## A BCOP document: Implementing MANRS

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### **HAVE YOU HEARD OF MANRS?**

# Mutually Agreed Norms for Routing Security (MANRS)

- MANRS builds a visible community of security-minded operators
  - Promotes culture of collaborative responsibility
- Defines four concrete actions that network operators should implement
  - Technology-neutral baseline for global adoption

#### **Good MANRS**

- 1. Filtering Prevent propagation of incorrect routing information.
- 2. Anti-spoofing Prevent traffic with spoofed source IP addresses.
- Coordination Facilitate global operational communication and coordination between network operators.
- 4. Global Validation Facilitate validation of routing information on a global scale.

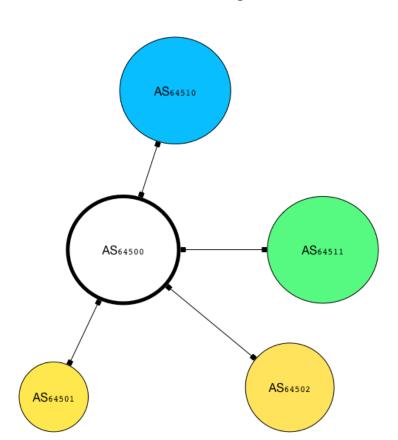
### WHAT IS THE PROBLEM?

### Description is succinct

- Lack of implementation guidance
  - Surprise: Still a high threshold for the implementation
- Precise requirements are sometimes not clear
  - Leading to potential non-compliance with the norms

#### **MANRS BCOP?**

## The Simplest Case



#### Answers how to

- Ensure correctness of ISP's own announcements and announcements from their customers to adjacent networks with prefix and AS-path granularity
- Enable source address validation for at least single-homed stub customer networks, ISP's own end-users and infrastructure.
- Maintain globally accessible up-to-date contact information
- Publicly document routing policy, ASNs and prefixes that are intended to be advertised to external parties.

## Promote good practices in the spirit of MANRS

- Already sent to this TF and NANOG BCOP
- Form a more compact group of volunteers?

## DOES THIS SOUND LIKE SOMETHING YOU CAN CONTRIBUTE TO?

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