Zones and Repositories

Overview

The purpose of this section is to explain the concept of Zones and Repositories and how these objects interact to facilitate a flexible storage solution in TapeTrack.

For illustration purposes, rather than discussing a vault we will use the analogy of a restaurant.

Our Restaurant

Our restaurant is called GazillaBytes, and it has 5 rooms. Each of our rooms is named after a color.

We have:

1. The Red Room which has seating for 200 people in a configuration of 20 tables each with 10 seats.
2. The Blue Room which has seating for 200 people in a configuration of 20 tables each with 10 seats.
3. The Green Room which has seating for 200 people in a configuration of 20 tables each with 10 seats.
4. The Orange Room which has seating for 500 people in a configuration of 25 tables each with 20 seats.
5. The Purple Room which has seating for 300 people in a configuration of 30 tables each with 10 seats.

Our bookings

When people book at our restaurant, they book as a company and they book our tables out indefinitely (we serve Fortune 100 companies in this analogy).

- Walmart need seating for 210 people, so we will give them seats 1 through 210 in the Purple Room.
- Berkshire Hathaway need seating for 190 people so we will give them seats 1 through 190 in the Red Room.
- Apple need seating for 250 people and and don't mind dining in 2 rooms so we give them 200 seats in the Blue Room, seats 191 through 200 in the Red Room, and seats 211 through 250 seats in the Purple Room.
- Exxon Mobile need 400 seats so we give them seats 1 through 400 in the Orange Room.
- McKesson need 80 seats so we give them seats 1 through 80 in the Green Room.
- United Health Group need 50 seats so we give them seats 81 through 130 in the Green Room.
- CVS Health need 55 seats so we give them seats 251 through 300 in the Purple Room and seats 131 through 135 in the Green Room.
- General Motors need 80 seats so we give them seats 136 through 200 in the Green Room and we give them seats 401 through 415 in the Orange Room.

- AT&T need 200 seats so we give them seats 416 through 500 in the Orange Room, and we put 150 of their people on the wait list until we can build a 2nd restaurant.

Seating

Each of the diners is assigned a seat, relative to the start of their reservation, so:

1. The first Walmart diner will be seated in on the first seat of the first table in the Purple Room.
2. The 11th Walmart diner will be seated one the first seat of the second table in the Purple Room.
3. The 215 Apple diner will be seated in the 5th seat in the xxxxx table of the Purple Room.

The Analogy

In this analogy each of the rooms represents a Zone, and each of the bookings represents a Repository.

A booking can occupy one or more rooms, and a room can be occupied by one or more reservations.

Further, let's consider each of the diners, and how they are assigned to a table. In the a