

Routing security is vital to the future and stability of the Internet.

The Internet's routing foundation has cracks, and they're growing.

Every day dozens of incidents affect the routing system.

Route hijacking, route leaks, IP address spoofing, and other harmful activities can lead to DDoS attacks, traffic inspection, lost revenue, reputational damage, and more. These incidents are global in scale, with one operator's routing problems cascading to impact others.



MANRS

Mutually Agreed Norms
for Routing Security

MANRS provides crucial fixes to eliminate the most common routing threats. MANRS outlines four simple but concrete actions that network operators should take.

1 Filtering

Prevent propagation of incorrect routing information.

2 Anti-spoofing

Prevent traffic with spoofed source IP addresses.

3 Coordination

Facilitate global operational communication and coordination between network operators.

4 Global Validation

Facilitate validation of routing information on a global scale.

Implementing the MANRS actions:

- Signals an organization's security-forward posture
- Improves routing security: Mitigates routing incidents, helping networks identify and address problems with customers or peers
- Improves operational efficiency with better and cleaner peering communication pathways
- Provides granular insight for troubleshooting

We are in this together.

Joining MANRS means joining a community of security-minded organizations committed to making the global routing infrastructure more robust and secure.

Implement the MANRS actions and join the community.
For more information, visit www.manrs.org.

IXPs have an important role in protecting the Internet.

The MANRS Actions were initially designed for network operators, but Internet Exchange Points (IXPs) can serve as a collaborative focal point to discuss and promote routing security.

IXPs represent active communities with common operational objectives and already contribute to a more resilient and secure Internet infrastructure.

MANRS can help IXPs build “safe neighborhoods” leveraging the MANRS security baseline. It also demonstrates an IXP’s commitment to security and sustainability of the Internet ecosystem, and dedication to providing high quality services.

IXPs are important partners in the MANRS community.

To address the unique needs and concerns of IXPs, the community has created a related but separate set of MANRS actions for participating IXPs.

We are inviting IXPs around the world to join the MANRS IXP Partnership Programme.

Join us in protecting the Internet ecosystem. For more information, visit www.manrs.org/ixp or contact us at manrs@isoc.org.

Protect the Core