STATE: Washington
DOCKET: UT-003013, Phase B
Verizon Responses to First Data Requests of Joint Intervenors

DATA REQUEST JI-24:
Please describe how Verizon proposes to measure or otherwise determine the number of minutes of traffic it exchanges with other local exchange carriers that is bound for ISPs if the Commission were to adopt a separate form of compensation for such traffic. Please provide all documents that support your response.

RESPONSE:
The following provides an explanation of the methodology Verizon has advocated to estimate the amount of ISP-bound and local voice traffic combined on an interconnection trunk group.

ISP TRAFFIC DETERMINATION
USING AVERAGE HOLDING TIMES AND ALGEBRAIC EQUATIONS

Holding times for local traffic historically average between 3 and 6 minutes per call. Independent studies and other ISP specific traffic data provide documentation that the average holding time for ISP traffic is vastly higher than the average holding time for local voice traffic. With the growth in ISP traffic and the use of local interconnection facilities to transport ISP traffic to CLECs for subsequent switching to their ISP customers, average weighted holding times on interconnection trunk groups can significantly exceed the historical average. The degree that average holding times exceed the historical average can be explained by the relative amounts of local and ISP traffic routed on the interconnection trunk group.

A simple algebraic model can be used to estimate the amount of ISP traffic routed on local interconnection trunk groups. This model depends on traffic studies (or detailed billing information) of MOU and call volumes on the interconnection facility, and on assumptions for average local and ISP holding times. This model follows the following process:

1. Calculate the percentage of ISP calls to total for the study period
   The average weighted holding time on the interconnection facility is represented by the sum of the percentage of calls at the ISP holding time and the percentage of calls at the local (non-ISP) holding time. The first equation solves for the percentage of ISP calls by using the studied average holding time and assumptions for average ISP and local holding times.

2. Calculate the amount of ISP MOU during the study period
   Given the percentage of ISP calls from 1. above, ISP MOU are calculated using studied total call volumes and the assumed average ISP holding time.

3. Calculate the percentage of ISP MOU to total MOU during the study period
   This percentage is calculated by simply dividing calculated ISP MOU by total MOU.

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Steps of the ISP determination process

Given Variables (One-Way Traffic):

Total MOU on the interconnection trunk group (local/toll/ISP)
Total call volume on the interconnection trunk group
Weighted average holding time (HT) on the interconnection trunk group

Assumed variables:

Average holding time (HT) for non-ISP calls (excludes ISP traffic)
Average holding time (HT) for ISP calls

Steps required to estimate the percentage of ISP traffic:

1. Calculate the percentage of ISP calls for the study period
2. Calculate the amount of ISP MOU during the study period
3. Calculate the percentage of ISP MOU to total MOU during the study period

Formulas for each step:

1. % ISP Calls = (Weighted HT-Non-ISP HT)/(ISP HT – Non-ISP HT)[1]
2. ISP MOU = ISP HT * (Total call volume * % ISP Calls)
3. ISP MOU / Total MOU

Prepared by: Greg Windmiller
Group Marketing Manager

[1] Simplified from the following:
(% ISP Calls * ISP HT) + (% non-ISP Calls * Non-ISP HT) = Weighted HT
(% ISP Calls * ISP HT) + ((1- % ISP Calls) * Non-ISP HT) = Weighted HT
(% ISP Calls * ISP HT) + Non-ISP HT – (Non-ISP HT * % ISP Calls) = Weighted HT
% ISP Calls (ISP HT – Non-ISP HT) + Non-ISP HT = Weighted HT
% ISP Calls = (Weighted HT – Non-ISP HT)/(ISP HT – Non-ISP HT)