

Docker Container Execute on Host Client/Server App

[pknw1logo-white.png](#)

```
/usr/local/bin/pipe-exec
```

```
/usr/local/bin/pipe-response
```

Client Server App for Host execution from within docker

The app runs in the container and uses fifo pipes to pass commands to the server side of the app running on the docker host; the commands are executed and responses piped back to the container

Server Side Component

```
#!/bin/bash
# /usr/local/bin/pipe-exec
# server side of app

if ! [[ -p /var/run/exec ]]
then
  [[ -d /var/run/exec ]] && rm -rf /var/run/exec
  mkfifo /var/run/exec || echo "error" && exit 99
fi

if ! [[ -p /var/run/response ]]
then
  [[ -d /var/run/response ]] && rm -rf /var/run/response
  mkfifo /var/run/response || echo "error" && exit 99
fi

while true; do eval "$(cat /var/run/exec)" > /var/run/response; done
```

- pipe-exec runs on a docker host
- listens to fifo pipe /var/run/exec
- creates pipe if doesn't exist
- executes the data from the pipe on the docker host
- sends output of the command to fifo pipe /var/run/response
- ideally run server component as a service

```
# systemd service file to run pipe-exec on startup
# /etc/systemd/system/pipe_exec.service
```

```
[Unit]
```

```
Description=Pipe Exec
```

```
[Service]
```

```
Type=simple
```

```
ExecStart=/usr/local/bin/pipe-exec
```

```
[Install]
```

```
WantedBy=multi-user.target
```

```
#!/bin/bash
```

```
# client side of app
```

```
# /usr/local/bin/pipe-response
```

```
echo "$1 $2 $3" > /var/run/exec
```

```
cat /var/run/response
```

Client Application for inclusion and execution within docker container

- pipe-response should be on the docker container filesystem or mapped in as a volume
- /var/run/exec must be mapped as a volume
- /var/run/response must be mapped in as a volume

```
# example docker-compose.yml for mapping folders and script
# within the container pass commands as
```

```
# pipe-response curl ifconfig.me
# returns host IP

---

services:
  your_container:
    container_name: your_container
    image: jamesread/your_container
    user: root
    volumes:
      - ./config/your_container:/config
      - /var/run/docker.sock:/var/run/docker.sock
      - /var/run/exec:/var/run/exec
      - /var/run/response:/var/run/response:ro
      - ./config/pipe-response:/usr/bin/pipe-response:ro
    restart: unless-stopped
    networks:
      - admin
    environment:
      - VIRTUAL_HOST=your_container.admin.pknw1.co.uk
      - VIRTUAL_PORT=1337

networks:
  admin:
    external: true
    name: admin
```

further info

<u>Product Home</u>	Link
<u>Documentation</u>	Link
<u>Github</u>	Link

<u>DockerHub</u>	Link
<u>Misc</u>	Link

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