

# Why MANRS is good for you

Protect others and protect your network

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# How did we join MANRS?

I sent an email to ISOC.

If your network is well managed then you will not need to do anything else.

MANRS is nothing fancy and nothing new: it is the bare minimum that everybody is supposed to have already implemented.

# MANRS protects your network and your reputation

BGP leaks may attract enough traffic to saturate your network.

Spoofed traffic may attack your own infrastructure.

If you cause troubles due to lack of MANRS then other network operators will laugh and/or curse at you.

# Please filter your BGP customers

If you do not, then sooner or later they will leak, will embarrass you and maybe cause an outage for your whole network.

But this was the good scenario

You may also attract bad actors who do BGP hijackings for spamming or other kinds of frauds.

And everybody will know.

# Please filter spoofed traffic

If you do not then you will not know where traffic on your network comes from.

But this was the good scenario

If you allow spoofing then people will buy your service because of this. Do you want to be known in the industry as a business that caters to cybercriminals?

# Please allow others to filter your BGP announces

Sooner or later you will leak, and this may save you.

You just need to register your routes in the RIPE database.  
It also saves your time by allowing automation by your transit providers.

# What is RPSL

## Routing Policy Specification Language

Is a language which allows an autonomous system to describe their routing policy in detail and use it to generate the matching configurations of routers.

Defined by RFC 2622 (1999) and others.

# RPSL is complex

## Defined objects:

- `mntner`, `person`, `role`
- `aut-num`, `route`, `inet-rtr`, `filter`, `peering`
- `as-set`, `route-set`, `rtr-set`, `filter-set`,  
`peering-set`

Please raise your hand if you have ever seen a `rtr-set` object.

Almost all of these objects can be ignored in practice.

# The aut-num object

They document the relationships among autonomous systems and the routes exchanged by them.

```
aut-num:      AS12637
import:       ...
export:       ...
```

Their purpose is to provide information to configure your own router, but almost nobody uses them this way.

For third parties they only have information value: you should either keep them up to date or keep them as simple as possible.

# The route object

A single route and the autonomous system which announces it:

```
route:          37.9.239.0/24
origin:        AS12637
```

The `route6` object describes IPv6 routes.

# The as-set object

## A list of autonomous systems:

```
as-set:          AS12637:AS-CUSTOMERS
descr:          Seeweb and its IPv4 customers
members:        AS12637, AS31076, AS6831, AS50627
members:        AS12654 # RIPE RIS Routing Beacons
```

# Domande?



<https://www.linux.it/~md/text/ionmalta2017-manrs.pdf>  
(Google ... Marco d'Itri ... I feel lucky)

