



Yeti experiment in MSK-IX

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Introduction



MSK-IX:

- Internet exchange
- DNS service provider

<http://www.ix.ru/eng/>

Why Yeti?

“to discover the limits of DNS root name service and deliver useful technical output.” yeti-dns.org



Yeti Lab components

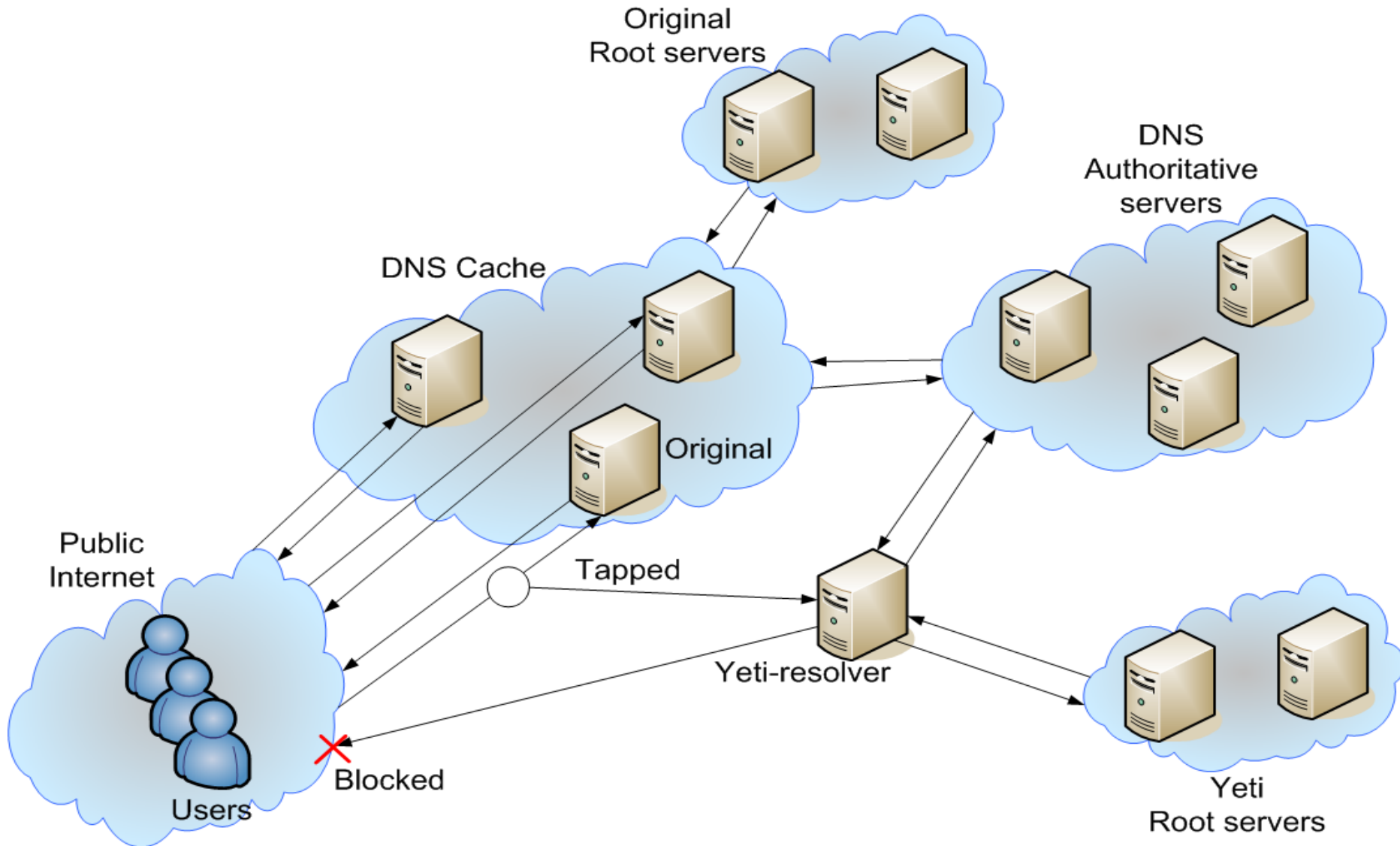
DNS

- Root server yeti-ns.ix.ru - 2001:6d0:6d06::53
(Physical HP server with FreeBSD10/BIND9 software)
- Recursive server yeti-resolver.ix.ru - 2001:6d0:6d06:100::5353
(Virtual server with FreeBSD10/BIND9 software | Internal tests only)

Monitoring

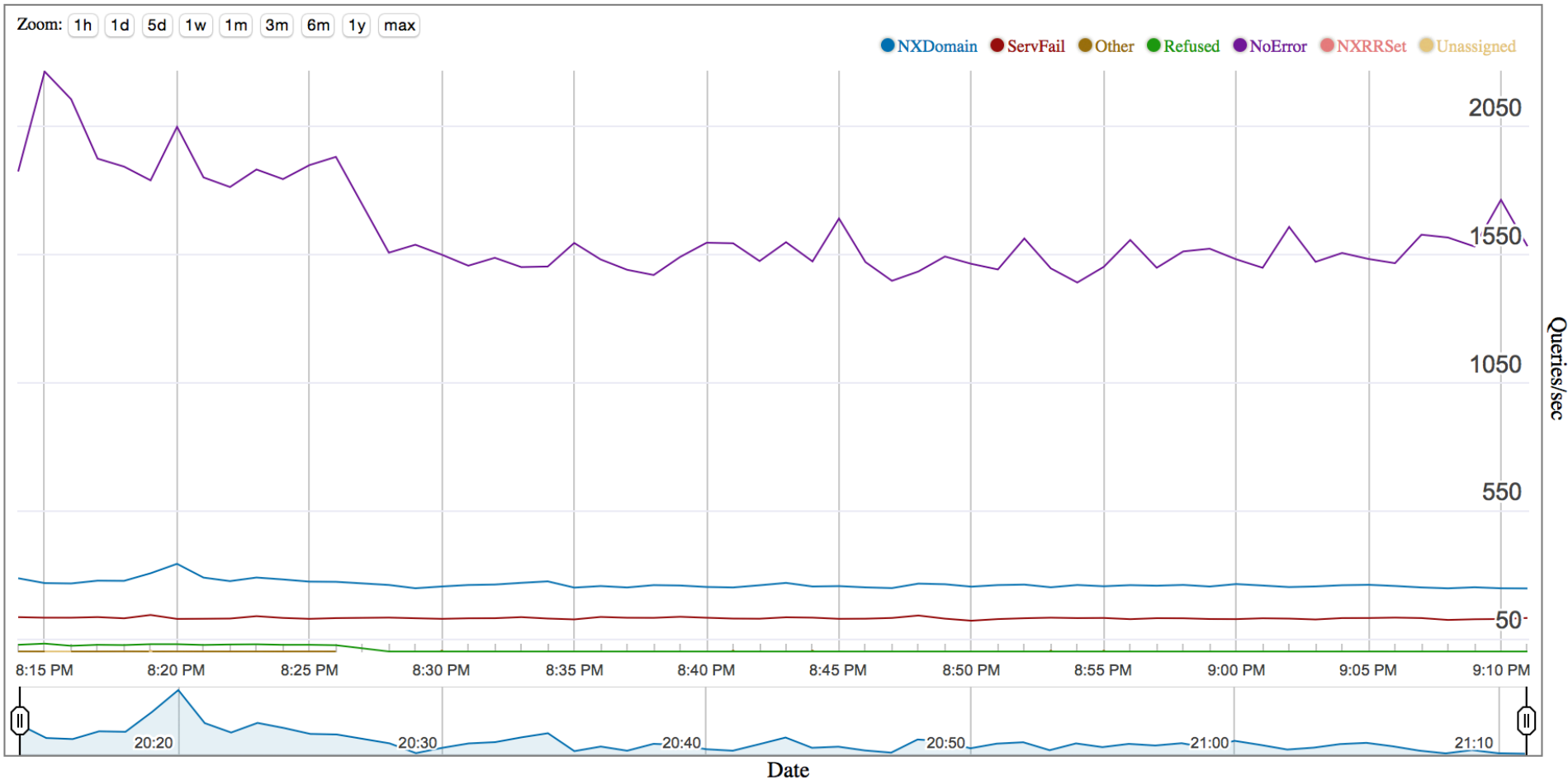
- Icinga plugin (DMs serial check)
- DSC/Hedgehog
- DNS queries stream

Real DNS traffic -> Yeti LAB



Original DSC stats

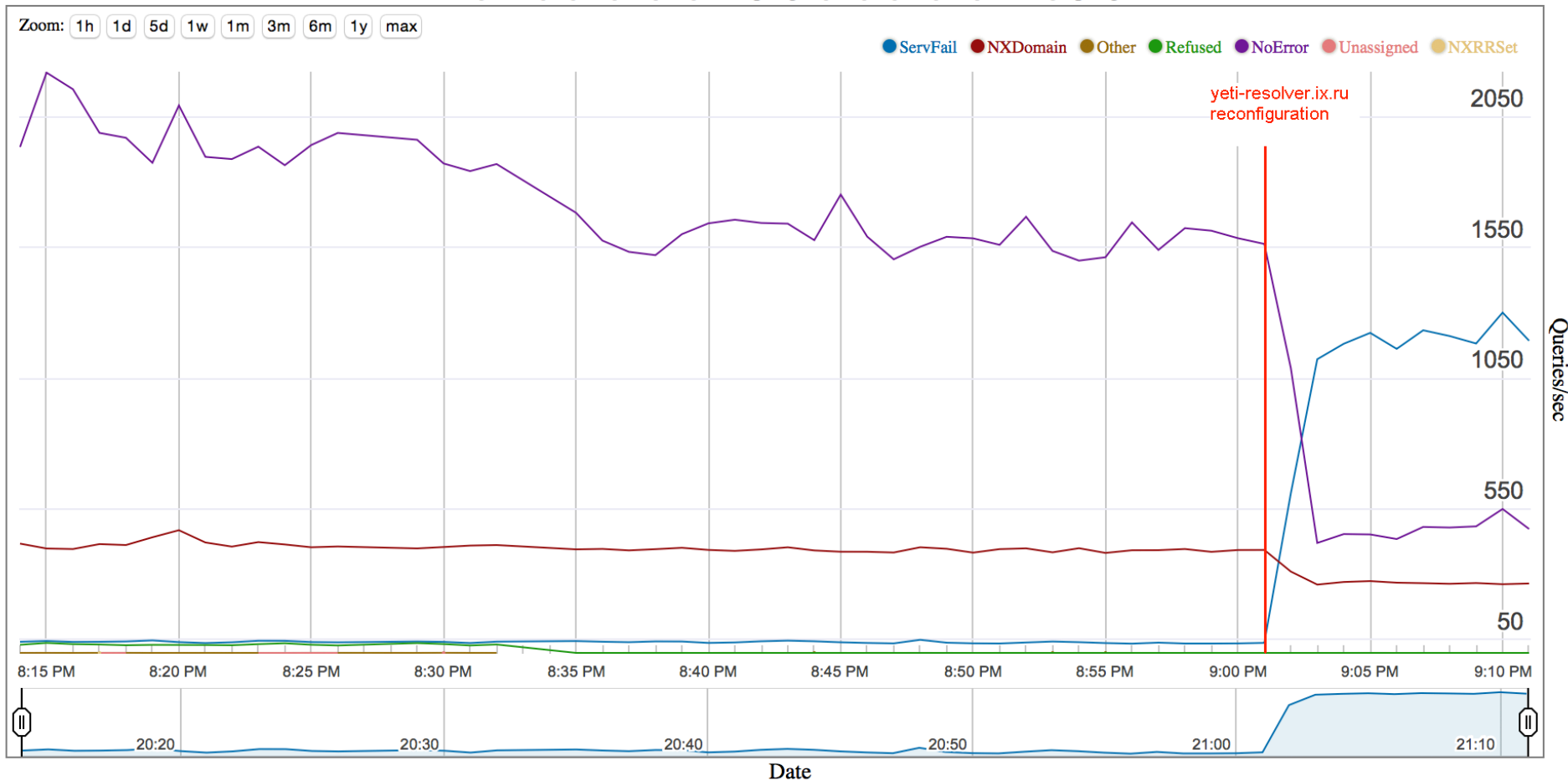
RCODE values in DNS replies
from 2015-10-26 20:14 UTC to 2015-10-26 21:13 UTC



Yeti DSC stats

Recursion in IPv6-only environment

RCODE values in DNS replies
 from 2015-10-26 20:14 UTC to 2015-10-26 21:13 UTC



Results

- 2/3 of valid queries finished with ServFail
(Lack of IPv6 connectivity)
- Useful representative tool to compare real and yeti
environment RCODEs for same queries
(DSC/Hedgehog – can be used for further yeti experiments
analysis)

Observations and recommendations

Incoming notifies. Only one DM - BII. What about TISF and WIDE?

2001:559:8000:cd::a

2001:620:0:1006:21a:4aff:fede:ee8b







240c:f:1:122::7

240c:f:1:22::7 – BII DM

2a01:4f8:161:6106:1::10

2a02:2810:0:405::250

Monitoring. Blocked by TISF.

Host ▲▼	Service ▲▼	Status ▲▼
yeti-ns.ix.ru (YETI slave) 	yeti-root consistency (TISF US Master)   	UNKNOWN
	yeti-root consistency (BII CN Master) 	OK
	yeti-root consistency (WIDE JP Master) 	OK

RSSAC reports for Yeti project?

Questions



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