

Billing Factors

Overview

The following section provides an overview to the billing factors applied to CABS Bills. These factors are used to determine the usage rate by jurisdiction.

Description

Various formulas may be used in the billing minutes of use (Factored MOU) reflected on the Statistics (STAT) page of a usage bill. These formulas, which are dependent on the extent to which a traffic type is factored, are reflected below:

If a factor is used in calculations for query type charges, messages should be used instead of MOU.

If these factors are applied...	Then do this...
None	Check Factored MOU = Recorded MOU
PIU	Multiply PIU by Recorded MOU
PLU	Step 1: Multiply 1 - PIU by Recorded MOUs Step 2: Multiply Intrastate MOUs by 1 – PIU

Note 1: For interstate calculation, $PIU \times \text{Recorded MOUs}$

Note 2: For intrastate calculations, substitute $(1 - PIU)$ for the PIU in the formulas.

Note 3: Calculations should be rounded anytime PIUs are applied

Note 4: For local calculations, substitute $(1 - PIU * PLU)$ in the formulas.

Percent Interstate Usage (PIU)

PIU is the factor used to allocate billable charges to the correct jurisdiction (interstate or intrastate) whenever the jurisdiction cannot be determined mechanically. This is important because interstate rates are often different from intrastate rates. (PIUs can be customer provided, internally generated, or default based on default logic.)

Conceptually, the PIU is the percent of the billable charges that are interstate. In some cases, the jurisdiction can be determined with certainty from the information on the recorded message for Switched Usage. In these cases, a PIU is unnecessary. In other cases, however, the jurisdiction cannot be determined from the recording, and a PIU is required to bill the usage to the correct jurisdiction.

PIU Definitions

Shown below is a table containing the definitions of the different PIUs.

PIU	Definition
ACCT PIU	Customer provided account level, state specific PIU
TPIU	Customer provided account level, state specific terminating PIU
ASG	Customer provided end office level PIU (ASG level)
ZP15	Customer provided account level, state specific PIU for originating 500
ZP17	Customer provided account level, state specific PIU for originating 700
ZP18	Customer provided account level, state specific PIU for originating 800
ZP19	Customer provided account level, state specific PIU for originating 900
EO MTS	Internally calculated PIU using end office MTS MOU
ACCT MTS	Internally calculated PIU using account level originating MOU

Required PIUs

The number of PIUs needed to maintain a Switched Access (S) account is based on the accounts feature group. The following is a list of the required PIUs for feature group D.

Feature Group	Required PIU(s)
FGD	PIU, TPIU, PLU, ZP15, ZP17, ZP18, ZP19

Sources of PIUs

Applicable Usage	CSR Display
FGD, Originating	PIU
FGD, Terminating	TPIU
500	ZP15
700	ZP17
800	ZP18
900	ZP19
FGD, Local	PLU

Service Order Rating

Service Order Rating will include the following factors:

Factor	Usage Calculation
PIU	Percent interstate usage is equal to the rate X PIU Percent intrastate usage is equal to the rate X (1 - PIU)
PLU	Percent local usage is equal to rate X (1 - PIU X PLU)
PLF	Percent local facility used to determine the amount of a switched trunk or facility that is used to process local usage

Service Order Rating will determine the account type. If account is Facility Account, determine if PIUE, PIUD, or PIUM apply. These PIUs will appear in the bill section:

PIU	Description
PIUE	Will apply to all entrance facility USOCs TEFHJ, TEFHG, TEFV2, TEFV4
PIUD	Will apply to all dedicated transport USOCs 1L5XM, 1L5XL, 1L5XK, 1L5XF
PIUM	Will apply to all switched MUX USOCs SATCS, SATC1

Note: The USOCs appearing in this table are not all inclusive. There are other USOCs that apply to the respective PIU types.

Border Interconnection Percentage (BIP)

A percentage that is used to divide the billable charges between the two companies that meet point. The BIP is based on two points and represents the charges belonging to one of the companies. BIPs are filed in the National Exchange Carrier Association (NECA) tariff.

Ratcheting

Four separate ratchet factors are developed, and used, based on the RAF1 data. They are the special access ratchet factor, the switched access ratchet factor, the common transport ratchet factor, and the dedicated interoffice channel (DIOC) ratchet factor.

Special access ratchet factor

The special access ratchet factor is applied to all special access USOCs on the facility. The calculation is as follows:

$$\frac{(\text{number of available channels} - \text{number of switched channels})}{\text{number of available channels}}$$

Switched access ratchet factor

The switched access ratchet factor is applied to the switched access entrance facility USOCs on the facility. The calculation is as follows:

$$\frac{\text{number of switched channels}}{\text{number of available channels}}$$

Dedicated InterOffice Channel (DIOC) ratchet factor

The dedicated interoffice channel (DIOC) ratchet factor is applied to the switched access transport facility USOCs and the switched access MUX USOCs on the facility. The calculation is as follows:

$$\frac{(\text{number of switched channels} - \text{number of common transport channels})}{\text{number of available channels}}$$

Common transport ratchet factor

The common transport ratchet factor is applied to usage. The calculation is as follows:

$$\text{Switched ratchet factor} - \text{DIOC ratchet factor}$$

USOC Population

When a facility is considered to be shared use because it has both special access and switched access billing, it must carry USOCs for both services. The RAF1 information is used to determine if the facility is used for both services. The USOCs for the service other than the service under which the facility was ordered will be added by the ratcheting process, i.e., switched will be added to special and special will be added to switched. When/if these additional services are disconnected from this facility, the USOCs for that service will be removed from the facility. The facility will always carry the USOCs for the service initially ordered.