



Satellite-6: Plugins & Hooks

Plugins explained / Hooks revealed

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Satellite-6 equals plugins!

The Satellite-6 product is a collection of supported plugins

Core Ruby on Rails application

- Foreman

Shipped plugins

- Katello, Access Insights, Ansible, OpenSCAP, Discovery, Hooks and more!

Unsupported upstream plugins*

- Salt, Chef and others

* *Warning*: May be asked to uninstall when reporting support cases

What are plugins?

Written in Ruby on Rails (RoR)

- Ruby - programming language
- Rails - server-side web application framework
- Plugin - extension or modification to the core framework

Details

- Loaded at server startup
- Full access to database and data relations
- Able to extend all areas of an application

Can I write my own plugin?

Q: Two Virtual Datacenter (VDC) subscriptions, how are they used?

A: Create report of usage over time

Requires specialized knowledge of Ruby on Rails

- How to debug
- Data relations
- Performance implications

Not supported

- Support of Satellite-6 itself may require removal of plugin
- Bring server down to modify, remove

What are my choices then?

Q: Two Virtual Datacenter (VDC) subscriptions, how are they used?

A: Create report of usage over time

Other possible solutions

- *hammer --csv subscriptions* with *cron*
- Custom API script with *cron*
- Use the *foreman-hooks* plugin!

The foreman-hooks plugin runs scripts

A database object change will trigger a call to a custom executable

Benefits

- Write executable or script in any language
- Triggered only when needed with low burden on server
- Hooks for data validation, before and after save, and create-update-delete actions
- Modifications to script do not require server restart
- *foreman-hooks* plugin is supported (but debug your own scripts, please!)

How it works

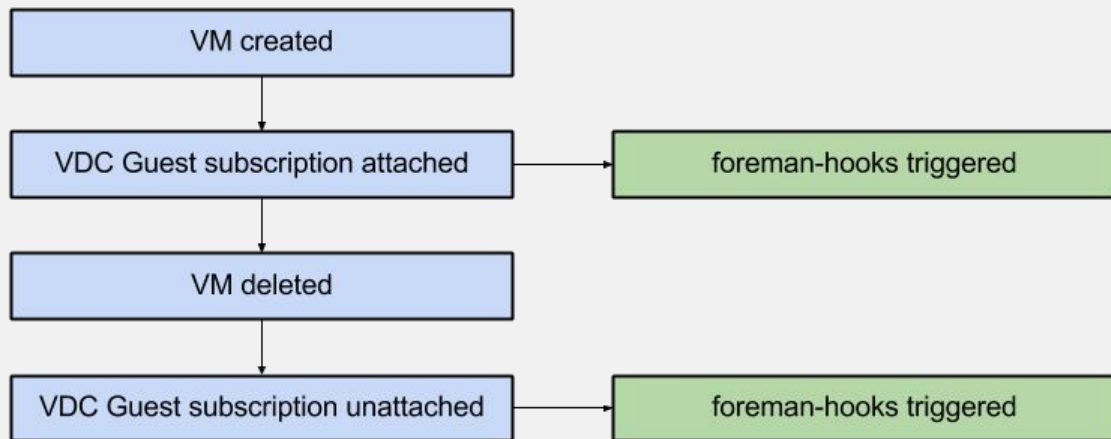
A database object change will trigger a call to a custom executable

Benefits

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How it works

A database object change will trigger a call to a custom executable



Using foreman-hooks like a plugin

Q: Two Virtual Datacenter (VDC) subscriptions, how are they used?

A: Write a *foreman-hooks* script to report usage as CSV

...

```
File.open(filename, "a") do |file|
  json = JSON.parse(STDIN.read)
  quantity = json['quantity']
  consumed = json['consumed']
  updated_at = DateTime.now.strftime('%F %T')
  file.puts "#{json['id']},#{json['subscription_id']}, " \
            "#{updated_at},#{quantity},#{consumed}"
end
```

end

...

Using foreman-hooks like a plugin

Q: Two Virtual Datacenter (VDC) subscriptions, how are they used?

A: Write a *foreman-hooks* script to report usage as CSV

```
ID,Subscription ID,Update Time,Quantity,Consumed
```

```
117,53,2017-04-25 14:41:25,-1,0
```

```
117,53,2017-04-25 14:41:25,-1,0
```

```
100,53,2017-04-25 14:41:27,4,1
```

```
100,53,2017-04-25 14:41:27,4,1
```

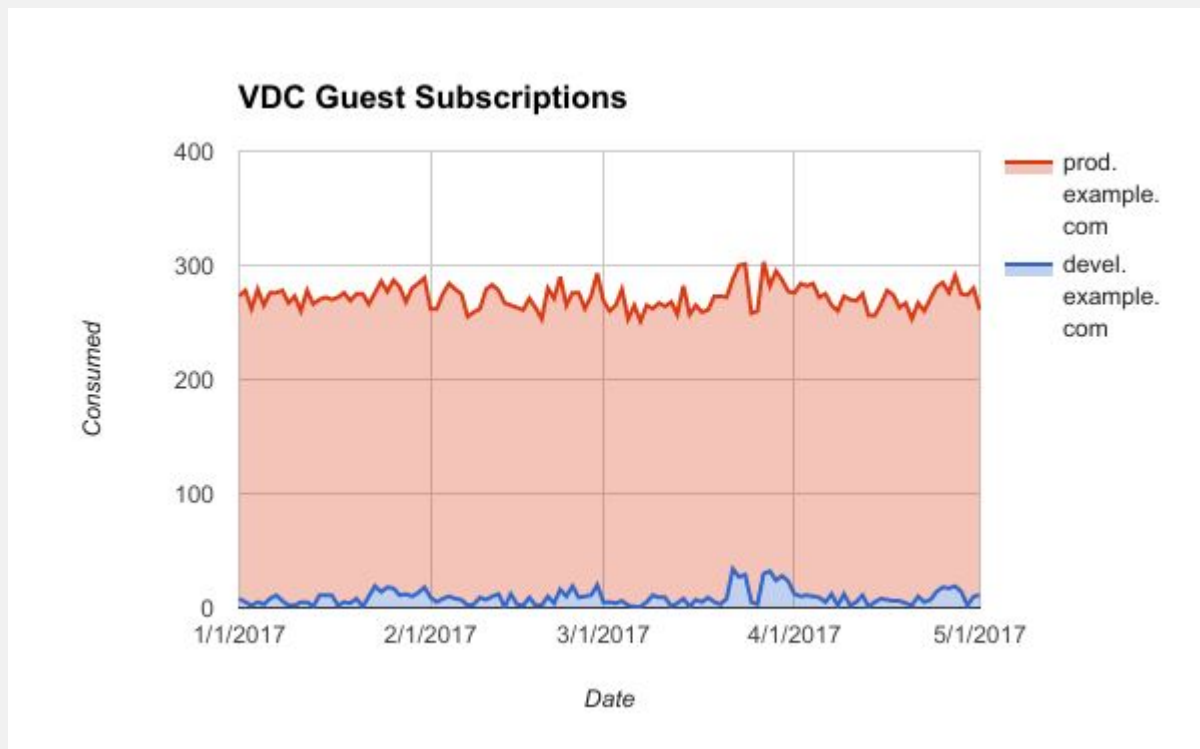
```
93,49,2017-04-25 14:41:29,200,3
```

```
93,49,2017-04-25 14:41:29,200,3
```

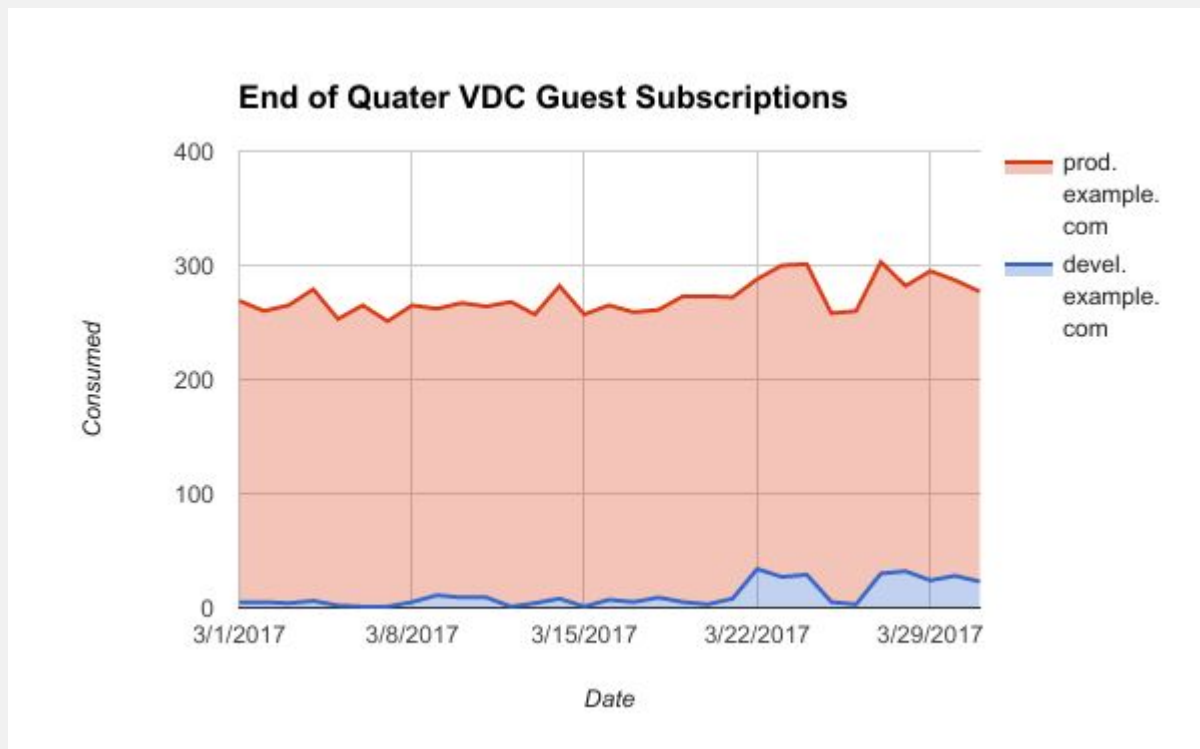
```
100,53,2017-04-25 14:41:35,4,0
```

```
100,53,2017-04-25 14:41:35,4,0
```

Using foreman-hooks like a plugin



Using foreman-hooks like a plugin



Interested in learning more?

Freenode IRC #satellite6 and #theforeman
thomasmckay

References

- [Satellite-6 Documentation - Using Foreman Hooks](#)
- [Foreman Website - How to Create a Plugin](#)



THANK YOU



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The logo for Red Hat Summit, featuring the words "RED HAT" in a smaller font above "SUMMIT" in a larger font, both in white, set against a white speech bubble shape.

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