

**How can we work together
to improve security and resilience
of the global routing system?**

The Mutually Agreed Norms for Routing Security (MANRS)

- <https://www.routingmanifesto.org/manrs/>
- **Defines a minimum package**
- **Emphasizes collective focus**

*“While the mass media often create awareness–knowledge of an innovation, interpersonal communication with peers is necessary to persuade most individuals to adopt a new idea”
(Rogers & Kincaid, 1981).*

The MANRS document, in more detail

- **Principles of addressing issues of routing resilience**
 - **Interdependence and reciprocity (including collaboration)**
 - **Commitment to Best Practices**
 - **Encouragement of customers and peers**
- **“The package” indicating the most important actions**
 - **BGP Filtering**
 - **Anti-spoofing**
 - **Coordination and collaboration**
- **High-level document specifying “what”**
 - **“How” is in external documents (e.g. BCPs)**

Good MANRS

- 1. Prevent propagation of incorrect routing information**
- 2. Prevent traffic with spoofed source IP address**
- 3. Facilitate global operational communication and coordination between the network operators**

MANRS is not (only) a document – it is a commitment

Clear and tangible message:

“We do at least this and expect you to do the same”

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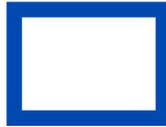
- 1) The company **supports the Principles and implements at least one of the Actions** for the majority of its infrastructure. Implemented Actions are marked with a check-box. The Action "Facilitate global operational communication" cannot be the only one and requires that another Action is also implemented.
- 2) The company becomes a Participant of MANRS, helping to **maintain and improve** the document, for example, by suggesting new Actions and maintaining an up-to-date list of references to BCOPs and other documents with more detailed implementation guidance.

Are you interested in participating?

Filtering



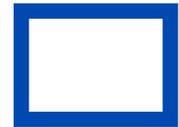
Anti-Spoofing



Coordination



Global scale



Next Steps

- **Redesigning the site for the launch – 6 November**
- **Expanding the group of participants**
- **Expanding the scope of the MANRS**

<http://www.routingmanifesto.org/>