

SHIELD framework for measurable security

Identify the need for security

Identify the needs:
reliability, integrity,...
-> privacy = 0.8

Perform a threat analysis

Describe the system components w.r.t. security

Generate the threat metrics

Semantic system description

SHIELD ontology

Use nSHIELD metrics as security reference

Metrics-based assessment

Threat

System

privacy = 0.9
confidentiality = 0.5

Composability

testing,
formal verification

Verification