

# BGP Unallocated Address Route Server



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# This is just an idea...

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- The problem it is attempting to address is real
- The way this particular approach deals with the problem is probably not the best way
- But if you have some ideas as well then lets discuss them



# The Problem

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- How can you tell if a route advertisement is incorrect?
  - By “incorrect” it is meant that the route advertisement is referring to address space that has not been allocated by any RIR to any end party
  - i.e. advertising an address block taken from the unallocated address pool



# The “normal” ISP solution

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- Use an administrative process to check the RIR whois database to see if the address block has been allocated
  - No single whois database that is authoritative for the entire IPv4 address space
  - Each RIR has a different response syntax to whois queries



# The Idea

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- The RIRs to coordinate the operation of a set of BGP route servers
- The route server would advertise using BGP a minimal spanning set of advertisement to cover the unallocated address space
  - Invalid next hop, private AS, NOEXPORT, etc
- Updated in real time as address space is allocated and reclaimed



# The Application

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- Existing ISP administrative processes can use a local route server to check if a proposed route advertisement is valid
  - Using edge route peering with the unallocated route server has the problem of being unable to mask out any more specific advertisements of unallocated address space received from other sources



# Comments

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- There are probably a large set of better ways to do this...