Sup.py

ping like functionality for higher up the stack

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How often have we done this?

```
rush@cair:~$ ping 172.16.104.133
PING 172.16.104.133 (172.16.104.133): 56 data bytes
64 bytes from 172.16.104.133: icmp_seq=0 ttl=64 time=0.297 ms
64 bytes from 172.16.104.133: icmp_seq=1 ttl=64 time=0.419 ms
^C
--- 172.16.104.133 ping statistics ---
2 packets transmitted, 2 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 0.297/0.358/0.419/0.061 ms
```

PING: Since 1983

```
16:24:47.966461 IP (tos 0x0, ttl 128, id 15103, offset 0, flags [none],
proto: ICMP (1), length: 60) 192.168.146.22 > 192.168.144.5: ICMP echo request,
id 1, seq 38, length 40
        0x0000:  4500 003c 3aff 0000 8001 5c55 c0a8 9216  E..<:.....\U....
        0x0010:  c0a8 9005 0800 4d35 0001 0026 6162 6364  ......M5...&abcd
        0x0020:  6566 6768 696a 6b6c 6d6e 6f70 7172 7374  efghijklmnopqrst
        0x0030:  7576 7761 6263 6465 6667 6869            uvwabcdefghi
```

Host is up, what about my service: The many ways to confirm locally

```
root@vm-rush:/# pgrep redis
2121
```

```
root@vm-rush:/# ps aux | grep redis
redis     2121  0.1  0.2  36176  2388 ?        Ssl  Sep24   2:05 /usr/bin/redis-server /etc/redis/redis.conf
root      5458  0.0  0.0   7552   864 pts/1    S+   13:23   0:00 grep redis
```

```
root@vm-rush:/# ps aux | grep [r]edis
redis     2121  0.1  0.2  36176  2388 ?        Ssl  Sep24   2:05 /usr/bin/redis-server /etc/redis/redis.conf
```

```
root@vm-rush:/# ps -ef | grep redis
redis     2121     1  0 Sep24 ?        00:02:05 /usr/bin/redis-server /etc/redis/redis.conf
root      5368  4204  0 13:23 pts/1    00:00:00 grep redis
```

Sometimes we can confirm remotely

```
rush@cair:~$ nmap -p 6379 172.16.104.133

Starting Nmap 6.25 ( http://nmap.org ) at 2013-09-25 15:26 CDT
Nmap scan report for www.deviantart.lan (172.16.104.133)
Host is up (0.00052s latency).
PORT     STATE SERVICE
6379/tcp open  unknown

Nmap done: 1 IP address (1 host up) scanned in 0.06 seconds
```

NMAP (REDIS)

TELNET (REDIS)

```
rush@cair:~$ telnet 172.16.104.133 6379
Trying 172.16.104.133...
Connected to www.deviantart.lan.
Escape character is '^]'.
^C

quit
+OK
Connection closed by foreign host.
```

```
rush@cair:~$ tcping localhost 80
localhost port 80 open.
rush@cair:~$
```

TCPING (HTTP)

HTTPING (HTTP)

```
rush@cair:~$ httping localhost
PING localhost:80 (/):
connected to 127.0.0.1:80 (154 bytes), seq=0 time=5.68 ms
connected to 127.0.0.1:80 (154 bytes), seq=1 time=1.18 ms
^CGot signal 2
--- http://localhost/ ping statistics ---
2 connects, 2 ok, 0.00% failed, time 1338ms
round-trip min/avg/max = 1.2/3.4/5.7 ms
```

I like to use sup.py

* https://github.com/chasemp/sup.git
* all python
* modular
* allows non-dns host aliasing
* allows differentiation between local and remote
* can notify of state change (on some platforms)

squint for usage

like ping but for higher up the stack

```
usage: sup [-h] [-p] [-b] [-v] [-f] [-vv] [-c COUNT] [-t TIMEOUT]
           [-i INTERVAL] [-m MODE]
           site

ping up the stack

positional arguments:
  site         url or ip of site to manage

optional arguments:
  -h, --help   show this help message and exit
  -p           show popups
  -b           broadcast messages
  -v           verbose
  -f           flood as many requests as possible
  -vv          very verbose
  -c COUNT     set count
  -t TIMEOUT   main timeout
  -i INTERVAL  interval between polls
  -m MODE      Check type to use. Available: tcp http smtp ntp memcached icmp
               redis
```

Checking a host/service

TCP Ping (default port is 22):

```
sup host.com

02.10.29 host.com:22 ok 0.0 ms
02.10.31 host.com:22 ok 0.0 ms
02.10.33 host.com:22 ok 0.0 ms
02.10.35 host.com:22 ok 0.0 ms
```

TCP Ping non-default port:

```
sup host.com:80

02.10.29 host.com:80 ok 0.0 ms
02.10.31 host.com:80 ok 0.0 ms
02.10.33 host.com:80 ok 0.0 ms
02.10.35 host.com:80 ok 0.0 ms
```

'Pinging' Redis:

```
sup redis.com -m redis

02.12.39 redis.com:6379 PONG 10.0 ms
02.12.41 redis.com:6379 PONG 0.0 ms

avg: 5.0 Max: 10.0 Min: 0.0
redis polled 2 times in 4.0 seconds
```

'Pinging' memcached:

```
sup.py mchost.com -m memcached

02.13.34 mchost.com:11211 ok 10.0 ms
02.13.36 mchost.com:11211 ok 0.0 ms
02.13.38 mchost.com:11211 ok 0.0 ms
```

sup can notify you of state changes.

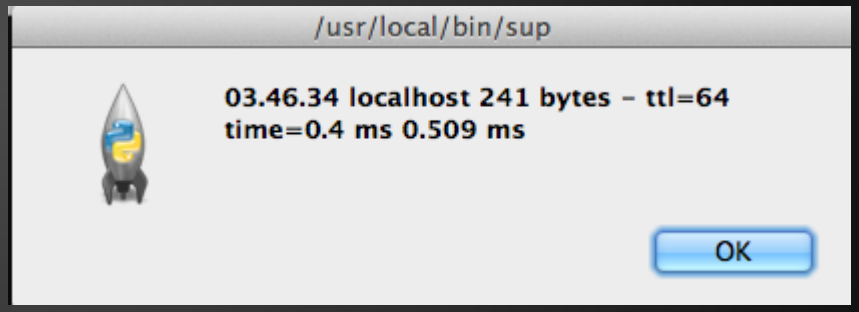
Run sup tcping in background with 'broadcast' enabled:

```
sup host.com -b &
[1] 25420
02.14.50 host.com:22 ok 0.0 ms
02.14.52 host.com:22 ok 0.0 ms
Broadcast Message from root@idle34
        (/dev/pts/0) at 14:14 ...

02.14.54 host.com:22 timeout 0.0 ms
```

sup can also do a GUI popup if X is installed:

```
sup host.com -p &
```



90’s INI file: ✓

```
[default]
localnet = 192.,10. #all 192 and 10 addresses use local monitor
localmon = tcp #all local use this monitor
remotemon = http #all non-local use this monitor
[subs]
google = www.google.com
l = localhost
[tcp]
port = 80
```

```
sup l
05.06.58 localhost:22 failed 0.265 ms
05.06.59 localhost:22 failed 0.792 ms

sup google
05.21.27 www.google.com:80 200 OK 5.664 ms
05.21.29 www.google.com:80 200 OK 6.117 ms
```

flood & count

sup l -c 3

04.53.18 localhost:80 ok 0.397 ms

avg: 0.422666666667 Max: 0.463 Min: 0.397

tcp polled 3 times in 3.0 seconds

sup l -c 3 -f

04.53.55 localhost:80 ok 0.347 ms

avg: 0.260333333333 Max: 0.347 Min: 0.207

tcp polled 3 times in 0.0 seconds

sup l:80 -m http -f

04.51.34 localhost:80 200 OK 1.188 ms

...

avg: 0.777363855422 Max: 1.762 Min: 0.601

http polled 415 times in 0.0 seconds

Verbosity: -v and -vv

```
translating l => localhost
unknown last state
03.56.18 localhost:80 200 OK 1.492 ms 1
--------------------------------------------------
03.56.19 localhost:80 200 OK 0.933 ms 2
--------------------------------------------------
```

```
translating l => localhost
remote host found
Connection details:         fp <socket._fileobject object at 0x10dfc19d0>
         status 200
         will_close False
         chunk_left UNKNOWN
         length 0
         strict 0
         reason OK
         version 11
         debuglevel 0
Message details:
        Date: Wed, 25 Sep 2013 20:56:21 GMT
        Server: Apache/2.2.22 (Unix) DAV/2
        Content-Type: text/html;charset=UTF-8
         chunked 0
         _method HEAD

>>> unknown last state
03.56.21 localhost:80 200 OK 1.14 ms 1
--------------------------------------------------
```

Protocols

NTP

sup pool.ntp.org -m ntp

03.57.40 pool.ntp.org:123 1380142660 0.49 ms

03.57.41 pool.ntp.org:123 1380142661 0.717 ms

03.57.43 pool.ntp.org:123 1380142663 0.614 ms

HTTP

sup l -m http

03.57.50 localhost:80 200 OK 1.171 ms

03.57.51 localhost:80 200 OK 1.177 ms

REDIS

sup redisbox -m redis

03.58.15 redisbox:6379 timeout 5.526 ms

03.58.18 redisbox:6379 PONG 3.589 ms

03.58.19 redisbox:6379 PONG 3.653 ms

03.58.20 redisbox:6379 PONG 3.8 ms

MEMCACHED

sup mcbox -m memcached

03.58.34 mcbox:11211 timeout 4.33 ms

03.58.36 mcbox:11211 ok 2.788 ms

03.58.37 mcbox:11211 ok 2.932 ms

ICMP

sudo sup l -m icmp

03.59.29 localhost 241 bytes - ttl=64 time=0.2 ms 0.788 ms

03.59.30 localhost 241 bytes - ttl=64 time=0.4 ms 0.566 ms

03.59.31 localhost 241 bytes - ttl=64 time=0.4 ms 0.629 ms

TCP

sudo sup l:80 -m tcp

03.59.44 localhost:80 ok 0.318 ms

03.59.45 localhost:80 ok 0.428 ms