II - EXECUTIVE SUMMARY

This chapter provides an executive summary of the objectives and scope, analytical process, and results of the review of Verizon New York (Verizon NY) programs, processes, and resource allocations associated with its retail service quality performance. Following a brief introduction, this chapter presents a summary of the project that is intended to provide the context in which this review should be viewed, and to remind the reader of the project's objectives, scope, and approach. The chapter then summarizes the most important findings and recommendations that resulted from the review, and concludes with a listing of all of the consultant recommendations.

A - INTRODUCTION

The New York wire line operations of Verizon NY experienced service quality performance problems during plan year one (PY1) of the Verizon Incentive Plan (VIP) Retail Service Quality Plan. These conditions continued to worsen in plan year two (PY2). As a result, Verizon NY has paid penalties (rebates) in the amount of $55 million dollars to the Verizon NY customers that were affected by these service quality problems. In addition, these issues also prompted an investigation by the New York Department of Public Service (NYDPS) into the actions being taken by Verizon NY to address these service quality issues.

A brief chronology of events leading to the issuance of a request for proposal (RFP) is contained in *Chapter I – Introduction*. This sequence of events led to the RFP to which Doherty & Company, Inc. (DCI) responded and for which it was selected to perform a retail service quality review of Verizon NY. This report is the direct result of DCI's investigations.

B - OBJECTIVES AND SCOPE

The issues to be addressed revolve around the adequacy of Verizon NY's plans in response to a deteriorating retail service level, including special services. In summary, the questions DCI was asked to address included:

- Can customer service be improved while reducing workforce and capital expenditures?
- Are plans in place, with total management backing and credibility, for enough productivity improvements to offset the force loss and improve service?
- Can capital be targeted so that chronic areas can be corrected immediately, and other areas not be allowed to become chronic?
- Are there systems, processes, and procedures in place or planned that will ensure that this is accomplished?
- Are there "best practices" industry wide procedures or processes that provide better approaches to answering these questions?

AUDIT OBJECTIVES

The overall objective of this engagement was to perform an independent audit to review the adequacy of Verizon NY's efforts to provide retail service quality that consistently meets the requirements of New York standards and guidelines.

Principal specific objectives that supported the overall objective included:

- Determine the likelihood that Verizon will meet the five VIP objectives of troubles, installation, complaints, and outliers in plan year 2 and beyond.
- Determine additional elements necessary for incorporation into, or enhancement of, Verizon NY management and operations structures, plans and processes to achieve all VIP objectives in plan year 2, if possible. If not possible in plan year 2, propose a program and time table for their achievement. Evaluate Verizon NY plans in the course of this task.
- Determine adequacy of Verizon NY's capital program and maintenance budget; including plans for expenditures on jobs specifically identified to improve service, expenditures to reduce workload through proactive cable maintenance and rehabilitation.
- Determine the adequacy of Verizon's current plans to better utilize its outside plant workforce; including plans for increased management focus on productivity, additional training, and the use of global positioning equipment and other productivity enhancement tools.

- Compare Verizon New York's productivity to other telephone companies across the nation (including but not limited to Qwest, BellSouth and SBC/Ameritech) and compare management practices that deal with labor productivity and its environment. Report on Verizon New York's position relative to comparison companies and other Verizon units.
- Identify areas for adoption of industry "best practices."
- Determine how best to help ensure that Verizon's long-term performance meets the needs of New Yorkers throughout the state better than it has recently met them.

AUDIT SCOPE

The order specified that "The audit should include, but not be limited to, areas of the Company's management and operations, such as: the amount of network investment and resources dedicated to improving service quality, and the mix of these resources, the adequacy of company records to locate and correct deficient equipment in a quick and efficient manner; available workforce, expected workload, and worker productivity."

C - APPROACH

The scope of work involved a review of Verizon NY's retail service quality efforts from the four perspectives cited in the RFP: performance, analysis, capital expenditures and maintenance, and best practices. To fully address the range of activities that influence retail service quality, DCI structured the project in the following five major work packages:

- **Area 1 – Organization and Management** – Encompasses top level management decision processes and structure.
- **Area 2 – Capital and Maintenance Planning** – Addresses construction and maintenance planning and network planning and engineering.
- **Area 3 – Customer Services and Field Operations –** Includes call center operations, installation and repair, call center interfaces with field operations, installation and repair and central office and outside plant construction, and workforce management for these operations.
- **Area 4 – Performance Analysis and Statistics –** Handles performance measurement, analysis and trends, and develops and implements statistical sampling applications as necessary for the review.
- **Area 5 – Best Practices –** Includes determination of work force management best practices that might be applicable to Verizon NY, as well as an industry-wide comparison of Verizon NY management practices related to overall retail service quality provisioning.

The focus of DCI's investigations was on service quality performance. Although our review of service quality performance focused to a large extent on the service standards contained within the Verizon Incentive Plan (VIP) Retail Service Quality Plan, many other service performance indicators were also reviewed. These included Verizon's Intrastate Special Services Process Improvement Program, New York State Service Quality Standards For Telephone Companies, and New York Special Services Guidelines. Our review provided findings and recommendations considering the business, financial, regulatory, competitive, and technological environment in which Verizon NY operates.

This review was not an "audit" of the service quality performance in the strictest sense of the word "audit." Doherty & Company (DCI) relied on much of the financial and statistical information provided by Verizon NY in conducting this review of service quality performance. Although we did question some of the numerical information as it was presented to us and we have questioned how some of the numbers are calculated, we did not conduct any form of transaction sampling or testing (traditional auditing techniques) for verifying this financial or statistical information.

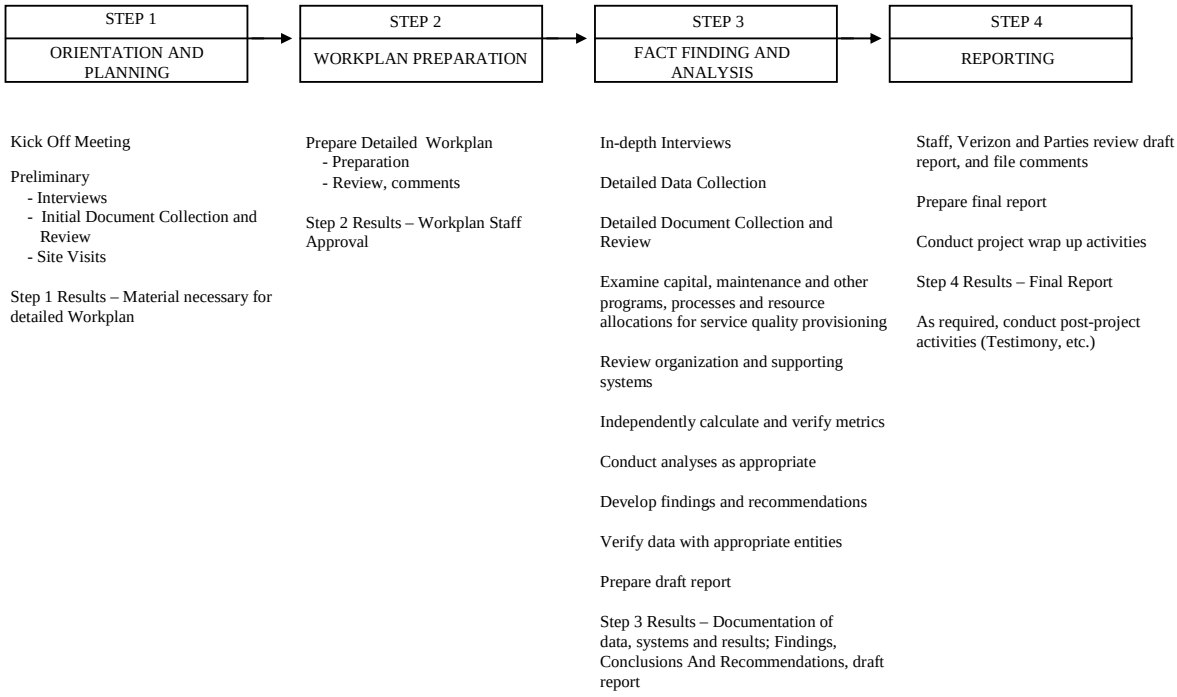
Our review is prospective in nature; that is, analysis of historical practices and performance was used only to the extent that results of analyses of such practices and

performance offered substantive input to the development of findings and recommendations that are focused on the improvement of current service quality plans and practices.

DCI's four-step approach was utilized to provide an efficient, effective process for the review, placing an initial comprehensive data collection step as the first step of the review. The second step included development of a detailed work plan which served as the guideline for the conduct of the project. The third step included in-depth fact finding and analysis. This step also included development of the draft report. The fourth step focused on development of the final report. DCI's four step approach is illustrated on *Exhibit II-1*.

Exhibit II-1

DCI'S APPROACH AND METHODOLOGY



When service quality problems occur, it is usually the result of multiple reasons, rather than one simple factor. Many elements are tied into the provision of high quality service including, but not limited to, the following:

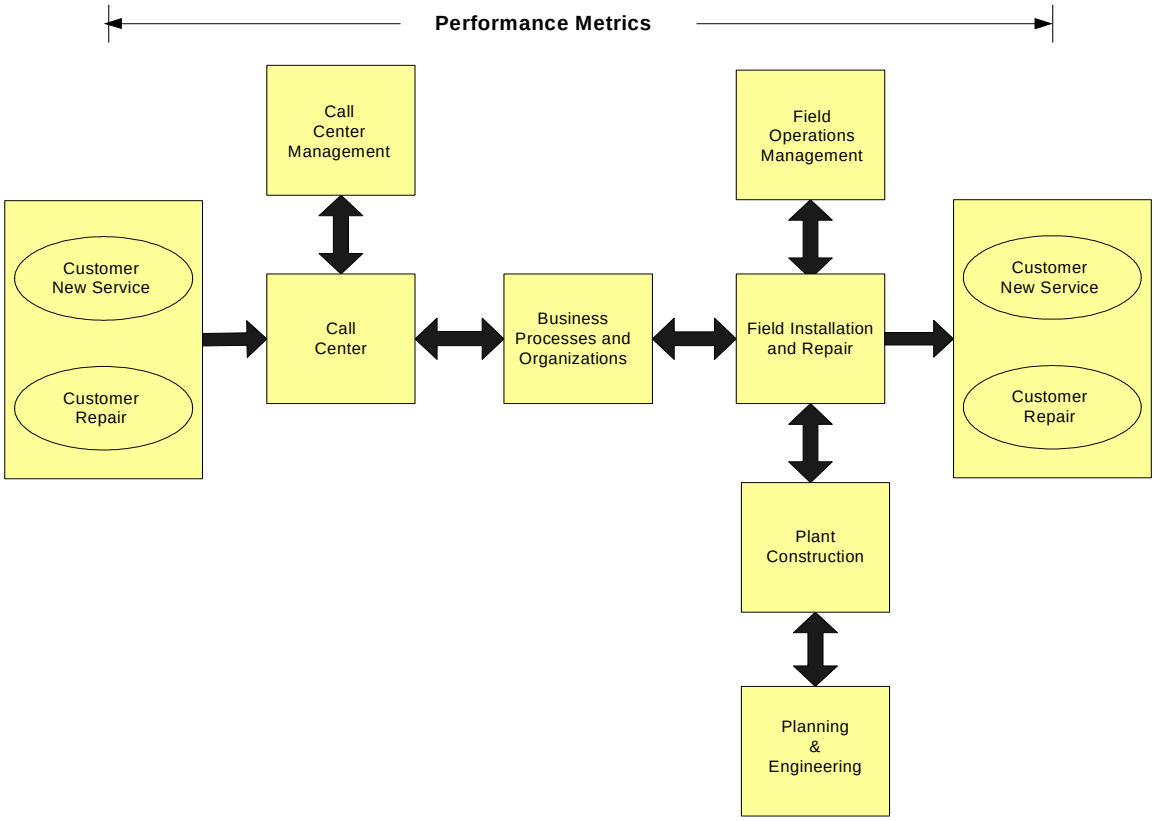
- Proper network and outside plant planning to meet customer demand
- Trouble report analysis for directing targeted maintenance
- Adequate levels of staffing both in the call centers and in the field

- Adequate levels of materials and supplies that are readily accessible to service technicians
- Proper training of employees in the latest technologies, their installation and repair
- Proper coordination of field assignments and efforts to ensure the most efficient utilization of technician resources and equipment

These various elements are all interrelated as presented graphically in *Exhibit II-2*.

Exhibit II-2

AREAS OF INVESTIGATION



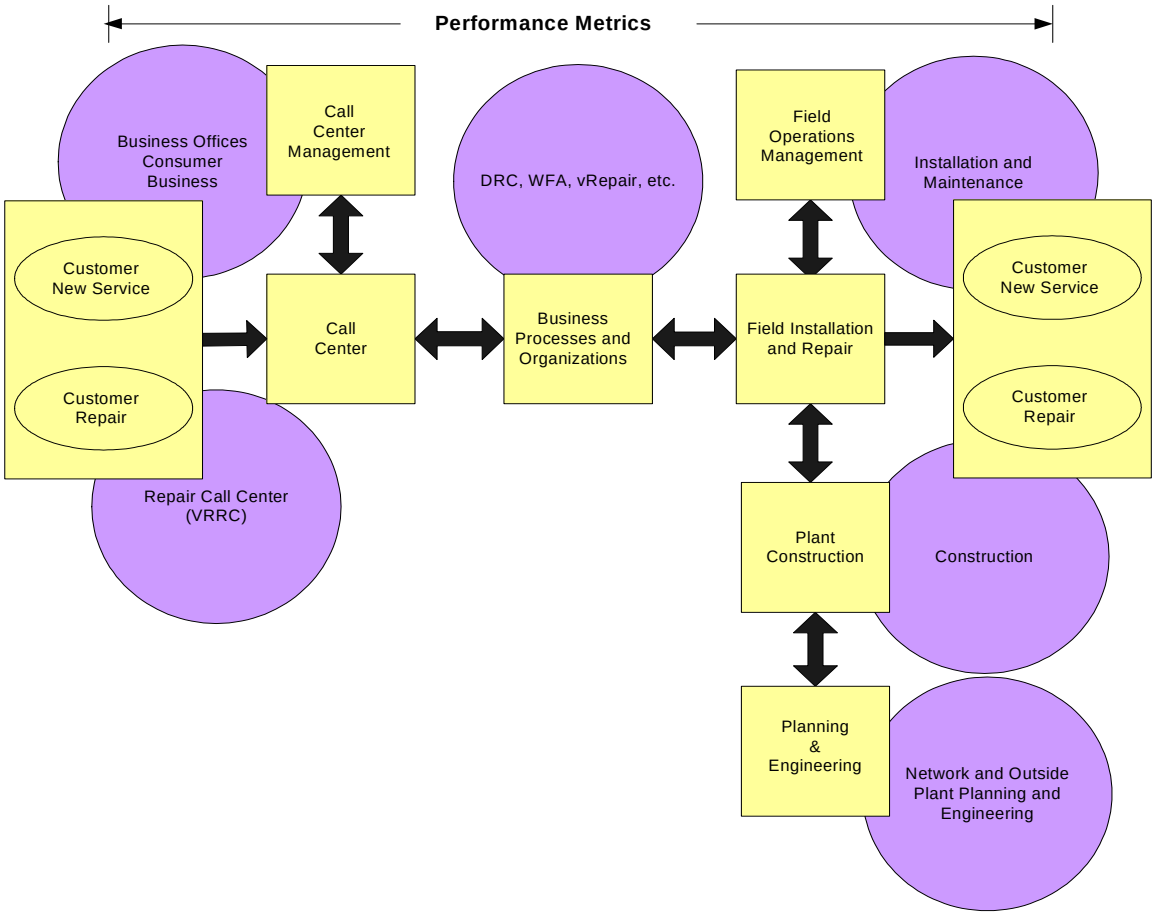
Whether a customer is ordering new or additional services, reporting a repair issue, or making a billing inquiry, the first interaction with Verizon NY is contacting a call center. Based on the nature of the concern, the customer's request is routed through the appropriate processes and systems within Verizon NY and usually results in a field request being made to an installation & repair (I&R) organization. An I&R organization is usually the organization responsible for providing the new services or repair to the customer; however, I&R activities are dependent on a network planning and engineering organization that assures that suitable plant facilities exist (planned for and engineered); a construction organization that actually builds much of the required facilities; a central

office operations organization that installs and maintains the central office facilities; and an infrastructure maintenance organization that is responsible for planning and ongoing maintenance of telecommunication facilities.

Exhibit II-3 shows the areas of Verizon NY that were most relevant in our review of service quality performance. The shaded circles identify the organizational areas within Verizon NY that comprised the scope of our review.

Exhibit II-3

VERIZON NY REVIEW AREAS



From a customer's standpoint, service quality might be seen as more of process – i.e. the customer places a call to Verizon NY and a technician appears at the premise to resolve the issue. However, there are many steps in between these two events (calling Verizon NY and the technician appearing) that are the responsibility of different functional organizations within Verizon. Each of the boxes shown previously in *Exhibit II-2* is actually one or more different "functional" areas.

A problem in one of the areas can manifest itself as a problem in a totally different area.

For example, a deficiency in the area of network planning activities could surface in the future as the inability to provide customers with service due to a lack of network capacity. All of these organizations play a significant part in the service quality performance experienced by the customer and the performance metrics that are collected to measure service quality.

D - KEY FINDINGS

This section contains DCI's principal Findings, which respond to the NYDPS's specific objectives.

Determine the likelihood that Verizon will meet the VIP retail service quality objectives.

Verizon NY's failure to clear POTS trouble reports on a timely basis has resulted in significant VIP penalties in its first two plan years.

In VIP PY1 (March 2002–February 2003), Verizon NY missed the OOS > 24 hours ≤ 20% target, one of the "Big 5" metrics, resulting in a penalty payment of $15 million. Its penalty came in the form of a rebate to approximately 400,000 customers at $35.12 per out-of-service incident (customers whose service was out for more than 24 hours at any given time during the plan year). Each affected customer saw credits in either its April 2003 or May 2003 bill. The credits were in addition to any other credit that may have been due under tariff.

In VIP PY2 (March 2003–February 2004), Verizon NY continued to experience service quality problems. It missed two "Big 5" objectives: OOS > 24 hours and outliers. By missing both, $40 million in credits were required. A rebate applicable to the OOS > 24 hours miss was paid to approximately 553,000 customers at $35.73 per occurrence. A rebate applicable to the outliers miss was paid to approximately 9,564,000 customers at $2.03 per access line.

It is worth noting, however, that many Verizon NY performance results involving POTS measures have improved in early 2004 over the comparable 2003 results. In selected cases, the improvement is significant; in others it is not. Increased staffing in 2004 and the reduced trouble load because of improved weather conditions were two factors that appear to have helped Verizon improve performance results. Regardless of the reasoning, DCI believes that the outside plant problems still exist and will be a problem in years with bad weather conditions. Nonetheless the maintenance of sufficient staffing levels coupled with other Verizon initiatives (e.g. Proactive Preventive Maintenance Tool, GPS, etc.) and implementation of the recommendations contained herein provide Verizon with an opportunity to continue to meet the required service levels for POTS.

However, Verizon NY continues to miss its special service targets. Verizon NY's performance results involving installation measures under the New York Special Services guidelines have generally not met the appropriate target and/or the level of service has been declining. Specifically, Verizon NY has had considerable difficulty with provisioning on time performance (met commitments—SS-PR-1), missed installation appointment delays (SS-PR-2), and quality of installation work (SS-PR-3). For instance with respect to special service installation performance, Verizon NY has met the 96% target only three times since March 2002, although 2004 results appear to be improving.

Determine additional elements necessary for incorporation into, or enhancement of, Verizon NY management and operations structures, plans and processes to achieve all VIP objectives in PY2, if possible. If not possible in PY2, propose a program and time table for their achievement. Evaluate Verizon NY plans in the course of this task.

This report contains 59 recommendations, all of which are designed to increase the likelihood of Verizon NY achieving all the applicable service quality measures. In particular, in New York State, Verizon NY has been required by the New York Public Service Commission (NYPSC) to monitor and report on the following four different types of service quality measures:

- VIP Retail Service Quality Plan
- Verizon's Intrastate Special Services Process Improvement Program
- New York State Service Quality Standards for Telephone Companies
- New York Special Services Guidelines

Chapter IV – Performance Analysis and Statistics highlights these performance measures and Verizon NY's associated results. As mentioned above, Verizon NY has experienced the most difficulty in achieving the OOS>24 hours and SA>48 hours objectives. This report presents specific recommendations regarding actions to address these objectives which are discussed in *Chapter VII – Field Operations*. These recommendations should be the first recommendations that Verizon NY addresses.

Determine adequacy of Verizon NY's capital program and maintenance budget, including plans for expenditures on jobs specifically identified to improve service, expenditures to reduce workload through proactive cable maintenance and rehabilitation.

Verizon NY current capital and maintenance programs are not adequate. In DCI's opinion, the inability of Verizon NY to meet OOS>24 hours and SA>48 hours service objectives is due to the customer trouble load volatility and the inability to clear the resulting peak repair trouble load. The most significant of the contributing factors affecting Verizon's ability to meet this measurement is the trouble load volatility. When customer-reported troubles are received at a rate higher than the Dispatch Resource Center (DRC) can dispatch, the average trouble clearing time will exceed the 24/48 hours objectives. Although customer trouble loads would be expected to vary on a daily basis, the dramatic swings in customer trouble load experienced in 2003 due to rainy or stormy weather is an indication of inadequately maintained outside plant facilities. DCI's analysis of this issue is contained in *Chapter VII – Field Operations*. and in *Chapter V – Capital and Maintenance Planning*. If this type of weather occurs with enough frequency, then the average clearing time for the month will exceed the objective for OOS>24 hours and SA>48 hours objectives.

DCI's analysis suggests that the Infrastructure Improvement Program (IIP) budget reduction from the amount budgeted in 2001, to 17% of that amount in 2003 and a

similar amount in 2004, is too drastic a reduction. Outside plant problems are contributing significantly to the performance results for the OOS>24 hours and SA>48 hours objectives. Without improving the performance of the outside plant, these failures will continue with only average amounts of rainfall. Outside plant performance indicators and studies point to outside plant as being in need of improvement. The installation and maintenance (IMC) reporting entities with a high number of occurrences of incoming trouble load exceeding 50% of the mean should be addressed first. The number of Code 4 troubles (outside plant troubles) that exceeded the threshold of 50% over the mean daily load was 194,332 for 2003. DCI believes it should be the starting target for determining the level of proactive cable maintenance (PCM) expenditures.

DCI supports the use of a more targeted replacement approach. Verizon NY has only recently adopted (June 2004) an analytical tool for this purpose – specifically a Proactive Preventive Maintenance Tool (PPMT). PPMT provides Verizon NY with the analysis tool required to focus the PCM program on the outside plant that is in need of replacement. As Verizon NY gains experience with PPMT, it should refine its capital investment per dispatched trouble saved. This, along with a focus on the volatile trouble report locations, should allow Verizon NY to substantially reduce the problems with OOS>24 hours and SA > 48 hours and, at the same time, substantially improve network operations at a considerable net expense reduction.

DCI further recommends that a much more refined business case be developed for Verizon NY. This business case should include a study of the volatile report rate areas identified in this report. The capital cost per trouble saved should be adjusted to take into account the better analysis and targeting of inadequate outside plant that is provided by PPMT. The cost per dispatch should take into account the actual operations for each market area, including the actual productivity, trouble incomplete (troubles not completed on first dispatch) and handoff rates (percent of troubles passed from I&R technician to cable maintenance technician), and repeat report rates.

These issues and further discussion of the above findings and additional findings and recommendations are contained in *Chapter VII – Field Operations* of this report.

Determine the adequacy of Verizon's current plans to better utilize outside plant workforce, including plans for increased management focus on productivity, additional training, and the use of global positioning equipment and other productivity enhancement tools.

The report contains 16 recommendations regarding actions that Verizon NY should take over the next several years to better use the outside plant workforce. Some of these recommendations can be implemented with little or no additional capital or expense dollars and achieve benefits quickly, whereas others are of a more strategic or long-term nature and will require further study, including detailed cost/benefit analyses, in that they will most likely require more significant resources (capital and expense) to achieve results. In particular the following findings and recommendations addressing the above question require little capital to implement:

- Global positioning system (GPS) units were deployed on the vehicles of I&R and cable maintenance technicians during 2002 and completed in 2003; however, follow-up and usage of the system did not fully use its capabilities. Verizon NY needs to take steps to achieve the full benefits of this implementation.
- Field Technician test sets are inconsistently deployed and usage of those deployed is not maximized. Verizon NY needs to establish and implement uniform standards on test sets.
- All COs in New York are not equipped with the Direct Access Test Units (DATUs) and, where equipped, the outside technicians are not making maximum utilization of the equipment. Verizon NY needs to implement a program to get the maximum benefits our of DATU.
- The deployment and use of cell phones and other methods of communication for use by the Field Technicians is not standardized across the Verizon NY service territory and is a source of inefficiency. Verizon NY needs to develop a uniform policy relative to Field Technicians use of cell phones as a efficiency enhancement.
- Coordination between the central offices (COs) and the DRCs is lacking, causing inadequate CO coverage when the I&M Field Technicians are required to work extensive overtime. Verizon NY needs to develop and implement procedures that will ensure effective communications between the managers of the COs and the DRCs.

Additional findings and recommendations are contained in *Chapter VII – Field Operations* of this report.

Compare Verizon New York's productivity to other telephone companies across the nation (including but not limited to Qwest, BellSouth, and SBC/Ameritech) and compare management practices that deal with labor productivity and its environment. Report on Verizon New York's position relative to comparison companies and other Verizon units.

Installation and repair (I&R) productivity is low when compared to the other states and geographic areas in the Verizon footprint. Although it was not possible for DCI to obtain comparable, specific productivity information from other CLECs (such as Qwest, BellSouth, or SBC) to which DCI could compare Verizon NY results, DCI would not expect the comparison to result in any different conclusion, given DCI experience with some of those telecommunications companies.

Productivity attained by Verizon NY market areas since 2000 has been consistently below other Verizon properties for both repair and installation. This performance relative to their peers has kept the New York market areas ranked at the lowest achievement levels throughout the period reviewed, with the exception of Island Metro, which is above New Jersey for repair for 2000, and New England and New Jersey for installation for 2002 and 2003.

The New York market areas have shown improvement since 2000. While the percent improvement over the three years is significant in some instances, the low base from which Verizon NY started still places the Verizon NY market areas in the lowest performance levels relative to their peers. Moreover, their peers for the most part also had improvements during the period reviewed, allowing them to maintain their relative position (see *Chapter VII – Field Operations*).

To date, Verizon NY's primary mechanism for addressing productivity has been the Service Excellence Plan (SEP), as discussed in *Chapter VII – Field Operations*. The SEP has gotten mixed reviews by both management and the associates since its inception. It is viewed as not being timely enough to provide meaningful information to the technicians and also somewhat paperwork intensive. The SEP plan has provided for varying and confusing objectives given the interim performance standards (IPS) and safe harbor qualifications described in *Chapter VII – Field Operations*. This is seen as being a detriment to consistent enforcement and use. Further, there is the perception by Verizon NY associates that the plan will drive ever increasing performance levels as the base period for the averages is changed to reflect more current periods. DCI recognizes the need for Verizon NY to have a mechanism to improve performance; however, SEP, alone, has not achieved expected results and will need some modifications going forward.

DCI identified a number of Findings that affect productivity. Roadblocks affecting productivity were identified including Craft Access Terminals, Central Office Support, Uniform Work Rules, and Excess Paperwork. In addition, benefits from new systems such as DATU and GPS have not been fully achieved. There are issues identified with the dispatch process relative to incompletes and two tier dispatches. All of these issues are discussed in *Chapter VII – Field Operations.*

Identify areas for adoption of industry "best practices."

During DCI's review of retail service quality performance, DCI evaluated Verizon's best practice identification (BPI) process, identified instances of best practice applications, and identified approximately 18 "best practices" from DCI industry experience not found at Verizon NY.

DCI found that while there are new systems being deployed to assist Field Technician's productivity and to improve operations; implementation and follow-up to ensure field adaptation is inadequate. Verizon NY needs to include objectives for usage in all system enhancements and new deployments and to provide a capability for monitoring compliance. However, DCI found that there was no identified process in place to identify, develop, and deploy operations "best practices" that would address process changes, workflow enhancements, and improvements to methods and procedures. Verizon NY needs to provide staff subject matter experts (SMEs) at the Network Services Group national level who will be empowered to review various centers and work groups to determine "best practices" for a particular process or operation.

DCI also found that Operations support staff activity is inadequate to provide sufficient support to the field in relation to the implementation of new systems and the provision of

adequate follow-up. Verizon NY should increase and focus staff reviews on "best practice" and system implementation.

Verizon NY should investigate each of the identified 18 "best practices" from DCI industry experience for possible adoption at Verizon NY. These issues are discussed in *Chapter VIII – Best Practices*.

Determine how best to help ensure that Verizon's long-term performance meets the needs of New Yorkers throughout the state better than it has recently met them.

In DCI's opinion, the $55 million dollar penalty has been effective in getting Verizon NY's attention to the need for achieving New York service quality standards. In the latter part of DCI's project (March – June 2004), DCI observed a greater emphasis being placed by Verizon NY on improving service quality measures than was present during October – December 2003. Whether that was due to the fact that the NYDPS had initiated this investigation of service quality, the fact that Verizon NY was beginning to come face-to-face with a PY2 $40 million dollar penalty or emerging competitive threats is difficult to say.

Out-of-service > 24 hours and service affecting > 48 hours are the primary VIP indicators of service quality problems.

Verizon NY has been unfavorably above the 20% (or less) target for OOS troubles cleared in 24 hours, one of the VIP's "Big 5" performance objectives at the Verizon NY company-wide level, for most months since the VIP was implemented in March 2002. In VIP PY1, the annual objective was missed, as were nine out of twelve months. In VIP PY2, the annual objective was missed, as were eleven out of twelve months.

Although the SA > 48 hours measure is not one of the VIP's "Big 5" performance objectives, misses for both the SA > 48 hours and the OOS > 24 hours targets are counted as outliers, thereby resulting in service inquiry reports. Most outliers occur when targets are missed for the current month and two of the prior four months. For these two performance measures, the outlier targets are:'

- OOS > 24 hours ≤ 20.04%
- SA > 48 hours ≤ 20.04%

They also represent the two measures where the largest number of outlier misses (resulting in service inquiry results) was generated during PY1 and PY2. During PY1, these two performance measures accounted for 143 (87%) of the outlier misses out of a total of 165. During PY2, they accounted for 173 (87%) out of 198. There is no single cause for these misses but rather a number of contributing causes that, together, make it difficult for Verizon to meet its objectives, as discussed in further detail in *Chapter VII – Field Operations*. Therefore DCI focused much of its investigations on the contributing causes to the OOS > 24 and SA > 48 problems.

Using *Exhibit II-3* as a guide for our investigations, it became apparent that Verizon NY call centers – consumer (residential), business, and repair – had little to do with the OOS > 24 hours and SA hours > 48 problems. In fact, many of the findings with respect to call center activities are favorable with only a few recommendations for further enhancements to call center processes. However, the OOS > 24 hours and SA > 48 hours problems point to problems on the right hand side of *Exhibit II-3*, specifically:

- Network planning and engineering organization and business processes
- Capital and maintenance planning organization and business processes
- Construction business organization and business processes
- Installation and maintenance organization and business processes
- All internal business processes which support the above processes

Not only are the above organization and business processes important in addressing the specific service quality objectives, but these processes to a larger part determine the overall condition of the outside plant facilities with respect to the ability to be minimally effected by the environment. Finally, DCI found potential issues associated with Verizon's coding of "no access" and recommends that Verizon analyze this issues and its associated impact on VIP metrics and penalties.

The VIP failures of service measurements, specifically OOS>24 hours and SA>48 hours, have a number of contributing causes. However, the most important issues to address in order to achieve these objectives are:

- ***Repair Defective (High Maintenance) Plant*** – These findings and recommendation deal with the tools and techniques used by Verizon NY to identify and correct high maintenance plant to minimize the trouble load under all conditions.
- ***Better Manage the Workforce*** – These finding and recommendations deal with workforce management practices and other business processes to get the best productivity from the workforce to be applied to the trouble load to better achieve the service objectives.
- ***Minimize the Volume of Work*** – These findings and recommendation deal with the internal business processes within Verizon NY to minimize the amount of work that actually needs to be dispatched to the field – i.e. the issue is addressed by a less costly business process.
- ***Improve Center Performance*** – These findings and recommendation deal with organization and business processes that actually identify and assign (dispatch) trouble load to the field.
- ***Other*** – These findings and recommendations are important to addressing the OOS > 24 hours and SA > 48 hours service objectives, but did not fit into any of the above categories.

E - SUMMARY OF RECOMMENDATIONS

As noted, DCI's objective was to address a number of specific issues. What follows are DCI's views on each of these issues as well as a comprehensive listing of recommendations developed during the review of Verizon NY retail service quality. DCI recognizes that the NYDPS will be responsible for monitoring Verizon NY's follow up and implementation of these recommendations, as appropriate.

DCI's views on each of these issues is discussed below.

Can customer service be improved while reducing workforce and capital expenditures?

Yes, with continued access line losses and the implementation of the recommendations in this report, customer service on the remaining lines can be improved while reducing workforce and capital expenditures. In the past, a significant portion of the capital expenditures were necessary to meet network growth requirements (e.g. growth measured in access lines). This growth no longer exists and, therefore, the need to make those capital expenditures has also decreased and, consequently, the need for construction forces to build the new growth plant is also reduced.

However, the lack of the growth component in the capital program places greater emphasis on infrastructure improvement programs to improve customer service. In the past, growth capital expenditures, in many cases, helped improve the network in addition to meeting customer requirements. As a result, DCI would expect to see Verizon placing greater emphasis on Infrastructure Improvement Program (IIP) to improve the performance of the existing outside plant network as regards customer trouble reports.

Are plans in place, with total management backing and credibility, for enough productivity improvements to offset the force loss and improve service?

Maybe, DCI recognizes that Verizon has made many changes to its plans for improving productivity of its workforce. However, DCI has also identified several issues (see the recommendations in this report) that need to be addressed to improve the productivity of its workforce which are totally in the control of Verizon management. At this time the productivity improvement plans are not sufficient to offset significant force losses. Productivity has been improved, but it is not sufficient to offset the outside plant conditions and performance, as well as reduce the construction backlog, which should have a direct impact on customer service. DCI recognizes that Verizon has already modified and enhanced its plans for improving productivity but continual ongoing emphasis in this area is required.

Can capital be targeted so that chronic areas can be corrected immediately, and other areas not be allowed to become chronic?

Yes, Verizon introduced a new chronic area detection system, designated as the PPMT, in June 2004. The PPMT tool is very similar to those that DCI has reviewed at other

telephone companies – albeit those telephone companies have been using such a tool for a longer period of time. These tools have proven to be effective in targeting chronic areas for these other telephone companies. As a result, DCI believes that implemented properly, PPMT will provide similar results to Verizon NY. This new tool, if utilized properly, along with sufficient IIP capital dollars and force will allow for targeting outside plant improvement dollars to correct chronic areas on a timely basis. Further the tool has a proactive element that will allow timely identification of areas that are likely to become chronic offenders.

Are there systems, processes, and procedures in place or planned that will ensure that this is accomplished?

Maybe, if the PPMT tool introduced in June is implemented properly with processes and procedures and sufficient capital and force, then chronic trouble areas can be identified and corrected on a timely basis. However, at the time of the review, these processes and procedures were not in place. Additional IIP capital dollars will be needed for IIP funding along with the proper implementation of the new PPMT and associated processes and procedures to identify and eliminate the chronic trouble areas in a timely manner.

Are there "best practices" industry wide procedures or processes that provide better approaches to answering these questions?

Yes, there are industry wide "best practices" that Verizon can implement that will provide better approaches to improving service while reducing force and capital. DCI identified approximately 18 "best practices" from DCI industry experience not found at Verizon NY. Many of these "best practices" could seemingly be implemented in the short term, however, we recognize that several "best practices" may need to be studied for adoption at Verizon NY prior to full scale implementation.

The following section provides a framework for the recommendations contained in this report. As detailed in the prioritization of the recommendations below, DCI is cognizant of the rapid changes in the telecommunications markets including the deployment of Voice Over Internet Protocol (VoIP) services by the cable industry and traditional circuit switched competitors, as well as the continued substitution of DSL and wireless for primary and secondary wire line accounts. The matrix that follows acknowledges the strategic implications of certain recommendations. Nevertheless, these recommendations may offer significant service quality improvements and merit a formal evaluation by Verizon.

LISTING OF RECOMMENDATIONS

A comprehensive listing of 59 major recommendations developed during the review of Verizon NY service quality is provided on *Exhibit II-4*. This summary contains three columns as follows:

- ***Recommendation Number*** – A sequential listing, by chapter, of the recommendations contained in this report.

- ***Recommendation Statement*** – The basic recommendation statements. Amplification and backup information for each recommendation are provided in the various chapters in which the recommendations are presented.
- ***Recommendation Page Number*** – The page of the report to find the recommendation
- ***Priority*** – A Short, Intermediate, and Long Term priority has been assigned to each recommendation as follows:
  - A – "**Short Term Improvements**"- These recommendations should be implemented by Verizon. Little or no incremental capital or expense dollars would be required to implement the recommendation. The recommendations can be implemented easily and offer service quality improvements. These recommendations should be implemented within 90 days.
  - B – "**Intermediate Term Improvements**" - Verizon should implement these recommendations unless it can demonstrate that implementation of the recommendations is not cost justified. Implementation would result in meaningful service quality improvements. Some incremental capital and expense dollars may be required. Verizon's analysis of the recommendations should be completed within 3 months. Verizon's analysis should be filed with the Director of the Office of Telecommunications. The Director should consult with Verizon on the analysis of the recommendations and the implementation (if applicable) time frame. An implementation plan for these recommendations should be submitted within 3 months with the actual implementation expected to occur within 12 months.
  - C – **"Strategic Longer Term Improvements"** - These recommendations may offer significant service quality improvements, yet require further study/additional analysis by Verizon to determine the potential costs of implementing and the strategic implications. These recommendations may require more significant incremental capital and/or expense dollars requiring further study. Verizon should have the opportunity to complete any additional analysis of these recommendations within six months. Verizon's analysis should be filed with the Director of the Office of Telecommunications. The Director should consult with Verizon on their analysis of the recommendations and the implementation (if applicable) time frame. An implementation plan for these recommendations should be submitted in three months following consultation with the Director and with the actual implementation expected to occur longer than 12 months.

DCI recognizes that the NYDPS will be responsible for monitoring Verizon NY's follow up and implementation of these recommendations, as appropriate.

Exhibit II-4
Page 1 of 9

SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation III-1	Address Organizational Issues With Matrix Project Teams. (Refer To Finding III-1).	III-52	A
Recommendation III-2	Initiate A Formalized Program For Improving The State Of Relations Between Management And Associates. (Refer To Finding III-2.)	III-52	A
Recommendation III-3	Reassess The Drop In Associate Training Hours. (Refer To Finding III-5.)	III-53	B
Recommendation III-4	Implement And Follow Through On An Irregular Plant Reporting And Monitoring Process To Include Feedback To the Associates When Corrective Measures have Been Implemented. (Refer To Finding III-9.)	III-54	A
Recommendation III-5	Communicate The Results Of DCI's Investigations Of Associate Concerns To Associate Personnel. (Refer To Finding III-7, Finding III-8, Finding III-9, And Finding III-10).	III-54	A
Recommendation III-6	Develop A Tracking Report For NFV "I" Reports. (Refer To Finding III-10.)	III-55	A
Recommendation IV-1	Develop A Coordinated Action Plan For Addressing Special Services Targets. (Refer To Finding IV-5.)	IV-70	B

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation IV-2	Address Declining Performance Results In "Other" Performance Measures As Identified During This Review. (Refer To Finding IV-6.)	IV-70	B
Recommendation IV-3	Perform An Internal Review Of Verizon NY's No Access Process With The Intention Of Identifying Methods To Reduce The Customer Repeat Reports That Result From Its Existing No Access Process. (Refer To Finding IV-7.)	IV-70	A
Recommendation IV-4	Improve SIR Responses So As To Make Them Useful Tools For Implementing Change. (Refer To Finding IV-8.)	IV-71	A
Recommendation IV-5	Establish A Formal Quality Assurance Function For Special Services Measures. (Refer To Finding IV-9.)	IV-71	B
Recommendation V-1	Base Budgets On Realistic Achievable Goals With Lower Level Operations Buy In And Follow Up To Ensure Goals Are Achieved. (Refer To Finding V-1.)	V-34	A
Recommendation V-2	Determine The Quantity Of Umbilicals To Be Provided Between Host And Remote Switches Using Extreme Value Engineering (EVE) And Reduce The Degree Of Blocking Accordingly. (Refer To Finding V-2.)	V-34	A
Recommendation VI-1	Investigate Use Of eQuality System By Business Offices To Take Advantage of Technology For Recording Screens And Keystrokes. (Refer To Finding VI-2.)	VI-90	B

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VI-2	Promptly Address DCI's Findings For The Field Operations Area As A Means Of Reducing The Number Of Calls To VRRC Call Centers; Then, Investigate Whether Changes To Staffing Levels At VRRC Call Centers Are Required. (Refer To Finding VI-3.)	VI-90	This refers to other recommendations with ratings.
Recommendation VI-3	Develop An Action Plan To More Aggressively Market The Use Of eRepair Web Pages. (Refer To Finding VI-4.)	VI-90	A
Recommendation VI-4	Continue To Encourage Surplus Operators To Look Elsewhere Within Verizon NY As Long As Regulatory Targets Are Met. (Refer To Finding VI-5.)	VI-91	A
Recommendation VI-5	Develop An Action Plan To Address Low Scores And Negative Trends In Customer Satisfaction Scores. (Refer To Finding VI-7.)	VI-91	B
Recommendation VI-6	Implement Formal Mechanisms For Tracking, Monitoring, And Minimizing Misdirected Calls. (Refer To Finding VI-8.)	VI-91	B
Recommendation VI-7	Address Answer Time Performance Regulatory Targets By Reducing Repair Call Volumes. (Refer To Finding VI-10.)	VI-92	C
Recommendation VII-1	Reevaluate IIP Spending Levels Based On Area-Specific Information. (Refer To Finding VII-1 And Finding VII-2.)	VII-102	B

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VII-2	Develop A Best Practice Approach For The Implementation Of PPMT In All Market Areas. (Refer To Finding VII-3.)	VII-102	A
Recommendation VII-3	Accurately Identify And Track The Construction Backlog. (Refer To Finding VII-4.)	VII-103	A
Recommendation VII-4	Manage And Reduce The Construction Backlog To Optimum Levels As A Top Engineering Objective. (Refer To Finding VII-5.)	VII-104	C
Recommendation VII-5	Investigate The Use Of The Outside Consultant Approach To Improving Productivity And Quality As Discussed In Section IX-A – Best Practices—Industry. (Refer To Finding VII-6.)	VII-104	C
Recommendation VII-6	Institute Steps To Address Each Of The Identified Roadblocks. (Refer To Finding VII-7.)	VII-105	B
Recommendation VII-7	Initiate Steps To Minimize Incompletes And The Two-Tier Dispatch Process. (Refer To Finding VII-8.)	VII-105	A
Recommendation VII-8	Establish And Implement Uniform Standards On Test Sets. (Refer To Finding VII-9.)	VII-106	B
Recommendation VII-9	Implement A Program To Get Maximum Benefits Out Of DATU. (Refer To Finding VII-10.)	VII-106	B
Recommendation VII-10	Initiate Steps To Achieve Full Benefits Of The GPS Implementation. (Refer To Finding VII-11.)	VII-106	A

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VII-11	Revise And Standardize The Verizon NY Policy In Relation To Cell Phones For The FTs To Better Serve Their Communications Requirements. (Refer To Finding VII-12.)	VII-107	B
Recommendation VII-12	Enhance The Systems To Capture CXM Technicians' Hours When They Are Loaned To The Demand Load To Allow For Productivity Measurement Calculations To Be Performed And To Obtain Metrics For Quality Assessment. (Refer To Finding VII-13.)	VII-107	B
Recommendation VII-13	Implement A Program To Address Declining Quality Trends With More Focused Staff And More External Reviews Being Conducted. (Refer To Finding VII-14.)	VII-108	C
Recommendation VII-14	Develop A Program To Recover Facilities From CLECs Instead Of Dispatching. (Refer To Finding VII-15.)	VII-108	A
Recommendation VII-15	Establish Engineering Programs To Restore BCTs In Service Areas With High-Churn Rates. (Refer To Finding VII-16.)	VII-108	A
Recommendation VII-16	Implement A Strategic Initiative By The Engineering Group To Redress Defective Pair Problems Within The Context Of The Infrastructure Improvement Program. (Refer To Finding VII-17.)	VII-109	B

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VII-17	Initiate A Focused Effort To Provide Clearly Defined Responsibilities And Objectives To Address The Issue Of Testability For DLC. (Refer To Finding VII-18.)	VII-109	A
Recommendation VII-18	Include The Data Presented in Finding VII-19 As Part Of The Review Performed By The Cross-Functional Team, As Noted In Recommendation VII-17. (Refer To Finding VII-19.)	VII-109	A
Recommendation VII-19	Eliminate Non-Dispatched Troubles >24 Hours. (Refer To Finding VII-29.)	VII-109	A
Recommendation VII-20	Implement And Place Strong Emphasis On The Safety Program Across The Company To Drive Compliance Of All FTs With Established Verizon NY Safety-Related Procedures. (Refer To Finding VII-21.)	VII-110	A
Recommendation VII-21	Implement The Necessary Steps To Resolve The Identified Problems With OSP Facilities In As Expeditious A Manner As Possible. (Refer To Finding VII-22.)	VII-110	B
Recommendation VII-22	Initiate A Study To Evaluate The Costs And Benefits Of Allowing The Use Of Remote Garaging In Selected Areas Of The Service Territory And Develop A Standardized Policy To Guide The Implementation Of Such A Program. (Refer To Finding VII-23.)	VII-111	B

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VII-23	Review The Current Status Of And Methodology For Determining The Tool And Equipment (including Safety Equipment) Budget For Each Area To Determine If It Is Adequate To Provide The Proper Tools And Equipment To The FTs Throughout The Year. (Refer To Finding VII-24)	VII-111	B
Recommendation VII-24	Acquire And Implement A Basic Inventory Control Software System For Use In All Of The Primary Verizon NY I&M Storerooms. (Refer To Finding VII-25.)	VII-111	C
Recommendation VII-25	Institute Procedures And Practices That Will Ensure That The OSP Location Drawings And Plats That Are In The Field Are Kept Current, With Revisions Being Made And Distributed To The Field In A Timely Manner. (Refer To Finding VII-29.)	VII-112	C
Recommendation VII-26	Properly Size The I&M Workforce To Minimize Loaning Of CXM FTs To The I&M Group On A Regular Basis. (Refer To Finding VII-27.)	VII-112	C
Recommendation VII-27	Undertake Improvements Intended To Ensure The Accuracy Of The Estimated Hours That Are Provided By The Engineering Authorizations. (Refer To Finding VII-28)	VII-113	B
Recommendation VII-28	Enhance CAMS To The Point That It Is Considered Statistically-Valid At The Associate Level, By Both Management And The Technicians. (Refer To Finding VII-29.)	VII-113	C

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VII-29	Implement Productivity And Quality Measurements With Clearly Defined Standards For The Construction Organization. (Refer To Finding VII-30.)	VII-113	C
Recommendation VII-30	Make Greater Use Of Those Opportunities For CXM Productivity Enhancement Such As Fiber Jetting And Updating CTAP. (Refer To Finding VII-31.)	VII-113	C
Recommendation VII-31	Undertake A Formal Improvement Process Within Verizon NY To Improve Coordination And Communication Between The Engineering And Construction Organizations. (Refer To Finding VII-32.)	VII-114	C
Recommendation VII-32	Develop A Report That Will Provide A Status For Each Augment Request Until Wholesale Trunks Are Put In Service. (Refer To Finding VII-33)	VII-114	A
Recommendation VII-33	Develop An Information Base To Assess The Service Levels Provided By DAMLS And To Determine The Best Policy On Removal. (Refer To Finding VII-34.)	VII-114	B
Recommendation VII-34	Develop A Program To Minimize The Practice For Pair Swaps To Clear Customer Trouble Reports. (Refer To Finding VII-35.).	VII-115	B
Recommendation VII-35	Each First Level Manager Should Have Identified, Productive Work That Can Be Done During Periods Of Light Dispatch. (Refer To Finding VII-36.)	VII-115	A

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SUMMARY OF RECOMMENDATIONS

Recommendation Number	Recommendation Statement	Page Number	Priority
Recommendation VIII-1	Include Objectives For Usage In All System Enhancements And New Deployments And Provide A Capability For Monitoring Compliance. (Refer To Finding VIII-1.)	VIII-33	A
Recommendation VIII-2	Provide Staff Subject Matter Experts (SMEs) At The Network Services Group National Level Who Will Be Empowered To Review Various Centers And Work Groups To Determine "The Best Practice" For A Particular Process Or Operation. (Refer To Finding VIII-2.)	VIII-33	A
Recommendation VIII-3	Increase And Focus Staff Reviews On Best Practice And System Implementation. (Refer To Finding VIII-3.)	VIII-33	A
Recommendation VIII-4	Investigate Each Of The Other "Best Practices" For Possible Adoption At Verizon NY. (Refer To Finding VIII-4.)	VIII-34	C