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Safeguarding the Future of the Internet

The Internet Way of Networking



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The Internet is for everyone



We believe in a world where the Internet means opportunity.
We care about its future.

It's at the core of our mission. We advocate for the Internet
to be open, globally connected, secure, and trustworthy.



Overview of our work



Making the Internet Stronger

The Internet needs our help to maintain its critical properties and be there for everyone.



Growing the Internet

Nearly a third of the world's population is not connected.



Empowering People

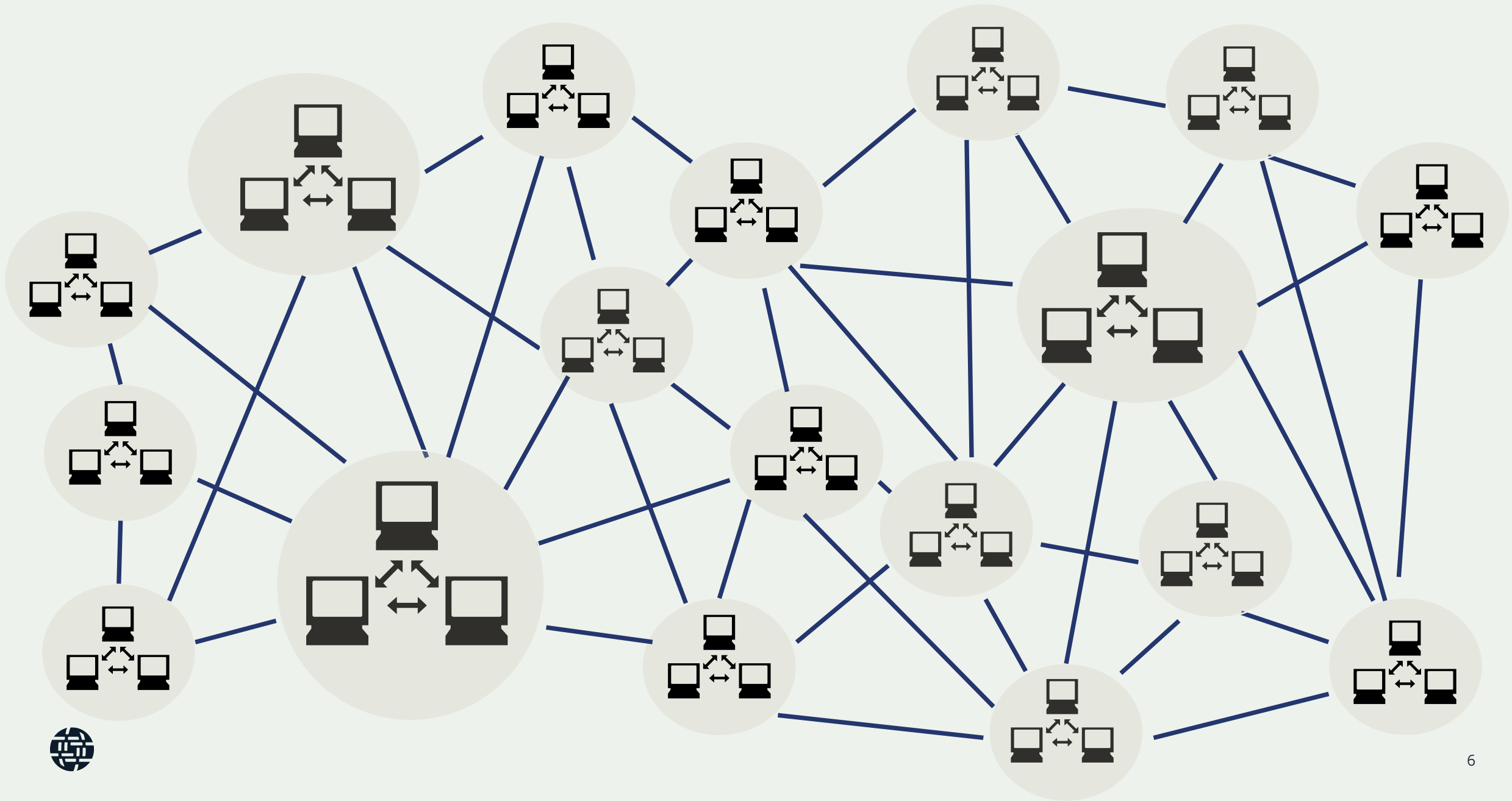
Attract, engage, and strengthen our whole community.



What do you think are the biggest threats facing the Internet?

What is the Internet going to look like 50 years from now?





US 'Clean Network' program seeks to build clouds, cables, and apps free of China

Impact Of India's Cybersecurity Directions On The Global Internet

Tech

Russia 'successfully tests' its unplugged internet

POLITICS

Cambodia plans China-style internet firewall

'National internet gateway' includes 'censorship angle' that alarms NGOs

TECHTANK
Battle lines for the future of the internet



The Internet is incredibly successful.
Why?



The critical properties of the Internet



Accessible
Infrastructure
with a Common
Protocol



Open
Architecture of
Interoperable and
Reusable Building
Blocks



Decentralized
Management and
a Distributed
Routing System



Common Global
Identifiers



Technology
Neutral, General-
Purpose Network





An Accessible Infrastructure with a Common Protocol

- You don't need permission from a central authority to connect to the Internet. You find a point nearby, make arrangements to connect, and you're on the Internet.
- Every node has a common, open, network layer protocol available: the Internet Protocol (IP).
- An Internet user trying to use a new application doesn't have to ask questions like "Are they running the same protocol I am?" or "Can I reach their part of the Internet from my part of the Internet?"





Open Architecture of Interoperable and Reusable Building Blocks

- Technology building blocks are assembled in a layered fashion, working together to provide services to applications and end-users.
- Each building block delivers a specific function, like supporting different network types, ensuring reliable transport, enabling security, or providing name resolution
- Fast innovation on the Internet is underpinned by an application designer's ability to take advantage of well-defined layered services.





A Common Global Identifier System

- There's an essential glue that allows every user to connect to the applications they use: IP addresses.
- Having common global identifiers delivers a key benefit: consistent addressability. The common identifier space, underneath all of the various levels of application, delivers a coherent view of the entire network.
- From any point on the Internet, a tiny packet of information can be passed from computer to computer, each one examining the same few bits — the address — to clearly identify a destination.
- The Domain Name System (DNS) has many uses, but the most common is the creation of a consistent mapping between names and IP addresses





Example: Domain Name System

- DNS queries enable servers to translate human-friendly names into corresponding computer-friendly IP addresses.
- The “DNS protocol” is the set of rules for network entities to use in queries and responses regarding names in the global, distributed, hierarchical database.
- The content of the server for the domain name system does not matter. The IP Address the server is assigned does not matter. All that matters is that the domain name translate to the right address.





Distributed routing delivers a resilient and adaptable network of autonomous networks, allowing for local optimizations while maintaining worldwide connectivity.

- As a network of networks, the Internet's infrastructure is based on nearly 70,000^[7] independent networks choosing to collaborate and connect together
- Each of these networks runs a common, open, protocol (Border Gateway Protocol, BGP) that allows it to exchange routing information with its neighbors.
- And each of these networks makes independent decisions on how to route traffic to its neighbors, based on its own needs and local requirements.
- The distributed routing system delivers several key benefits: global reach, resilience, and optimized connectivity



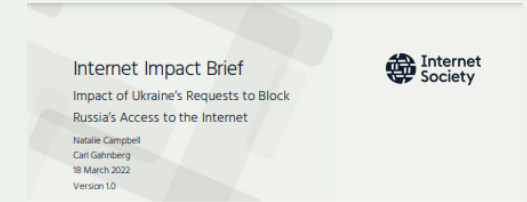
Enablers for an Internet for everyone

Internet goals	Enablers
Open	Easy and Unrestricted access
	Collaborative Development, Management, and Governance
	Unrestricted Use and Deployment of Internet Technologies
Globally Connected	Unrestricted Reachability
	Available Capacity
Secure	Data Confidentiality of Information, Services, and Applications
	Integrity of Information, applications, and services
Trustworthy	Reliability, Resilience, and Availability
	Accountability
	Privacy



Internet Impact Briefs

- Analyses of whether and how a proposal, development, or trend will benefit or harm the Internet
- Examples from APAC:
 - India CERT-In Cybersecurity Directions 2022 (Jun 2022)
 - South Korea's Interconnection rules (May 2022)
 - Bangladesh Social Media Guidelines 2021 (March 2022)
 - Cambodia National Internet Gateway (Feb 2022)
 - India's Intermediary Guidelines (Nov 2021)



An impact assessment –
not for the environment,
but for the Internet.



When the Internet stops being the Internet

When we don't protect what the Internet needs to exist and thrive, it starts to shatter.

A splinternet is a collection of isolated networks controlled by governments or businesses that don't connect or interoperate with each other efficiently.



Get involved

- Take the free, 4-week self-paced online course
 - (<https://www.internetsociety.org/learning/iwn/>)
- Check out the Internet Impact Assessment Toolkit
 - (<https://www.internetsociety.org/issues/internet-way-of-networking/internet-impact-assessment-toolkit/>)
- Spot a threat that could harm the open, globally connected, secure and trustworthy Internet?
Let us know!
- Follow us to learn about our campaigns and help amplify our messages on social media.
- Support us as we promote and defend the open, globally connected, secure and trustworthy Internet. Become a member or join a chapter!



Thank you.

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