



# Architecture

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# Outline

- Issues
- Goals
- Planning

# Issues

- Currently tries to satisfy several different objectives.
  - At different levels of quality.
  - Overlapping with other documents.
  - Sometimes inconsistent with other documents.
- Some of the normative content is too high level to be testable.
  - Perhaps better handled as requirements or best practice guidelines.
  - Some are “policies” that are part of a deployment, not an implementation.
- Use cases/domains overlap with UC&R document.
  - No direct cross-referencing.
- Can’t just “make informative”, we need to restructure first.
  - E.g. move some of the normative content elsewhere, address overlaps, etc.

# Goals: Discussion

- What should we accomplish with the Architecture document?
- Some suggestions that would be good as “primary goals”
  1. Introduction and starting point – “explainer”.
  2. Clear statement of purpose, philosophy, and scope of WoT as a whole.
  3. Abstract system architecture (in support of 2).
  4. High-level description of WoT components (building blocks). (reading guide)
- Document currently also includes these. Are they appropriate?
  1. Terminology definitions and device categories. (global definitions)
  2. Discussion of application domains/general use cases.
  3. Discussion of common deployment/usage patterns; examples.
  4. Abstract servant architecture.
  5. General security and privacy considerations (normative).
  6. Requirements (assertions about properties satisfied by other deliverables).

# Planning

- How to address issues?
  - Before we decide “Architecture should be informative” we should clearly define a small number of primary goals and clean it up so it addresses them well.
- A “single entry point” for WoT seems useful.
  - Act as an “explainer and guide” for potential implementers.
  - Motivate design choices globally, e.g. descriptive vs. prescriptive when possible
- A place for global definitions (e.g. terminology) seems useful.
  - However, having a lot of “technical” content at the beginning of the document works against its role as an “explainer”, so reorder, move to end.

# Plan: Suggested

## 1. Restructure

- Reorder content so it serves as a good introduction.
- Remove inconsistencies and overlap with other documents.
  - Detailed domain descriptions and requirements
    - probably better dealt with in UC&R doc.
  - See if some content should be moved to another document
    - e.g. assertions about design principles for TDs could be in TD doc.

## 2. Make sure assertions are testable, at least in principle.

- Related to how we deal with security and privacy assertions.
  - Figure out handle S&P requirements/assertions across ALL specifications.
- Identify whether difficult-to-test assertions should be handled in other ways
  - e.g. as best practice guidelines for deployments.

## 3. Streamline

- Focus on main goals of providing entry point and necessary global definitions

→ *Once cleaned up, only then ascertain if it should be normative.*

# Discussion