

Open Infrastructure - Task #7793

Task # 7761 (In Progress): uncloud v2

[Draft] Define how to handle product modifications

02/28/2020 11:26 AM - Nico Schottelius

Status: New	Start date: 02/28/2020
Priority: Normal	Due date:
Assignee:	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	
PM Check date:	

Description

Draft v1

- Assumption 1: Products are mutable
- Assumption 2: Some products can only be made bigger, not smaller
 - f.i. vm disks
- Assumption 3: Orders are immutable
 - Once an order is placed, it cannot be changed
 - It can be cancelled

Implementation ideas:

- On change we modify the product
- [We might add a log entry (TBD) stating the change (might be too much)]
- In the same transaction we create a new order
- We set `new_order.previous_order = old_order`
- We set `old_order.successor_order = new_order` (not sure if both)
- We modify the product to point to the new order
- Obviously all the datettime fields need to be filled in correctly

Sample: adding cpu

- When adding cpus to a VM, the following should happen
- VMProduct changes status to something like "modifying"
- We create / replace orders as described above
- On the vmhost that runs the VM we get a notification (postgres can do that or we poll)
 - The VM is stopped (first graceful via acpi with timeout = 1 minute)
 - The VM is started with new amount of CPUs

Same flow should be valid for ram

Sample: removing cpu

- Ensure that `cpu count >= 1`
- The previous order with recurrence needs still to be billed/paid
 - `previous_order_end = next_recurring_period / end of period`
- Create new order that starts after the end of the previous order with less cpus
- The modification of the VM happens instantly or delayed?
 - I think customers would expect instantly

Same flow should be valid for ram.

Removing cpu again before the end of period is reached

- Extending previous case.
- In that case the unstarted newly created order will be cancelled and never billed.
- the 2nd modification will be again the successor order of the cancelled order
 - this way we keep history correct

old notes

- cpu
- ram
- add disks
 - disks need to become a product! at some point.

History

#1 - 02/28/2020 11:29 AM - Nico Schottelius

- Description updated

#3 - 03/06/2020 12:50 AM - Nico Schottelius

- Description updated

- Subject changed from queue: allow VMs to be modified to [Draft] Define how to handle product modifications

#4 - 02/10/2021 09:27 AM - Timothée Floure

- Assignee deleted (Timothée Floure)