

Scope Boundaries

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CSE - A

Q119 - Secure OTA Update Compiler

The compiler enforces the following mandatory security invariants:

1. Signature verification enforcement
2. Rollback protection via version monotonicity
3. Trusted update source validation
4. No debug or logging of sensitive update data
5. Cryptographic policy enforcement against weak APIs

If any invariant is violated on any control-flow path leading to installation, the compiler generates a compile-time error and prevents firmware generation.