

**U S WEST**  
**Communications, Inc.**  
**Technical Publication**

**Performance Analysis**  
**Report Guidelines**

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**U S WEST**  
**Communications, Inc.**  
**Technical Publication**

**Performance Analysis**  
**Report Guidelines**

NOTICE

This publication describes expectations with regard to Supplier service, products and product support. It also describes the rating system used to evaluate each area.

Conformance with the guidelines contained herein guarantees neither acceptance nor purchase of a given Suppliers product by U S WEST Communications.

U S WEST Communications reserve the right without prior notice to revise this publication for any reason.

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## CONTENTS

Chapter and Section	Page
1. Introduction and Overview.....	1-1
2. Rating System.....	2-1
3. Frequency of Evaluations.....	3-1
4. Management Commitment and Support.....	4-1
4.1 Management Commitment.....	4-1
4.2 Problem Resolution.....	4-2
4.3 Regional/National Forums Issue Resolution.....	4-3
5. Contractual Performance.....	5-1
5.1 Contracts.....	5-1
5.2 Agreements.....	5-1
6. Quality and Reliability of Software/Firmware.....	6-1
6.1 Evaluation.....	6-3
6.2 Software/Firmware Corrections (SC's).....	6-3
6.3 Software/Firmware Changes/Updates.....	6-3
6.4 Regression Testing.....	6-4
6.5 Product Support.....	6-4
6.6 Software/Firmware Engineering Quality.....	6-4
6.7 Software Correction Delivery.....	6-4
7. Quality and Reliability of Hardware.....	7-1
7.1 Plug-In Failure Rate.....	7-1
7.2 Hardware/Hardware Failure Rate.....	7-1
7.3 Equipment Reliability.....	7-2
7.4 Repair and Return.....	7-3
7.5 Availability of Spare Parts.....	7-3
8. Product Performance.....	8-1
8.1 Customer Trouble Reports.....	8-1
8.2 Outages/Degradations.....	8-1
8.3 Billing Data Performance.....	8-2
8.4 Feature Functionality.....	8-3
8.5 Maintainability.....	8-3

**CONTENTS**

<b>Chapter and Section</b>	<b>Page</b>
9. Documentation.....	9-1
9.1 Conformance to Standards .....	9-1
9.2 Completeness.....	9-2
9.3 Understandability.....	9-2
9.4 Timeliness .....	9-3
9.5 Accuracy .....	9-3
9.6 Effectiveness .....	9-3
10. Product Change Notices .....	10-1
10.1 Sub-Elements .....	10-1
10.2 Contractual Agreement to U S WEST Technical Publication 77354.....	10-1
10.3 PCN Availability.....	10-1
10.4 PCN Classification.....	10-2
10.5 PCN CLEI Code Assignment .....	10-2
10.6 PCN Descriptive Information .....	10-3
10.7 PCN Installation Methods.....	10-3
10.8 PCN Installation Time Frame.....	10-3
10.9 Monthly/Quarterly PCN Reports .....	10-3
11. Engineering Complaints .....	11-1
11.1 Sub-Elements .....	11-1
11.2 Contractual Agreement to U S WEST Communications Technical Publication 77357 .....	11-1
11.3 Timely Response to Engineering Complaints (EC's) .....	11-1
11.4 Timely Response to Reopened Engineering Complaints .....	11-1
11.5 Satisfactory Response to Engineering Complaints .....	11-3
11.6 Satisfactory Response to Reopened Engineering Complaints .....	11-3
12. Installation Quality.....	12-1
12.1 Contractual Agreement to U S WEST Communications Technical Publication 77350 .....	12-1
12.2 Installation Audit.....	12-1
12.3 Installation Related Factors.....	12-1

## CONTENTS

Chapter and Section	Page
13. Engineering Services .....	13-1
13.1 Contractual Agreement to U S WEST Communications' Technical Publication 77351 .....	13-1
13.2 Application Engineering Capability Audit .....	13-1
13.3 Evaluation of Supplier's Order Documentation .....	13-2
13.4 Evaluation of Supplier's Application Engineering .....	13-3
13.5 Evaluation of Supplier's Technical and Administrative Ongoing Support Capability.....	13-3
14. Training .....	14-1
14.1 Engineering.....	14-1
14.2 Installation.....	14-3
14.3 Administration.....	14-3
14.4 Maintenance .....	14-3
15. Acronyms .....	15-1
16. References.....	16-1
16.1 Bellcore Documents .....	16-1
16.2 U S WEST Publications .....	16-1
16.3 Ordering Information .....	16-1
16.4 Trademarks .....	16-3
<b>Exhibits</b>	
14-1 Cover Letter to Performance Analysis Report.....	14-5
14-2 Statement of Purpose.....	14-6
14-3 Rating Explanation and Summary Pages .....	14-7
14-4 Individual Element Detail Page .....	14-9

## **1. Introduction and Overview**

With the merging of Pacific Northwest Bell, Northwestern Bell, and Mountain Bell into U S WEST Communications and the necessary restructuring to span the entire region, attention has been called to the interaction with our numerous suppliers. Many fine business relationships have developed since divestiture and it is important that a uniform approach be developed in working with suppliers across the region.

When purchasing services and products, U S WEST Communications provides suppliers with information on its requirements and standards. There is, however, a variance in how suppliers understand and or adhere to the requirements. In order to evaluate how well each supplier meets our needs, produces quality products, and provides service and product support; a report entitled "Performance Analysis Report" (PAR) has been developed.

This document titled "PAR Guidelines" describes expectations with regard to supplier service, products, and product support as well as a rating system used to evaluate each area. All ratings will be determined based on how the Suppliers performance impacts U S WEST Communications' revenues, expenses, and service to its customers.

It is intended that the PAR aid in improving communications between U S WEST Communications and the Supplier. It is also intended that the PAR will acknowledge suppliers who provide excellent service and products and allow for strengthening the mutual relationship. The report will also convey concerns and look for suppliers to correct any weakness as a condition for continuing a strong business relationship.

In the sections that follow are explanations of the rating system, performance expectations, and the measured elements in the performance analysis report. A sample of the cover letter for the performance analysis report and an example of the performance analysis report contents and layout can be found in the Exhibits.

## 2. Rating System

The rating system used in the Supplier performance analysis report for each Element and Sub-element is listed below:

- Better Than Expected
- Meets Expectations
- Near Expectations
- Below Expectations
- Unsatisfactory
- No Rating

The rating system used is designed to communicate clearly how U S WEST Communications perceives a supplier's performance and the degree of attention the Supplier is expected to place on improvement, if applicable. Once informed of the rating assigned, the Supplier will be asked to promptly correct deficiencies identified and make a concerted effort to meet or surpass the expected level of performance.

The rating will also be used to assist in determining future business decisions. Continually receiving ratings that indicate the Supplier is meeting or surpassing U S WEST Communications expected performance levels will have a positive affect on future product purchase decisions. Conversely, continued performance which does not meet expectations will have a negative affect on future product decisions.

A definition for each of the ratings is found in the following paragraphs.

- Better Than Expected
  - Surpasses U S WEST Communications' requirements, standards, needs, and expectations. There is a noticeable positive impact on U S WEST Communications' revenues, expenses, or service to its customers. The positive impact must produce results that are better than expected performance in one or more of these areas.
- Meets Expectations
  - Meets all U S WEST Communications' requirements, standards, needs, and expectations. All deficiencies and problems are resolved in a timely fashion. There is no negative impact on U S WEST Communications' revenues, expenses, or service to its customers.
- Near Expectations
  - Meets most U S WEST Communications' requirements, standards, needs, and expectations. Deficiencies and problems are usually resolved in a timely fashion. There is a minimum of negative impact on U S WEST Communications' revenues, expenses, or service to its customers. Improvement is still expected.

- Below Expectations
  - Does not meet several U S WEST Communications' requirements, standards, needs, and expectations. Deficiencies and problems may not always be resolved in a timely fashion. There may be some negative impact on U S WEST Communications' revenues, expenses, or service to its customers. One or more of these conditions may be present to warrant this rating. Improvement is required.
- Unsatisfactory
  - Does not meet U S WEST Communications' requirements, standards, needs, and expectations. Deficiencies and problems are not resolved in a timely fashion. There is an unacceptable negative impact on U S WEST Communications' revenues, expenses, or service to its customers. One or more of these areas may be affected to warrant this rating. Improvement is mandatory.
- No Rating
  - This rating is used when there is insufficient activity to rate an Element. It is also used when one of the other ratings does not apply for other reasons.

### **3. Frequency of Evaluations**

Conducting the described evaluations will be mutually beneficial to both the Supplier and U S WEST Communications. However, there must be reasonable criteria established to determine an appropriate need and frequency providing a balance between benefit and expended resources.

Switching systems are the heart of the Network and any weakness or failure of a system impacts very large numbers of customers simultaneously. Because of this potential service impact, all major U S WEST Communications suppliers of switching equipment will be evaluated at regular intervals.

Transport and ancillary products pose a potential service risk to large numbers of customers, generally in proportion to the quantity and placement of the product in the network. All of these factors will be analyzed by U S WEST Communications in determining the need and value of conducting a PAR evaluation. Following are the general guidelines on when evaluations will be performed.

Major U S WEST Communications suppliers of Central Office Switching Equipment will be evaluated Quarterly or Semi Annually.

All other suppliers will be evaluated when deemed necessary by U S WEST Communications with a follow up evaluation conducted within 12 months of the initial evaluation.

#### **4. Management Commitment and Support**

Management Commitment and Support is the evaluation of the Supplier's commitment to the support of the network products and services provided to U S WEST Communications. The evaluation of this Element will be comprised of sub-elements, which are:

- Management Commitment
- Problem Resolution
- Regional/National Forums Issue Resolution

Explanations of these sub-elements are found in the following paragraphs.

##### **4.1 Management Commitment**

The success of a supplier to provide professional services and products is a measure of the commitment of the management team to Quality and Reliability. Conversely, without management commitment to Quality and Reliability, no supplier can meet U S WEST Communications' expectations.

##### **Expectations**

When this sub-element is evaluated the following criteria will be used:

- The Supplier will handle the day to day interface with U S WEST Communications in an expeditious and professional manner.
- The Supplier will minimize the need or requirement for U S WEST Communications to escalate problems to higher levels of management within either U S WEST Communications or the Suppliers management structure.
- The Supplier will resolve quality and/or technical issues in a timely and reasonable manner.
- It is expected that Quality is a way of life within the Suppliers organizations not just another program that has to be followed.
- The Supplier is expected to meet or exceed the requirements in the Bellcore Quality Program Analysis, Manufacturing Program Analysis, Technical Analysis Reports, etc. and correct, in a timely manner, any deficiency identified.
- The Supplier is expected to promptly resolve all PCN issues brought to the attention of the Supplier by U S WEST Communications.
- The Supplier is expected to understand and adhere to the product evaluation and procurement policies of U S WEST Communications.

##### **4.2 Problem Resolution**

The sub-element of problem resolution measures the responsiveness of the Supplier to provide assistance and corrections for problems referred to them to ensure that U S WEST Communications' revenues, expenses, and service expectations/commitments are met.

## **Expectations**

The Supplier will resolve issues/problems/troubles referred to them in a manner consistent with the priority placed upon them by U S WEST Communications or its agents. Acceptable resolution times will be determined by U S WEST Communications. If questions arise, U S WEST Communications will be the final arbiter.

- **EMERGENCY** - Any situation or condition that has a significant and identifiable impact on Customer Service or billing. Immediate response is required.
- **SERVICE AFFECTING** - A problem/trouble or condition that causes a service or customer feature to function in a manner unsatisfactory to the customer or U S WEST Communications. Resolution time will be kept to a minimum to alleviate customer dissatisfaction.
- **NON-SERVICE AFFECTING** - Those situations or conditions that do not directly affect customer service but which may cause increased maintenance costs or complicate daily operations. Resolution will be per U S WEST Communications standards, practices, contracts, or as mutually agreed between U S WEST Communications and the Supplier.

### **4.3 Regional/National Forums Issue Resolution**

This sub-element of Management Commitment and Support evaluates the commitment of the Supplier to resolve issues raised in various Regional and National Forums.

## **Expectations**

The Supplier will resolve issues/problems presented to them from Regional or National Committee in an appropriate manner. Among these committees are the RRF, QORM, ESAC/SPC Documentation Committee, COMTTAG, etc., to ensure that U S WEST Communications' revenues, expenses, and service expectations/commitments are met.

## **5. Contractual Performance**

This element evaluates the supplier's adherence to and fulfillment of our expectations with respect to the contractual writings and/or our assumed contractual agreements and related supplier performance. Failure to comply with either the "letter" of the contract or other promises of performance will affect U S WEST Communications' ability to meet commitments to its customers and may result in lost revenues, resource scheduling errors and overall dissatisfaction with the supplier's "contractual performance".

### **5.1 Contracts**

Contracts include all legally enforceable oral or written understandings or agreements negotiated between U S WEST Communications and the supplier whether by our authorized procurement agent, U S WEST Business Resources, Inc., or any other person/agent duly authorized to act on behalf of U S WEST Communications. It is expected that Business Resources, Inc. will be a primary source of supplier performance information relative to this PAR element.

#### **Expectations**

The Supplier will fulfill all terms and conditions specified in contracts with U S WEST Communications, including but not limited to the following:

- Meets all delivery schedule dates.
- Product shipments are completed with no items missing.
- All items received are new and equipped with the latest features, technologies, and enhancements; unless otherwise specified by U S WEST Communications.
- All purchased software, firmware, and hardware must function as specified in U S WEST Communications specifications, suppliers specification, or as advertised when placed in service.
- Warranty and contractual commitments are adhered to.

### **5.2 Agreements**

Agreements between U S WEST Communications and the Supplier are sometimes made with the understanding that the Supplier will improve upon some conditions of the contract. Examples of such agreements are:

- Early delivery to permit U S WEST Communications to meet a customer's needs.
- Accelerated feature development.
- Feature Delivery.

### **Expectations**

The supplier is to be commended for their willingness to make changes, when possible, to assist U S WEST Communications in meetings its and/or their customer's needs and desires. When such implied changes/promises are made by any agent of the Supplier which would lead U S WEST Communications to reasonably believe they would be fulfilled, then these changes/promises will be looked upon in the same manner as Contracts and will be so evaluated.

## 6. Quality and Reliability of Software/Firmware

A series of terms have been defined in the following paragraphs, because of the varying number of terms used to identify pieces of software.

Program is a grouping of code and/or programs which provides for the control and processing of telecommunications information through the system. The functions and features provided by the program include, but are not limited to, the following:

- Call Processing
- Maintenance of the System
- Administration of the System
- Man Machine Communications
- System Recovery
- Integrity Checks
- Custom Calling Features for Telephone Customers
- Diagnostics
- Data Transfer
- Applications Programs

Program Release is defined as:

- Major improvements and changes made to the Program which cause a majority of the code or programs to be rewritten and recompiled.
- Major new features are added to the program which require a majority of the code or programs to be rewritten and recompiled.

Program Point Release is defined as:

- Minor improvements/changes made to the existing features of the program and a small number of programs have been rewritten.
- New features are added to the program.
- The number of patches released to the field for application have exceeded some predetermined number.
- The number of patches released to the field have caused the exhaust of the allocated patch area in the Program.

Software Correction (SC) is considered to be any modification to a program that is used to correct a problem (bug) or operational deficiency.

- Software Corrections may be single fixes or a combination of fixes bundled together for the convenience of either the Supplier or U S WEST Communications.

- Bundled patches are counted as the number of patches in the package and not a single fix.

## **6.1 Evaluation**

This element evaluates the quality and reliability of the software product delivered to U S WEST Communications by the Supplier. U S WEST Communications' ability to meet revenue, expenses, and service requirements are directly impacted by the Supplier's quality in this element. In the evaluation of this element there are sub-elements which will be measured and tracked both by U S WEST Communications and the Supplier. Because of their impact on U S WEST Communications' revenues, expenses, or service the sub-elements are:

- Software/Firmware Corrections
- Software Changes/Updates
- Regression Testing
- Product Support
- Software/Firmware Engineering Quality

## **6.2 Software/Firmware Corrections (SC's)**

### **Expectations**

- All Software/firmware Corrections will correct the described symptom/problem and cause no adverse affect on any other service, customer, or Billing Data process.
- Software/firmware Corrections identified in earlier Program Releases etc., will be propagated to all current Program Releases, etc. within two weeks of release.
- Software/firmware Corrections which have been included in the current Program Release will be recompiled in the next Program Release.

## **6.3 Software/Firmware Changes/Updates**

### **Expectations**

- Software/firmware changes will be completed as scheduled without negative impact on service, billing data maintenance functionality, or require modifications to ensure success.
- Delays caused by lack of hardware, incorrect supplier procedures, incorrect data provided by supplier, etc. are considered failures. Local modifications of the software to ensure loading as scheduled are considered failures for the purpose of this report.
- Any perceptible negative impact on service, customers, or Billing Data will cause the change/update to be considered unacceptable. For the purpose of this sub-element, service impact caused by the actual insertion process will not be considered as a failure unless the time exceeds the norm for that system.

- For Program Releases, the Supplier must reissue all of the software documentation and all corrections currently identified for previous releases will be brought forward to the new release.
- For Program Point Releases, the Supplier may recompile the Program and must reissue all of the documentation for the affected code and programs in a timely fashion (see the paragraph in Chapter 9 under “Timeliness”).

#### **6.4 Regression Testing**

##### **Expectations**

- There will be zero (0) service, customer, or billing data problems identified in any program release that were previously corrected and identified in some earlier release.
- Existing features will not be negatively impacted in any future software release.

#### **6.5 Product Support**

##### **Expectations**

- Supplier will provide software/firmware maintenance and correction support on the current Program Release and the two prior releases or a minimum of two years, which ever is longer, at the same level of support.
- Supplier will provide adequate software maintenance support for all earlier Program Releases so that it is cost effective to both U S WEST Communications and the Supplier.

#### **6.6 Software/Firmware Engineering Quality**

##### **Expectations**

- Supplier will engineer and provide software/firmware in a professional manner without local or external modifications to overcome engineering problems.

#### **6.7 Software Correction Delivery**

##### **Expectations**

- The Supplier will deliver all software additions and/or changes for each product in the format and mode as requested by U S WEST Communications.
- The application process of Software Corrections, either individual or bulked, will be design transparent to U S WEST Communications' customers.

## **7. Quality and Reliability of Hardware**

This rating area acknowledges a supplier's ability to provide quality and reliable hardware that meets U S WEST Communications' Standards. It also recognizes a supplier's commitment to provide on going evaluation and corrective action to ensure quality standards of U S WEST Communications are maintained throughout the life of the product. Ratings will be provided on the following sub-elements.

- Plug-in Failure Rate
- Hardware/Hardware Failure Rate
- Equipment Reliability
- Repair and Return
- Availability of Spare Parts

### **7.1 Plug-In Failure Rate**

This sub-element is an evaluation of how a Supplier's engineering and manufacturing of plug-ins impacts U S WEST Communications cost of maintaining the Supplier's product.

#### **Expectations:**

- The Supplier's design and manufacturing process will produce quality and reliable plug-in equipment.
- The Supplier will, on an ongoing basis, analyze plug-in equipment failures and document action plans for units with a high fall out rate.

### **7.2 Hardware/Hardware Failure Rate**

This sub-element is an evaluation of how a Supplier's engineering, manufacturing, and installation of non plug-in equipment impacts U S WEST Communications' cost of maintaining the Supplier's product.

#### **Expectations**

- U S WEST Communications' expectation is that hardware/hardware equipment will be engineered, manufactured, and installed to meet U S WEST Communications' requirement that non plug-in equipment will be, by definition, virtually maintenance free.

### **7.3 Equipment Reliability**

This sub-element is an evaluation of how a Supplier's equipment design would provide the reliability required.

#### **Expectations**

- U S WEST Communications' expectation is that no single hardware fault will cause the equipment to malfunction and have a negative impact on customer service.

#### 7.4 Repair and Return

This sub-element is an evaluation of how the Supplier supports his product via the repair and return process. This sub-element is made up of the following items:

- Timely Repair
- This sub-element evaluates the timeliness of the Supplier's repair and return process.

- **Expectations**

The Supplier is expected to have a repair and return process which will allow U S WEST Communications to maintain a minimum number of spare parts.

- Efficient Repair
- This sub-element evaluates the efficiency of the Supplier's repair and return process.

- **Expectations**

The Supplier's repair and return process will provide quality repaired equipment at reasonable costs.

The Supplier will, on an ongoing basis, track and evaluate returned equipment to identify and resolve the following conditions.

- Plug-in equipment that arrives at the Supplier's repair facility without defect.
- Plug-in equipment that is returned to U S WEST Communications defective.

U S WEST Communications and the Supplier will need to work cooperatively to resolve these issues.

#### 7.5 Availability of Spare Parts

This sub-element is an evaluation of how the Supplier supports his product with the timely availability of spare parts.

##### **Expectations**

- U S WEST Communications' expectation is that the Supplier will maintain adequate spare parts for equipment, in order to meet the needs of U S WEST Communications.

## **8. Product Performance**

This element evaluates the performance of the product delivered to U S WEST Communications by the Supplier. The sub-elements are:

- Customer Trouble Reports
- Outage/Degradations
- Billing Data Performance
- Feature Functionality
- Maintainability

### **8.1 Customer Trouble Reports**

Customer Trouble reports are a barometer of the service provided by the Suppliers product. By using comparisons they supply a picture of product performance. These reports are coded in a mechanized tracking system by equipment category where the trouble is found or not found.

Analysis of selected codes highlights possible system design deficiencies or areas that could use improvement.

It is understood that U S WEST Communications is a partner in meeting the expectations of this sub-element. It is our intent to hold the Supplier accountable only for those issues U S WEST Communications feels are the responsibility of the Supplier.

#### **Expectations**

- The Supplier will resolve design problems or omissions that have a negative effect on the Customer Trouble Report rates to U S WEST Communications' satisfaction.

### **8.2 Outages/Degradations**

#### **Expectations**

- The system will comply with and meet Bellcore recommendations for system outages and degradations.
- Our expectations are that the system will be measured using the System Failure Analysis Report (SFAR) cause codes as defined in Bellcore SR-TSY-000963 Network Switching Element Outage Performance Monitoring Procedures. U S WEST Communications endorses the procedures outlined in this document.
- Supplier will document the cause of all outages reported to them within 30 days of the outage or receipt of the SFAR which ever is first.

### **8.3 Billing Data Performance**

- Billing Data Performance refers to the gathering of information necessary to bill U S WEST Communications' Customers for usage of its service.

- **Expectations**

- There will be no loss of U S WEST or customer revenue that is attributed to the software, firmware, hardware, documentation, procedures, or supplier action/inaction.
- Billing Data problems reported to the Supplier will be handled within time frames acceptable to U S WEST Communications. The time frame is based on a predefined priority scheme or as agreed upon at the time the problem is referred to the Supplier.

#### **8.4 Feature Functionality**

##### **Expectations**

- All features will function as defined in supplier technical specifications, Product Specific Functional Specifications, Request for Feature (RFF), or as agreed upon between U S WEST Communications and the Supplier.
- All features will meet U S WEST Communications specifications, Bellcore specifications (LSSGR, OSSGR, OTGR, TSGR, PPSNGR, RQSSGR etc.), or as agreed upon between U S WEST Communications and the Supplier.
- Features will be delivered on time as promised.

#### **8.5 Maintainability**

##### **Expectations**

- The expectation is that the system can be maintained at a reasonable cost.
- Human machine interfaces will be simple and easily understandable.
- Cost of supplier support will be reasonable and reliable.
- Ease of Maintenance of a system can be measured by the Operations Department's ability to maintain the system without resorting to second tier and/or supplier support.
- An excellent measure of the ability to maintain a system is the incident of non-diagnosable faults. It is expected that all hardware faults will be isolated by system diagnostics.
- The design and architecture of a system has a direct impact on the maintainability. The expectation is that this design will not negatively impact our ability to supply reasonable, cost effective service and/or modification.
- The expectations are that the Supplier will work to minimize any negative impact on our ability to maintain a system caused by their design.

## **9. Documentation**

This Element evaluates the documentation provided by the Supplier which is used to Engineer, Install, Administer, and Maintain the products sold to U S WEST Communications.

Examples of the Supplier documents to be evaluated in this element are:

- Design Documents
- Maintenance Documents
- Installation Documents
- Administration Documents
- Information Documents
- Miscellaneous Documents

The sub-elements to be evaluated are:

- Conformance to Standards
- Completeness
- Understandability
- Timeliness
- Accuracy
- Effectiveness

### **9.1 Conformance to Standards**

#### **Expectations**

The Supplier must agree to and provide documents that conform to U S WEST Communications standards as published in the U S WEST Technical Publications (Tech PUBS) and BELLCORE Technical References (TRs). These documents are listed in the Reference section of this document.

### **9.2 Completeness**

#### **Expectations**

This sub-element evaluates the completeness of a document. A supplier document will be considered complete if it possesses all necessary parts and is thorough.

### **9.3 Understandability**

#### **Expectations**

This sub-element evaluates the understandability of a document. The document must be written so that tasks described can be performed easily and without assistance. A supplier document is understandable if it is technically meaningful to the intended audience.

## **9.4 Timeliness**

### **Expectations**

This sub-element evaluates the timeliness of a document. Documents must be delivered prior to new product introduction so they can be used with the initial installation and maintenance activity. When changes in existing equipment mandate new documentation, it is essential that the new documentation precede the change. A supplier document will be considered timely if it is provided during the specified time frame.

## **9.5 Accuracy**

### **Expectations**

This sub-element measures the accuracy of a document. The Supplier's document is considered accurate if it is free from error and conforms exactly to a standard.

## **9.6 Effectiveness**

### **Expectations**

This sub-element evaluates the effectiveness of a document. Supplier documents will be considered effective if they are usable by the intended audience, clearly describe the task/function being defined and fulfill the intent of the document.

## **10. Product Change Notices**

Performance by the Supplier in the following Product Change Notice (PCN) sub-elements will be evaluated:

### **10.1 Sub-Elements**

- Contractual Agreement to U S WEST Technical Publication 77354
- PCN Availability
- PCN Classification
- PCN CLEI Code Assignment
- PCN Description Information
- PCN Installation Methods
- PCN Installation Time Frame
- Monthly/Quarterly PCN Reports

### **10.2 Contractual Agreement to U S WEST Technical Publication 77354**

#### **Expectations**

The Supplier shall agree to abide by the terms of U S WEST Technical Publication 77354, "Guidelines For Product Change Notices".

### **10.3 PCN Availability**

#### **Expectations**

The Supplier shall issue to the U S WEST Communications PCN Coordinator all PCN's applicable to their product utilized by U S WEST Communications, in accordance with U S WEST Communications' Technical Publication 77354.

### **10.4 PCN Classification**

#### **Expectations**

The Supplier shall properly classify PCN's with the appropriate A, B, or D Classification in accordance with the requirements of U S WEST Communications' Technical Publication 77354.

### **10.5 PCN CLEI Code Assignment**

#### **Expectations**

The Supplier shall provide changed CLEI coding for all PCN's as specified by the requirements of U S WEST Communications' Technical Publication 77354.

## **10.6 PCN Descriptive Information**

### **Expectations**

The Supplier shall include sufficient detail, as required by U S WEST Communications' Technical Publication 77354, in the narrative text of their PCN so as to allow U S WEST Communications to accurately ascertain the following:

- Supplier product/system being changed.
- Reason for the change.
- Effect of the change on service, earnings, reliability etc.
- What specifically is being changed on the product, components, software, firmware etc.
- How and where the change will be accomplished.
- How the installed change will be tested or verified to ensure that the trouble condition was corrected by the PCN.

## **10.7 PCN Installation Methods**

### **Expectations**

The application of the PCN by a Supplier or U S WEST Communications, while utilizing Supplier recommended materials and procedures, shall not negatively impact U S WEST Communications in any fashion. The Supplier shall provide accurate and concise methods and procedures to be utilized during the application, by the Supplier or U S WEST Communications, of a PCN. The methods and procedures provided must be agreed to by U S WEST Communications in advance of the PCN installation. PCN's installed by the Supplier must be performed in accordance with U S WEST Communications technical standards.

## **10.8 PCN Installation Time Frame**

### **Expectations**

The Supplier shall apply all Supplier PCN's within the time constraints imposed either by PUB 77354 or such time frames as may have been locally negotiated with representatives from the U S WEST Communications PCN Coordinator or the area Maintenance Engineering PCN Coordinator.

## **10.9 Monthly/Quarterly PCN Reports**

### **Expectations**

The Supplier shall release Monthly status reports regarding Supplier PCN activity in accordance with the provisions of U S WEST Communications Technical Publication 77354. Quarterly PCN summary reports must provide notification to U S WEST Communications of all PCN's released, pending, and completed by the Supplier, as appropriate.

## **11. Engineering Complaints**

This element evaluates the Supplier's willingness and ability to meet the requirements of U S WEST Communications Technical Publication 77354, "Guidelines for Engineering Complaints and Operational Trouble Reports". The sub-elements are as follows:

### **11.1 Sub-Elements**

- Contractual agreement to U S WEST Communications Technical Publication 77357
- Timely response to engineering Complaints (EC's)
- Timely response to reopened Engineering Complaints
- Satisfactory response to Engineering Complaints
- Satisfactory response to reopened Engineering Complaints.

### **11.2 Contractual Agreement to U S WEST Communications Technical Publication 77357**

#### **Expectations**

To meet U S WEST Communications expectations on this sub-element, the Supplier must have agreed to U S WEST Communications Technical Publication 77357 in the umbrella agreement currently in force. If the Supplier does not comply to this expectation, it will mean a rating of Unsatisfactory for this sub-element.

### **11.3 Timely Response to Engineering Complaints (EC's)**

#### **Expectations**

The Supplier will provide a final report on each Engineering Complaint to the U S WEST Communications EC Coordinator within 90 days from the date that the Engineering Complaint was originally sent to the Supplier as defined in U S WEST Communications Technical Publication 77357.

### **11.4 Timely Response to Reopened Engineering Complaints**

#### **Expectations**

The Supplier will provide a final report on each reopened Engineering Complaint to the U S WEST Communications EC Coordinator within 30 days from the date that the Engineering Complaint was reopened with the Supplier as defined in U S WEST Communications Technical Publication 77357.

### **11.5 Satisfactory Response to Engineering Complaints**

#### **Expectations**

The final engineering Complaint report received by the U S WEST Communications EC Coordinator will result in the Supplier's product/services conforming to supplier and/or U S WEST Communications requirements and specifications.

### **11.6 Satisfactory Response to Reopened Engineering Complaints**

#### **Expectations**

The re-issued final Engineering Complaint report received by the U S WEST Communications EC Coordinator will result in the Supplier's product/services conforming to Supplier and/or U S WEST Communications' requirements and specifications.

## **12. Installation Quality**

This element evaluates the Supplier's willingness and ability to meet the requirements of U S WEST Communications Technical Publication 77350, "Central Office Telecommunications Equipment Installation and Removal Guidelines. This element is comprised of the following sub-elements which are evaluated by U S WEST Communications.

- Contractual Agreement to U S WEST Technical Publication 77350
- Installation Audit
- Installation Related Factors

### **12.1 Contractual Agreement to U S WEST Communications Technical Publication 77350**

#### **Expectations**

To meet U S WEST Communications' expectations for this sub-element, the Supplier must have agreed to meet the terms and conditions of U S WEST Communications Technical Publication 77350 as currently in force. If the Supplier does not comply with this expectation, it will result in a rating of Unsatisfactory for this sub-element.

### **12.2 Installation Audit**

Installation Audit data measuring the workmanship of the installation process is provided to each team leader as required by the U S WEST Communications Installation Quality Assurance organization. This data is derived from audits conducted on a sample basis of the Supplier's installations. The audit process has been specifically developed to measure installation workmanship. Its output is readily converted to the rating system developed for use in the Performance Analysis Report (PAR).

#### **Expectations**

It is expected that the Supplier will receive a HIGH rating in all categories of the Installation Audit.

### **12.3 Installation Related Factors**

Additional items to be evaluated as a part of a successful equipment installation include the following:

- Service Protection
- Environmental Protection
- Safety
- Timeliness
- Responsiveness

- Administration
- Housekeeping

**Expectations**

There will be no negative service impact or loss of U S WEST Communications' or customer revenue that is attributable to supplier action/inaction relative to the stated attributes.

The Installation Supplier will conduct themselves in a professional manner that meets the needs of the local maintenance organizations. This includes adherence to all requirements of local U S WEST Communications' organizations to protect customer service and/or environmental integrity.

### **13. Engineering Services**

This element evaluates the Supplier's willingness and ability to meet the requirements of U S WEST Communications Technical Publication 77351, "Central Office Telecommunications Equipment Engineering Standards". Failure to meet the requirements of U S WEST Communications Technical Publication 77351 or promises of performance negotiated in good faith frequently affects U S WEST Communications' ability to meet commitments to its customers, causes lost revenues, affects force scheduling and/or adds expense to doing business. This element is comprised of the following sub-elements which are evaluated by U S WEST Communications.

- Contractual Agreement to U S WEST Technical Publication 77351
- Application Engineering Capability Audit
- Evaluation of Supplier's Order Documentation
- Evaluation of Supplier's Application Engineering
- Evaluation of Supplier's Technical and Administrative Ongoing Support Capability

#### **13.1 Contractual Agreement to U S WEST Communications' Technical Publication 77351**

##### **Expectations**

To meet U S WEST Communications expectations for this sub-element, the Supplier must have agreed to meet the terms and conditions of U S WEST Communications' Technical Publication 77351 as currently in force. If the Supplier does not comply with this expectation, it will result in a rating of Unsatisfactory for this sub-element.

#### **13.2 Application Engineering Capability Audit**

This sub-element evaluates the Supplier's capability to fulfill their agreements to engineer for the incorporation of their products into Central Office Switching Transmission, and other systems.

##### **Expectations**

The Supplier will provide an Engineering Service consistent with contract provisions, their stated engineering instructions, and U S WEST Communications' orders.

#### **13.3 Evaluation of Supplier's Order Documentation**

This sub-element evaluates the on time and accurate delivery of Order Documents (e.g., specifications, drawings, records, etc.).

### **Expectations**

The Supplier Order Documents will be delivered to meet job order dates as specified in the contract or subsequently negotiated. The Supplier will strive for error free Order Documentation.

### **13.4 Evaluation of Supplier's Application Engineering**

This sub-element evaluates the Suppliers performance in meeting the engineering requirements of U S WEST Communications and the Suppliers own Engineering documentation.

### **Expectations**

The Suppliers Engineering Services will meet the requirements of U S WEST Communications' Technical Publication 77351, other documentation specified in U S WEST Communications' ordering information, and the Suppliers internal engineering documentation.

### **13.5 Evaluation of Supplier's Technical and Administrative Ongoing Support Capability**

This sub-element evaluates the Supplier's ability to provide ongoing product support of its products during installation and throughout the product life cycle.

### **Expectations**

The Supplier will provide ongoing support to ensure that their products and services meet all specified requirements.

## **14. Training**

The analysis of a supplier's training program is a review of the Supplier's commitment to provide timely, understandable, complete, and cost effective training. The training is directed at supplier provided equipment and is composed of these major sub-elements:

- Engineering
- Installation
- Administration
- Maintenance

The evaluation will determine whether or not the Supplier's training program provides satisfactory instruction to engineer, install, administer, and maintain the product.

Each sub-element will be evaluated based on:

- Completeness - The training is complete if it possesses all necessary parts, and is thorough.
- Understandability - The training is understandable if it is technically meaningful to the intended audience.
- Timeliness - The training is timely if it is provided in the specified time frame.
- Applicability - The training is applicable if it is current with product evolution and has job relevance.
- Accuracy - The training will be free from error.

### **14.1 Engineering**

#### **Expectations**

Suppliers must provide training to engineer, provision, and accept the product. U S WEST Communications expects that the training will meet the criteria mentioned above.

Items for consideration in the review of engineering training:

- System Overview
- Equipment Ordering
- Capacity Calculations
- Parameter Calculations
- Power Requirements
- Size and Cost Requirements
- Engineering Support Systems

- Associated Equipment Interfaces
- Environmental
- Floor Plan Layout

## **14.2 Installation**

### **Expectations**

Suppliers installation training will meet all U S WEST Communications' requirements, which includes the necessary instructions to install, test, and place the product in service. All training must communicate current U S WEST Communications Installation Standards and reinforce that these standards must be met.

## **14.3 Administration**

### **Expectations**

Administration provides for the optimum performance of the product with regard to location dependent data (software), form required, measurement requirements, and data administrative monitoring.

Items for consideration in the review of administration training:

- Capacity Determinations
- System Overview
- Data Systems
- Translations
- System Measurements
- Loading Plans
- Memory Administration
- Realtime Considerations and Impacts
- Data Base Administration

Training must be available for the personnel responsible for the administration of this product before and after installation. This training must be adequate to support all documentation.

## **14.4 Maintenance**

### **Expectations**

The Supplier will provide training to U S WEST Communications' personnel to properly maintain their product. Our maintenance forces must have training so that, with the aid of documentation and tools (hardware and software), they can handle day to day and critical situations.

Suppliers will provide a training program which consists of tier one (day to day) maintenance and tier two (advance) maintenance.

Items for consideration in the review of maintenance training:

- System Overview
- System Fundamentals
- Operations
- Data Base Maintenance
- Surveillance
- Support Maintenance
- Thought Process for Solving Critical Situations
- Software Analysis Techniques

Denver, Colorado  
(DATE)

(Supplier Name)  
(Supplier Address)

SUBJECT: PERFORMANCE ANALYSIS REPORT - (REPORT-PERIOD)

The attached Performance Analysis Report (PAR) provides a summary of U S WEST Communications perception of (Supplier Name) Network Products, Technical Support and Service for the (Report Period). The report provides a consolidation of information and views from across all Network Switching organizations including Operations, Engineering, AMA/Billing, ESAC, and Maintenance Engineering/Quality Assurance, along with input from Business Resources, Inc. Procurement and Contracting forces. The report will be issued on a periodic basis.

We ask that your Corporation review the report and be prepared to discuss (Supplier Name) action plan for improving those elements having ratings less than "Meets Expectations". We will be pleased to schedule a meeting with you to discuss the report and review your improvement plan.

Should you have any questions regarding Switching issues, please call (Name and Telephone No.) or (Name and Telephone No.).

Yours Truly,

(Name)  
Director-Network Staff Support  
U S WEST Communications

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**Exhibit 1** Cover Letter to Performance Analysis Report

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### PERFORMANCE ANALYSIS REPORT (PAR)

The purpose of the Performance Analysis Report is to provide an evaluation of supplier Network Products, Technical Support and Service performance as compared to U S WEST Communications expectations and/or standards set forth for each element listed. A full description of each element and the performance benchmarks established are described in a document titled "Performance Analysis Report Guidelines".

The rating system used is designed to communicate clearly how U S WEST Communications perceives a supplier's performance and the degree of attention the Supplier is expected to place on improvement, if applicable. Once informed of the rating assigned, the Supplier will be asked to promptly correct deficiencies identified and make a concerted effort to meet or surpass the expected level of performance.

The rating will also be used to assist in determining future business decisions. Continually receiving ratings that indicate the Supplier is meeting or surpassing U S WEST Communications expected performance levels will have a positive affect on future product purchase decisions. Conversely, continued performance which does not meet expectations will have a negative affect on future product purchase decisions.

The report is confined to only those elements listed for evaluation period specified. All information contained is considered proprietary, and its distribution and use is intended solely for internal use and in communicating with the supplier being evaluated.

This document is intended to assure that U S WEST Communications' needs are met and is not to be considered a suggestion that the supplier design or produce a product just for U S WEST Communications. It is expected that through periodic use of this report process, the supplier will clearly understand our needs and expectations and also how U S WEST Communications views their performance regarding those expectations.

It is a desire that both the Supplier and U S WEST Communications benefit from this process in achieving an excellent business relationship based on mutual respect and understanding. U S WEST Communications reserves the right to add, delete or revise this document for any reason.

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SHALL BE DISTRIBUTED ONLY WITHIN U S WEST AND TO THE  
SUPPLIER NAMED IN THIS REPORT, EXCEPT WITH WRITTEN  
PERMISSION OF U S WEST AND THE SUPPLIER.

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### Exhibit 2 Statement of Purpose

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**PERFORMANCE ANALYSIS REPORT**

**PAGE**

(Report Date)

The Performance Evaluation Report measures activity and interactions with (Supplier Name) against established U S WEST Communications expectations and/or standards. A full description of the expectations and standards is contained in a separate document titled "Performance Analysis Report Guidelines".

The ratings used to describe performance levels are described below:

<b><u>RATING</u></b>	<b><u>DESCRIPTION</u></b>
Better Than Expected	Surpasses U S WEST Communications requirements, standards, needs, and expectations. There is a noticeable positive impact on U S WEST Communications' revenues, expenses, or service to its customers. The positive impact must produce results that are better than expected performance in one or more of these areas.
Meets Expectation	Meets all U S WEST Communications requirements, standards and expectations. All deficiencies and problems are resolved in a timely fashion. There is no negative impact on U S WEST Communications' revenues, expenses, or service to its customers. Improvement is still expected.
Near Expectations	Meets most U S WEST Communications requirements, standards and expectations. Deficiencies and problems are usually resolved in a timely fashion. There is a minimum of negative impact on U S WEST Communications' revenues, expenses, or service to its customers. Improvement is still expected.
Below Expectations	Does not meet several U S WEST Communications requirements, standards and expectations. Deficiencies and problems may not always be resolved in a timely fashion. There may be some negative impact on U S WEST Communications' revenues, expenses, or service to its customers. One or more of these conditions may be present to warrant this rating. Improvement is required.
Unsatisfactory	Does not meet several U S WEST Communications requirements, standards and expectations. Deficiencies and problems are not resolved in a timely fashion. There is an unacceptable negative impact on U S WEST Communications' revenues, expenses, or service to its customers. One or more of these conditions may be present to warrant this rating. Improvement is mandatory.
No Rating	This rating is used when there is insufficient activity to rate an Element. It is also used when one of the other ratings does not apply for other reasons.

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**Exhibit 3 Rating Explanation and Summary Pages (1 of 2)**

**PERFORMANCE ANALYSIS REPORT**

**PAGE**

(Report Date)

Executive Summary:

An Executive Summary would appear in this space.

Measured Element Ratings

Elements	(Period) Rating	(Period) Rating	(Period) Rating	(Period) Rating
Management Commitment & Support				
Contractual Performance				
Quality & Reliability of Hardware				
Product Performance				
Documentation				
Product Change Notices				
Engineering Complaints				
Installation Quality				
Engineering Services				
Training				

Legend:      Better Than Expected      Meets Expectations  
                  Near Expectations      Below Expectations  
                  Unsatisfactory      No Rating

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**Exhibit 3** Rating Explanation and Summary Pages (2 of 2)

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**PERFORMANCE ANALYSIS REPORT PAGE**

(Report Date)

Management Commitment & Support - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Contractual Performance - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Quality & Reliability of Software/Firmware - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Quality & Reliability of Hardware - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Product Performance - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Product Change Notices - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Engineering Complaints - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Installation Quality - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Engineering Services - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

Training - Rating \_\_\_\_\_

Narrative description for the rating given to the element.

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**Exhibit 4 Individual Element Detail Page**

## 15. Acronyms

CLEI	Common Language Equipment Identification
COMTTAG	Central Office Maintenance Technical Training Advisory Group
LSSGR	Lata Switching Systems Generic Requirements
OSSGR	Operator Switching Systems Generic Requirements
OTGR	Operation Technology Generic Requirements
PPSNGR	Public Packet Switching Network Generic Requirements
QORM	Quality Operations Reliability and Maintenance
RRF	Reliability Review Forum
TQSSGR	Reliability and Quality Switching Systems Generic Requirements
TSGR	Transport System Generic Requirements

## **16. References**

### **16.1 Bellcore Documents**

TR-TSY-000064	Lata Switching Systems Generic Requirements
TR-TSY-000271	Operator Services Systems Generic Requirements
TR-TSY-000284	Reliability and Quality Switching Systems Generic Requirements
TR-TSY-000301	Public Packet Switching Network Generic Requirements
TR-TSY-000439	Operations Technology Generic Requirements
TR-TSY-000499	Transport System Generic Requirements

### **16.2 U S WEST Publications**

PUB 77002	Technical Drawing Media Standards
PUB 77351	Central Office Telecommunications Equipment Installation and Removal Guidelines
PUB 77353	Central Office Telecommunications Equipment Engineering Standards
PUB 77354	Guidelines for Product Change Notices
PUB 77357	Guidelines for Engineering Complaints and Operational Trouble Reports
PUB 77361	Common Language® Equipment Classification and Bar Code Labeling Requirements for Central Office Equipment

### **16.3 Ordering Information**

All documents are subject to change and their citation in this document reflects the most current information available at the time of printing. Readers are advised to check status and availability of all documents.

Ordering Information for Employees of U S WEST Communications, Inc.

Information Resource Management (IRM)  
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Denver, CO 80202  
(303) 298-1025 or (303) 298-1778

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