Bell DDoS Security Brief

This infographic looks at distributed denial of service (DDoS) attack trends over the past year based on the insights Bell gathers as it operates Canada's largest voice and data network.

Across Canada and around the world, the DDoS threat is on the rise. Bell detected a sharp climb in DDoS attacks in 2016, with many larger and longer-lasting than those of the previous year.

What Bell saw when monitoring and mitigating attacks for its customers in 2016:

386,381 total attacks

Over **1,000** attacks per day (on average)

100% DENIED

All attacks detected within the Bell network were denied for businesses who purchased the Bell Network DDoS Security service — with mitigation having begun within **30 seconds**.
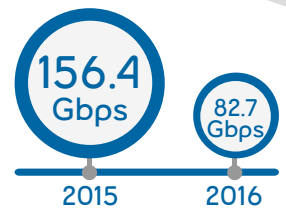
How long?

The average attack was much **longer**.

2015 — 40 sec
2016 — 1 min, 26 sec

The longest attack lasted nearly two hours **longer** than in 2015.

2015 — 9hr, 34 min
2016 — 11 hr, 26 min

How big?

The **biggest** attack was not as large as in 2015.

156.4 Gbps 2015
82.7 Gbps 2016

But the number of attacks greater than 10 Gbps increased by **600%**.

4 — 2015
28 — 2016
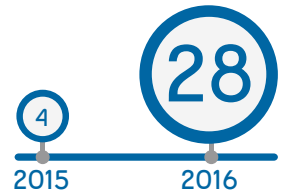
How severe?

High-severity attacks made up the majority of attacks in **2016**.

2015
43.2% — High
30.3% — Medium
26.5% — Low
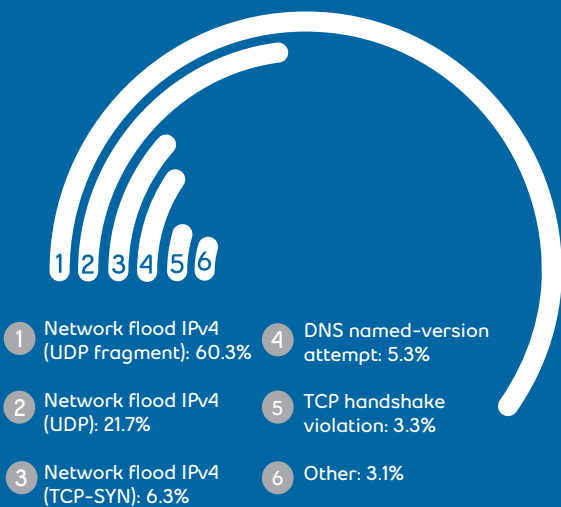
2016
88.4% — High
2.4% — Medium
9.2% — Low
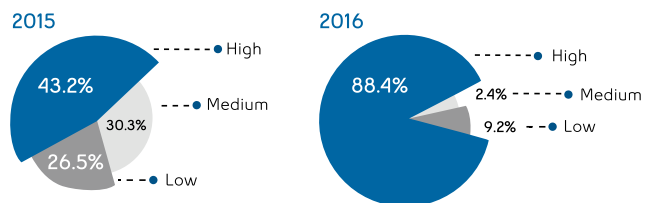
Bell has been seeing longer and more frequent DDoS attacks than ever before. The time for all Canadian businesses to look into investing in a solution that can protect their critical IT infrastructure is now.

To learn if your business may be at risk, download our DDoS risk assessment at **bell.ca/ddosassessment**.

What attack types are being seen?

Most attacks target the network layer, exploiting vulnerabilities in the user datagram protocol (UDP), network time protocol (NTP) and domain name system (DNS) to overload network connections and consume massive amounts of bandwidth.
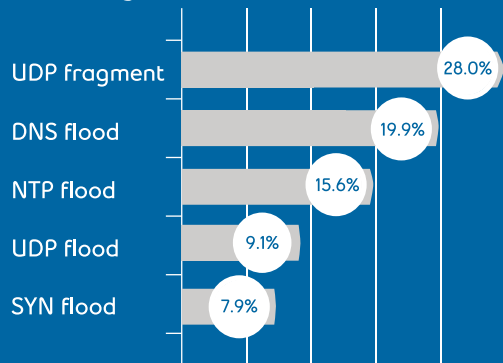
1 2 3 4 5 6

1. Network flood IPv4 (UDP fragment): 60.3%
2. Network flood IPv4 (UDP): 21.7%
3. Network flood IPv4 (TCP-SYN): 6.3%
4. DNS named-version attempt: 5.3%
5. TCP handshake violation: 3.3%
6. Other: 3.1%

What is being seen globally?

Number of attacks: **+176%**
Largest attack: **623 Gbps**
Attacks greater than 100 Gbps: **+182%**

Attack type distribution

Attack type	Percentage
UDP fragment	28.0%
DNS flood	19.9%
NTP flood	15.6%
UDP flood	9.1%
SYN flood	7.9%

Global DDoS statistics were provided by Bell partner Akamai Technologies.

While Canadian business have yet to face 'mega attacks' of 500 Gbps or more, the number of large attacks are on the rise worldwide — and is something to take into consideration when preparing your business in the year ahead.

To learn about your options and the questions to ask a provider, download our buyer's guide to DDoS security at **bell.ca/ddosguide**.

Protect your network and your business.

Owning and operating Canada's largest voice and data network, Bell has the greatest scope of visibility into potential threats. With these insights, the fully managed Bell Network DDoS Security service can automatically detect, mitigate and filter DDoS attacks – of any size, source, destination or duration – before they can reach your corporate network, preventing malicious traffic from interrupting your operations.

For more information, visit our website at **bell.ca/ddos** or contact your Bell representative.

Canadian DDoS statistics were generated from Bell Network DDoS Security service reports.

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