

Summary of arguments

Source: Siemens AG

Document for: Discussion

Agenda item: ?

Location of confidentiality function

agreement in S3:

- confidentiality function located in the P-CSCF

Location of integrity function - security arguments

From analysis of TS 23.228:

- **P-CSCF must be able to change certain messages**
- **P-CSCF should be able to check integrity of certain messages**

Location of integrity function - complexity arguments

Concentrate security in one type of node (P-CSCF), not two:

- **simpler information flows**
- **easier to implement**
- **easier to manage**
- **easier to protect**

Location of integrity function - availability of mechanism

- If P-CSCF terminates integrity
then use of IPSec / ESP possible
(but application layer mechanism still possible)
- If S-CSCF terminates integrity
then new application layer integrity mechanism needs to be designed
from scratch

Location of final authentication check in P-CSCF

- Obvious reduction in complexity
- Less obvious gain in security

Network domain security

- Messages between IM domain nodes need to be protected.
- Use principles for native IP-based protocols in TS 33.200 "Network Domain Security".

Conclusion

- Locate confidentiality and integrity in P-CSCF
- Perform final authentication check in the P-CSCF
- Apply Network Domain Security according to TS 33.200