



SVSHI



Secure and Verified Smart Home Infrastructure



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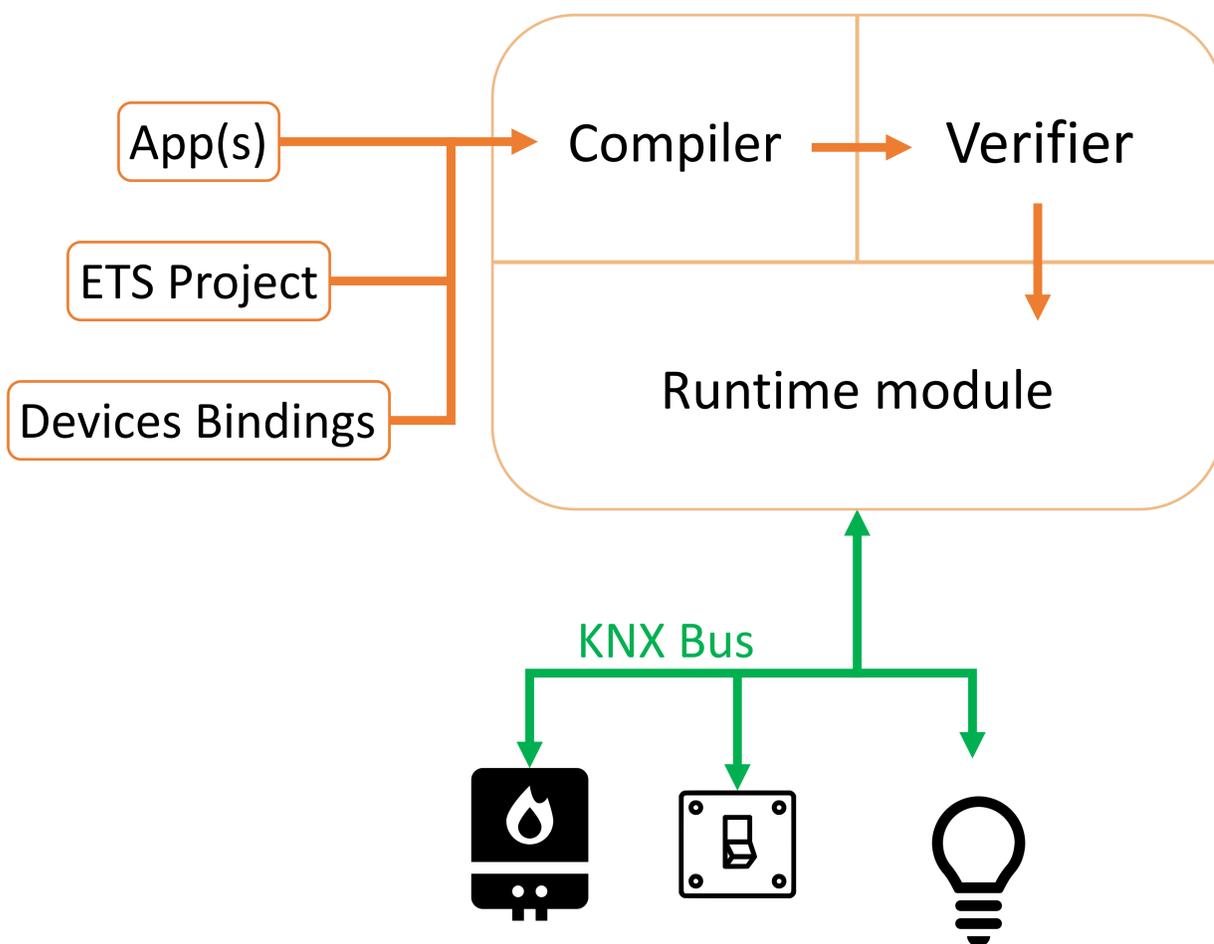


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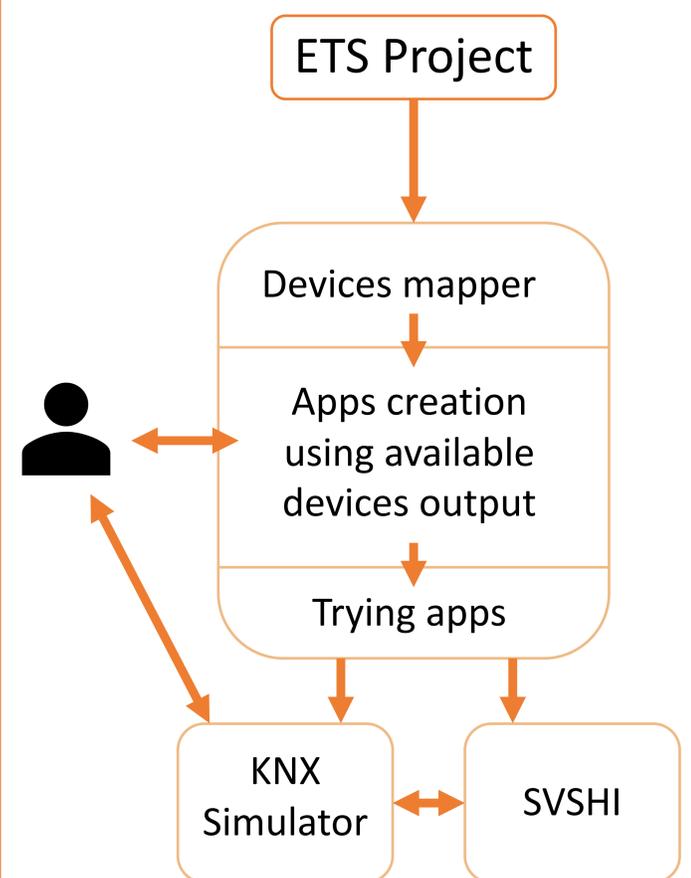


SVSHI formally verifies Python smart buildings apps for KNX devices, and takes care of KNX communications.

SVSHI



Discovery service



What we have

- **Post condition** in each app as an arbitrary boolean condition
- **Automatic formal verification** of **all post conditions** validity with respect to **all installed apps**
- Support for **time specific conditions** in post conditions
- **Runtime verification** during apps execution
- **KNX simulator** for apps development and testing
- **Discovery service**: shows **available devices** for a given **KNX system**, **creates apps** and offers to **test** them on the **simulator** with **SVSHI** with automatically generated bindings

What we bring

- **Higher abstractions** to KNX
 - **Easier** and **quicker** KNX configuration
 - **Formal verification** for smart buildings
 - **Transferable** apps for smart buildings
 - A **service to discover SVSHI** and develop apps
- **All this for non-engineer users**

What's next?

- Discovery service as a **cloud web app**
- **Execution time static analysis** (latency)
- Verification of **physical devices behaviour** at runtime
- Addition of **contracts** encoding physical devices behaviour

