mcollective 插件（shell plugins）功能在 Linux 系统上无所不能

众所周知，mcollecitve 只是一个框架而已，它单独是干不了任何事情的，如果要让他去操作一个平台，是需要插件（plugins）进行操作的，比如通过 puppet 插件去管理节点 puppet 的所有命令，通过 fact 插件去管理 fact 的所有参数等等，那么如何去管理系统的命令呢，这就需要 shell 插件。

插件下载地址：https://github.com/kisspuppet/mcollective-plugins，有 github 客户端的童鞋可直接 clone https://github.com/kisspuppet/mcollective-plugins.git
更多有关 **puppet** 的文章可访问 **http://kisspuppet.com**

1、下载插件放在对应的目录里即可

mcollective-client 端

```
[root@linuxmaster1poc ~]# ll
/usr/libexec/mcollective/mcollective/application/ | grep shell
-rw-r--r-- 1 root root  1601 Aug  6 06:36 shell.rb
[root@linuxmaster1poc ~]# ll
/usr/libexec/mcollective/mcollective/agent/ | grep shell
-rw-r--r-- 1 root root 1017 Aug  6 06:36 shell.ddl
-rw-r--r-- 1 root root  862 Aug  6 06:36 shell.rb
```

mcollective-server 端

```
[root@linux57poc agent]# ll
/usr/libexec/mcollective/mcollective/agent/ | grep shell
-rw-r--r-- 1 root root 1017 Aug  6 06:36 shell.ddl
-rw-r--r-- 1 root root  862 Aug  6 06:36 shell.rb
```

备注：mcollective-server 端部署完成之后，记得重启 mcollective 服务。

2、 查看 shell 插件是否加载成功

从下面可以看出 **mcollective-client** 端 **shell** 插件已经有了 [root@linuxmaster1poc ~]#
mco The Marionette Collective version 2.2.4

```
usage: /usr/bin/mco command <options>

Known commands:

  completion          facts              find
  help                inventory          ping
```

```
   plugin              puppet                 rpc
   shell   #shell 插件加载 OK


Type '/usr/bin/mco help' for a detailed list of commands and
'/usr/bin/mco help command'
to get detailed help for a command
```

从下面可以看出 **mcollective-server** 端 **shell** 插件也加载了

```
[root@linuxmaster1poc ~]# mco inventory linux57poc
Inventory for linux57poc:

   Server Statistics:
                      Version: 2.2.4
                   Start Time: Fri Dec 13 01:14:14 +0800 2013
                  Config File: /etc/mcollective/server.cfg
                  Collectives: mcollective
             Main Collective: mcollective
                   Process ID: 23898
              Total Messages: 10
     Messages Passed Filters: 10
            Messages Filtered: 0
             Expired Messages: 0
                Replies Sent: 9
         Total Processor Time: 0.73 seconds
                  System Time: 0.17 seconds

   Agents:
      discovery       puppet              rpcutil
      shell   #shell 插件加载 OK

   Data Plugins:
      agent           fstat           puppet
      resource

   Configuration Management Classes:
      No classes applied

   Facts:
      architecture => x86_64
      augeasversion => 0.10.0
      bios_release_date => 06/22/2012
      bios_vendor => Phoenix Technologies LTD
      bios_version => 6.00
      blockdevice_fd0_size => 4096
```

```
    blockdevice_hdc_size => 3834736640
    blockdevice_sda_model => Virtual disk
    blockdevice_sda_size => 42949672960
    。。。
```

3、通过 shell 插件执行 shell 命令

mco shell 帮助信息

```
[root@linuxmaster1poc ~]# mco shell --help

MCollective Distributed Shell

Usage:   mco shell <CMD>

  The CMD is a string

  EXAMPLES:
    mco shell uptime


      --np, --no-progress          Do not show the progress
bar
    -1, --one                      Send request to only one
discovered nodes
      --batch SIZE                 Do requests in batches
      --batch-sleep SECONDS        Sleep time between batches
      --limit-seed NUMBER          Seed value for
deterministic random batching
      --limit-nodes, --ln, --limit COUNT
                                   Send request to only a subset
of nodes, can be a percentage
    -j, --json                     Produce JSON output
      --display MODE               Influence how results are
displayed. One of ok, all or failed
    -c, --config FILE              Load configuratuion from
file rather than default
    -v, --verbose                  Be verbose
    -h, --help                     Display this screen


Common Options
    -T, --target COLLECTIVE        Target messages to a
specific sub collective
      --dt, --discovery-timeout SECONDS
```

```
                                 Timeout for doing discovery
    -t, --timeout SECONDS         Timeout for calling remote
agents
    -q, --quiet                   Do not be verbose
        --ttl TTL                 Set the message validity
period
        --reply-to TARGET         Set a custom target for
replies
        --dm, --disc-method METHOD   Which discovery method to
use
        --do, --disc-option OPTION   Options to pass to the
discovery method
        --nodes FILE              List of nodes to address

Host Filters
    -W, --with FILTER                 Combined classes and facts
filter
    -S, --select FILTER               Compound filter combining
facts and classes
    -F, --wf, --with-fact fact=val   Match hosts with a certain
fact
    -C, --wc, --with-class CLASS     Match hosts with a certain
config management class
    -A, --wa, --with-agent AGENT     Match hosts with a certain
agent
    -I, --wi, --with-identity IDENT  Match hosts with a certain
configured identity

The Marionette Collective 2.2.4
```

显示对端 **uptime** 命令负载情况

```
[root@linuxmaster1poc ~]# mco shell "uptime"
Do you really want to send this command unfiltered? (y/n): y
Discovering hosts using the mc method for 2 second(s) .... 3
Host: linux58poc
Statuscode: 0
Output:
 02:45:02 up 21:10,  2 users,  load average: 0.00, 0.00, 0.00
Host: linux64poc
Statuscode: 0
Output:
 02:45:02 up 20:59,  1 user,  load average: 0.00, 0.00, 0.00
Host: linux57poc
Statuscode: 0
```

```
Output:
 02:45:02 up 21:04,  3 users,  load average: 0.00, 0.00, 0.00
```

显示所有节点**/etc/password** 文件中 **puppet** 用户哪一行

```
[root@linuxmaster1poc ~]# mco shell "cat /etc/passwd | grep
puppet"
Do you really want to send this command unfiltered? (y/n): y
Discovering hosts using the mc method for 2 second(s) .... 3
Host: linux58poc
Statuscode: 0
Output:
puppet:x:52:52:Puppet:/var/lib/puppet:/sbin/nologin
Host: linux64poc
Statuscode: 0
Output:
puppet:x:52:52:Puppet:/var/lib/puppet:/sbin/nologin
Host: linux57poc
Statuscode: 0
Output:
puppet:x:52:52:Puppet:/var/lib/puppet:/sbin/nologin
```

修改其中一台主机的 **root** 密码

```
[root@linuxmaster1poc ~]# mco shell "echo redhat | passwd root
--stdin" -I linux57poc
Host: linux57poc
Statuscode: 0
Output:
Changing password for user root.
passwd: all authentication tokens updated successfully.
```

备注：更多操作步骤可参考 mco shell --help 帮助。

警告：基于 mcollective 的 shell 插件虽然功能很强大，除了动态显示的命令之外，其它 root 能操作的，它基本上都能操作。所以操作也非常危险，可根据生产环境实际情况而定。

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为了能够和大家更好的交流和学习 Puppet，本人 2014 年又新开辟了微信公众号进行交流学习，目前已经有 300 多人同时收听，喜欢 Puppet 的大神们可自行加入哦。

如果你有好的有关 Puppet 的咨询也可以给我投稿，投稿地址：admin@kisspuppet.com

微信公众号："puppet2014"，可搜索加入，也可以扫描以下二维码

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