03-3342	7	118	5.93%					
MR-3-03-3343	10	37	27.03%					
MR-3-03-3345	0	4	0.00%					
MR-3-03-3550	32	648	4.94%					

Table D-82 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – April 2003 – Discrepancies

MR-3-03 discrepancy	CLEC			Retail			Stat. Score	Compliance Score
April 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	0	0	0.00%					
MR-3-03-2341	0	0	0.00%					
MR-3-03-3140	0	0	0.00%					
MR-3-03-3341	0	0	0.00%					
MR-3-03-3342	0	0	0.00%					
MR-3-03-3343	0	0	0.00%					
MR-3-03-3345	0	0	0.00%					
MR-3-03-3550	0	0	0.00%					

The following 3 tables provide the results of DCI's MR-3-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-83 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – May 2003 – DCI Calculations

MR-3-03 DCI May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	26	264	9.85%	2494	31515	7.91%	-1.15968	-1
MR-3-03-2341	3	18	16.67%	77	417	18.47%	0.19255	0
MR-3-03-3140	234	3439	6.80%	2494	31515	7.91%	2.28835	0
MR-3-03-3341	0	14	0.00%	2571	31932	8.05%	1.10697	0
MR-3-03-3342	8	108	7.41%	2571	31932	8.05%	0.24559	0
MR-3-03-3343	10	54	18.52%	446	2100	21.24%	0.48247	0
MR-3-03-3345				446	2100	21.24%		
MR-3-03-3550	27	724	3.73%	2494	31515	7.91%	4.12367	0

Table D-84 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – May 2003 – C2C Reported Results

MR-3-03 C2C May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	26	264	9.85%					
MR-3-03-2341	3	18	16.67%					
MR-3-03-3140	234	3439	6.80%					
MR-3-03-3341	0	14	0.00%					
MR-3-03-3342	8	108	7.41%					
MR-3-03-3343	10	54	18.52%					
MR-3-03-3345								
MR-3-03-3550	27	724	3.73%					

Table D-85 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – May 2003 – Discrepancies

MR-3-03 discrepancy May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	0	0	0.00%					
MR-3-03-2341	0	0	0.00%					
MR-3-03-3140	0	0	0.00%					
MR-3-03-3341	0	0	0.00%					
MR-3-03-3342	0	0	0.00%					
MR-3-03-3343	0	0	0.00%					
MR-3-03-3345								
MR-3-03-3550	0	0	0.00%					

The following 3 tables provide the results of DCI's MR-3-03 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-86 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – June 2003 – DCI Calculations

MR-3-03 DCI	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	39	337	11.57%	5369	41334	12.99%	0.77041	0
MR-3-03-2341	2	6	33.33%	99	445	22.25%	-0.64856	0
MR-3-03-3140	377	4562	8.26%	5369	41334	12.99%	9.00953	0
MR-3-03-3341	0	10	0.00%	5468	41779	13.09%	1.22700	0
MR-3-03-3342	3	130	2.31%	5468	41779	13.09%	3.63873	0
MR-3-03-3343	21	97	21.65%	633	2508	25.24%	0.79861	0
MR-3-03-3345	1	11	9.09%	633	2508	25.24%	1.23026	0
MR-3-03-3550	61	947	6.44%	5369	41334	12.99%	5.92625	0

Table D-87 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – June 2003 – C2C Reported Results

MR-3-03 C2C	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	39	337	11.57%					
MR-3-03-2341	2	6	33.33%					
MR-3-03-3140	377	4562	8.26%					
MR-3-03-3341	0	10	0.00%					
MR-3-03-3342	3	130	2.31%					
MR-3-03-3343	21	97	21.65%					
MR-3-03-3345	1	11	9.09%					
MR-3-03-3550	61	947	6.44%					

Table D-88 – MR-3-03 % Missed Repair Appointments - TOK / FOK / CPE – June 2003 – Discrepancies

MR-3-03 discrepancy	CLEC			Retail			Stat. Score	Compliance Score
June 2003	Num	Denom	Result	Num	Denom	Result		
MR-3-03-2100	0	0	0.00%					
MR-3-03-2341	0	0	0.00%					
MR-3-03-3140	0	0	0.00%					
MR-3-03-3341	0	0	0.00%					
MR-3-03-3342	0	0	0.00%					
MR-3-03-3343	0	0	0.00%					
MR-3-03-3345	0	0	0.00%					
MR-3-03-3550	0	0	0.00%					

MR-4: TROUBLE DURATION INTERVALS

Definition

This metric measures trouble duration intervals. Mean Time to Repair: (MTTR) For Network Trouble reports, the average duration time from trouble receipt to trouble clearance. Includes Disposition Codes 03 (Drop Wire), 04 (Cable) and 05 (Central Office).

For **POTS, Resale and UNE Platform,** type services trouble duration intervals are measured on a *running clock* basis. Run clock includes weekends and holidays.

For **UNE Loop, UNE 2Wire Digital Loop, and UNE 2Wire xDSL Loop** products, trouble duration intervals are measured on a limited *stop clock* basis. A *stop clock* is used when the customer premises access, provided by the CLEC and its end user, is after the offered repair interval. For example*,* if customer premises access is not available on a weekend, the clock stops at 5:00PM Friday, and resumes at 08:00AM Monday. This applies to dispatched out tickets only.

For **Special Services** type services and Interconnection trunks, this is measured on a *stop clock* basis *(e.g., the clock is stopped when CLEC testing is occurring, VZ is awaiting carrier acceptance, or VZ is denied access).*

Out of Service Intervals: The percent of Network Troubles that indicate an Out-Of-Service (OOS) condition which was repaired and cleared more than "y" hours after receipt of trouble report. OOS means that there is no dial tone, the customer cannot call out, or the customer cannot be called. The OOS period commences when the trouble is entered into VZ's designated trouble-reporting interface either directly by the CLEC or by a VZ representative upon notification. OOS intervals are measured using the same duration calculations that apply to Mean Time to Repair metrics for that product listed above. Includes Disposition Codes 03 (Drop Wire), 04 (Cable) and 05 (Central Office). **Note:** "y" equals hours OOS (2, 4, 12 or 24 hours).

For Special Services: An OOS condition is defined as follows: Troubles where, in the initial contact with the customer, it is determined that the circuit is completely OOS and not just an intermittent problem (osi = 'y'), and the trouble completion code indicated that a trouble was found within the Verizon PA network.
Verizon PA uses a single ticket process for misdirected troubles on UNE POTS voice loops (only). This process enables Verizon PA to redirect a trouble to the opposite end of the circuit after a CLEC made an error in the initial dispatch direction..

POTS Troubles

From the POTS Troubles Data Mart, those trouble records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be counted to obtain the MR-4 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results.

For the MR-4 submetrics measuring Mean Time To Repair as a time interval, the numerator contribution of each record counted in the denominator is the trouble duration interval of that record, which is the value of the ACTUAL_DURATION_RUN field, except where the PRODUCT_IND is any of 'DIGITAL', 'LOOP XDSL', 'LOOP', or 'LINESHARE'. In those cases the value of the ACTUAL_DURATION_STOP field is used as the numerator contribution.

For the other MR-4 submetrics, those records counted in the denominator which also satisfy the sub-metric's condition on the trouble duration will be counted in the numerator.

Specials Troubles

From the Specials and Trunks Troubles Data Mart, those trouble records which are not globally excluded and meet the criteria for a reportable sub-metric (see below) and product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), and have a

value of 'S' in the SERVICE_LEVEL_CD field (this excludes Trunks, which are not reported in MR-4), will be counted to obtain the MR-4 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results.

For the MR-4 submetrics measuring Mean Time To Repair as a time interval, the numerator contribution of each record counted in the denominator is the trouble duration interval of that record using a stop-clock, which is the value of the ACTUAL_DURATION_STOP field.

For the other MR-4 submetrics, those records counted in the denominator which also satisfy the sub-metric's condition on the trouble duration will be counted in the numerator.

Sub-Metrics

The following table indicates the number of trouble records which were not globally excluded and are potentially relevant to the MR-4 submetrics, prior to product disaggregation:

Table D-89 – MR-4 SubMetric Eligibility

MR-4 Submetric	Out of Service?	POTS Disposition Codes	Specials & Trunks Trouble Codes	Numerator Criteria
MR-4-01		03, 04, 05	FAC, CO	TTR
MR-4-02		03, 04		TTR
MR-4-03		05		TTR
MR-4-04		03, 04, 05	FAC, CO	TTR <= 24hrs
MR-4-05			FAC, CO	
MR-4-06	Y	03, 04, 05	FAC, CO	TTR > 4 hrs
MR-4-07	Y	03, 04, 05	FAC, CO	TTR > 12 hrs
MR-4-08	Y	03, 04, 05	FAC, CO	TTR > 24 hrs

In the above table, TTR represents the value in the ACTUAL_DURATION_RUN field, except for Specials and those POTS trouble records whose PRODUCT_IND value is any of 'DIGITAL', 'LOOP XDSL', 'LOOP', or 'LINESHARE'. In those cases TTR represents the value in the ACTUAL_DURATION_STOP field. POTS troubles are reported in all MR-4 sub-metrics except MR-4-05 (which is specific to Trunks). Specials are reported only in MR-4-01, MR-4-04, MR-4-06, and MR-4-08. Trunks are reported in MR-4-01, MR-4-04, MR-4-05, MR-4-06, MR-4-07, and MR-4-08.

DCI Recalculation Process

DCI developed a SAS macro to calculate metric results based on a clear specification of the metrics definitions. DCI then implemented the information described in the pages immediately above into three SAS macro invocations, one for POTS troubles, one for Specials troubles, and one for Trunks troubles. DCI then used these results of running this macro to obtain its metric numerators, denominators, and results. DCI also automatically extracted Verizon PA's C2C report results to obtain Verizon PA's calculated numerators, denominators, and results. DCI's recalculation program then combines and compares DCI's results and Verizon PA's C2C reported results in an Excel spreadsheet.

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-4 results for POTS troubles:

SAS Macro Invocation 5: POTS Troubles MR-4 Calculation:

```
data pa.mr_dm_trbl_stop_&report_month;
    set pa.mr_dm_trbl_gen_&report_month;
    if provider_ind in('U','V') and dispatch_out_cnt > 0
            and product_ind in('DIGITAL','LOOP XDSL','LOOP','LINESHARE')
        then actual_duration_run = actual_duration_stop;
run;

%pm_mr( tbl=mr_dm_trbl_stop, yearmm=&report_month, metric=MR-4
    , glblcond=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'P'
    , submetrics=01 02 03 04 06 07 08
    , sbpm_typ=Interval Interval Interval Count Count Count Count
    , eligvars=MR_4_01_elig MR_4_02_elig MR_4_03_elig MR_4_04_elig
                        MR_4_06_elig MR_4_07_elig MR_4_08_elig
    , valuexpr= actual_duration_run/1440
                        :actual_duration_run/1440
                        :actual_duration_run/1440
    , valucond=1:1:1
                        :actual_duration_run le 1440
                        :actual_duration_run gt 240
                        :actual_duration_run gt 720
                        :actual_duration_run gt 1440
    , valuvars= mttr mttr mttr mttr_le_24 oos_gt_4 oos_gt_12 oos_gt_24
    , eligcond= disposition_cd in('03','04','05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :disposition_cd in('03','04') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :disposition_cd in('05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :disposition_cd in('03','04','05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                        :out_of_service_ind eq 'Y' and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                         and disposition_cd in('03','04','05')
                        :out_of_service_ind eq 'Y' and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                         and disposition_cd in('03','04','05')
                        :out_of_service_ind eq 'Y' and clec_id ne 'RTL9' and test_acc_ind eq 'N'
                         and disposition_cd in('03','04','05')
    , eligcmpr= disposition_cd in('03','04','05')
                        :disposition_cd in('03','04')
                        :disposition_cd in('05')
                        :disposition_cd in('03','04','05')
                        :out_of_service_ind eq 'Y' and disposition_cd in('03','04','05')
                        :out_of_service_ind eq 'Y' and disposition_cd in('03','04','05')
                        :out_of_service_ind eq 'Y' and disposition_cd in('03','04','05')
    , sm_catgs= 2100:2341:3140:3341:3550
                        |2110:2120:2341:3144:3145:3341:3342:3343:3345:3550
                        |2110:2120:2341:3144:3145:3341:3342:3343:3345:3550
                        |2100:2341:3140:3341:3342:3343:3345:3550
                        |2100:3140
                        |2100:2341:3140:3341:3342:3343:3345:3550
                        |2110:2120:2341:3144:3145:3341:3342:3343:3345:3550
    , sm_conds= product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        | product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'B'
                        :product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'B'
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        | product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'B'
                        :product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'B'
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'R'
                        :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
```

```
:product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind eq 'R'
:product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
:product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'B'
:product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind eq 'R'
:product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
:product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')

, sm_cmprs= product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
| product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'B'
:product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind eq 'R'
:product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
```

```
                    :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                    :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                    :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
        )
```

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-4 results for Specials troubles:

SAS Macro Invocation 6: Specials Troubles MR-4 Calculation:

```
%pm  mr(   tbl=mr  dm  trbl  spc, yearmm=&report_month, metric=MR-4
        , glblcond=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'S'
                        and access_excl_ind in('B','N')
                        and test_acc_ind eq 'N'
        , submetrics=01 04 06 08
        , sbpm_typ=Interval Count Count Count
        , eligvars=MR_4_01_elig MR_4_04_elig
                        MR_4_06_elig MR_4_08_elig
        , valuexpr= actual_duration_stop/1440
        , valucond=1
                        :actual_duration_stop le 1440
                        :actual_duration_stop gt  240
                        :actual_duration_stop gt 1440
        , valuvars= mttr mttr_le_24 oos_gt_4 oos_gt_24
        , eligcond= trouble_cd in('FAC','CO') and clec_id ne 'RTL9'
                        :trouble_cd in('FAC','CO') and clec_id ne 'RTL9'
                        :out_of_service_ind eq 'Y' and clec_id ne 'RTL9' and trouble_cd in('FAC','CO')
                        :out_of_service_ind eq 'Y' and clec_id ne 'RTL9' and trouble_cd in('FAC','CO')
        , eligcmpr= trouble_cd in('FAC','CO')
                        :trouble_cd in('FAC','CO')
                        :out_of_service_ind eq 'Y' and trouble_cd in('FAC','CO')
                        :out_of_service_ind eq 'Y' and trouble_cd in('FAC','CO')
        , sm_catgs= 2216:2217:3216:3217
                        |2216:2217:3216:3217
                        |2216:2217:3216:3217
                        |2216:2217:3216:3217
        , sm_conds=  ds_level eq 'DS0'      and provider_ind eq 'R'
                        :ds_level in('DS1','DS3') and provider_ind eq 'R'
                        :ds_level eq 'DS0'       and provider_ind eq 'U'
                        :ds_level in('DS1','DS3') and provider_ind eq 'U'
                        | ds_level eq 'DS0'      and provider_ind eq 'R'
                        :ds_level in('DS1','DS3') and provider_ind eq 'R'
                        :ds_level eq 'DS0'       and provider_ind eq 'U'
                        :ds_level in('DS1','DS3') and provider_ind eq 'U'
                        | ds_level eq 'DS0'      and provider_ind eq 'R'
                        :ds_level in('DS1','DS3') and provider_ind eq 'R'
                        :ds_level eq 'DS0'       and provider_ind eq 'U'
                        :ds_level in('DS1','DS3') and provider_ind eq 'U'
                        | ds_level eq 'DS0'      and provider_ind eq 'R'
                        :ds_level in('DS1','DS3') and provider_ind eq 'R'
                        :ds_level eq 'DS0'       and provider_ind eq 'U'
                        :ds_level in('DS1','DS3') and provider_ind eq 'U'

        , sm_cmprs=  ds_level eq 'DS0'      and provider_ind eq 'L'
                        :ds_level in('DS1','DS3') and provider_ind eq 'L'
                        :ds_level eq 'DS0'       and provider_ind eq 'L'
                        :ds_level in('DS1','DS3') and provider_ind eq 'L'
                        | ds_level eq 'DS0'      and provider_ind eq 'L'
                        :ds_level in('DS1','DS3') and provider_ind eq 'L'
                        :ds_level eq 'DS0'       and provider_ind eq 'L'
                        :ds_level in('DS1','DS3') and provider_ind eq 'L'
                        | ds_level eq 'DS0'      and provider_ind eq 'L'
                        :ds_level in('DS1','DS3') and provider_ind eq 'L'
```

```
                    :ds_level eq 'DS0'       and provider_ind eq 'L'
                    :ds_level in('DS1','DS3') and provider_ind eq 'L'
                    | ds_level eq 'DS0'       and provider_ind eq 'L'
                    :ds_level in('DS1','DS3') and provider_ind eq 'L'
                    :ds_level eq 'DS0'       and provider_ind eq 'L'
                    :ds_level in('DS1','DS3') and provider_ind eq 'L'
        )
```

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-4 results for Trunks troubles:

SAS Macro Invocation 7: Trunks Troubles MR-4 Calculation:

```
%pm_mr(  tbl=mr_dm_trbl_spc, yearmm=&report_month, metric=MR-4
        , glblcond=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'M'
                        and access_excl_ind in('B','N')
                        and trouble_cd in('FAC','CO')

        , submetrics=01 04 05 06 07 08
        , sbpm_typ=Interval Count Count Count Count Count
        , eligvars=MR_4_01_elig MR_4_04_elig MR_4_05_elig
                        MR_4_06_elig MR_4_07_elig MR_4_08_elig
        , valuexpr= actual_duration_stop/1440
        , valucond=1
                        :actual_duration_stop le 1440
                        :actual_duration_stop gt  120
                        :actual_duration_stop gt  240
                        :actual_duration_stop gt  720
                        :actual_duration_stop gt 1440
        , valuvars= mttr mttr_le_24 oos_gt_2 oos_gt_4 oos_gt_12 oos_gt_24
        , eligcond= test_acc_ind in('N','V') and provider_ind eq 'U'
                        :test_acc_ind in('N','V') and provider_ind eq 'U'
                        :test_acc_ind in('N','V') and provider_ind eq 'U' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','V') and provider_ind eq 'U' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','V') and provider_ind eq 'U' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','V') and provider_ind eq 'U' and out_of_service_ind eq 'Y'
        , eligcmpr= test_acc_ind in('N','A') and provider_ind eq 'L'
                        :test_acc_ind in('N','A') and provider_ind eq 'L'
                        :test_acc_ind in('N','A') and provider_ind eq 'L' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','A') and provider_ind eq 'L' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','A') and provider_ind eq 'L' and out_of_service_ind eq 'Y'
                        :test_acc_ind in('N','A') and provider_ind eq 'L' and out_of_service_ind eq 'Y'
        , sm_catgs= 5000|5000|5000|5000|5000|5000
        , sm_conds= 1|1|1|1|1|1
        , sm_cmprs= 1|1|1|1|1|1
        )
```

DCI Recalculation Results

Table D-90 provides the results of DCI's MR-4 metric results recalculation and compares Verizon PA's C2C reported results with DCI's results for the month of April 2003.

Table D-91 provides the results of DCI's MR-4 metric results recalculation and compares Verizon PA's C2C reported results with DCI's results for the month of May 2003.

Table D-92 provides the results of DCI's MR-4 metric results recalculation and compares Verizon PA's C2C reported results with DCI's results for the month of June 2003.

Table D-90 – MR-4 Trouble Duration Intervals – April 2003

April 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance
SubMetric ID	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-01-2100	479	19:44:24	45432	25:34:01	4.96475	0	479	19:44:24	45570	25:38:56	4.99515	0	0	0:00:00	138	0:04:55	0.03040	0
MR-4-01-2216	6	6:55:00	412	5:00:54	-0.88492	-1	6	6:55:00	412	5:00:54	-0.89895	-1	0	0:00:00	0	0:00:00	-0.01403	0
MR-4-01-2217			186	5:01:34					186	5:01:34					0	0:00:00		
MR-4-01-2341	6	28:59:40	246	21:30:07	-0.57120	0	6	28:59:40	246	21:30:07	-0.57115	0	0	0:00:00	0	0:00:00	0.00005	0
MR-4-01-3140	3664	24:10:47	45432	25:34:01	3.16140	0	3664	24:10:47	45570	25:38:56	3.32225	0	0	0:00:00	138	0:04:55	0.16085	0
MR-4-01-3216			412	5:00:54					412	5:00:54					0	0:00:00		
MR-4-01-3217	124	5:00:10	186	5:01:34	0.04019	0	124	5:00:10	186	5:01:34	0.04025	0	0	0:00:00	0	0:00:00	0.00006	0
MR-4-01-3341	23	16:44:57	45678	25:32:42	1.64796	0	23	16:44:57	45816	25:37:36			0	0:00:00	138	0:04:53		
MR-4-01-3550	1005	17:56:47	45432	25:34:01	9.35160	0	1005	17:56:47	45570	25:38:56	9.37825	0	0	0:00:00	138	0:04:55	0.02665	0
MR-4-01-5000																		
MR-4-02-2110	227	12:32:20	5798	13:05:31	0.46924	0	227	12:32:20	5798	13:05:31	0.46925	0	0	0:00:00	0	0:00:00	0.00001	0
MR-4-02-2120	217	28:09:31	35281	29:23:34	0.69392	0	217	28:09:31	35281	29:23:34	0.69395	0	0	0:00:00	0	0:00:00	0.00003	0
MR-4-02-2341	5	31:27:00	154	25:45:39			5	31:27:00	154	25:45:39			0	0:00:00	0	0:00:00		
MR-4-02-3144	623	13:36:32	5798	13:05:31	-0.70405	0	623	13:36:32	5798	13:05:31	-0.70405	0	0	0:00:00	0	0:00:00	0.00000	0
MR-4-02-3145	2689	28:08:13	35281	29:23:34	2.40303	0	2689	28:08:13	35281	29:23:34	2.40315	0	0	0:00:00	0	0:00:00	0.00012	0
MR-4-02-3341	18	20:49:30	41233	27:05:14	1.03155	0	18	20:49:30	41362	27:10:17			0	0:00:00	129	0:05:04		
MR-4-02-3342	82	16:56:17	41233	27:05:14	3.56558	0	82	16:56:17	41362	27:10:17	3.56585	0	0	0:00:00	129	0:05:04	0.00027	0
MR-4-02-3343	5	15:12:12	163	30:58:27			5	15:12:12	163	30:58:27			0	0:00:00	0	0:00:00		
MR-4-02-3345			163	30:58:27					163	30:58:27					0	0:00:00		
MR-4-02-3550	967	18:11:11	41079	27:05:31	10.64622	0	967	18:11:11	41208	27:10:36	10.65925	0	0	0:00:00	129	0:05:05	0.01303	0
MR-4-03-2110	21	10:09:26	971	7:11:54	-0.73907	0	21	10:09:26	971	7:11:54	-0.73905	0	0	0:00:00	0	0:00:00	0.00002	0
MR-4-03-2120	14	20:23:34	3382	12:18:56	-1.62210	-1	14	20:23:34	3382	12:18:56	-1.62205	-1	0	0:00:00	0	0:00:00	0.00005	0
MR-4-03-2341	1	16:43:00	92	14:22:23			1	16:43:00	92	14:22:23			0	0:00:00	0	0:00:00		
MR-4-03-3144	95	5:43:44	971	7:11:54	0.75315	0	95	5:43:44	971	7:11:54	0.75325	0	0	0:00:00	0	0:00:00	0.00010	0
MR-4-03-3145	257	15:13:06	3382	12:18:56	-2.41275	-2	257	15:13:06	3382	12:18:56	-2.41265	-2	0	0:00:00	0	0:00:00	0.00010	0
MR-4-03-3341	5	2:04:36	4445	11:14:25			5	2:04:36	4454	11:16:47			0	0:00:00	9	0:02:22		
MR-4-03-3342	13	11:35:46	4445	11:14:25	-0.06822	0	13	11:35:46	4454	11:16:47	-0.06035	0	0	0:00:00	9	0:02:22	0.00787	0
MR-4-03-3343	4	20:30:30	135	41:35:05			4	20:30:30	135	41:35:05			0	0:00:00	0	0:00:00		
MR-4-03-3345			135	41:35:05					135	41:35:05					0	0:00:00		
MR-4-03-3550	38	11:50:33	4353	11:10:27	-0.22037	0	23	11:39:08	4362	11:12:53	-0.11195	0	-15	-0:11:25	9	0:02:26	0.10842	0
MR-4-04-2100	479	71.40%	45432	60.47%	4.86637	0	479	71.40%	45570	60.42%	5	0	0	0.00%	138	-0.05%	0.13363	0
MR-4-04-2216	6	100.00%	412	98.06%	0.34221	0	6	100.00%	412	98.06%	5	0	0	0.00%	0	0.00%	4.65779	0
MR-4-04-2217			186	98.39%					186	98.39%					0	0.00%		
MR-4-04-2341	6	66.67%	246	71.95%	0.10397	0	6	66.67%	246	71.95%	0.10395	0	0	0.00%	0	0.00%	-0.00002	0
MR-4-04-3140	3664	60.94%	45432	60.47%	0.58115	0	3664	60.94%	45570	60.42%	0.64245	0	0	0.00%	138	-0.05%	0.06130	0
MR-4-04-3216			412	98.06%					412	98.06%					0	0.00%		
MR-4-04-3217	124	100.00%	186	98.39%	1.10439	0	124	100.00%	186	98.39%	5	0	0	0.00%	0	0.00%	3.89561	0
MR-4-04-3341	23	73.91%	45678	60.53%	1.55621	0	23	73.91%	45816	60.48%	1.56115	0	0	0.00%	138	-0.05%	0.00494	0

Table D-90 – MR-4 Trouble Duration Intervals – April 2003

| April 2003 | DCI calculation | | | | | | Verizon C2C Reported Results | | | | | | Discrepancy | | | | | |
| SubMetric ID | CLEC | | Retail | | Stat. Score | Compliance | CLEC | | Retail | | Stat. Score | Compliance | CLEC | | Retail | | Stat. Score | Compliance |
	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-04-3342	95	81.05%	45678	60.53%	4.40903	0	95	81.05%	45816	60.48%	4.41445	0	0	0.00%	138	-0.05%	0.00542	0
MR-4-04-3343	9	77.78%	298	45.64%	2.29998	0	9	77.78%	298	56.04%	1.69335	0	0	0.00%	0	10.40%	-0.60663	0
MR-4-04-3345			298	45.64%					298	56.04%					0	10.40%		
MR-4-04-3550	1005	75.32%	45432	60.47%	9.52594	0	1005	75.32%	45570	60.42%	5	0	0	0.00%	138	-0.05%	-4.52594	0
MR-4-04-5000																		
MR-4-05-5000																		
MR-4-06-2100	342	75.73%	28912	83.39%	3.66698	0	342	75.73%	28996	83.41%	3.67755	0	0	0.00%	84	0.02%	0.01057	0
MR-4-06-2216	3	66.67%	411	43.07%			3	66.67%	411	43.07%			0	0.00%	0	0.00%		
MR-4-06-2217			186	45.70%					186	45.70%					0	0.00%		
MR-4-06-3140	2584	85.80%	28912	83.39%	-3.18988	-2	2584	85.80%	28996	83.41%	-3.16375	-2	0	0.00%	84	0.02%	0.02613	0
MR-4-06-3216			411	43.07%					411	43.07%					0	0.00%		
MR-4-06-3217	104	54.81%	186	45.70%	-1.36596	-1	104	54.81%	186	45.70%	-1.36585	-1	0	0.00%	0	0.00%	0.00011	0
MR-4-06-5000																		
MR-4-07-2100	342	62.57%	28912	69.88%	2.93484	0	342	62.57%	28996	69.94%	2.95655	0	0	0.00%	84	0.05%	0.02171	0
MR-4-07-2341	3	66.67%	176	55.68%			3	66.67%	176	55.68%			0	0.00%	0	0.00%		
MR-4-07-3140	2584	74.69%	28912	69.88%	-5.10210	-2	2584	74.69%	28996	69.94%	-5	-2	0	0.00%	84	0.05%	0.10210	0
MR-4-07-3341	21	38.10%	29088	69.80%	3.23256	0	21	38.10%	29172	69.85%	3.23805	0	0	0.00%	84	0.05%	0.00549	0
MR-4-07-3342	82	54.88%	29088	69.80%	2.96100	0	82	54.88%	29172	69.85%	2.97175	0	0	0.00%	84	0.05%	0.01075	0
MR-4-07-3343	8	50.00%	282	81.91%	2.43960	0	8	50.00%	282	72.70%	1.73825	0	0	0.00%	0	-9.22%	-0.70135	0
MR-4-07-3345			282	81.91%					282	72.70%					0	-9.22%		
MR-4-07-3550	687	62.01%	28912	69.88%	4.39562	0	687	62.01%	28996	69.94%	4.43315	0	0	0.00%	84	0.05%	0.03753	0
MR-4-07-5000																		
MR-4-08-2110	168	10.12%	4187	12.59%	1.07294	0	168	10.12%	4187	12.59%	1.07295	0	0	0.00%	0	0.00%	0.00001	0
MR-4-08-2120	174	45.40%	24725	42.12%	-0.79823	0	174	45.40%	24725	42.12%	-0.79815	0	0	0.00%	0	0.00%	0.00008	0
MR-4-08-2216	3	0.00%	411	1.95%			3	0.00%	411	1.95%			0	0.00%	0	0.00%		
MR-4-08-2217			186	1.61%					186	1.61%					0	0.00%		
MR-4-08-2341	3	33.33%	176	30.68%			3	33.33%	176	30.68%			0	0.00%	0	0.00%		
MR-4-08-3144	463	10.37%	4187	12.59%	1.46944	0	463	10.37%	4187	12.59%	1.46945	0	0	0.00%	0	0.00%	0.00001	0
MR-4-08-3145	2121	45.12%	24725	42.12%	-2.65592	-2	2121	45.12%	24725	42.12%	-2.65585	-2	0	0.00%	0	0.00%	0.00007	0
MR-4-08-3216			411	1.95%					411	1.95%					0	0.00%		
MR-4-08-3217	104	0.00%	186	1.61%	1.04571	0	104	0.00%	186	1.61%	5	0	0	0.00%	0	0.00%	3.95429	0
MR-4-08-3341	21	23.81%	29088	37.80%	1.58560	0	21	23.81%	29172	37.87%	1.59165	0	0	0.00%	84	0.07%	0.00605	0
MR-4-08-3342	82	20.73%	29088	37.80%	3.44081	0	82	20.73%	29172	37.87%	3.45285	0	0	0.00%	84	0.07%	0.01204	0
MR-4-08-3343	8	25.00%	282	53.55%	1.99306	0	8	25.00%	282	44.68%	1.50075	0	0	0.00%	0	-8.87%	-0.49231	0
MR-4-08-3345			282	53.55%					282	44.68%					0	-8.87%		
MR-4-08-3550	687	21.54%	28912	37.84%	8.70595	0	687	21.54%	28996	37.91%	5	0	0	0.00%	84	0.07%	-3.70595	0
MR-4-08-5000																		

Table D-91 – MR-4 Trouble Duration Intervals – May 2003

May 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance
SubMetric ID	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-01-2100	407	21:13:27	50193	26:52:48	4.33188	0	407	21:13:27	50346	26:56:17	4.35325	0	0	0:00:00	153	0:03:29	0.02137	0
MR-4-01-2216	8	3:30:15	434	4:43:38	0.82198	0	8	3:30:15	434	4:43:38		0	0	0:00:00	0	0:00:00		0
MR-4-01-2217	2	1:54:00	235	4:23:28			2	1:54:00	235	4:23:28			0	0:00:00	0	0:00:00		
MR-4-01-2341	10	16:52:12	196	23:20:37	0.52033	0	10	16:52:12	196	23:20:37		0	0	0:00:00	0	0:00:00		0
MR-4-01-3140	4213	26:08:07	50193	26:52:48	1.77004	0	4213	26:08:07	50346	26:56:17	1.89825	0	0	0:00:00	153	0:03:29	0.12821	0
MR-4-01-3216	1	3:51:00	434	4:43:38			1	3:51:00	434	4:43:38			0	0:00:00	0	0:00:00		
MR-4-01-3217	148	4:10:36	235	4:23:28	0.55257	0	148	4:10:36	235	4:23:28	0.55265	0	0	0:00:00	0	0:00:00	0.00008	0
MR-4-01-3341	20	23:20:12	50389	26:51:58	0.60024	0	20	23:20:12	50542	26:55:27		0	0	0:00:00	153	0:03:28		0
MR-4-01-3550	1058	18:04:03	50193	26:52:48	10.81323	0	1058	18:04:03	50346	26:56:17	10.82715	0	0	0:00:00	153	0:03:29	0.01392	0
MR-4-01-5000			9	0:57:33					9	0:57:33					0	0:00:00		
MR-4-02-2110	186	12:34:25	6086	13:45:50	0.82016	0	186	12:34:25	6086	13:45:50	0.82025	0	0	0:00:00	0	0:00:00	0.00009	0
MR-4-02-2120	183	32:29:31	39567	30:49:18	-0.84744	-1	183	32:29:31	39567	30:49:18	-0.84735	-1	0	0:00:00	0	0:00:00	0.00009	0
MR-4-02-2341	5	18:37:24	131	29:49:55			5	18:37:24	131	29:49:55			0	0:00:00	0	0:00:00		
MR-4-02-3144	776	12:57:34	6086	13:45:50	1.08241	0	776	12:57:34	6086	13:45:50	1.08245	0	0	0:00:00	0	0:00:00	0.00004	0
MR-4-02-3145	3174	30:27:18	39567	30:49:18	0.74730	0	3174	30:27:18	39567	30:49:18	0.74735	0	0	0:00:00	0	0:00:00	0.00005	0
MR-4-02-3341	19	23:52:06	45784	28:33:05	0.77067	0	19	23:52:06	45934	28:36:32		0	0	0:00:00	150	0:03:27		0
MR-4-02-3342	69	16:43:57	45784	28:33:05	3.70462	0	69	16:43:57	45934	28:36:32	3.70215	0	0	0:00:00	150	0:03:27	-0.00247	0
MR-4-02-3343	3	64:49:20	170	37:12:52			3	64:49:20	170	37:12:52			0	0:00:00	0	0:00:00		
MR-4-02-3345			170	37:12:52					170	37:12:52					0	0:00:00		
MR-4-02-3550	1006	18:12:03	45653	28:32:52	12.29062	0	1006	18:12:03	45803	28:36:19	12.29065	0	0	0:00:00	150	0:03:28	0.00003	0
MR-4-03-2110	23	5:52:13	1013	6:25:16	0.20905	0	23	5:52:13	1013	6:25:16		0	0	0:00:00	0	0:00:00		0
MR-4-03-2120	15	14:33:56	3527	11:10:12	-0.73761	0	15	14:33:56	3527	11:10:12	-0.73755	0	0	0:00:00	0	0:00:00	0.00006	0
MR-4-03-2341	5	15:07:00	65	10:16:01			5	15:07:00	65	10:16:01			0	0:00:00	0	0:00:00		
MR-4-03-3144	84	5:28:24	1013	6:25:16	0.66800	0	84	5:28:24	1013	6:25:16	0.66805	0	0	0:00:00	0	0:00:00	0.00005	0
MR-4-03-3145	179	16:21:13	3527	11:10:12	-3.80271	-2	179	16:21:13	3527	11:10:12	-3.80265	-2	0	0:00:00	0	0:00:00	0.00006	0
MR-4-03-3341	1	13:14:00	4605	10:06:45			1	13:14:00	4608	10:07:50			0	0:00:00	3	0:01:05		
MR-4-03-3342	14	13:02:21	4605	10:06:45	-0.64948	0	14	13:02:21	4608	10:07:50	-0.64445	0	0	0:00:00	3	0:01:05	0.00503	0
MR-4-03-3343	8	48:58:00	103	24:34:54	-2.74336	-2	8	48:58:00	103	24:34:54	-2.77735	-2	0	0:00:00	0	0:00:00	-0.03399	0
MR-4-03-3345			103	24:34:54					103	24:34:54					0	0:00:00		
MR-4-03-3550	52	15:29:20	4540	10:06:37	-2.28590	-2	37	12:20:10	4543	10:07:43	-0.79145	0	-15	-3:09:10	3	0:01:06	1.49445	2
MR-4-04-2100	407	71.25%	50193	58.97%	5.01576	0	407	71.25%	50346	58.92%	5	0	0	0.00%	153	-0.05%	-0.01576	0
MR-4-04-2216	8	100.00%	434	99.31%	0.23383	0	8	100.00%	434	99.31%	5	0	0	0.00%	0	0.00%	4.76617	0
MR-4-04-2217	2	100.00%	235	99.57%			2	100.00%	235	99.57%			0	0.00%	0	0.00%		
MR-4-04-2341	10	70.00%	196	70.41%	0.28265	0	10	70.00%	196	70.41%	0.28265	0	0	0.00%	0	0.00%	0.00000	0
MR-4-04-3140	4213	58.46%	50193	58.97%	-0.63360	0	4213	58.46%	50346	58.92%	-0.57005	0	0	0.00%	153	-0.05%	0.06355	0
MR-4-04-3216	1	100.00%	434	99.31%			1	100.00%	434	99.31%			0	0.00%	0	0.00%		
MR-4-04-3217	148	100.00%	235	99.57%	0.62296	0	148	100.00%	235	99.57%	5	0	0	0.00%	0	0.00%	4.37704	0
MR-4-04-3341	20	75.00%	50389	59.02%	1.72274	0	20	75.00%	50542	58.97%	1.72715	0	0	0.00%	153	-0.05%	0.00441	0

Table D-91 – MR-4 Trouble Duration Intervals – May 2003

May 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
SubMetric ID	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance
	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-04-3342	83	81.93%	50389	59.02%	4.24031	0	83	81.93%	50542	58.97%	4.61935	0	0	0.00%	153	-0.05%	0.37904	0
MR-4-04-3343	11	27.27%	273	38.10%	-0.38473	0	11	27.27%	273	53.85%	-1.42665	-1	0	0.00%	0	15.75%	-1.04192	-1
MR-4-04-3345			273	38.10%					273	53.85%					0	15.75%		
MR-4-04-3550	1058	76.94%	50193	58.97%	11.75544	0	1058	76.94%	50346	58.92%	5	0	0	0.00%	153	-0.05%	-6.75544	0
MR-4-04-5000			9	100.00%					9	100.00%					0	0.00%		
MR-4-05-5000			9	11.11%					9	11.11%					0	0.00%		
MR-4-06-2100	283	75.62%	32535	83.57%	3.49146	0	283	75.62%	32641	83.61%	3.50705	0	0	0.00%	106	0.03%	0.01559	0
MR-4-06-2216	7	28.57%	434	45.39%	1.28496	0	7	28.57%	434	45.39%	1.28495	0	0	0.00%	0	0.00%	-0.00001	0
MR-4-06-2217	2	0.00%	235	40.43%			2	0.00%	235	40.43%			0	0.00%	0	0.00%		
MR-4-06-3140	3056	85.54%	32535	83.57%	-2.81907	-2	3056	85.54%	32641	83.61%	-2.77445	-2	0	0.00%	106	0.03%	0.04462	0
MR-4-06-3216	1	0.00%	434	45.39%			1	0.00%	434	45.39%			0	0.00%	0	0.00%		
MR-4-06-3217	138	38.41%	235	40.43%	0.49293	0	138	38.41%	235	40.43%	0.49295	0	0	0.00%	0	0.00%	0.00002	0
MR-4-06-5000			9	0.00%					9	0.00%					0	0.00%		
MR-4-07-2100	283	55.48%	32535	69.48%	5.09177	0	283	55.48%	32641	69.53%	5	0	0	0.00%	106	0.05%	-0.09177	0
MR-4-07-2341	6	66.67%	142	54.23%	-0.16564	0	6	66.67%	142	54.23%	-0.16555	0	0	0.00%	0	0.00%	0.00009	0
MR-4-07-3140	3056	74.35%	32535	69.48%	-5.58904	-2	3056	74.35%	32641	69.53%	-5	-2	0	0.00%	106	0.05%	0.58904	0
MR-4-07-3341	16	75.00%	32677	69.41%	-0.17772	0	16	75.00%	32783	69.46%	-0.17295	0	0	0.00%	106	0.05%	0.00477	0
MR-4-07-3342	72	66.67%	32677	69.41%	0.64210	0	72	66.67%	32783	69.46%	0.65205	0	0	0.00%	106	0.05%	0.00995	0
MR-4-07-3343	10	70.00%	267	87.27%	1.85955	0	10	70.00%	267	73.41%	0.63495	0	0	0.00%	0	-13.86%	-1.22460	0
MR-4-07-3345			267	87.27%					267	73.41%					0	-13.86%		
MR-4-07-3550	753	62.15%	32535	69.48%	4.27231	0	753	62.15%	32641	69.53%	4.30275	0	0	0.00%	106	0.05%	0.03044	0
MR-4-07-5000			9	0.00%					9	0.00%					0	0.00%		
MR-4-08-2110	138	10.14%	4521	13.43%	1.26421	0	138	10.14%	4521	13.43%	1.26425	0	0	0.00%	0	0.00%	0.00004	0
MR-4-08-2120	145	47.59%	28014	43.49%	-0.90918	-1	145	47.59%	28014	43.49%	-0.90905	-1	0	0.00%	0	0.00%	0.00013	0
MR-4-08-2216	7	0.00%	434	0.69%	0.21898	0	7	0.00%	434	0.69%	5	0	0	0.00%	0	0.00%	4.78102	0
MR-4-08-2217	2	0.00%	235	0.43%			2	0.00%	235	0.43%			0	0.00%	0	0.00%		
MR-4-08-2341	6	33.33%	142	31.69%	0.30855	0	6	33.33%	142	31.69%	0.30855	0	0	0.00%	0	0.00%	0.00000	0
MR-4-08-3144	556	9.89%	4521	13.43%	2.47215	0	556	9.89%	4521	13.43%	2.47215	0	0	0.00%	0	0.00%	0.00000	0
MR-4-08-3145	2500	47.60%	28014	43.49%	-3.93949	-2	2500	47.60%	28014	43.49%	-3.93935	-2	0	0.00%	0	0.00%	0.00014	0
MR-4-08-3216	1	0.00%	434	0.69%			1	0.00%	434	0.69%			0	0.00%	0	0.00%		
MR-4-08-3217	138	0.00%	235	0.43%	0.60955	0	138	0.00%	235	0.43%	5	0	0	0.00%	0	0.00%	4.39045	0
MR-4-08-3341	16	18.75%	32677	39.28%	2.03264	0	16	18.75%	32783	39.33%	2.03675	0	0	0.00%	106	0.05%	0.00411	0
MR-4-08-3342	72	19.44%	32677	39.28%	3.73860	0	72	19.44%	32783	39.33%	3.74745	0	0	0.00%	106	0.05%	0.00885	0
MR-4-08-3343	10	70.00%	267	62.55%	-0.11706	0	10	70.00%	267	46.82%	-1.11855	-1	0	0.00%	0	-15.73%	-1.00149	-1
MR-4-08-3345			267	62.55%					267	46.82%					0	-15.73%		
MR-4-08-3550	753	23.51%	32535	39.31%	8.77860	0	753	23.51%	32641	39.36%	5	0	0	0.00%	106	0.05%	-3.77860	0
MR-4-08-5000			9	0.00%					9	0.00%					0	0.00%		

Table D-92 – MR-4 Trouble Duration Intervals – June 2003

June 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance	CLEC		Retail		Stat. Score	Compliance
SubMetric ID	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-01-2100	472	23:27:48	62250	35:38:08	8.17780	0	472	23:27:48	62421	35:39:36	8.18655	0	0	0:00:00	171	0:01:28	0.00875	0
MR-4-01-2216	9	7:35:07	475	5:04:19	-1.67649	-2	9	7:35:07	475	5:04:19	-1.70075	-2	0	0:00:00	0	0:00:00	-0.02426	0
MR-4-01-2217			231	4:38:49					231	4:38:49					0	0:00:00		
MR-4-01-2341	5	23:46:12	215	25:15:03			5	23:46:12	215	25:15:03			0	0:00:00	0	0:00:00		
MR-4-01-3140	5348	30:20:31	62250	35:38:08	11.53177	0	5348	30:20:31	62421	35:39:36	11.57555	0	0	0:00:00	171	0:01:28	0.04378	0
MR-4-01-3216			475	5:04:19					475	5:04:19					0	0:00:00		
MR-4-01-3217	182	5:15:31	231	4:38:49	-1.45105	-1	182	5:15:31	231	4:38:49	-1.45105	-1	0	0:00:00	0	0:00:00	0.00000	0
MR-4-01-3341	16	25:40:53	62465	35:36:00	1.23093	0	16	25:40:53	62636	35:37:28		0	0	0:00:00	171	0:01:28		0
MR-4-01-3550	1167	18:55:06	62250	35:38:08	17.56306	0	1167	18:55:06	62421	35:39:36	17.57265	0	0	0:00:00	171	0:01:28	0.00959	0
MR-4-01-5000	1	0:36:00	2	0:27:30			1	0:36:00	2	0:27:30			0	0:00:00	0	0:00:00		
MR-4-02-2110	217	15:28:09	7009	15:40:06	0.13188	0	217	15:28:09	7009	15:40:06	0.13195	0	0	0:00:00	0	0:00:00	0.00007	0
MR-4-02-2120	230	32:22:54	50646	40:24:34	3.80263	0	230	32:22:54	50646	40:24:34	3.80265	0	0	0:00:00	0	0:00:00	0.00002	0
MR-4-02-2341	5	23:46:12	128	26:45:55			5	23:46:12	128	26:45:55			0	0:00:00	0	0:00:00		
MR-4-02-3144	1012	14:24:48	7009	15:40:06	1.70448	0	1012	14:24:48	7009	15:40:06	1.70455	0	0	0:00:00	0	0:00:00	0.00007	0
MR-4-02-3145	4092	35:07:24	50646	40:24:34	10.18191	0	4092	35:07:24	50646	40:24:34	10.18205	0	0	0:00:00	0	0:00:00	0.00014	0
MR-4-02-3341	16	25:40:53	57783	37:22:42	1.46498	0	16	25:40:53	57951	37:24:01		0	0	0:00:00	168	0:01:19		0
MR-4-02-3342	119	22:07:50	57783	37:22:42	5.20338	0	119	22:07:50	57951	37:24:01	5.20555	0	0	0:00:00	168	0:01:19	0.00217	0
MR-4-02-3343	4	45:41:00	174	38:00:49			4	45:41:00	174	38:00:49			0	0:00:00	0	0:00:00		
MR-4-02-3345			174	38:00:49					174	38:00:49					0	0:00:00		
MR-4-02-3550	1127	18:58:03	57655	37:24:07	19.18985	0	1127	18:58:03	57823	37:25:26	19.19355	0	0	0:00:00	168	0:01:19	0.00370	0
MR-4-03-2110	22	8:51:46	965	7:39:11	-0.19903	0	22	8:51:46	965	7:39:11	-0.19895	0	0	0:00:00	0	0:00:00	0.00008	0
MR-4-03-2120	3	25:02:00	3630	15:01:19			3	25:02:00	3630	15:01:19			0	0:00:00	0	0:00:00		
MR-4-03-2341			87	23:01:22					87	23:01:22					0	0:00:00		
MR-4-03-3144	71	6:50:08	965	7:39:11	0.23591	0	71	6:50:08	965	7:39:11	0.23595	0	0	0:00:00	0	0:00:00	0.00004	0
MR-4-03-3145	173	20:03:56	3630	15:01:19	-2.44443	-2	173	20:03:56	3630	15:01:19	-2.44435	-2	0	0:00:00	0	0:00:00	0.00008	0
MR-4-03-3341			4682	13:39:07					4685	13:39:23					3	0:00:16		
MR-4-03-3342	15	12:22:04	4682	13:39:07	0.18122	0	15	12:22:04	4685	13:39:23		0	0	0:00:00	3	0:00:16		0
MR-4-03-3343	10	13:14:18	180	33:02:44	1.44699	0	10	13:14:18	180	33:02:44		0	0	0:00:00	0	0:00:00		
MR-4-03-3345	1	4:39:00	180	33:02:44			1	4:39:00	180	33:02:44			0	0:00:00	0	0:00:00		
MR-4-03-3550	40	17:31:51	4595	13:28:28	-0.94474	-1	24	19:25:12	4598	13:28:45	-1.07375	-1	-16	1:53:22	3	0:00:17	-0.12901	0
MR-4-04-2100	472	63.56%	62250	45.79%	7.71947	0	472	63.56%	62421	45.77%	5	0	0	0.00%	171	-0.02%	-2.71947	0
MR-4-04-2216	9	100.00%	475	99.58%	0.19325	0	9	100.00%	475	99.58%	5	0	0	0.00%	0	0.00%	4.80675	0
MR-4-04-2217			231	99.13%					231	99.13%					0	0.00%		
MR-4-04-2341	5	60.00%	215	68.84%			5	60.00%	215	68.84%			0	0.00%	0	0.00%		
MR-4-04-3140	5348	52.69%	62250	45.79%	9.72331	0	5348	52.69%	62421	45.77%	5	0	0	0.00%	171	-0.02%	-4.72331	0
MR-4-04-3216			475	99.58%					475	99.58%					0	0.00%		
MR-4-04-3217	182	99.45%	231	99.13%	0.93857	0	182	99.45%	231	99.13%	0.93855	0	0	0.00%	0	0.00%	-0.00002	0
MR-4-04-3341	16	75.00%	62465	45.87%	2.63110	0	16	75.00%	62636	45.85%	2.63255	0	0	0.00%	171	-0.02%	0.00145	0

Table D-92 – MR-4 Trouble Duration Intervals – June 2003

June 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance
SubMetric ID	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-04-3342	134	70.15%	62465	45.87%	5.63456	0	134	70.15%	62636	45.85%	5	0	0	0.00%	171	-0.02%	-0.63456	0
MR-4-04-3343	14	57.14%	354	37.85%	1.71432	0	14	57.14%	354	48.59%	0.89955	0	0	0.00%	0	10.73%	-0.81477	0
MR-4-04-3345	1	100.00%	354	37.85%			1	100.00%	354	48.59%			0	0.00%	0	10.73%		
MR-4-04-3550	1167	74.98%	62250	45.79%	19.82883	0	1167	74.98%	62421	45.77%	5	0	0	0.00%	171	-0.02%	-14.82883	0
MR-4-04-5000	1	100.00%	2	100.00%			1	100.00%	2	100.00%			0	0.00%	0	0.00%		
MR-4-05-5000	1	0.00%	2	0.00%			1	0.00%	2	0.00%			0	0.00%	0	0.00%		
MR-4-06-2100	319	77.12%	41375	88.13%	6.05546	0												
MR-4-06-2110							134	63.43%	5091	66.29%	0.78715							
MR-4-06-2120							185	87.03%	36284	91.19%	2.02055							
MR-4-06-2216	9	66.67%	475	48.00%	-0.77120	0	9	66.67%	475	48.00%	-0.77115	0	0	0.00%	0	0.00%	0.00005	0
MR-4-06-2217			229	41.92%					229	41.92%					0	0.00%		
MR-4-06-3140	3992	87.07%	41375	88.13%	1.96138	0												
MR-4-06-3144							751	67.78%	5091	66.29%	-0.76065							
MR-4-06-3145							3241	91.55%	36284	91.19%	-0.65105							
MR-4-06-3216			475	48.00%					475	48.00%					0	0.00%		
MR-4-06-3217	175	46.29%	229	41.92%	-0.77505	0	175	46.29%	229	41.92%	-0.77495	0	0	0.00%	0	0.00%	0.00010	0
MR-4-06-5000	1	0.00%	2	0.00%			1	0.00%	2	0.00%			0	0.00%	0	0.00%		
MR-4-07-2100	319	61.13%	41375	76.79%	6.60057	0												
MR-4-07-2110							134	45.52%	5091	42.98%	-0.50145							
MR-4-07-2120							185	72.43%	36284	81.53%	3.11995							
MR-4-07-2341	4	50.00%	139	53.24%			4	50.00%	139	53.24%			0	0.00%	0	0.00%		
MR-4-07-3140	3992	74.15%	41375	76.79%	3.77611	0												
MR-4-07-3144							751	44.74%	5091	42.98%	-0.87105							
MR-4-07-3145							3241	80.96%	36284	81.53%	0.82805							
MR-4-07-3341	16	81.25%	41514	76.71%	-0.07870	0	16	81.25%	41621	76.73%	-0.07675	0	0	0.00%	107	0.02%	0.00195	0
MR-4-07-3342	114	67.54%	41514	76.71%	2.34475	0	114	67.54%	41621	76.73%	2.34975	0	0	0.00%	107	0.02%	0.00500	0
MR-4-07-3343	12	58.33%	348	83.05%	2.33909	0	12	58.33%	348	73.56%	1.46135	0	0	0.00%	0	-9.48%	-0.87774	0
MR-4-07-3345	1	0.00%	348	83.05%			1	0.00%	348	73.56%			0	0.00%	0	-9.48%		
MR-4-07-3550	837	65.11%	41375	76.79%	7.92230	0	837	65.11%	40950	77.29%	5	0	0	0.00%	-425	0.50%	-2.92230	0
MR-4-07-5000	1	0.00%	2	0.00%			1	0.00%	2	0.00%			0	0.00%	0	0.00%		
MR-4-08-2110	134	16.42%	5091	16.32%	0.06373	0	134	16.42%	5091	16.32%	0.06375	0	0	0.00%	0	0.00%	0.00002	0
MR-4-08-2120	185	54.59%	36284	58.31%	1.09542	0	185	54.59%	36284	58.31%	1.09545	0	0	0.00%	0	0.00%	0.00003	0
MR-4-08-2216	9	0.00%	475	0.42%	0.19325	0	9	0.00%	475	0.42%	5	0	0	0.00%	0	0.00%	4.80675	0
MR-4-08-2217			229	0.87%					229	0.87%					0	0.00%		
MR-4-08-2341	4	50.00%	139	27.34%			4	50.00%	139	27.34%			0	0.00%	0	0.00%		
MR-4-08-3144	751	11.58%	5091	16.32%	3.49468	0	751	11.58%	5091	16.32%	3.49475	0	0	0.00%	0	0.00%	0.00007	0
MR-4-08-3145	3241	55.08%	36284	58.31%	3.58102	0	3241	55.08%	36284	58.31%	3.58095	0	0	0.00%	0	0.00%	-0.00007	0
MR-4-08-3216			475	0.42%					475	0.42%					0	0.00%		

Table D-92 – MR-4 Trouble Duration Intervals – June 2003

June 2003	DCI calculation						Verizon C2C Reported Results						Discrepancy					
	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance	CLEC		Retail		Stat. Score	Comp liance
SubMetric ID	#	MTTR	#	MTTR			#	MTTR	#	MTTR			#	MTTR	#	MTTR		
MR-4-08-3217	175	0.57%	229	0.87%	0.91124	0	175	0.57%	229	0.87%	0.91125	0	0	0.00%	0	0.00%	0.00001	0
MR-4-08-3341	16	25.00%	41514	53.05%	2.54500	0	16	25.00%	41621	53.06%	2.54585	0	0	0.00%	107	0.01%	0.00085	0
MR-4-08-3342	114	29.82%	41514	53.05%	4.96301	0	114	29.82%	41621	53.06%	5	0	0	0.00%	107	0.01%	0.03699	0
MR-4-08-3343	12	41.67%	348	62.36%	1.72994	0	12	41.67%	348	51.44%	0.95835	0	0	0.00%	0	-10.92%	-0.77159	0
MR-4-08-3345	1	0.00%	348	62.36%			1	0.00%	348	51.44%			0	0.00%	0	-10.92%		
MR-4-08-3550	837	23.89%	41375	53.14%	16.78679	0	837	23.89%	40950	53.62%	5	0	0	0.00%	-425	0.48%	-11.78679	0
MR-4-08-5000	1	0.00%	2	0.00%			1	0.00%	2	0.00%			0	0.00%	0	0.00%		

Table D-92 – MR-4 Trouble Duration Intervals – June 2003

Due to electronic formatting, Tables D-90, D-91 and D-92 have shifted.

The shifting made this page blank in the electronic version.

MR-5: REPEAT TROUBLE REPORTS

Definition

This metric measures the percent of network troubes (disposition codes '03', '04', and '05') which occurred within 30 days of a previous trouble.

POTS Troubles

From the POTS Troubles Data Mart, those trouble records which are not globally excluded, and whose disposition code is '03', '04', or '05', and which meet the criteria for a reportable product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be counted to obtain the MR-5 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results.

Such records flagged as repeat troubles (RPR_RPT_30DAY_IND = 'Y') which are not installation – related troubles (INST_RPT_IND <> 'Y') will also be counted in the MR-5 numerator. For records whose PRODUCT_IND is any of 'DIGITAL', 'LOOP', or 'LOOP XDSL', the original trouble is also required to not have been a misdirect – this filter is applied to the numerator only by requiring a value of "Y" in the NON_MISIDRECT_IND field.

Specials Troubles

From the Specials and Trunks Troubles Data Mart, those trouble records which are not globally excluded and have a value of 'FAC' (Facility) or 'CO' (Central Office) in the TROUBLE_CD field, and meet the criteria for a reportable product disaggregation (see the product code table at the end of the POTS Troubles Data Mart section above), will be counted to obtain the MR-5 denominators, with the exception that records whose CLEC_ID field has the value "RTL9" are excluded from the CLEC results.

Such records flagged as repeat troubles (RPR_RPT_30DAY_IND = 'Y') which are not installation – related troubles (INST_RPT_IND <> 'Y') will also be counted in the MR-5 numerator.

Sub-Metrics

The only sub-metric is MR-5-01, and its calculation is completely described by the process indicated above.

DCI Recalculation Process

DCI developed a SAS macro to calculate metric results based on a clear specification of the metrics definitions. DCI then implemented the information described in the pages immediately above into three SAS macro invocations, one for POTS troubles not filtering original trouble misdirects, one for POTS troubles filtering original trouble misdirects, and one for Specials and Trunks troubles. DCI then used these results of running this macro to obtain its metric

numerators, denominators, and results. DCI also automatically extracted Verizon PA's C2C report results to obtain Verizon PA's calculated numerators, denominators, and results. DCI's recalculation program then combines and compares DCI's results and Verizon PA's C2C reported results in an Excel spreadsheet.

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-5 results for POTS troubles not requiring the fitering out of original trouble misdirects:

SAS Macro Invocation 8: POTS Troubles MR-5 Calculation – Not Excluding Original Trouble Misdirects:

```
%pm_mr(  tbl=mr_dm_trbl_gen, yearmm=&report_month, metric=MR-5
        , glblcond=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'P'
        , submetrics=01
        , sbpm_typ=Count
        , eligvars=MR_5_01_elig
        , valuvars= repeat
        , valucond= rpr_rpt_30day_ind eq 'Y' and inst_rpt_ind ne "Y"
        , eligcond= disposition_cd in('03','04','05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
        , eligcmpr= disposition_cd in('03','04','05')
        , sm_catgs=2100:3140:3343:3345
        , sm_conds=  product_ind eq 'SIMPLE' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'PLATFORM' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESHARE' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESPLITTING' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
        , sm_cmprs=  product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LINESHARE' and provider_ind eq 'V' and res_bus_pub_ind in('R','B')
        )
```

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-5 results for POTS troubles requiring the fitering out of original trouble misdirects:

SAS Macro Invocation 9: POTS Troubles MR-5 Calculation – Excluding Original Trouble Misdirects:

```
%pm_mr(  tbl=mr_dm_trbl_gen, yearmm=&report_month, metric=MR-5
        , glblcond=exclude_by_fst_ind in(0,.)
                        and corp_tel_ind eq 'N'
                        and admin_repeat_flag in('N', ' ')
                        and fGTE_ind eq 'N'
                        and report_category eq '1'
                        and service_level_cd eq 'P'
        , submetrics=01
        , sbpm_typ=Count
        , eligvars=MR_5_01_elig
        , valuvars= repeat
        , valucond= rpr_rpt_30day_ind eq 'Y' and inst_rpt_ind ne "Y" and non_misdirect_ind eq 'Y'
        , eligcond= disposition_cd in('03','04','05') and clec_id ne 'RTL9' and test_acc_ind eq 'N'
        , eligcmpr= disposition_cd in('03','04','05')
        , sm_catgs=2341:3341:3342:3550
        , sm_conds=  product_ind eq 'DIGITAL' and provider_ind eq 'R' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'DIGITAL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP XDSL' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'LOOP' and provider_ind eq 'U' and res_bus_pub_ind in('R','B')
        , sm_cmprs=  product_ind eq 'DIGITAL' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                        :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                        :product_ind NE 'XXXXXX' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
                        :product_ind eq 'SIMPLE' and provider_ind eq 'L' and res_bus_pub_ind in('R','B')
        )
```

DCI presents below the SAS macro invocation which is completely sufficient to calculate all the MR-5 results for Specials and Trunks troubles:

SAS Macro Invocation 10: Trunks Troubles MR-4 Calculation:

```
%pm_mr(   tbl=mr_dm_trbl_spc, yearmm=&report_month, metric=MR-5
          , glblcond=exclude_by_fst_ind in(0,.)
                          and corp_tel_ind eq 'N'
                          and admin_repeat_flag in('N', ' ')
                          and fGTE_ind eq 'N'
                          and report_category eq '1'
                          and access_excl_ind in('B','N')
                          and trouble_cd in('FAC','CO')

          , submetrics=01
          , sbpm_typ=Count
          , eligvars=MR_5_01_elig
          , valuvars= repeat
          , valucond= rpr_rpt_30day_ind eq 'Y' and inst_rpt_30day_ind ne "Y"
          , eligcond= 1
          , eligcmpr= 1
          , sm_catgs=2200:3200:5000
          , sm_conds=  service_level_cd eq 'S' and test_acc_ind in('N')
                              and provider_ind eq 'R' and clec_id ne 'RTL9'
                         :service_level_cd eq 'S' and test_acc_ind in('N')
                            and provider_ind eq 'U' and clec_id ne 'RTL9'
                         :service_level_cd eq 'M' and test_acc_ind in('N','V')  and provider_ind eq 'U'
          , sm_cmprs=  service_level_cd eq 'S' and test_acc_ind in('N')      and provider_ind eq 'L'
                         :service_level_cd eq 'S' and test_acc_ind in('N')      and provider_ind eq 'L'
                         :service_level_cd eq 'M' and test_acc_ind in('N','A')  and provider_ind eq 'U'
          )
```

The following 3 tables provide the results of DCI's MR-5-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of April 2003:

Table D-93 – MR-5-01 % Repeat Trouble Reports – April 2003 – DCI Calculations

MR-5-01 DCI April 2003	CLEC Num	Denom	Result	Retail Num	Denom	Result	Stat. Score	Compliance Score
MR-5-01-2100	71	479	14.82%	6779	45432	14.92%	0.11014	0
MR-5-01-2200	0	6	0.00%	117	598	19.57%	1.20207	0
MR-5-01-2341	1	6	16.67%	52	246	21.14%	0.71073	0
MR-5-01-3140	588	3664	16.05%	6779	45432	14.92%	-1.80272	-2
MR-5-01-3200	26	124	20.97%	117	598	19.57%	-0.24821	0
MR-5-01-3341	4	23	17.39%	6754	45678	14.79%	-0.12877	0
MR-5-01-3342	7	95	7.37%	6754	45678	14.79%	2.35737	0
MR-5-01-3343	2	9	22.22%	118	298	39.60%	1.43838	0
MR-5-01-3345				118	298	39.60%		
MR-5-01-3550	147	1005	14.63%	6702	45432	14.75%	0.14547	0
MR-5-01-5000								

Table D-94 – MR-5-01 % Repeat Trouble Reports – April 2003 – C2C Reported Results

MR-5-01 C2C April 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	71	479	14.82%	6801	45570	14.92%	0.11205	0
MR-5-01-2200	0	6	0.00%	117	598	19.57%	5	0
MR-5-01-2341	1	6	16.67%	52	246	21.14%	0.71075	0
MR-5-01-3140	588	3664	16.05%	6801	45570	14.92%	-1.79775	-2
MR-5-01-3200	26	124	20.97%	117	598	19.57%	-0.24815	0
MR-5-01-3341	4	23	17.39%	6853	45816	14.96%	-0.10505	0
MR-5-01-3342	7	95	7.37%	6853	45816	14.96%	2.40035	0
MR-5-01-3343	2	9	22.22%	118	298	39.60%	1.43835	0
MR-5-01-3345				118	298	39.60%		
MR-5-01-3550	147	1005	14.63%	6801	45570	14.92%	0.29745	0
MR-5-01-5000								

Table D-95 – MR-5-01 % Repeat Trouble Reports – April 2003 – Discrepancies

MR-5-01 discrepancy April 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	0	0	0.00%	22	138	0.00%	0.00191	0
MR-5-01-2200	0	0	0.00%	0	0	0.00%	3.79793	0
MR-5-01-2341	0	0	0.00%	0	0	0.00%	0.00002	0
MR-5-01-3140	0	0	0.00%	22	138	0.00%	0.00497	0
MR-5-01-3200	0	0	0.00%	0	0	0.00%	0.00006	0
MR-5-01-3341	0	0	0.00%	99	138	0.17%	0.02372	0
MR-5-01-3342	0	0	0.00%	99	138	0.17%	0.04298	0
MR-5-01-3343	0	0	0.00%	0	0	0.00%	-0.00003	0
MR-5-01-3345				0	0	0.00%		
MR-5-01-3550	0	0	0.00%	99	138	0.17%	0.15198	0
MR-5-01-5000								

The following 3 tables provide the results of DCI's MR-5-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of May 2003:

Table D-96 – MR-5-01 % Repeat Trouble Reports – May 2003 – DCI Calculations

MR-5-01 DCI May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	51	407	12.53%	6984	50193	13.91%	0.87163	0
MR-5-01-2200	2	10	20.00%	141	669	21.08%	0.40499	0
MR-5-01-2341	1	10	10.00%	37	196	18.88%	1.15693	0
MR-5-01-3140	621	4213	14.74%	6984	50193	13.91%	-1.45641	-1
MR-5-01-3200	18	153	11.76%	141	669	21.08%	2.86684	0
MR-5-01-3341	1	20	5.00%	6944	50389	13.78%	1.63007	0
MR-5-01-3342	10	83	12.05%	6944	50389	13.78%	0.59220	0
MR-5-01-3343	3	11	27.27%	95	273	34.80%	0.82524	0
MR-5-01-3345				95	273	34.80%		
MR-5-01-3550	165	1058	15.60%	6907	50193	13.76%	-1.64993	-2
MR-5-01-5000								

Table D-97 – MR-5-01 % Repeat Trouble Reports – May 2003 – C2C Reported Results

MR-5-01 C2C May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	51	407	12.53%	7004	50346	13.91%	0.87015	0
MR-5-01-2200	2	10	20.00%	141	669	21.08%	0.40495	0
MR-5-01-2341	1	10	10.00%	38	196	19.39%	1.19375	0
MR-5-01-3140	621	4213	14.74%	7004	50346	13.91%	-1.46115	-1
MR-5-01-3200	18	153	11.76%	141	669	21.08%	2.86685	0
MR-5-01-3341	1	20	5.00%	7042	50542	13.93%	1.64725	0
MR-5-01-3342	10	83	12.05%	7042	50542	13.93%	0.63155	0
MR-5-01-3343	3	11	27.27%	95	273	34.80%	0.82525	0
MR-5-01-3345				95	273	34.80%		
MR-5-01-3550	165	1058	15.60%	7004	50346	13.91%	-1.50695	-1
MR-5-01-5000				2	9	22.22%		

Table D-98 – MR-5-01 % Repeat Trouble Reports – May 2003 – Discrepancies

MR-5-01 discrepancy May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	0	0	0.00%	20	153	0.00%	-0.00148	0
MR-5-01-2200	0	0	0.00%	0	0	0.00%	-0.00004	0
MR-5-01-2341	0	0	0.00%	1	0	0.51%	0.03682	0
MR-5-01-3140	0	0	0.00%	20	153	0.00%	-0.00474	0
MR-5-01-3200	0	0	0.00%	0	0	0.00%	0.00001	0
MR-5-01-3341	0	0	0.00%	98	153	0.15%	0.01718	0
MR-5-01-3342	0	0	0.00%	98	153	0.15%	0.03935	0
MR-5-01-3343	0	0	0.00%	0	0	0.00%	0.00001	0
MR-5-01-3345				0	0	0.00%		
MR-5-01-3550	0	0	0.00%	97	153	0.15%	0.14298	1
MR-5-01-5000								

The following 3 tables provide the results of DCI's MR-5-01 metric results recalculation and compare Verizon PA's C2C reported results with DCI's results for the month of June 2003:

Table D-99 – MR-5-01 % Repeat Trouble Reports – June 2003 – DCI Calculations

MR-5-01 DCI June 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	70	472	14.83%	9928	62250	15.95%	0.71745	0
MR-5-01-2200	1	9	11.11%	153	706	21.67%	1.22051	0
MR-5-01-2341	3	5	60.00%	31	215	14.42%		
MR-5-01-3140	846	5348	15.82%	9928	62250	15.95%	0.26447	0
MR-5-01-3200	39	182	21.43%	153	706	21.67%	0.16083	0
MR-5-01-3341	0	16	0.00%	9850	62465	15.77%	1.73048	0
MR-5-01-3342	20	134	14.93%	9850	62465	15.77%	0.36275	0
MR-5-01-3343	2	14	14.29%	100	354	28.25%	1.52166	0
MR-5-01-3345	0	1	0.00%	100	354	28.25%		
MR-5-01-3550	149	1167	12.77%	9819	62250	15.77%	2.90498	0
MR-5-01-5000	0	1	0.00%	0	1	0.00%		

Table D-100 – MR-5-01 % Repeat Trouble Reports – June 2003 – C2C Reported Results

MR-5-01 C2C June 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	70	472	14.83%	9956	62421	15.95%	0.71815	0
MR-5-01-2200	1	9	11.11%	153	706	21.67%	1.22055	0
MR-5-01-2341	3	5	60.00%	31	215	14.42%		
MR-5-01-3140	846	5348	15.82%	9956	62421	15.95%	0.26675	0
MR-5-01-3200	39	182	21.43%	153	706	21.67%	0.16085	0
MR-5-01-3341	0	16	0.00%	9987	62636	15.94%	5	0
MR-5-01-3342	20	134	14.93%	9987	62636	15.94%	0.41795	0
MR-5-01-3343	2	14	14.29%	100	354	28.25%	1.52165	0
MR-5-01-3345	0	1	0.00%	100	354	28.25%		
MR-5-01-3550	149	1167	12.77%	9956	62421	15.95%	3.06395	0
MR-5-01-5000	0	1	0.00%	0	2	0.00%		

Table D-101 – MR-5-01 % Repeat Trouble Reports – June 2003 – Discrepancies

MR-5-01 discrepancy June 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
MR-5-01-2100	0	0	0.00%	28	171	0.00%	0.00070	0
MR-5-01-2200	0	0	0.00%	0	0	0.00%	0.00004	0
MR-5-01-2341	0	0	0.00%	0	0	0.00%		
MR-5-01-3140	0	0	0.00%	28	171	0.00%	0.00228	0
MR-5-01-3200	0	0	0.00%	0	0	0.00%	0.00002	0
MR-5-01-3341	0	0	0.00%	137	171	0.18%	3.26952	0
MR-5-01-3342	0	0	0.00%	137	171	0.18%	0.05520	0
MR-5-01-3343	0	0	0.00%	0	0	0.00%	-0.00001	0
MR-5-01-3345	0	0	0.00%	0	0	0.00%		
MR-5-01-3550	0	0	0.00%	137	171	0.18%	0.15897	0
MR-5-01-5000	0	0	0.00%	0	1	0.00%		

C – FINDINGS

MR-1 FINDINGS

1. **Verizon PA Is Performing An Entitlement Time Calculation In The MR-1 Response Time OSS Maintenance Interface Metric That Is Not Clear From The C2C Guidelines.**

The performance standard for MR-1 is Parity with Retail plus not more that four (4) seconds. Four (4) second difference allows for variations in functionality.

However, in MR-1, Verizon PA makes an adjustment to certain transactions that involve a security login to the LMOS. This is something that is not necessary on the retail side (the parity measurement). DCI's interpretation of the C2C Guidelines is that difference would have already been allowed for in the "Four second difference to allow for variations in functionality."   DCI's review of the C2C Guidelines did not find any clear allowance for such a calculation.

2. **MR-1 Formulas Provided By Verizon PA Failed To Provide Results Against The Provided Data Set, Requiring DCI To Make Changes To SQL Statements To Generate Results.**

The formulas, as supplied by Verizon PA, would not yield results on the supplied data set; therefore, the following changes were made by DCI to SQL statements in the formulas associated with this metric:[18]

- All instances of MONTH_ID and TB_MONTH_DIMENSION were removed from the query due to failure by Verizon PA to provide an associated table.

- All instances of REPORT_PERIOD set to "200304", "200305", or "200306" for April, May, or June 2003 results, respectively.

- To yield the CLEC aggregate value, all instances of CLEC_ID were removed from the query.

3. **Discrepancies In MR-1 Numerators Existed Between CLEC And Verizon PA Metric Algorithms.**

In CLEC algorithms for submetrics MR-1-01-2000, MR-1-02-2000, MR-1-03-2000, MR-1-04-2000, MR-1-05-2000, and MR-1-06-2000, two values (ENTITLE_TIME4 and ENTITLE_TIME5) are summed as part of the numerator. These values are not summed in Verizon PA algorithms for respective submetrics.

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[18] Verizon PA Carrier-to-Carrier Metric Algorithms, PA May 2003. (C-043: Metric Algorithms-May2003-PA-MR_07-31-03_03-59-28pm_draft.pdf, Page 2)

For MR-1-01-2000 between April 2003 and June 2003, 83 of 99 records, or 83% had zero values for either ENTITLE_TIME4 and ENTITLE_TIME5, whereas the remaining records had non-zero values. An analysis of ENTITLE_TIME4 and ENTITLE_TIME5 for CLEC results in April 2003 is shown Table 103.

Table D-102 – Entitle Time Analysis - MR-1-01-2000 - Average Response Time (Create Trouble) - April 2003

| Verizon | | | | 5.45 | | | | |

STATE_CODE	CLEC_ID	REPORT_PERIOD	MR101	RESPONSE_TIME Sum	ENTITLE_TIME4	ENTITLE_TIME5	ENTITLE 4-5 / RESPONSE	RESPONSE_TIME Count
PN		200304	2.11	48.456	0	0	0.00%	23
PN		200304	2.35	7.047	0	0	0.00%	3
PN		200304	2.14	6.421	0	0	0.00%	3
PN		200304	2.17	54.248	0	0	0.00%	25
PN		200304	2.16	28.13	0	0	0.00%	13
PN		200304	2.11	42.248	0	0	0.00%	20
PN		200304	2.28	127.854	0	0	0.00%	56
PN		200304	2.29	98.314	0	0	0.00%	43
PN		200304	2.29	11.429	0	0	0.00%	5
PN		200304	2.21	430.794	7.18	10.11	**4.01%**	203
PN		200304	2.03	79.297	0	0	0.00%	39
PN		200304	2.26	259.785	1.71	3.11	**1.86%**	117
PN		200304	2.23	13.381	0	0	0.00%	6
PN		200304	2.15	4.302	0	0	0.00%	2
PN		200304	2.16	15.104	0	0	0.00%	7
PN		200304	2.19	10.933	0	0	0.00%	5
PN		200304	1.95	1.945	0	0	0.00%	1
PN		200304	2.49	1113.856	5.08	5.42	**0.94%**	451
PN		200304	2.39	4479.314	20.69	27.44	**1.07%**	1894
PN		200304	2.36	216.463	1.99	3.11	**2.36%**	94
PN		200304	2.42	36.287	0	0	0.00%	15
PN		200304	2.73	2.732	0	0	0.00%	1
PN		200304	2.16	12.942	0	0	0.00%	6
PN		200304	2.16	2.155	0	0	0.00%	1
PN		200304	2.53	50.684	0	0	0.00%	20
PN		200304	2.22	62.123	0	0	0.00%	28
PN		200304	2.13	25.605	0	0	0.00%	12
PN		200304	1.87	1.87	0	0	0.00%	1
PN		200304	2.30	4.593	0	0	0.00%	2

(CLEC Individual)

4. **Review Values For MR-1-01 Average Response Time (Create Trouble) Were Identical To Reported Values For April 2003, But Varied Slightly For May 2003 And June 2003.**

MR-1-01-2000 review results for April, May, and June of 2003 are shown in Tables D-103, D-104, and D-105. The slight variation between review and reported values in May 2003 and June 2003 is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the results, the more likely cause is incorrect or incomplete data provision.

Table D-103 – MR-1-01-2000 - April 2003 Results

	Reported Value	Review Value	Difference
Verizon	5.45	5.45	0.00
CLEC	2.37	2.37	0.00
Difference	-3.08	-3.08	

Table D-104 – MR-1-01-2000 - May 2003 Results

	Reported Value	Review Value	Difference
Verizon	5.32	5.28	-0.04
CLEC	2.52	2.43	-0.09
Difference	-2.80	-2.85	

Table D-105 – MR-1-01-2000 - June 2003 Results

	Reported Value	Review Value	Difference
Verizon	6.05	5.96	-0.09
CLEC	2.70	2.58	-0.12
Difference	-3.35	-3.38	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

5. **Review Values For MR-1-02 Average Response Time (Status Trouble) Varied Slightly For The CLEC Aggregate Metric And Varied Significantly For The Verizon PA Metric.**

MR-1-02-2000 review results for April, May, and June of 2003 are shown on Tables D-106, D-107, and D-108. The slight variation between review and reported CLEC aggregate values is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the results, the more likely cause is incorrect or incomplete data provision.

The significant variation between review and reported Verizon PA values is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data.

Table D-106 –MR-1-02-2000 - April 2003 Results

	Reported Value	Review Value	Difference
Verizon	2.16	3.17	1.01
CLEC	2.22	2.22	0.00
Difference	0.06	-0.95	

Table D-107 – MR-1-02-2000 - May 2003 Results

	Reported Value	Review Value	Difference
Verizon	2.05	3.00	0.95
CLEC	2.52	2.66	0.14
Difference	0.47	-0.34	

Table D-108 – MR-1-02-2000 - June 2003 Results

	Reported Value	Review Value	Difference
Verizon	1.93	3.45	1.52
CLEC	2.61	2.63	0.02
Difference	0.68	-0.82	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

6. Review Values For MR-1-03 Average Response Time (Modify Trouble) Were Identical To Reported Values For April 2003, But Varied Slightly For May 2003 And June 2003.

MR-1-03-2000 review results for April, May, and June of 2003 are shown on Tables D-109, D-110, and D-111. The slight variation between review and reported values in May 2003 and June 2003 is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the results, the more likely cause is incorrect or incomplete data provision.

Table D-109 – MR-1-03-2000 - April 2003 Results

	Reported Value	Review Value	Difference
Verizon	5.40	5.40	0.00
CLEC	2.17	2.17	0.00
Difference	-3.23	-3.23	

Table D-110 – MR-1-03-2000 -May 2003 Results

	Reported Value	Review Value	Difference
Verizon	5.28	5.21	-0.07
CLEC	3.16	2.91	-0.25
Difference	-2.12	-2.29	

Table D-111 – MR-1-03-2000 - June 2003 Results

	Reported Value	Review Value	Difference
Verizon	6.00	5.90	-0.10
CLEC	3.29	3.25	-0.04
Difference	-2.71	-2.65	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

7. **Review Values For MR-1-04 Average Response Time (Request Cancellation Of Trouble) Were Identical To Reported Values For April 2003, But Varied Slightly For May 2003 And June 2003.**

MR-1-04-2000 review results for April, May, and June of 2003 are shown on Tables D-112, D-113, and D-114. The slight variation between review and reported values in May 2003 and June 2003 is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the results, the more likely cause is incorrect or incomplete data provision.

Table D-112 – MR-1-04-2000 - April 2003 Results

	Reported Value	Review Audit	Difference
Verizon	6.34	6.34	0.00
CLEC	0.85	0.85	0.00
Difference	-5.49	-5.49	

Table D-113 – MR-1-04-2000 - May 2003 Results

	Reported Value	Review Value	Difference
Verizon	6.23	6.18	-0.05
CLEC	1.37	1.26	-0.11
Difference	-4.86	-4.91	

Table D-114 – MR-1-04-2000 - June 2003 Results

	Reported Value	Review Value	Difference
Verizon	7.10	6.98	-0.12
CLEC	0.67	0.68	0.01
Difference	-6.43	-6.30	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

8. Review Values For MR-1-05 Average Response Time (Trouble Report History (By Tn/Circuit)) Were Identical To Reported Values For April 2003, But Varied Slightly For May 2003 And June 2003.

MR-1-05-2000 review results for April, May, and June of 2003 are shown on Tables D-115, D-116, and D-117. The slight variation between review and reported values in May 2003 and June 2003 is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the results, the more likely cause is incorrect or incomplete data provision.

Table D-115 – MR-1-05-2000 -April 2003 Results

	Reported Value	Review Value	Difference
Verizon	0.48	0.48	0.00
CLEC	1.05	1.05	0.00
Difference	0.57	0.57	

Table D-116 – MR-1-05-2000 -May 2003 Results

	Reported Value	Review Audit	Difference
Verizon	0.46	0.51	0.05
CLEC	1.31	1.25	-0.06
Difference	0.85	0.74	

Table D-117 – MR-1-05-2000 -June 2003 Results

	Reported Value	Review Audit	Difference
Verizon	0.56	0.63	0.07
CLEC	1.29	1.26	-0.03
Difference	0.73	0.63	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

9. **Review Values For MR-1-06 Average Response Time (Test Trouble (POTS Only)) Were Identical To Reported Values For April 2003, Varied Slightly For May 2003, And Varied Significantly For June 2003.**

MR-1-06-2000 reivew results for April, May, and June of 2003 are shown on Tables D-118, D-119, and D-120. The variation between review and reported values is due either to a failure by Verizon PA to provide DCI correct algorithms or correct data. Due to the small degree of deviation in the May 2003 results, the likely cause is incorrect or incomplete data provision.

Table D-118 – MR-1-06-2000 - April 2003 Results

	Reported Value	Review Value	Difference
Verizon	63.85	63.85	0.00
CLEC	51.55	51.55	0.00
Difference	-12.30	-12.30	

Table D-119 – MR-1-06-2000 - May 2003 Results

	Reported Value	Review Value	Difference
Verizon	57.56	57.34	-0.22
CLEC	53.87	53.76	-0.11
Difference	-3.69	-3.58	

Table D-120 – MR-1-06-2000 - June 2003 Results

	Reported Value	Review Value	Difference
Verizon	66.67	57.53	-9.14
CLEC	56.34	52.56	-3.78
Difference	-10.33	-4.97	

Verizon PA personnel have subsequently indicated that they had provided an incorrect data set for our analysis. They subsequently provided a revised data set; however, DCI was unable to incorporate this data set into our analysis due to time constraints.

MR-2 FINDINGS

1. The Documentation Provided By Verizon PA For The MR-2 Trouble Report Rate Is Extremely Cumbersome.

The Metrics calculation process for MR-2 is completely and clearly described in pages 1 through 17 of this Appendix A.9.2. Of this, pages 1 through 15 are general and need not be repeated for other metrics. Only pages 16 through 17 relate specifically to MR-2. Contrast this clear, concise[19] and complete documentation with the 112 separate MR-2 algorithms on

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[19] A large portion of these 17 pages discusses DCI analyses, so an objective comparison would pit 8-9 pages of the above DCI documentation versus the 75+ pages Verizon PA uses to document its measurement calculation processes for just MR-2. While the nuggets of information required to produce the DCI documentation are (mostly) all contained in the Verizon PA CMA, FACT Table Layouts and C2C Guidelines, it takes substantial work to analyze and extract them.

pages 16 through 71 of the Maintenance CMA's, and about 10 pages each of Guidelines and FACT Table documentation. Consider that the additional information contained in 96 separate MR-3 algorithms on pages 72 through 119 of the Maintenance CMA's will require only 1 additional page using the documentation format presented here. Similarly, the additional information contained in about 400 separate MR-4 algorithms on pages 120 through 326 of the Maintenance CMA's will require only 2-3 additional pages, and the information contained in 44 separate MR-5 algorithms on pages 327 through 348 of the Maintenance CMA's will require only 1 additional page using the documentation format presented here.

While a CLEC could use the current CMA's, FACT Table Layouts, and C2C Guidelines to recalculate an individual metric result, e.g. MR-2-01-2200, from their data as supplied to them by Verizon PA, this provides very little understanding into Verizon PA's general metric calculation processes. If a CLEC wanted to recalculate all, or most, of its metric results, it would face a daunting task. In addition to the documentation currently provided, were Verizon PA to develop and provide documentation of all their metric calculation processes in the form described earlier in this Appendix D, it would resolve this issue.

2. Most Discrepancies In The MR-2 Retail Numerators For POTS Troubles Are Due To Verizon PA's Inclusion Of Payphones In The Metric Results (DR D-017).

Although no explicit exclusion of Coin phones is mentioned in the C2C Guidelines, such an exclusion could be inferred from the fact that when metrics are disaggregated into Business and Residence categories, there is no disaggregation for payphones. DCI's perspective is that payphones should not be included in the C2C results calculation as they bias the comparison between what CLECs order (Business and Residence) and what retail customers order (Business, Residence and Payphones) by inflating the retail comparative, potentially allowing parity conclusions in potential disparity situations. Therefore, DCI did not include payphones in its calculations.

In response to DR-017, which asked Verizon PA to indicate the basis and justification for including payphones in the calculations, Verizon PA responded:

> "Per the "Product Identification Description" section in the guideline: POTS-Total for Maintenance includes Class of Service 08/09/19 which are Coin. The inclusion of Coin is per the guidelines."

Were the Guidelines modified to exclude payphones, this issue would be resolved.

3. MR-2 2w xDSL Line Counts Incorrectly Include LineSharing Loops (ER D-035).

In calculating Line Counts for xDSL Loops (MR-2-02-3342, MR-2-03-3342, and MR-2-05-3342 denominators), Verizon PA has incorrectly included LineSharing line counts, as is apparent from the following table:

Table D-121

Month	Metric	DCI Calculated LineCount	VZ C2C reported LineCount	VZ overcount
April 2003	MR-2-xx-3342 2w xDSL Loops	18152	23282	5130
	MR-2-xx-3343 LineSharing	5130	5130	0
May 2003	MR-2-xx-3342 2w xDSL Loops	18363	24041	5678
	MR-2-xx-3343 LineSharing	5678	5678	0
June 2003	MR-2-xx-3342 2w xDSL Loops	18693	25272	6579
	MR-2-xx-3343 LineSharing	6579	6579	0

Verizon PA correctly does not include LineSharing troubles in the numerators. The error of including LineShare inventory together with xDSL therefore leads these metrics to be substantially understated by about 30% (in a relative, not an absolute, sense).

In its response, Verizon PA agreed with DCI's finding and indicated this error would be corrected via the Change Control process. Verizon PA stressed that the affected metrics are not penalty bearing metrics and the incorrect metric results would not have affected parity determinations in these three months, supplying an impact determination worksheet.

DCI checked this worksheet, and found several errors in the formulas used to calculate Z-scores. DCI corrected these formulas and determined that, although the Z-scores were very different from those obtained by Verizon PA, Verizon PA's overall conclusion that parity would not have been affected in these three months is correct. However this is no guarantee that parity would not have been affected in other months.

4.   Troubles Are Excluded In MR-2 Trouble Rate Calculations.

There are many other discrepancies in the MR-2 numerators indicated in the above tables, mostly with Verizon PA counting fewer troubles than DCI. Mostly these do not affect parity determinations. However, for MR-2-03, POTS Central Office Trouble Rate, parity results for both Linesharing and Linesplitting are affected by these discrepancies. DCI notes that a possible explanation for part of such discrepancies on xDSL Loops and Line Sharing and Line Splitting (retail comparative only) is that DCI did not exclude Installation troubles from its calculation.

5.   MR-2-04 (% Subsequent Reports) Denominators Are Calculated Incorrectly (ER D-034).

Verizon PA counts both initial and subsequent reports in the MR-2-04 Denominator. Only initial reports should be counted in the MR-2-04 denominators. In a followup response to ER D-034, Verizon PA attempts to justify their practice with the following argument:

> "The Exclusion section of the Carrier-to-Carrier Guidelines specifies that subsequent reports are to be excluded from "report rate" measures. MR 2-04, % Subsequent Reports, is not a report rate metric. Therefore,

subsequents are not excluded from this metric. The specific exclusion is below:

- Report rate excludes subsequent reports (additional customer calls while the trouble is pending)"

Verizon PA misinterprets the Guidelines. The Guidelines state in the Denominator Calculation section of MR-2-04:

"Number of Total Disposition Codes 03, 04, and 05 troubles reported (Per MR-2-01)."

The inclusion of the parenthetical phrase (Per MR-2-01) clearly indicates that the intent of the Guidelines was that MR-2-04 was to measure the rate of subsequent reports per initial reports (only initial reports are counted in MR-2-01), as is common practice for other ILECs.

The impact of incorrectly counting subsequents in the denominator depends on the rate of subsequents, and can be quite large. For example, in June, the correct MR-2-04 result for POTS Loops (MR-2-04-3550) is 61.01. Due to Verizon PA's inclusion of subsequents, the reported C2C result was 37.89.

The intent of the Guidelines would be made even more clear by changing the name of the sub-metric from "% Subsequent Reports" to "Rate of Subsequent Reports per Initial Reports".

6. Verizon PA Incorrectly Includes Certain Trouble Code Values For Specials In MR-2-05.

Verizon PA determines which submetric a Special Trouble will be reported under based on the value of the TROUBLE_CD field. If 'FAC' or 'CO', it is reported in MR-2-01. All other values are reported in MR-2-05. The intent of the Guidelines, however, is that MR-2-05 report CPE, TOK, FOK, and NTF situations only. The following tables indicate the distribution of TROUBLE_CD by PROVIDER_IND throughout the three months audited:

MR-Specials Troubles: Product by Provider 200304 After global exclusions removed

TROUBLE_CD (TROUBLE_CD)
        PROVIDER_IND (PROVIDER_IND)

Frequency Col Pct	L	R	U	Total
	0 0.00	0 0.00	1 0.04	1
CC	1 0.04	0 0.00	0 0.00	1
CO	378 14.86	8 50.00	119 4.95	505
CPE	752 29.56	5 31.25	929 38.66	1686
FAC	486 19.10	1 6.25	1193 49.65	1680
INF	297 11.67	0 0.00	120 4.99	417
NTF	624 24.53	2 12.50	41 1.71	667
TOK	6 0.24	0 0.00	0 0.00	6
Total	2544	16	2403	4963

MR-Specials Troubles: Product by Provider 200305 After global exclusions removed

TROUBLE_CD(TROUBLE_CD)
        PROVIDER_IND(PROVIDER_IND)

Frequency Col Pct	L	R	U	Total
	0 0.00	0 0.00	3 0.12	3
CC	1 0.04	0 0.00	2 0.08	3
CO	434 16.29	10 29.41	167 6.68	611
CPE	725 27.20	8 23.53	968 38.70	1701
FAC	551 20.68	2 5.88	1231 49.22	1784
INF	312 11.71	4 11.76	98 3.92	414
NTF	634 23.79	10 29.41	32 1.28	676
TOK	8 0.30	0 0.00	0 0.00	8
Total	2665	34	2501	5200

MR-Specials Troubles: Product by Provider 200306 After global exclusions removed

TROUBLE_CD(TROUBLE_CD)
          PROVIDER_IND(PROVIDER_IND)

Frequency Col Pct	L	R	U	Total
	0 0.00	0 0.00	1 0.03	1
CO	348 11.91	4 12.12	127 4.23	479
CPE	863 29.53	10 30.30	1220 40.68	2093
FAC	661 22.62	6 18.18	1445 48.18	2112
IEC	0 0.00	0 0.00	1 0.03	1
INF	311 10.64	1 3.03	160 5.34	472
NTF	727 24.88	12 36.36	44 1.47	783
TOK	12 0.41	0 0.00	1 0.03	13
Total	2922	33	2999	5954

As seen from the above tables, Verizon PA is including in the MR-2-05 results troubles with the following trouble codes other than those specified in the Guidelines:

- CC – Came Clear
- IEC – Interexchange Carrier
- INF – Information
- " " - Unspecified

While "Informational" tickets were supposedly excluded via restricting the REPORT_CATEGORY field to a value of "1", these tickets with a trouble code of "INF" do have a REPORT_CATEGORY of "1", so they are being included in the results. The MR-2-05 result tables above do not show the impact of this as DCI also selected all trouble records with a TROUBLE_CD other than "FAC" or "CO" when performing its calculation. The impact of including these tickets has been to inflate the MR-2-05 CLEC results by about 10% overall.   If MR-2-05 had been reported similarly for Retail troubles, the impact would have been an inflation of about 25% on the Retail results.

7. **With One Exception, Verizon PA Correctly Calculates The MR-2 Metrics From The Perspective Of Its (Sometimes Incorrect) Interpretations Of The Guidelines.**

With the exception of Finding #3, (Incorrect inclusion of Linesharing in xDSL line counts), all of the above issues are related to Guidelines interpretation. While DCI disagrees with

Verizon PA's interpretations, Verizon PA's calculations are correct from the perspective of Verizon PA's interpretations.

MR-3 – FINDINGS

1. **Most Discrepancies In The MR-3 Retail Denominators Are Due To Verizon PA's Inclusion Of Payphones In The Metric Results (DR D-017).**

See discussion on Page D-80 for Finding 2 re Metric MR-2

2. **PA Maintenance CMA Algorithms For POTS Loop (MR-3-xx-3550) Do Not Contain Code To Implement The Exclusion Of Redirected Troubles.**

Verizon PA uses the code segment: ©[20]

```
and (not (a11.DISPATCH_IN_CNT <= 1
and a11.DISPATCH_OUT_CNT = 1))
```

to implement the exclusion of redirected troubles. However this code does not appear in the MR-3-xx-3550 CMA algorithms (including the June PA CMA). DCI believes that Verizon PA has actually implemented this code in its MR-3-xx-3550 calculations, as this would explain the discrepancies observed in the above MR-3 result tables for the POTS Loop disaggregations. While DCI considers this code segment to incorrectly exclude much more than redirected troubles (see next finding), the issue of this finding is that the exclusion is not indicated in the CMA code.

3. **MR-3 POTS Loop Exclusion Of Redirects Implemented Incorrectly (ER D-032).**

Verizon PA uses the code segment: ©[21]

```
and (not (a11.DISPATCH_IN_CNT <= 1
and a11.DISPATCH_OUT_CNT = 1))
```

to implement the exclusion of redirected troubles. DCI does not consider this code to properly implement the required exclusion which is

> "A trouble ticket is considered a redirect if it was dispatched **IN** once and **OUT** once, and the trouble was found on the second dispatch (due to a CLEC error in the initial dispatch direction)."

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The above code would exclude any ticket which was dispatched **OUT** once, as long as it had not been dispatched **IN** more than once. ***Therefore tickets which had never been dispatched IN would be incorrectly excluded by this code***. In addition, nothing in this code restricts the exclusion to the second dispatch. DCI considers the exclusion much too broad.

Restricting the exclusion to operate only when a ticket had been dispatched **IN** once could be accomplished by changing the DISPATCH_IN_CNT <= 1 to DISPATCH_IN_CNT = 1. DCI considers such tickets "possible redirects". Those which had DISPATCH_IN_CNT = 0 are not even candidates for redirects and certainly should not be excluded. Among the "possible redirects" the trouble may or may not have been found on the second dispatch, so not necessarily are all "possible redirects" definitely redirects and not necessarily all "possible redirects" should be excluded.

The following table indicates the impact of Verizon PA's incorrect implementation of the redirects exclusion on MR-3-02-3550 in May 2003.

Table D-122 – **MR-3-02-3550 Missed Repair Appointments – Central Office – POTS Loop**

May 2003	CLEC			Retail			Stat. Score	Compliance Score
	Num	Denom	Result	Num	Denom	Result		
VZ PA C2C report excludes 15 "redirects"	6	37	16.22%	323	4543	7.11%	-1.685	-2
DCI calc. excluding 5 possible redirects	6	47	12.77%	322	4540	7.09%	-1.196	-1
DCI calc. not excluding possible redirects	8	52	15.38%	322	4540	7.09%	-1.874	-2

This indicates that incorrect exclusion of records which were never dispatched **IN** as misidentified redirects could have substantial and material impact to the C2C results and PA PAP payment calculations derived therefrom.

Verizon PA's response to ER D-032 (received 11/10/03) dealt with a language change to the June Guidelines which added the sentence "Reports with multiple dispatches in the same direction are not excluded". While this language clarification agrees with the code Verizon PA uses (in that dispatch counts higher than 1 in either direction are not excluded), Verizon PA did not address the case of reports which are never dispatched **IN** being incorrectly excluded. DCI believes that Verizon PA's implementation is incorrect.

4. With One Exception, Verizon PA Correctly Calculates The MR-3 Metrics From The Perspective Of Its (Sometimes Incorrect) Interpretations Of The Guidelines.

With the exception of Finding 3, MR-4, (Incorrect implementation of POTS Loop Redirects Exclusion), the only other MR-3 discrepancies relate to whether payphones should be included, which is a Guidelines interpretation issue. While DCI disagrees with Verizon PA's interpretation, Verizon PA's calculations are correct (other than the POTS Loop Redirect exclusion) from the perspective of Verizon PA's interpretation.

MR-4 FINDINGS

1. **Most Discrepancies In The MR-4 Retail Denominators Are Due To Verizon PA's Inclusion Of Payphones In The Metric Results (DR D-017).**

See discussion on Page D-80 for Finding 2 re Metric MR-2

2. **The PA April/May Maintenance CMA Was Incomplete (ER D-030).**

The Pennsylvania April/May Maintenance CMA (provided by Verizon PA on August 1) was very incomplete. No algorithms were provided for the MR-4-06, MR-4-07, MR-4-08 and MR-5-01 submetrics. Verizon PA agreed and indicated they would provide these algorithms in the June CMA's. DCI received these in late September, and the missing algorithms were provided therein. The algorithms for these sub-metrics currently occupy pages 233 through 348 of the June Maintenance CMA, thereby constituting 33% of the June Maintenance CMA.

3. **MR-4 POTS Loop Exclusion Of Redirects Is Implemented Incorrectly (ER D-032).**

Verizon PA uses the code segment: ©[22]

```
and (not (a11.DISPATCH_IN_CNT <= 1
and a11.DISPATCH_OUT_CNT = 1))
```

to implement the exclusion of redirected troubles. DCI does not consider this code to properly implement the required exclusion which is

> "A trouble ticket is considered a redirect if it was dispatched **IN** once and **OUT** once, and the trouble was found on the second dispatch (due to a CLEC error in the initial dispatch direction)."

The above code would exclude any ticket which was dispatched **OUT** once, as long as it had not been dispatched **IN** more than once. *Therefore tickets which had never been dispatched IN would be incorrectly excluded by this code*. In addition, nothing in this code restricts the exclusion to the second dispatch. DCI considers the exclusion much too broad.
Restricting the exclusion to operate only when a ticket had been dispatched **IN** once could be accomplished by changing the DISPATCH_IN_CNT <= 1 to DISPATCH_IN_CNT = 1. DCI considers such tickets "possible redirects". Those which had DISPATCH_IN_CNT = 0 are not even candidates for redirects and certainly should not be excluded. Among the "possible redirects" the trouble may or may not have been found on the second dispatch, so not necessarily are all "possible redirects" definitely redirects and not necessarily all "possible redirects" should be excluded.

The following table indicates the impact of Verizon PA's incorrect implementation of the redirects exclusion on MR-4-03-3550 in May 2003.

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Table D-123 –MR-4-03-3550: Trouble Duration Intervals – Central Office – POTS Loop

May 2003	CLEC		Retail		Stat. Score	Compliance Score
	Troubles	**MTTR**	**Troubles**	**MTTR**		
VZ PA C2C report excludes 15 "redirects"	37	12:20:10	4543	10:07:44	- .791	0
DCI calc. excluding 5 possible redirects	47	13:47:28	4540	10:06:37	-1.488	-1
DCI calc. not excluding possible redirects	52	15:29:20	4540	10:06:37	-2.286	-2

This indicates that incorrect exclusion of records which were never dispatched **IN** as misidentified redirects could have substantial and material impact to the C2C results and PA PAP payment calculations derived therefrom.

Verizon PA's response to ER D-032 (received 11/10/03) dealt with a language change to the June Guidelines which added the sentence "Reports with multiple dispatches in the same direction are not excluded". While this language clarification agrees with the code Verizon PA uses (in that dispatch counts higher than 1 in either direction are not excluded), Verizon PA did not address the case of reports which are never dispatched **IN** being incorrectly excluded. DCI believes that Verizon PA's implementation is incorrect.

4. **The PA Maintenance CMA Contains Several Incorrect Implementations Of "Limited Stop-Clock" Usage For MR-4 Trouble Duration Intervals (ER D-031).**

The PA CMA Maintenance Algorithms contain several incorrect implementations of the following statement in the definition of the MR-4 Trouble Duration Intervals in the C2C Guidelines:

> "For **UNE Loop, UNE 2Wire Digital Loop, and UNE 2Wire xDSL Loop** products, trouble duration intervals are measured on a limited *stop clock* basis. A *stop clock* is used when the customer premises access, provided by the CLEC and its end user, is after the offered repair interval. For example, if customer premises access is not available on a weekend, the clock stops at 5:00 PM Friday, and resumes at 08:00AM Monday. This applies to dispatched out tickets only."

DCI implemented the above by making a copy of the table in which the following modification was made:

```
if provider_ind='U' and dispatch_out_cnt > 0
    and product_ind in('DIGITAL','LOOP XDSL','LOOP','LINESHARE')
then actual_duration_run = actual_duration_stop;
```

DCI then used the (modified) actual_duration_run field in its calculations.

An alternative more in keeping with the style of the Verizon PA algorithms would consist in using the following code segment in the numerator algorithms only:

```
and (   (a11.ACTUAL_DURATION_STOP <= 1440 and a11.DISPATCH_OUT_CNT > 0)
    or (a11.ACTUAL_DURATION_RUN   <= 1440 and a11.DISPATCH_OUT_CNT = 0)  )
```

However, Verizon PA seems to have instead calculated two separate numerators in each disaggregation, one for dispatched out tickets only (based on actual_duration_stop) and another for tickets which have not been dispatched out (based on actual_duration_run). Verizon PA then adds these two numerators and divides by a denominator which includes all eligible tickets whether dispatched out or not.

All three of these approaches are expected to provide the same answer, and in fact, Verizon PA results and DCI's independent calculations match in all the relevant disaggregations except POTS LOOP.

However, Verizon PA's PA CMA incorrectly documents what Verizon PA has done, as follows:

    a. In the CLEC algorithms for the following metrics, Verizon PA incorrectly excludes all dispatched-out tickets from the numerator, but not from the denominator:

- MR-4-01-3341
- MR-4-01-3550
- MR-4-02-3341
- MR-4-02-3342
- MR-4-02-3343
- MR-4-02-3550
- MR-4-03-3341
- MR-4-03-3342
- MR-4-03-3343
- MR-4-03-3345

If this algorithm had actually been implemented, the calculated CLEC trouble durations would have been based on shorter non-dispatched-out tickets only, whereas the retail comparatives would have included the longer dispatched-out tickets as well, leading to virtually certain parity determinations even under potential large disparity situations.

    b. In both CLEC and Retail numerator algorithms for MR-4-02-3345, only the dispatched-out tickets are included, whereas this restriction is not applied to the denominators. If this algorithm were actually implemented this error would cause both CLEC and Retail results to appear shorter than they actually were.

    c. Unlike the previous two situations (#1 & #2 immediately above), the CLEC numerator algorithms for MR-4-04-3341, MR-4-04-3342, MR-4-04-3343 and MR-4-04-3345 correctly show two numerator algorithms each, one for dispatched-out tickets (based on actual_duration_stop) and one for other tickets (based on actual_duration_run). However, they incorrectly indicate that the formula is

(Numerator 1 / Denominator 1) * 100.

In fact the formula should be stated as:

((Numerator 0 + Numerator 2) / Denominator 0) * 100, in the case of MR-4-04-3341,

and as

((Numerator 1 + Numerator 2) / Denominator 0) * 100, in the case of MR-4-04-3342.

The second numerator is not labeled in the algorithms for MR-4-04-3343 and MR-4-04-3345. If it were labeled and its label incorporated into the formula as indicated above for 3341 and 3342 the issue would be resolved.

d. The CLEC denominator formula for MR-4-04-3343 incorrectly restricts to non-dispatched-out tickets only. If it had been implemented, (it wasn't), this would have incorrectly reduced the denominator without impacting the numerator, causing the CLEC results to appear longer than they actually were, and potentially leading to disparity determinations even when parity service was being provided.

e. From the results, as well as from the algorithms, it appears that the *stop clock* is also being used for **Line Sharing** and **Line Splitting** product categories as well. If this is appropriate, it should be indicated in the C2C Guidelines.

Verizon PA responded to ER D-031, agreeing with the documentation issues (a) thru (d). Verizon PA agreed with DCI's assessment that these were documentation-only issues, and did not affect the actual code run or the calculated results. Verizon PA indicated that these issues would be corrected in the June CMA.

DCI has checked the June CMA, and found that the issues identified have been corrected for the following algorithms:

- MR-4-01-3341
- MR-4-01-3550
- MR-4-02-3341
- MR-4-02-3342
- MR-4-02-3343
- MR-4-04-3341
- MR-4-04-3342
- MR-4-04-3343
- MR-4-04-3345

However, they have not been corrected for:

- MR-4-02-3550
- MR-4-03-3341

- MR-4-03-3342
- MR-4-03-3343
- MR-4-03-3345

In addition, the June algorithm provided for MR-4-03-3550 does not implement the stop clock.

Regarding issue (e), Verizon PA indicated in their response to ER D-031 that stop clock times are in fact appropriate for Line Sharing and Line Splitting, and that this is included in the June Guidelines via changing the term *UNE 2 Wire xDSL Loop products* to *UNE 2 Wire xDSL products,* which includes xDSL products for Loops, Line Sharing and Line Splitting.

DCI finds the June Guidelines change unclear. The list of products for which a provision applies is not stated in terms of the products reported or separately for each relevant sub-metric. In this case, since UNE 2wire xDSL Loops, UNE Line Sharing, and UNE Line Splitting are all reported separately, the Guidelines should indicate the applicability of the limited stop-clock basis for these products in a manner in which the products are individually identified.

5. MR-4 Retail Comparatives For UNE Loop, UNE 2 Wire Digital Loop, And UNE 2 Wire xDSL Products (Loop, Lineshare, Linesplitting) Are Inappropriate.

Where the CLEC measurement is based on a limited stop clock for dispatched out tickets, the retail comparative measurement used in parity determinations should also be based on using a limited stop clock for dispatched out tickets. Otherwise the retail comparatives will be inflated for the dispatched out tickets, as the run clock times used in the trouble duration intervals will generally be substantially longer than the stop clock times. This will lead to potential disparity situations being masked in the measurement results. This affects all the MR-4 submetrics for the indicated UNE Loop product disaggregations. It appears that correction of this issue may necessitate a Guideline change. (DCI notes that the June PA CMA shows the retail comparatives for Line Sharing and Line Splitting using a limited stop clock for MR-4-04, but not for MR-4-01, MR-4-02, or MR-4-03. DCI has not yet examined the June CMA MR-4-06, MR-4-07, and MR-4-08 algorithms in this regard.)

6. MR-4-01-2216 Standard Deviation Is Calculated Incorrectly (ER D-033).

DCI independently calculated Verizon PA's statistical scores using the results, denominators and retail standard deviations provided on the C2C reports. DCI also performed this calculation independently from the FACT Table. In this MR-4 metric result, MR-4-01-2216, the results and denominators matched perfectly, yet the statistical scores did not. The only explanation for this is that the standard deviations were not calculated similarly. As illustrated in the table below, this anomaly occurred repeatedly for all three months April, May, and June:

Table D-124 – MR-4-01-2216: Trouble Duration Intervals – Specials NonDS & DS0

Month	Determination	CLEC		Retail		
		Troubles	**MTTR**	**Troubles**	**MTTR**	**St. Dev.**
April 2003	VZ C2C	6	6:55:00	412	5:00:54	**5:08:39**
	DCI calc	6	6:55:00	412	5:00:54	**5:13:34**
May 2003	VZ C2C	8	3:30:15	434	4:43:37	**4:00:35**
	DCI calc	8	3:30:15	434	4:43:37	**4:10:13**
June 2003	VZ C2C	9	7:35:07	475	5:04:43	**4:23:29**
	DCI calc	9	7:35:07	475	5:04:43	**4:27:18**

DCI's standard deviation is calculated by the same piece of code that gets executed regardless of whether MR-4-01, MR-4-02, or MR-4-03 is being processed, and regardless of which product disaggregation is analyzed. In many other disaggregations and submetrics, DCI's numerators and denominators match perfectly with Verizon PA's reported results, and in all those cases the calculated statistical scores also match reasonably closely (with some allowance for roundoff error).

In addition, the retail comparative for MR-4-01-3216 is the same as that for MR-4-01-2216, and Verizon PA's reported standard deviation for MR-4-01-3216 does match the DCI calculated standard deviation for both MR-4-01-2216 and MR-4-01-3216, and similarly does not match Verizon PA's reported standard deviation for MR-4-01-2216, even though both were purportedly calculated on the exact same data elements.

For the above reasons, DCI is forced to conclude that Verizon PA has a separate calculation for the retail standard deviation of MR-4-01-2216, and that the algorithm used to calculate this standard deviation is incorrect.

DCI considers it therefore likely that Verizon PA's system design is such that each standard deviation has an algorithm separate from each other, and that there are insufficient safeguards built in to the system design to ensure that a standard deviation is being calculated on the same variable and on the same set of records, as the mean and record count it is supposed to relate to.

Verizon PA responded to ER D-033 as follows:

> "Verizon agrees with the issue but the impact to the result is insignificant. Please see attached impact.
>
> DCI's understanding of the standard deviation calculation is correct. The standard deviation reported for Maintenance and Repair domain is calculated via a separate MicroStrategy algorithm.
>
> a. Verizon uses the STDDEV function available in Oracle to calculate standard deviation.
>
> b. Listed below is the algorithm that produces the standard deviation for the retail MR-4-01-2216 and MR-4-01-3216 metrics. Due to a mapping error for MR-4-01-2216, the result of this query was not

included on the C2C report. This will be corrected following Verizon's change control process.

```
SELECT a11.STATE_CD,
     STDDEV(a11.ACTUAL_DURATION_STOP)
FROM        TB_DM_MNR_TRBL_FACT_SPL a11
WHERE       (NVL(a11.EXCLUDE_BY_FST_IND,0) = 0
 and a11.TEST_ACC_IND = 'N'
 and a11.STATE_CD in ('PA')
 and a11.ACCESS_EXCL_IND in ('B','N')
 and a11.REPORT_PERIOD = '200306'
 and a11.CORP_TEL_IND = 'N'
 and NVL(a11.ADMIN_REPEAT_FLAG,'N') = 'N'
 and a11.FGTE_IND = 'N'
 and a11.REPORT_CATEGORY = '1'
 and a11.TROUBLE_CD in ('FAC', 'CO')
 and a11.DS_LEVEL = 'DS0'
 and a11.SERVICE_LEVEL_CD = 'S'
 and a11.PROVIDER_IND = 'L')
GROUP BY    a11.STATE_CD"
```

DCI reiterates its finding that Verizon PA's system design is such that each standard deviation has an algorithm separate from each other, and that there are insufficient safeguards built in to the system design to ensure that a standard deviation is being calculated on the same variable and on the same set of records, as the mean and record count it is supposed to relate to.

7. **MR-4-04-2216 Statistical Scores Are Unrealistic.**

DCI independently calculated Verizon PA's statistical scores using the results, denominators, and retail standard deviations provided on the C2C reports. DCI also performed this calculation independently from the FACT Table. For MR-4-04-2216, the calculation resulting from the hypergeometric distribution resulted in a cumulative distribution function value higher than .999995, so DCI performed its calculation using the normal approximation to the binomial instead. In this instance, Verizon PA's result was ">5.0000" for all three months.

Table D-125 – MR-4-04-2216 % Troubles cleared within 24 hours – Specials – DS0 and Non DS0/DS1/DS3

Month		CLEC			Retail			Stat.	Compliance
		Num	Denom	Result	Num	Denom	Result	Score	Score
April	DCI calculation	6	6	100%	404	412	98.06%	0.34221	0
	VZ C2C Results	6	6	100%	404	412	98.06%	> 5.000	0
May	DCI calculation	8	8	100%	431	434	99.31%	0.23383	0
	VZ C2C Results	8	8	100%	431	434	99.31%	> 5.000	0
June	DCI calculation	9	9	100%	473	475	99.58%	0.19325	0
	VZ C2C Results	9	9	100%	473	475	99.58%	> 5.000	0

In all of these cases, DCI and Verizon PA are completely in agreement regarding the underlying data. However, the statistical scores are wildly different. DCI considers the statistical scores provided using Verizon PA's methodology completely unrealistic for these data. Specifically, consider an event that has .9958 probability of occurring. The chance that it will occur on each of 9 independent trials is $(.9958)^9$, or .9627. This is nowhere near so unlikely as to result in a statistical score of >5, which would be reasonable only if this chance had been so small as .000001 or so.

While this example involves a case where performance provided the CLECs is slightly better than that provided Retail, DCI considers the opposite situation will also result in unrealistic statistical scores, indicating disparities where none exist. Verizon PA should implement a statistical methodology which is more robust at results close to 0% and 100%.

MR-5 FINDINGS

1. Most Discrepancies In The MR-5 Retail Numerators And Denominators Are Due To Verizon PA's Inclusion Of Payphones In The Metric Results (DR D-017).

See discussion on Page D-80 for Finding 2 re Metric MR-2

2. The PA April/May Maintenance CMA Was Incomplete (ER D-030).

The Pennsylvania April/May Maintenance CMA (provided by Verizon PA on August 1) was very incomplete. No algorithms were provided for the MR-4-06, MR-4-07, MR-4-08 and MR-5-01 submetrics. Verizon PA agreed and indicated they would provide these algorithms in the June CMA's. DCI received these in late September, and the missing algorithms were provided therein. The algorithms for these submetrics currently occupy pages 233 through 348 of the June Maintenance CMA, thereby constituting 33% of the June Maintenance CMA.

3. MR-5 POTS Loop Exclusion Of Redirects Implemented Incorrectly (ER D-032).

Verizon PA uses the code segment: ©[23]

```
and (not (a11.DISPATCH_IN_CNT <= 1
and a11.DISPATCH_OUT_CNT = 1))
```

to implement the exclusion of redirected troubles. DCI does not consider this code to properly implement the required exclusion which is

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> "A trouble ticket is considered a redirect if it was dispatched **IN** once and **OUT** once, and the trouble was found on the second dispatch (due to a CLEC error in the initial dispatch direction)."

The above code would exclude any ticket which was dispatched **OUT** once, as long as it had not been dispatched **IN** more than once. ***Therefore tickets which had never been dispatched IN would be incorrectly excluded by this code***. In addition, nothing in this code restricts the exclusion to the second dispatch. DCI considers the exclusion much too broad.

Restricting the exclusion to operate only when a ticket had been dispatched **IN** once could be accomplished by changing the DISPATCH_IN_CNT <= 1 to DISPATCH_IN_CNT = 1. DCI considers such tickets "possible redirects". Those which had DISPATCH_IN_CNT = 0 are not even candidates for redirects and certainly should not be excluded. Among the "possible redirects" the trouble may or may not have been found on the second dispatch, so not necessarily are all "possible redirects" definitely redirects and not necessarily all "possible redirects" should be excluded.

The above discussion applies to the determination of whether a ticket is a redirect. In regard to MR-5, the redirect status of the repeat ticket is not a cause for exclusion. Rather, the Data Warehouse to Data Mart Spool Procedure evaluates whether the original ticket is a misdirect. If that is the case, then the NON_MISDIRECT_IND field is set to "N" on the repeat ticket, and the metric calculation algorithms exclude such records from counting in the MR-5 numerators.

DCI's concern is that if misdirect identification was implemented in an overly broad fashion in the spool procedure, as it was in the case of the POTS LOOP redirect exclusion in MR-3 and MR-4, then many original tickets which were never dispatched IN, and are therefore not misdirect candidates, will have been incorrectly identified as misdirects, resulting in repeat tickets being excluded from the MR-5 results.

Verizon PA's response to ER D-032 (received 11/10/03) dealt with a language change to the June Guidelines which added the sentence "Reports with multiple dispatches in the same direction are not excluded". While this language clarification agrees with the code Verizon PA uses (in that dispatch counts higher than 1 in either direction are not excluded), Verizon PA did not address the case of reports which are never dispatched **IN** being incorrectly excluded. DCI maintains that Verizon PA's implementation in the metric calculation procedures is incorrect. DCI suspects that Verizon PA used the same logic in the spool procedure but has not determined this to be the case yet.

4. <u>MR-5 Certain Records Are Excluded From The Numerator Which Are Not Excluded From The Denominator.</u>

The Guidelines call for trouble tickets not to be counted as repeats if either (a) a No Access situation is encountered, or (b) the original ticket was misdirected. In these cases, the repeat ticket is not counted as a repeat, but is counted in the denominator. DCI considers that when measuring an attribute, anything, other than the absence of the measured attribute itself, which prevents consideration for that attribute should be a cause for excluding the transaction from

both numerator and denominator. In this case, if No Access or original misdirect are conditions which make whether the ticket is a repeat or not irrelevant, then No access tickets and original misdirects should be removed from the pool of tickets being considered completely, and therefore be excluded from the denominator just as they are from the numerator. Otherwise the measurement result is misleading. Correction of this issue would appear to require a change to the Guidelines.

5. The MR-5 Calculated Measurement Results Are Generally Accurate.

With the exception of the inclusion of Payphones and the possible incorrect implementation of original misdirects, Verizon PA's calculated MR-5 results have been implemented correctly.

D – RECOMMENDATIONS

Recommendations which address Maintenance and Repair Metrics, including those related to findings listed in Appendix D, are located in Chapter IV – Measurement Calculations and Chapter V – Measurement Results. In some instances they have been subsumed into broader recommendations.