

**X – CHANGE MANAGEMENT PROCESS AND DATA  
STORAGE REVIEW**

## **X – CHANGE MANAGEMENT PROCESS AND DATA STORAGE REVIEW**

### **A – BACKGROUND**

This chapter addresses two areas - change management and data storage, backup, retrieval, and security. The change management review includes the evaluation of Verizon PA's Performance Assurance Plan (PA PAP) and Metric calculations, Change Management processes and procedures, and whether those processes and procedures conform to reasonable levels of quality and change control management. The evaluation focused on whether the Change Management process being used is sufficient to maintain control of changes to the performance metrics and their subsequent reporting.

The review of data storage, backup, retrieval and security includes the determination as to whether sufficient documentation exists describing the data storage, backup and retrieval process along with Competitive Local Exchange Carrier (CLEC)/user's access and information protection and performance measurement results. The adequacy of individual performance measurement metrics' descriptions documentation is addressed in other areas of the report.

### **CHANGE MANAGEMENT PROCESSES**

The purpose of the Wholesale Performance Assurance Metric Change Management Process is to manage and control changes to the Wholesale metrics, performance reports and metric-related processes. It is intended to provide integrity to the overall Wholesale Performance Measurement System by documenting why, where, how and when a change is made. The purpose of the Change Management process is to ensure that only authorized metric-affecting changes are implemented, and that such changes are in compliance with the appropriate guidelines.

A metric change is any change to a process or system that affects the way a metric is counted, collected or calculated. It can be initiated by a regulatory order, a change in data provider processing, or identification of a programming problem, process improvement or change that affects a metric result.<sup>1</sup> The Change Management Process addressed describes how Verizon PA and Telecommunication Companies ("TCs") will work together to implement changes to Operations Support System (OSS) interfaces, associated business rules and applicable business processes and applies throughout the region encompassing the former Bell Atlantic (now Verizon) states.<sup>2</sup>

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<sup>1</sup> Data Response PM-002.3, Change Management Policies and Procedures.

<sup>2</sup> Telecommunications Companies (TCs) include Competitive Local Exchange Companies (CLECs), interexchange carriers and other Local Exchange Carriers (LECs) that interface with Verizon.

### Change Request Process

Verizon PA tracks modifications to the program software associated with the calculation and reporting of its Wholesale Operations performance and OSS interfaces. Each Change Request (CR), whether it is for a program modification that affects metrics calculation or reporting or is just a change to improve Verizon PA's work processes, is assigned a CR tracking number. If the requested change involves software modifications or is an OSS Interface change, it is also assigned an Initiative Number for Information System tracking purposes. The Change Management process begins with the identification of the CR and encompasses requirement definition, design, development, notification, testing, implementation, and decommissioning of the CR.<sup>3</sup>

- **Metrics Change Control Database** - The Wholesale Metrics Change Control Database is the tool used by Verizon PA to maintain a controlled repeatable process to manage, track and build an audit trail for all changes to Wholesale Metrics processes and results.
  - All change types are tracked within the same change control database using the same template to create all change control records. The template has a field to specifically identify the change type.<sup>4</sup>
  - The initial database form that identifies the change is the Change Control Identification form (CCI). The database form that documents the approved change request and associated requirements is the Change Control Record (CCR).
    - An approved CCR is required to authorize implementation of any change that fits the criteria of a “metrics change”. Change Control Process Summary:
    - Operational or system changes that improve performance only are not subject to the Change Control Process.
- Change Control Process Summary:
  - **Metric Review Process** - The Regulatory Support Group (RSG), Business Owner and Wholesale Performance Assurance (WPA) Vice president reviews the issue to ensure that it is valid.
  - **Initiate CCR** - Metric change requests are forwarded to the RSG Manager for review. If the request is appropriate, the RSG Manager completes a CCR and submits it for approval.
  - **Approve CCR** - New CCRs are referred for approval to the Vice President, WPA and the Direction, Change Control Process Management.

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<sup>3</sup> Data Response PM-002-3.

<sup>4</sup> Data Response A-040.

CCRs that are not approved are either referred back to the RSG for further information, or retracted.

- **Issue CCR** - The Change Control Manager (CCM) issues the approved CCR to the appropriate Data Provider(s) (DPs) within Verizon PA for implementation. This also triggers notification to several other groups such as the Production Team, and Information Technology (IT).
- **CCR Development** - If needed, DP(s) request clarification of CCR requirements. DP(s) assess the CCR requirements to determine the level of effort needed to implement the change and provide a commitment date. The DP commitment date triggers CLEC notification.
- **CCR Implementation** - Data Validator(s) complete the work and generate a test file that validates that the change has been implemented according to the CCR requirements.
- **CCR Validation** - The Business Owner, along with the appropriate RSG director, validates the change which fulfills the CCR requirements. Simultaneously, the DR(s) use the appropriate test file to verify, where applicable, that mappings to the report template are correct. If mapping validation is successful, the DP puts the change into production and provides a production file to the DRs. When the production file is run successfully, the DR signs off that testing is completed.
- **CCR Completion** - The CCM completes the CCR after confirming that all process and CCR requirements have been met. Data that reflects the change may be reported only after this final verification step is completed and the CCR is closed out in the database.

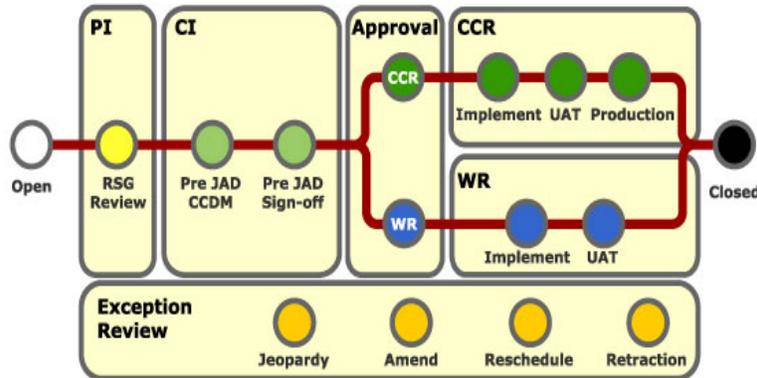
### MTACT Flow Diagram (“Subway Chart”)

The flow diagram shown on Table X-1 illustrates the Metric Tracking & Change Tool (MTACT). Each circle on the MTACT Flow Diagram represents a stage in the change control process.<sup>5</sup>

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<sup>5</sup> Data Response A-034.

**Table X-1**  
**Metric Tracking & Change Tool (MTACT)**



# MTACT

MetricTracking & Change Tool

- Up-Front OSS Source System Change Request Process:

When anyone (client organization or Information Technology (IT) organization) requests IT work, an IT initiative is needed. The request is entered through a system called Change Request & Edit Management System (CREMS) that creates the Initiative. The CREMS system has replaced the Change Identification (CID) template. The initiative process in CREMS is now automated and does not require manual work by either the System Analysis & Integration (SAI) or Software Engineering Solutions (SES) organizations to create an initiative.

Once an initiative has been created, the documentation includes a Metrics check list on which all IT groups are to indicate their completion of a metrics impact assessment. If any group indicates that the work required is metric impacting, then the initiative is sent to the Network Metric Platform (NMP) control organization. The NMP works with the WPA organization to create a Change Control Identification (CCI) form. The NMP organization then notifies SAI whether a CCR is required or not.

In an effort to determine the metrics impact and what information the CCI should contain the NMP control organization holds Pre-Joint Application Development (JAD) sessions with WPA prior to writing a CCI. Once the CCI is written then the CCR will be “opened” and grants the approval necessary to authorize the IT organization to do the work requested. The minutes from the pre-JAD review are recorded within the MTACT change control document.<sup>6</sup>

<sup>6</sup> Data Response A-037.

- **Assessing CREMS** - CREMS allows creation & tracking of Wholesale Services Change Requests/Edit Change Requests, and provides creation of the Initiative in the IT Initiative Database through an automated process. CREMS is used to track, manage & report on Wholesale initiatives (excluding Access Services).
- **Initiative CCR** - The change control process begins with the need for a metric change as documented on a CCI form in the database. Verizon PA personnel involved in metric development or production may initiate a CCI. This includes, but is not limited to the following:
  - Wholesale Metrics Team – Report Production
  - Wholesale Regulatory Support
  - Data Providers (DP)
  - Wholesale Metrics Quality Assurance Team
  - IT
- Certain types of changes must be initiated by the Regulatory Support organization only. These include, but are not limited to:
  - Regulatory Orders
  - Changes to metric definitions
  - Implementation of new metrics
  - Clarification of metric definitions
- **CCR Approval** - RSG Mangers, CCM's and WPA Approvers meet for a final review of a CCR and to make the approval decision. CCR requirements are discussed, and appropriate updates are made to the CCR as needed. The Vice President, WPA and the Director, Change Control Process Management (or a designated approver during their absence) approves a CCR.
- **Issue CCR** -Approved CCRs are issued for implementation after the CCM completes a last review to ensure the CCR is correct and the Notifier information and milestone dates are complete.
- **CCR Development Phase** - Upon receipt of the CCR, the DP reviews the CCR to determine if the CCR requirements or fields on the CCR are correct and complete.
- The DP then assesses the level of effort required to implement the change and determine a commitment date for completion of the work. This must be done in the context of the **CCR Date Due** (found in the *Change Request Information* section of the CCR) and the **DP Response Date** and **Data Validation Date** (found in the *CCR Milestone Dates* section of the CCR). The interim dates correspond to milestone steps within the Change Control Process.

- **CCR Implementation** – The DP implements and tests the change, and provides a validation (test) file with sign-off to the CCM via the Data Validation form. Data Validation must be performed with the previous month’s production data file. The only exception is when the previous month’s data file does not contain the required data or fields to support the change. CCM reviews the validation information for completeness.
- **Metric Business Owner & RSG Director Validation** – The Metric Business Owners are the Verizon PA managers who are responsible and assigned to a specific Domain Performance Assurance Metric. The Business Owners and the RSG for the affected report and jurisdiction review the CCR to validate that the proposed Change fulfills the requirements stated on the CCR.

### Change Classifications

There are five types of classification changes that are subject to the MTACT Change Control process. Each change classification also falls into one of three Severity Levels, with different approval levels. The five classifications of changes are:

- Type 1 – Maintenance Change,
- Type 2 – Regulatory Change,
- Type 3 – Industry Guideline Change,
- Type 4 – Verizon PA Originated Change and
- Type 5 – Telecommunications Companies (TC) Originated Change.<sup>7</sup>

- **Type 1 Change (Maintenance)**

A Type 1 change corrects problems in production versions of an OSS interface. Either Verizon PA or the TCs may initiate the CR. Typically, this type of change reflects instances where a technical implementation is faulty or inaccurate, such as to cause incorrect or improperly formatted data. Instances where Verizon PA or TCs misinterpret interface specifications and/or business rules must be addressed on a case-by-case basis. Type 1 changes are processed on an expedited basis. Additionally, once a Type 1 change is identified, the Change Management Team must determine the nature and scope of the problem. Type 1 changes are categorized as follows:

- **Severity 1: Interface Unusable** - Interface discrepancy results in totally unusable interface. TC Orders/Pre-Orders/Maintenance Requests cannot be submitted or will not be accepted by Verizon PA. Manual work-arounds are not feasible. Change is considered essential to continued operation

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<sup>7</sup> Data Response A-011, Document Provided in Domain Workshop May and June, Wholesale Network Services OSS Interface Change Management Process, Version 2.0, December 14, 2000.

- **Severity 2: Interface Affecting** - Orders/Pre-Orders/Maintenance Requests require work-around on the part of Verizon PA or TC(s). Change is considered significant to efficient operations.
- **Severity 3: Process Impacting** - Orders/Pre-Orders/Maintenance Requests can be submitted and will be accepted through normal process/interfaces. Clarification or correction is considered critical to ongoing operations.

- **Type 2 Change (Regulatory)**

Type 2 changes required in order to comply with state or federal law, orders or specific directives by regulatory authorities (such as the Federal Communications Commission), state or federal court orders, or required to meet standards, metrics, or other obligations imposed by, or under agreement with, the FCC or state commissions. Either Verizon PA or, as applicable, the TC may initiate the CR.

- **Type 3 Change (Industry Guidelines)**

Type 3 changes affecting interfaces between the TC's and Verizon PA's operational support systems requested to bring these interfaces in line with agreed upon telecommunications industry guidelines are Type 3 changes. Either Verizon PA or the TC may initiate the Change Request. These are industry guidelines defined by trade groups, such as the Alliance for the Telecommunications Industry Solutions (ATIS). Guidelines of particular relevance are those for OSS interfaces and local services ordering as defined by the Ordering and Billing Forum (OBF), Electronic Data Interchange (EDI) standards defined by the Telecommunications Industry Forum (TCIF), and trouble reporting interfaces defined by the Electronic Commerce Interexchange Committee (ECIC).

- **Type 4 Change (Verizon PA Originated)**

A Type 4 change may be a change affecting the interfaces between the TC's and Verizon PA's OSS. This change type is initiated by Verizon PA and is other than a Type 1, 2 or 3 change. These changes might reflect a business process improvement which Verizon PA is seeking to implement within its own internal OSS. For example, this class of change may, in certain circumstances, affect how the TCs interact with Verizon PA.

- **Type 5 Change (TC Originated)**

A Type 5 change is a change affecting the interfaces between the TC's and Verizon PA's OSS and is initiated by a TC. This change class is other than a Type 1, 2 or 3 change. For example, this change might reflect a business process improvement which the TC is seeking to implement within its own internal OSS

and that implies a change in the way the TC wishes to interact with Verizon PA. Type 5 changes are changes intended to primarily benefit the TCs.

### Change Controls

**Tracking Mechanism** - Prior to June 2003, a LOTUS Notes System was used to track and control changes. As of September 1, 2003, the Change Control Data Base within MTACT is an interactive real-time system that is used in tracking changes to the wholesale metrics. Exhibit X-1 is an example of the computer screen for a single CR.<sup>8</sup>

### Change Control Reports and Log Records

- Standard MTACT Change Control Reports - There are currently seven standard control reports that are routinely executed by Verizon PA's Change Control, Regulatory and IT staffs. These are shown on Table X-2 as follows:

**Table X-2**  
**Standard MTACT Change Control Reports**

<b>Report</b>	<b>Description</b>
Project Management Report	The project management report details the current state of all change requests for a given data month.
Pre-JAD Sign-off Report	The PreJAD sign-off report details change requests that have outstanding PreJAD sign-offs.
Approvals Required Report	This report details change requests that have outstanding approvals.
Executive Summary Report	This report summarizes change requests by executive group (for example FCC-East, NJ, ...).
Executive Detail Report	This report details change requests by different domains/owners in a given region as specified in the Executive Summary Report.
On-Behalf-Of Report	This report highlights all signoffs, confirmations, and approvals performed "On behalf of" another user group for a specified date range.

Source: Data Response A-033.

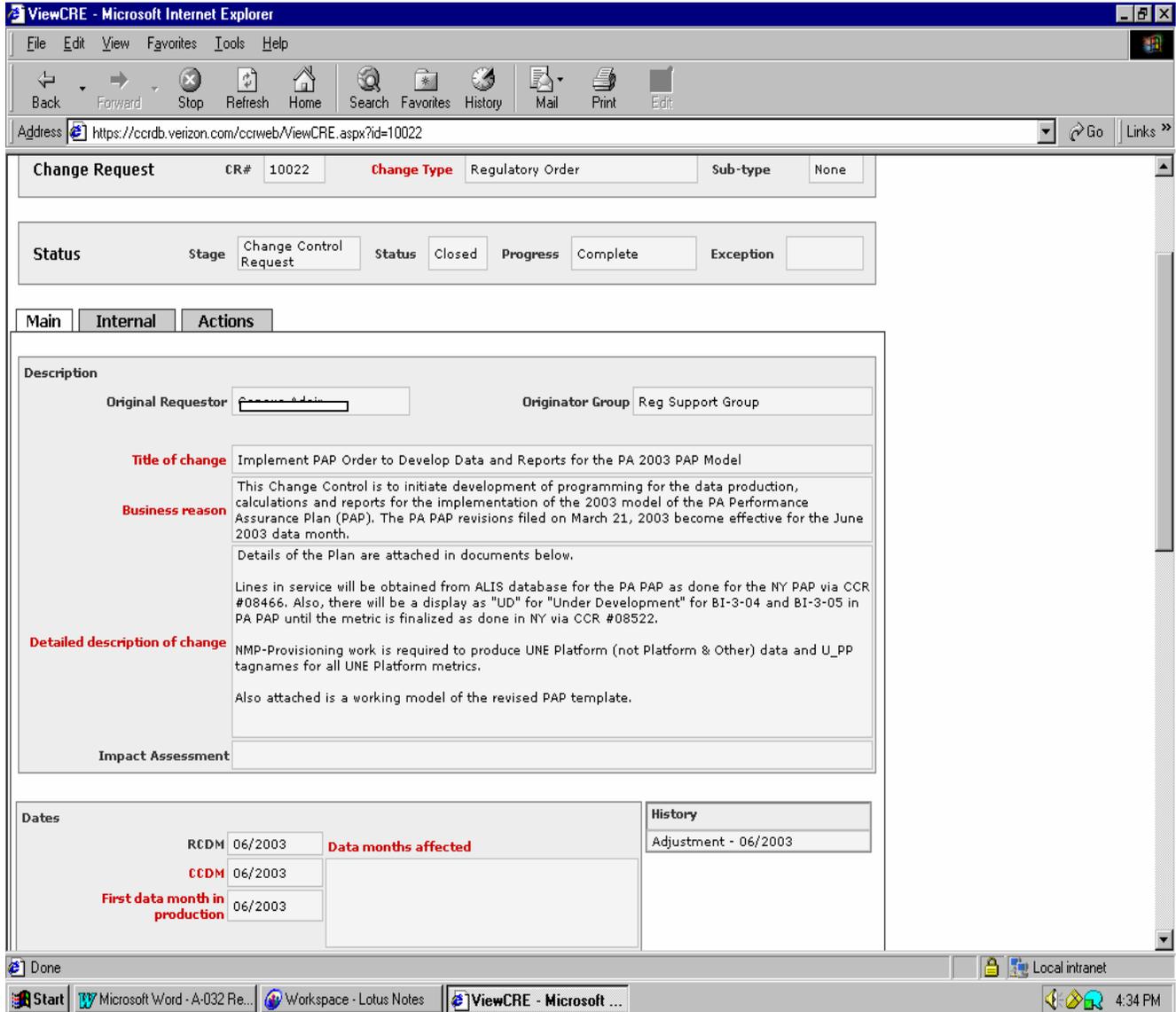
- **Summary of August Standardized Project Management Report** – Domain (i.e., Pre-Order, Order, Provision, M&R and Billing) information which was extracted from the August 2003 Standard Project Management Report (which was the most current report at the time of DCI's data gathering effort) is listed on Exhibit X-2. As shown on the Exhibit X-2, there were 13 Data Calculation Corrections, 10 Regulatory Orders and 18 Process Improvements, and 31 others, for a total of 72 reports.<sup>9</sup>

<sup>8</sup> Data Response A-032.

<sup>9</sup> Source: Data Request A-033 for copies of Standard MTACT System Change Control Reports reviewed from Interview A-008.

Exhibit X – 1

**SINGLE CHANGE REQUEST  
COMPUTER SCREEN**



## Exhibit X-2

**PROJECT MANAGEMENT REPORT – CCDM**  
**AUGUST 2003 – ALL DOMAINS**

<u>Domain</u>	<u>Issue Type</u>	<u>Total</u>	<u>Domain</u>	<u>Issue Type</u>	<u>Total</u>
PO	Data Calc Correction	1	BI	Data Calc Correction	0
PO	Regulatory Order	2	BI	Regulatory Order	1
PO	Process Improvement	0	BI	Process Improvement	1
PO	Others	<u>4</u>	BI	Others	<u>3</u>
	Domain Total	7		Domain Total	5
OR	Data Calc Correction	1	NP	Data Calc Correction	1
OR	Regulatory Order	2	NP	Regulatory Order	1
OR	Process Improvement	8	NP	Process Improvement	0
OR	Others	<u>4</u>	NP	Others	<u>2</u>
	Domain Total	15		Domain Total	4
PR	Data Calc Correction	8	GE	Data Calc Correction	0
PR	Regulatory Order	2	GE	Regulatory Order	1
PR	Process Improvement	5	GE	Process Improvement	0
PR	Others	<u>8</u>	GE	Others	0
	Domain Total	23		Domain Total	1
MR	Data Calc Correction	2	OD	Data Calc Correction	0
MR	Regulatory Order	1	OD	Regulatory Order	0
MR	Process Improvement	3	OD	Process Improvement	0
MR	Others	<u>8</u>	OD	Others	<u>1</u>
	Domain Total	14		Domain Total	1
NONE	Data Calc Correction	0	Total- All	Data Calc Correction	13
NONE	Regulatory Order	0	Total- All	Regulatory Order	10
NONE	Process Improvement	1	Total- All	Process Improvement	18
NONE	Others	<u>1</u>	Total- All	Others	<u>31</u>
	Process Total	2	Total- All	Total	72

Source: Data Response A-33.

- **Example of Standardized Project Management Report** – Exhibit X-3 illustrates the August 2003 Project Management Report for which data were summarized above. This report displays all of the issues for the month and the Domain to which they belong.
- **Change Control Log Records** - Shown on Exhibit X – 4 are data extracted from the Change Request Log Record to demonstrate the type of information that is being tracked as part of Verizon PA’s Change Management Control Process. As shown on the Exhibit, the report provides Change Request data, Implementation date, scheduled implementation for open items, justification and jurisdiction, implementation date for open CRs, CR status and justification, and jurisdiction.

### Change Control Implementation and Notification

- **June 2003 Change Implementation Activity** - There were 17 change control requests implemented for the month of June 2003, as shown on Table X-3. As of 8/4/03, there are no change control requests under development for the June data month.<sup>10</sup>

**Table X-3**  
**June 2003 Change Control Requests**

<b>Type</b>	<b># Type</b>	<b>Domain</b>	<b># Domain</b>
Data Corrections	3	Maintenance	2
		Ordering	1
Process Improvements	12	Billing	2
		Network Performance	2
		Ordering	3
		Pre-Order	3
		Provisioning	1
		Provisioning, Maintenance	1
Regulatory Order	2	Maintenance, Ordering, Pre-Order, Provisioning, Network Performance, Billing	Multi-domain

<sup>10</sup> Data Response A-036.

Exhibit X-3

**PROJECT MANAGEMENT REPORT**

Project Management Report > CCDM = 08/2003 Geography ALL Execute

Export to CSV Total Change Control Entries Represented: 44

Domain	Issue Type	Potential Issue (PI)		Confirmed Issue (CI)		Amendment		Approval		Implement		UAT		Report Validation		Closed		Domain Totals
		RSG	Doc/Reg	Pre-JAD CCDM	Pre-JAD Signoff	Amend	Amend Confirm	CCR	WR	CCR	WR	CCR	WR	CCR	WR	Comp.	Other	
PO	Data Calc Correction	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Regulatory Order	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
	Process Improvement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Others	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	<b>Total</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>
OR	Data Calc Correction	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Regulatory Order	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
	Process Improvement	4	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	8
	Others	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	<b>Total</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>15</b>
PR	Data Calc Correction	2	0	0	0	0	0	3	0	2	0	0	0	0	0	0	1	8
	Regulatory Order	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
	Process Improvement	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	5
	Others	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	<b>Total</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>23</b>
MR	Data Calc Correction	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
	Regulatory Order	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	Process Improvement	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	3

**Exhibit X-4**  
**Page 1 of 2**

**CHANGE REQUEST LOG SUMMARY**

Change Request Number	Change Request Initiative Number	Change Request Title	Change Req. Type	CR 1st Date	Change Request Imp. Date	CR Scheduled Imp. Date	CR Imp. Status	Change Request Justification	Jurisdiction
1108.4	362387	Flow through Hunting on Partial Migrations - Phase 5	2	9/3/02	4/21/03			OR-5-01/OR-5-03	N & S
1466	363851	Community Choice	2	2/4/03	4/21/03			OR-5-01/OR-5-03	VA
1676	365397	Use of the @ symbol to provide for E-Mail address	2	2/4/03	4/21/03			OR-5-01/OR-5-03	N & S
1857	366822	Process additional NE residence additional lines at Level 5	2	2/4/03	4/21/03			OR-5-01/OR-5-03	N & S
2040.1	368650	Date Due Cutoff Time - Phase 2	2	2/4/03	4/21/03			OR-5-01/OR-5-03	South
2500	375216	Pending LSRs	2	2/4/03	4/21/03			OR-5-01/OR-5-03	N & S
2550	375880	Process for OC4 on Resale and Platform Migrations	2	2/4/03	4/21/03			OR-5-01/OR-5-03	South
2562.3	376027	LSOG 6: Miscellaneous Changes (not covered in other CRs)	3	10/1/02	4/21/03			Industry Standard	N & S
2625	377163	FT MDVW LNP requests which have non engineered centrex phase 4	2	4/1/03	4/21/03			Flow-through Metric OR-5-01/OR-5-03	MD, DC, VA, WV
2642.1	375483	Fictitious Billing Telephone Numbers (fBTN) - Phase 2	2	12/3/02	4/21/03			System Enhancement	MD, DC, VA, WV
2827.2	380857	Platform FX Query-Phase 2	2	3/4/03	4/21/03			Flow through OR-5-01/OR-5-03	South
2833	380872	FT-CLT-fid MDVW-Resale End-User Accounts	2	3/4/03	4/21/03			Flow through OR-5-01/OR-5-03	DC, MD, VA, WV
2834	380873	FT-CLT-fid MDVW-Resale End-User Accounts	2	3/4/03	4/21/03			Flow through OR-5-01/OR-5-03	DC, MD, VA, WV
1472	365405	Revise ISDN Platform Process-SPEC/TOS	2	3/4/03	6/21/03			Remand	N & S
1959.1	368522	Flow-Through Local Package-Phase 2	2	2/5/02	6/21/03			Flow-through	South
2068	369065	Line share Disconnect Notification	5	6/5/01	6/21/03			New functionality	N & S
2259.2	371639	Implement an address validation process (North) & enhance the address validation process (South)	2	3/4/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
2397	373105	End User UNE Listing Account Structure	4	4/1/03	6/21/03			Enhancement	DC, MD, VA, WV
2498	371305	House & Riser Line Share	2	4/1/03	6/21/03			UNE Remand Order FCC 99-338	North
2513	375306	Call Forward Numbers and FT South	2	3/4/03	6/21/03			Flow through OR-5-01/OR-5-03	South
2545.6	372087	RETAS Screen Design-Phase 6	4	12/4/02	6/21/03			System Enhancement	N & S
2551	375876	Change flow-through to accept the BTN on the loop order	5	6/4/02	6/21/03			Flow through OR-5-01/OR-5-03	South
2554	375858	Host-Remote Loops	2	3/4/03	6/21/03			Merger	South
2600	373630	CLEC to CLEC Migrations and Provider Notifications	2	3/4/03	6/21/03			New functionality: Case 00-C-0188	N & S
2624	377162	Create SUP types 4 & 5	2	3/4/03	6/21/03			New functionality	N & S

**Exhibit X-4**  
**Page 2 of 2**

Change Request Number	Change Request Initiative Number	Change Request Title	Change Req. Type	CR 1st Date	Change Request Imp. Date	CR Scheduled Imp. Date	CR Imp. Status	Change Request Justification	Jurisdiction
2625	377163	Centrex Eligibility for FT	2	3/4/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
2634	376795	Change CSS Designed Loop Intervals from 6 to 5 days, North and South	2	3/4/03	6/21/03			System Enhancement: Merger Requirement	N & S
2658	377796	Allow the FID DPA to FT on Line share requests	2	3/4/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
2670	377892	Standardize IMPCON Field Data	2	3/4/03	6/21/03			Flow through OR-5-01/OR-5-03	South
2694	377048	New Hot Cut Non-Recurring USOCs for the State of Delaware	2	3/4/03	6/21/03			Regulatory	DE
2727	378770	East XDSL Extended LQ-Removal of Historical Data	4	11/5/02				System Enhancement	N & S
2764	379402	Query for Invalid TOS	2	4/1/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
2787	379688	LMU PAVA Uniformity Enhancements	2	3/4/03	6/21/03			Regulatory: fBA/fGTE Merger	N & S
2795	378408	RSCP - Local Service Freeze Implementation for UNE-P	2	2/4/03	6/21/03			NJ BPU Mandate	NY
2813	378605	Premise Services on ARDU Stand Alone Loop – East	4	3/4/03	6/21/03			New functionality	N & S
2855	381335	New Process to handle Project V	2	4/1/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
2879	381622	FT of SUP's 1 & 2 when LSR in Jeopardy status	2	4/1/03	6/21/03			Flow through OR-5-01/OR-5-03	N & S
C03-0571	382716	RETAS Screen Enhancements	5	5/6/03	6/21/03			System Enhancement	N & S
C03-0636	382466	Change intervals for Resale POTs and UNE Platform for new RCF and new cut through lines	2	6/3/03	6/21/03			System Enhancement, Metric PR-3-01	N & S
2625	377163	Centrex Eligibility for Flow-through	2	3/4/03	7/19/03			Flow through OR-5-01/OR-5-03	N & S
2695	372640	Line Sharing additional Class of Service Codes	2	2/4/03	7/19/03			NY PSC Mandate	N & S
2828	380769	FT WSOP-V at Level 4	2	3/4/03	7/19/03			Flow through OR-5-01/OR-5-03	South
2397	373105	End User UNE Listing Account Structure	4	4/1/03		8/16/03	Committed	Enhancement	DC, MD, VA, WV
2624	377162	Create of SUP types 4 & 5	2	3/4/03		8/16/03	Committed	Flow through OR-5-01/OR-5-03	N & S
2638	376773	Change NE and NY Hot Cut Intervals to Match South Intervals	4	5/6/03		8/16/03	Committed	System Enhancement: Parity Issue	North
2814	380523	Edit for Bill Section when EATN is required on AB requests	2	3/4/03		8/16/03	Committed	Flow through OR-5-01/OR-5-03	N & S
1710	366831	Expand Parsed CSR functionality to include Complex Listings	5	10/10/00		10/18/03	Committed	Enhancement	N & S
1891.2	367783	Expand Parsed CSR functionality to include Grandfathered Centrx Accounts	5	2/5/01		10/18/03	Committed	Enhancement	N & S
2461	369678	Wireless LNP	2	6/3/03		10/18/03	Committed	FCC Mandate FCC Docket 95-116	N & S
2537	375716	Incomplete Firm Order Confirmations (FOC)	5	6/4/02		10/18/03	Candidate	System Enhancement	N & S
2562	376027	LSOG 6: Miscellaneous Changes	3	6/3/03		10/18/03	Committed	Industry Standard	N & S
2632	374752	Hot Cuts for xDSL Loops	2	6/3/03		10/18/03	Committed	Regulatory Mandate PSC916 -	N & S
2731	378767	Special Characters	5	11/5/02		10/18/03	Committed	Documentation Enhancement	N & S
2735	372847	Establish XML Business Rules for Trouble Administration	3	3/4/03		10/18/03	Candidate	Industry Standard	N & S

- **Pennsylvania CLEC’s MTACT Change Notification** – Listed below are the CLECS that received MTACT change notifications in Pennsylvania as of September 1, 2003:<sup>11</sup>
  - AT&T
  - Cavalier Telephone
  - CTSI
  - Met-Tel
  - XO Communications
  - COVAD
  
- **Pennsylvania Commission MTACT Change Notification** - Between August 25, 2003 and September 25, 2003, Verizon PA sent e-mail notifications to the Pennsylvania Commission notifying it of five MTACT Changes. E-mails pertaining to CR Numbers 10370, 10389, 10391, 10392 and 10398 were sent.<sup>12.</sup>

### Training

- IT personnel were trained to support the Change Control Process, along with Change Control personnel, using identical material. A copy of the change control training material for both the previous change control database and the current MTACT database was provided to the Consultants in Verizon PA’s response to data request PM-002.3. The training covered the change control process and the use of the change control database as part of the training material.<sup>13</sup> Virtually all of the formal training of Change Control and IT personnel working on the Domain Software was conducted in the fall of 2002 prior to the conversion to the MTACT change control process which was not implemented until June 2003.<sup>14</sup>
  
- There are no plans to conduct future formal training sessions because of the limited demand. Future training will consist primarily of new employee’s ability to access the training material on Verizon PA’s intranet.<sup>15</sup>

### Change Control Tracking System Replacement

CCRs implemented for the April and May data months utilized the Lotus Notes Change Control Database. Beginning with the June data month, the change control tracking process was migrated to the new MTACT system. Although no “Snap-Shot” was taken of the pending changes, included in the old system, to assure that all of the pending

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<sup>11</sup> Data Response A-056.

<sup>12</sup> Data Response to A-054 which requested recent live examples of Pennsylvania Commission and CLECs MTACT change notifications.

<sup>13</sup> Data Response A-039.

<sup>14</sup> Interview JWC-001, Executive Director Regulatory Support..

<sup>15</sup> Id.

change documents are included in the replacement system, all pending changes in the old system were successfully migrated to the new system.<sup>16</sup>

### DATA STORAGE, BACKUP, RETRIEVAL AND SECURITY

The PA PAP is a self-executing remedy plan that is designed to ensure that Verizon PA provides quality service to competing carriers. The Plan has three major components: (1) the metrics used to report performance; (2) the methodology used to determine billing credits and (3) the dollars at risk. The Commission adopted a set of guidelines (Pennsylvania Carrier to Carrier Performance Standards and Reports (“C2C”)) for evaluating, measuring and tracking service performance to ensure parity between Verizon PA’s retail operation and the service it provides to its competitors. Verizon PA is required to report its performance to the Commission, and a PA PAP for each CLEC will be processed on a monthly basis within 30 days of the close of the second month after the month in which the performance is being reviewed.<sup>17</sup>

#### Data Feed and Storage Details

Details for the data feed are defined in version 1.3 of the Software Requirements Specification, NP-2 Source Data Document. (NP2Source\_v1.3.doc)

- The NMP Technical Architecture data flow is from the Source, to the Staging Area, to the Data Warehouse and then to the Data Marts, to be used for report generation.
- Network Matrix Platform Source File Processing Standards Design Guidelines, Version 0.2 (Draft).<sup>18</sup> address the following:
  - **Generate daily index file** – At 12:00 midnight the Source File Master Index (IDX) Table is read from the Master data base and a Daily IDX flat file (“DALIDX”) is generated using Structured Query Language (SQL) Plus. The:
    - Flat file is generated daily containing file information for current date.
    - Flat file is based on master file index in the database.
    - Flat file contains a list of all expected files for the current day.
  - **File Hunt** – Each record from the DALIDX file is read and the source file name from the record is picked up and searched for the source directory. If the file is found, the file validation process is triggered.

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<sup>16</sup> Interview JWC-008.

<sup>17</sup> Document Provided in Domain Workshop May and June, Performance Assurance Plan, Verizon Pennsylvania Inc., June 1, 2003, Section I, A.2 (e), page 4.

<sup>18</sup> Document Provided in Domain Workshop May and June, Network Metric Platform Infrastructure & Metrics Management Source File Processing Standards, Design Guidelines, Version 0.2 (Draft)

- Hunt for source files in the data directory based on the daily flat file index.
  - Follow validation process for found files.
  - Source dispatcher is notified if a file is not found.
- **File Validation** – Once the file is found it is validated three different ways.
- A time stamp validation is made.
  - If the file is in the file transfer mode (“FTM”) it is not processed
  - The file is checked to determine if it is an “old” file, one that has already been processed.
  - If the file passes the validation test, then it is removed from the current day’s file hunt process. All validated files receive a “.cmp” extension. Every day a file comparison is made.
  - If the file fails the test then the source dispatcher is notified.
- **Archival and Renaming** – Once a file is successfully received and verified, it is archived. The archived file has the current date and time appended to the file name to assure control. The file is then renamed in the NMP format and then moved into the processing directory so that the information can be loaded into the database. The archived version assures data control and back-up of file information.
- Rename and archive files.
  - Place the archive version into the archive directory.
  - Send a copy of the archived file to the process directory for loading into the database.
  - Delete entry from the daily file index so that the same file is not hunted again the same day.
- **General Stats** – A record is made on the files and a status log file is generated. The log file contains the date, the Domain ID, Source file name and the total number of records found.
- **File Hunt Cutoff** – All files to be processed must be transferred by 1:00PM. If any files are missing or have not been processed, notification is sent to the source owners. Any missing files must be loaded manually into the transient tables. Some limited missing data can be appended to the next day’s source data and it can be bulk loaded.
- Stop hunting for files at cutoff time
  - Collect list of files not received for the day from the daily file index
  - Inform source dispatchers about missing files and relevant messages

- **Load Stats** – At the end of the “Hunt” process, the Load Stats process utilizes SQL Loader to load the daily stats log. The log contains information such as file name, file date, number of records received, etc.
- **Data Load** – The data load process is managed by sessions that are built through Infomatica. Each session is associated with a target table in the data warehouse. Each table has one or more source data files. The process contains triggers for selecting data files to assure that the same data are not loaded more than once. The sessions are active from 1:00AM to 1:00PM and run at intervals of two hours.

### Data Processing

- **Daily:** On a daily basis, files are received from Customer Business Services / Customer Network Engineering (CBS/CNE) into the NMP. The ‘filtering’ business rules are applied to those data, and the data are viewed and downloaded by the collocation business users. The purpose is to track performance and validate values.
- **Weekly:** On a weekly basis, the data (representing the month-to-date) are run, with both filtering and calculation business rules being applied. The purpose is to give a “Preview Glimpse” or “SnapShot” to the business on what the metric is shaping up to be.
- **Monthly:** On the 6th business day after the last calendar day of the previous month, a monthly file is received and all business rules are applied: filtering, calculation and C2C report formatting. The purpose is to complete the C2C reports
- **Summary of Processing Steps:** For Initial Response Data (Daily/Monthly Feed). These steps are shown in Table X-4, below:

**Table X-4**  
**Processing Steps for Initial Response**

	<b>Description</b>
Step 1	NMP receives source data feed from CBS/CNE. Additional information provided in the Source Data Document (NP2Source_v1.3.doc).
Step 2	NMP applies “Filtering” Business Rules to filter the initial raw data that was received and prepare that data for metric calculation.
Step 3	NMP applies “Calculation” Business Rules to the filtered data.
Step 4	NMP produces reports/final output.

- **Summary of Processing Steps:** For Completion Data (Daily/Monthly Feed). These steps are shown on Table X-5 below:

**Table X-5**  
**Processing Steps for Completion Data**

	Description
Step 1	NMP receives source data feed from CBS/CNE. Additional information provided in the Source Data Document (NP2Source_v1.3.doc).
Step 2	NMP applies “Filtering” Business Rules to filter the initial raw data that was received and prepare that data for metric calculation.
Step 3	NMP applies “Calculation” Business Rules to the filtered data.
Step 4	NMP produces reports/final output.

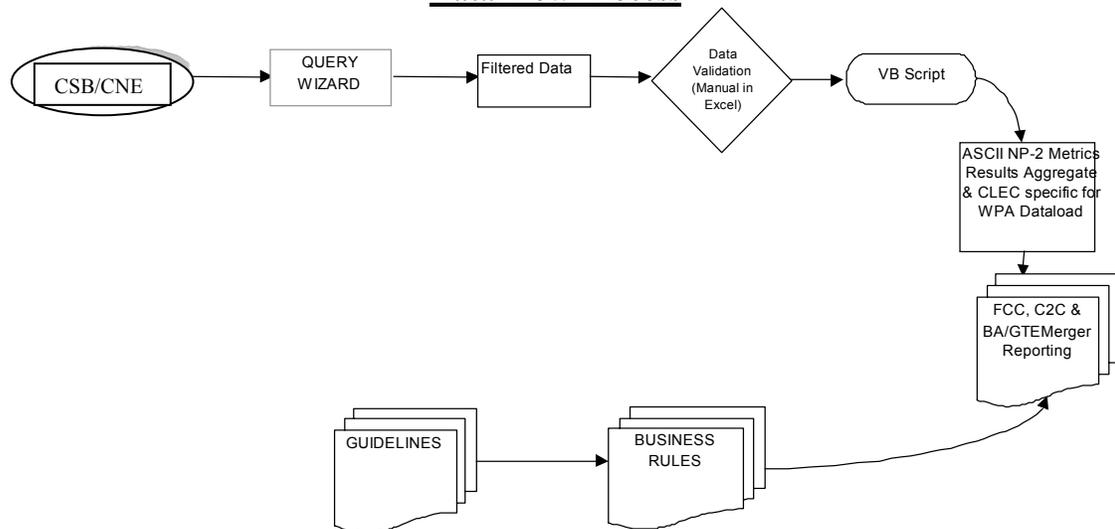
**Data Loads by Metric:**

- Reports of Data Loads are produced at the Aggregate and CLEC Specific levels.
- There are three fields for each level of the report; N (Numerator), D (Denominator), and the lack of the N and the D signifies the result (Performance), as shown on Exhibit X-5.

**Process Diagram**

- The following diagram (Table X-6) outlines the present method of operating process flow utilizing the data stored in the warehouse.

**Table X-6**  
**Data Flow Process**



**Figure 1 – NP-2 PMO Processing Diagram**

**Exhibit X-5**  
**Page 1 of 2**

**DATA LOAD REPORT SAMPLE**

Full Metric Number	Metric Type	Product	ASCII Data Load Item/Tag Name
NP-2-01-2000	Numerator	Total	IC %OTRR_PC_N
NP-2-01-2000	Denominator	Total	IC %OTRR_PC_D
NP-2-01-2000	Performance	Total	IC %OTRR_PC
NP-2-01-6701	Numerator	New	IC %OTRR_PC_W_N
NP-2-01-6701	Denominator	New	IC %OTRR_PC_W_D
NP-2-01-6701	Performance	New	IC %OTRR_PC_W
NP-2-01-6702	Numerator	Augment	IC %OTRR_PC_A_N
NP-2-01-6702	Denominator	Augment	IC %OTRR_PC_A_D
NP-2-01-6702	Performance	Augment	IC %OTRR_PC_A
NP-2-02-2000	Numerator	Total	IC %OTRR_VC_N
NP-2-02-2000	Denominator	Total	IC %OTRR_VC_D
NP-2-02-2000	Performance	Total	IC %OTRR_VC
NP-2-02-6701	Numerator	New	IC %OTRR_VC_W_N
NP-2-02-6701	Denominator	New	IC %OTRR_VC_W_D
NP-2-02-6701	Performance	New	IC %OTRR_VC_W
NP-2-02-6702	Numerator	Augment	IC %OTRR_VC_A_N
NP-2-02-6702	Denominator	Augment	IC %OTRR_VC_A_D
NP-2-02-6702	Performance	Augment	IC %OTRR_VC_A
NP-2-03-2000	Numerator	Total	IC AI_PC_N
NP-2-03-2000	Denominator	Total	IC AI_PC_D
NP-2-03-2000	Performance	Total	IC AI_PC
NP-2-03-6701	Numerator	New	IC AI_PC_W_N
NP-2-03-6701	Denominator	New	IC AI_PC_W_D
NP-2-03-6701	Performance	New	IC AI_PC_W
NP-2-03-6702	Numerator	Augment	IC AI_PC_A_N
NP-2-03-6702	Denominator	Augment	IC AI_PC_A_D
NP-2-03-6702	Performance	Augment	IC AI_PC_A
NP-2-03-6711	Numerator	Augment	IC AI_PC_A_76_N
NP-2-03-6711	Denominator	Augment	IC AI_PC_A_76_D
NP-2-03-6711	Performance	Augment	IC AI_PC_A_76
NP-2-03-6712	Numerator	Augment	IC AI_PC_A_45_N
NP-2-03-6712	Denominator	Augment	IC AI_PC_A_45_D
NP-2-03-6712	Performance	Augment	IC AI_PC_A_45
NP-2-04-2000	Numerator	Total	IC AI_VC_N
NP-2-04-2000	Denominator	Total	IC AI_VC_D
NP-2-04-2000	Performance	Total	IC AI_VC
NP-2-04-6701	Numerator	New	IC AI_VC_W_N
NP-2-04-6701	Denominator	New	IC AI_VC_W_D
NP-2-04-6701	Performance	New	IC AI_VC_W
NP-2-04-6702	Numerator	Augment	IC AI_VC_A_N
NP-2-04-6702	Denominator	Augment	IC AI_VC_A_D
NP-2-04-6702	Performance	Augment	IC AI_VC_A
NP-2-05-2000	Numerator	Total	IC %OTPC_N
NP-2-05-2000	Denominator	Total	IC %OTPC_D
NP-2-05-2000	Performance	Total	IC %OTPC
NP-2-05-6701	Numerator	New	IC %OTPC_W_N
NP-2-05-6701	Denominator	New	IC %OTPC_W_D
NP-2-05-6701	Performance	New	IC %OTPC_W
NP-2-05-6702	Numerator	Augment	IC %OTPC_A_N
NP-2-05-6702	Denominator	Augment	IC %OTPC_A_D
NP-2-05-6702	Performance	Augment	IC %OTPC_A
NP-2-05-6711	Numerator	Augment	IC %OTPC_A_76_N

Exhibit X-5  
Page 2 of 2

### DATA LOAD REPORT SAMPLE

Full Metric Number	Metric Type	Product	ASCII Data Load Item/Tag Name
NP-2-05-6711	Denominator	Augment	IC %OTPC_A_76_D
NP-2-05-6711	Performance	Augment	IC %OTPC_A_76
NP-2-05-6712	Numerator	Augment	IC %OTPC_A_45_N
NP-2-05-6712	Denominator	Augment	IC %OTPC_A_45_D
NP-2-05-6712	Performance	Augment	IC %OTPC_A_45
NP-2-06-2000	Numerator	Total	IC %OTVC_N
NP-2-06-2000	Denominator	Total	IC %OTVC_D
NP-2-06-2000	Performance	Total	IC %OTVC
NP-2-06-6701	Numerator	New	IC %OTVC_W_N
NP-2-06-6701	Denominator	New	IC %OTVC_W_D
NP-2-06-6701	Performance	New	IC %OTVC_W
NP-2-06-6702	Numerator	Augment	IC %OTVC_A_N
NP-2-06-6702	Denominator	Augment	IC %OTVC_A_D
NP-2-06-6702	Performance	Augment	IC %OTVC_A
NP-2-07-2000	Numerator	Total	IC AVGDD_PC_N
NP-2-07-2000	Denominator	Total	IC AVGDD_PC_D
NP-2-07-2000	Performance	Total	IC AVGDD_PC
NP-2-07-6701	Numerator	New	IC AVGDD_PC_W_N
NP-2-07-6701	Denominator	New	IC AVGDD_PC_W_D
NP-2-07-6701	Performance	New	IC AVGDD_PC_W
NP-2-07-6702	Numerator	Augment	IC AVGDD_PC_A_N
NP-2-07-6702	Denominator	Augment	IC AVGDD_PC_A_D
NP-2-07-6702	Performance	Augment	IC AVGDD_PC_A
NP-2-08-2000	Numerator	Total	IC AVGDD_VC_N
NP-2-08-2000	Denominator	Total	IC AVGDD_VC_D
NP-2-08-2000	Performance	Total	IC AVGDD_VC
NP-2-08-6701	Numerator	New	IC AVGDD_VC_W_N
NP-2-08-6701	Denominator	New	IC AVGDD_VC_W_D
NP-2-08-6701	Performance	New	IC AVGDD_VC_W
NP-2-08-6702	Numerator	Augment	IC AVGDD_VC_A_N
NP-2-08-6702	Denominator	Augment	IC AVGDD_VC_A_D
NP-2-08-6702	Performance	Augment	IC AVGDD_VC_A

### PA PAP METRIC DATA TAGS

Full Metric Number	Metric Type	ASCII Data Load Item/Tag Name
NP-2-00-6801	Numerator	IC %OTRR_ALL_N
NP-2-00-6801	Denominator	IC %OTRR_ALL_D
NP-2-00-6801	Performance	IC %OTRR_ALL
NP-2-00-6802	Numerator	IC %OT_ALL_N
NP-2-00-6802	Denominator	IC %OT_ALL_D
NP-2-00-6802	Performance	IC %OT_ALL
NP-2-00-6803	Numerator	IC AVGDD_ALL_N
NP-2-00-6803	Denominator	IC AVGDD_ALL_D
NP-2-00-6803	Performance	IC AVGDD_ALL

- The FCC, C2C & Bell Atlantic/GTE (BA/GTE) Merger Guidelines drive the definition of the Business Rules, which describe how a metric is to be calculated.
- The CBS-CNE is the Collocation provisioning source system from which all source data are extracted, to produce the NP-2 Metrics results for the Verizon PA East BA footprint.
- For example, the NP-2 Metric development / calculation is currently a multi-step process that requires manual intervention.
- Calculated metric results are sent to Data Load (which will be incorporated into NMP eventually).
- WPA manages Data load and the report production cycle for the FCC, C2C & BA/GTE Merger Reports. The ASCII monthly production file contains all NP-2 metric results.

### Back-ups

- There is a monthly “cold back-up” of the information in the data warehouse. There is also a “hot back-up” file that is created weekly as well selective data extractions that are run daily.<sup>19</sup>
- Data archiving and retention is critical for ensuring compliance with Condition V of the FCC’s BA-GTE Merger Conditions Consent Decree. The Consent Decree requires Verizon PA to retain all data used in the calculation of the reports required for Condition V for a period of 12 months after the relevant audit period. However, Verizon PA has established a uniform retention period of five years for all data used in the calculation of federal and state local wholesale carrier-to-carrier performance reports.<sup>20</sup>
- The purpose of the data retention practice is to ensure that any externally filed performance reports may be replicated at any point over a five-year period from when the report was published. Verizon PA’s data and document retention policy specifies that the following information must be retained for five years:<sup>21</sup>
  - OSS Decision Logic – OSS deliver source data to the metrics system that are used to calculate metric results.
  - Detail Data Files – Consist of the raw data that are used to calculate metric results.

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<sup>19</sup> Interview No. A-004 and A-005.

<sup>20</sup> Verizon’s Data Retention Communication Policy, Shelley Guerard, Vice President – Wholesale Performance Assurance, September 18, 2002, page 1.

<sup>21</sup> Interview IR No. A-009 Data Request Response.

- Business Rules - Refer to the programming code that is created to extract from the detailed data files the required data to calculate the numerator and denominator for a particular metric, as defined by the effect guidelines. The Business Rules also must include the code to exclude certain data from a particular metric.
- Intermediate Data Files – These are any intermediate files that are generated to accumulate data in the application of the Business Rules.
- Summary Data Files – The Summary file consists of each numerator, denominator and performance results.
- Carrier-to-Carrier Performance Reports – Display the final output of the performance measurement calculations, including the external reports filed displaying Verizon PA’s performance results for each metric.
- Payment Reports – These are the Payment Reports that are filed with the FCC and the underlying calculations that produce the payment.

### Data Security<sup>22</sup>

- The Primary NMP Production Servers are located at a New York Verizon Data center. Source feeds are sent to Domain Name Server (DNS) Virtual host name assigned to NMP. The Source file management and archival/retention of files is performed on a Unix production server. Therefore, Unix System Services (USS) governs security and data integrity of the files. USS provides implementation and day-to-day support to Verizon PA.
- Disaster Recovery – Equally configured NMP HP Class 5 Servers and IBM Netfinity Servers are dually utilized (dual-booted) for ongoing system testing as well as disaster recovery.
- CLECs have password access to a website which contains the report information that they are authorized to view. However, the CLECs do not have access to the raw data stored in the data warehouse

### General

- Two teams within IT, the Development Solutions Team and the Testing Team, are both responsible for change control monitoring of items that affect the Matrix selection process. The Testing Team develops and maintains a monthly package spreadsheet that provides a comparison of Domain Validation and Actual Results. There is a monthly status report of the change validation results.<sup>23</sup>

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<sup>22</sup> Id.

<sup>23</sup> Interview No. A-004 and A-005.

- An IT interactive planning meeting is held once a week. Changes for the Wholesale group are submitted to the NMP Software Change Control Board (SCCB). Interactive functionality changes may include such items as rate element changes, correction of service order selection and the installation of an active voice portal for wholesale. There is a weekly release to the website which contains a log of changes and CLEC releases.<sup>24</sup>
- The data extraction procedures support the requirement documentation and define how Metric results are calculated. The change requirements are first included in an initial set of “Development Documents” which are subsequently expanded into a set of “Design Documents” which are used by Information System Organization (ISO) for the software revisions.<sup>25</sup>

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<sup>24</sup> Id.

<sup>25</sup> Id.

## **B – FINDINGS**

### **1. Procedures Exist For Documenting And Maintaining Changes To The Performance Metrics And Remedies Documentation, And These Conform To Reasonable Levels Of Quality Control As Well As The C2C Guidelines And The PA PAP.**

Verizon PA uses a mechanized system to manage its change management processes for changes to the performance metrics as well as system changes that affect the Wholesale Performance Assurance Metric Change Management Process. All change types are tracked in the same change control database, MTACT. Changes are described by the following categories:

- Type 1 – Maintenance
- Type 2 – Regulatory
- Type 3 - Industry Guidelines
- Type 4 - Verizon PA originated
- Type 5 - Telephone Company originated

This system requires multiple levels of authorization and provides a clear trail as a change is introduced and worked through the system. Standard change control reports are produced on a systematic basis and provide management with useful tools to monitor and manage the change management process. Change control logs track all changes as they proceed through the process. The PA PUC receives automatic notification of changes from the time that they are entered in the system until they are completed.

Verizon PA's current MTACT Change Control System and procedures are adequate to meet Verizon PA requirements for tracking and controlling system changes, and related work activities. They ensure that changes required from all sources, including those required by the regulators or industry, via the C2C Guidelines and the PA PAP, are well-planned, properly authorized, managed, and controlled.

### **2. Sufficient Documentation Exists For Information Storage, Back-Up, Retrieval, User Access And Security Procedures And For The Results Produced For Performance Metrics And Remedies Reporting.**

Documentation of the data feed and storage functions for the systems supporting Verizon PA's performance metrics and remedies calculations and reporting are included in several documents. These include the Software Requirements Specification, the NMP Technical Architecture, the Network Matrix Platform Source File Processing Standards, and Design Guidelines. These documents describe data processing steps including data feeds from OSS systems and storage details and locations. Verizon PA's basic documentation for Source File Processing Standards is adequate to meet the requirements of Verizon PA's personnel to understand the operational requirements of the systems. Source File Controls, as described in the Source File Processing Standards Design

Guidelines, provide sufficient direction and documentation to adequately manage the Source File processes.

Data back-up and retention policies are based on ensuring compliance with Condition V of the FCC's BA-GTE Merger Condition Consent Decree. Verizon PA's retention period exceeds requirements mandated by this decree. Data Security is assured through the use of USS. Dual systems are used for ongoing testing and disaster recovery. User access is limited and controlled. CLECs have access to report information they are authorized to view via a password, but not to the raw data files.

### **3. Verizon PA Does Not Maintain A Current Change Notification Address File**

Change Notifications are sent to CLECS and to the Pennsylvania Commission via e-mail notifying them of changes in Verizon PA's metrics calculations, metrics calculation work process, or related OSS system and NMP system. However, a review of e-mail addresses revealed that the e-mail addresses for the Pennsylvania Commission staff members were not current. Therefore, the Pennsylvania Commission staff had not been receiving change notifications since the staff's e-mail addresses changed, approximately one year ago.

### **4. Verizon PA Does Not Have A Formal Procedure In Place For Periodic Review And Update Of Its Metric Calculation Documentation**

There is no formal policy or procedure in place requiring the periodic review and update of Verizon PA's documentation (C2C Metrics Algorithms (CMA) and FACT Table) concerning metric calculations. Data Design documentation control is split across Domains.. Each Domain Manager is responsible for updating the documentation associated with his or her Domain areas. Change Control within the IT organization is based on a LOTUS Notes document procedure, and there is little reliance on paper copies of change verification results.<sup>26</sup> DCI is concerned that the potential exists for inconsistent review procedures among Domains.

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<sup>26</sup> Interview No. A-004 and A-005 and Interview A-009.

## **C- RECOMMENDATIONS**

### **1. Continue Using Existing Metric Change Process Procedures And Documentation. (Refer to Findings Nos. 1 and 2)**

As described in Finding No. 1, Verizon PA's existing MTACT Change Control Systems and Procedures are adequate to meet requirements for Tracking and Controlling system changes. As stated in Finding No. 2, existing documentation satisfies storage and other processing needs, and supports calculation and reporting results. Other than addressing normal system enhancements, or responses to changing requirements, no recommendations for changing metrics change control procedures or documentation are offered.

### **2. Take Active Steps To Maintain A Current Change Control Notification Contact List. (Refer to Finding No. 3)**

Change Notifications must be sent to the correct recipient in order to have any value. Since Verizon PA was using incorrect e-mail addresses for the Pennsylvania Commission staff, the staff was not receiving Change Notifications. The addresses that Verizon PA was using have been incorrect or outdated for quite some time. It is not certain, but it appears that this would not have been corrected if it had not come to light during the course of DCI's review. Verizon PA can not rely on recipients - CLECs and public utility commissions to ensure that their contact address list is up-to-date. Verizon PA should take several active steps to ensure that their contact list is current. Verizon PA should ensure that all recipients know how to report changes in e-mail addresses and to whom these changes should be reported. Furthermore, Verizon PA should periodically, either every quarter or every six months, contact the Change Notification recipients to verify addresses as well as solicit changes, additions, and deletions from this list.

### **3. Implement A Periodic Review Process For Metric Calculations Documentation. (Refer to Finding No. 4)**

Each Domain manager has the responsibility to ensure that the documentation (C2C Metrics Algorithms (CMA) and FACT Table) of the metrics utilized by their Domain are accurate and current. While this responsibility should remain with these Domain managers since they are the closest to the details involved in their metrics, an overall policy should be initiated that requires that the documentation for all of the metrics should be reviewed and updated on a periodic basis. This policy should be overseen by Verizon PA Regulatory Support management who are responsible for the overall reporting of performance metrics to the state utility commissions. In this manner Verizon PA can be more assured that the documentation supporting the performance metrics is, and will continue to be, current and accurate.