



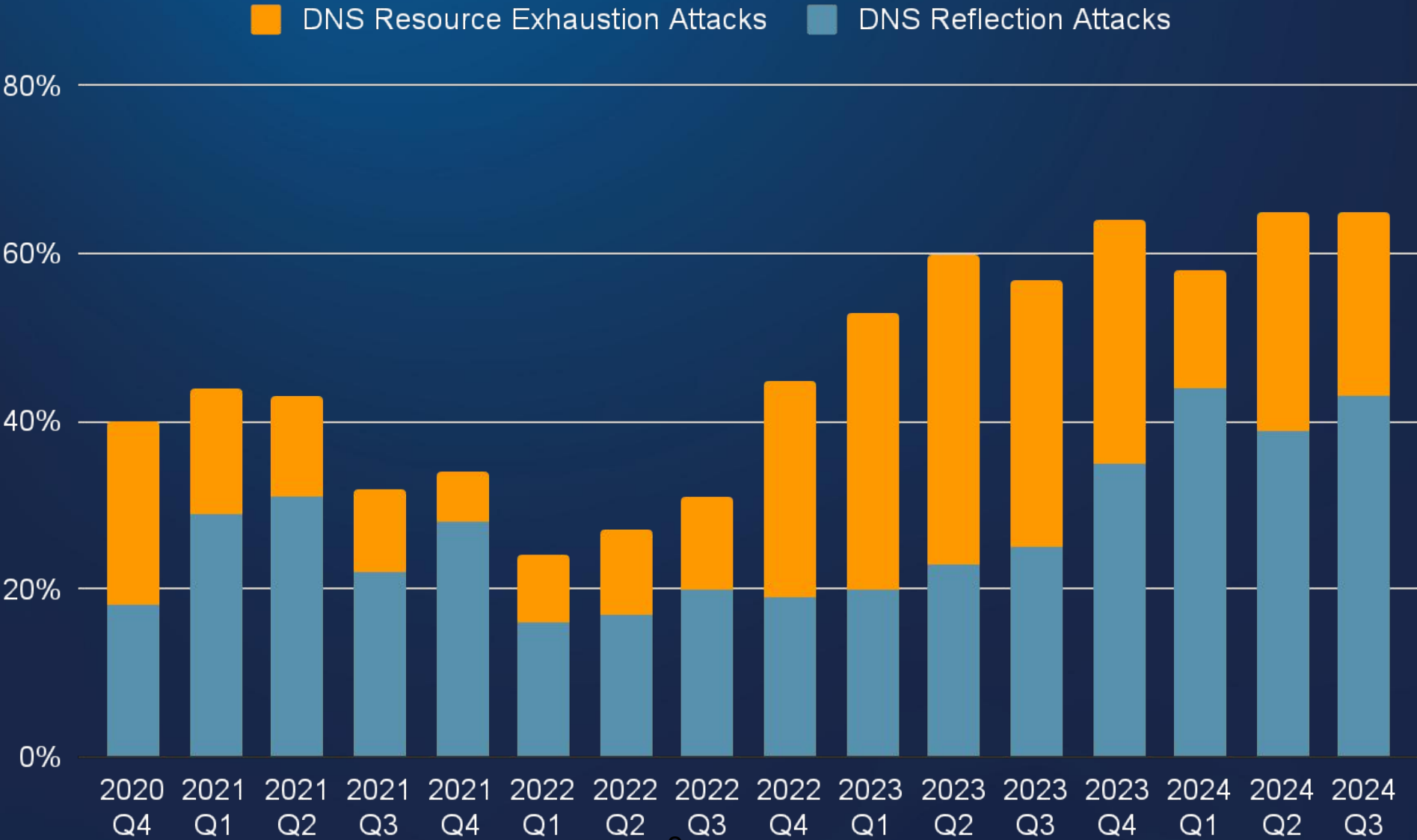
DNS is a Primary Vector for DDoS

Richard Meeus, Director Security
Technology & Strategy

DNS OARC 43 Prague, Czechia

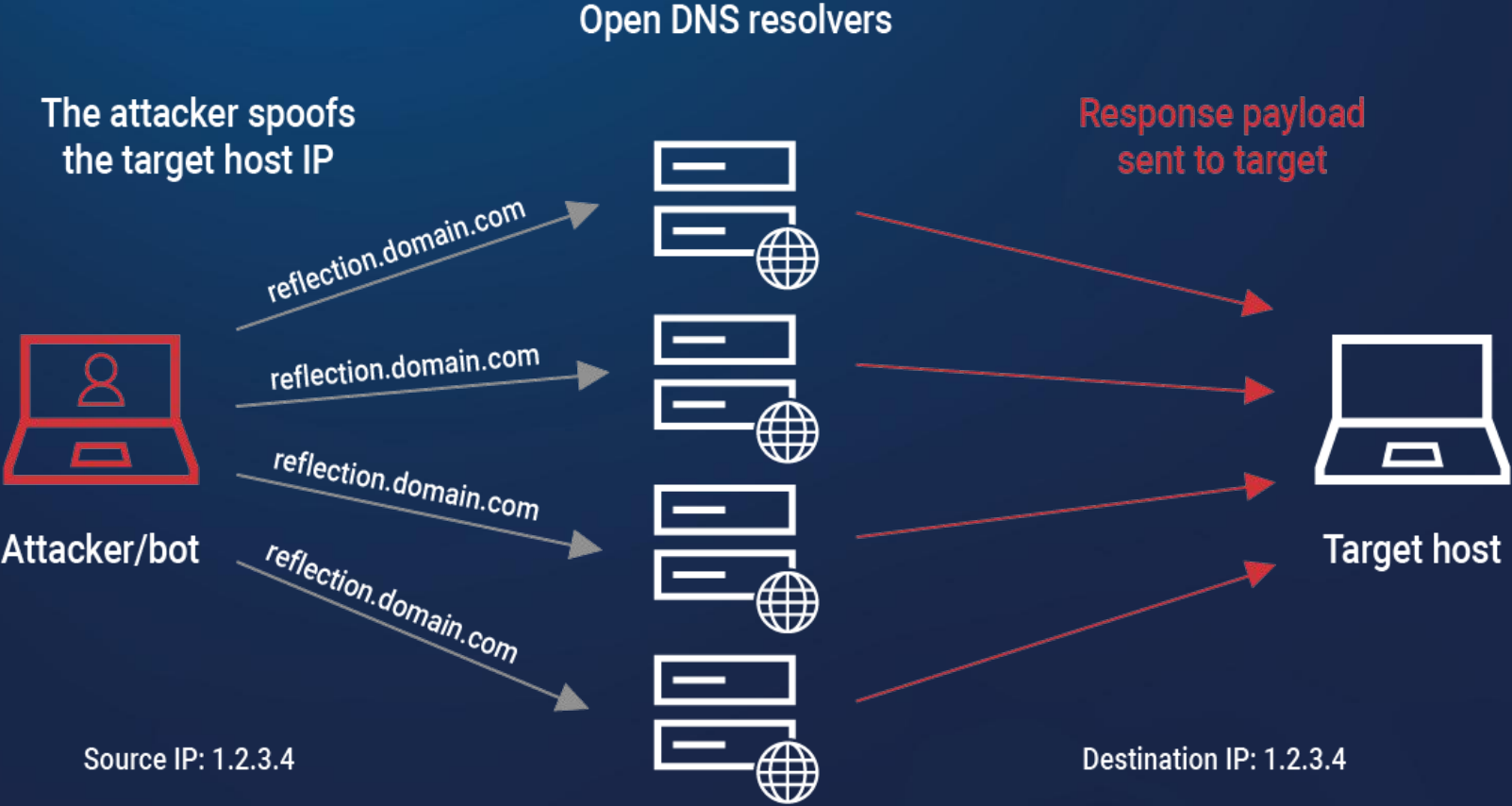
Oct 26/27

65% of Q3 DDoS attacks leverage DNS



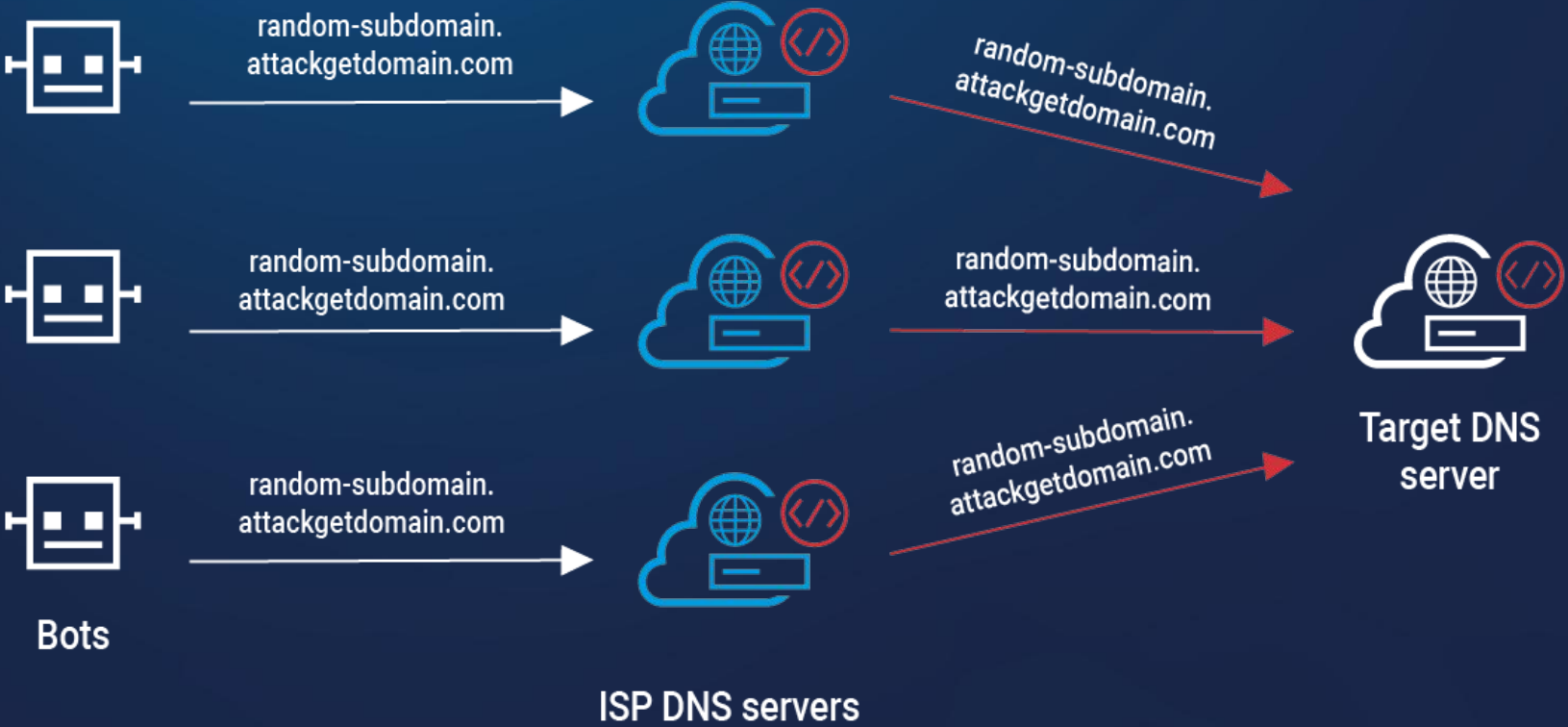
The newly trending DDoS target: DNS - part 1

DNS Reflection Flood

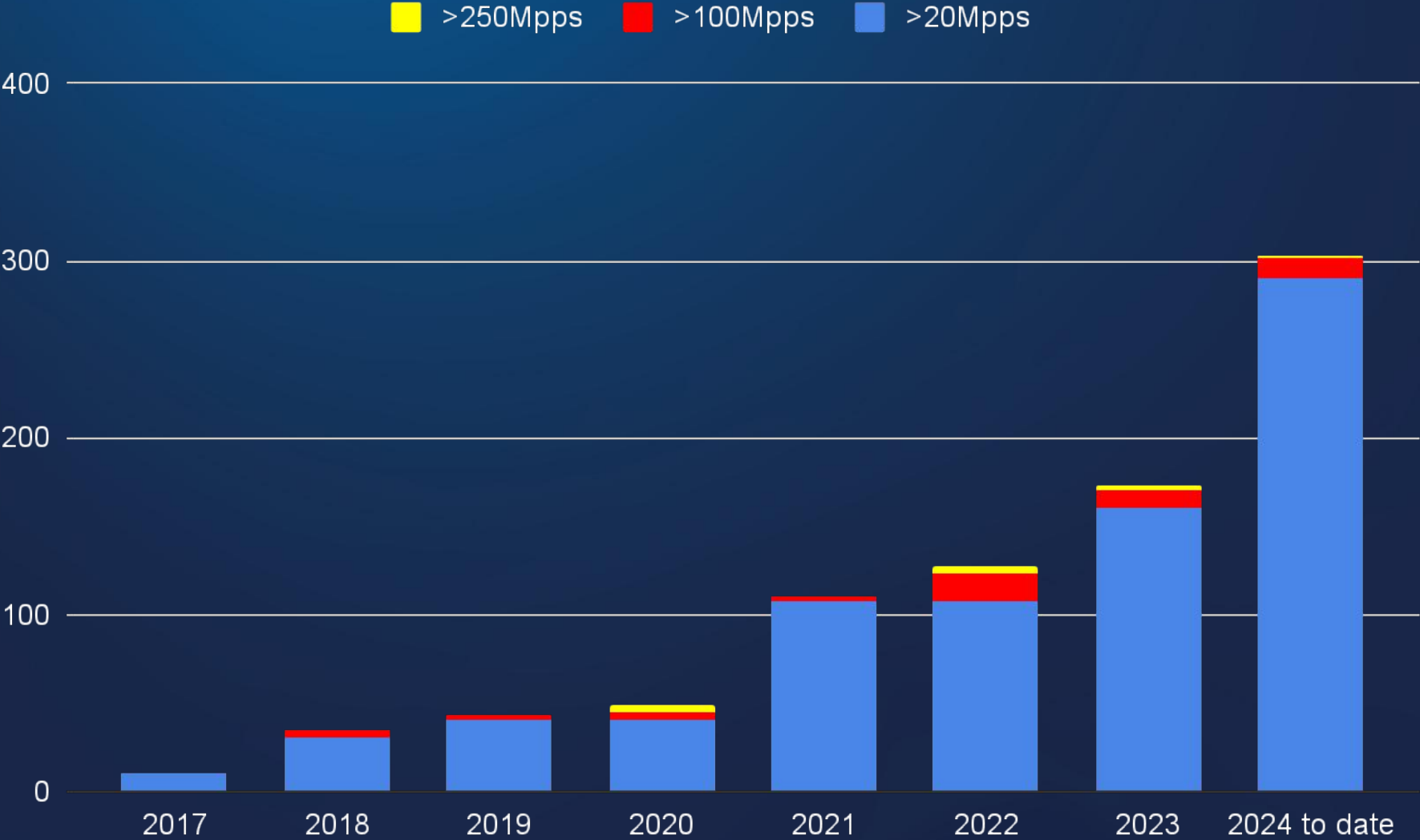


The newly trending DDoS target: DNS part 2

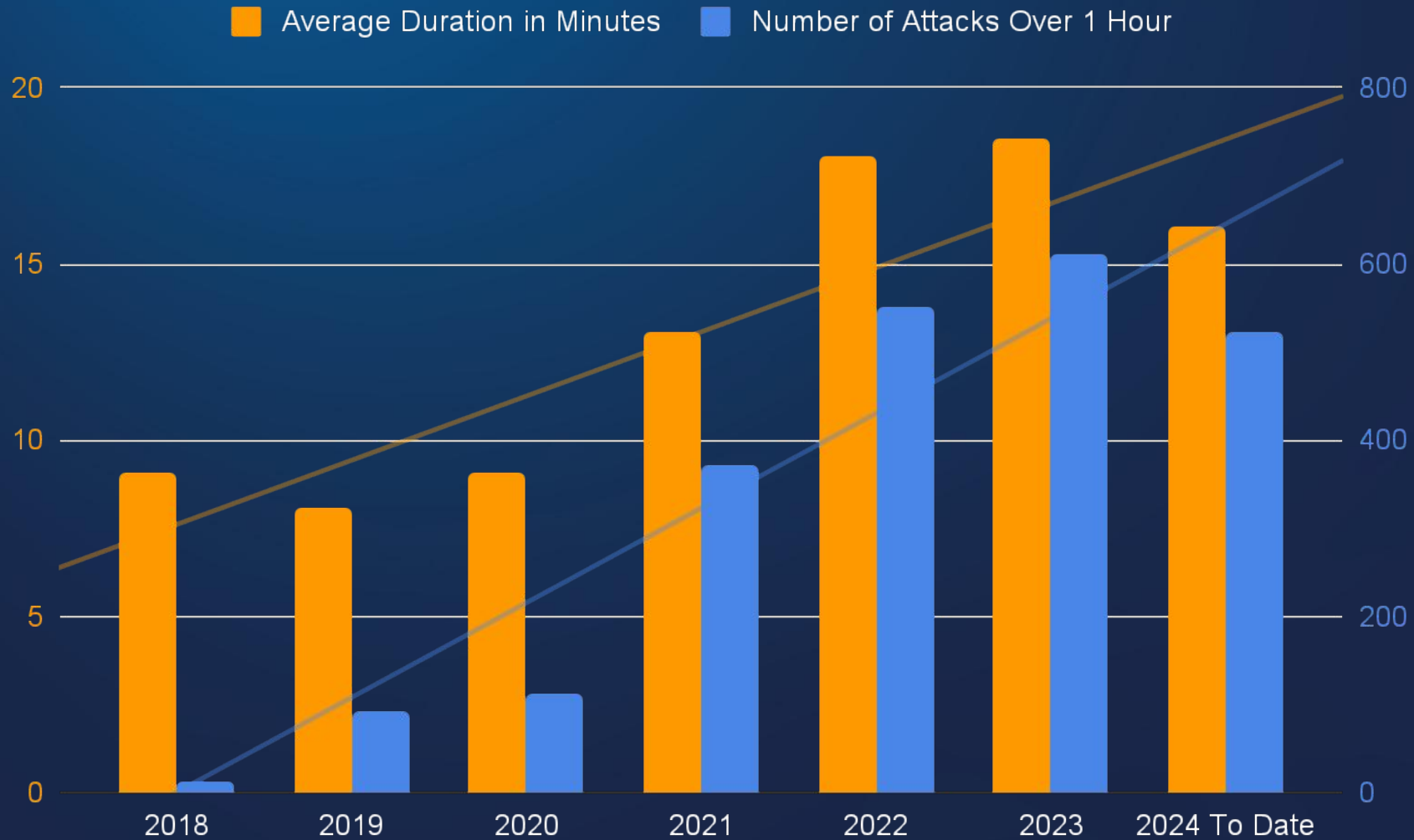
DNS NXDOMAIN Attack



High Packets per Second Attacks



Attacks Are Getting Longer



Major Sports League

DNS SUMMARY

Total Requests

161.12 Million

Total NXDOMAIN Responses

123.74 Million

NXDOMAIN Percent

76.80 %

Peak Requests/sec

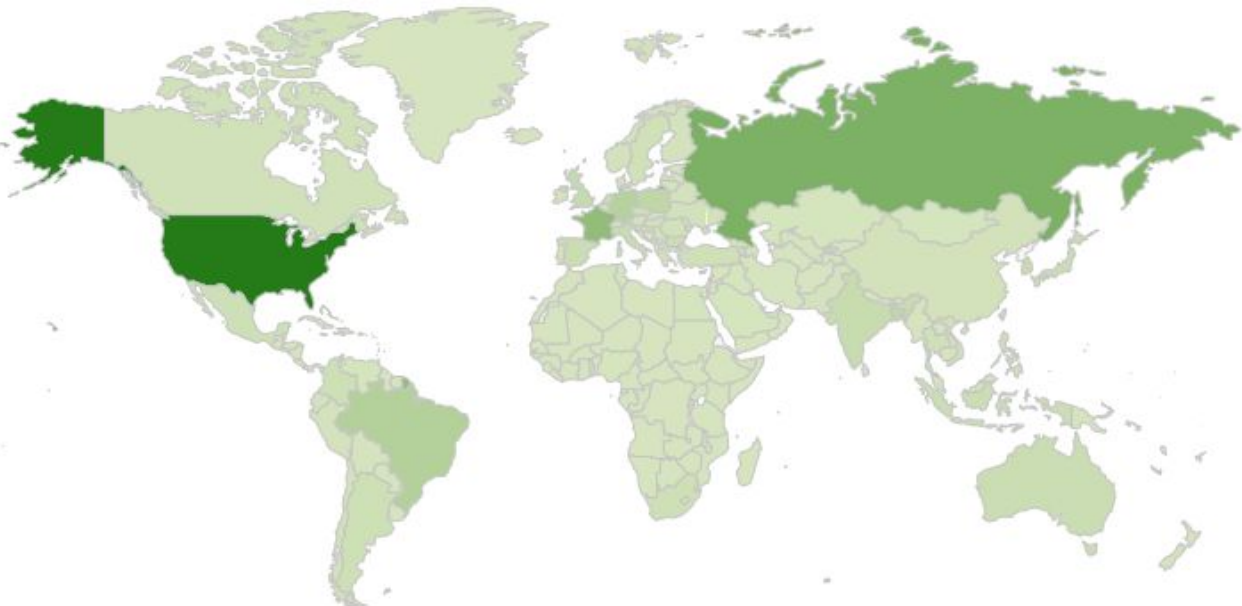
42.46 Thousand/s

Peak NXDOMAIN Respons...

38.42 Thousand/s



Sources of Traffic by Region



Top Requests



Region	Requests ↓
US	37,805,925
RU	17,956,082
FR	13,585,446
BR	6,841,180
DE	6,364,595
PL	4,404,925
BD	4,288,472



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Major Sports League

1 filter(s) applied

June 02, 2024, 12:00 AM – June 15, 2024, 11:59 PM (UTC +00:00)

DNS Threat Summary			
TOTAL REQUESTS	TOTAL NXDOMAIN RESPONSES	NXDOMAIN PERCENT	PEAK REQUESTS/SEC
30.7 Billion	27.6 Billion	89.89 %	94.86 Thousand/s

PEAK NXDOMAIN RESPONSES/SEC
83.95 Thousand/s

DNS Requests per Second

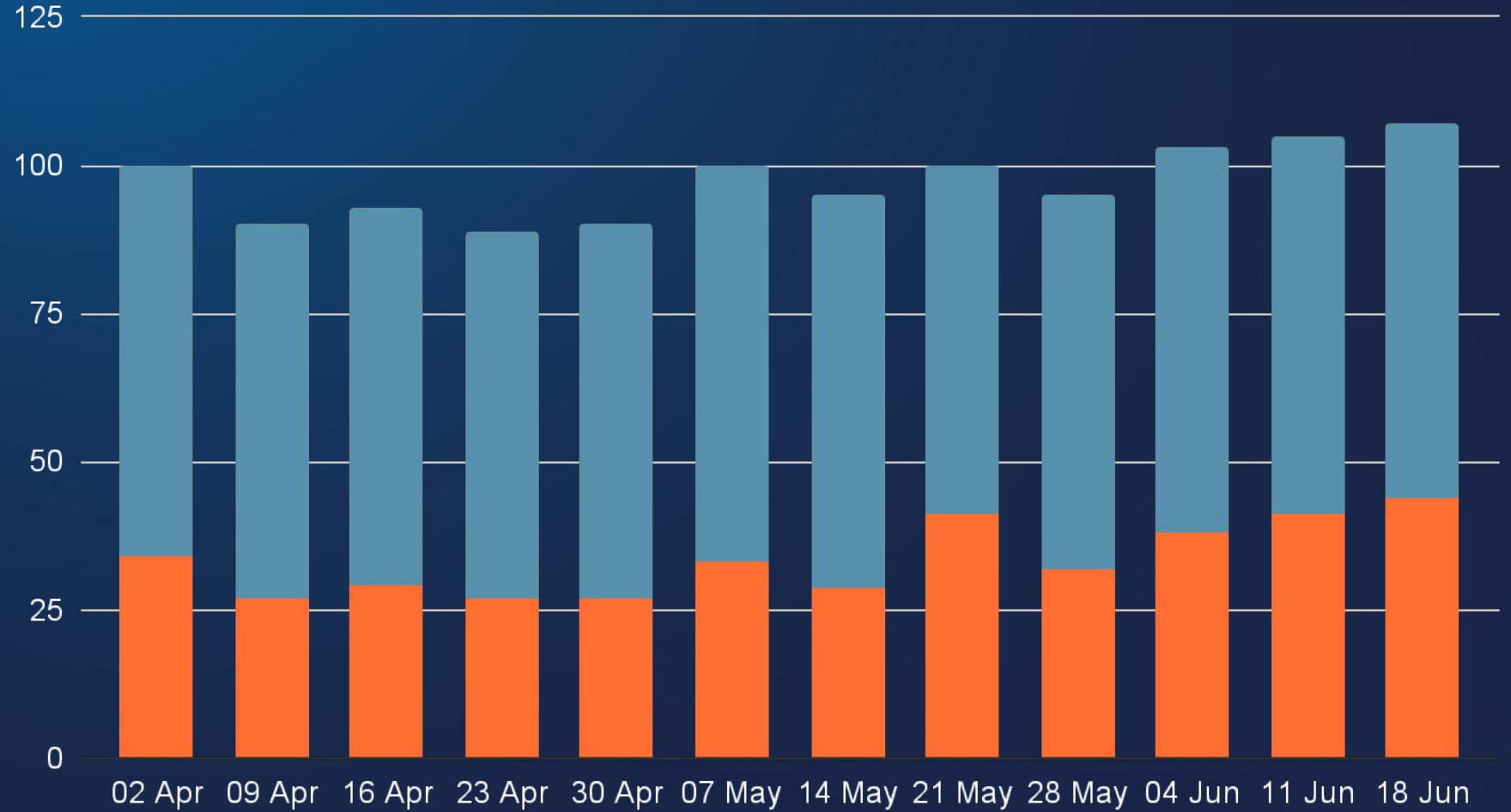


NXDOMAIN Responses per Second



NX Domain Impact

All other requests (Bn) NXDomain (Bn)



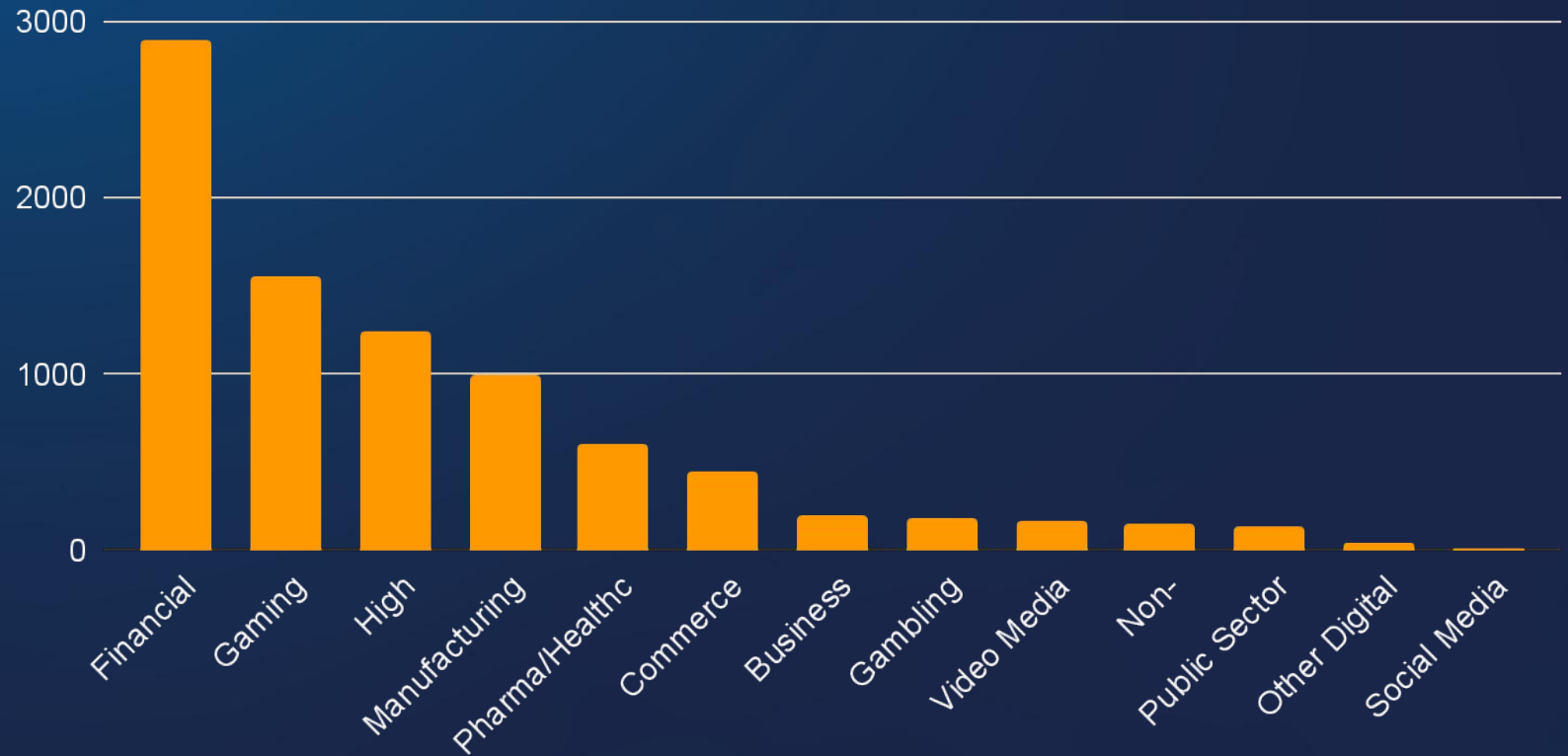
NXDOMAIN
trends across
cloud
authoritative
infrastructure

Layers 3 and 4 DDoS attack events by industry

Financial services remains the most frequently attacked industry by Layers 3 and 4 DDoS attack events

Layer 3/4 DDoS Attack Events by Vertical

Jan 1, 2023 - June 30, 2024



Mitigation and Protection

- Fortify authoritative infrastructure
- Use “traditional” DDoS defences
- Deploy authoritative proxies

