Towards a Common Scalable Security Infrastructure

Julian Satran

IBM Research Laboratory at Haifa
Summary

- Data access benefits from parallelism
- Any shared data access infrastructure of reasonable size requires securing access
- Out of band puts a new set of requirement on the security infrastructure
- A capability/credential mechanism is god for all data storage types we attempt to handle (files, objects, volumes)
What is required from a security infrastructure

- Few trips to any server
- Work with untrusted clients
- Delegation (credential passing)
- Work on secure and insecure infrastructure
- Take advantage of secure infrastructure where it exists
- Computationally acceptable to data servers
Where and what is needed

- NFS4 has extensive security provisions – credential/capabilities can be accommodated
- SCSI volume access control