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October 8, 2003

BY EMAIL AND FEDERAL EXPRESS

Ms. Carole J. Washburn, Executive Secretary
Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive, S.W.
Olympia, WA 98504-7250

Re: WUTC Docket No. UT-023003

Dear Ms. Washburn:

The following responds to the two questions posed by ALJ Mace to Verizon NW at the September 25 hearing on AT&T's Motion to Strike Verizon's Cost Model.

I. AT&T Has Failed To Provide Any Support for Its New Argument That Verizon Should Be Deprived of the Opportunity to Introduce the Results of Its Cost Studies Simply Because They Are Derived from an Internet-Based Process or System.

At the hearing, AT&T fundamentally altered its attack on Verizon's VzCost model. AT&T now asserts that the Commission should preempt any comparative judgment about the relative merits of HM 5.3 and VzCost -- without any opportunity to address any of the evidence to be submitted by any party on this question at a hearing -- simply because VzCost is a web-based model located on a Verizon server that is not itself part of the record. AT&T has provided no legal or factual support for this suggestion, which is clearly contrary to well recognized rules of evidence adopted by the Commission as described below.[1/] Indeed, depriving the Commission at the threshold of any opportunity to make such comparative judgments about HM 5.3 and VzCost would be particularly at odds with the "major reason for the creation of administrative agencies," which is to permit flexibility in fact-finding appropriate for expert agencies charged with the task of "weighing intangibles 'by specialization, by insight gained through experience, and by more flexible procedure.'"[2/]

1/ There is also no small irony to AT&T's suggestion, in light of its full and complete access to VzCost, compared to its continued efforts to avoid providing Qwest and Verizon with access to the customer location data and software programs critical to its own model.

2/ *Washington Utils. & Transp. Comm'n v. FCC*, 513 F.2d 1142, 1158 (9th Cir. 1975), quoting *Far East Conference v. United States*, 342 U.S. 570, 575 (1952).

In light of this basic principle of administrative law, it is important to note at the outset that Washington administrative agencies are "not bound to strictly apply the rules of evidence."[3/] Rather, in assessing the admissibility of cost studies based on VzCost, the question is whether those studies constitute the "kind of evidence on which reasonably prudent persons are accustomed to rely in the conduct of their affairs." WAC 480-09-740; Wash. Rev. Code § 34.05.452(1) (2003). As set forth in Verizon's testimony, and as the hearing in this case will provide the Commission with an opportunity to evaluate in greater detail, three factors combine easily to satisfy this standard of admissibility here: (1) the flexibility, economy, and other benefits of web-based computer programs, (2) the disclosure by Verizon of all key data inputs and algorithms underlying VzCost,[4/] and (3) the accuracy, reliability, reproducibility, and unalterability of the VzCost calculations underlying the cost studies Verizon seeks to introduce into evidence.

Nevertheless, AT&T's argument would fail even under the rules of evidence that would apply in traditional judicial proceedings. As those rules have long recognized, evidence is not inadmissible simply because it is derived from a computer program (or other process) that is itself not placed in evidence. The Washington courts have adopted the Federal Rules of Evidence, which provide that computer-based evidence may be authenticated by "[e]vidence describing a process or system used to produce a result and showing that the process or system produces an accurate result." Fed. R. Evid. 901(b)(9); Wash. R. Evid. R. 901(b)(9). The Advisory Committee Notes to the federal rules make clear that it is expressly "designed for situations in which the accuracy of a result is dependent upon a process or system which produces it." Fed. R. Evid. 901(b)(9) Advisory Comm. Notes, Ex. 9. And they also note in particular that the computer is one of the more recent applications of this rule. *Id.*

As noted above, AT&T has not clearly articulated its new argument, much less provided any legal or factual support for it. But its effort at avoiding comparative consideration of VzCost and HM 5.3 appears now to be based on a purported distinction between those computer models that can be run on standalone computers and web-based models that are run on an outside server. There is no support for such a distinction. As the leading treatise makes clear, "the admissibility of information found on an Internet web site is subject to the same foundational requirements that apply to other computer-based evidence."[5/] And decisions of this Commission regularly support the use of data obtained from computer models, whose algorithms and processes are

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3/ *Dep't of Transp., Washington State Ferries Div. v. Inlandboatmen's Union of the Pacific*, 13 P.3d 663, 668 (Wash.Ct.App.Div. 2 2000). *See also Clausing v. State*, 955 P.2d 394, 402 (Wash.Ct.App.Div. 1 1998); *Duwamish Valley Neighborhood Preservation Coalition v. Central Puget Sound Growth Mgmt. Hearings Bd.*, No. H523-9-I, 1997 WL 1113658, *4 n.24 (Wash.Ct.App.Div. 1 Sept. 24, 1997).

4/ Verizon filed on June 26 all underlying data inputs and most of the relevant algorithms included in the VZCost Model. Verizon will file all remaining algorithms by October 20, 2003.

5/ *Weinstein's Federal Evidence* § 900.07[5]; *see also* G. Joseph, *Internet and E-Mail Evidence*, 13 No. 2 Practical Litigator 45, 46 (March 2002) ("[T]he authentication standard is no different for Web site material . . . than for any other.").

available to opposing parties, without regard to whether those models themselves are included in an administrative record.[6/]

In this regard, Verizon's reliance on VzCost is no different from countless other systems or processes upon which parties rely, based upon similar testimony about their reliability, without physically introducing them into evidence. A classic example repeatedly addressed by the Washington courts involves the admissibility of police traffic radar results. So long as the parties provide testimony that the "device [i]s functioning properly" along with "qualified expert testi[mony] that the particular device passed the requisite tests and checks to ensure its operational accuracy," the results of such studies are "properly admitted into evidence."[7/] In the same way, the Washington courts have admitted results from chemical and microscopic drug tests used in drug possession proceedings.[8/] The requirement of admissibility for evidence derived from web sites is thus "no different than that . . .to authenticate a photograph, other replica, or demonstrative exhibit." In all such cases, "[t]he witness may be lying or mistaken, but that is true of all testimony and a principal reason for cross-examination."[9/] Courts do not summarily dismiss such results simply because the physical process or system used to obtain them (as opposed to a description of that process or system, the underlying assumptions,and its reliability) has not been admitted into evidence.

In short, there is no support for AT&T's effort to exclude evidence of costs derived from VzCost. As in countless other cases, courts and administrative agencies rely on the surrounding testimony as developed at a hearing before making conclusions about the reliability of such evidence. While all computer models are typically subject to some form of scrutiny based on the opportunity for discovery and testimony at a hearing, we are not aware of any cases where a tribunal has determined prior to hearing that computer-generated data is unacceptable. Rather, the critical question is whether all parties have had ample opportunity to verify and address the reliability and accuracy of the model used to generate the data.[10/] Nowhere should that

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6/ *See, e.g., Petition of Puget Sound Power & Light Co. for an Order Regarding the Accounting Treatment of Residential Exchange Benefits,* 1993 Wash. UTC LEXIS 84, *67 (Sept. 21,1993) (discussing the use of a production costing system computer model to develop normalized pro forma power supply costs); *PacifiCorp Electric Least Cost Plan,* 1995 Wash. UTC LEXIS 7, *9 (Feb. 15, 1995) (commended improvements in computer modeling used to evaluate resource efficiency and based upon cost-effectiveness calculations).

7/ *City of Bellevue v. Lightfoot,* 877 P.2d 247, 251-52 (Wash.Ct.App.Div. 1 1994), discussing *City of Seattle v. Peterson,* 693 P.2d 757 (Wash.Ct.App. 1985) and *City of Bellevue v. Mociulski,* 756 P.2d 1320 (Wash.Ct.App. 1988)).

8/ *State v. Garland,* 2000 WL 123989 (Wash.Ct.App.Div. 1 Jan. 31, 2000).

9/ Joseph, *supra,* at 5, citing *ACTONet, Ltd. v. Allou Health & Beauty Care,* 219 F.3d 836, 848 (8th Cir. 2000).

10/ *See, e.g., Seattle Master Builders Assn. v. Pacific Northwest Elec. Power and Conservation Planning Council,* 786 F.2d 1359, 1370 (9th Cir. 1986) (accepting cost effectiveness forecasts derived from computer simulation program where petitioners failed to present evidence at the hearing raising serious doubts about the accuracy or reliability of the program); *Ohio v. U.S.E.P.A.,* 784 F.2d 224 (6th Cir. 1986) (rejecting EPA air pollution limitations standards where EPA failed to show, in the record, the accuracy of computer model used to set limits); *Application of Houston Lighting and Power Co. for Approval of Notice of Intent,* 1994 Tex. PUC LEXIS 68, *73-77 (May 25, 1994) (discussing only the reliability and accuracy of computer model used to perform analysis of supply-

established rule be more appropriate than in the case of computer cost models, in light of the Commission's familiarity with and endorsement of such models,[11/] and the public policy favoring the availability of alternative models in addressing the highly complex questions associated with establishing UNE rates.

II. Although Verizon Can Create a Standalone Version of Its Cost Model to Run on the Commission's (or Another Party's) Computers, Verizon's Web-Based Approach is More Reasonable, Efficient and Practical.

As discussed above, the law is clear that the Commission may adopt UNE rates that were developed using a web-based model, subject to a demonstration at hearing of the reliability of the model's results. In any event, in response to a question posed by ALJ Mace at the September 25 hearing, Verizon and its outside vendors have determined that it is possible to create a standalone version of VzCost that the Commission or another party can run on a computer. Verizon strongly believes, however, that its web-based approach is not only legally permissible, but more reasonable, efficient and practical.

As Attachment A explains, Verizon can load a standalone version of VzCost onto the Commission's computer pursuant to a three-step process:

1. The standalone computer would need at least 4 GB of memory, 100 GB of hard disk space, a back up disk drive, and a processor that runs at a speed of at least 1.5 GHz. The computer would also have to be loaded with specific server and other software, including Microsoft Windows 2000 Server, Microsoft .NET Framework, Microsoft Internet Information Services, Oracle, Java Virtual Machine, and Apache Xerces2 Java XML Parser. Verizon estimates the cost of all of the necessary software licenses to be approximately $20,000. This computer would have to be dedicated to running VzCost and could not be used to run any other applications, although it could be connected to the Commission's or party's internal network so that multiple internal users could access the model at the same time.

2. Verizon's vendor, Answerthink, would have to extract the Washington network data and related input files from VzCost for use on the standalone computer. Because VzCost was not designed to extract data in this manner, this step would cost approximately $46,000 and take approximately five weeks to complete.

3. Verizon would provide the personnel to load VzCost and the Washington-specific data onto the Commission's computer, which would take approximately two days to complete. The Commission's or other party's database administrator would be

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side alternatives and permitting use of such model even where no evidence that such model was placed in the record). *Cf.,* Final Order, *Application of Virginia Electric and Power Co. to Revise Rate Schedule 19*, 1985 Va. PUC LEXIS 253, *9-11 (Nov. 15, 1985) (refusing to rely upon computer program as "basis of proof in a proceeding such as this one" where program was not shown at the hearing "to produce valid results").

11/ *See supra* n. 6.

responsible for monitoring the performance of the computer, performing periodic maintenance, and ensuring that the Commission's software is kept up-to-date.

Thus, although it is possible to make VZCost available on a standalone basis, Verizon strongly believes that the Commission should not require Verizon to make this option available. Verizon has spent years and over $14 million developing a robust, Internet-based architecture that addresses concerns raised by the CLECs about previous cost models, including complaints by the CLECs that they were required to purchase and maintain software in order to run Verizon's cost models. Under Verizon's web-based approach, Verizon purchases most of the hardware[12/] and all of the software necessary to run VzCost, and is responsible for maintaining the software and databases. In addition, because all VzCost users access the *same* version of VzCost through the Internet, all users receive the benefit of periodic updates to VzCost. Verizon's web-based approach also allows it to more easily provide technical support to the parties through its help desk.[13/]

* * * *

For the foregoing reasons, the Commission should reject AT&T's motion to strike Verizon's cost model. There is clearly no merit to AT&T's claim that the Commission may not adopt UNE rates that were developed using a model that is not physically located in the Commission's file. Moreover, although Verizon's web-based approach is plainly superior and should be adopted, Verizon will create a standalone version of its VzCost model if ordered by the Commission. [14/]

Finally, as Verizon explained in its response to AT&T's Motion to Strike, filed on September 18, 2003, the fact that certain parties have had difficulty running Verizon's model is not a reason to strike it at this early stage in this proceeding.[15/] If the parties are having trouble navigating through Verizon's VzCost model, Verizon renews its offer to make its employees available for technical conferences or conference calls to answer any questions.

12/ Users need only a computer and Internet explorer to run VzCost via the Internet.

13/ A web-based model offers the following additional benefits: (1) anytime, anywhere access; (2) access to large and highly diverse data sources; (3) the ability to upload and include a wide range of file types (not only Word and Excel but a great variety of files that can contain pictures, blueprints, Adobe, etc.); (4) restricted access; (5) the ability to reach common data from a wide range of geographies; (6) superior security management; (7) the ability to maintain the integrity of files and information (against accidental deletes); and (8) productivity gains from common resources and common updating.

14/ We also note that the Commission just recently adopted a rule that requires the ILECs to offer the CLECs an internet-based method for updating their E911 records. Thus, the Commission itself has recognized the benefits of web-based approaches. *See* Order No. 1, Docket No. UT-030455 (June 11, 2003).

15/ *See Houston Lighting, supra* n.10, at *74 (rejecting challenge to new computer model, after hearing, based on claims of "expensive and cumbersome access constraints," where expert "obtained the model and ran it" and model was "made available to intervenor experts who signed software confidentiality agreements").

And, of course, Verizon has already taken the extraordinary step of creating a Help Desk, which is available Monday through Friday to answer technical questions about Verizon's web-based cost model.

Sincerely,

Catherine Kane Ronis

Counsel for Verizon NW

cc: Service list

Local Hosting of the VzCost System

Overview

Although VzCost was designed to run as a web-based system where all data is housed centrally at Verizon and users access the application through the Internet, it is also possible to deploy a locally hosted copy of VzCost. In every configuration for VzCost users will access the application using the Internet Explorer web browser.

The VzCost Internet website controls access so users can only view data that is accessible by their discrete login. The database stores data for all users, but users' IDs and passwords act to restrict what each user can access through VzCost.

VzCost can be deployed as a standalone browser-based application (see Figure 2), over the Internet (see Figure 1), or on an Intranet (See Figure 3). The deployment is a matter of the configuration, and no coding changes are required in VzCost for these configurations. In the current production environment, VzCost software components are deployed across several very powerful servers. This makes the application scalable for supporting hundreds of simultaneous users and provides redundancy in the event that a server should fail.

In order to run VzCost in a dedicated environment where all data is local and the application is not accessible on the Internet, all of the VzCost software components would need to be redeployed (see tables 1 and 2). The components could be installed and configured in an environment that is only accessible standalone or via an Intranet by the appropriate users. The VzCost application would still enforce access rights for logged in users and the network would enforce that logins could only occur from defined locations.

Instead of deploying VzCost across several servers, it is possible to deploy all of the VzCost components on a single computer. This computer could be used standalone like a PC, or exposed as a server on an Intranet network for multiple users to access VzCost with Internet Explorer. Due to the number and complexity of components required to support all of the VzCost functionality, the hardware specifications of a single computer deployment are more in line with server specifications than desktop PC specifications. Computers running as part of a VzCost deployment should be dedicated to only running VzCost and not set up for other uses.

Figure 1: VzCost Internet Deployment
(Current Production Environment)

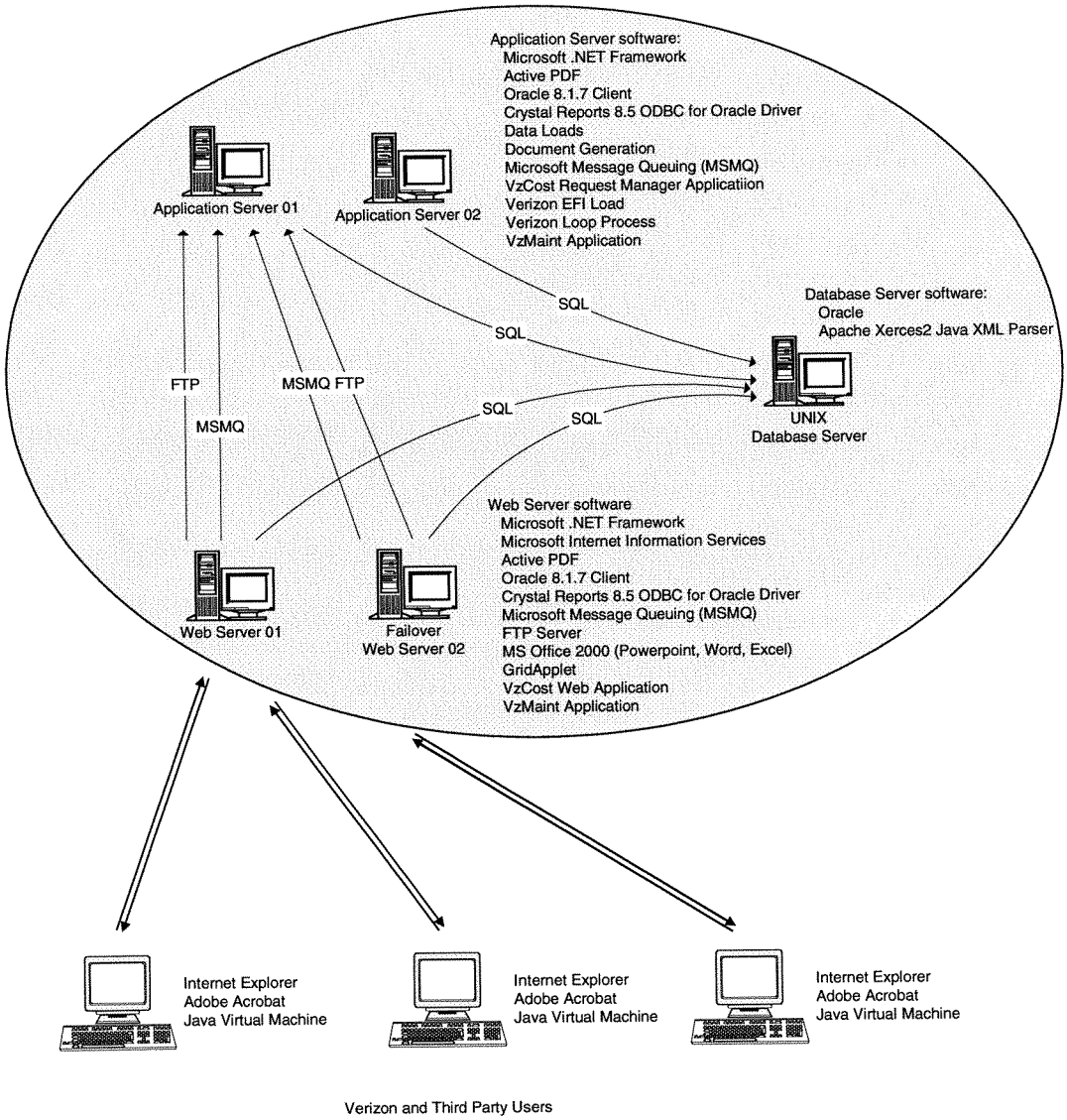
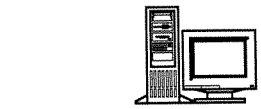
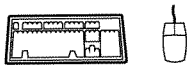


Figure 2: VzCost Standalone Deployment
(All components installed on one PC)



Web Server
Application Server
Database Server



Single User Access
from this PC

Application Server software:
- Microsoft .NET Framework
- Active PDF
- Oracle 8.1.7 Client
- Crystal Reports 8.5 ODBC for Oracle Driver
- Data Loads
- Document Generation
- Microsoft Message Queuing (MSMQ)
- VzCost Request Manager Applicatiion
- Verizon EFI Load
- Verizon Loop Process
- VzMaint Application

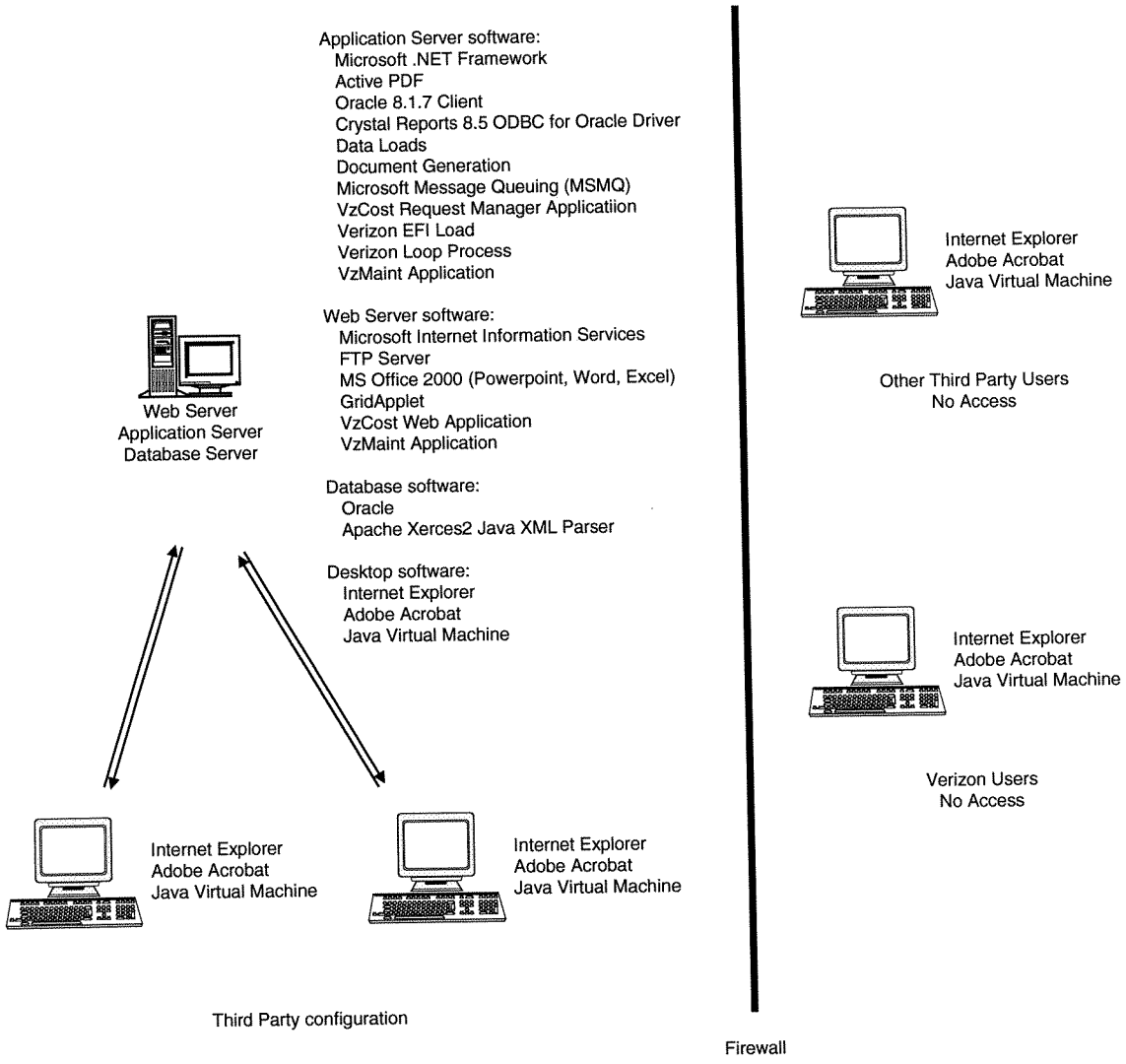
Web Server software:
- Microsoft Internet Information Services
- FTP Server
- MS Office 2000 (Powerpoint, Word, Excel)
- GridApplet
- VzCost Web Application
- VzMaint Application

Database software:
- Oracle
- Apache Xerces2 Java XML Parser

Desktop software:
- Internet Explorer
- Adobe Acrobat
- Java Virtual Machine

Figure 3: VzCost Intranet Deployment

(All components installed on one PC networked for multiple users behind a firewall)



Requirements to Host VzCost Locally

The installation of VzCost requires several independent software product installs. Each of these components typically has its own install process, which range from simple setup executables to installation and configuration processes requiring an expert administrator. There are several components that are part of Windows 2000 but not included in the typical installation. In order to install and configure these advanced components such as Internet Information Server and MSMQ, someone with Windows Administration expertise will be needed. Installing and configuring Oracle will require a resource with Oracle Database Administration knowledge. Other components, such as Microsoft Office, simply require licenses and media to run the product installation.

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Recommended Hardware Requirements

The following recommended specifications would be required for a computer deployed with all of the VzCost components.

Table 1 - Recommended Hardware Requirements

Component	Requirement
Memory	4 GB
Disk Space	2 X 120 GB
CPU	2.4 GHz

Prerequisite Software

In order to install VzCost onto a machine, the following software must first be installed and configured. This process will require manual intervention by a system administrator to install, configure, and verify each step along the way.

Note: In its conventional configuration, please note that users need only have Internet Explorer and Adobe Acrobat to access, navigate and operate VzCost. The software required below serves to enable VzCost on a standalonePC in response to this instant inquiry. To configure VzCost in the Intranet configuration, a server must be configured with the following software, but each user is only required to have Intranet Explorer and Adobe Acrobat on their PC.

Table 2 - Prerequisite Software

Component	Purpose	License Required
Windows 2000 Server	Operating System to run required software.	License Required
Microsoft Internet Explorer	Web browser which serves as the user interface for interacting with the VzCost application.	Part of Windows 2000 Server

Component	Purpose	License Required
Adobe Acrobat Reader	Viewer for PDF documents.	Downloadable for Free
Java Virtual Machine	Code that runs within Internet Explorer. Needed for the dynamic display of data in grids.	Downloadable for Free
Oracle	Data repository for storing and accessing data.	License Required
Apache Xerces2 Java XML Parser	Parser of XML formatted inputs. Deployed inside Oracle.	Downloadable for Free
Microsoft Internet Information Services	Web server to process requests from the browser and return responses for display in Internet Explorer.	Part of Windows 2000 Server
Microsoft Message Queuing	Software that allows an application to send messages to another application or computer.	Part of Windows 2000 Server
Microsoft Office	Microsoft suite of applications to open Word, Excel, and PowerPoint files that are converted to PDF format.	License Required
Crystal Reports	Report software for generating reports.	License Required
Active PDF	Software used to convert documents to Adobe and generate document sets in VzCost.	License Required
Microsoft .NET Framework	Common Language Runtime environment to run VzCost and the Request Manager custom code.	License Required

VzCost Software and Data

Once the prerequisite software is installed, the following custom applications can be deployed and configured. This software is owned by Verizon and not third party vendor software.

Table 3 - VzCost Software and Data

Component	Purpose

Component	Purpose
VzCost Application	The custom application that users access through Internet Explorer. This application runs as a web site.
Request Manager Application	The custom application that processes jobs submitted by VzCost. It runs jobs in the background so users can continue to use VzCost while long-running jobs execute. This application runs as a Windows service.
EFI Loader	The custom application used to calculate loaded element values.
Loop Investment Calculator	The custom application used to calculate Loop investment elements.
Data Load Support Files	These include Excel files used to display the layout for data loads and Oracle control files used during a data load.
VzCost Database	This contains the Calc Engine and the VzCost data used in a filing.

Administration

In order to run VzCost locally hosted, an individual must be identified and trained who will act as the system administrator. The administrator will have tasks such as

- Resetting a user's password if it is forgotten.
- Assisting with large data loads
- Monitor and restart the system as necessary
- General support and maintenance associated with Windows Applications

Changes to VzCost

- From a code standpoint, there are no changes required within VzCost in order to run locally hosted. The one task that is required of Verizon would be to create a custom extract of the VzCost database.

Glossary

Web Based Model – An application that is deployed on the Internet and accessible from any computer with Internet access and a web browser

PC Based Model – An application or set of applications that can run on a single computer disconnected from a network

Server – A computer that contains centralized data and applications accessible from networked client computers

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of Review of Unbundled Loop and Switched Rates And Review of Deaveraged Zone Rate Structure	)	**Docket No. UT-023003**

CERTIFICATE OF SERVICE

I hereby certify that I have this 8th day of October 2003, served Verizon Northwest Inc.'s Responses to ALJ Mace's Questions posed at the September 25th Hearing upon all the following parties of record in this proceeding by Federal Express or First Class Mail and by e-mail:

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