

## V. Provisioning Domain Results and Analysis Section

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## **A. Test Results: Network Design Request, Collocation and Interconnection Planning Verification and Validation Review (PPR7)**

### **1.0 Description**

The Network Design Request, Collocation and Interconnection Planning Verification and Validation Review (PPR7) evaluated processes, procedures, supporting systems, and tools used by Verizon Virginia (Verizon VA) to provision Competitive Local Exchange Carrier (CLEC) Collocation and Network Design Request (NDR).

Collocation permits a CLEC to offer Unbundled Network Elements (UNE) services to their customers, as well as allowing connection of these customers to the Public Switched Telephone Network (PSTN) through Inter-Office Facilities (IOF). The NDR process allows a CLEC to establish a presence in a Verizon VA switch when a CLEC requires dial tone from a Verizon VA switch port.

Interconnection is the connection of separate pieces of equipment or transmission facilities within, between, or among telecommunication networks. The architecture of interconnection may include collocation arrangements, entrance facilities, and Mid-Span Fiber Meet arrangements. This test did not examine interconnection for other purposes such as from network to network (e.g., with an Inter-Exchange Carrier (IXC)).

### **2.0 Methodology**

This section summarizes the test methodology.

#### **2.1 Business Process Description**

Verizon provides NDR planning and collocation services to facilities-based CLECs in order to support the provisioning of UNEs.

##### **2.1.1 Network Design Request**

The intent of the NDR process is to (i) gather information related to a CLEC's desired product offering, (ii) jointly determine the criteria for a detailed design to establish a CLEC presence in Verizon VA's network, and (iii) initiate the process of establishing CLEC services. Depending on the type of service offering the CLEC is interested in providing, the CLEC must identify and communicate the relevant NDR characteristics to Verizon VA. Verizon VA then assigns a Service Delivery Engineer (SDE) to coordinate CLEC NDR initiatives. Once the appropriate contracts are completed and returned to Verizon VA, the assigned SDE, Program Manager, and CLEC representatives hold meetings to ensure contract and account activities have been properly executed. The CLEC then signs acceptance forms and begins submitting orders.

### 2.1.2 Collocation

Collocation arrangements are required for CLECs wishing to offer UNE services such as local loop and IOF in Virginia. CLECs can submit an application requesting either a virtual or physical collocation arrangement.

CLECs applying for a virtual collocation installation are required to transfer ownership of their telecommunications equipment to Verizon VA for a nominal fee. Verizon VA then provisions, maintains, and repairs this equipment as instructed by the CLEC. Under the provisions of a virtual collocation, Verizon VA provides the CLEC with remote access for provisioning and maintenance activities. Although the CLEC's equipment is physically located in Verizon VA's Central Office (CO) relay racks, it remains dedicated to the CLEC. The CLEC does not have physical access to this equipment.

CLECs applying for a physical collocation installation are allocated a secure area in a Verizon VA CO where they are allowed to install, maintain, and administer their own telecommunications equipment. Unlike virtual collocation, the CLEC has physical access to its equipment. There are variations of physical collocation such as the following:

- ◆ Secured Collocation Open Physical Environment (SCOPE);

SCOPE is a form of physical collocation in which CLECs place their equipment in a secure, environmentally-conditioned area. A SCOPE arrangement enables CLECs that do not want standard cage-enclosed collocation nodes to install one or more bays of equipment in a secure area. Each CLEC is responsible for providing and installing its own equipment and performing maintenance-related activities.

- ◆ Shared Physical Collocation;

Shared Physical Collocation is a form of collocation that allows two CLECs to share a physical collocation space. The initial CLEC is referred to as the host while the new CLEC is referred to as the guest. The two CLECs negotiate terms and conditions and supply the required information to Verizon VA. This allows an existing CLEC with extra space to share the space and, subsequently, costs. CLECs are allowed to display collocation space they plan to share on Verizon's website.

- ◆ Cageless Collocation – Open Physical Environment (CCOE); and

CCOE is a form of physical collocation that allows CLECs to place equipment in single bay increments in Verizon VA-conditioned space outside traditional physical collocation arrangements. This type of arrangement allows the CLEC's equipment to be installed in a separate relay rack arrangement from Verizon VA's equipment. Verizon VA's approved equipment installation vendors (hired by the CLEC) are required to install the CLEC's equipment.

- ◆ **Adjacent Structures.**

Adjacent Structures can be constructed or otherwise procured by a CLEC in the event that there is no physical collocation space within a CO. The CLEC is responsible for complying with applicable state and local regulations. Verizon VA will terminate its facilities on a CLEC-provided Point of Termination located within the structure and designated by the CLEC.

Verizon maintains processes for CLECs vacating collocation space. This process begins when a CLEC completes a Notice of Termination/Reduction form and submits it to their respective Program Manager. The CLEC creates a Method of Procedures (MOP) document that details the steps to exit the collocated space. Verizon assigns the appropriate resources to review and process the MOP. A vacating CLEC obtains a credit if Verizon VA resells the space to another CLEC. The credit will amount to the undepreciated value of the assets that were vacated over a thirty-year period. Thus, the new CLEC will obtain collocation space, less the depreciated value of assets that were vacated by the initial CLEC.

## 2.2 *Scenarios*

Scenarios were not applicable to this test.

## 2.3 *Test Targets & Measures*

The test target was Verizon VA's collocation and NDR planning processes, which included reviews of the following sub-processes:

- ◆ Planning;
- ◆ Project management;
- ◆ Resources; and
- ◆ Testing and Implementation.

## 2.4 *Data Sources*

The data collection performed for this test centered on interviews, walkthroughs, emails, and reviews of the following documentation supplied by Verizon VA at the request of the KPMG Consulting:

- ◆ TISOC Methods and Procedures for NDR, bulletin 1999-0037;

- ◆ Issue # 1: Routing of CLEC traffic to Operator Services and Directory Assistance – Bell Atlantic – South;
- ◆ NDR Process for OS/DA (Operator Service/Directory Assistance) Validation;
- ◆ Bell Atlantic South Test Call Matrix;
- ◆ Verizon CLEC Handbook (March 2001);
- ◆ Custom Business Services/Customer Network Engineering (CBS/CNE) database overview and screen shots;
- ◆ Internal metrics for collocation activity;
- ◆ Various process flow, organization charts, and checklists;
- ◆ Virtual and physical collocation pre-acceptance checklists; and
- ◆ CLEC Notice of Termination/Reduction application.

This test did not rely on data generation or volume testing.

### *2.5 Evaluation Methods*

The evaluation method used for this test included the analysis of information obtained through interviews and reviews of documentation provided by Verizon personnel supporting the collocation NDR process and interconnection in Virginia. In addition, discussions were held with members of the CLEC community to understand their experiences with the collocation, NDR, and/or interconnection processes.

### *2.6 Analysis Methods*

The Network Design Request, Collocation and Interconnection Planning Verification and Validation Review included a checklist of evaluation criteria developed by KPMG Consulting during the initial phase of the Verizon Virginia, Inc. OSS Evaluation Project. These evaluation criteria provided the framework of norms, standards, and guidelines for the Network Design Request, Collocation and Interconnection Planning Verification and Validation Review.

The data collected were analyzed employing the evaluation criteria detailed in Section 3.0 below.

### 3.0 Results

This section identifies the evaluation criteria and test results. The results of this test are presented in the table below.

**Table 7-1: PPR 7 Evaluation Criteria and Results**

Test Reference	Evaluation Criteria	Result	Comments
<b>Network Design Request</b>			
PPR7-1-1	Network Design Request projects are implemented through structured, documented methodologies.	Satisfied	The Verizon VA TISOC Methods and Procedures (August 29, 2000, Bulletin 1999-0037 Network Design Request) and the CLEC Handbook (March 2001, Volume I, Section 6.4.2) detail the methodology and structure for planning and implementing NDR projects. Verizon VA assigns a SDE to coordinate NDR activities with a CLEC. Each SDE creates a project binder that contains the CLEC's NDR application form, relevant NDR correspondence, and a detailed project checklist.
PPR7-1-2	Verizon and CLEC responsibilities are defined for Network Design Request implementations.	Satisfied	Verizon VA and CLEC NDR responsibilities are defined in the CLEC Handbook (March 2001, Volume I, Section 6.4.2) available on the Verizon website. This document provides detailed information about the NDR provisioning process and describes the various roles and responsibilities involved when implementing an NDR.  CLECs interact primarily with the Verizon Program Manager and the SDE for the duration of an NDR project. The Program Manager is responsible for ensuring that the CLEC completes the appropriate forms and forwards that information to the SDE. The SDE focuses on the technical implementation of an NDR.

Test Reference	Evaluation Criteria	Result	Comments
PPR7-1-3	Tracking tools are used to monitor and/or collect information from the beginning to the completion of Network Design Request projects.	Satisfied	Verizon VA uses the CBS/CNE database and Excel Spreadsheet to monitor and collect information regarding the progress of NDRs throughout the implementation life cycle. These tools contain information/history on each NDR and indicate in which states a CLEC has a presence.
PPR7-1-4	A formal process exists to communicate Network Design Request decisions.	Satisfied	<p>A formal process exists for communicating NDR decisions, which is contained in internal Verizon documentation such as the TISOC Methods and Procedures (August 29, 2000, Bulletin 1999-0037 Network Design Request) and in external documents such as the CLEC Handbook (March 2001, Volume I, Section 6.4.2).</p> <p>During the pre-NDR phase, the CLEC, SDE, and NDR Project Manager meet to discuss preliminary requirements. The detailed requirements of the CLEC are identified and include the design, planning, and administration activities performed by Verizon SDEs to establish the CLEC's routing instructions in the Verizon network.</p>
PPR7-1-5	The Network Design Request implementation process includes dispute resolution and escalation processes that are defined, documented, and available to both CLECs and Verizon personnel.	Satisfied	<p>The escalation procedures are described in the CLEC Escalation Process, which can be found on the Verizon website at <a href="http://128.11.40.241/east/wholesale/resources/master.htm">128.11.40.241/east/wholesale/resources/master.htm</a>.</p> <p>The Verizon VA Program Manager and SDE are responsible for resolving disputes and escalating issues that arise during an NDR project. If further escalation is required, the matter will be escalated through the Verizon NDR management structure.</p>



Test Reference	Evaluation Criteria	Result	Comments
PPR7-1-6	Procedures are in place for estimating, documenting, and managing the design and costs of Network Design Request implementations.	Satisfied	Estimating, documenting, and managing the design and costs of NDR implementations are defined in the CLEC Handbook (March 2001, Volume I, Section 6.4.2) and Verizon internal documents such as TISOC Methods and Procedures for NDR process document.
PPR7-1-7	Standards of delivery are established for NDR.	Satisfied	Before the completion of an NDR, Verizon VA performs various test calls on the equipment to ensure a standard delivery across NDR implementations. The NDR standard delivery process is defined in the Bell Atlantic – South NDR Process OS/DA Validation document. The various test call types and orders are defined in the Bell Atlantic South Test Call Matrix.
<b>Collocation</b>			
PPR7-2-1	Collocation projects are implemented through structured, documented methodologies.	Satisfied	<p>The Verizon VA CLEC Handbook (March 2001, Vol. III, section 4.1) details the methodology and structure for collocation projects. Each CLEC is assigned a Verizon Program Manager who is dedicated to their account. Collocation projects are tracked in a central Collocation database (CBS/CNE), which highlights the milestones and installation intervals.</p> <p>For the month of June 2001, Verizon VA completed 100% of its collocation arrangements (57 physical and 2 virtual) by the required delivery date. This is according to internal Verizon VA collocation project tracking documentation.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR7-2-2	Verizon and CLEC collocation responsibilities are defined for collocation implementations.	Satisfied	Verizon VA and CLEC collocation responsibilities are defined in the CLEC Handbook (March 2001, Vol. III, Section 4.1 – 4.5). CLECs are also provided with a collocation project sequence that gives a high-level view of CLEC and Verizon responsibilities and the corresponding time frames for each activity. The sequence can be found in the CLEC Handbook (March 2001, Vol. III, Section 4.2 – 4.3).
PPR7-2-3	A tracking system is used to monitor and/or collect information from the beginning to the completion of collocation projects.	Satisfied	Verizon VA uses a common tracking system database called CBS/CNE. The CBS/CNE tool is used by internal Verizon VA teams involved in the collocation process to track and manage projects. Major milestones are tracked and status reports are generated for project performance monitoring.
PPR7-2-4	A formal process exists to communicate collocation decisions.	Satisfied	<p>The process Verizon uses to communicate collocation decisions can be found in the CLEC Handbook (March 2001, Vol. III, Section 4.1, 4.2, 4.3, 4.5). In addition, Verizon notifies CLECs of events or issues relating to collocation projects. Notification can be provided through verbal, electronic, and written communications during the collocation provisioning process.</p> <p>The collocation CBS/CNE database acts as a central repository for information pertaining to each collocation application. Issues, messages, and documents are recorded and attached to each application. This database provides a real-time view for Verizon VA personnel to reference as to the status of a collocation installation.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR7-2-5	The collocation implementation process includes dispute resolution and escalation processes that are defined, documented, and available to both CLEC and Verizon personnel.	Satisfied	<p>The escalation and dispute resolution procedures are described in the Escalation Process, which can be found on the Verizon website.</p> <p>CO field engineers are responsible for initiating and reporting issues that arise in the field during a collocation installation. Depending on the nature of the matter, the CO engineer may direct the CLEC to either the LCC or the Verizon Collocation Customer Care (VCCC) center. Once the LCC becomes involved in the dispute or escalation, he or she has the overall responsibility to resolve. If further escalation is required, the matter is escalated through the Verizon VA collocation management structure.</p>
PPR7-2-6	Standards and procedures are defined for ensuring that specifically trained personnel are assigned to a collocation project.	Satisfied	<p>Standards and procedures which ensure Verizon and CLECs select installers/contractors from the same pool of approved resources are described in the CLEC Handbook (March 2001, Volume I, Section 8.7.2). A CLEC may also become a Verizon-approved installer/contractor once certified by Verizon. This certification process is outlined in the CLEC Handbook (March 2001, Volume I, Section 8.7).</p> <p>For virtual collocation projects, a CLEC is required to provide the necessary training for Verizon personnel. This is documented in the CLEC Handbook (March 2001, Volume III, Section 4.3) and Virginia Network Interconnection Services Tariff # 218, section 2.H.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR7-2-7	Procedures are defined for ensuring that project staffs are available to collaborate and are empowered to resolve issues for collocation projects.	Satisfied	<p>Procedures for ensuring project staff are available to resolve collocation project issues are defined in the CLEC Handbook (March 2001, Vol. III, Section 4.1). The Verizon Program Manager, LCC, and the VCCC center provide support to CLECs. Program Managers are assigned to CLECs and provide assistance throughout the collocation process. The LCC is assigned to a geographical area and functions as a Program Manager at the local level. The LCC interacts with Verizon’s collocation support groups and requests their expertise to ensure the delivery of a collocation.</p> <p>The VCCC team provides CLECs with post collocation completion support. The VCCC center is a help desk that has direct communication with Verizon collocation teams.</p>
PPR7-2-8	Procedures are defined for ensuring CLECs have the same access to their collocation facilities as Verizon has to its own facilities.	Satisfied	<p>Procedures for CLECs to access equipment and facilities are defined in the CLEC Handbook (March 2001, Vol. III, Sections 4.2 and 4.5.2). The handbook defines the access, security procedures, and assumptions that are followed at Verizon premises, common areas within Verizon, and an individual CLEC’s collocation space. These procedures are comparable to internal Verizon procedures. For physical arrangements, CLECs have the ability to lock their individual collocation spaces, which are gated. Access to Verizon COs is available 24 hours a day, seven days a week after CLEC personnel obtain approval and access cards.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR7-2-9	Formal procedures are in place to quantify and track scope changes during collocation implementations and are communicated to both Verizon and CLEC personnel.	Satisfied	Formal procedures that quantify and track scope changes during collocation implementations are described in the CLEC Handbook (March 2001, Volume III, Sections 4.2 and 4.3). Deviations from the planned schedule for collocation projects resulting from “augmentations” are monitored and tracked. Verizon generates reports to monitor potential deviations from the schedule. Schedule changes are communicated within Verizon via the CBS/CNE database, which serves as the central project tracking system. The Project Manager or the LCC communicates changes and updates to the CLEC via email.
PPR7-2-10	Procedures are in place for defining, estimating, documenting, and managing the design and costs of collocation implementations.	Satisfied	Procedures for defining, estimating, documenting, and managing the costs for collocation within the Verizon VA area are listed in the CLEC Handbook (March 2001, Vol. III, Sections 4.2, 4.3, and 4.5). Verizon bases the cost of collocation on the Virginia Network Interconnection Services Tariff # 218, section 2.I and 2.J. The CLEC incurs additional costs for work beyond the scope of a standard collocation project or special construction charge. Industry letters are sent to specific contacts at each CLEC regarding price changes. The price changes can also be viewed on the Verizon website.

Test Reference	Evaluation Criteria	Result	Comments
PPR7-2-11	Standards of delivery are established for collocation implementations.	Satisfied	<p>Standards of delivery are established for collocation implementations in the CLEC Handbook (March 2001, Volume I, Section 8.7 and Volume III, Sections 4.2, 4.3, and 4.5). The CLEC Handbook refers to Network Equipment Building Systems (NEBS) standards. NEBS is a set of industry-defined standards for areas such as allowable equipment, workmanship, and general CO installation standards.</p> <p>Before a CLEC signs a confirmation of acceptance of a physical collocation, Verizon performs an internal quality audit of the collocation site. Physical and virtual collocation pre-acceptance checklists are used. Verizon then performs a walk-through with the CLEC. When the collocation is acceptable to the CLEC, the CLEC performs a sign-off on the collocation project. If the collocation is found to be unacceptable, the CLEC will work with the assigned Program Manager to resolve issues.</p>

## ***B. Test Results: Provisioning Process Parity Evaluation (PPR10)***

### ***1.0 Description***

The Provisioning Process Parity Evaluation (PPR10) was a review of the processes, systems, and interfaces used by Verizon Virginia (Verizon VA) to provision Competitive Local Exchange Carrier (CLEC) and Reseller orders. The focus of the evaluation was on activities starting when the order enters into the Verizon VA Service Order Processor (SOP) through the downstream systems, interfaces, and processes, concluding at the point of service activation.

The objective of this test was to evaluate the degree to which the provisioning environment supporting wholesale orders demonstrates parity with the provisioning environment for Verizon VA retail orders. The test consisted of targeted interviews of development personnel and direct observations of center personnel along with structured reviews of process documentation facilitated by an evaluation checklist.

### ***2.0 Methodology***

This section summarizes the test methodology.

#### ***2.1 Business Process Description***

The following sections describe the Plain Old Telephone Service (POTS) and Special Services provisioning processes as well as the Verizon VA centers responsible for these processes.

##### ***2.1.1 Provisioning Process Description – POTS and Special Services Orders***

Depending on the type of service being delivered, provisioning activities are categorized as either POTS or Special Services. A description of the provisioning process by these service types is provided below.

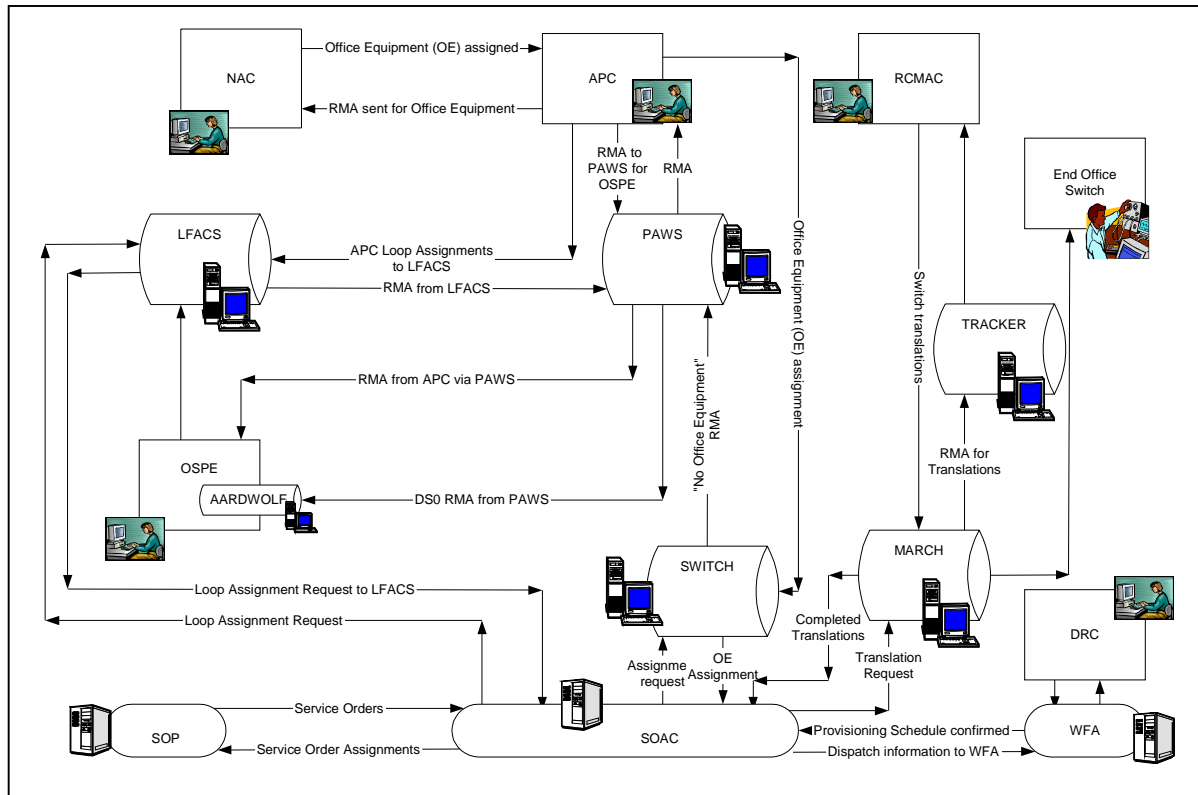
#### **POTS Orders**

Orders for POTS originate from the Verizon National Marketing Center (NMC, formerly known as the Telecom Industry Services Operations Center (TISOC)), the retail business offices, or the Verizon Graphical User Interface (GUI) that is used by CLECs for direct order entry. Representatives from various lines of business enter orders into the service order processor (SOP). The SOP sends orders to the Service Order Analysis and Control (SOAC) system, which is an operational support system used by Verizon VA to coordinate the order management and provisioning process. SOAC schedules and manages tasks performed by other provisioning systems such as facility assignment, circuit design, and network activation. SOAC sends orders to the Loop Facility Assignment and Control System (LFACS) for automated loop assignment, to a controlled device used to interconnect two circuits/the Frame Operations Management System (SWITCH/FOMS) that issues the automated office equipment orders, and to the Memory Administration Recent Change History (MARCH) for automated feature assignment. LFACS, SWITCH, and MARCH return status report messages to SOAC on loop and office equipment assignments as well as translation requests.

Approximately 85% of POTS orders flow automatically through LFACS, SWITCH/FOMS, and MARCH. The Assignment Provisioning Center (APC), the Outside Plant Engineering (OSPE), the Network Administration Center (NAC), and the Recent Change Memory Administration Center (RCMAC) work the remaining orders that do not flow through the assignment and translation systems automatically. The orders that fall out of these systems take the form of a Request for Manual Assistance (RMA). An RMA is generated for an order when any conditions for flow-through are not met. The Provisioning Analyst Workstation System (PAWS) is used to monitor and distribute RMA work for office equipment or switch ports and loop assignments to the appropriate center. TRACKER is a work management system that routes the translation RMAs from MARCH to the RCMAC.



**Figure 10-1: Assignment and Translations for Non-Designed Services**



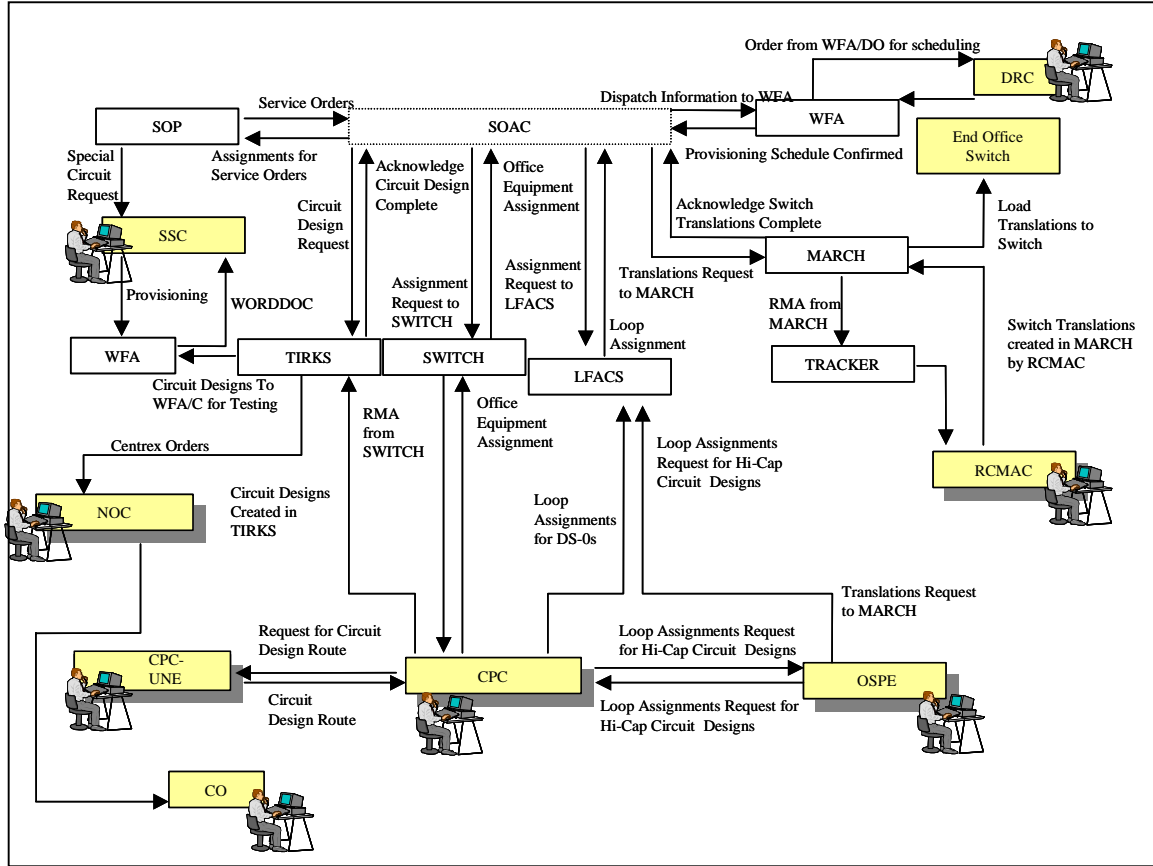
**Special Services Orders**

Design engineers in the Circuit Provisioning Center (CPC) perform pre-order transaction loop qualifications for high capacity circuits. The retail business offices and the NMC use RequestNet, which tracks DS1 or higher orders that are waiting for a response from an engineer, to inquire whether facilities are available for high capacity circuits. The verification of loop asset availability for a high capacity circuit is conducted by the OSPE, whereas the Circuit Provisioning Center-Unbundled Network Elements (CPC-UNE) group conducts the verification for the availability of the Inter-Office Facilities (IOF) infrastructure for a high capacity circuit.

Loop orders for designed Special Services circuits flow to SOAC. Special Services circuits can be provisioned using automated designs, with SOAC controlling the progression of orders through the provisioning process.

Orders for Special Services circuits may fall out for manual handling in the assignment process, the circuit design process, and/or the translations process. As shown in Figure 10.2, the Network Operations Center (NOC), Special Services Center (SSC), OSPE, CPC, and RCMAC perform manual handling of Special Services circuit provisioning.

Figure 10-2: Assignment, Circuit Design, and Translations for Designed Services



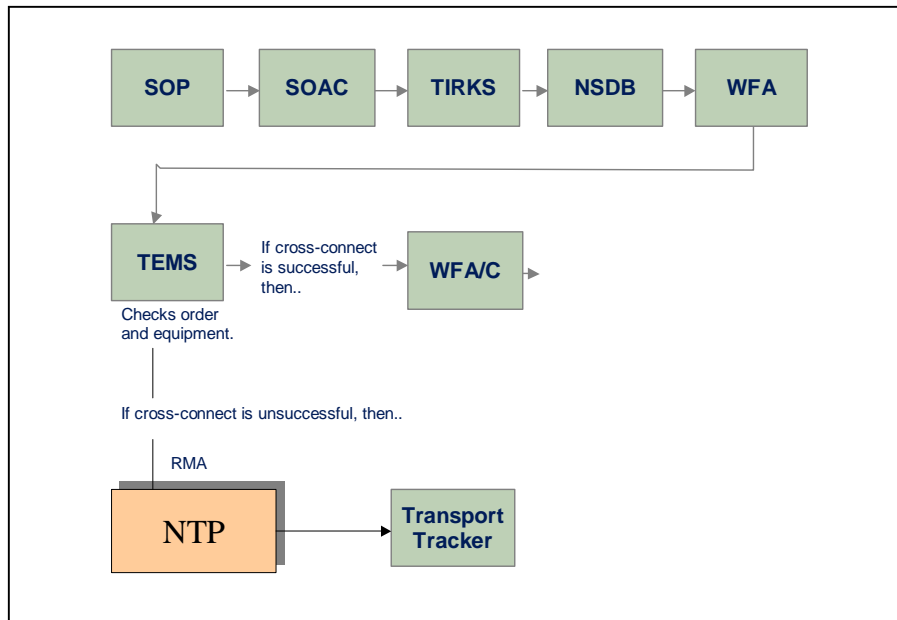
2.1.2 Provisioning Process Description – Work Center Roles

Verizon VA employs a variety of work centers that work together according to the process flows illustrated in Figures 10-1 and 10-2. A more detailed description of the individual roles of each center is provided below.

**Network Transport Provisioning Center (NTP)**

*Function of the NTP*

The primary function of the Network Transport Provisioning Center (NTP), formerly known as the Network Operations Center - Transport, is to process transport RMAs (“fallout”) by assigning loops and switch ports for retail and wholesale T1’s, T3’s, digital cross connects, dense wave multiplexers, and SONET products. The NTP also processes orders to expand and improve Verizon VA’s network infrastructure.

**Figure 10-3: Workflow Process in the NTP**

Verizon business units, including Complex Services, Carrier Access Transport Center (CATC), Major Customer Service Center, and Verizon Wireless, submit customer and infrastructure orders using automated provisioning systems. The Major Customer Service Center receives retail customer orders that are submitted into provisioning systems as service orders. The CATC receives Access Service Requests (ASR) from wholesale customers and creates service orders for the requested services. Service orders then flow from the CATC, Major Customer Service Center, and various other business units through Trunk Integrated Record Keeping System (TIRKS), where plant inventory is stored, to Network and Services Database (NSDB), and then to Workforce Administration (WFA). Next, service orders flow to Transport Element Manager System (TEMS), which updates the electronic network elements and connects 80% of cross connections required to complete “transport” circuits. The remaining 20% of the orders are distributed into the NTP’s systems for manual intervention.

The orders distributed from the flow through provisioning systems and loaded into the NTP’s systems are divided among order type (i.e., customer or infrastructure). The service orders are designed to flow through to completion without human intervention. If the automatic provisioning flow-through is unsuccessful, the Transport Element Manager (TEMS) will make several attempts to prevent manual intervention. During the hours of 12 a.m. and 6 a.m., automated flow through is attempted six times, once every ninety minutes. Unsuccessful electronic cross-connect orders fall out into a database of items to be worked on the next day by the associate workforce. The fallout is captured and organized in an application called Transport Tracker, which sorts the orders by due date. As technicians access the application, service orders are assigned based on the associates’ skill sets and profiles stored in the database. A team leader monitors the progress of the workload throughout the day and adjusts the workforce accordingly. The Wired and Office Tested (WOT) date is the due date for the NTP. The center has until midnight of the WOT date to complete their responsibilities. According to the April 2001 monthly report, the center completed 95% of its WOT items on time.

Associates monitor their daily work volume using Open Circuit Layout Report (CLO) in Transport Tracker. Customer carrier orders are denoted by the letter “C” and receive priority over infrastructure carrier orders. Central Office Technicians (COT) will clear items, complete them, and/or distribute those requiring redesign to Engineering Assistants (EA). EAs design “clean” orders and send electronic copies of orders with errors back to their originator(s) via TFAS.

There are several dates associated with the completion of transport circuits: Record Issuance Date. (RID); Designed, Verified, and Assigned (DVA) date; and WOT date. The NTP is required to place the electronic cross connections on the WOT date.

Prior to completion, the Control Office tests circuits using the Heikemian Test System. This system electronically tests the circuit from end-to-end. During the building and testing of the circuit, each action is logged in the Workforce Administration/Control (WFA/C) Operations Support Systems Log (OSSLOG), the screen where provisioning work lists and orders notes are located. This section of WFA/C is designed to store a chronological account of actions that take place during the life of the circuit.

### ***Network Operations Center – Translations & Trunking (NOC)***

#### *Function of the NOC – Translations & Trunking*

The Network Operations Center (NOC) processes RMAs for trunk provisioning and translations input that are not automatically completed by flow through provisioning systems. The NOC also handles trunking and translations maintenance. The NOC handles only Verizon network infrastructure work; it does not process CLEC/wholesale or retail customer orders. The NOC is not customer facing and, therefore, employees do not receive orders directly from customers. Center personnel as required may contact customers, however.

This office supports the following switch features: routing traffic, new switches, NPA/NXX (area code/exchange) code openings, and troubleshooting with the CATC and NMC. The products supported by this center are T1's, T3's, digital cross connects, dense wave multiplexing, and SONET. This office performs translations work on the following types of switches: 1A, 5E, DMS, Siemens, ATM's, and Plexus 9000. The NOC is organized into two functional groups: Trunk Provisioning and Translations Input.

### *Workflow Process in the NOC – Translations and Trunking*

#### Trunk Provisioning

The Trunk Provisioning group receives orders from the CATC via the TIRKS and WFA systems to build trunk groups. The orders flow through from TIRKS, where they are created, to WFA, where they are completed; arrive at the Trunk Provisioning group; and are subsequently prioritized by due date. Prioritization by customer type (wholesale versus retail) is not a TIRKS or WFA process and it is not possible without specific human intervention. WFA/C is used to load orders created and distributed through TIRKS. Workforce Administration/Dispatch In (WFA/DI) is used to load technicians' jobs and reads the Common Language Location Identifier (CLLI) code that identifies the office/wire center where the work is to be completed. The Overall Control Office (OCO) handles both CLEC and Verizon message trunks and the Maintenance Control Office (MCO) handles Verizon message trunks only. This group monitors switches and writes tickets to the field as MCO for Verizon's message trunks. Expedite requests are usually received via telephone from the CATC, account representative or directly from the customer.

The Trunk Provisioning group will communicate with CLECs at some point during the order flow process if necessary. Communication could occur when activating a specific order or circuit in the acceptance phase. The CLEC may give an acceptance serial number and request that the circuit not be turned up if the CLEC is not ready to place traffic on the circuit. The Trunk Provisioning group will request the name and telephone number of the CLEC employee making the request. The Trunk Provisioning group will respond to the CLEC within a reasonable amount of time or, if extensive testing is required, schedule an appointment to commence testing.

#### Translations Input

The Translations Input group receives orders from CATC, NMC, Marketing, Engineering, Trunk Maintenance, and Provisioning. At the start of their workday, technicians extract and load orders based on Central Office (CO) assignments. The Mechanized Translations System (MTS) provides a packet of translation information that is sent from the translation engineers to the Translations Input for processing. The packet includes information regarding special order notes, after-hours instructions if necessary, and the effective date. In addition, the MTS packet describes the customer and requests new codes, new NXXs, or Centrex builds. Associates in Translations Input create work folders and place test calls before and after the completion of an order. The Translations Input group does not differentiate between wholesale and retail customers; work is based on the COs involved in a particular order. APRIL is a communications package that connects to the recent change part of switch memory allowing translations that require no intervention to flow automatically to the switch's memory.

### ***Regional CLEC Coordination Center (RCCC)***

#### *Function of the RCCC*

Verizon VA's RCCC is the provisioning and coordination center responsible for UNE and special circuits (loops and IOF). This center interacts with several Verizon business units while provisioning wholesale and retail orders. The RCCC does not participate in provisioning POTS or Special Services for resale.

Screeners use WFA/C to preview incoming UNE POTS, UNE Direct Inward Dialing (DID) and UNE Trunk (TK) circuit orders. The Screeners provide sufficient time for the RCCC Coordinators to process the provisioning events. Screeners prioritize orders by due date. The Screeners decide

which orders go to UNE Maintenance Administrators (MA) or Complex Services COTs based on skill level, tour of duty, and load balancing considerations. Loop and switch port assignments for UNE POTS orders are performed by the APC prior to the RCCC working the order. The Screener distributes orders within the RCCC using the Operations Support Systems List (OSSLST) screen tables within WFA/C. There is a date and time stamp in OSSLST indicating exactly when the Screener distributed an order. The Screener team leader monitors the OSSLST to ensure that orders are distributed in time to meet RCCC provisioning requirements. A designated Screener distributes orders that come in with two days or less to the date due, which are called “drop-ins,” immediately on the day the order arrives. Another Screener looks at error reports for UNE POTS orders that have errors due to duplicate circuit IDs to ensure that the NMC corrects such errors. Common Error Service Order Input (ESOI) for hot cuts are “switch port already in use” and duplicate circuit IDs. Screeners contact the NMC for switch port errors and the NMC will request new port assignments from the CLEC.

*Workflow Process in the RCCC*

MA receive hot cut and Local Number Portability (LNP) orders in WFA/C from Screeners and then use SOP to review and print the order before processing begins. Order accuracy is verified during the initial review phase. After the order is reviewed and accepted, the MA begins processing the LNP or hot cut order. Activities performed by an MA for a hot cut or LNP order are logged in the WFA OSSLOG. MAs ensure that new connect (N) and disconnect (D) orders are related, known as a Complete Related Order (CRO). They also confirm that the cable pair on the D order is being re-used (re-used facility - RUF/RRSO) on the N order. If there is integrated subscriber loop carrier (ISLC), new F1 pairs (cable pairs from central office to telephone pole) must be assigned on a universal Subscriber Line Carrier (SLC) or copper, while reusing the local (F2) pairs (cable pairs from the telephone pole to the end user) if possible. MAs contact CLECs to verify and coordinate hot cuts. In addition, MAs identify customers migrating from an ISLC to universal SLC or copper pairs. MAs ensure that hot cut orders are updated when reflecting jeopardy (JEP) status instead of a pending auto completion (PAC) status, which prevents these orders from automatically completing to avoid premature disconnects. Due date changes within 48 hours of the Frame Due Time (FDT) increase the probability of a premature disconnect. WFA/C and WFA/DI check for dial tone from the CLEC switch on the correct telephone numbers 24 hours before FDT. On the due date, MAs check SOP to determine if there are any due date changes for hot cuts. The CLEC and Verizon's Frame are contacted on the due date to coordinate the hot cut at the FDT. The CLEC is notified after the hot cut is completed and the order is closed in WFA/C. The CLEC is advised of any JEP that would prevent service delivery on the due date. A status of the JEP is conveyed as soon as it is known that service delivery on the due date is affected.

The COTs on the Complex Services team perform cut-overs for DID and TK circuits. The COTs, through WFA/C, perform work. Screener MAs monitor WFA/C and load the COTs via the WFA OSSLST. The COTs perform the same CTR1 (date due minus one) and CTR2 (date due minus two) event processes that UNE MAs perform for hot cuts.

### ***Outside Plant Engineering (OSPE)***

#### ***Function of the OSPE***

The OSPE, formerly the Facilities Management Center (FMC), is responsible for (i) the screening, resolution, and completion of facilities engineering problems associated with provisioning orders that fall out of the provisioning process as RMAs; (ii) the design of new loops; and (iii) taking calls from Verizon technicians and office personnel with questions pertaining to outside plant facilities. The OSPE works with orders for both POTS and Special Services. Their work supports the needs and requests of any retail or wholesale order that is appropriately routed to the OSPE Center. Associates in the OSPE are responsible for the following tasks:

- ◆ Allocation and assignment of loop assets to meet the requirements of a provisioning order;
- ◆ Design of new loops; and
- ◆ Development of detailed engineering designs of IOF infrastructure that are driven by high-level engineering design requirements from the Verizon IOF group.

The OSPE becomes involved in the provisioning process when an order for POTS, Special Services, or Access Services falls out of LFACS as an RMA. This center is organized into groups according to functionality such as High Capacity circuits, DS0, fallout, Digital Subscriber Line (xDSL), Asymmetric Digital Subscriber Line (ADSL), Subdivision, and Transportation. The OSPE performs the following functions:

- ◆ Processes RMAs for loop assignments that fall out of Verizon VA's automatic provisioning systems to the OSPE due to a problem with loop facilities or a lack of loop facilities for an order; RMAs are processed for POTS and Special Service orders;
- ◆ Creates engineering designs of new loops that are driven by demand from a CLEC or an Inter-Exchange Carrier (IXC);
- ◆ Creates engineering designs of new IOFs driven by requirements from the IOF Center to increase Verizon IOF infrastructure;
- ◆ Creates engineering designs of new loops (F1s only) to keep pace with growth requirements defined by Verizon network planners in Baltimore, Maryland;
- ◆ Creates drafting development and maintenance of plat maps and development of blueprints for the construction of new loops and new IOF; and
- ◆ Performs transaction demand-driven loop qualifications for Integrated Services Digital Network (ISDN), ADSL, DS0, DS1, and DS3.



### *Workflow Process in the OSPE*

The OSPE is responsible for the allocation and assignment of loop assets to meet the requirements of a provisioning order. Through communication with various planning and development organizations, Verizon can administer internal facility orders to ensure future availability for customer facility requests.

Orders are generated in the Verizon business units. Representatives in the business units attempt to verify the customer's address. If the address is within the present range or the street name is not present in the LiveWire System, the representative contacts the OSPE to determine why the address is not available. The LiveWire System is a database of pre-wired addresses. Based on the work done by the OSPE Remote EAs, the FAs in the OSPE are responsible for populating the LiveWire database. Once the business unit representative's question is researched and resolved, the FA reports back to the business unit so that the customer's order can be issued.

After the customer's request is processed, the order enters the provisioning process via the SOP. The provisioning process is guided by SOAC. Once the service order is issued, LFACS scrutinizes the order for proper service and equipment coding, TN assignment, outside plant facilities, and CO facilities. It is possible for the service order to pass through the entire provisioning process without human intervention. However, if any errors are recognized, the order falls out as an RMA. For DS0, FACS guides the RMA to the PAWS. RMAs with the error code Unable to Assign a Complete Loop (UACL) and 11 other facility-related RMA codes are sent by PAWS to the Automated Administration of RMAs and Demand Work for Outside Loop Facilities (AARDWOLF) system, thereby falling out directly to the OSPE. AARDWOLF is the work management system used by the OSPE to monitor and distribute RMAs. Some orders that route initially to the APC are also forwarded to Engineering via the referred feature in PAWS. FAs are required to periodically check the PAWS bucket for new RMAs.

DS1 and DS3 orders are received from FirstNet via a printer in the OSPE office. The FA receives the FirstNet printout and manually enters the information into AARDWOLF and forwards the order to an EA. The Loop Facility Record (LFR) is sent by the EA to the CPC or CATC for assignment of the order in FACS and TIRKS. FAs package new work from PAWS to AARDWOLF every half hour.

Screeners are constantly assigning the orders on available facilities or forwarding the RMA to an EA. POTS RMAs are prioritized by the Loop Assignment Make-Up (LAM) date. Special service order RMAs are prioritized by RID. Both critical dates are contingent upon the due date (DD). FAs try to resolve the facilities issue that caused the order to fall out by consulting LFACS. Of the orders that RMA sent to the OSPE, approximately 70% can have facilities assigned to them by the FA. If the requirements for resolution are beyond the scope of the FA's role, they will forward the order to the appropriate EA through AARDWOLF. A matrix issued by OSPE management to every FA guides them through the RMA resolution and assignment process.

EAs pull their designated orders from the AARDWOLF system and then orders are prioritized by LAM or RID depending on the type of service requested. The EA may have knowledge of facilities that were unavailable to the FAs. If facilities can be assigned, the RMA is resolved and the order is resubmitted to the automated provisioning process. If there are no facilities available, an Engineering Work Order (EWO) must be designed and issued to the Construction Group. The Construction Group reviews the order and assigns an Expected Completion Date (ECD). This date is placed in the Workforce Administration/Dispatch Out (WFA/DO) system so the customer can be kept informed in case the DD of the service order is missed or in jeopardy. A remark is placed on each delayed service as a reference to the business unit owning the order. If the DD has to be pushed back, the business unit must contact the customer. After the EA determines how the service order is to be provisioned, the order is forwarded through AARDWOLF to the EAs that work in the OSPE Completion Group. When the RMA is resolved, the Completions Group assigns available facilities and releases the order for dispatch out using WFA/DO. If the order is created in answer to an EWO, the Completion Group pre-assigns the order so it can be viewed by downstream provisioning organizations. The order is then moved to the Regional CLEC Maintenance Center (RCMC) through AARDWOLF. Once the Construction Group completes their work, the OSPE FA is notified via AARDWOLF so that the order can be resubmitted into the provisioning process and WFA/DO is updated to release facilities for dispatch.

FAs and EAs field calls from Verizon technicians and office personnel that have questions pertaining to outside plant facilities. If the business units call in a DS0 or below Facility Check, the FA fills out a Facility Check form, populates the necessary fields in AARDWOLF, and sends the request to an EA. Facility Checks for DS0 and below orders require a turnaround response to the business unit within 24 hours. Facility Checks for DS1 and above orders are sent via the RequestNet system and require a turnaround response to the business units within 48 hours.

### ***Circuit Provisioning Center (CPC)***

#### ***Function of the CPC***

The CPC is responsible for (i) processing RMAs for Special Service orders placed by retail customers, (ii) responding to calls from Field Technicians, (iii) monitoring and managing databases to ensure that orders are being met by due date, and (iv) designing and distributing circuit designs to downstream provisioning organizations.

*Workflow Process in the CPC*

Orders requesting circuits of DS0, DS1, and DS3 capacity or higher are routed to the CPC. Orders enter from the retail business unit via SOP where the provisioning process begins. SOAC simultaneously send orders to the FACS and TIRKS. If the business units do not properly submit orders, they will not flow from SOAC into the assignment and design systems. If an order cannot enter TIRKS, the order falls out of the SOAC. EAs in the CPC monitor SOAC for fallout. They then have the responsibility to resolve the RMA with the generating Business Office.

The FACS systems include the LFACS and SOAC. Some orders cannot successfully pass through the FACS systems. The majority of these errors fall out as RMAs into PAWS and are routed to the APC, however, some error codes route the assignment RMAs to the CPC. Assignment Administrators (AA) in the CPC check the PAWS bucket periodically for this variety of RMA. Using LFACS, SWITCH, and the appropriate contacts, it is the AA's responsibility to correct errors and re-submit the order into the automated provisioning process.

TIRKS is the primary system used in the CPC. TIRKS extracts information from the service order so that it can automatically populate the appropriate fields and post the order to the appropriate technician's PC List, which is the work assignment screen in TIRKS. There are three sub-set lists of the PC List that EAs can view to determine their daily workload. These lists are the Fails Pre-Design (FPD) List, the Facilities and Equipment (FE) List, and the Review (RVW) List. Orders with no errors flow through the CPC and are designed by TIRKS with no manual intervention from EAs. These orders only appear in the RVW list. Approximately 50% of the provisioning orders flow through directly to the RVW bucket without manual intervention. For various reasons, the remaining 50% fall out of TIRKS. RMAs are assigned according to technology. Within the CPC there is one group of EAs that work DS0 orders and another group that works the orders for circuits DS1 and above.

DS0 orders have the potential to fall out into either the FPD or FE buckets. Those that end up in the FPD bucket failed to properly enter TIRKS from SOAC. Orders needing facility assignments are prioritized based on LAM date. If an order cannot be designed with the facilities and equipment available then the order falls out to the FE bucket. Orders in the FE bucket are prioritized by RID.

Any orders for DS1 and above are designed to automatically fall out in the CPC. Orders must be manually assigned facilities and equipment by the qualified EAs of the CPC. Each "High Capacity" circuit order that arrives in the CPC was reviewed in the OSPE, where the EAs work in conjunction with the Construction Group to establish the Verizon network infrastructure. The OSPE Group receives its notification of the pending order from the business units via the RequestNet program. The OSPE EA fills out the necessary fields in RequestNet and faxes a Work Authorization (WA) form to the CPC, which is meant to aid the CPC in its design efforts. The CPC's EAs reference the WA document to get the Service Request Number (SR#) so they can access the order in RequestNet. Each system provides the EAs with the information needed to design the circuit. Design work for DS0 and above in the CPC is prioritized according to RID. If there are any facilities or equipment problems with an IOF order, it is routed to the NetPro center for assignment and design.

CPC retail orders are directed to the RVW bucket. Each order is reviewed by an EA prior to the order leaving the CPC. It is the EA's responsibility to check each order for accuracy and completeness. If the order is satisfactory, the EA closes the order in the PC List of TIRKS, allowing the order to be routed to the Dispatch In (DI) and Dispatch Out (DO) Groups. After the order is distributed to the field, the RID date is automatically closed.

Expedite order requests must use normal product intervals. The business unit responsible for generating the order must call the CPC and negotiate a shorter interval. If the expedite request is for a DS1 or above, the business unit is required to use RequestNet.

### ***Assignment Provisioning Center (APC)***

#### *Function of the APC*

The primary function of the APC is to assign loops, office equipment, or switch ports to retail or wholesale POTS and Basic ISDN orders that fall out of Verizon provisioning systems for manual assignment. In addition to processing RMAs, APC associates respond to calls for assistance from field technicians on installation and maintenance and perform database management functions including extracting and reviewing reports. The center supports only POTS for both retail and wholesale customers. This center does not support facility or design orders. Center employees do not communicate with wholesale or retail customers, including CLECs. The APC frequently interacts with Verizon business units including the NAC, OSPE, RCMAC, Special Services, and Frame.

#### *Workflow Process in the APC*

Orders for POTS and Basic ISDN are submitted to the SOP system by the retail business offices and the NMC, and by CLECs through the Verizon GUI. SOAC determines whether the order requires loop facilities and office equipment or switch ports. If loop facilities are required, SOAC sends the order to LFACS for automated loop assignment and subsequently sends the order to the SWITCH operating system for automated office equipment or switch port assignment. Once the loop and office equipment/switch port have been assigned to the order, the order is distributed back to SOAC.

Approximately 85% of POTS orders flow through the SOAC, LFACS, and the SWITCH operating system assignment systems in an automated manner. The remaining 15% is worked by the APC, NAC, and OSPE. The OSPE receives 12 RMA codes automatically through PAWS. A POTS order can potentially be directed to fall out as an RMA by SOAC, LFACS, or the SWITCH operating system.

PAWS is the work management system used by the APC for processing RMAs. PAWS does not filter orders by skill level, specialization, or project. Each AA selects RMAs based on due date. Throughout the day, AAs use PAWS to retrieve RMAs to process one at a time by hitting "Next" in the menu screen of the PAWS system, which stands for next work item. RMAs are retrieved from the queue in PAWS by AAs in the order of RMA due date. Hence, in distributing RMAs to AAs for processing, PAWS does not prioritize on the basis of whether the order is retail, wholesale, business, or residential. Instead, PAWS prioritizes RMAs by due date. The AAs process orders based on due date with no regard to retail or wholesale.

RMAs remain unassigned or “un-packaged” in PAWS until an AA selects the item to begin processing. After the RMA is selected for the AA to initiate processing, it is then considered a “packaged” RMA. After an AA retrieves an RMA from PAWS, he or she works in LFACS to assign the loop for the order and works in SWITCH to assign the office equipment or switch port for the order.

There are numerous reasons why a POTS or Basic ISDN order might fall out for manual assignment, but the most prevalent reasons are as follows:

- ◆ Exact match errors where there is a problem with the service address information on POTS or Basic ISDN orders. The error may stem from the address not being listed in the LFACS and/or Live Wire database, a spelling error in the address, or a location detail problem such as wrong apartment or room number or confusion concerning a basement location versus a first floor location. LiveWire, LFACS, SWITCH, SOAC, and Loop Maintenance Operations System (LMOS) are used to resolve the discrepancy.
- ◆ UACL errors where there is not a complete circuit from the CO to the network interface device (NID) at the customer premise. LFACS tables look for a connected facility or “cut through” from the CO to the NID. If LFACS fails to identify a complete facility to the service address NID, LFACS will create an RMA for the order using the UACL error code. It should be noted that these RMAs (UACL) are routed directly to the OSPE through PAWS. The APC has no involvement in them. UACL also includes an error that stems from not having a qualified loop for Basic ISDN.
- ◆ Interfering Station errors in which LFACS or SWITCH indicates that there is already existing service to the service address listed on the service order. It should be noted that these Interfering Station RMAs are automatically returned to the business office from LFACS. The APC does not have any involvement in processing these RMAs.
- ◆ Defective cable pair.
- ◆ The feeder pair is assigned to wrong terminal, due to an incorrect house address or an incorrect terminal in LFACS.
- ◆ The telephone number (TN) for the order comes up in one of the databases as already assigned and working. This would occur, for example, if previous service for a TN was disconnected out of LiveWire but not out of SWITCH.
- ◆ LFACS may have the cable pair assigned to specific office equipment (OE) but SWITCH may not have the same OE assignment.

Based on the cable pair assignment in LFACS, the SWITCH database may have a direct relationship to an OE that is not compatible with the live switch and/or CO equipment. Service order writing errors are always returned to the business office or NMC. The APC does not correct these errors. Orders with writing errors that cannot be assigned in the APC are returned by AAs to the appropriate business offices or NMC as a clipboard in PAWS. The individual Business Units are responsible for correcting their respective ESOIs. Orders that have assignment problems and must be corrected by the OSPE are sent via AAs to the OSPE through PAWS. Orders that have assignment problems and must be corrected by the FOMS group or the NAC are enclosed in an electronic message called a “clipboard” by the AAs and sent to the person designated as the “Packager” in the APC offices. The Packager reviews the clipboard message and sends it to the FOMS Group or the NAC. The APC has established PAWS terminals in many of the business units listed above and expects each organization to track their own work and handle it in a timely manner.

### *Network Administration Center (NAC)*

#### *Function of the NAC*

The NAC performs the following functions:

- ◆ Centrex/Direct Inward Dialing (CTX/DID) Administration;
- ◆ Data Base Integrity;
- ◆ Integrated Subscriber Loop Carrier (ISLC) Equipment Administration;
- ◆ Line Administration;
- ◆ OE Administration;
- ◆ RMA processing;
- ◆ Switch Capacity Administration;
- ◆ TN Administration; and
- ◆ Trunk Administration.

#### *Workflow Process in the NAC*

RMAs enter the NAC via PAWS and orders are corrected and returned to the originating source within four hours. If an NAC recognizes a problem in resolving the RMA within the allotted time, a Team Leader is involved. The Network Service Coordinator (NSC) is responsible for the RMA from assignment to completion.

The most common RMA is No OE. The NSC will first query SWITCH to locate OE. If OE is available for assignment but does not flow through to the service order, the NSC will research the root cause for fall out by reviewing the service order, executing reports in the provisioning system SWITCH, and then resolving the order. The NSC maintains a log of RMAs for root cause investigation purposes.

***Circuit Provisioning Center (CPC-UNE)******Function of the CPC-UNE***

The CPC-UNE is responsible for (i) processing RMAs for Special Service orders placed by wholesale customers, (ii) responding to calls from Field Technicians, (iii) monitoring and managing databases to ensure that orders are completed by due date, and (iv) designing and distributing circuit designs to downstream provisioning organizations. This center is the only CPC responsible for CLEC Special Service orders. Any orders DS0 or above from a CLEC located in the Southern Verizon Territory, which consists of Pennsylvania, Delaware, New Jersey, Virginia, Washington D.C., Maryland, and West Virginia, are handled by the CPC-UNE.

***Workflow Process in the CPC-UNE***

CLEC orders requesting circuits of DS0, DS1, and DS3 capacity or higher are routed to the CPC-UNE. Orders are entered by the NMC into SOP. SOAC sends orders to FACS and TIRKS. If orders are not properly submitted by the NMC, they will not flow from SOAC into the assignment and design systems. If an order cannot enter TIRKS, the order falls out of SOAC. EAs in the CPC-UNE monitor for SOAC fall out. The EA then forwards the order to an EA whose responsibility it is to send an Error Service Order Input (ESOI) to the NMC.

The FACS systems include the LFACS and SOAC. Orders that cannot successfully pass through the FACS systems are said to fall out. If a Special Services order placed by a CLEC falls out as an RMA, it appears on an EA's work list in the CPC-UNE. TIRKS is the primary system used in the CPC. TIRKS extracts information from the service order so it can automatically populate the appropriate fields and post the order to the appropriate technician's PC List, which is the work assignment screen in TIRKS. There are two sub-set lists of the PC List that the EAs can view to determine their daily workload. They are the FPD List and the FE List. Orders with no errors flow through the CPC and are designed by TIRKS with no manual intervention from EAs. These orders are designed without human intervention. Approximately 50% of provisioning orders flow through. The remaining 50% fall out of TIRKS. EAs in the CPC-UNE are capable of handling special orders.

DS0 orders have the potential to fall out into either the FPD or FE buckets. Those orders that end up in the FPD bucket failed to properly enter TIRKS from either SOAC/expressTRAK or LFACS. If an order cannot be designed with the facilities and equipment available the order falls out to the FE\* bucket. Orders in the FE\* bucket are prioritized by RID.

Any order for DS1 and above is designed to automatically fall out in the CPC. Facilities and equipment are manually assigned by the designated EAs of the CPC. Each “High Capacity” circuit order that arrives in the CPC was reviewed in the OSPE where the EAs work in conjunction with the Construction Group to establish the Verizon network infrastructure. The OSPE Group receives its notification of the pending order from the NMC via the RequestNet program. The OSPE EA fills out the necessary fields in RequestNet and faxes a WA form to the CPC that is meant to aid the CPC in its design efforts. RequestNet information is received by the clerks and presented to the EAs. EAs can obtain the SR# from the PC List. “High Capacity” circuit orders are accompanied by the corresponding SR# so that an EA can access the supporting order information in RequestNet. Each system provides the EAs with the information needed to design the circuit. Design work for DS0 and above in the CPC is prioritized according to RID. Once the circuit is fully designed in TIRKS, the order is closed out on the PC List and routed to the CLEC Loop Provisioning Center (CLPC). The EAs are responsible for checking the WFA/C status screens to see if the orders have been successfully closed out in TIRKS and posted as Pending in the WFA system.

### ***CLEC Loop Provisioning Center (CLPC)***

#### *Function of the CLPC*

The CLPC is the business unit responsible for service delivery of wholesale and retail work orders. These orders include the following products: DS0, DSL, Line Sharing, and DS1 and higher circuit types. The CLPC has four groups: the Digital Loop, DS1 and above, Line Sharing, and Loop Qualification. The DS1 and above group verifies the accuracy of service orders and designs on the work start date (WSD). The Loop Qualification group responds to the loop qualifications from CLECs through RequestNet.

#### *Workflow Process in the CLPC*

Service orders are created and assigned before reaching the CLPC. Service orders are distributed to the center via WFA/C, WFA/DI, and WFA/DO. WFA/C automatically assigns service orders that are simultaneously loaded in WFA/DI and WFA/DO. The majority of line sharing orders do not require a dispatch. However, when an LSR is required to change facilities, work steps take place for dispatch and the CO. MAs answer incoming calls and compile and send service order notification reports on DD+1.

### ***Retail Dispatch Resource Center (RDRC)***

#### *Function of the RDRC*

The RDRC is responsible for (i) processing orders for field technicians and clerks, (e.g., connectivity, installation), (ii) handling inward activity such as new service, and (iii) handling non-dispatch orders, which involves running scan tests through systems to ensure that connectivity is complete. The majority of the orders that fall out to the RDRC are for retail organizations, but the RDRC may also handle wholesale orders that pertain to facility problems.



### *Workflow Process in the RDRC*

The retail RDRC receives orders from the Business Office for residential or business orders. Once the Business Office issues an order, it flows through the SOAC into the appropriate center. The SOAC system, in turn, auto populates, the WFA-DO system. The MAs monitor the WFA-DO system for new orders. Orders from the Business Office can arrive coded in three ways: “dispatchable,” “non-dispatchable,” or “inward activity.” Either they are “dispatchable,” requiring additional follow up with support groups, or they are “non-dispatchable.” Dispatchable orders are dispatched to field technicians for a variety of reasons (e.g., connectivity, installation). Inward Activity orders are typically orders for new service, which require dispatching by the MAs. Non-dispatchable orders are orders that need to be tested by MAs prior to being dispatched to the field. For non-dispatchable orders, the MAs run a scan test through the system to ensure that connectivity is complete.

Every MA is responsible for a specific geographic area in which they dispatch an appropriate technician based on CO to handle orders. MAs are also responsible for contacting customers regarding discrepancies (e.g., rescheduling a time for a technician to work on their lines).

### ***Dispatch Resource Center - Wholesale (WDRC)***

#### *Function of the WDRC*

The WDRC dispatches, schedules, and screens work orders for technicians. The products and services handled by this center include: CLEC/Wholesale orders (TXNU), Digital, Analog, New Loop, CLEC Dispatch, VADI Dispatch (Verizon Advanced Data), IXC “High Capacity” circuits and Specials, and “High Capacity” circuits for CLEC (HCFU).

#### *Workflow Process in the WDRC*

The WDRC receives service orders for “High Capacity” and special circuits from the CATC. The NMC sends Unbundled, Digital, and TXNU service orders to the center. Service orders are distributed to the center via WFA/C. The WDRC receives orders and assigns them to center associates, in DD and due date minus one (DD-1) order. The umbrella group works service orders in JEP status. Employees work with other Business Units to remove orders from JEP status. After the service orders are screened and scheduled, the Dispatch group ensures that work orders get loaded and assigned (geographically) to field technicians. The associates in Dispatch review existing service orders and trouble tickets each morning to combine those work assignments with the incoming load. These orders are distributed evenly among the field technicians. Technicians receive printed work orders at their respective center locations via Intelligent Force Access System (IFAS), a portable hand-held system. In working the service orders, the technicians may require the assistance of the Field Assist group for testing or interaction with other business units. After completing a service order, the technician closes the job with the wholesale customer and the particular Verizon Business Unit (e.g., CATC, RCMC, RCCC, CLPC).

### *Special Services Center (SSC)*

#### *Function of the SSC*

The SSC processes retail orders after the CPC completes the design. Though the SSC is responsible for retail orders only, win-back orders, customers returning to Verizon from CLECs, arrive at the center on occasion. Win-backs are initially classified as wholesale orders and eventually become retail orders for the center. Win-backs are handled in conjunction with the Win-back Control Center (WCC). The WCC was recently introduced for both special and POTS win-backs. The SSC supports the following products: analog, voice and data; Basic Rate ISDN (BRI); Primary Rate ISDN (PRI); “High Capacity” circuit services such as DS1s, DS3s, OC3s, and OC12s; local Specials; DID trunks; DOD trunks; combination trunks; Digital – DDS; 64kbps; etc.

#### *Workflow Process in the SSC*

Verizon Business Units, including Large Business, Enterprise, Consumer, Residential Service Center (RSC), General Business, and Business Service Center (BSC), submit customer and infrastructure orders using automated provisioning systems. The CPC receives orders and completes the circuit design in TIRKS. After the CPC completes the circuit design, the orders flow through WFA/C where the SSC obtains the order for processing. The orders arriving into the center are prioritized by due date. Provisioning orders flow to each individual tester’s OSSLSST. The Screener balances the load between each tester. The OSSLOG contains notes about the order and the circuit provisioned (CP) ticket. WFA/C is built based on the skill set of the technician. The Provisioning Technician screens incoming work and monitors the load using WFA/C. Next, on the DVA date, technicians compare the service order to the engineering design by the CPC. After DVA, the NOC completes the WOT date. The DVA date and WOT date steps are completed by the respective COs. On the Frame Continuity Date (FCD), Provisioning Technicians check the continuity between serving COs and schedule a dispatch if the check is successful. Plant Test Date (PTD) is similar to the due date minus one (DD-1). Approximately 20-30% of dispatching occurs on the PTD date. The SSC aims to dispatch technicians on PTD. After the SSC completes the provisioning work and initiates a dispatch, field technicians call the SSC to conduct testing. Upon completion of testing, the Provisioning Technician places notes on the Circuit Notes (OSSCN) screen in WFA/C. The circuit notes include demarcation information, jack work, extensions, any extra work required, billing, and work time. The completion of the order and the OSSCN screen are fed into the business office systems so that billing can begin. Provisioning orders are completed in WFA/C. Some orders are sent back to the originating Business Unit using SOAC.

The team leaders handle order escalations. Escalations are primarily generated from the Business Office and direct customer contacts. If escalations exceed reasonable expectations, then the team leader assigned to Projects and the General groups may be requested to provide assistance. The Business Office usually refers the customer to the center. There may be either internal or external escalations generated from this center.

Expedite orders are handled by the team leaders of the Projects or General groups. Expedites are communicated to the SSC managers via telephone calls from the Business Office. There are two Provisioning Technicians responsible for processing expedite orders. The expedite load is balanced by the expedite team leader. The center researches facilities availability with other Verizon organizations before returning confirmation calls back to the Business Office. The SSC will provide an expedited date to the Business Office if facilities are available by that date. The screener will see the expedite orders before they are assigned to team leaders. The expedite may require a negotiated date with the Business Office. The negotiation is accomplished by the team leader checking the force against the load for the day requested and relaying either the acceptance or denial of the request to the customer through the Business Office. If the request is denied, the Business Office will negotiate with the customer until a date is agreed upon. Most order expedites are for high capacity circuits. The manager stated that 90% of due date requests are met.

### ***Premium Care Center (PCC)***

#### ***Function of the PCC***

The PCC in Silver Spring, Maryland, is responsible for provisioning special orders for Tier 1 customers throughout the region spanning MDVW. The PCC is a retail operation, and does not handle wholesale orders. The PCC counterpart for Wholesale is the CATC. In addition, Verizon maintains two other PCCs: one with identical functionality (and the same WFA box) in Charleston, West Virginia, and one in Richmond, Virginia, for DS-3 work orders.

#### ***Workflow Process in the PCC***

Orders flow to the PCC provisioning center from the Business Office. When the Business Office receives an order, the order information is entered into the SOP, which auto populates the WFA/C system. Orders that fall out to the PCC are populated via WFA/C into a work list for the COT. Although orders are automatically distributed into each COT's work list, the Team Leads are responsible for monitoring the flow of work to ensure that it is distributed evenly. Orders in the PCC are due date driven. Once the COTs receive orders, they conduct testing on them so that they can then be dispatched out to field technicians. TIRKS and React 2000 are tools used by the COTs to run the tests. Every PCC technician is trained to work any order. Upon receipt of an order, field technicians go out to the site, set up the circuit, and, once it is set up, call a COT at the PCC in Silver Spring, Maryland. The COT then contacts the customer and confirms successful installation while the field technician is still on the phone. If a customer is unavailable, an account is classified as "no access" and left open. At this point, the facility will try "within reason" to contact the customer several more times to receive confirmation and close the order.

***Regional Reseller Service Center (RRSC)******Function of the RRSC***

The RRSC located in Hamilton Square, New Jersey is responsible for provisioning and coordinating analog, digital, “High Capacity” circuits, ISDN-PRI, local Specials, wholesale, and CLEC Special Services and test and turn-up for Resellers. The RRSC supports provisioning and maintenance functions for several of Verizon’s Business Units with customers throughout the Potomac region including MDVW. The RRSC assumed handling wholesale orders from the SSC in April 2001. Though this center has not received any Unbundled CLEC orders from Virginia customers, Resale orders are submitted from customers in the state. The RRSC began receiving and processing Unbundled CLEC orders in July 2001. The RRSC frequently interacts with CLEC customers.

***Workflow Process in the RRSC***

When the NMC in Silver Spring, Maryland receives an LSR from a CLEC, the order is written and entered into the provisioning process. If it pertains to those orders handled by the RRSC, the order information is auto-populated in WFA/C and is distributed to technicians at the RRSC. Orders flow into the RRSC via the WFA/C system. Work is auto populated into the technicians’ OSSLST based on the type of work they handle. Although technicians are specialized, they are trained to handle any type of order and are interchangeable and able to work other orders if load balancing is necessary. Even though the technicians’ OSSLST is auto populated daily, the Team Leaders also act as Screeners to ensure that the distribution of work is compatible with each technician’s area of expertise, as well as to ensure the balance of work within the center. Currently the system distributes work based on the technicians’ skills. Verizon stated that intervention by the Team Lead as a Screener prevents technicians from receiving work they cannot handle. There is also a “Pending Pick-up” bucket for technicians who have completed the work in their work lists and are looking for more orders to handle.

For a new service order, Field Technicians call in to initiate a test. The RRSC technicians use React 2001 as a test device for the orders. Once the test is complete, the field technician advises the RRSC whether or not the circuit is up. Once the circuit is up, they will turn the circuit up to the vendor with the NOC, in Falls Church, Virginia, on the line. If a customer does not accept an order, it is not closed out, as orders can only be closed out after the customer accepts them.

### ***Voice Order Inquiry Center (VOICe)***

#### *Function of the VOICe*

Verizon's VOICe is responsible for assisting customers with service activation issues occurring on the due date of an order. Customers contact VOICe with a wide assortment of issues and center representatives refer troubles to the line of business capable of resolving the issue. Frequent interaction occurs with several internal Business Units including the RDRC and WDRC, Assignment Provisioning Center, Outside Plant Engineering, RCMAC, and Frame Departments. This office does not receive provisioning orders or maintenance tickets. Instead, incoming work is in the form of customers requesting assistance for completed orders. The Potomac region, MDVW, is the area covered by this center. VOICe was formerly known as the Customer Care Inquiry Center (CCIC), or Customer Care. The center handles retail orders only, while the CLEC and win back calls are referred to the Business Offices.

#### *Workflow Process in the VOICe*

The primary function of VOICe is to route customer issues to the appropriate department and provide the customer with a resolution or an update within two hours. Work items/incoming calls are prioritized by first in, first out. Incoming calls are distributed among job agents. The agent acts as the following different roles:

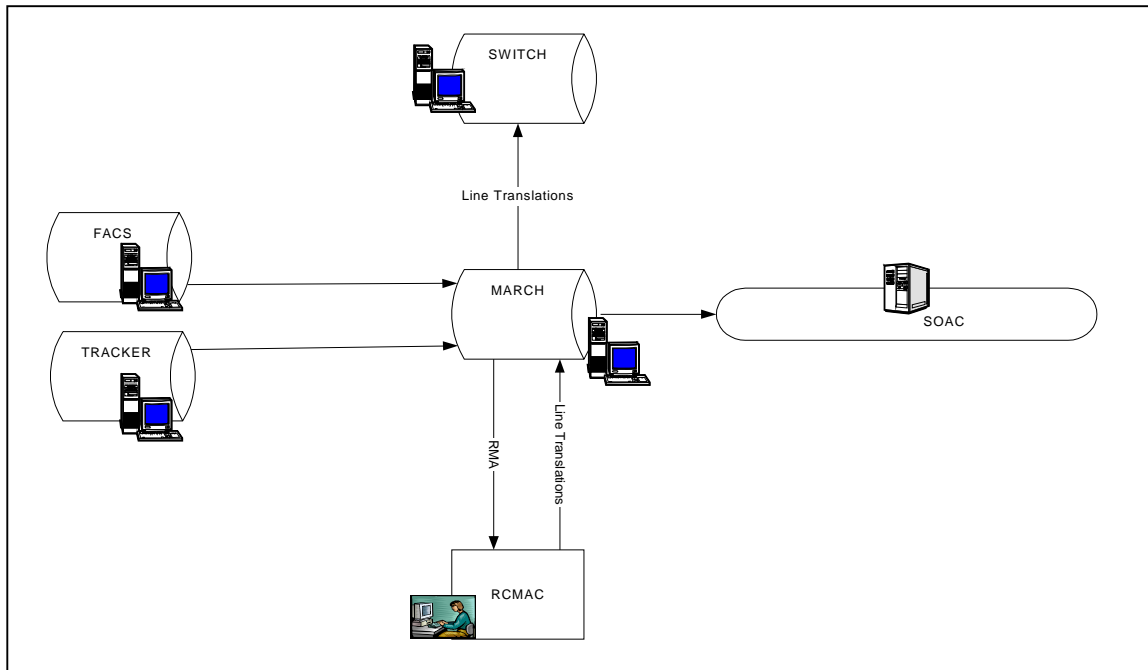
- ◆ Call agents;
- ◆ Business Office agents;
- ◆ Translations agents;
- ◆ Testing agents;
- ◆ Customer Advocacy Group agents;
- ◆ Held for Cable agents; and
- ◆ Manager agents.

Every agent is logged into the Automatic Call Distributor (ACD) system.

### ***Recent Change Memory Administration Center (RCMAC)***

#### *Function of the RCMAC*

The Verizon Recent Change Memory Administration Center (RCMAC) is responsible for (i) processing CENTREX orders, (ii) manual orders, (iii) multi-line hunt orders, and (iv) LNP due date changes from the RCCC. CENTREX service provides the equivalent of Private Branch Exchange (PBX) service from a CO. The RCMAC receives any orders with dial tone or features on the line that require manual handling. The centers provide support for POTS, ISDN, and CENTREX retail and wholesale orders.

**Figure 10-4: Workflow Process in the RCMAC**

Work in the RCMAC can be generated by (i) TRACKER orders, (ii) faxes, and (iii) telephone calls from the Business Office or the RCCC. Orders received via the work management system, TRACKER, begin in MARCH. If the order is flow-through, MARCH will format the message and send it to the CO switch. If the order requires manual processing, MARCH will send it to the PAC file. The PAC file is delivered to TRACKER and the Associate at the RCMAC initially views the order in TRACKER. The associate formats messages in MARCH and programs the time to send the order to the CO switch. When the order is accepted in the CO switch, the provisioning process for the RCMAC is complete and the Associate completes the order in TRACKER. However, if errors occur, such as unavailable office equipment, the reject message is entered into TRACKER. Once the RCMAC Provisioning Associate corrects any reject error, the order is moved to the MARCH pending file to be released to the CO switch again. When the order is accepted in the CO switch, the provisioning process for the RCMAC is complete and the Associate closes the order out in TRACKER.

Service orders may be received via fax if there is a problem with the order flowing through the systems and provisioning work needs to be done. The status is documented on the fax and changes are entered in MARCH, and a ticket is completed in TRACKER. The business office follows up with a records only order to update account information. Orders may also be received via a telephone call from the Business Office or the RCCC. The Business Office may call the RCMAC to verify features if the customer would prefer to know which ones exist on his or her line. The RCCC may call if changes are made to the due date. The RCCC asks the RCMAC Associate to retrieve messages associated with a due date change in MARCH.

## 2.2 Scenarios

Scenarios were not applicable to this test.

## 2.3 Test Targets & Measures

The test target was Verizon VA's Provisioning Process, which included reviews of the following sub-processes:

- ◆ Order entry (Verizon VA internal);
- ◆ Workflow management;
- ◆ Workforce management;
- ◆ Assignment;
- ◆ Service activation; and
- ◆ Service design.

## 2.4 Data Sources

The data collection performed for this test centered on interviews, direct center observations, and reviews of documentation supplied by Verizon VA at the request of KPMG Consulting. The sources of data for this test include Methods and Procedures (M&P) that support specific products throughout the provisioning process.

### Center Visits:

- ◆ Network Transport Center (NTP); Richmond, Virginia; May 22, 2001;
- ◆ Network Operations Center (NOC); Falls Church, Virginia; May 23, 2001;
- ◆ Regional CLEC Coordination Center (RCCC); Cockeysville, Maryland; May 30, 2001;
- ◆ Outside Plant Engineering (OSPE); Richmond, Maryland; June 4, 2001;
- ◆ Circuit Provisioning Center (CPC); Richmond, Virginia; June 6, 2001;
- ◆ Assignment Provisioning Center (APC); Silver Spring, Maryland; June 8, 2001;
- ◆ Network Administration Center (NAC); Falls Church, Virginia; June 11, 2001;
- ◆ Circuit Provisioning Center (CPC-UNE); Cockeysville, Maryland; June 12, 2001;
- ◆ CLEC Loop Provisioning Center (CLPC); Cockeysville, Maryland; June 13, 2001;
- ◆ Retail Dispatch Resource Center (RDRC); Falls Church, Virginia; June 20, 2001;
- ◆ Special Services Center (SSC); Richmond, Virginia; June 21, 2001;
- ◆ Premium Care Center (PCC); Silver Spring, Maryland; June 22, 2001;
- ◆ National Dispatch Resource Center – Wholesale (NDRC); Silver Spring, Maryland; June 22, 2001;
- ◆ Regional Reseller Service Center (RRSC); Hamilton Square, New Jersey; June 25, 2001;
- ◆ Voice Order Inquiry Center (VOICE); Baltimore, Maryland; June 26, 2001; and
- ◆ Recent Changes Memory Administration Center (RCMAC); Richmond, Virginia; June 27, 2001.

**Relevant Documents:**

- ◆ Request for Manual Assistance (M&P);
- ◆ Potomac Circuit Provisioning Center Method of Operation;
- ◆ Complex Services Provisioning Method of Operation (MO-CTRS-97004);
- ◆ Requirements for each Critical Date (MP-CATC-99059);
- ◆ Complex Services Provisioning-Critical Date Responsibilities (MP-CTRS-98002, Rev 2);
- ◆ Held for Cable Procedures for Customer Service Centers;
- ◆ Virginia RMA/DON Process Flow Chart;
- ◆ LiveWire Update Flow Chart;
- ◆ Cable Make-up Requests Flow Chart; and
- ◆ Facility Availability Requests Flow Chart.

This test did not rely on data generation or volume testing.

### *2.5 Evaluation Methods*

The Provisioning Process Parity Evaluation was conducted through a series of visits to Verizon VA centers involved in the provisioning process. First-level managers and front-line employees were interviewed to develop an understanding of the functions within each center.

Before conducting the test, a structured interview questionnaire and detailed evaluation criteria were developed to facilitate the process and ensure a consistent approach. KPMG Consulting test evaluators received detailed information during interviews and walk-throughs regarding the center's processes, systems, documentation, and employee execution of the work. The interviewees received a summary of the interview notes and were given the opportunity to provide comments or clarification as appropriate.

During the interview process, each work group was asked if the systems used in their center differentiated between wholesale and retail in the processing and distribution of orders. KPMG Consulting observed the various queues of work in each of these centers and their handling of Verizon personnel. KPMG Consulting reviewed Verizon VA provisioning process and system documentation.

### *2.6 Analysis Methods*

The Provisioning Process Parity Evaluation included a checklist of evaluation criteria developed by KPMG Consulting during the initial phase of the Verizon Virginia, Inc. OSS Evaluation Project. These evaluation criteria provided the framework of norms, standards, and guidelines for the Provisioning Process Parity Evaluation.

The data collected were analyzed employing the evaluation criteria detailed in Section 3.0 below.

## **3.0 Results**

This section identifies the evaluation criteria and test results. The results of this test are presented in the table below.



**Table 10-1: PPR10 Evaluation Criteria and Results**

Test Reference	Evaluation Criteria	Result	Comments
<b>Parity in the systems</b>			
PPR10-1-1	Inputs to the engineering systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the engineering systems are prioritized for both retail and wholesale by DD. SOAC distributes orders to the various OSPE center systems, PAWS, AARDWOLF, and TIRKS. The systems used by the engineering centers are the same for both retail and wholesale.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed OSPE systems prioritize orders by DD. Center personnel used PAWS, AARDWOLF, and TIRKS for both wholesale and retail customers.</p>
PPR10-1-2	The method for prioritizing orders in the engineering center for retail circuit systems is the same as those used for resale circuit provisioning.	Satisfied	<p>The method for prioritizing orders in the engineering center for retail and resale circuit provisioning orders is either the LAM or RID date. OSPE EAs prioritize POTS orders by LAM date and Specials by RID date.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed OSPE EAs prioritize retail and resale circuit provisioning orders by either LAM or RID date.</p>
PPR10-1-3	The method for prioritizing orders in the engineering center for retail circuit systems is the same as those used for UNE circuit provisioning.	Satisfied	<p>The method for prioritizing retail orders in the engineering center is either the LAM or RID date while UNE circuit provisioning orders are prioritized by RID date. OSPE EAs prioritize retail POTS by LAM date and Specials by RID date. CPC-UNE EAs prioritize UNE circuit provisioning orders by RID date.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed OSPE EAs prioritize retail POTS and Specials circuit provisioning orders by either LAM or RID date. During observations at the CPC on June 12, 2001 and October 4, 2001, KPMG Consulting observed CPC-UNE EAs prioritize UNE circuit provisioning orders by RID date.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-4	Outputs from the engineering systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the engineering systems are prioritized by DD for both retail and wholesale orders. The engineering systems used at the OSPE and CPC include LFACS, AARDWOLF and TIRKS. These systems process and distribute circuit designs in the same manner for both retail and wholesale orders. Wholesale and retail orders that cannot be designed with available facilities and equipment are prioritized based on the RID date.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed OSPE EAs prioritize retail POTS and Specials circuit provisioning orders by DD. During observations at the CPC on June 12, 2001 and October 4, 2001, KPMG Consulting observed CPC-UNE EAs prioritize UNE circuit provisioning orders by DD.</p>
PPR10-1-5	Inputs to the inventory systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the inventory systems are prioritized by DD for both retail and wholesale orders. The NAC interacts with Verizon provisioning centers to update and maintain the TN and office equipment inventory for Virginia. Data are submitted to the inventory system in the same manner for both retail and wholesale. The inventory center also processes RMAs. PAWS routes RMAs for POTS orders with the “No Office Equipment” RMA code to the APC for processing. The APC subsequently sends these RMAs to the NAC for resolution. Input to the NAC is administered consistently between retail and wholesale.</p> <p>During observations at the NAC on June 11, 2001 and September 25, 2001, KPMG Consulting observed inventory systems prioritize retail and wholesale orders by DD.</p>
PPR10-1-6	The inventory group’s method for monitoring the VA network is the same for retail and wholesale.	Satisfied	<p>The inventory group monitors utilization and inventory of TNs and office equipment; line balance load for each CO; network switch surveillance; and generation of RMAs for both retail and wholesale. Inventory management and RMA resolution is handled by DD for both retail and wholesale customers.</p> <p>During observations at the NAC on June 11, 2001 and September 25, 2001, KPMG Consulting observed the inventory group monitor the VA network for both retail and wholesale.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-7	The method for prioritizing orders in the inventory group systems is the same for retail and wholesale.	Satisfied	<p>The method for prioritizing orders in the inventory group systems is DD for both retail and wholesale. The NAC monitors utilization and inventory of TNs, office equipment, and switch surveillance; handles line balance load for each CO; and processes RMAs generated by SOAC. Inventory management and RMA resolution is handled by DD for both retail and wholesale customers.</p> <p>During observations at the NAC on June 11, 2001 and September 25, 2001, KPMG Consulting observed the inventory group systems prioritize both retail and wholesale orders by DD.</p>
PPR10-1-8	Outputs from the inventory systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the inventory system are prioritized by DD for both retail and wholesale. WFA/C is used to communicate inventory systems output with other Verizon provisioning centers. WFA/C prioritizes outputs from the NAC by DD.</p> <p>During observations at the NAC on June 11, 2001 and September 25, 2001, KPMG Consulting observed outputs from the inventory systems prioritize both retail and wholesale orders by DD.</p>
PPR10-1-9	Inputs to the facilities systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the facilities systems are prioritized by DD for both retail and wholesale. SOAC systematically distributes orders for facility assignment to LFACS, SWITCH, and TIRKS. LFACS records and stores outside plant POTS facility (loop) records while SWITCH does the same for office equipment and switch ports. TIRKS stores circuit design information for Special Service records. SOAC systematically prioritizes and distributes orders according to the sequence orders that were input into the system. These records are administered and processed consistently between retail and wholesale.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed OSPE EAs prioritize inputs to the facilities systems by DD for both retail and wholesale.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-10	The method for prioritizing orders in the facility group systems is the same for retail and wholesale.	Satisfied	<p>The method for prioritizing orders in the facility group systems is DD and RID for both retail and wholesale. The facility groups are responsible for the design and allocation of circuits and the resolution of RMAs that fall out of the automated provisioning process. In the APC and OSPE, RMAs are received from PAWS. PAWS systematically distributes work on a DD basis. In the CPC, RMAs are typically received from SOAC, which systematically distributes orders based on a first in, first out basis or critical date. The CPC can also receive RMAs from TIRKS, prioritized by RID date. The design process and the circuit allocations are DD driven in the APC, while it is RID driven in the CPC and OSPE. These centers use the same systems for retail and wholesale.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001; APC on June 8, 2001 and September 26, 2001; and the CPC on June 6, 2001 and October 2, 2001, KPMG Consulting observed the facility group systems prioritize orders by RID and DD for both retail and wholesale.</p>
PPR10-1-11	Outputs from the facilities systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the facilities systems are prioritized by RID for both retail and wholesale. SOAC processes and systematically distributes orders to the facility-based systems. LFACS, SWITCH/FOMS, and TIRKS receive the requests from SOAC and the facility orders are completed using these systems. Once the work flows completely through the facility systems, it is re-entered into SOAC. TIRKS completes work according to its RID date. Work received from the SOAC is administered on a first in, first out basis. Neither LFACs, SWITCH/FOMS, nor TIRKS differentiate between retail and wholesale.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed facilities systems prioritize orders by RID.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-12	Inputs to the translation system are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the translation system are prioritized by DD for both retail and wholesale. MARCH is the translation system used by Verizon-VA. FACS is responsible for submitting translation requests to the MARCH system. MARCH processes automated translations based upon switch types, and when manual work is required (RMAs), MARCH distributes it to TRACKER. SOAC systematically prioritizes and distributes orders according to the order in which the work is received. Retail and wholesale orders are processed and distributed consistently by SOAC.</p> <p>During observations at the RCMAC on June 27, 2001 and October 3, 2001, KPMG Consulting observed translations systems prioritize orders by DD.</p>
PPR10-1-13	The method for prioritizing orders in the translation group system is the same for retail and wholesale.	Satisfied	<p>The method for prioritizing orders in the translation group system is DD for both retail and wholesale. The RCMAC receives RMAs from MARCH via TRACKER and then submits translations into MARCH after resolution. Neither TRACKER nor MARCH differentiate between retail and wholesale orders. MARCH processes and systematically distributes orders to switches based on due date.</p> <p>During observations at the RCMAC on June 27, 2001 and October 3, 2001, KPMG Consulting observed the translation group's system prioritize orders by DD.</p>
PPR10-1-14	Outputs from the translations system is prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the translation system is prioritized by DD for both retail and wholesale. After a translation is provisioned, MARCH forwards the order back to SOAC so the order management process can continue. Retail and wholesale orders are handled in the same manner.</p> <p>During observations at the RCMAC on June 27, 2001 and October 3, 2001, KPMG Consulting observed the translation group's system prioritize orders by DD.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-15	Inputs to the problem resolution systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the problem resolution systems are prioritized on a first in, first out basis for both retail and wholesale. SOAC controls the progress of service orders through the provisioning process. SOAC sends loop assignment and office equipment or switch assignment orders to LFACS and/or SWITCH/FOMS. Orders that fall out as RMAs are sent to PAWS for resolution. Translation orders that fall out of MARCH as RMAs are sent to TRACKER for resolution. Orders enter PAWS and TRACKER in the sequence they fall out of LFACS, SWITCH/FOMS, or MARCH. LFACS, SWITCH/FOMS, and MARCH does not differentiate between retail and wholesale.</p> <p>During observations at the APC on June 8, 2001 and September 26, 2001; CPC on June 6, 2001 and October 2, 2001; NAC on June 11 and September 25; RCMAC on June 27, 2001 and October 3, 2001; and OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed the problem resolution systems prioritize orders on a first in, first out basis.</p>
PPR10-1-16	The method for prioritizing orders in the problem resolution group systems is the same for retail and wholesale.	Satisfied	<p>The method for prioritizing orders in the problem resolution systems at the APC, NAC, and RCMAC is the DD. The CPC and OSPE prioritize orders by RID for both retail and wholesale. Problem resolution can take place in APC, CPC, NAC, OSPE, and RCMAC.</p> <p>During observations at the APC on June 8, 2001 and September 26, 2001; CPC on June 6, 2001 and October 2, 2001; NAC on June 11 and September 25; RCMAC on June 27, 2001 and October 3, 2001; and OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed the problem resolution systems prioritize orders by DD and RID.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-17	Outputs from the problem resolution systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the problem resolution systems are prioritized by DD for both retail and wholesale RMAs. Once an RMA is resolved, the facility or translation assignment is re-entered into the system it errored out of (LFACS, SWITCH/FOMS, or MARCH) so that the order can continue to flow through the provisioning process. Orders are re-entered into the automated provisioning process based on the order in which the RMAs were completed. The systems used for problem resolution consistently distribute work volumes without differentiating between retail and wholesale and do not track whether an order is retail or wholesale. Once the necessary work was complete for an order, the problem resolution personnel closed the order at which point the order could be considered an output of the problem resolution center.</p> <p>During observations at the APC on June 8, 2001 and September 26, 2001; CPC on June 6, 2001 and October 2, 2001; NAC on June 11 and September 25, 2001; RCMAC on June 27, 2001 and October 3, 2001; and OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed the problem resolution systems prioritize orders by DD and RID.</p>
PPR10-1-18	Inputs to the system within the dispatch center are prioritized using the same method for retail and wholesale.	Satisfied	<p>Inputs to the systems within the dispatch center are prioritized by DD for both retail and wholesale. The DRC, NOC, NTP, and SSC are responsible for dispatching functions and receive work orders from the WFA system.</p> <p>During observations at the DRC on June 20, 2001, June 22, 2001, and September 26, 2001; NOC on May 23, 2001 and September 25, 2001; NTP on May 22, 2001 and October 22, 2001; and SSC on June 21, 2001 and October 2, 2001, KPMG Consulting observed inputs to the systems within the dispatch center prioritized by DD for both retail and wholesale.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-1-19	The method for prioritizing orders in the dispatch center system is the same for retail and wholesale.	Satisfied	<p>The method for prioritizing orders in the dispatch center system is DD for both retail and wholesale. The systems used in the DRC for retail are the same as the systems used in the DRC for wholesale services. Dispatching functions are systematically prioritized based on due date. There is no difference in how the NOC and SSC process retail and wholesale orders.</p> <p>During observations at the DRC on June 20, 2001, June 22, 2001, and September 26, 2001; NOC on May 23, 2001 and September 25, 2001; and SSC on June 21, 2001 and October 2, 2001, KPMG Consulting observed the method for prioritizing orders in the dispatch center by DD for both retail and wholesale.</p>
PPR10-1-20	Outputs from the dispatch systems are prioritized using the same method for retail and wholesale.	Satisfied	<p>Outputs from the dispatch systems are prioritized by DD for both retail and wholesale. Order processing and distribution from and within the dispatch centers is performed by either the WFA/DO or WFA/DI systems. Any outputs from the distribution center are prioritized according to when the dispatch center completed its necessary tasks. The prioritization of outputs is consistent between retail and wholesale.</p> <p>During observations at the DRC on June 20, 2001, June 22, 2001, and September 26, 2001; NOC on May 23, 2001 and September 25, 2001; and SSC on June 21, 2001 and October 2, 2001, KPMG Consulting observed the outputs from the dispatch systems prioritized by DD for both retail and wholesale.</p>
<b>Parity in Methods and Procedures (M&amp;P)</b>			
PPR10-2-1	M&Ps in the engineering center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the OSPE are the same for retail and wholesale. KPMG Consulting observed that M&amp;Ps in the engineering centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <p>The following are examples of documentation used within the engineering center for both retail and wholesale:</p> <ul style="list-style-type: none"> <li>◆ Held for Cable Procedures for Customer Service Centers;</li> <li>◆ RMA/DON Process; and</li> <li>◆ Virginia RMA/DON Process Flow Chart.</li> </ul>



Test Reference	Evaluation Criteria	Result	Comments
PPR10-2-2	M&Ps in the inventory center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the NAC are the same for retail and wholesale. M&amp;Ps for the NAC can be found on the Verizon corporate intranet site.</p> <p>KPMG Consulting observed that M&amp;Ps in the inventory centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel. The Line and Number Administration – Switch Job Aid is an example of a document used within the inventory center for both retail and wholesale.</p>
PPR10-2-3	M&Ps in the facilities center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the APC, OSPE, and CTC are the same for retail and wholesale.</p> <p>KPMG Consulting observed that M&amp;Ps in the facility centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <p>The following are examples of documentation used within the facilities center for both retail and wholesale:</p> <ul style="list-style-type: none"> <li>◆ Mechanized FACS Flow Chart; and</li> <li>◆ Trunk Inventory Record Keeping System Circuit Design Provisioning M&amp;P.</li> </ul>
PPR10-2-4	M&Ps in the translations center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the RCMAC are the same for retail and wholesale.</p> <p>KPMG Consulting observed that M&amp;Ps in the translations centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <p>The What is an RCMAC M&amp;P document is an example of documentation used within the translations center for both retail and wholesale.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-2-5	M&Ps in the problem resolution center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the APC, CPC, OSPE, NAC, and RCMAC are the same for both retail and wholesale.</p> <p>KPMG Consulting observed that M&amp;Ps in the problem resolution centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <p>The following are examples of documentation used within the problem resolution center for both retail and wholesale:</p> <ul style="list-style-type: none"> <li>◆ Potomac CPC Method of Operation;</li> <li>◆ APC RMA Codes; and</li> <li>◆ What is an RCMAC.</li> </ul>
PPR10-2-6	M&Ps in the dispatch center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the DRC, NOC, NTP, and SSC are the same for both retail and wholesale.</p> <p>KPMG Consulting observed that M&amp;Ps in the dispatch centers were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <p>The following are examples of documentation used within the dispatch centers for both retail and wholesale:</p> <ul style="list-style-type: none"> <li>◆ SSC/RRSC “Complex Services Provisioning Method of Operation” (MO-CTRS-97004); and</li> <li>◆ SSC/RRSC “Complex Services Provisioning – Critical Date Definitions and Responsibilities” (MP-CTRS-98002).</li> </ul>
PPR10-2-7	M&Ps in the network operations center are the same or are functionally equivalent for retail and wholesale.	Satisfied	<p>M&amp;Ps in the NOC are the same for retail and wholesale.</p> <p>KPMG Consulting observed that M&amp;Ps in the NOC were identical for retail and wholesale. The M&amp;Ps were on-site and available to center personnel.</p> <ul style="list-style-type: none"> <li>◆ SSC/RRSC “Complex Services Provisioning Method of Operation” (MO-CTRS-97004); and</li> <li>◆ SSC/RRSC “Complex Services Provisioning – Critical Date Definitions and Responsibilities” (MP-CTRS-98002).</li> </ul>

Test Reference	Evaluation Criteria	Result	Comments
<b>Parity in Execution</b>			
PPR10-3-1	The execution of work in the engineering center is the same for retail and wholesale centers.	Satisfied	<p>The execution of work in the OSPE is prioritized by critical dates for both retail and wholesale orders. The same employees work both retail and wholesale orders and the processes for both retail and wholesale are the same. OSPE center personnel are not readily able to distinguish whether work is related to wholesale or retail accounts. AARDWOLF is the work distribution system used by the OSPE. SOAC coordinates the provisioning order management process. This system schedules and manages facility assignment, circuit assignment, and translation activation. SOAC sends orders to FACS and TIRKS. The execution of work is due date driven and not prioritized according to whether orders are retail or wholesale in nature.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed execution of work in the OSPE prioritized by critical dates for both retail and wholesale.</p>
PPR10-3-2	The execution of work in the inventory center is the same for retail and wholesale.	Satisfied	<p>The NAC executes work by DD for both retail and wholesale. The NAC provides administrative oversight for the entire Verizon VA network and does not differentiate between retail and wholesale. RMAs for “switch port cannot be assigned” and “no office equipment” failures are received and resolved in the same manner for both retail and wholesale. Inventory center personnel are not readily able to distinguish whether an RMA is related to a wholesale or retail account.</p> <p>During observations at the NAC on June 11, 2001 and September 25, 2001, KPMG Consulting observed execution of work in the NAC prioritized by DD for both retail and wholesale.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-3-3	The execution of work in the facilities centers is the same for retail and wholesale.	Satisfied	<p>The execution of work in the OSPE is prioritized by DD for both retail and wholesale. Processes are the same for both retail and wholesale orders. Work executed by the APC is prioritized by due date. AAs are in charge of both retail and wholesale orders. Work executed by the CPC is prioritized by RID and the processes are the same for both retail and wholesale orders.</p> <p>During observations at the OSPE on June 4, 2001 and October 3, 2001; APC on June 8, 2001 and September 26, 2001; and CPC on June 6, 2001 and October 2, 2001, KPMG Consulting observed the facility group systems prioritize orders by RID and DD for both retail and wholesale.</p>
PPR10-3-4	The execution of work in the translation center is the same for retail and wholesale.	Satisfied	<p>Work is executed in the RCMAC by due date for both retail and wholesale orders. Translation center personnel are not readily able to distinguish whether work is related to wholesale or retail accounts.</p> <p>During observations at the RCMAC on June 27, 2001 and October 3, 2001, KPMG Consulting observed the execution of work in the translations center prioritized by DD.</p>
PPR10-3-5	The execution of work in the problem resolution centers is the same for retail and wholesale.	Satisfied	<p>Work executed by the problem resolution centers (APC, CPC, NAC, OSPE, and RCMAC) is prioritized by critical date. Associates are responsible for processing both retail and wholesale orders. Processes for both retail and wholesale orders are the same.</p> <p>During observations at the APC on June 8, 2001 and September 26, 2001; CPC on June 6, 2001 and October 2, 2001; NAC on June 11 and September 25; RCMAC on June 27, 2001 and October 3, 2001; and OSPE on June 4, 2001 and October 3, 2001, KPMG Consulting observed the execution of work in the problem resolution centers are prioritized by DD and RID.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR10-3-6	The execution of work in the dispatch centers is the same for retail and wholesale.	Satisfied	<p>The execution of work in the dispatch centers based on DD for both the retail and wholesale centers. The execution of orders in the SSC, NTP, and NOC is consistent and comparable between retail and wholesale. Dispatch center personnel are not readily able to distinguish whether work is related to wholesale or retail accounts.</p> <p>During observations at the DRC on June 20, 2001, June 22, 2001 and September 26, 2001; NOC on May 23, 2001 and September 25, 2001; and SSC on June 21, 2001 and October 2, 2001, KPMG Consulting observed the execution of work in the dispatch centers prioritized by DD for both retail and wholesale.</p>

## **C. Test Results: Provisioning Coordination Process Evaluation (PPR11)**

### **1.0 Description**

The Provisioning Coordination Process Evaluation (PPR11) was a review of the procedures, processes, and operational environment used to support coordinated provisioning with Competitive Local Exchange Carriers (CLEC).

The evaluation addressed products and situations that required coordinated provisioning to minimize customer disruption. The requirements for coordination can be generated from one of two sources: a Verizon Virginia (Verizon VA) policy or a CLEC request. The CLEC requests were prompted by cuts that required coordination through the Regional CLEC Coordination Center (RCCC), such as hot cuts, hot cuts with Integrated Digital Loop Carrier (IDLC), new analog loops, and Local Number Portability (LNP). This test consisted of targeted interviews of key personnel along with structured reviews of process documentation facilitated by an evaluation checklist. The objectives of this evaluation were to:

- ◆ Determine the completeness and consistency of provisioning coordination processes;
- ◆ Determine whether the provisioning coordination processes were correctly documented, maintained, and published;
- ◆ Determine the accuracy, completeness, and functionality of procedures for measuring, tracking, projecting, and maintaining provisioning coordination process performance;
- ◆ Ensure that the provisioning coordination processes had effective management oversight and that Verizon VA's personnel were adhering to the documented processes; and
- ◆ Ensure that the responsibilities for provisioning coordination process performance improvement were defined and assigned.

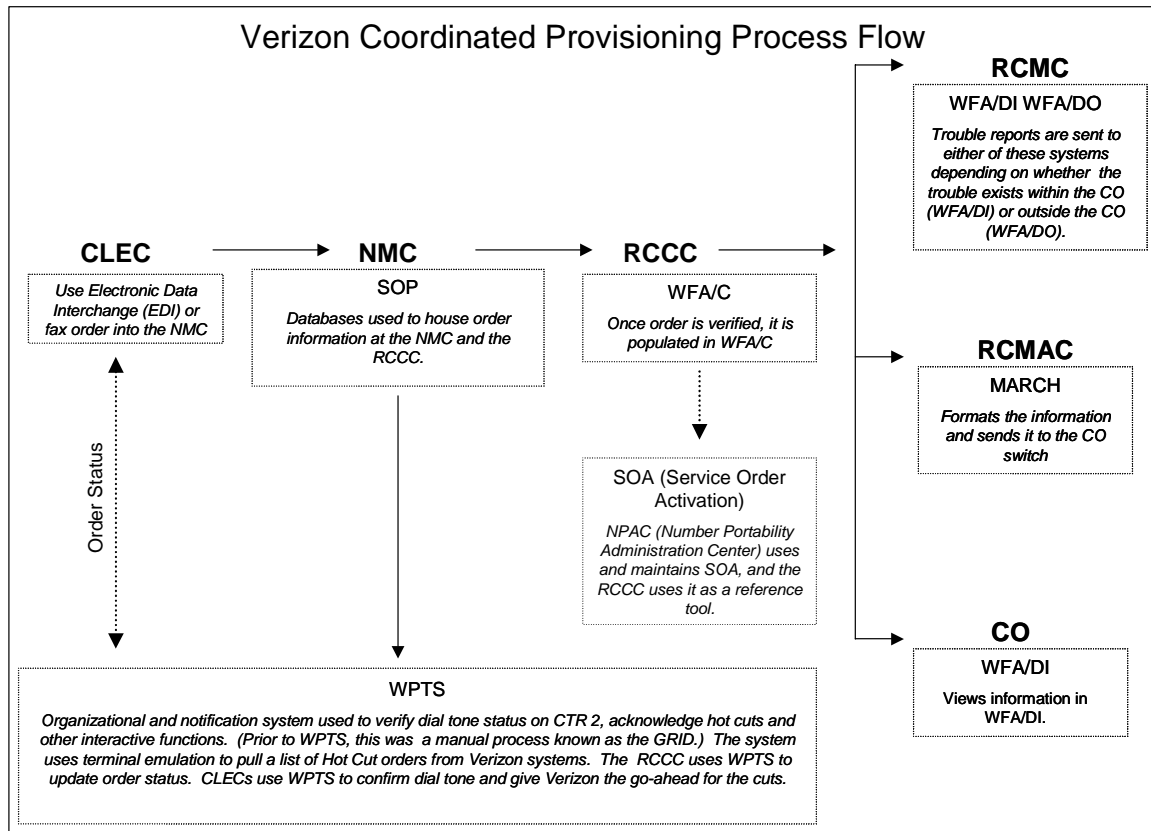
### **2.0 Methodology**

This section summarizes the test methodology.

#### **2.1 Business Process Description**

The Verizon National Market Center (NMC) submits orders to be worked by the RCCC. Once an order is processed at the RCCC, it is sent via Workforce Administration (WFA) to the appropriate provisioning center. The process flow for CLEC orders that require coordination is depicted in Figure 11-1.

Figure 11-1: Verizon Coordinated Provisioning Process Flow



Verizon CLEC coordination is handled by the RCCC. The RCCC handles screening and processing orders for coordination of hot cuts, hot cuts with IDLC, LNP, and new analog loops. The RCCC is additionally responsible for (i) verifying new orders, (ii) initiating calls to confirm orders with CLECs, (iii) making follow-up calls to ensure issues are resolved, (iv) coordinating orders with internal centers, and (v) calling CLECs to confirm order completion. The goal of this center is to establish partnerships with CLECs and to facilitate coordinated provisioning activities in a manner that is equivalent to Verizon retail provisioning. The RCCC is primarily responsible for hot cut coordination and has no direct counterpart in retail. Although 5% of orders handled at the RCCC are retail, these orders arrive only as “throwbacks.” Throwbacks are orders that originate as CLEC orders, are then rejected by the CLEC for a variety of reasons, and, in effect, become retail orders. The other 95% of orders handled at the RCCC are wholesale. The RCCC does not play a role in provisioning Resale for Plain Old Telephone Service (POTS) or Special Services.

The provisioning process begins when the RCCC receives a service order through Verizon’s provisioning systems. Coordinators at the RCCC receive service orders via the WFA system. Orders can also be viewed in the SOP or the Wholesale Provisioning Tracking System (WPTS). SOACS or expressTRAK are databases used to house order information at the NMC and the RCCC. A coordinator in the RCCC verifies the order and places an initial call to the CLEC to confirm order information such as the due date, type of service order, and number of lines involved. RCCC personnel call the CLECs to initiate and complete coordinated hot cuts (CHC). For wholesale products that require coordinated provisioning, the RCCC directs the workflow of relevant Verizon organizations. These organizations include technician teams in the Central Office (CO) or field and switch translation personnel in the Recent Change Memory Administration Center (RCMAC).

#### *2.1.1 Workflow Process for Non-Designed Services Requiring Coordination*

After CLEC orders for unbundled POTS lines are entered into the SOP, the orders flow downstream for assignment. See Figure 10-1 in the Provisioning Process Parity Evaluation (PPR10).

The provisioning of non-designed services is as follows:

Screeners – Screeners prioritize orders by due date. The Screeners decide which orders go to Unbundled Network Elements (UNE) Maintenance Administrators (MA) or Complex Services Central Office Technicians (COT) based on skill level and load balancing considerations. Loop and switch port assignments for UNE POTS and Special Service orders are performed by the Assignment Provisioning Center (APC) prior to the RCCC working the order. The Screener Team Leader performs a weekly quality audit by sampling and reviewing each Screener’s work.



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UNE MAs – UNE MAs receive hot cut and LNP orders in Workforce Administration/Control (WFA/C) from Screeners. The MA reviews the order for accuracy and then begins the process for executing an LNP or a hot cut order. MAs log activities into the WFA Operations Support Systems Log (OSSLOG). Activities performed by the MA for hot cuts include preliminary screening activities, Due Dates (DD), Center 1 (CTR1, equivalent to three days before the due date (DD-3) or four days before the due date (DD-4)), and Center 2 (CTR2, equivalent to one day before the due date (DD-1)), and are described below:

- ◆ Pre-screening activities – These activities begin when the NMC enters information into the service order, which flows into WFA/C. A screener then reviews and verifies the completeness of the order. After the NMC representative distributes a service order, it appears in the operations support systems (OSS), including Loop Facility Assignment and Control System (LFACS), Memory Administration Recent Change History (MARCH), WFA/C, Workforce Administration/Dispatch Out (WFA/DO), and Switch/Frame Operations Management System (FOMS). Before the processing begins, orders are reviewed and printed in either SOACS or expressTRAK.
- ◆ Assignment – The Plant Assignment team assigns loops, office equipment, or switch ports to retail or wholesale POTS and Basic Integrated Services Digital Network (ISDN) orders that fall out of Verizon provisioning (assignment) systems for manual assignment. The Assignment Administrators (AA) at the APC perform loop and switch port assignments before the RCCC works the order. In addition to processing Request for Manual Assistance (RMA), AAs respond to calls for assistance from field technicians on installation and maintenance and perform database management functions including extracting and reviewing reports. The center supports retail and wholesale POTS orders. The Plant Assignment team also performs loop qualifications for ISDN Basic and Digital Subscriber Line (xDSL) services by executing Mechanized Loop Tests (MLT) and verifying whether the circuit is copper or Digital Loop Carrier (DLC). Refer to Provisioning Process Parity Evaluation (PPR10) for further information regarding the APC.
- ◆ CTR1 events – The MA is responsible for performing CTR1 events and ensuring that new connect (N) and disconnect (D) orders are related to one another. This is known as a Complete Related Order (CRO). CRO was introduced to ensure that service orders are worked together and completed at the same time to eliminate billing issues and to identify service orders that should not be provisioned and worked without coordination. MAs also confirm that the cable pair on the D order is being re-used on the N order. There are two Field Identifiers (FID) that are critical for the rest of the cable pairs to be reused. They are the Reuse Related Order (RRSO) and the Reuse Facilities (RUF) FID. These FIDs alert the APC (LFACS assignment system) that pairs are to be reused if possible. Reusing cable pairs eliminates a dispatch and provides the opportunity for the hot cut to progress more rapidly. The RUF indicates the explicit cross-reference of the facilities to be reused. If there is an Integrated Subscriber Loop Carrier (ISLC), new F1 pairs must be assigned on a universal Subscriber Loop Carrier (SLC) or copper, while reusing the local (F2) pair if possible. MAs contact CLECs to verify and coordinate hot cuts. They confirm information such as the due date, type of service order, and number of lines

involved. In addition, MAs identify customers migrating from an ISLC to an SLC or copper pairs. MAs ensure that hot cut orders are updated to reflect jeopardy (JEP) status instead of Pending Auto Completion (PAC) status in order to prevent these orders from automatically completing and prematurely disconnecting. At this point, a ticket is issued to a frame technician to begin pre-wiring, which ensures that the dial tone is present by the CTR2 date.

- ◆ CTR2 events – MAs identify order corrections or modifications, verify pre-wiring completion, and confirm correct order status on the CTR2. Due date changes within 48 hours of the Frame Due Time (FDT) increase the probability of premature disconnects. When due dates are changed by the CLEC, tickets must be cancelled and re-issued, and work groups must be notified of the change on orders. WFA/C and Workforce Administration/Dispatch In (WFA/DI) check for dial tone on the correct telephone numbers from the CLEC switch 24 hours before the FDT.
- ◆ DD events – These events involve final verification of correct order status, final CLEC confirmation for the cutover, CLEC dial tone verification, CLEC notification of completion, and order completion in internal systems. MAs check the SOP to determine if there are any due date changes for hot cuts. The CLEC and Frame Technician are contacted on the due date to coordinate the hot cut at the FDT. At the FDT, the Frame Technician performs the hot cut. Once the hot cut is complete, the coordinator contacts the CLEC to verify that the work has been completed, completes the order in WFA/C, and notes the order as completed in WPTS. The Frame Technician then closes out the hot cut ticket. The CLEC is advised of any jeopardy that would prevent service delivery on the due date. A JEP status is conveyed as soon as it is known that service delivery on the due date is affected. If problems arise within 24 hours of the cutover, the CLEC is instructed to call 877-HOT-CUTS, which is a direct line to the Regional CLEC Maintenance Center (RCMC). Hot cuts enter the RCMC prior to service if there are pre-existing problems or after turn-up if problems occur as a result of the hot cut.

### 2.1.2 Workflow Process for Designed Services Requiring Coordination

After CLEC orders for Special Services are entered into the service order system, the orders flow downstream for assignment, circuit design, and translations. See Figure 10-2 in the Provisioning Process Parity Evaluation (PPR10).

The provisioning of designed services is as follows:

UNE Engineering Assistants (EA) – UNE EAs within the Circuit Provisioning Center - Unbundled Network Elements (CPC-UNE) design Digital Signal – 0 (DS0) and high capacity (Digital Signal – 1 (DS1) and Digital Signal – 3 (DS3)) circuits in the Trunk Integrated Record Keeping System (TIRKS). This center is the Single Point of Contact (SPOC) for CLEC Special Services and is responsible for processing RMAs for Special Service orders placed by retail customers. They also respond to calls from Field Technicians, monitor and manage databases to ensure that orders are being met by the due date, and design and distribute circuit designs to downstream provisioning organizations. EAs in the CPC-UNE are capable of handling different types of specials orders. Once the circuit is fully designed in TIRKS, the order is closed out on the Pending Completion (PC) List and routed to the CLEC Loop Provisioning Center (CLPC). The EAs are responsible for checking the WFA/C status screens to see if the orders have been successfully closed out in TIRKS and posted as Pending in the WFA system. Refer to Provisioning Process Parity Evaluation (PPR10) for further information regarding the CPC-UNE.

UNE Specials Provisioning – After the CPC completes the circuit design, the orders flow through WFA/C where the Special Services Center (SSC) obtains the order for processing and then the COT performs circuit testing and turn-up. COTs and Provisioning Technicians at the CPC and Network Operations Center (NOC) coordinate to perform activities to comply with “critical dates,” including: Design, Verify, and Assign (DVA) date; Frame Continuity Date (FCD); Wired and Office Tested (WOT) date; Plant Test Date (PTD); and DD. The products supported by this center include analog voice and data, Basic Rate ISDN (BRI), Primary Rate ISDN (PRI), High Capacity Services (DS1s, DS3s, Optical Cable 3s – (OC3), and Optical Cable 12s – (OC12)), local specials, Direct Inward Dialing (DID) trunks, Direct Outward Dialing (DOD) trunks, combination trunks and Digital (Digital Data System (DDS), 64 kilobits (64kb), etc.). Refer to Provisioning Process Parity Evaluation (PPR10) for further information regarding the SSC.

Complex Services – COTs on this team at the RCCC perform complex cutovers for DID circuits and trunks. COTs perform work in the WFA/C. Screeners monitor WFA/C and schedule the COTs’ workloads via the WFA Operations Support Systems List (OSSLSLST). To perform cutovers for DID circuits and trunks, the COTs perform the same CTR1 and CTR2 steps that UNE MAs perform for hot cuts.

## 2.2 Scenarios

Scenarios were not applicable to this test. For related CLEC case studies see Provisioning Verification and Validation (TVV4).

### 2.3 *Test Targets & Measures*

The test target was Verizon VA's provisioning coordination process, which included reviews of the following sub-processes:

- ◆ Provision of orders requiring coordination with CLECs;
- ◆ Request coordination;
- ◆ Notification of provisioning schedule;
- ◆ Coordination provisioning; and
- ◆ Notification of jeopardy.

### 2.4 *Data Sources*

The data collection performed for this test centered on interviews, direct center observations, and reviews of documentation supplied by Verizon VA at the request of KPMG Consulting. The sources of data for this test include Methods and Procedures (M&P) from the RCCC and the NMC.

- ◆ Interviews and observations at the RCCC; Cockeysville, Maryland on May 30, 2001 and September 26, 2001;
- ◆ [www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm](http://www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm);
- ◆ Verizon VA Coordinated Hot Cut Performance;
- ◆ Individual Performance Measurements at the RCCC;
- ◆ Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014);
- ◆ Customer Specified Signaling & EEL Analog M-Loop hot cuts (VZN Doc #RCO-00-2013);
- ◆ RCCC Large Job Project Hot Cut Process (VZN Doc #RCO-00-2083PR-I);
- ◆ RCCC South Work Distribution Process - Hot cut and New Lines – Analog (VZN Doc # RCO-00-2088);
- ◆ Premature Disconnects associated with Hot Cut and LNP Only orders – Regional RCCC (VZN Doc #RCO-00-2004PR-I; and
- ◆ Escalations Process <http://128.11.40.241/east/wholesale/resources/master.htm>.

This test did not rely on data generation or volume testing.

### 2.5 *Evaluation Methods*

The procedural steps applied in testing the provisioning coordination process consisted of the following:

1. Interviewed and observed personnel in the RCCC including the Managers, Team Leaders, MAs, and COTs to review the following items:
  - ◆ Work assignment and provisioning coordination procedures with the CLECs, the RCMAC, and CO frame for UNE-Loop with and without LNP provisioning, and LNP provisioning;
  - ◆ Work assignment and provisioning coordination with the CLECs, the COTs, and the outside plant system technicians for provisioning unbundled Special Services circuits;
  - ◆ The center’s policy and process to measure, track, and maintain the coordination procedure and improvements; and
  - ◆ The Director’s and the Center Manager’s oversight regarding performance management and process improvements.
2. Observed CO technicians reviewing work assignment and the RCCC coordination procedures with the CO frame for performing “lay-ins” (cross-connects) and UNE-Loop with LNP hot cut migrations (line cutovers) (refer to Provisioning Verification and Validation (TVV4) for further information).
3. Reviewed the provisioning coordination M&Ps for the applicable products.
4. Observed CO technicians performing cutovers at the frame for two wire analog UNE-Loops with LNP migrations (hot cuts) to assess the following:
  - ◆ The actual performance of the provisioning coordination process (refer to Provisioning Verification and Validation (TVV4) for further information); and
  - ◆ The extent to which the M&Ps are followed and practiced in the field (refer to Provisioning Verification and Validation (TVV4) for further information).

### 2.6 *Analysis Methods*

The Provisioning Coordination Process Evaluation included a checklist of evaluation criteria developed by KPMG Consulting during the initial phase of the Verizon Virginia, Inc. OSS Evaluation Project. These evaluation criteria provided the framework of norms, standards, and guidelines for the Provisioning Coordination Process Evaluation.

The data collected were analyzed employing the evaluation criteria detailed in Section 3.0 below.

### 3.0 *Results*

This section identifies the evaluation criteria and test results. The results of this test are presented in the table below.

**Table 11-1: PPR11 Evaluation Criteria and Results**

Test Reference	Evaluation Criteria	Result	Comments
PPR11-1	Coordinated provisioning procedures are documented and implemented accurately and consistently.	Satisfied	<p>Coordinated provisioning procedures are documented in the CLEC Handbook (Volume III, Section 2). The handbook is available on the internet at <a href="http://www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm">www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm</a>.</p> <p>During observations at the RCCC on May 30, 2001 and September 26, 2001, KPMG Consulting observed RCCC personnel accurately and consistently following the coordinated provisioning procedures. KPMG Consulting observed over 30 coordinated provisioning transactions at the RCCC.</p>

Test Reference	Evaluation Criteria	Result	Comments
PPR11-2	Coordinated provisioning performance measures and process improvement practices are defined, tracked, and controlled.	Satisfied	<p>Performance measures are defined, tracked, and controlled. Coordinated provisioning performance measurements are defined and/or tracked via the RCCC Coordinated Provisioning Performance Measurements - PR-9-01 through PR-9-09 (metric PR-9, Hot Cuts).<sup>58</sup> Orders at the RCCC are due date driven. The Verizon standard measurement is to complete 95% of orders by the due date. According to Verizon<sup>59</sup> Verizon completed 96.33% of their orders by the due date, exceeding the objective by 1.33%.</p> <p>In addition, the RCCC has an internal goal of 98% for RCCC-controlled misses. “Controlled” misses are those that are the responsibility of the RCCC, such as an MA failing to notify a CLEC to begin a cut. “Uncontrolled” misses are those that the RCCC cannot control, such as customer absence or a dispatch error. Other RCCC performance objectives are to limit premature disconnects to less than 1%.</p> <p>The RCCC has a documented process to manage, track, and control coordination and process improvement procedures. These practices are defined in the Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014).</p>

<sup>58</sup> Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000.

<sup>59</sup> Virginia Carrier-to-Carrier report, dated July 2001.

Test Reference	Evaluation Criteria	Result	Comments
PPR11-3	Coordination Center manual coordination procedures with CLECs are defined and consistent.	Satisfied	<p>The procedures for notification of the completion of manually provisioned orders are defined and consistent in all internal M&amp;P documents. The documented procedures state that the RCCC notifies the CLEC Implementation Contact (IMPCON) immediately after the COT or the Outside Service Technician completes the order.</p> <p>The RCCC coordination procedures are defined in the following documents:</p> <ul style="list-style-type: none"> <li>◆ WFAC/WFADI Handoff M&amp;P (VZN DOC# RCO-00-2041PR-I);</li> <li>◆ Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014);</li> <li>◆ Customer Specified Signaling &amp; EEL Analog M-Loop hot cuts (VZN Doc #RCO-00-2013); and</li> <li>◆ RCCC Large Job Project Hot Cut Process (VZN Doc #RCO-00-2083PR-I).</li> </ul>
PPR11-4	CLEC manual coordination procedures with the order processing, translations, and dispatch centers are defined and consistent.	Satisfied	<p>Manual coordination procedures between the order processing centers (CLPC, RCCC), translations center (RCMAC), and Dispatch Resource Center (DRC) are defined and consistent with the RCCC coordination procedures, which are defined in the following documents:</p> <ul style="list-style-type: none"> <li>◆ RCCC South Work Distribution Process - Hot cut and New Lines – Analog (VZN Doc # RCO-00-2088);</li> <li>◆ WFAC/WFADI Handoff M&amp;P (VZN DOC# RCO-00-2041PR-I); and</li> <li>◆ Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014).</li> </ul>



Test Reference	Evaluation Criteria	Result	Comments
PPR11-5	Processes for handling and tracking errors and exceptions are defined.	Satisfied	<p>Error and exception orders are defined consistently in the following documents:</p> <ul style="list-style-type: none"> <li>◆ Premature Disconnects associated with Hot Cut and LNP Only orders – Regional RCCC (VZN Doc #RCO-00-2004PR-I; and</li> <li>◆ Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014).</li> </ul>
PPR11-6	Orders are tracked using a defined escalation process.	Satisfied	<p>Escalation processes are documented and readily available in the CLEC Handbook (Volume III, Section 2). The procedures for escalation are also available to the CLECs on the Verizon website. The website addresses are as follows:</p> <ul style="list-style-type: none"> <li>◆ RCCC Escalations Contact List <a href="http://128.11.40.241/east/wholesale/resources/master.htm">http://128.11.40.241/east/wholesale/resources/master.htm</a>; and</li> <li>◆ Escalations Process <a href="http://128.11.40.241/east/wholesale/resources/master.htm">http://128.11.40.241/east/wholesale/resources/master.htm</a>.</li> </ul>
PPR11-7	Processes within the CLEC coordination center and Central Offices are defined and tracked.	Satisfied	<p>Processes within the CLEC coordination center are defined and tracked on the Verizon website at <a href="http://www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm">www.bellatlantic.com/wholesale/html/handbooks/clec/c3toc.htm</a>. Processes within the COs are defined and tracked in the following documents:</p> <ul style="list-style-type: none"> <li>◆ Two-Wire Analog Loop HOT CUT including LNP/IDLC (VZN DOC# RCO-99-1014); and</li> <li>◆ Unbundled space AML/DAML/DSSC Hot Cut conversion.</li> </ul> <p>To ensure that both the RCCC and the COTs are consistently using the same documents, the M&amp;P's all have a title, version number and issue date. These documents can be retrieved from Verizon VA's internal website.</p>

## **D. Test Results: Provisioning Verification and Validation (TVV4)**

### **1.0 Description**

The Provisioning Verification and Validation (TVV4) test evaluated the capability of Verizon Virginia (Verizon VA) to provision Competitive Local Exchange Carrier (CLEC) orders. Orders were evaluated to determine whether Verizon VA personnel provisioned the orders on the Firm Order Confirmation (FOC) Due Date (DD) and in accordance with both internal and external documented methods and procedures (M&P).

### **2.0 Methodology**

This section summarizes the test methodology.

#### **2.1 Business Process Description**

CLECs issue orders for Plain Old Telephone Service (POTS) either manually or electronically in order to migrate, install, change, or disconnect service. After receipt of the Local Service Request (LSR), Verizon generates a Local Service Request Local Response (LSRLR) notification to the CLEC. The LSRLR confirms the committed provisioning date, as well as additional information contained in the CLEC's LSR. Subsequent to LSRLR generation, POTS orders proceed to downstream systems and organizations, such as the Assignment Provisioning Center (APC) for facilities assignment, the Recent Change Memory Administration Center (RCMAC) for switch translations, Wholesale Dispatch Resource Center (WDRC) for orders requiring dispatch of a technician, and the Central Offices (CO) for orders requiring CO work. Designed Circuits flow to the Outside Plant Engineering (OSPE) Center for facilities assignment and the Circuit Provisioning Center-Unbundled Network Elements (CPC-UNE) for circuit design, but otherwise follow the same provisioning process as POTS circuits. Verizon VA notifies the CLECs that the service was provisioned using a Provisioning Completion Message (PCM) and the order proceeds to downstream systems, such as billing.

#### **2.2 Scenarios**

Provisioning testing and analysis was based on a representative set of Resale, Unbundled Network Elements-Platform (UNE-P), UNE-Loop, and High Capacity circuit scenarios identified in Appendix A of the Master Test Plan (MTP). For many of these scenarios, KPMG Consulting observed Verizon VA perform actual commercial installations and provision circuits.

The scenarios tested during the Provisioning Verification and Validation test included:

- ◆ Migration of Verizon VA to UNE-Loops, specifically:
  - ◆ Residential Analog Loop; and
  - ◆ Business Analog Loop.
- ◆ Resale and UNE-P service requests that require switch translations, specifically:
  - ◆ Residence POTS;
  - ◆ Business POTS; and
  - ◆ Centrex.
- ◆ Installation of high capacity circuits, specifically:

- ◆ Digital Signal – 1 (DS1);
- ◆ Digital Signal – 3 (DS3); and
- ◆ Enhanced Extended Loop (EEL).
- ◆ Resale, UNE-L, and UNE-P service requests that require Directory Listings changes, specifically:
  - ◆ Residence POTS;
  - ◆ Business POTS; and
  - ◆ Centrex.

### 2.3 *Test Targets & Measures*

The tests targets were Verizon VA's provisioning of Resale, UNE-P, and UNE-Loop services and included reviews of the following processes:

- ◆ Directory Listing (DL) Database Provisioning Verification;
- ◆ Digital Subscriber Line (xDSL) Provisioning Verification;
- ◆ Asymmetric Digital Subscriber Line (ADSL) Line Sharing Provisioning Verification;
- ◆ High Capacity Circuit Provisioning Verification;
- ◆ Loss of Line Report (LLR) Verification;
- ◆ Disconnected Orders Verification;
- ◆ Hot Cut Provisioning Verification;
- ◆ Unbundled Dark Fiber Provisioning Verification;
- ◆ PCM Verification;
- ◆ Customer Service Records (CSR) Verification; and
- ◆ Switch Feature Provisioning Verification.

## 2.4 Data Sources

The data collected for the test included the following:

- ◆ Verizon-South Order Business Rules, Version 4.3.1;
- ◆ UNE Digital Loop Technical Specifications, document #TR72575;
- ◆ Unbundled Digital Loop Provisioned as POTS, NOCIL 0009-015, Issue A;
- ◆ 2- & 4-Wire HDSL Qualified Digital Loops, 2000-00125-MDP;
- ◆ Unbundled 2-Wire Digital Loop – ADSL Qualified, 1999-00358-OSP;
- ◆ Non-Designed Digital Loops – ADSL/HDSL (South), RCO-99-1003;
- ◆ Wholesale I&M Continuity Testing, 1999-000538-MDP;
- ◆ Unbundled DS1 Loops-South, RCO-98-0026, Revision 5/4/01;
- ◆ Unbundled 4-Wire Digital DS1 Loop, 2001-0001B-MDP, Issue 3/22/01;
- ◆ Unbundled DS3 Loops-RCCC South, RCO-99-1010, Revision 5/4/01;
- ◆ Unbundled Digital DS3 Loop, 2001-00543-MDP, Issue 8/20/01;
- ◆ Genius Jack Job Aid;
- ◆ 2-Wire Analog Loop Hot Cut Including LNP and IDLC – Regional, 3/29/01;
- ◆ Job Aid for UNE Coordinated Conversion Process, NOCIL 9907-012A, Issue 6, 10/18/01;
- ◆ OSS Implementation and Standardization for Conversion Coordination for Non-Design UNE, document #1999-002MP-OSS, Issue B, 4/14/00;
- ◆ Operations and Assurance Support Wholesale and Resale I&M Field Support, document #1999-00320-OSP, 9/22/99;
- ◆ Unbundled Network Elements, NOCIL 9807, Issue 3, 1/20/99;
- ◆ Line Sharing – Network Creation Provisioning and Maintenance – Central Office, NOCIL 0006-021, Issue #6;
- ◆ Line Sharing Provisioning & Maintenance Procedure, 2000-00322-MDP, Version C;
- ◆ DSL Splitter Provisioning Process in Verizon East, 2000-00380-MDP, Issue B;
- ◆ RCCC Line Sharing, RCO-00-2048;
- ◆ Unbundled Dark Fiber – TISOC M&P, 2000-0725-500D, Issue D;
- ◆ TIRKS Circuit Design Provisioning for Unbundled Dark Fiber, 2000-xxx-500, 09/00;
- ◆ Region Wide Dark Fiber UNE Implementation, 2000-00199-OSP, 5/17/00;
- ◆ Dark Fiber Service Provisioning, BAFEMP-00156, September 2000;
- ◆ Continuity on IOF Dark Fiber Circuits, NOCIL 0009-001, Issue #2; and
- ◆ Unbundled Dark Fiber – Provisioning & Maintenance – RCCC and RCMC, RCO-98-0044, 2/27/01.

This test relied on data generated as part of the POP Functional Evaluation (TVV1) transaction test and “live” CLEC commercial orders.

## 2.5 Evaluation Methods

Test methods included verification of service and feature provisioning by analyzing a variety of Verizon VA system outputs and field inspections of physical installations for both “live” CLEC commercial installations and test bed accounts.

The primary focus of the Provisioning Verification and Validation was to evaluate the following:

- ◆ Accuracy – The extent to which Verizon VA provisioned services as specified on the LSRs;
- ◆ Timeliness – The degree to which the orders were provisioned on the committed due dates and times;
- ◆ Timeliness and accuracy of notifications – The accuracy of information and timeliness of the notifications that Verizon VA sent to CLECs relative to the LSRLR and PCM;
- ◆ Communication and coordination – The ability of Verizon VA to coordinate work activities and communicate with the CLECs when physical work required coordination; and
- ◆ Compliance with M&Ps – Verizon VA’s compliance with its internal M&Ps to the extent that they affected the provisioning outcomes.

Evaluation methods for provisioning tests involved reviewing KPMG Consulting transactions submitted as part of the POP Functional Evaluation (TVV1) test. KPMG Consulting testers completed the following activities as part of this review:

- ◆ Switch Translation Verification – A sample of Resale and UNE-P orders was generated from the population of LSRs. Features on the requests were compared to the Switch Translation screen printouts provided by Verizon VA. Discrepancies were analyzed and noted.
- ◆ Directory Listing (DL) Verification – A sample of Resale, UNE-L, and UNE-P was derived from the population of telephone numbers with DL requests. The requests were compared to the Verizon VA DL database and discrepancies were analyzed and reported for each telephone number.
- ◆ DS0 Loop Migration (Hot Cuts) – Data were gathered during field inspections of hot cut activities in Verizon VA COs. Information about telephone contacts from the Regional CLEC Coordination Center (RCCC) were logged and analyzed for compliance with Verizon VA standard M&Ps.
- ◆ High Capacity Circuits – Information was gathered during installation inspection in the Verizon CLEC Loop Provisioning Center (CLPC), Verizon VA COs, and premises locations.
- ◆ Local Number Portability (LNP) – Information about LNP provisioning was gathered from information stored in the NPAC System and from logs of telephone calls made from Verizon VA switches. LNP information was gathered during observations of CLEC commercial installations.
- ◆ Provisioning Completion Messages (PCM) – Required field inputs contained in PCMs and timeliness of PCMs were analyzed.

- ◆ Customer Service Records (CSR) – Information contained within CSRs was evaluated for accuracy against field inputs from submitted LSRs.
- ◆ Loss of Line Report (LLR) – Information contained within the LLRs was evaluated for accuracy against field inputs from submitted LSRs.
- ◆ Disconnect Orders – A sample of Resale and UNE-P orders was generated from the population of LSRs. Disconnect features on the requests were manually tested and the results noted.

### 2.6 Analysis Methods

Provisioning Verification and Validation included a checklist of evaluation criteria developed by the KPMG Consulting during the initial phase of the Verizon Virginia, Inc. OSS Evaluation Project. These evaluation criteria provided the framework of norms, standards, and guidelines for Provisioning Verification and Validation.

The data collected were analyzed employing the evaluation criteria detailed in Section 3.0 below.

### 3.0 Results

This section identifies the evaluation criteria and test results. The results of this test are presented in the table below.

**Table 4-1: TVV4 Evaluation Criteria and Results**

Test Reference	Evaluation Criteria	Result	Comments
TVV4-1	Verizon VA's directory listings database contains required field inputs.	Satisfied	Verizon VA's DL database contained the required field inputs.  132 DLs were reviewed to determine if Verizon VA provisioned the listings accurately. 125 listings (94.7%) were provisioned accurately.  According to KPMG Consulting's analysis, 94.7% is not statistically significantly different (p-value = 0.49) from the benchmark of 95% with 95% confidence.
TVV4-2	Verizon VA's Post-Order Customer Service Records contain required field inputs from LSRs.	Satisfied	Verizon VA's Post-Order CSRs contained the required field inputs from LSRs.  283 Post-Order CSRs were analyzed to determine if Verizon VA provisioned them accurately. 270 CSRs (95.4%) were provisioned accurately.

Test Reference	Evaluation Criteria	Result	Comments
TVV4-3	Verizon VA reports CLEC Loss of Line activity accurately.	Satisfied	<p>Verizon VA reported CLEC Loss of Line activity accurately.</p> <p>KPMG Consulting reviewed 2,172 production service orders for Virginia for a one-week period in August 2001. A total of 2,074 working telephone numbers (WTN) (95.5%) appeared on the CLECs' LLR provided by Verizon.</p>
TVV4-4	Verizon VA's switch translations for disconnected orders were de-provisioned with the proper intercept-recording message.	Satisfied	<p>Verizon VA's switch translations for disconnected orders were de-provisioned with the proper intercept-recording message.</p> <p>Sixty (60) disconnected orders were reviewed. These orders were submitted to request the disconnection of working telephone lines. Once the line was disconnected, an intercept recording or a blank number intercept recording (transfer of call option) was applied per the order. Provisioning accuracy/timeliness was measured.</p> <p>Sixty (60) (100%) of the orders were provisioned accurately and in conformance with the due date.</p>
TVV4-5	Verizon VA's Provisioning Completion Message completion dates accurately reflect the service order completion due date.	Satisfied	<p>Verizon VA's PCM completion dates accurately reflected the service order completion due date.</p> <p>1,059 PCMs were analyzed to determine if the completion date was consistent with the Local Service Confirmation (LSC) due date. Provisioning timeliness was measured.</p> <p>1,015 PCMs (95.8%) were provisioned in conformance with the requested due date.</p>

Test Reference	Evaluation Criteria	Result	Comments
TVV4-6	Verizon VA's switch translations contain required field inputs.	Satisfied	Verizon VA's switch translations contained the required field inputs.  138 lines were reviewed to determine if Verizon VA provisioned the switch translations accurately. 135 lines (97.8%) were provisioned with the correct switch translations.
TVV4-7	Verizon VA provisions CLEC xDSL loops on the committed due date.	Satisfied	Verizon VA provisioned CLEC xDSL loops on the committed due date.  KPMG Consulting observed 145 live CLEC xDSL installations. Verizon VA provisioned 100% of the 145 circuits on the agreed-upon due date, where facilities were available.  Verizon VA's retail organization provisioned 91.3% of xDSL orders on the committed due date according to the June, July, and August 2001 Carrier-to-Carrier reports. <sup>60</sup>  KPMG Consulting testers observed that 2% of the submitted orders were unable to be provisioned because there were no facilities available to the customer's premises.
TVV4-8	Verizon VA provisions xDSL circuits by completing the documented M&P tasks.	Satisfied	Verizon VA provisioned xDSL circuits by completing the documented M&P tasks.  Verizon VA's ability to adhere to tasks defined in their M&P documentation was measured. <sup>61</sup>  During the 145 installations, 1011 tasks were observed. 988 tasks (97.7%) were executed in accordance with Verizon VA's M&Ps.

<sup>60</sup> Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined timeliness for 2 Wire xDSL in PR-4-04-3342 as "Parity with Verizon retail."

<sup>61</sup> The following M&P documents were reviewed: UNE Digital Loop Technical Specifications, document # TR72575; Unbundled Digital Loop Services Provisioned as POTS, NOCIL 0009-015, Issue A; 2- & 4-Wire HDSL Qualified Digital Loops, 2000-00125-MDP; Unbundled 2-Wire Digital Loop – ADSL Qualified, 1999-00358-OSP; Non-Designed Digital Loops – ADSL/HDSL (South), RCO-99-1003; and Wholesale I&M Continuity Testing, 1999-000538-MDP.



Test Reference	Evaluation Criteria	Result	Comments
TVV4-9	Verizon VA meets the benchmark for Installation Troubles Reported within 30 Days for xDSL circuit installations.	Satisfied	Verizon VA met the benchmark for installation troubles reported within 30 days of installation for xDSL circuits.  143 live CLEC xDSL installations were analyzed to verify that a trouble report was not opened on the circuit within 30 days of order completion.  Analysis of Verizon VA trouble report history logs identified 95.1% (136) of these circuits as defect-free. From the June, July, and August 2001 Carrier-to-Carrier reports, Verizon VA's retail organization provisioned 87%, or 288 circuits <sup>62</sup> that satisfied the criteria of this metric and were defect-free for at least 30 days following the completion of the provisioning process.
TVV4-10	Verizon VA provisions DS1/DS3 circuits on the committed due date.	Satisfied	Verizon VA provisioned DS1/DS3 orders on the committed due date.  150 loop installations were observed to verify that the installations were completed on the agreed-upon due date. Verizon VA provisioned 145 orders (96.7%) on the agreed-upon due date.
TVV4-11	Verizon VA provisions DS1/DS3 circuits by completing documented M&P tasks.	Satisfied	Verizon VA provisioned DS1/DS3 circuits by completing documented M&P tasks.  Verizon VA's ability to adhere to tasks defined in their M&P documentation was measured. <sup>63</sup>  During the 150 installations, 1172 tasks were observed. 1124 of these tasks (95.9%) were executed in accordance with Verizon VA's M&Ps.

<sup>62</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined 2 Wire xDSL 30-day trouble histories in PR-6-01-3342 as "Parity with Verizon Retail."

<sup>63</sup> The following M&P documents were reviewed: UNE Digital Loop Technical Specifications, document # TR72575; Unbundled DS1 Loops-South, RCO-98-0026, Revision 5/4/01; Unbundled 4-Wire Digital DS1 Loop, 2001-0001B-MDP, Issue 3/22/01; Unbundled DS3 Loops- RCCC South, RCO-99-1010, Revision 5/4/01; Unbundled Digital DS3 Loop, 2001-00543-MDP, Issue 8/20/01; Genius Jack Job Aid; and Wholesale I&M Cooperative Continuity Testing, 1999-000538-MDP.

Test Reference	Evaluation Criteria	Result	Comments
TVV4-12	Verizon VA meets the benchmark for Installation Troubles Reported within 30 Days for DS1/DS3 circuit installations.	Not Satisfied	<p>Verizon VA did not meet the benchmark for installation troubles reported within 30 days for DS1/DS3 circuit installations.</p> <p>145 live CLEC DS1 installations were analyzed to verify that a trouble report was not opened on the circuit within 30 days of order completion.</p> <p>Analysis of Verizon VA trouble report history logs identified 91.7% of these circuits as defect-free. From the September, October, and November 2001 Virginia Carrier-to-Carrier reports, Verizon VA’s Retail organization provisioned 99.2%, or 9,064 circuits<sup>64</sup> that satisfied the criteria of this metric and were defect-free for at least 30 days following the completion of the provisioning process.</p>
TVV4-13	Verizon VA provisions loop migrations within the Cutover window.	Satisfied	<p>Verizon VA provisioned loop migrations (hot cuts) within the cutover window.</p> <p>The standard for hot cut timeliness in the Carrier-to-Carrier Guidelines is 95% within the cutover window.<sup>65</sup></p> <p>142 hot cut orders were observed with a total of 209 lines. These orders consisted of live CLEC installations and KPMG Consulting initiated installations, migrating from one Verizon VA switch to another Verizon VA switch.</p> <p>Verizon VA provisioned 141 (99.3%) of the orders within the cutover window.</p>

<sup>64</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined specials 30-day trouble history in PR-6-01 as “Parity with Verizon Retail.”

<sup>65</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined hot cut timeliness in PR-9-01 as “95% within cut-over window.”

Test Reference	Evaluation Criteria	Result	Comments
TVV4-14	Verizon VA provisions loop migrations by completing documented M&P tasks.	Satisfied	<p>Verizon VA provisioned loop migrations by completing the documented M&amp;P tasks.</p> <p>Verizon VA's ability to adhere to tasks defined in their M&amp;P documentation was measured.<sup>66</sup></p> <p>During the 142 migrations, a total of 2299 tasks were observed.</p> <p>2288 (99.5%) of these tasks were executed in accordance with Verizon VA's M&amp;Ps.</p>
TVV4-15	Verizon VA provisions 10-digit triggers prior to the Frame Due Date for LNP-only orders and for LNP loop migrations.	Satisfied	<p>Verizon VA provisioned 10-digit triggers prior to the Frame Due Date for LNP-only orders and for LNP loop migrations.</p> <p>The standard for LNP provisioning timeliness in the Carrier-to-Carrier Guidelines is 95% on time.<sup>67</sup></p> <p>Thirty-five (35) LNP-only orders and 142 live CLEC loop migrations were analyzed to verify that the 10-digit triggers were completed before the frame due date. 175 (98.9%) of these 10-digit triggers were completed before the frame due date.</p>

<sup>66</sup> The following M&P documents were reviewed: 2-Wire Analog Loop Hot Cut Including LNP and IDLC – Regional, 3/29/01; Job Aid for UNE Coordinated Conversion Process, document #NOCIL 9907-012A, Issue 6, 10/18/01; OSS Implementation and Standardization for Conversion Coordination for Non-Design UNE, document #1999-002MP-OSS, Issue B, 4/14/00; Operations and Assurance Support Wholesale and Resale I&M Field Support, document #1999-00320-OSP, 9/22/99; and Unbundled Network Elements, NOCIL 9807-18, Issue 3, 1/20/99.

<sup>67</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined LNP on-time performance in PR-4-07 as "95% On Time."

Test Reference	Evaluation Criteria	Result	Comments
TVV4-16	Verizon VA meets the benchmark for Installation Troubles Reported within 7 days for loop migrations.	Satisfied	<p>Verizon VA met the benchmark for installation troubles reported with 7 days for loop migrations.</p> <p>144 live CLEC lines were analyzed to verify that the installations were completed on the agreed-upon due date and that a trouble report was not opened on the circuit within seven days of order completion.</p> <p>Analysis of Verizon VA trouble report history logs identified 99.3% of these circuits as defect-free. From the May, June, September, October, and November 2001 Virginia Carrier-to-Carrier reports, Verizon VA's retail organization provisioned 97.1%, or 265,643 circuits.<sup>68</sup></p>
TVV4-17	Verizon VA meets the benchmark for Installation Troubles Reported within 30 Days for loop migrations.	Satisfied	<p>Verizon VA met the benchmark for installation troubles reported within 30 days for loop migrations.</p> <p>144 live CLEC lines were analyzed to verify that the installations were completed on the agreed-upon due date and that a trouble report was not opened on the circuit within 30 days of order completion.</p> <p>Analysis of Verizon VA trouble report history logs identified 97.1% of these circuits as defect-free. From the May, June September, October, and November 2001 Carrier-to-Carrier reports, Verizon VA's retail organization provisioned 95.5%, or 261,237 circuits<sup>69</sup> that satisfied the criteria of this metric and were defect-free for at least 30 days following the completion of the provisioning process.</p>

<sup>68</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined seven-day trouble history in PR-6-02 as "Parity with Verizon Retail."

<sup>69</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined POTS 30-day trouble history in PR-6-01 as "Parity with Verizon Retail."

Test Reference	Evaluation Criteria	Result	Comments
TVV4-18	Verizon VA provisions ADSL Line Sharing circuits on the committed due date.	Satisfied	Verizon VA provisioned ADSL Line Sharing circuits on the committed due date.  141 ADSL Line Sharing installations were observed to verify that the installations were completed on the committed due date. Verizon VA provisioned 100% of the circuits on the frame due date.
TVV4-19	Verizon VA provisions ADSL Line Sharing circuits by completing documented M&P tasks.	Satisfied	Verizon VA provisioned ADSL Line Sharing by completing the documented M&P tasks.  Verizon VA's ability to adhere to tasks defined in their M&P documentation was measured. <sup>70</sup>  During 141 installations, 987 tasks were observed. 984 of these tasks (99.7%) were executed in accordance with Verizon VA M&Ps.
TVV4-20	Verizon VA meets the benchmark for Installation Troubles Reported Within 30 Days on ADSL Line Sharing circuit installations.	Satisfied	Verizon VA met the benchmark for installation troubles reported within 30 days for ADSL Line Sharing circuits.  Four live CLEC circuits were analyzed to verify that a trouble report was not opened on the circuit within 30 days of order completion.  Analysis of Verizon VA trouble report history logs identified 100% of these circuits as defect-free. During the testing period, Verizon VA's retail organization provisioned 85%, or 197 circuits, <sup>71</sup> that satisfied the criteria of this metric and were defect-free for at least 30 days following the completion of the provisioning process.

<sup>70</sup> The following M&P documents were reviewed: Line Sharing – Network Creation Provisioning and Maintenance – Central Office, NOCIL 0006-021, Issue #6; Line Sharing Provisioning and Maintenance Procedure, 2000-00322-MDP, Version C; and DSL Splitter Provisioning Process in Verizon East, 2000-00380-MDP, Issue B; RCCC Line Sharing, RCO-00-2048.

<sup>71</sup> The Virginia Carrier-to-Carrier Guidelines Performance Standards and Reports, dated August 11, 2000, defined POTS 30-day trouble history in PR-6-01 as “Parity with Verizon Retail.”

Test Reference	Evaluation Criteria	Result	Comments
TVV4-21	Verizon VA provisions Unbundled Dark Fiber installations by completing documented Method and Procedure tasks.	Satisfied	Verizon VA provisioned unbundled dark fiber installations by completing the documented M&P tasks.  Verizon VA's ability to adhere to tasks defined in their M&P documentation was measured. <sup>72</sup>  During 16 installations, 16 tasks were reviewed. All 16 of these tasks (100%) were executed in accordance with Verizon VA M&Ps.
TVV4-22	Verizon VA provisions Unbundled Dark Fiber circuits on the committed due date.	Satisfied	Verizon VA provisioned unbundled dark fiber circuits on the committed due date.  Sixteen (16) Unbundled Dark Fiber installations were reviewed to verify that the installations were completed on the committed due date. Verizon VA provisioned 100% of the circuits on the frame due date.

<sup>72</sup> The following M&P documents were reviewed: Unbundled Dark Fiber – TISOC M&P, 2000-0725-500D, Issue D; TIRKS Circuit Design Provisioning for Unbundled Dark Fiber, 2000-xxx-500, 09/00; Region Wide Dark Fiber UNE Implementation, 2000-00199-OSP, 5/17/00; Dark Fiber Service Provisioning, BAFEMP-00156, September 2000; Continuity on IOF Dark Fiber Circuits, NOCIL 0009-001, Issue #2; and Unbundled Dark Fiber – Provisioning & Maintenance – RCCC and RCMC, RCO-98-0044, 2/27/01.