FL SEEM Cell level disaggregation

Summary

The current FL SEEM has too much disaggregation. The level of disaggregation in the current plan produces the following undesirable effects:

1. 50% of the submetrics in the Tier 1 SEEM submetrics in Florida have only 4 or less cells upon which to base a pass/fail determination.

2. 50% of the cells for Tier 1 proportion measurements contain only 1 transaction. 80% of the cells for Tier 1 mean measurements contain 3 transactions or less.

BellSouth's proposed SEEM disaggregation is expected to a more reliable evaluation of performance for each submetric.

3. With BellSouth's proposed SEEM disaggregation the number of cells upon which to base a pass/fail determination is expected to more than double.

Discussion

In order to understand the following analysis, it is helpful to describe the formation of cells so that CLEC and BellSouth retail data can be compared. A cell is formed by assigning CLEC and retail data according to several attributes. For example Maintenance and Repair (M&R) cell attributes include the submetric, wire center, the activity type, and the product. For each CLEC having activity satisfying all these criteria, and where there is corresponding ILEC data, a cell is created as described in the following diagram.

In this diagram, 3 cells are created from the transactions of three CLECs. An example of these might be UNE-P installations from three CLECs in the same wire center.
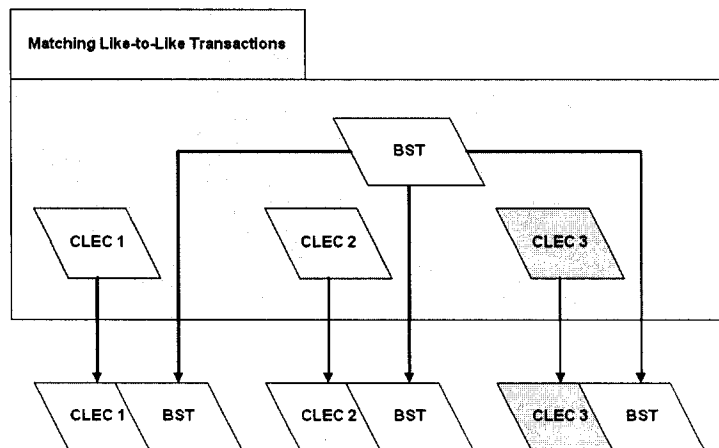
The next step is to evaluate all of the transactions in a submetric for each CLEC having activity in the reporting month.
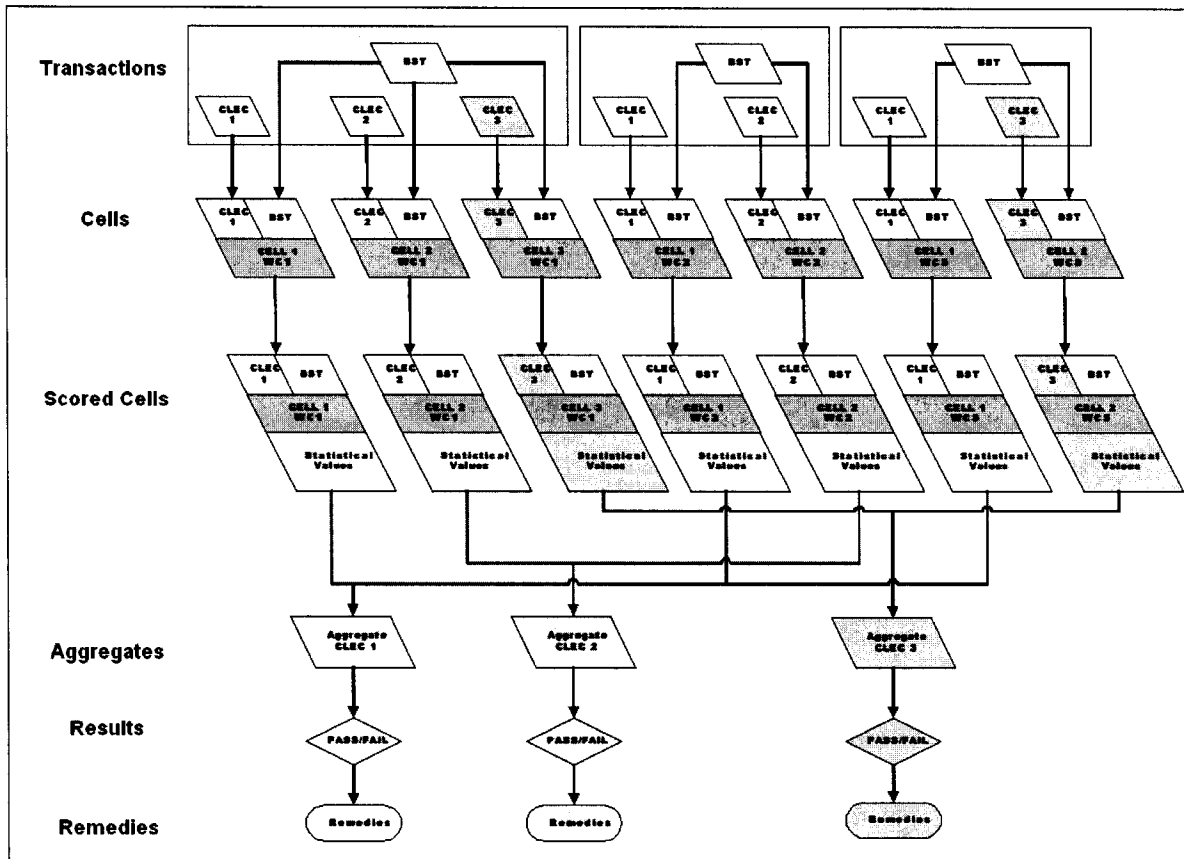
In the above diagram, the same submetric is evaluated for three CLECs in three different wire centers. The universe for these three different submetrics is comprised of the transactions for three CLECs which appear in three wire centers. To illustrate, assume the first transaction of CLEC 1 at the top left hand corner (light blue) is a missed repair appointment in a Miami Central Office. The next transaction (light green) is a missed repair appointment in an Orlando C.O. and the third transaction (beige) is a missed repair appointment for CLEC 3 in a Jacksonville C. O. These transactions are assigned to cells, matched up with BellSouth retail transactions and the resulting cells are 'scored' to get the Z-Score. The cells for the three CLECs are then aggregated to get the Aggregate Z Statistic, a pass/fail determination is made and penalties are calculated where appropriate.

The greater the number of transactions in a cell, the greater the reliability of the Z test for that cell. Similarly, the greater the number of cells which are aggregated in a submetric, the greater the confidence of the pass/fail determination for the submetric.

However the high level of disaggregation in the current SEEM plan results in few cells being assigned to a submetric. For example, the following table shows the maximum number of cells in the Tier 1 SEEM submetrics evaluated in Florida in May 2004.

Number of Cells in SEEM submetrics Tier 1. May 2004 Florida		
Type of Submetric >>>>>	Mean	Proportion
Max number of cells in 20% of submetrics	1	1
Max number of cells in 30% of submetrics	2	2
Max number of cells in 40% of submetrics	3	3
Max number of cells in 50% of submetrics	4	4
Max number of cells in 60% of submetrics	7	7

Of all of the Mean Tier 1 Submetrics evaluated in May, 20% of the submetrics were evaluated, based on only one cell. In other words, 20% of BellSouth's performance and the associated penalty calculations were based on performance in one wire center, for one CLEC for one product type and one activity type. Furthermore, fully 50%, half, of BellSouth's performance and the associated penalties was based on only 4 cells or less. This table shows the maximum number of cells that were in the submetrics evaluated. To clarify, 60% of the Tier 1 submetrics evalatuated had 7 cells or less. Actually half of these, 30% had no more than 2 cells per submetric.

The fine disaggregation of the existing SEEM plan is a major contributor to basing penalty payments on a very few number of cells within each submetric.

Having few cells per submetric is exacerbated by the fact that the cells themselves are populated by very few transactions. This table illustrates the number of CLEC transactions in a cell of the Tier 1 SEEM Mean submetrics in Florida in May 2004. For example, 11,216 (or 50%) of the cells had only 1 CLEC transaction. Nearly 80% of the cells had 3 or less CLEC transactions.

CLEC transactions in a cell. Mean submetrics Tier 1. May 2004 Florida			
		Percent of Cells	
# CLEC transactions	# cells	Percent	Cum. %
1	11216	54.0%	54.0%
2	3397	16.4%	70.4%
3	1569	7.6%	77.9%
4	996	4.8%	82.7%
5	612	2.9%	85.7%
6	451	2.2%	87.8%
7	360	1.7%	89.6%
8	272	1.3%	90.9%
9	219	1.1%	91.9%
10	183	0.9%	92.8%
11	157	0.8%	93.6%
12	129	0.6%	94.2%
13	110	0.5%	94.7%
14	97	0.5%	95.2%
15	84	0.4%	95.6%
> 15	912	4.4%	100.0%

The next table is for the Tier 1 Proportion submetrics. Here the situation is more of a problem. More than 50% of the cells for the Proportion submetrics have only one transaction.

# CLEC transactions	# cells	Percent	Cum. %
1	28408	51.9%	51.9%
2	8838	16.1%	68.0%
3	4170	7.6%	75.6%
4	2616	4.8%	80.4%
5	1651	3.0%	83.4%
6	1255	2.3%	85.7%
7	930	1.7%	87.4%
8	766	1.4%	88.8%
9	584	1.1%	89.9%
10	521	1.0%	90.8%
11	448	0.8%	91.7%
12	371	0.7%	92.3%
13	312	0.6%	92.9%
14	298	0.5%	93.5%
15	198	0.4%	93.8%
> 15	3387	6.2%	100.0%

CLEC transactions in a cell. Proportion submetrics Tier 1. May 2004 Florida — **Percent of Cells**

Proposed Disaggregation

BellSouth's proposed SEEM disaggregation should improve the statistical confidence of the SEEM measurements. While we don't have the ability to process Florida data using the proposed disaggregation (as significant programming would be required) we can consider Georgia data and the current Georgia disaggregation to be representative of Florida data under the proposed Florida disaggregation, at least in terms of the number of cells evaluated for the Tier 1 SEEM submetrics.

The following table shows the maximum number of cells in the Tier 1 SEEM submetrics evaluated in Georgia in May 2004. When compared with the above table for the current Florida plan, the number of cells in a submeteric using the Georgia

Type of Submetric >>>>>	Mean	Proportion
Max number of cells in 20% of submetrics	2	2
Max number of cells in 30% of submetrics	3	4
Max number of cells in 40% of submetrics	6	6
Max number of cells in 50% of submetrics	11	11
Max number of cells in 60% of submetrics	17	19

Number of Cells in SEEM submetrics Tier 1. May 2004 Georgia

disaggregation (which is representative of the proposed Florida disaggregation) is more than double.

As depicted in these two tables, there is little difference in the number of transactions in a cell using the proposed disaggregation for a SEEMsubmetric mainly because BellSouth's proposed disaggregation does not result in a significant modification to the attributes resulting in cell assignment.

However the fact that there are more cells used in the evaluation of a SEEM submetric means that the resulting pass/fail determination will be more reliable.

CLEC transactions in a cell. Mean submetrics Tier 1. May 2004 Georgia			
		Percent of Cells	
# CLEC transactions	# cells	Percent	Cum. %
1	9725	54.0%	54.0%
2	3052	16.9%	70.9%
3	1444	8.0%	78.9%
4	938	5.2%	84.1%
5	579	3.2%	87.3%
6	399	2.2%	89.5%
7	284	1.6%	91.1%
8	226	1.3%	92.4%
9	190	1.1%	93.4%
10	124	0.7%	94.1%
11	105	0.6%	94.7%
12	104	0.6%	95.3%
13	73	0.4%	95.7%
14	57	0.3%	96.0%
15	48	0.3%	96.2%
> 15	676	3.8%	100.0%

CLEC transactions in a cell. Proportion submetrics Tier 1. May 2004 Georgia			
		Percent of Cells	
# CLEC transactions	# cells	Percent	Cum. %
1	22396	49.5%	49.5%
2	7427	16.4%	65.9%
3	3626	8.0%	74.0%
4	2382	5.3%	79.2%
5	1527	3.4%	82.6%
6	1178	2.6%	85.2%
7	840	1.9%	87.1%
8	663	1.5%	88.5%
9	572	1.3%	89.8%
10	400	0.9%	90.7%
11	382	0.8%	91.5%
12	318	0.7%	92.2%
13	237	0.5%	92.8%
14	221	0.5%	93.2%
15	214	0.5%	93.7%
> 15	2839	6.3%	100.0%