



BGP Security Requirements

Where we're at...

Tony Tauber

Background

- RPSEC – analysis and requirements
- SIDR – protocol enhancements
 - RPSEC not charted for those
 - IDR is already very busy
- draft-ietf-rpsec-bgpsecrec
 - In decent shape but hasn't achieved complete consensus yet
 - Consensus appears to exist on some things
- Parallelize efforts to get the ball rolling



Practical Concerns

- No flag-day
- Must be able to realize benefit even without global deployment
- General Operational (business) model can not be overhauled



Source Authorization

- Must be able to bind authorization to advertise some address space to a given Autonomous System
- Must be able to handle delegation/transfer of authority to advertise
- Must be able to follow address delegation practices



AS_PATH Validation

- Must occur in some fashion
- ASNs appearing in the AS_PATH matter
 - To keep free from loops
 - For Operational reasons (troubleshooting)
- Length also matters
 - As part of decision algorithm



Number Registry Opportunities

- Rooted at IANA, delegated hierarchically in a way that works with digital certificates
- Issue both address space and ASNs
- APNIC planning to start issuing certs for these things as laid out in RFC 3779
- Some old assignments are still “murky”
- Not definitely the way to go but no better one has emerged or seems likely



Next Steps

- Begin protocol work in parallel
- Defer pieces that hinge on contended points until contention is resolved