

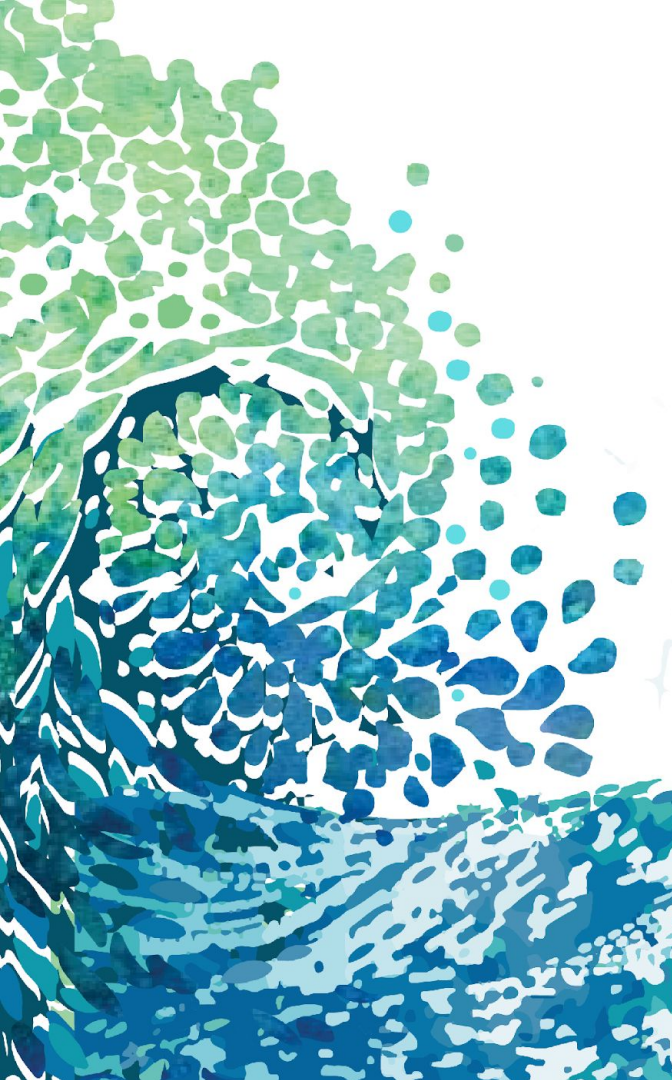


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Dragonfly: Deep Dive

Jing Zhang, Alibaba
Haibing Zhou, eBay

File Distribution

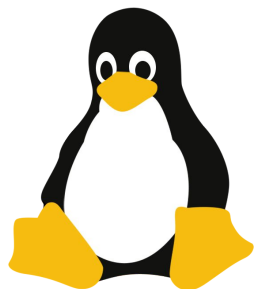


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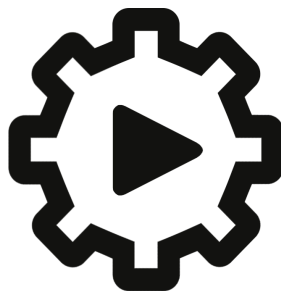
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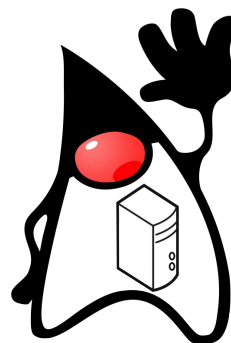
OS

images



Runtime

jvm
docker
..



Application

.jar
npm modules
plugins
..



Configuration

indexes
training model
..

Image Distribution

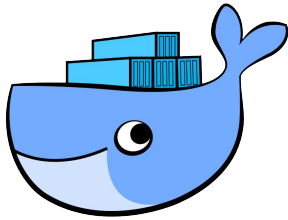


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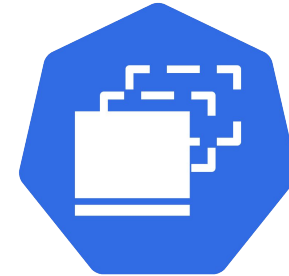
Containers

fat container



DC

datacenter



Demonset

deploy/upgrade

Distribution Flow

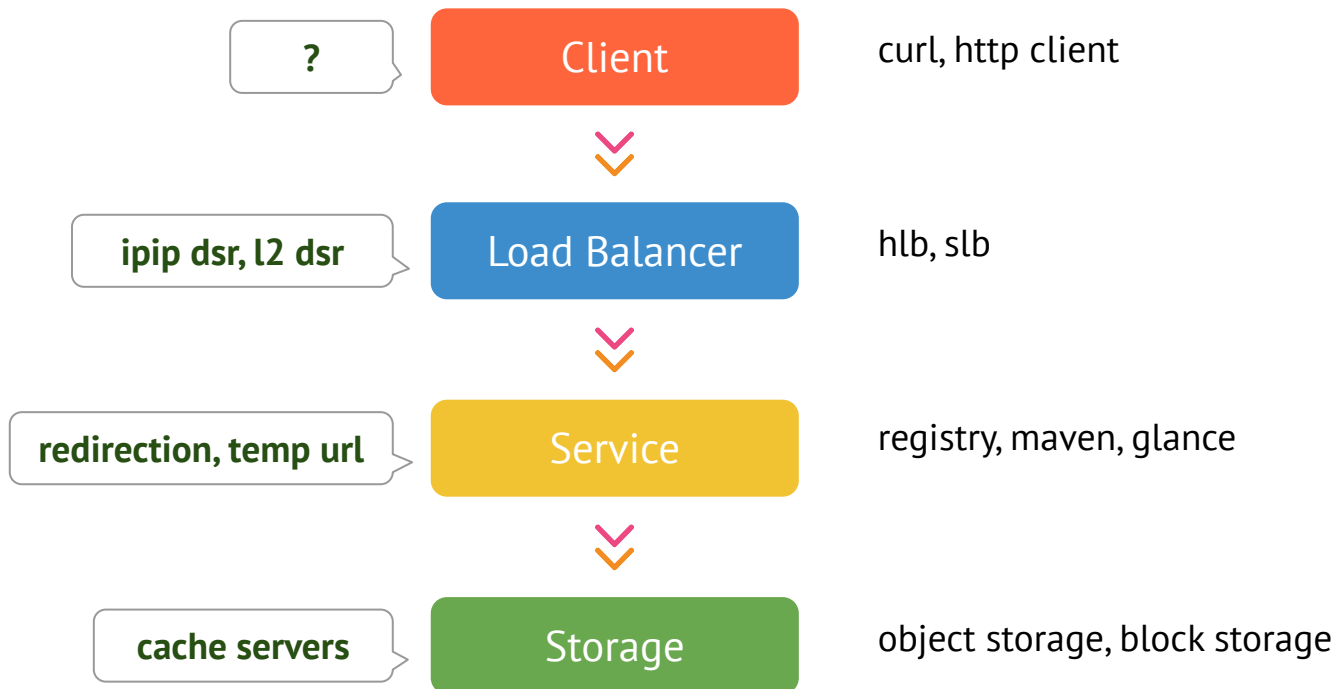


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P2P

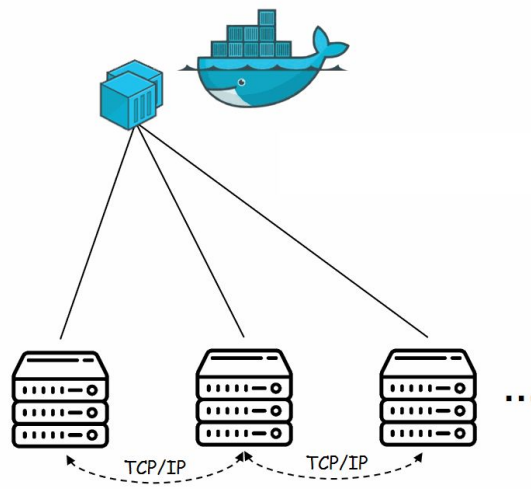
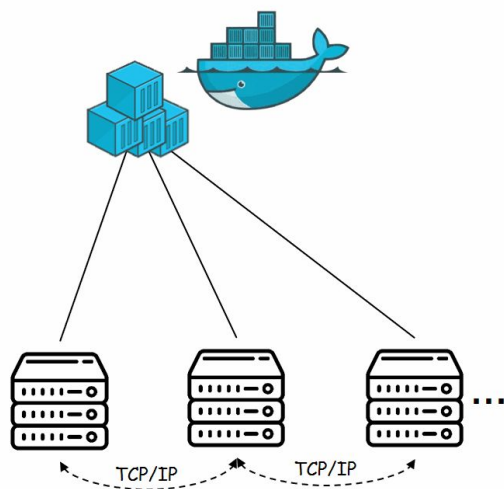


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BitTorrent®



images credits to <https://mp.weixin.qq.com/s/dGwhhg8FzOxUVmvlvWkN7g>

Dragonfly

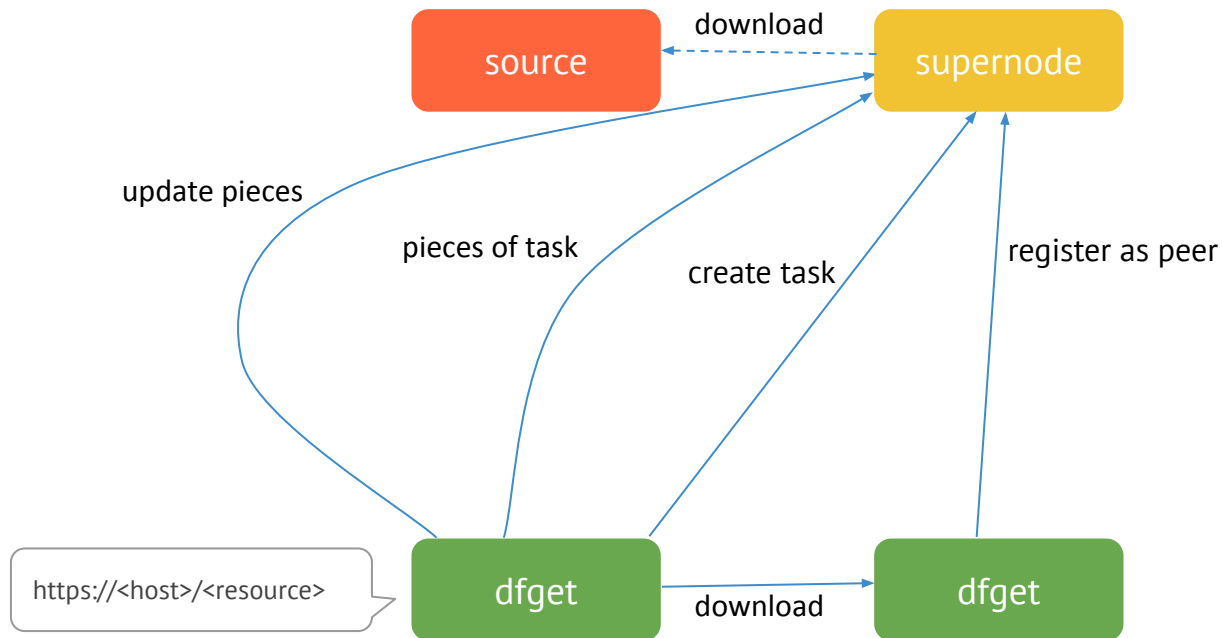


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SuperNode

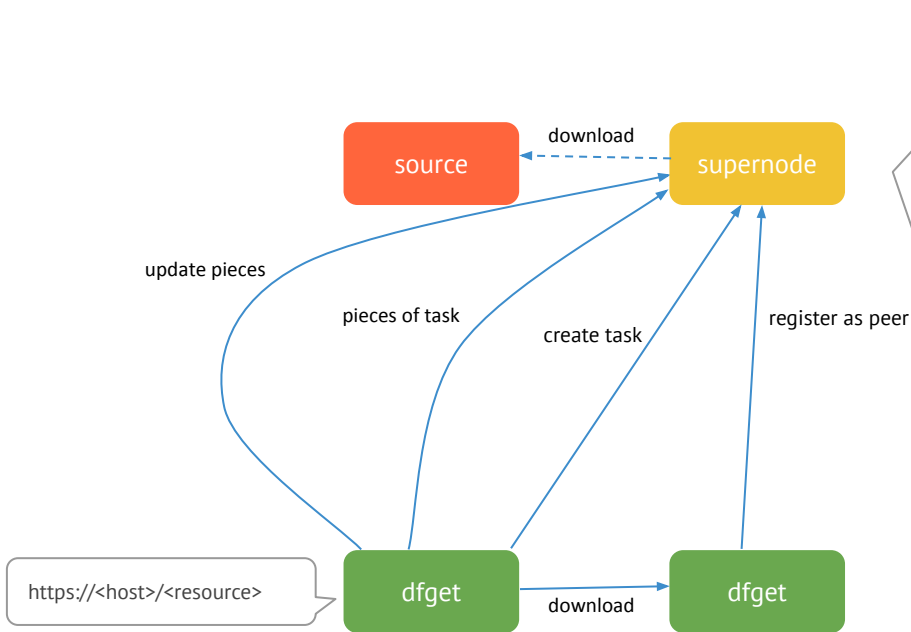


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- **API**

- peers
- tasks
- pieces

- **Scheduling**

- select peers

- **Seeding**

- initial seeding



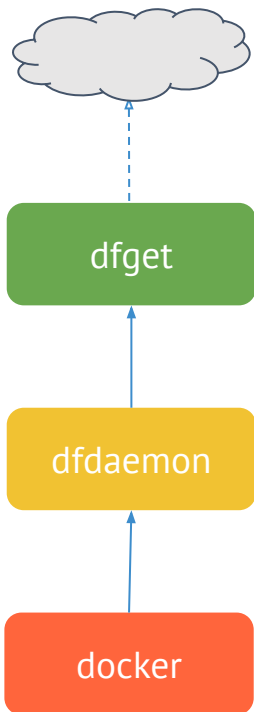
1. Docker Registry Mirrors

```
--registry-mirror=https://<your awesome mirror>
```

2. Containerd CRI Registry Mirrors

```
[plugins.cri.registry.mirrors]
  [plugins.cri.registry.mirrors."docker.io"]
    endpoint = ["https://registry-1.docker.io"]
  [plugins.cri.registry.mirrors."test.secure-registry.io"]
    endpoint = ["https://HostIP1:Port1"]
  [plugins.cri.registry.mirrors."test.insecure-registry.io"]
    endpoint = ["http://HostIP2:Port2"]
```

3. Add redirection in your registry



- **Reverse Proxy**

```
reverseProxy := httputil.NewSingleHostReverseProxy(target)
reverseProxy.Transport = NewDFRoundTripper(reg.TLSConfig())
reverseProxy.ServeHTTP(w, r)
```

- **Delegate to dfget**

```
func RoundTrip(req *http.Request) (*http.Response, error) {
    dstPath, err := rt.DFGetter.Download(req)
    ...
    fileReq, err := http.NewRequest("GET", "file:///"+dstPath, nil)
    rt.RoundTripper.RoundTrip(fileReq)
}
```

Next Speaker - Cont.



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