

WISHI@IETF 110

One Data Model

Progress and Status

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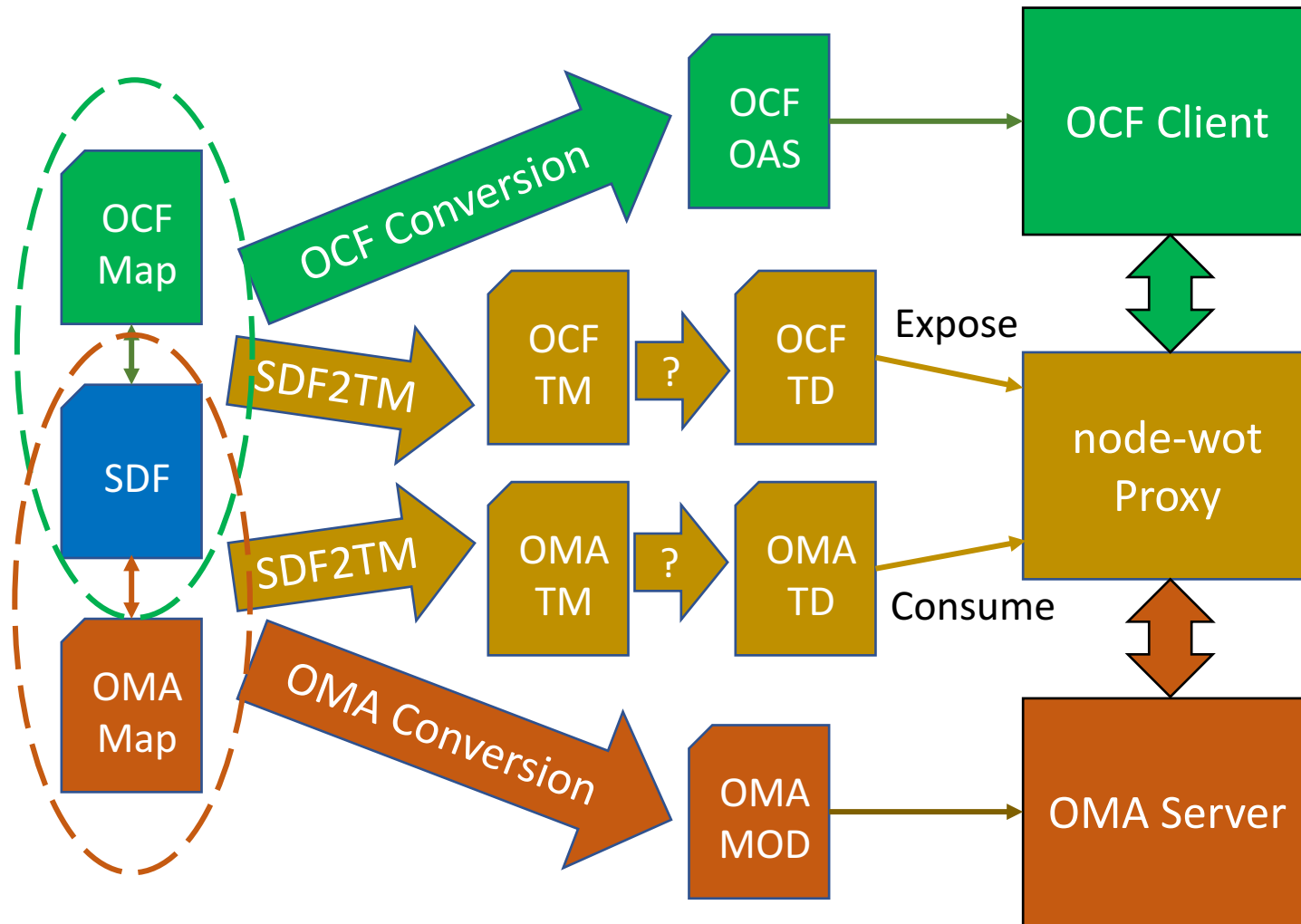
One Data Model (OneDM)

- Goal: Normalize IoT information models and data models across industry
- Provide for broad semantic interoperability, reuse, and convergence of models across industry
- Liaison group of SDOs started in early 2019
- Zigbee, OMA, OCF, Bluetooth Mesh, others
- The SDF prototype was the phase 1 work product

One Data Model – Status

- Currently we have about 200 sdfObject models in the playground, representing the catalogs of OCF and OMA/IPSO, plus a few Zigbee and Bluetooth examples
- Automated tools convert OCF and OMA native formats to and from SDF
- New models can be generated in SDF and converted to either ecosystem
- Models can be translated from one ecosystem to another

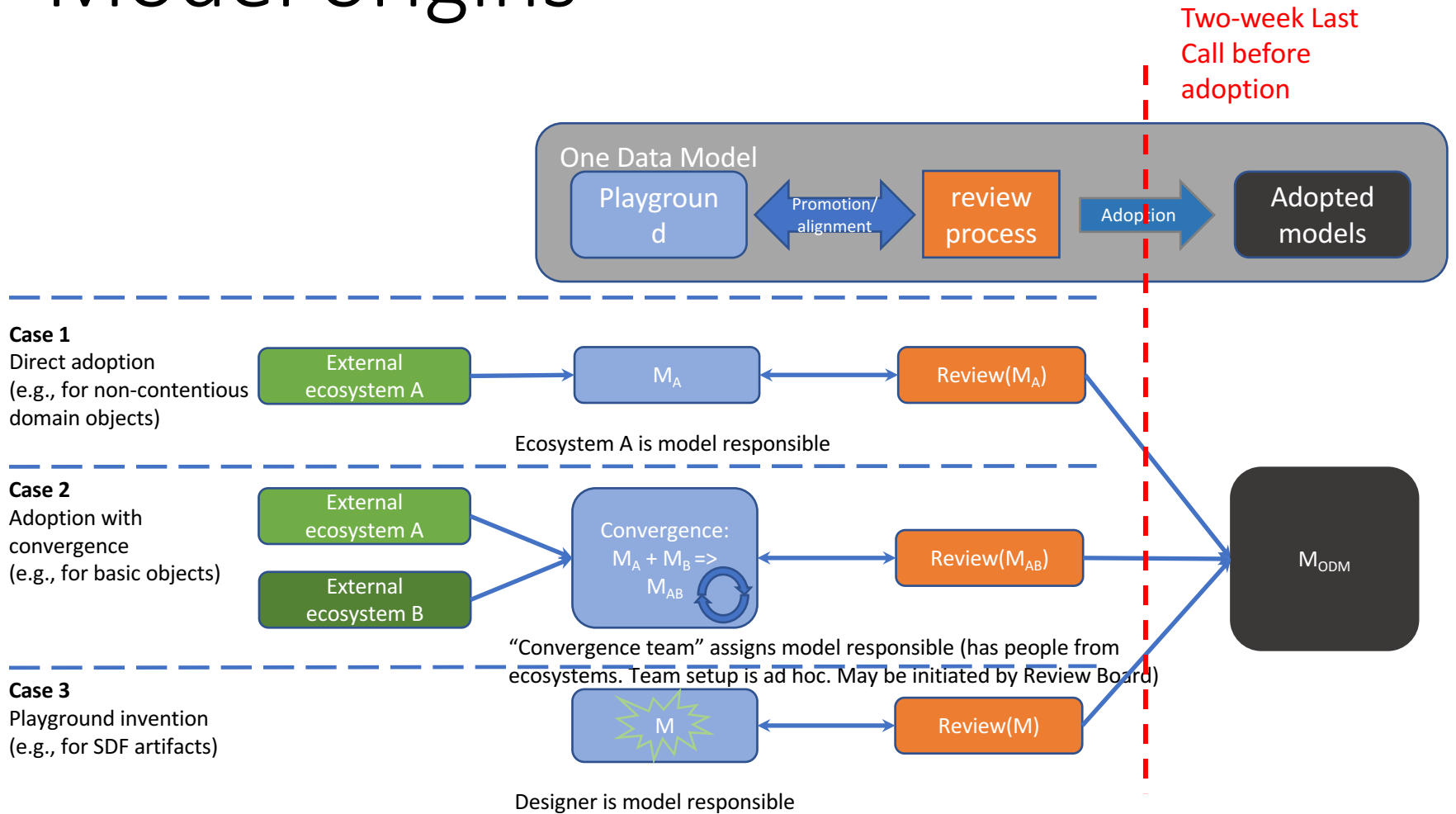
Semantic Proxy Demo (WIP)



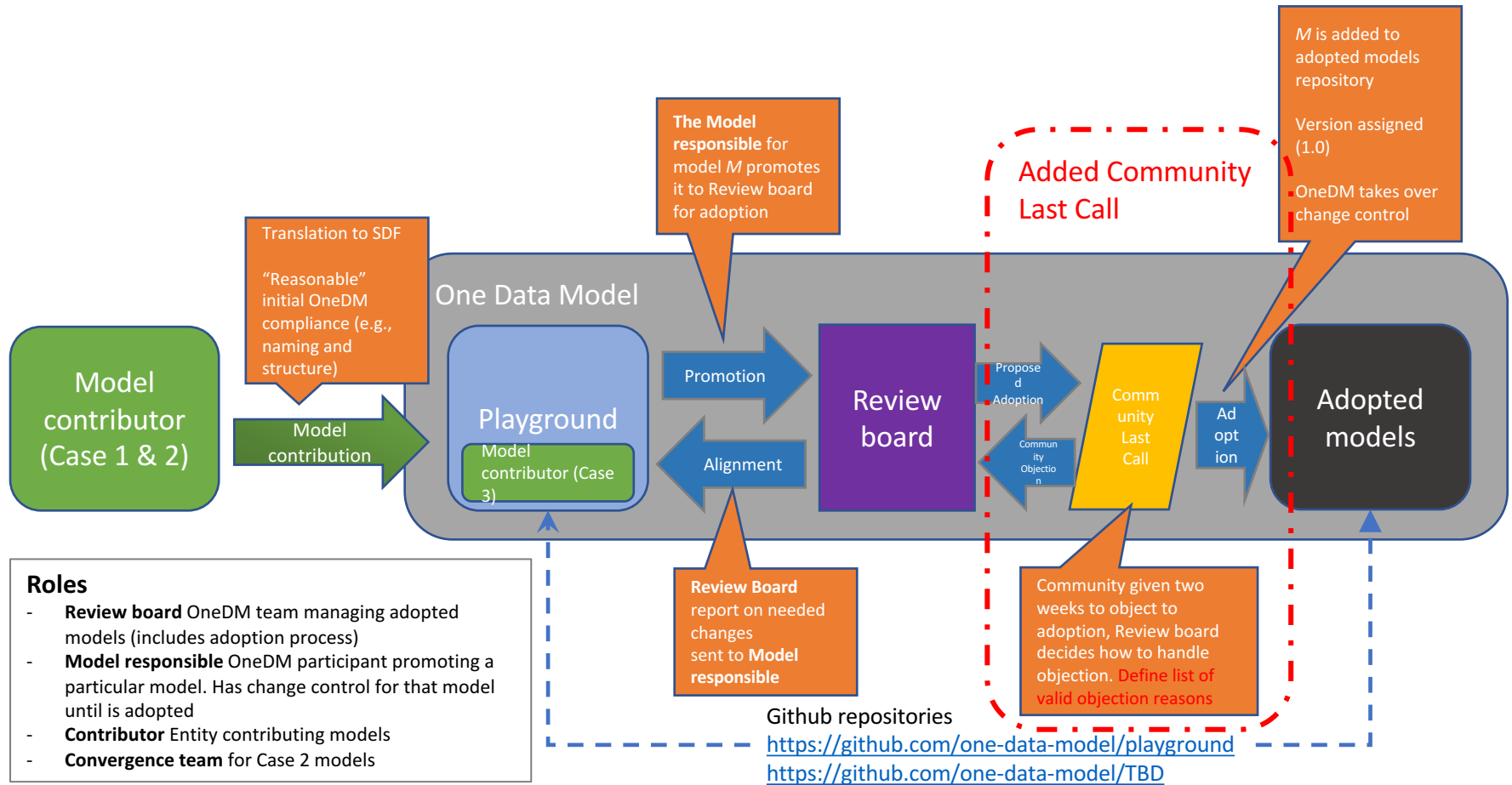
Going Forward

- Re-engage across ecosystems, outreach to Zigbee and Bluetooth Mesh to work on conversions and contributions
- Follow up with new use cases and collaborations
 - Solar Energy (SunSpec)
 - Textile Manufacturing equipment
 - Electronic Data Sheets
 - ISO SC41
 - NIST(US Standards Bureau)
- Start the model convergence and adoption process
 - Parallel work tracks and broad review, 2 week cycles

Model origins



Model adoption process



Model work flows

- The Playground is where models are converged and alloyed together
- Separate repositories will be set up with the OneDM CI for contributors to prepare and manage models in an individually controlled space
- Exploratory repositories are set up for testing new SDF features, mappings, and extensions

References

OneDM:

- <https://onedm.org/>
- <https://github.com/one-data-model/playground>
- <https://www.ericsson.com/en/blog/2020/9/data-interoperability-across-iot-ecosystems-with-onedatamodel>
- <https://openconnectivity.org/ocf-and-onedm/>

SDF:

- <https://datatracker.ietf.org/wg/asdf/about/>
- <https://www.ietf.org/mailman/listinfo/asdf>
- <https://datatracker.ietf.org/doc/draft-ietf-asdf-sdf/>