

Sharing Best Practices for DNS Resolvers

Quad101

TWNIC

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Content

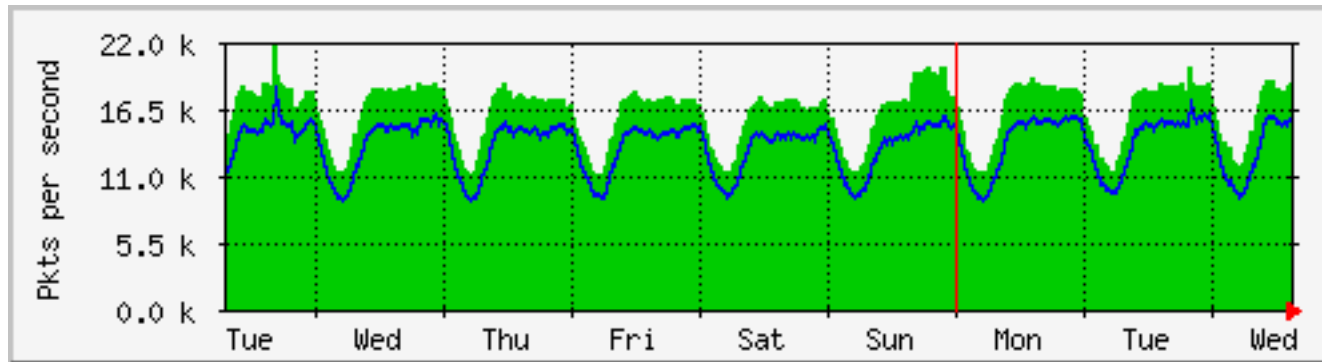
- Quad101 current status
- Quad101 usage
- Issues
- Conclusion

Quad101 brief

- IP: 101.101.101.101, 101.102.103.104
- Physical Location: TWIX (HiNet), TANet and Google Cloud
- Service: DoT (DNS over TLS), DoH (DNS over HTTPS) and Do53 (traditional DNS)
- DNSSEC validation is enabled
- Block C2 server, Malware and Phishing Domain name

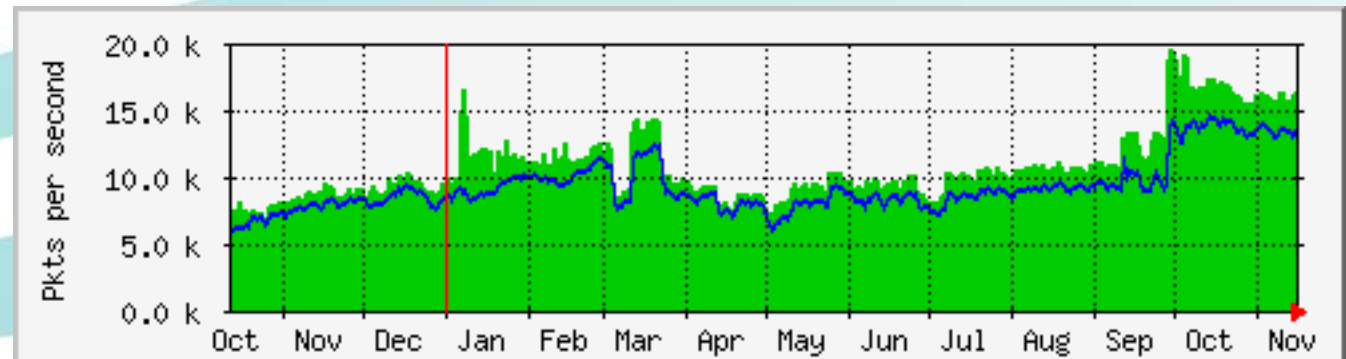
Quad101 current traffic

- 10,000~20,000 QPS



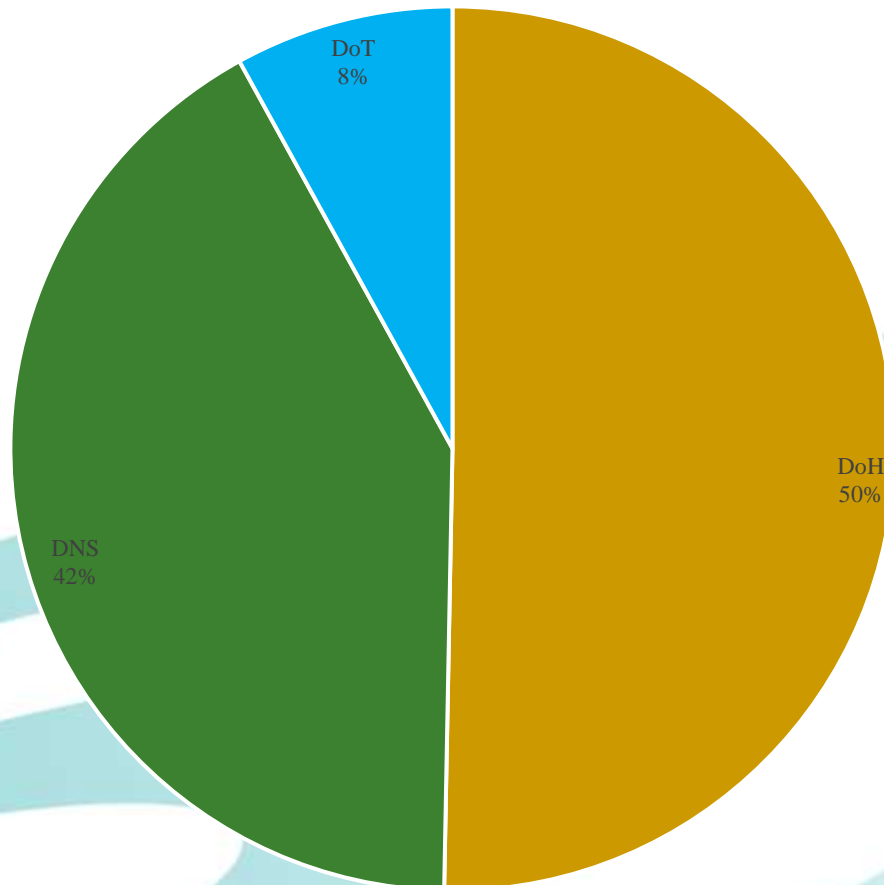
- Growth rate: 100% YOY

Green: Query
Blue: Response

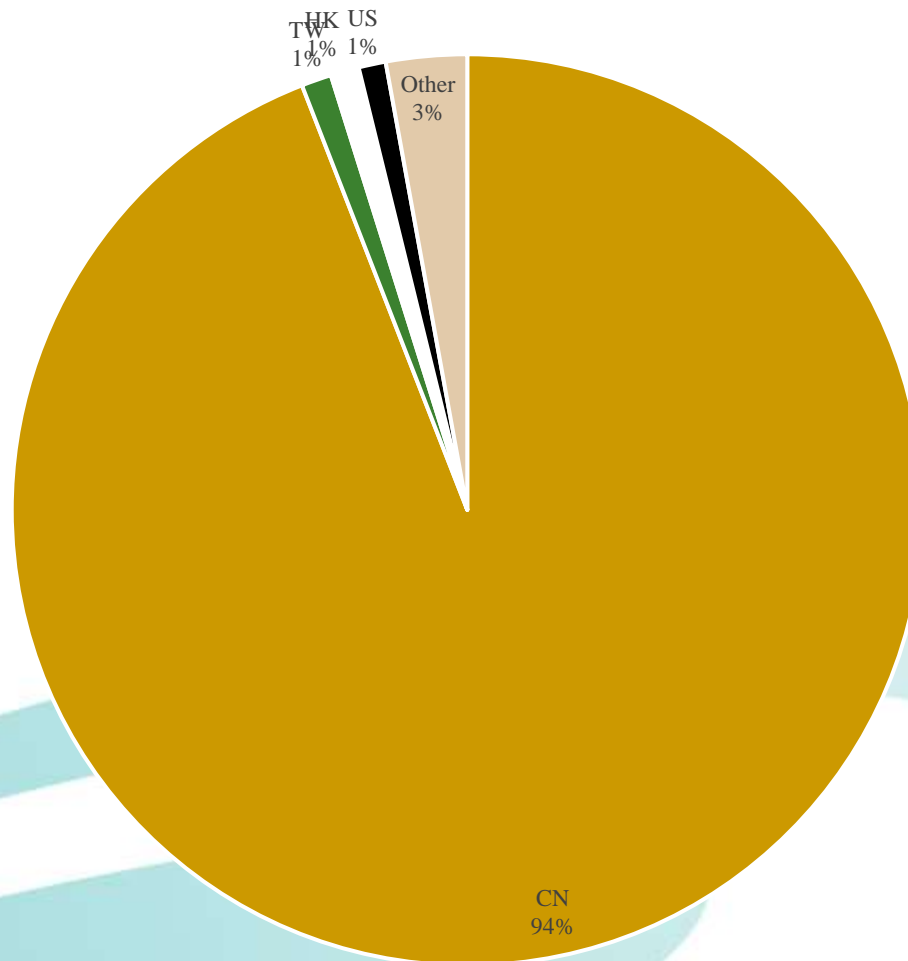


Quad101 DNS service type distribution

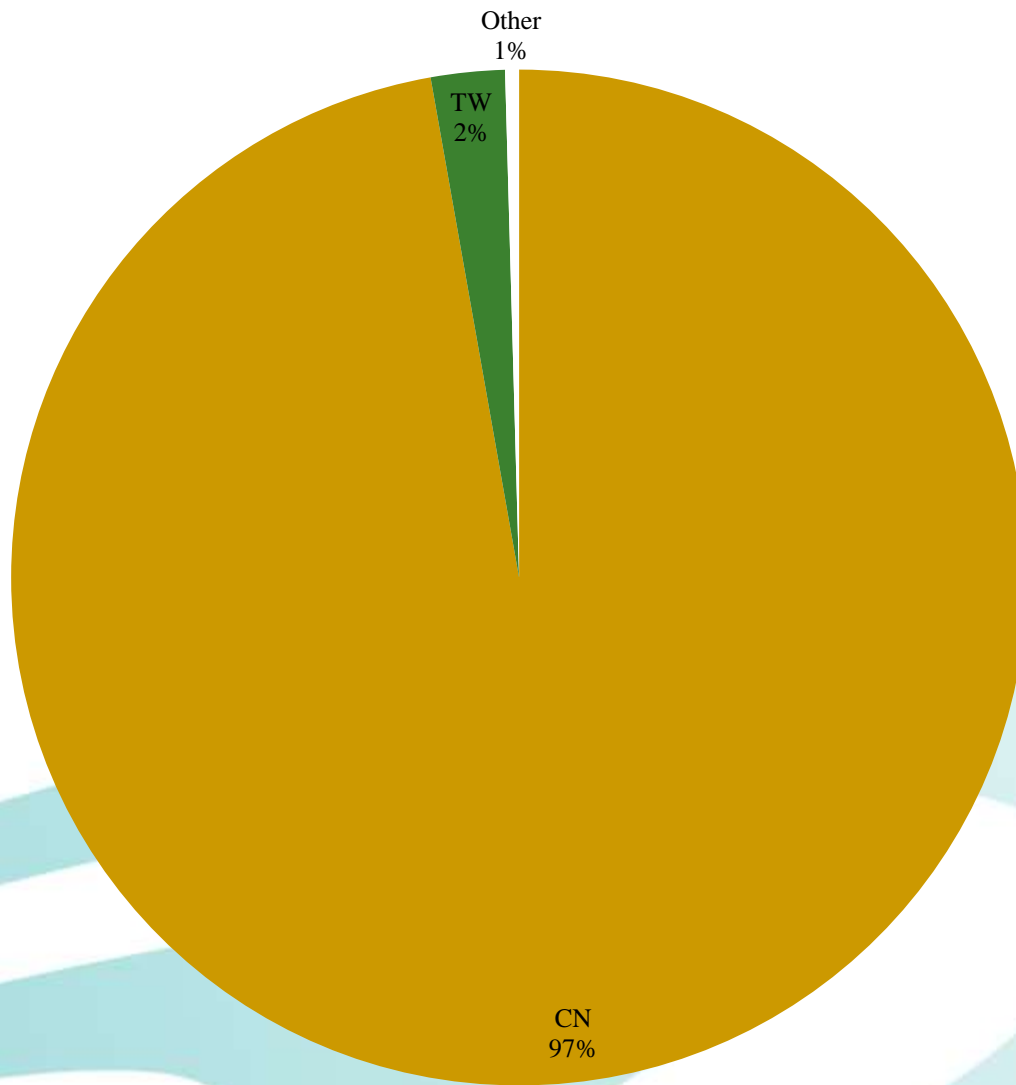
- Last year DoH accounts for 7% of all DNS traffic (DoT is 13%), but now



Where are DoH users come from?



Where are DoT users come from?



Why China users use Quad101 DoH/DoT

- China start to build Great Firewall on DNS resolution in some area

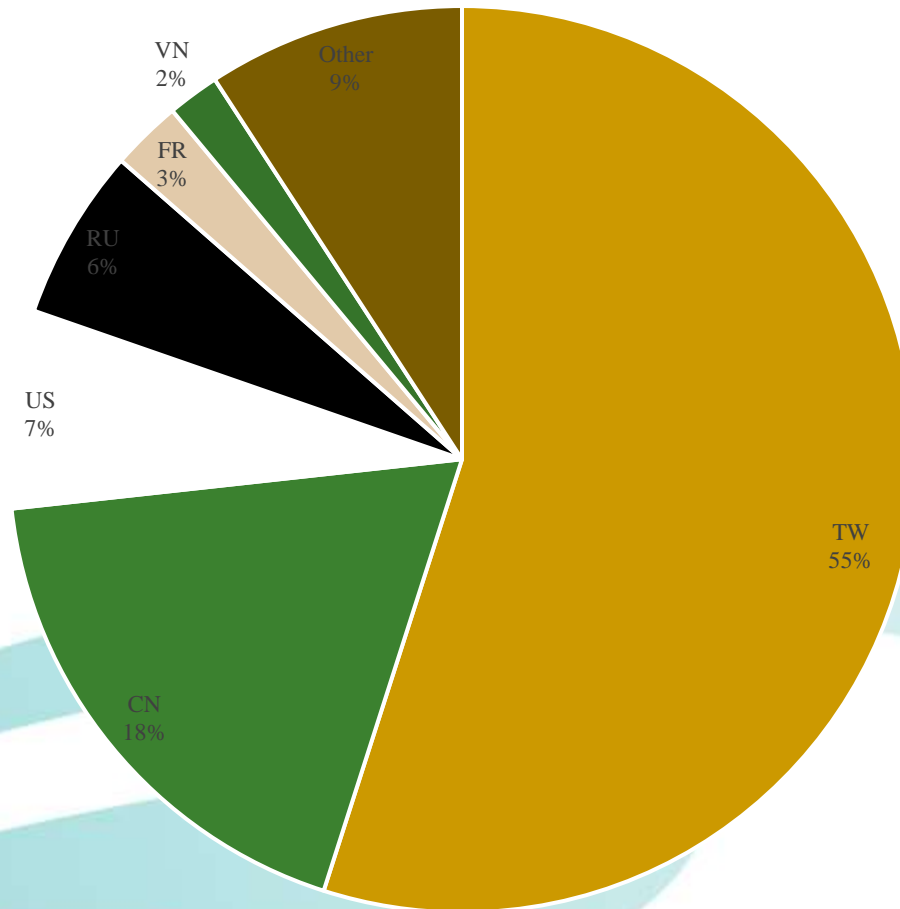
中国防火墙白名单机制试点开始了？福建泉州！

以下内容来自网络，我看见了，转给大家看下，如果有泉州的网友是否可以提供一些情况。匿名提交信息即可。

网友亲身在泉州体验网络白名单，总结情况大致如下

- 1、是域名白名单不是IP白名单，SS协议可以使用，不过几分钟后被识别封锁

Where are Do53 users come from?

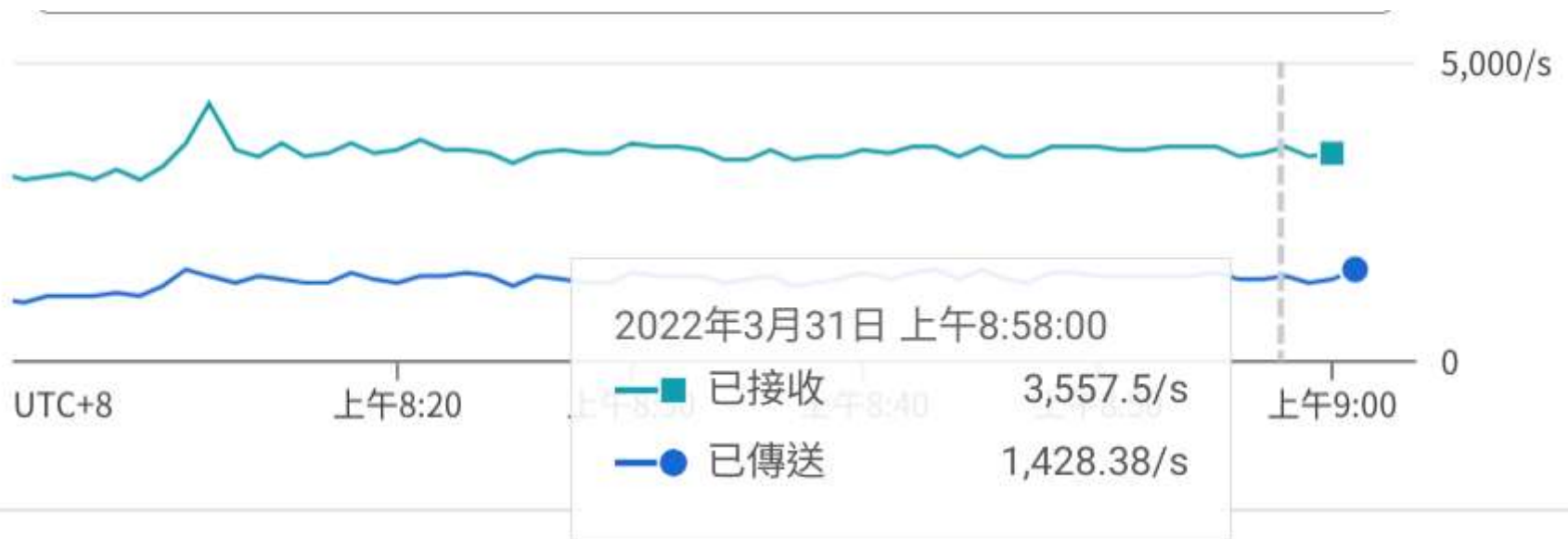


Quad101 issues

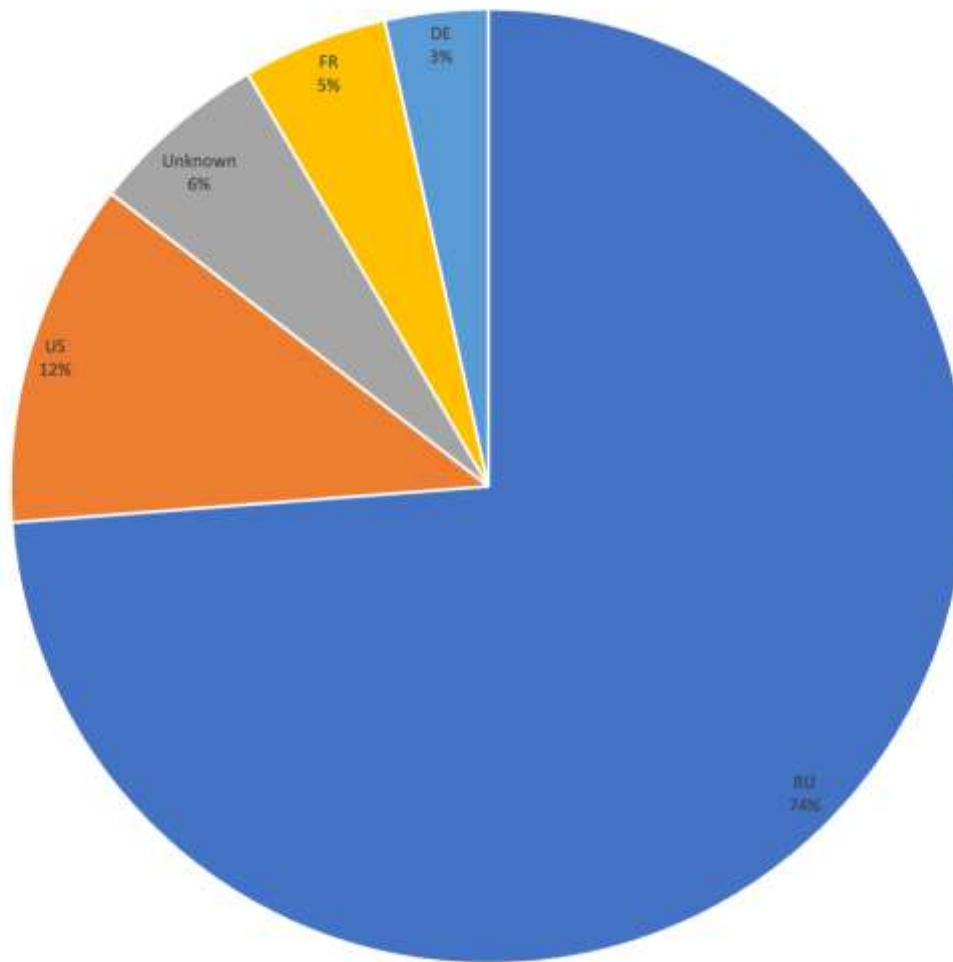
- DDoS
 - It is the biggest issue to Quad101 this year
- Maintenance cost
 - Double a year for bandwidth and servers

The new location

- We bring IP 101.102.103.104 to cloud, similar BGP anycast to provide service for foreign users



Where is the bad traffic come from?



Conclusion

- Encrypted DNS is not only for privacy, it can be used to bypass China's Great Firewall, which shows that there will be more and more users from China in the future
- We need more solutions to against DDoS to provide DNS availability

Q & A