

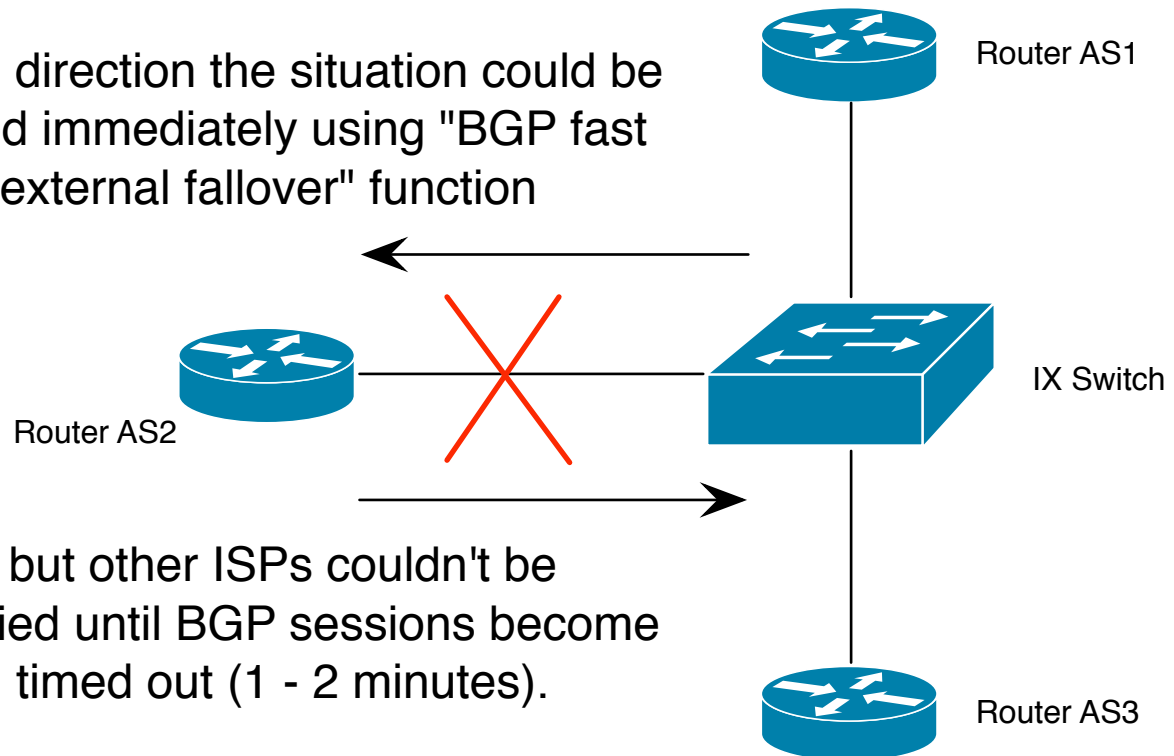
**When the link fails:**

**Faster Recovery in  
Internet Exchange**

Zbyněk Pospíchal, 2009  
RIPE58

# When the link fails...

In this direction the situation could be solved immediately using "BGP fast external fallover" function

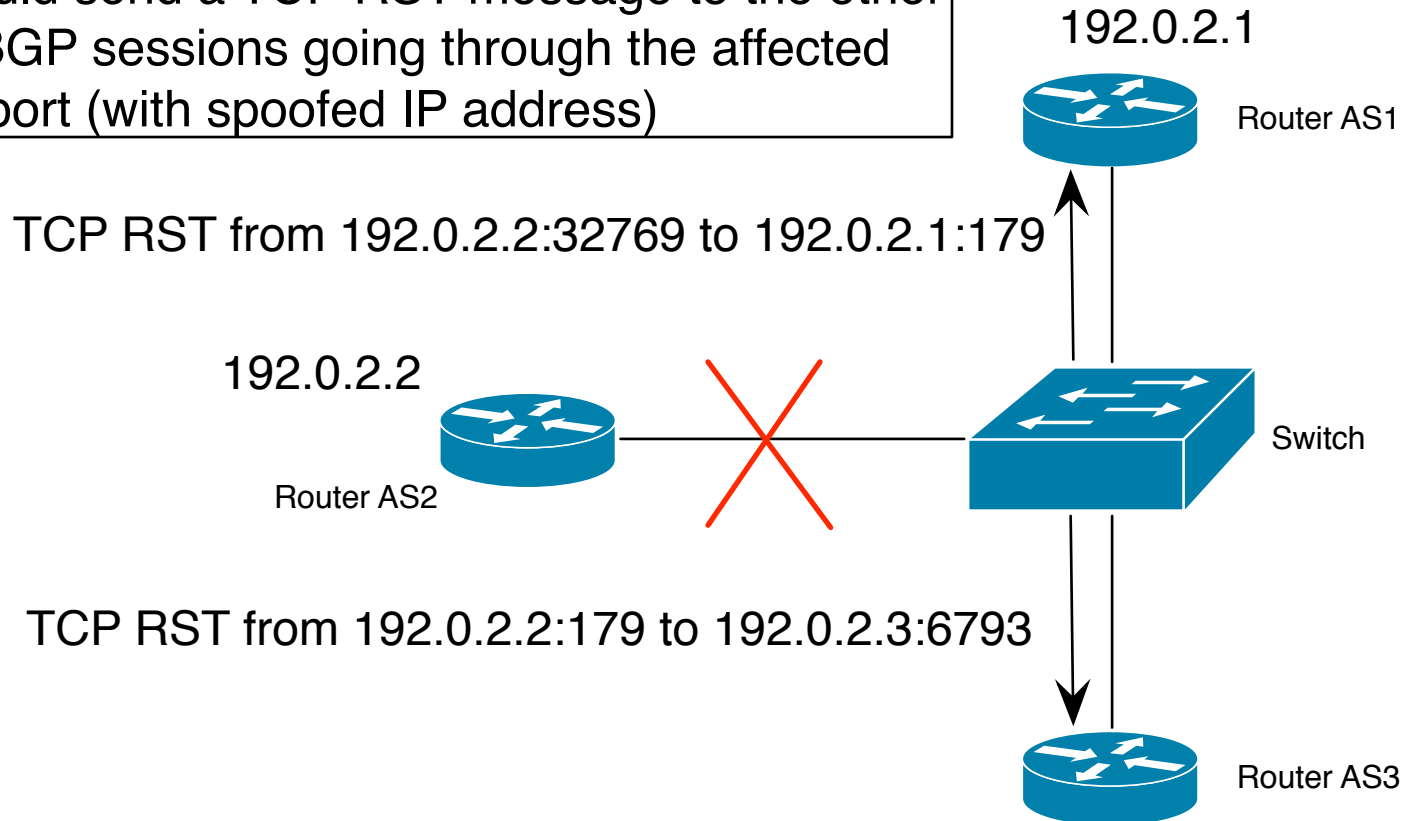


but other ISPs couldn't be notified until BGP sessions become timed out (1 - 2 minutes).

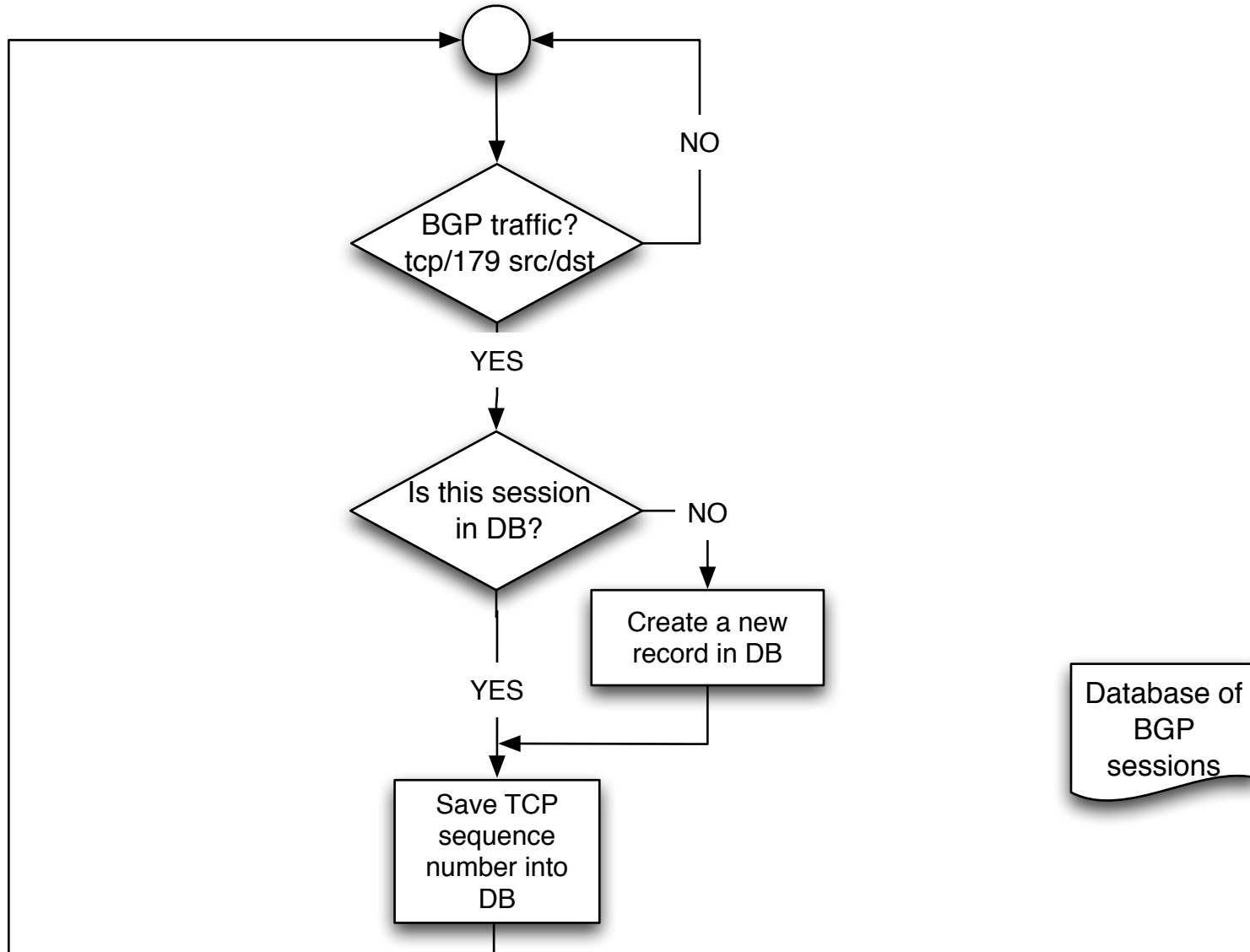
**Solution?**

# Link goes down...

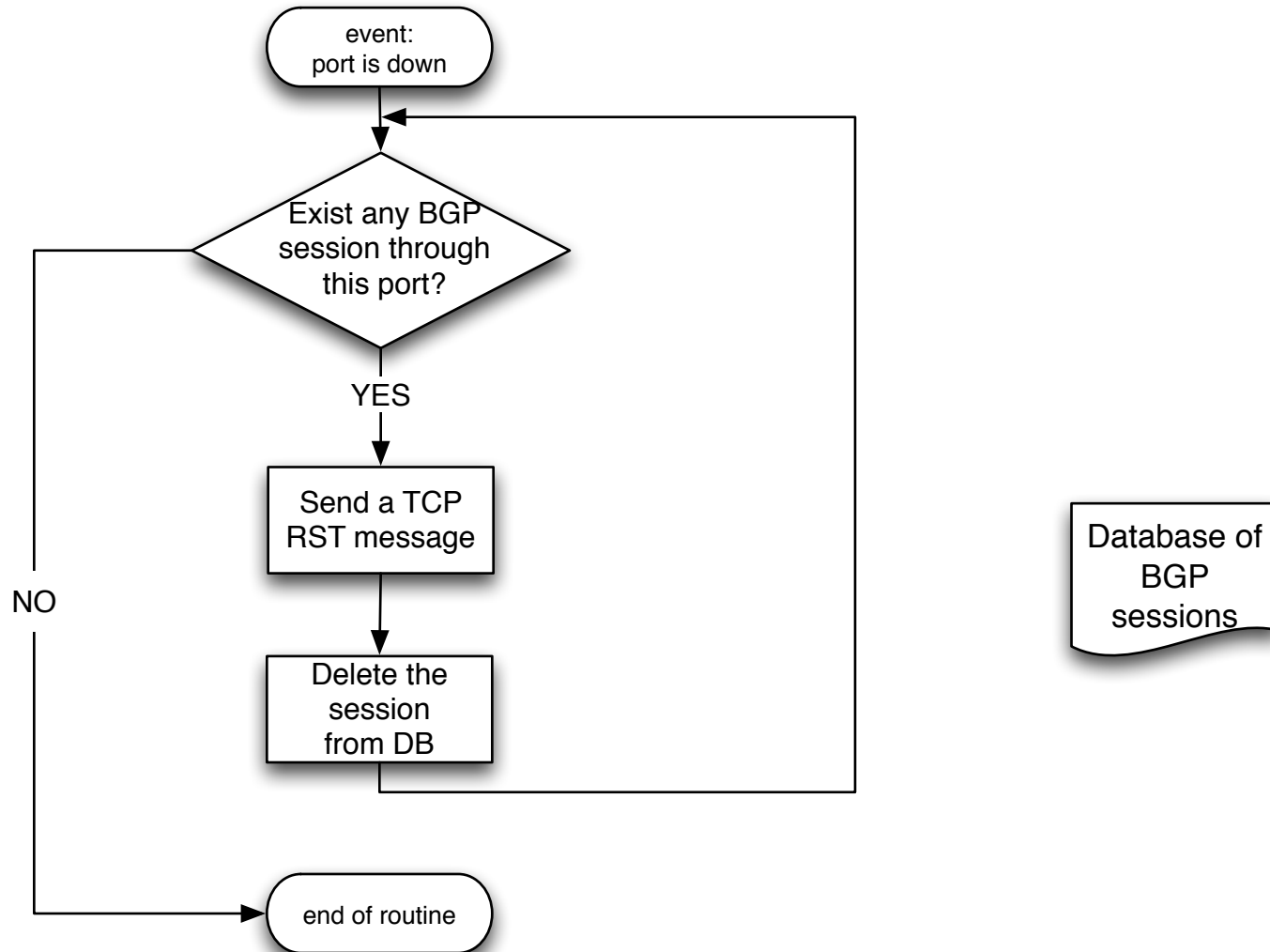
When the link goes down a switch within the Internet Exchange could send a TCP RST message to the other end of all BGP sessions going through the affected port (with spoofed IP address)



# Learning of BGP sessions



# Reset of sessions



# Advantages

Time between problem detection and reaction rapidly decreased, from minutes to tens or hundreds of milliseconds

Competitive technology for not-so-widely used BFD, no need for any support and configuration in routers

# Known problems

Only the switch vendor could implement

Incompatible with MD5 password protected sessions  
-> it's possible to use TTL-security max-hops instead



**Questions ?**