



## CAR Rating Engine

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Use the CAR rating engine configuration to define the base rate and duration, time of day, and voice quality rating parameters for calls.



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**Note** Rating parameters for calls get used during CAR loading. If you want old CDR records in the CAR database to use new values for these parameters, you must reload all the CDRs in the CAR database.

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## Set Base Rate

To establish a cost basis for calls, you must specify a base rate for all calls. For example, if your service provider charges you 6 cents for each minute, billed in 10-second increments, you can set the base rate at which all calls are charged at 1 cent for each 10-second increment.

This section describes how to establish the base charge and duration values.



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**Note** If you use the default base charge value, reports do not provide any costs. The system provides default values, but if left to the defaults, the Rating Engine stays disabled and does not provide costs.

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### Procedure

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**Step 1** Choose **Report Config > Rating Engine > Duration**.

The Call Duration window displays.

- Step 2** In the To (seconds) field, enter the seconds for which you want the base charge to be applied. For example, if you are billed in 6-second increments, enter 6 in this field. If you are billed a flat rate for each minute regardless of call duration, enter 60 in this field, so the charge is based on whole minutes.
- Step 3** In the Base Charge/Block field, enter the cost basis for the seconds that are shown in the To (seconds) field. For example, if you are billed 6 cents for each minute in 6-second increments, enter 0.006 in this field. If you are billed 7 cents for each minute in whole minutes (no incremental billing), enter 0.07 in this field.
- In the preceding examples, if you are billed in 6-second increments and the cost is 0.006 for each 6-second increment, a call that lasts 7 seconds would cost 0.012. Rationale: Each 6-second increment costs 0.006, and two blocks from 0 to 6 seconds occurred.
- Likewise, if you are billed in whole minutes and the cost is 7 cents for each minute, a call that lasted 3 minutes would cost 21 cents. Rationale: Each 60-second increment costs 7 cents, and three blocks of 1 minute occurred.
- Step 4** Click the **Update** button.
- Tip** To restore the default setting, click the **Restore Defaults** button. By restoring the default value of 0 for the call charge/block, you effectively disable the other factors that are used in determining call cost.

## Factor Time of Day

To further define the cost of calls, you can specify a multiplication factor for certain times of day. For example, if you want to charge subscribers a premium for daytime calls, you can apply a multiplication factor to the base charge/block that you specified in the Call Duration window.

This section describes how to establish certain times of day when calls cost more.



**Note** If you do not want to increase call cost by time of day, you can use the default values. The default multiplication factor specifies 1, so no increase in call cost for time of day occurs.

### Procedure

- Step 1** Choose **Report Config > Rating Engine > Time of Day**.  
The Time of Day window displays.
- Step 2** To add rows, click the **Add Rows** link.  
The system adds a row between 00:00:00 and 23:59:59.
- Step 3** To add additional rows, check the check box for the row above which you want to add a new row and click the **Add Rows** link.
- Note** To delete rows, check the check box for the row that you want to delete and click the **Delete Rows** link.

**Step 4** Enter the From and To time ranges in 24-hour, minute, and second format. A 24-hour period, from 00:00:00 to 23:59:59, represents the default time range. If you want to set one time-of-day range from 8 am to 5 pm, you will need to establish three time-of-day ranges: the first from 00:00:00 to 07:59:59, the second from 08:00:00 to 16:59:59, and the third from 17:00:00 to 23:59:59.

**Note** You must use Coordinated Universal Time (UTC), rather than a 12-hour clock, when factoring Time of Day into Call Cost.

**Step 5** Enter the Multiplication Factor that designates a number by which you want the base charge/block to be multiplied when a call occurs in the specified time range. For example, if you charge a premium of double the price for calls that are placed between 8 a.m. and 5 p.m., the multiplication factor equals 2.00. A multiplication factor of 1.00 does not affect the cost of the call.

**Step 6** To add the time-of-day and multiplication factors, click the **Update** button.

**Tip** To restore the default setting, click the **Restore Defaults** button.

## Factor Voice Quality

To further define the cost of calls, you can specify a multiplication factor for the voice quality of a call. For example, if subscribers are paying a premium price to ensure the highest voice quality on calls, you can apply various multiplication factors to the base charge/block that you specified in the Call Duration window depending on the voice quality. Using a multiplication factor other than 1.00 helps differentiate between the various voice qualities calls as well.

This section describes how to establish call cost when calls that have a certain voice quality cost more.



**Note** If you do not want to increase, call cost by voice quality, you can use the default values. The default multiplication factor equals 1.00, so no increase in call cost occurs for voice quality.

### Procedure

**Step 1** Choose **Report Config > Rating Engine > Voice Quality**.

The Voice Quality window displays.

**Step 2** In the Multiplication Factor field, enter the number by which you want the base charge/block to be multiplied when a call occurs in the specified voice-quality category. The 'Define QoS values' section defines the voice-quality categories: Good, Acceptable, Fair, and Poor.

Example

Voice Quality Good; Factor 1.2

Voice Quality Acceptable; Factor 1.0

Voice Quality Fair; Factor 1.0

Voice Quality Poor; Factor 0.8

A good call gets charged 1.2 times that of an acceptable or fair call. A poor call gets charged 0.8 times that of an acceptable or fair call.

**Note** Multiplication factor for a good call  $\geq$  the multiplication factor for acceptable  $\geq$  multiplication factor for fair  $\geq$  multiplication factor for poor.

**Step 3** Click **Update** .

**Tip** To restore the default setting, click **Restore Defaults**.

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## Related Topics

- [Generate CDR Analysis and Reporting](#)
- [Report Configuration](#)
- [CAR Rating Engine, on page 1](#)
- [CAR Reports QoS Values](#)
- [CAR Reports Notification Limits](#)

## Additional Documentation

- Administration Guide for Cisco Unified Communications Manager
- Cisco Unified Serviceability Administration Guide
- Cisco Unified Communications Manager Call Detail Records Administration Guide