

# FRP

## frp

frp TCP UDP HTTP HTTPS IP

## frp

IP frp

- TCP KCP Websocket
- TCP
- HTTP SOCK5 frp
- UI

frp

### frp Golang

Golang [Golang](#) [Golang requirements](#)

Git [Release](#)

frpc frps IP

`./frps -c ./frps.ini` `./frpc -c ./frpc.ini` `systemd` `supervisor`

Windows cmd

frp

frp **(frpc) (frps)** IP

IP

frps frp

frp

frp

tcp	TCP	
udp	UDP	
http	HTTP	Host Header
https	HTTPS	
stcp	TCP	frpc
sudp	UDP	frpc
xtcp	stcp	
tcpmux	TCP	

# SSH

TCP

1.
- IP
- frps
- frps.ini
- frp

```
[common]
bind_port = 7000
```

2.
- SSH
- 22
- frpc
- frpc.ini
- frps
- IP
- x.x.x.x

```
[common]
server_addr = x. x. x. x
server_port = 7000

[ssh]
type = tcp
local_ip = 127.0.0.1
local_port = 22
remote_port = 6000
```

local\_ip

local\_port

remote\_port

frp

3.
- frps
- frpc

4.
- SSH
- test

ssh -oPort=6000 test@x. x. x. x

frp

x. x. x. x: 6000

22

# Web

HTTP

Web

HTTP

| vhost\_http\_port |

HTTP

HTTP

1. frps.ini HTTP 8080

```
[common]
bind_port = 7000
vhost_http_port = 8080
```

2. frpc.ini frps |local\_port|.x.x V|custom\_domains|

```
[common]
server_addr = x. x. x. x
server_port = 7000

[web]
type = http
local_port = 80
custom_domains = www.yourdomain.com

[web2]
type = http
local_port = 8080
custom_domains = www.yourdomain2.com
```

3. frps frpc

4. |www.yourdomain.com| |www.yourdomain2.com| A |x. x. x. x| CNAME
5. |http://www.yourdomain.com:8080| |http://www.yourdomain2.com:8080| 8080

# DNS

UDP

DNS

DNS

UDP

frp

UDP

TCP

1. frps.ini

```
[common]
```

```
bind_port = 7000
```

## 2. frpc.ini

```
[common]
server_addr = x.x.x.x
server_port = 7000

[dns]
type = udp
local_ip = 8.8.8.8
local_port = 53
remote_port = 6000
```

Google DNS

UDP

## 3. frps frpc

```
4. dig U|www.baidu.com|
|dig @x.x.x.x -p 6000 www.baidu.com|
```

# Unix

Unix

TCP

Unix

Docker Daemon

## 1. frps.ini

```
[common]
bind_port = 7000
```

## 2. frpc.ini

```
[common]
server_addr = x.x.x.x
server_port = 7000

[unix_domain_socket]
type = tcp
remote_port = 6000
plugin = unix_domain_socket
plugin_unix_path = /var/run/docker.sock
```

## 3. frps frpc

```
4. curl docker
```

```
curl http://x.x.x.x:6000/version
```

```
static_file
```

```
static_file
```

HTTP

### 1. frps.ini

```
[common]
bind_port = 7000
```

### 2. frpc.ini

```
[common]
server_addr = x.x.x.x
server_port = 7000

[test_static_file]
type = tcp
remote_port = 6000
plugin = static_file
#
plugin_local_path = /tmp/file
# URL
plugin_strip_prefix = static
plugin_http_user = abc
plugin_http_passwd = abc
```

### 3. frps frpc

### 4. http://x.x.x.x:6000/static/ /tmp/file

# HTTP

# HTTPS

```
https2http
```

HTTP

HTTPS

### 1. frps.ini

```
[common]
bind_port = 7000
```

### 2. frpc.ini

```
[common]
```

```

server_addr = x. x. x. x
server_port = 7000

[ test_https2http]
type = https
custom_domains = test.yourdomain.com

plugin = https2http
plugin_local_addr = 127.0.0.1:80

# HTTPS
plugin_crt_path = ./server.crt
plugin_key_path = ./server.key
plugin_host_header_rewrite = 127.0.0.1
plugin_header_X-From-Where = frp

```

3. frps frpc

4. `https://test.yourdomain.com`

## SSH

`stcp(secret tcp)`

frpc

1. frps.ini

```

[ common]
bind_port = 7000

```

2. frpc

```

[ common]
server_addr = x. x. x. x
server_port = 7000

[ secret_ssh]
type = stcp
# sk
sk = abcdefg
local_ip = 127.0.0.1
local_port = 22

```

### 3. frpc

```
[common]
server_addr = x.x.x.x
server_port = 7000

[secret_ssh_visitor]
type = stcp
# stcp
role = visitor
# stcp
server_name = secret_ssh
sk = abcdefg
# SSH
bind_addr = 127.0.0.1
bind_port = 6000
```

### 4. SSH test

```
ssh -oPort=6000 test@127.0.0.1
```

frp `xtcp`

`stcp` frpc

`stcp` **NAT**

### 1. frps.ini UDP

```
[common]
bind_port = 7000
bind_udp_port = 7000
```

### 2. frpc

```
[common]
server_addr = x.x.x.x
server_port = 7000

[p2p_ssh]
type = xtcp
# sk
sk = abcdefg
local_ip = 127.0.0.1
```

```
local_port = 22
```

### 3. frpc

```
[common]
server_addr = x.x.x.x
server_port = 7000

[p2p_ssh_visitor]
type = xtcp
# xtcp
role = visitor
# xtcp
server_name = p2p_ssh
sk = abcdefg
# ssh
bind_addr = 127.0.0.1
bind_port = 6000
```

### 4. SSH test

```
ssh -oPort=6000 test@127.0.0.1
```

frp

bind_addr	string		0.0.0.0		
bind_port	int		7000		frpc
bind_udp_port	int	UDP	0		P2P
kcp_bind_port	int	KCP	0		KCP frpc
proxy_bind_addr	string		bind_addr		
log_file	string		./frps.log		console
log_level	string		info	trace, debug, info, warn, error	
log_max_days	int		3		
disable_log_color	bool		false		
detailed_errors_to_client	bool		true		
heart_beat_timeout	int		90		
user_conn_timeout	int		10		
udp_packet_size	int	UDP	1500		



tls_cert_file	string	TLS			
tls_key_file	string	TLS			
tls_trusted_ca_file	string	TLS CA			

authentication_method	string		token	token, oidc	
authenticate_heartbeat	bool		false		
authenticate_new_websocket_conns	bool		false		
token	string	token			
oidc_issuer	string	oidc_issuer			
oidc_audience	string	oidc_audience			
oidc_skip_expiry_check	bool	oidc_skip_expiry_check			
oidc_skip_issuer_check	bool	oidc_skip_issuer_check			

allow_ports	string				1000-2000,2001,3000-4000
max_pool_count	int		5		
max_ports_per_client	int		0		0
tls_only	bool	TLS	false		

## Dashboard,

dashboard_addr	string	Dashboard	0.0.0.0		
dashboard_port	int	Dashboard	0		
dashboard_user	string	HTTP BasicAuth			
dashboard_pwd	string	HTTP BasicAuth			
enable_prometheus	bool	Prometheus	false		Dashboard
asserts_dir	string				Dashboard

## HTTP & HTTPS

vhost_http_port	int	HTTP	0		HTTP
vhost_https_port	int	HTTPS	0		HTTPS

vhost_http_timeout	int	HTTP ResponseHeader	60		
subdomain_host	string				
custom_404_page	string	404			

# TCPMUX

tcpmux_httpconnect_port	port	TCPMUX	0		TCPMUX

frp

server_addr	string		0.0.0.0		
server_port	int		7000		
http_proxy	string				{protocol}://user:password@ protocol http socks5 ntlm
log_file	string		./frpc.log		console
log_level	string		info	trace, debug, info, warn, error	
log_max_days	int		3		
disable_log_color	bool		false		
pool_count	int		0		
user	string				{user}.{proxyName}
dns_server	string	DNS			DNS
login_fail_exit	bool		true		
protocol	string		tcp	tcp, kcp, websocket	
tls_enable	bool	TLS	false		
tls_cert_file	string	TLS			
tls_key_file	string	TLS			
tls_trusted_ca_file	string	TLS CA			
tls_server_name	string	TLS Server			server_addr
heartbeat_interval	int		30		

heartbeat_timeout	int		90		
udp_packet_size	int	UDP	1500		
start	string				

authentication_method	string		token	token, oidc	
authenticate_heartbeat	bool		false		
authenticate_new_connections	bool		false		
token	string	token			
oidc_client_id	string	oidc_client_id			
oidc_client_secret	string	oidc_client_secret			
oidc_audience	string	oidc_audience			
oidc_token_endpoint_url	string	oidc_token_endpoint_url			

## UI

admin_addr	string	AdminUI	0.0.0.0		
admin_port	int	AdminUI	0		
admin_user	string	HTTP BasicAuth			
admin_pwd	string	HTTP BasicAuth			
asserts_dir	string				AdminUI

## frp

type	string			tcp	tcp, udp, http, https, stcp, sudp, xtcp, tcpmux	
use_encryption	bool			false		
use_compression	bool			false		
proxy_protocol_version	string	proxy protocol			v1, v2	frpc protocol
bandwidth_limit	string	proxy				MB KB 0

local\_ip

plugin

plugin

local\_ip

local_ip	string	IP		127.0.0.1		IP
local_port	int					local_ip
plugin	string					frpc local_ip local_port
plugin_params	map					map key "plugin_" plugin

group	string					
group_key	string					group
health_check_type	string				tcp,http	tcp
health_check_timeout_sint		( )		3		
health_check_max_failed	int			1		
health_check_interval_sint		( )		10		
health_check_url	string	HTTP				health_check_type http "/health"

TCP

remote_port	int					local_ip:local_port

UDP

remote_port	int					local_ip:local_port

HTTP

custom\_domains subdomain

custom_domains	[]string		( subdomain )			vhost_http_port HTTP Host custom_domains

subdomain	string		( custom_domains )			custom_domains subdomain_host
locations	[]string	URL				
http_user	string					Auth HTTP
http_pwd	string					http_user
host_header_rewrite	string	Host header				HTTP
headers	map	header				map key header key value

## HTTPS

custom\_domains

subdomain

custom_domains	[]string		( subdomain )			vhost_http_port HTTP Host custom_domains
subdomain	string		( custom_domains )			custom_domains subdomain_host

## STCP

role	string			server	server,visitor	server visitor
sk	string					

## SUDP

role	string			server	server,visitor	server visitor
sk	string					

## XTCP

role	string			server	server,visitor	server visitor

sk	string					

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Revision #3

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