STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Docket No. 2001-109

June 1, 2001

ANNE B. FRENCH, ET AL.
Request for Commission Investigation Into the Lack of Reliable Telephone Service Provided by Verizon Maine to the Customers in the Brooksville – Blue Hill Area

ORDER DISMISSING COMPLAINT AND REQUIRING VERIZON MAINE REPORT ON ELLSWORTH-BANGOR INTEROFFICE CONGESTION

WELCH, Chairman; NUGENT and DIAMOND, Commissioners

I. SUMMARY

On February 7, 2001, Ms. Anne B. French of Brooksville, the Lead Complainant, and 18 other Verizon Maine customers from the Brooksville-Blue Hill area complained to the Commission pursuant to 35-A M.R.S.A. § 1302, that Verizon Maine was not providing reliable telephone service and not complying with our Order in Docket No. 99-132, *Investigation into Bell-Atlantic's Network Congestion Relief Practices.* On February 23, 2001, Verizon Maine submitted its written response (Response to the Complaint). In this Order we find that Verizon Maine eliminated the root cause of the Complaint - insufficient trunking capacity between Verizon Maine's Ellsworth and Bangor switching centers – eight days after the network congestion it caused became known. We order Verizon Maine to file a report explaining in detail how this network congestion occurred and how it plans to avoid a similar situation in the future.

II. DISCUSSION

Beginning on or about January 29, 2001, customers served by any switch in Verizon Maine's Ellsworth host-remote switch cluster experienced network congestion and were unable to complete many calls, especially during peak hours. Contemporaneously, Verizon Maine had "turned up" its new Single Number Service (SNS) for Internet Service Providers. As part of that implementation, Verizon Maine converted a large ISP in Ellsworth to the new SNS system. The ISP required all its traffic going into the Ellsworth switch to be transported over Verizon Maine trunking facilities to the ISP's Bangor center. According to conversations between Staff and the Company, Verizon Maine underestimated by a wide margin the magnitude of that traffic and, as a result, underestimated the additional trunking facilities it would need to carry the ISP's traffic from Ellsworth to Bangor.

Verizon Maine's traffic engineering error caused all traffic – not just ISP-bound traffic – between Ellsworth and Bangor to become congested. Moreover, because Verizon Maine re-routes traffic overloads between its local host switches to its tandem switch in Portland, much of the traffic going into the Ellsworth switch and heading for the

Bangor switch was re-routed to the Portland tandem. This in turn caused the Ellsworth switch-to-Portland tandem trunks to become overloaded. Because those trunks also carry most of the in-state and interstate toll traffic of customers in the Ellsworth host-remote switch cluster who do not use Verizon Maine for toll, those customers experienced congestion on their toll calls.[1] The Bangor-to-Ellsworth traffic also became

[1] Verizon Maine claims customers in the Ellsworth host-remote cluster who made local or toll calls within that cluster over *its* toll network did not experience congestion.

congested, so those traffic overloads were re-routed over the Bangor-to-Portland tandem trunks. It is not clear whether those trunks became congested, but it is likely they did, because Verizon Maine's Response indicated customers served by the Bangor switch may have experienced an "all circuits busy" condition on toll calls.

Verizon Maine's Response to this complaint identifies another problem caused by its underestimation of trunking facilities between the Ellsworth and Bangor switches. Verizon Maine's customers in the Ellsworth host-remote switch cluster who used WorldCom/MCI for toll calling experienced congestion. This occurred because Verizon Maine and MCI exchange traffic in Ellsworth over direct trunks to MCI's POP in Portland, and when those trunks overloaded, the overload traffic was re-routed to the Ellsworth-to-Portland tandem trunks, which of course were already congested from the traffic overload from the congested Ellsworth-to-Bangor trunk groups.

According to conversations between Staff and the ISP, because of the congestion in the Verizon Maine Ellsworth-to-Bangor trunk groups, the ISP had to instruct all its customers that were served by Verizon Maine's Ellsworth switch to disregard the new SNS access number that routed their Internet access calls to Bangor, and to provide them with another access number. In addition to the toll and ISP-bound traffic congestion Verizon Maine's trunking miscalculations caused its customers, the ISP's customers, and IXCs' customers, the Complaint mentions problems customers had completing calls "to emergency services such as medical-alert services, fire department and emergency law-enforcement."

In its Response, Verizon Maine asserts that by February 6, 2001 (eight days after it became aware of the congestion) it had doubled the number of trunks between its Ellsworth and Bangor switches, made the Ellsworth switch a "hub" in its SNS network, and taken other steps to eliminate the congestion in the Ellsworth host-remote switch cluster and its Ellsworth-Portland tandem trunk groups. In pre- and post-event congestion reports to Staff and monthly congestion reports the Company files pursuant to our Order in Docket No. 99-132, Verizon Maine reported that it had eliminated the cause of the Complaint. The Company's Response also reported that on February 8, 2001, Ms. French, the lead complainant, indicated she had not experienced any problems during the previous two days, and that none of the other parties to the complaint had reported a problem to Verizon's repair center.

Verizon Maine's Response expressed the Company's regret that the introduction of its SNS system for ISPs "caused unanticipated network overflow in the Ellsworth area." The Response also indicated, however, that "the implementation of new services can sometimes have unplanned effects on the network," and that the Company "makes every attempt to anticipate and develop contingency plans to minimize those effects."

III. DECISION

We are satisfied that Verizon Maine removed the cause of the Complaint, and therefore we will dismiss it, as permitted by 35-A M.R.S.A. § 1302(2). We find

troubling, however, the Company's management of its interoffice network in this instance. Implementation of a new service can have "unplanned effects," but we do not accept that the network overflow in the Ellsworth area could not have been anticipated: it *became* a network overflow because Verizon Maine miscalculated the magnitude of the new service's network flow. The Company's traffic engineering errors affected a large ISP's operations and its relations with its customers, caused toll calls to be blocked for hundreds if not thousands of Verizon Maine and IXC customers, and may have caused persons in need to be unable to complete emergency calls. The inability to complete emergency calls is the most serious consequence of this, or any other, network congestion event.

We will require Verizon Maine to file a report within 30 days of this Order that explains how and why the Company underestimated by such a wide margin the additional trunking capacity the ISP needed to carry its traffic from Verizon Maine's Ellsworth switch to its Bangor switch. The report should include: how the Company will avoid repeating a traffic engineering error of this magnitude; the contingency plan the Company developed to minimize the "unplanned effects on the network" of implementing the SNS system; the percentage increase in trunking capacity and the number of trunks the Company added to the Ellsworth-to-Bangor trunk groups to handle the additional Internet traffic it expected from its new SNS system *prior to turning that system up;* the Internet traffic volume estimates the Company requested from the ISP; the work papers that show how the Company converted those traffic estimates into the trunking capacity necessary to carry the ISP's traffic, and the name and location of the Verizon unit that performed the calculations; the number of trunks the Company *initially estimated* to be adequate to carry that traffic; and the number of trunks the ISP actually needed (i.e., the number the Company ultimately added to eliminate the congestion in its Ellsworth-to-Bangor trunk groups). The report should also explain why the Ellsworth-to-Bangor part of the Company's SONET ring in that area did not have sufficient capacity to handle the additional traffic the ISP asked Verizon Maine to carry over that route.

The Company should provide a copy of the report to the lead complainant, Ms. French. We will determine if any further actions are necessary following receipt of the report.

Accordingly, we

O R D E R

1. That the Complaint in this proceeding be dismissed; and

2. That Verizon Maine file the report as described in the body of this Order within 30 days of this Order.

Dated at Augusta, Maine, this 1st day of June, 2001.

BY ORDER OF THE COMMISSION

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Dennis L. Keschl
Administrative Director

COMMISSIONERS VOTING FOR: Welch
Nugent
Diamond

NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S.A. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. Reconsideration of the Commission's Order may be requested under Section 1004 of the Commission's Rules of Practice and Procedure (65-407 C.M.R.110) within 20 days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought.

2. Appeal of a final decision of the Commission may be taken to the Law Court by filing, within 30 days of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S.A. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. Additional court review of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S.A. § 1320(5).

Note: The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.