

V2X / C2X Credentials

ISS Certificate Management Service



The Certificate Management Service (CMS) is the de facto standard in vehicle-to-anything (V2X) and car-to-anything (C2X) secure communication credentials and world's first turnkey managed service in full production today. Please visit www.ghsiss.com/v2x to register and request test certificates.



DLM secure network technology distributes certificates direct to manufacturing, service locations, and over-the-air updates.

- ▲ V2V, V2I, C2C, and C2I certificates
- ▲ CAMP, IEEE 1609.2-2016, ETSI TS 103 097 compliant
- ▲ Direct delivery to vehicle and roadside devices
- ▲ Test and production key chains

CMS enables on-board and road side equipment applications to securely communicate with vehicle and smart city infrastructures using United States and European standards-based protocols.

Register at www.ghsiss.com/v2x

Meet the US Department of Transportation's New Proposed Rule Making, Docket no. NHTSA-2016-0126





- SCMS Infrastructure Certificates and Policies
- Enrollment Certificates
- Initial Pseudonym Certificates Batch
- Current CRL
- Ongoing certificate top-offs

Direct delivery to vehicle and roadside communication devices

FIPS 140-2 Level 3 protection

High-assurance reliability, failover, and scalability

V2X Security Toolkit: WAVE, IEEE 1609.2 secure message stack, provisioning agent, and certificate store

Secure initial manufacturing provisioning

Multiple certificate top-off delivery options

All hardware, software, and services included



V2X / C2X Certificate Management Service

CMS is a high assurance infrastructure for generation of connected vehicle and smart city certificates. INTEGRITY Security Services bridges engineering, manufacturing, and IT departments to deliver a turnkey certificate service spanning your manufacturing supply chain.

The ISS CMS offers:

- ▲ Multiple years of Pseudonym Certificates per unit
- ▲ Over-the-air certificate top-offs over any network
- ▲ Continuing compliance with developing V2V and C2C specifications
- ▲ Uninterrupted production with redundant power, database, and network failover

Certificates are securely distributed into on-board (OBUs) and road side equipment units (RSUs) at remote manufacturing locations using hardened distributor appliances connected to local or ISS hosted Certificate Managed Service. All digital assets are protected by FIPS 140-2 Level 3 certified encryption until individually metered into each unit.

"Through a partnership with the US DOT and CAMP, INTEGRITY Security Services has served as the lead developer for the SCMS, a system that will provide security credentials to US DOT-funded early deployments of CV technology. The best practices and lessons learned from this effort are reflected in our commercial offering. CMS."

- David Sequino ISS General Manager

Complete V2X / C2X Secure Vehicle Networking Solutions **ISS Certificate OBU OBU Software Manufacturing Managed Service** V2X Safety Applications **ISS V2X Security Toolkit Enrollment CA** Pseudonym IEEE 1609.2 Secure CMS **CMS Distribution** Messaging Provisioning **Appliance** Agent Certificate TLS Management FIPS 140-2 Cryptographic Library Registration Authority Operating System GPS WiFi, 3G, ... Crypto HW DSCRC

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About INTEGRITY Security Services:

INTEGRITY Security Services was established in 2009 by Green Hills Software to provide best-in-class embedded security solutions. ISS products and services secure devices, software, networks, and data—from the smallest embedded component to the largest data center—throughout the product lifecycle. Comprehensive solutions include cryptographic toolkits and high-availability enterprise PKI systems to provide end-to-end security. Learn more about ISS at www.ghsiss.com.

