

## Rating & Classification Explained

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This document details how Jet performs classification and rating of usage, what you need to be aware of and the different models you can use to charge your clients.

It is not a walk-through on how to setup rating and it doesn't detail the formats for what Jet needs. These are explained in example documents available on request.

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## 1. Overview

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This document is intended to explain how classification and rating works in Jet, and what bits of information you, as managers of Jet, need to maintain.

Jet does not bill you for your usage, your provider does that, what Jet does is bill your clients for their usage. There are a number of options for charging that will be detailed in this document, however they all fit in with Jet's basic rating mode.

Jet has an ever-expanding range of classification tables, usage types and usage sources that can be used as a starting point for your realm, or they can be used as is.

## 2. What is Rating?

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Rating is where the charge or cost for usage is applied to usage records and then billed against the account in the form of an invoice. For example; your electricity usage for your house is rated at a specific value per kWh, which you can find by looking on a recent power bill. This value is usually shown a something like \$0.19 per kWh.

The rate is determined by what type of usage you are billing and what unit it is in. This means you can charge a different rate for peak usage to off-peak usage.

Your rating table (also known as a RateCard) defines what cost/rate is applied for each usage type.

## 3. So what are usage types?

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Usage types relate to both classifications and subtypes. For example, 'Off Peak' is a subtype, so 'Power Usage (Off Peak)' is a usage type as it defines both what the usage is and its classification.

Usage types can also contain a set of usage types; for example, if your power usage was classified as 'off peak' and 'peak', then you can define a usage type as 'Total Power' that contains both 'peak' and 'off peak', thereby billing for both.

Usage types in Jet are referred to as 'Resource Groups', these are what you place rates/costs against in your RateCard. Resource Groups must be unique and can be supplied by Jet as a byproduct of the classification table.

Resource Groups are not normally supplied by you, Jet will provide them based on the classification table. However there are a couple of scenarios where you can modify the Resource Groups to your benefit, but we'll discuss that later.

## 4. Okay, what are Classification tables?

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Glad you asked. These are a fancy lookup table that allows Jet to take a usage record and know what type of usage it is. Call records are probably the most complicated example; think about how many different types of calls you can make: International, Std, calls to 1300 numbers, local, etc all with potentially special rates.

Classification tables allow Jet to determine what type of call each record is.

Jet's voice classification table contains over 14,000 entries.

In a very basic case, these tables determine if the usage was during peak or off peak times. Or it may determine where in the world your Internet traffic is coming from or going to.

Each different usage type has different lookup requirements; time based requires a calendar, Internet requires an IP, and voice calls require calling prefixes.

The simplest way to start is to get the classification tables from your provider and compare them to the appropriate classification table from Jet. Yes, this can be an onerous task, but there are ways to mitigate it that we will discuss later.

## 5. So how does this all work?

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When Jet gets usage data it classifies the data based on where the data came from (the provider), the type of data it is (call record, meter reading, etc) and a classification table (managed by you); this determines the usage record's 'class'.

Jet uses the class to look for a billable rate in your rating table. Your rates are loaded into Jet as 'bands' on a plan. These bands tell Jet how much each billable Resource Group is charged and in what units (eg, Second (Voice), MB (Internet), kWh(Power)).

Jet looks through the bands on the account's plans to see if any of the Resource Groups contains this class.

You may be thinking "Oh, does that mean I need to list every Resource Group in my RateCard?"

No you don't.

Remember I said the classification tables were "fancy lookup tables", that is because they are actually a tree, so if the exact class is not found then we move up the tree, and keep moving up the tree until we find a band that has the class we need.

For example, a call to California in the US may not exist in your RateCard, but a call to the US probably will. If it does the call is still classed as a call to California but it's billable Subtype is 'International - US'.

This means if you had 'International Call' in your voice RateCard any International call record that does not have a specific rate would be caught here and billed at this rate.

If a usage record fails to find a billable band then it will go into an unassigned usage table and will need to be manually re-classified.

## 6. How did we get the Account

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You may have noticed we went silently from the usage record being imported to knowing which account the record belongs to. Usage allocation is done prior to and separately from the classification process.

Jet uses the usage source, type and date of the record to lookup which account it belongs to. This can be done in Jet a number of ways, but the most common is as service data on the user's allocated plan (known as a product).

## 7. Charging Options

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There are few ways you can setup rating and billing. The options will depend heavily on how your charging model compares to your providers, what your provider supplied within the usage records, and how often those records are made available to Jet.

### 7.1. The Jet Way

We have pretty much gone through how Jet classifies and rates usage. This will give you the most flexibility as you can make the classification and bands as complicated or simple as you like.

The downside is you need to be careful that your provider doesn't classify something different enough so as to charge you more than you're billing it at.

You can mitigate this by performing bill reconciliation that attempts to match your provider's itemised bill against Jet's rated usage records. This can be costly to setup and there may still be some manual intervention required, however it is useful.

If you wish to setup Bill Reconciliation send a digital itemised bill (not a pdf or a scan but a CSV or similar digital version) to Obsidian, we can tell you how much would be involved.

To setup this method you need to generate the RateCard as described in item 2 (which are called 'band files' in Jet terminology). The type of usage you want to put a rate against needs to come from the Resource Groups file supplied by Jet. This name needs to match exactly as in the Resource Groups file. There is other documentation that explains the format of the band file and its rules.

If you find usage types that are not available in the Resource Groups file then look for the classification in the classification file. It is very possible that the names you are looking for are slightly different to Jet's. If the class does not exist in the classification table then add it in and send this to Obsidian, we will then provide an updated Resource Groups file for you to use. If the class does exist then look for the name in the classification table in the Resource Groups and use that.

So essentially, you are creating and managing the RateCard (a.k.a. band files) this tells Jet what usage you are charging for. You also need to update the classification files if you find usage types that you're billing specially for which do not exist. Obsidian manages the Resource Groups files.

## 7.2. Use Provider Classification

Your provider will often classify your usage records in the itemised record. Jet can use this classification within your Resource Groups instead of the Jet classification tables.

To do this, you need the classification tables from your provider that include the classification shown on the itemised usage records, along with the rate. You'll then need to reformat this into Jet's classification format that will allow you to produce a Resource Group export for use with your RateCard. You can then alter the name of the Resource Groups if you wish in the export, but don't change the other fields.

The upside of this is its generally easier and quicker and you wont miss-classify any usage. However, the standard Jet summary reports and invoice details will not work and you only get the billable class, missing a lot of the detail Jet provides.

## 7.3. Cost Plus

Most providers also include the cost to you for the usage. So the most basic method is simply to add additional cost onto that cost. You can setup cost plus bands that use percentage or fixed cost.

The downside is that you get the classifications billed by your provider and nothing more specific.

You also loose the grouping and summary information on the invoices and summary reports will not work.

If you wish to do varied cost plus you'll need to generate a classification table as well as the RateCard as per 7.2

## 8. Summary

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To put this all together, Jet needs 3 bits of information.

1. **Classification table:** provides Jet a method to classify each record. Jet has a number of these for different types of usage and providers.  
You are responsible for ensuring this table is correct.
2. **Resource Groups Export:** this is generated by Jet once the classification table is loaded. You can modify the file once exported and add in new Groups as needed.  
The subtype in the export that links to the classification table must be correct.
3. **The RateCards:** This is the rate/cost that you wish to charge against each Resource Group type (Item 2 above).  
You are responsible for ensuring this table is correct.