Veridify Security

Renesas Ready Ecosystem Partner Solution

Veridify Zero Trust IoT/M2M Security

RENESAS PARTNER NETWORK READY

Solution Summary

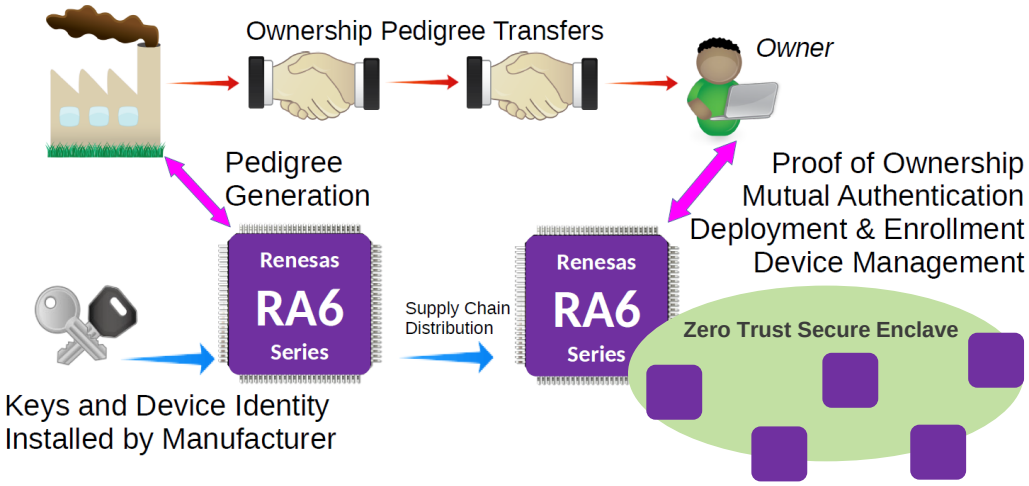
Renesas and Veridify Security deliver strong security solutions, Public Key authentication and identification for Renesas RA2 and RA6 of RA Family, RX100 and RX130 of RX Family and RL78 Family. Veridify's methods are extremely efficient – delivering fast performance, a small footprint and ultra-low energy consumption making them ideal for sensor-based platforms where energy or battery life may be an issue. The SDK and tools are available to easily and quickly integrate Veridify's security methods into your solutions.

Features/Benefits

- Easily enables powerful security functions like zero trust authentication, data encryption, device ownership, secure boot and secure firmware update.
- Databases or external network connections are not required
- Quantum-resistance delivers future-proof authentication and data protection
- Quick and inexpensive software implementation reduces time and cost to market

Diagrams/Graphics

DOME Solution Architecture



Target Markets and Applications

- Zero Trust Security
- ICS / OT Security
- Utilities and Smart Grid
- Building Automation
- Smart Buildings
- Healthcare
- Consumer Appliances

www.veridify.com/renesas

2025.06

Fast, Small-Footprint Security for IoT Designs

Veridify Security provides fast, small footprint, low-energy, zero trust, quantum-resistant, authentication, data protection, and ownership management solutions for IoT edge devices like Renesas RA, RX, RE and RL78 MCU's

DOME™ Zero Trust IoT/M2M Security

DOME is cybersecurity solution that addresses security for all connected devices in a system including. DOME delivers a zero-touch onboarding and ownership management blockchain platform running on low-resource IoT edge devices. DOME enables a truly scalable solution that consolidates security functions and reduces costs and complexity for device owners.

Implement a Strong Security in less than 8K of ROM

Our lightweight security tools, Walnut Digital Signature Algorithm™ (WalnutDSA™) and Ironwood Key Agreement Protocol™ (Ironwood KAP™), enable rapid and secure authentication of sensors, actuators, and other highly constrained devices.

- WalnutDSA™ - Verifies integrity and source authentication of digital data.
- Ironwood KAP™ - A Diffie-Hellman-like key agreement protocol that enables two parties to generate a shared secret over an open channel without any prior communication.

Post-Quantum Ready

Quantum computers will become powerful enough to break popular security methods like ECC and RSA. Veridify's cryptographic methods are resistant to all known quantum attacks, making your solutions secure today and future-proof for tomorrow.

ISO 26262 ASIL D Certified and PSA Certified Level 1

Veridify's software development methods conform with the strictest requirements and are Automotive Safety Integrity Level (ASIL) D certified, the highest classification for safety-critical processes. In addition, DOME Client received PSA Certified Level 1 accreditation.

Markets

- IoT / M2M
- Smart Building
- Industrial Automation (ICS)
- Healthcare
- Utilities and Smart Grid
- Consumer Appliances

Applications

- Zero Trust
- Authentication
- Identification
- Data Protection

FREE Security Consultation

Veridify experts will provide an initial security consultation and can help accelerate time-to-market by creating a security solution design for your devices. Contact us at info@veridify.com

Request Your SDK to Get Started

Our IoT Embedded Security SDK allows easy implementation of our solutions. The toolkit includes: DOME Client, WalnutDSA, Ironwood KAP, sample source code and provides support for the Renesas e^2 studio.

Corporate Headquarters: 100 Beard Sawmill Road, Suite 620, Shelton, CT, 06484 USA
Silicon Valley Office: 75 East Santa Clara Street, San Jose, CA, 95113 USA

1.888.272.1977 ● www.veridify.com/renesas