

Security Requirements for Routing Protocols

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Goals ?

- *Requirements on the (inner-)security of routing protocols.*
- *Requirements on the secure operation of routing protocols (through the device).*

These are NOT requirements on forwarding security.

[Section 2] states goals of the doc.

Relation with the Threats doc

[Section 3] divides threats into 2 categories:

- **Elected for mitigation -> Strong requirements (MUSTs & SHOULDs).**
- **Other threats -> Weak requirements (MAYs & CANs) or NO requirements at all.**

[Appendix B] reserved for a verbose description of how requirements address each particular threat.

Within the document, references to particular threats addressed by a requirement. List of threats {,,,} addressed by a particular requirement ?

Threats doc and Requirements doc should be considered as companion documents.

A Model for Routing Protocols ?

- **Planes division.**
- **Functional approach.**
- **Data presentation (Path, Attributes, Reachability info).**

Requirements

Feedback needed on requirements granularity.

It is useless to consider requirements without proper agreement on stated goals and on which threats are most important.

Future formulation shall lay emphasis on short, straight requirements.

Coherence with other drafts or docs (ex: from RRG).

Related Considerations

- **Transport Subsystem (includes neighbors addressability).**
- **Cryptography side-effects.**

Active Participation to overall security

- **Detection of failures (active/passive checks, error messages, auditable events).**
- **Reactions (Graceful degradation, fail-back procedures, filtering, corrections).**

Failing participants which were excluded should be offered occasions to participate again.

Local Resources Exhaustion

Hardware considerations

- **Buffers / Queues.**
- **CPU Cycles.**
- **Bandwidth.**

Logic considerations

- **Checks before commits to underlying databases.**
- **Appropriate persistence of routing information wrt trust.**
- **Tips in order to avoid databases overflows.**

Inter Domain

Added complexity.

A lot of work need to be done on this.

Editorial tags

- ***[OLD]*** precedes the old version of the next paragraph.
- ***[TBD]*** stands for 'To Be Discussed' or 'To Be Decided'.

All we need is YOU

- 1. Agree on stated goals.**
 - 2. Agree on threats selection.**
 - 3. Feedback on routing protocols parts (functions, route descriptions); granularity.**
 - 4. Express your opinion on requirements.**
- General feedback.**