

WoT Lifecycle

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W3C Web of Things (WoT) WG/IG

Goals



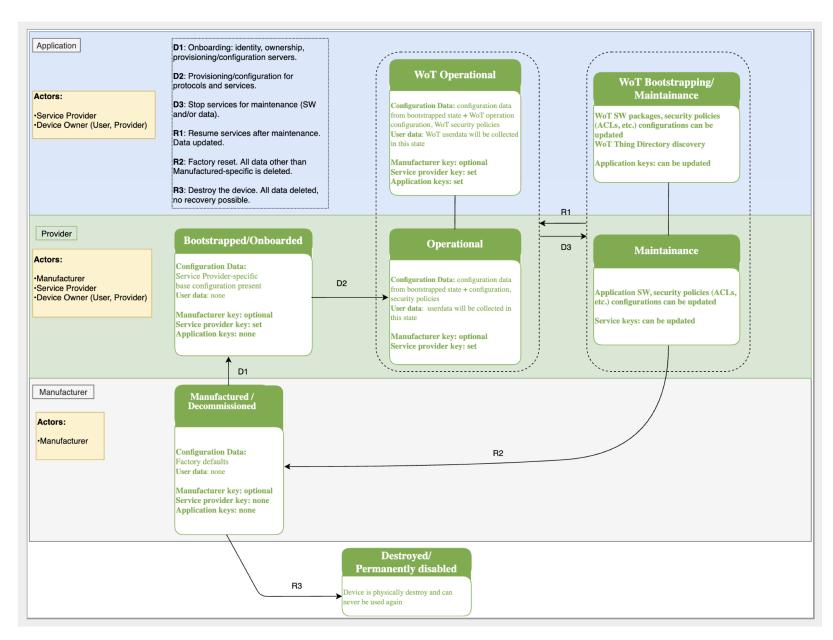
- Describe the operational lifecycle model across different standards
 - Describe security model
 - Describe state transitions
 - Track security data ownership
 - Track data ownership
- Align terminology
- Identify impact and requirements on:
 - Architecture
 - Security
 - Thing Description
 - Binding Templates and other WoT deliverables

Status



- The TF <u>analyzed</u> several lifecycle models, including:
 - OCF
 - OneM2M
 - LwM2M
 - T2TRG RFC 8576 https://github.com/w3c/wot-architecture/blob/master/proposals/lifecycle/Device-lifecycle-comparisons.pdf
- Proposals on a unified state model have been in discussion
- Several rounds of reviews and model refinements:
 - First phase: unified device lifecycle model
 - Second phase: layered device lifecycle model
- Agreement on fundamental states
- Some state names / transitions under discussion

Layered lifecycle diagram (draft)









- To be done in the next round.
- Needs input from the group on what level of details to pursue
 - Individual protocol specifications on lifecycle are very complex
 - What are the main use cases for representing lifecycle in WoT
 - What should be normative, what can be informative

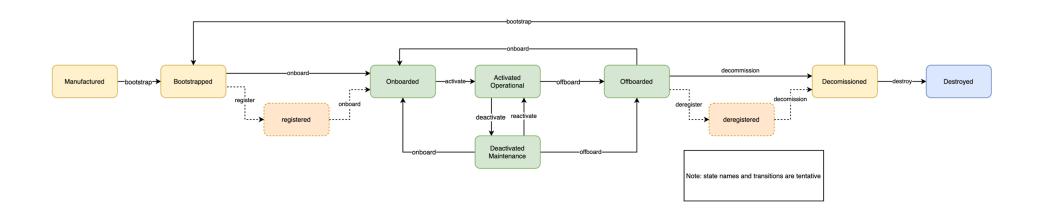
System lifecycle



- The thing lifecycle is embedded in a wider "system" lifecycle (WoT specific)
- System lifecycle provides a wider view on:
 - Onboarding/offboarding a device to consumer(s)
 - Registering/deregistering a device with a (optional) thing directory

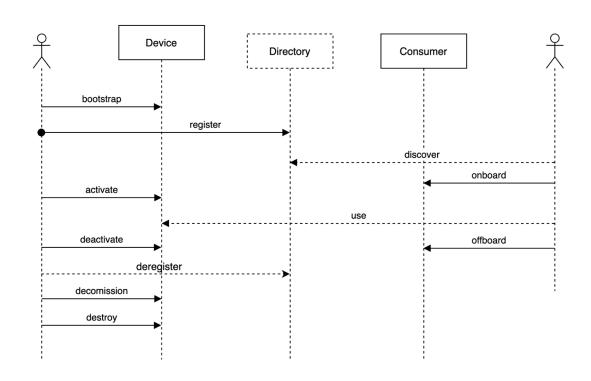


System state diagram (proposal)



Example directory flows (draft)





References



- WoT Architecture
 - https://github.com/w3c/wot-architecture
- WoT Use Cases
 - https://github.com/w3c/wot-architecture/tree/master/USE-CASES
- Lifecycle Proposals
 - https://github.com/w3c/wot-architecture/tree/master/proposals/lifecycle
- Profiles
 - https://github.com/w3c/wot-profile