Internet Disruption Study

Strategic Market Research Report
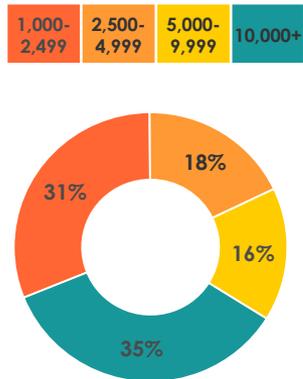
Underwritten by

Dyn

Background & Methodology

OBJECTIVE: Quantify the impact of Internet disruptions on IT/network operations for businesses.

RESEARCH METHODOLOGY: In Q4 2016, Spiceworks surveyed IT decision-makers in the US/Canada and the UK. 201 respondents (~100/geo) completed the 5-minute online survey. Dyn was not revealed as the sponsor of the research.
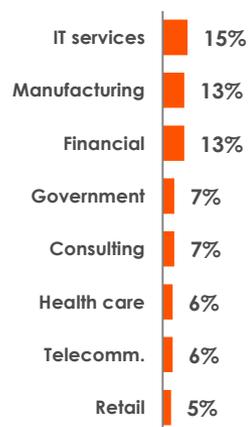
RESPONDENT QUALIFICATION CRITERIA: The IT decision-makers involved with IT operations, specifically with insight into Internet connectivity for external applications, and work for organizations with 1,000+ employees that have external facing applications tied to revenue (e.g., e-commerce, online media, apps, etc.). Industry and job title were allowed to fall out naturally for a good mix.
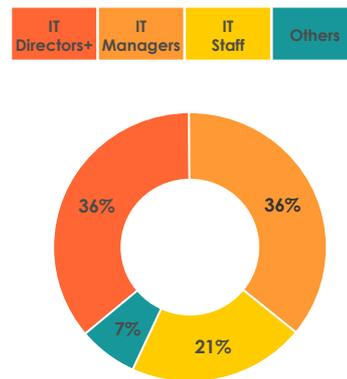
RESPONDENT PROFILE:

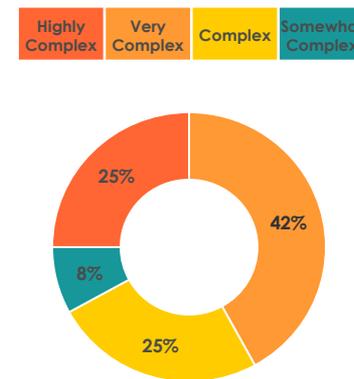### COMPANY SIZE

1,000-2,499	2,500-4,999	5,000-9,999	10,000+

- 18%
- 16%
- 35%
- 31%

TOP INDUSTRIES

Industry	%
IT services	15%
Manufacturing	13%
Financial	13%
Government	7%
Consulting	7%
Health care	6%
Telecomm.	6%
Retail	5%

JOB TITLE

IT Directors+	IT Managers	IT Staff	Others

- 36%
- 36%
- 21%
- 7%

INTERNET SERVICES & INFRASTRUCTURE ENVT.

Highly Complex	Very Complex	Complex	Somewhat Complex

- 25%
- 42%
- 25%
- 8%

DECISION INVOLVEMENT

	%
Evaluate solutions/vendors	58%
Recommend solutions/vendors	57%
Manage solutions	53%
Determine need	52%
Deploy solutions	48%
Monitor solutions	45%
Make final decisions	42%
Approve purchases	40%

Respondents: 201

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Key Findings

Nearly all organizations (89%) report experiencing some type of Internet disruption in the past year, with most occurring outside of their network control (e.g. network and provider outages)

- The vast majority indicate that Internet disruptions are a painful experience for their organization, including over a third that described the impact as "*crippling*" or "*excruciating*."
- Disruptions take *a full business day* on average to be resolved, longer for disruptions outside the network.
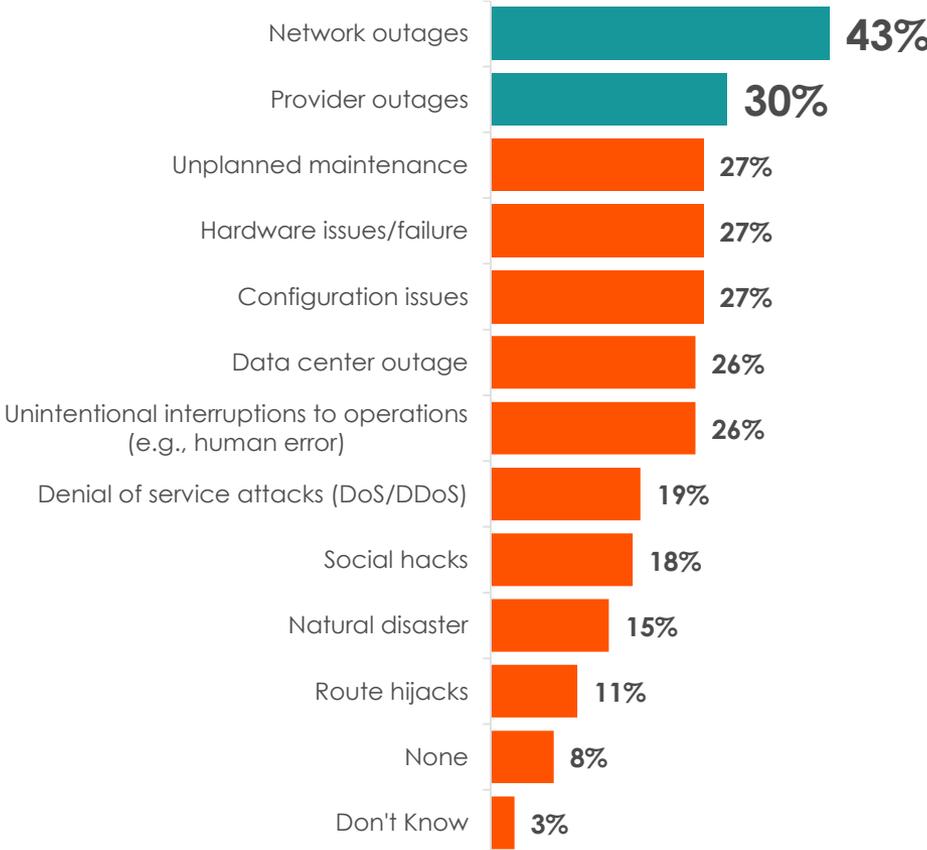
User experience, customer satisfaction and employee productivity suffer the biggest impact as a result of Internet disruptions

- Frustration from end users and increased calls to support are the leading impacts Internet disruptions have on IT operations teams and organizations.
- The impact Internet disruptions have on staff and resources (working longer hours, support tickets, employee productivity, etc.) are also key pain points identified by organizations.

All organizations report having a strategy to protect their business against the threat of volatility

- 92% of respondents are concerned about the impact of a major Internet disruption hitting their business in the next six (6) months.
- 44% of companies are monitoring network activity and 41% report making improvements to network infrastructure.

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Nearly all organizations experienced an Internet disruption in last 12 months

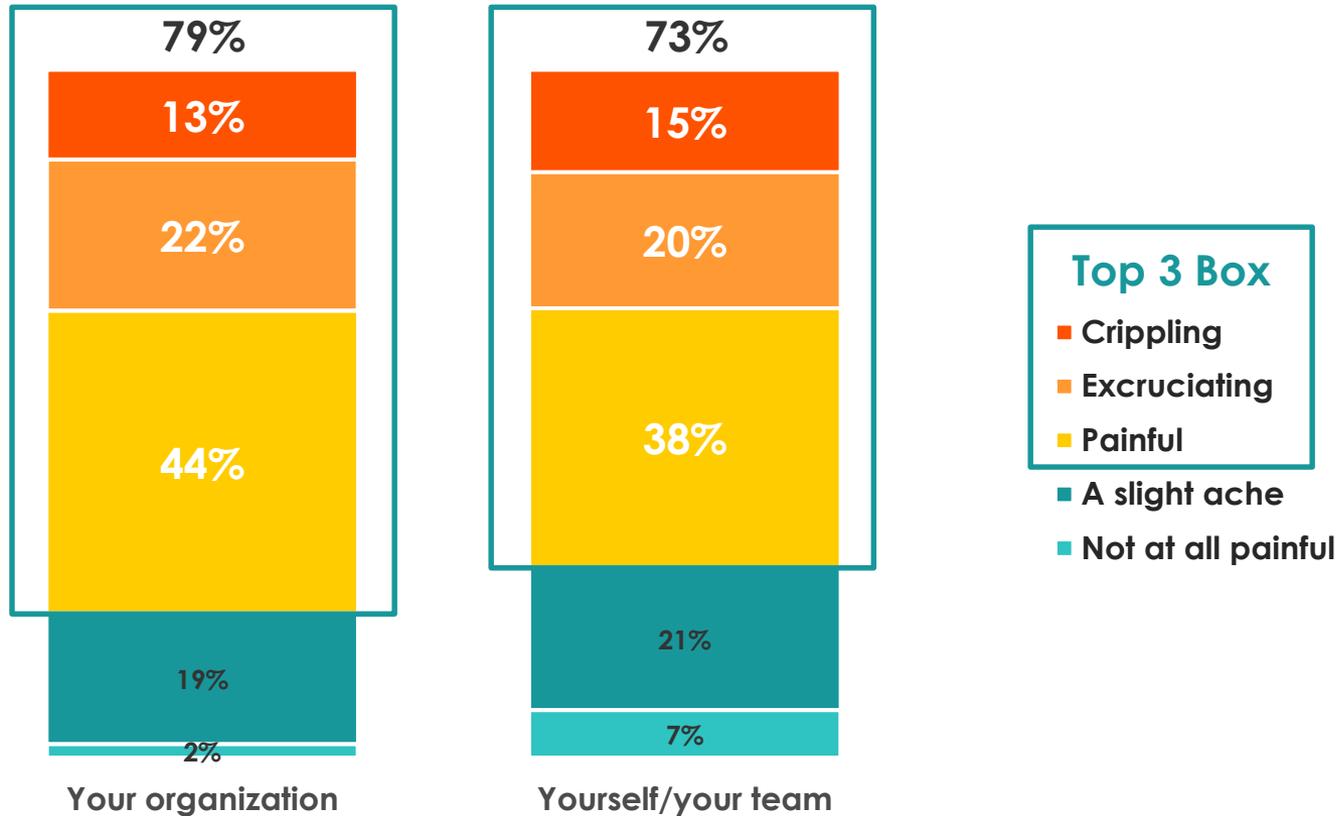| Category	Percentage
Network outages	43%
Provider outages	30%
Unplanned maintenance	27%
Hardware issues/failure	27%
Configuration issues	27%
Data center outage	26%
Unintentional interruptions to operations (e.g., human error)	26%
Denial of service attacks (DoS/DDoS)	19%
Social hacks	18%
Natural disaster	15%
Route hijacks	11%
None	8%
Don't Know	3%

89%

of organizations report experiencing an Internet disruption in last 12 months

Q10. Has your organization experienced an Internet disruption caused by any of the following in the past year? *(Multiple selections permitted.)*
Respondents: 201

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Internet disruptions are a major headache for organizations and IT operations alike

This validates the impact Internet volatility can have on business operations and the importance for IT operations' ability to diagnose, troubleshoot and solve these issues to minimize the damage caused as much as possible.

Your organization: 79% — Crippling 13%, Excruciating 22%, Painful 44%, A slight ache 19%, Not at all painful 2%

Yourself/your team: 73% — Crippling 15%, Excruciating 20%, Painful 38%, A slight ache 21%, Not at all painful 7%

Top 3 Box
- Crippling
- Excruciating
- Painful
- A slight ache
- Not at all painful

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Internet disruptions take a full business day to resolve; Longer for disruptions outside the network

Mean time to resolution (MTTR) for Internet disruptions that occur outside of network control take more than a full, standard work day (~9 hours) to identify and resolve.

Internet disruptions that occurred
within network control

Average time to identify and resolve a disruption within network control:
7.4 hours

45%

55%

Internet disruptions that occurred
outside of network control

Average time to identify and resolve a disruption outside of network control:
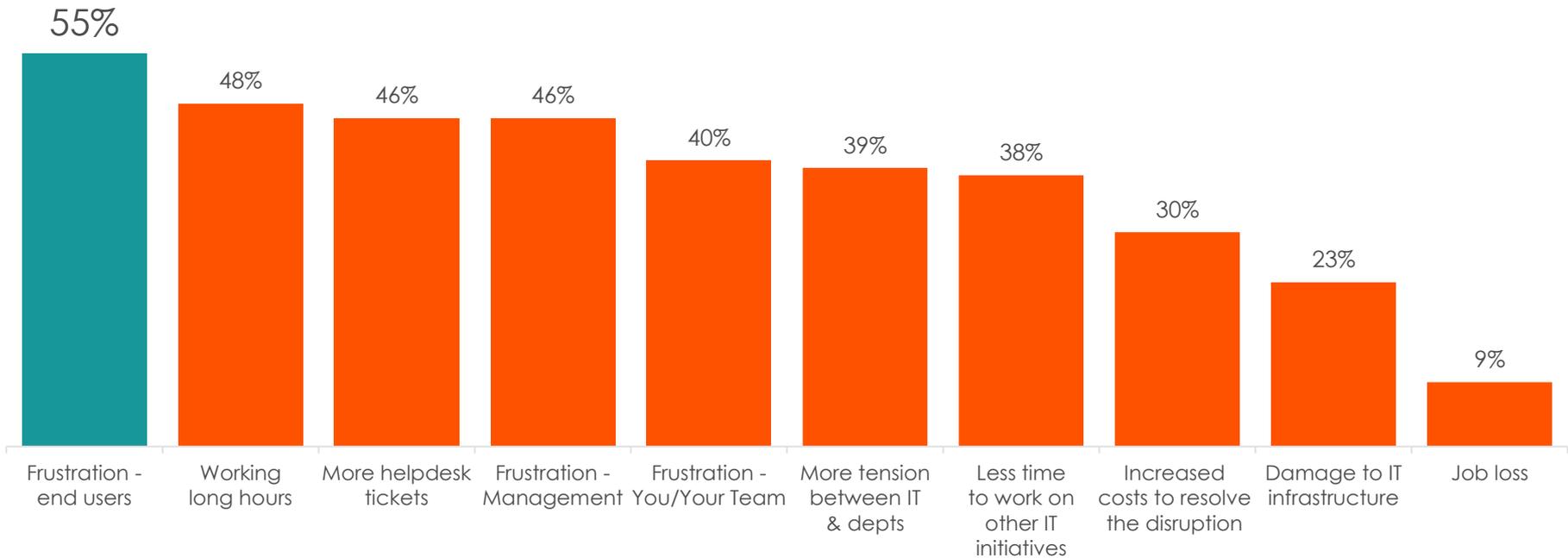**8.7 hours**

Q12. What percentage of the Internet disruptions your organization has experienced in the past year have occurred…?
(If experienced a disruption in past year. Numeric response 0-100.) Respondents: 145
Q13. Approximately how much time does it take, or would you expect it to take, you/your team to identify and resolve an Internet disruption that occurs…? *(Open numeric response.)* Respondents: 201

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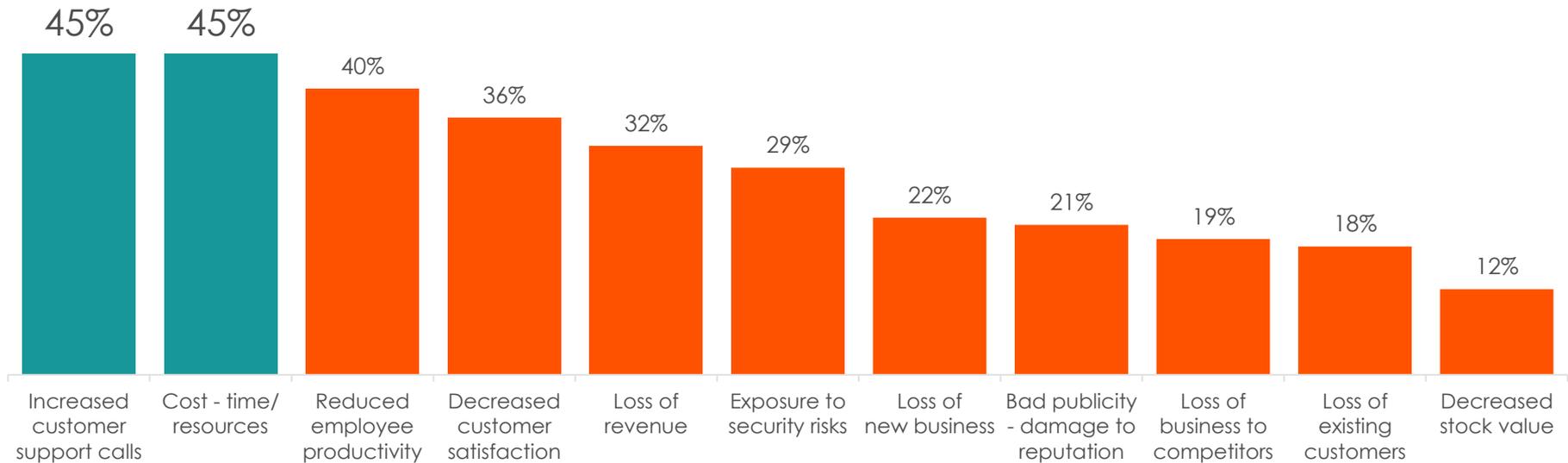# IT operations teams dealing with frustration from end-users is most cited result of Internet disruptions

Further, this shows Internet disruptions place an extra burden of responsibility on existing IT operation teams, potentially leading to an unhappy and less efficient work environment.

Category	Percentage
Frustration - end users	55%
Working long hours	48%
More helpdesk tickets	46%
Frustration - Management	46%
Frustration - You/Your Team	40%
More tension between IT & depts	39%
Less time to work on other IT initiatives	38%
Increased costs to resolve the disruption	30%
Damage to IT infrastructure	23%
Job loss	9%

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The top impact of disruptions on orgs is increased customer support calls and cost of time/resources

These negative experiences validate that managing Internet performance is about the impact disruptions have on the end-user experience, both customers and employees alike.

Category	Percentage
Increased customer support calls	45%
Cost - time/ resources	45%
Reduced employee productivity	40%
Decreased customer satisfaction	36%
Loss of revenue	32%
Exposure to security risks	29%
Loss of new business	22%
Bad publicity - damage to reputation	21%
Loss of business to competitors	19%
Loss of existing customers	18%
Decreased stock value	12%

Q15. Which of the following has your organization experienced, or would it expect to experience, as a result of an Internet disruption? *(Multiple selections permitted.)*
Respondents: 201

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IT Ops have many concerns about disruptions

Primary Concerns about Internet Disruption: In their own words…

[INFORMATION LOSS]

- "The risk of data loss associated with Internet disruption."
- "Risk of losing access to cloud based applications."
- "Data integrity."
- "Email loss."
- "The digital information."

[FINANCIAL IMPACT]

- "How much will the company lose in revenue?"
- "The company might lose profits."
- "Loss of revenue and loss of jobs."
- "Business loss."

[REPUTATIONAL DAMAGE]

- "Loss of customer confidence."
- "Loss of customers, reputational damage."
- "Client impact."
- "Customer satisfaction and meeting SLAs."
- "Loss of brand reputation."

[REPEATING ISSUE]

- "Lack of root cause analysis, leaving us vulnerable to repeat incidents."
- "When will the next one be?"
- "How can we resolve it quicker and ensure it does not repeat?"
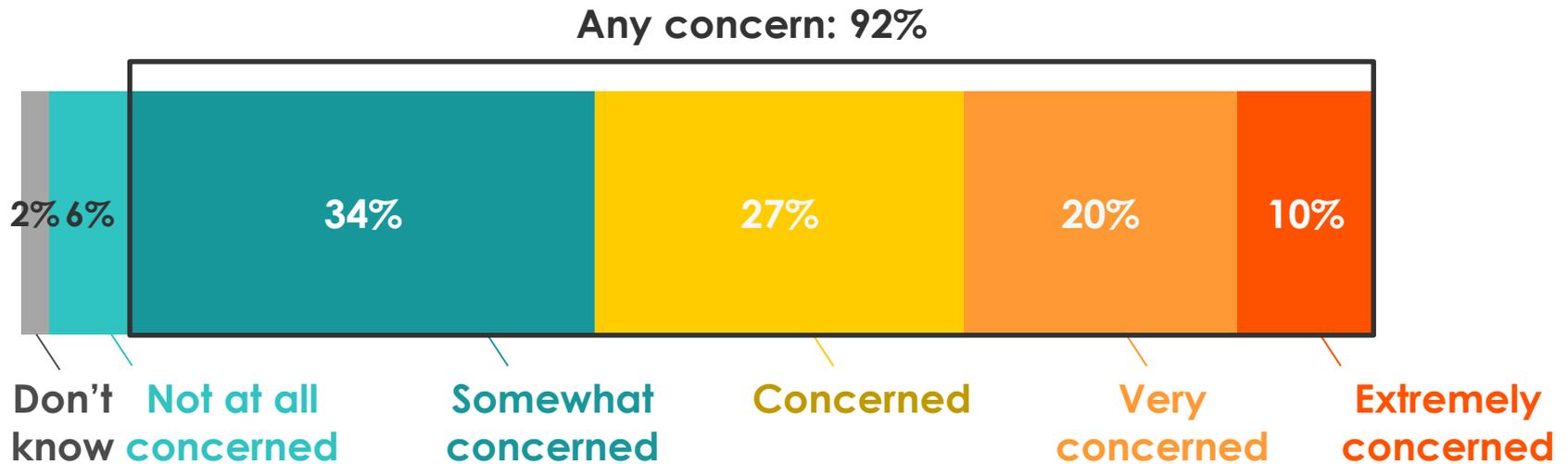
[DOWNTIME STRESS]

- "How long it takes to get the website back."
- "I have to give more time to the office."
- "Time to recover."
- "Long delay in returning to functionality."

[SECURITY]

- "Being hacked."
- "Breach of information."
- "Cyber attacks."
- "DDoS attacks."
- "Outside attacks."

Q18. What is the primary concern that keeps you up at night when it comes to Internet disruptions? *(Open response.)*
Respondents: 201

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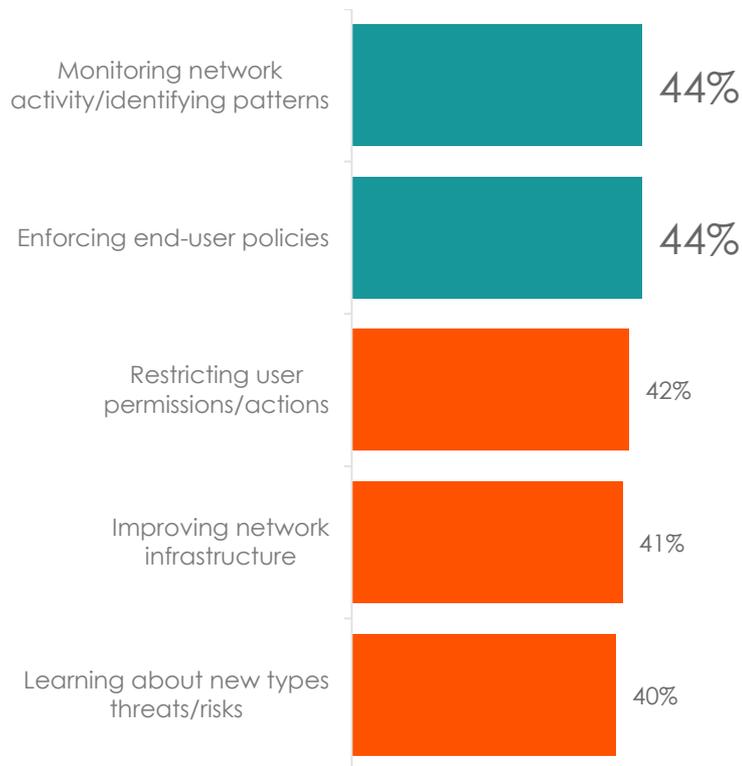# Near unanimous concern exists about experiencing a major Internet disruption in the next six (6) months

Three (3) in 10 (30%) express they are either very or extremely concerned their organization will experience a disruption similar to the 10/21 DDoS attack within the next 6 months.

Any concern: 92%

Don't know	Not at all concerned	Somewhat concerned	Concerned	Very concerned	Extremely concerned
2%	6%	34%	27%	20%	10%

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All organizations are taking steps to protect their network and end-users against Internet volatility

Top 5 Approaches to Digital Resilience

Monitoring network activity/identifying patterns — 44%

Enforcing end-user policies — 44%

Restricting user permissions/actions — 42%

Improving network infrastructure — 41%

Learning about new types threats/risks — 40%

Q20. What is your organization specifically doing to protect against threats/attacks that can cause Internet disruptions? *(Multiple selections permitted.)*
Respondents: 201

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