

Designing Readers for Multi-Tiered Security

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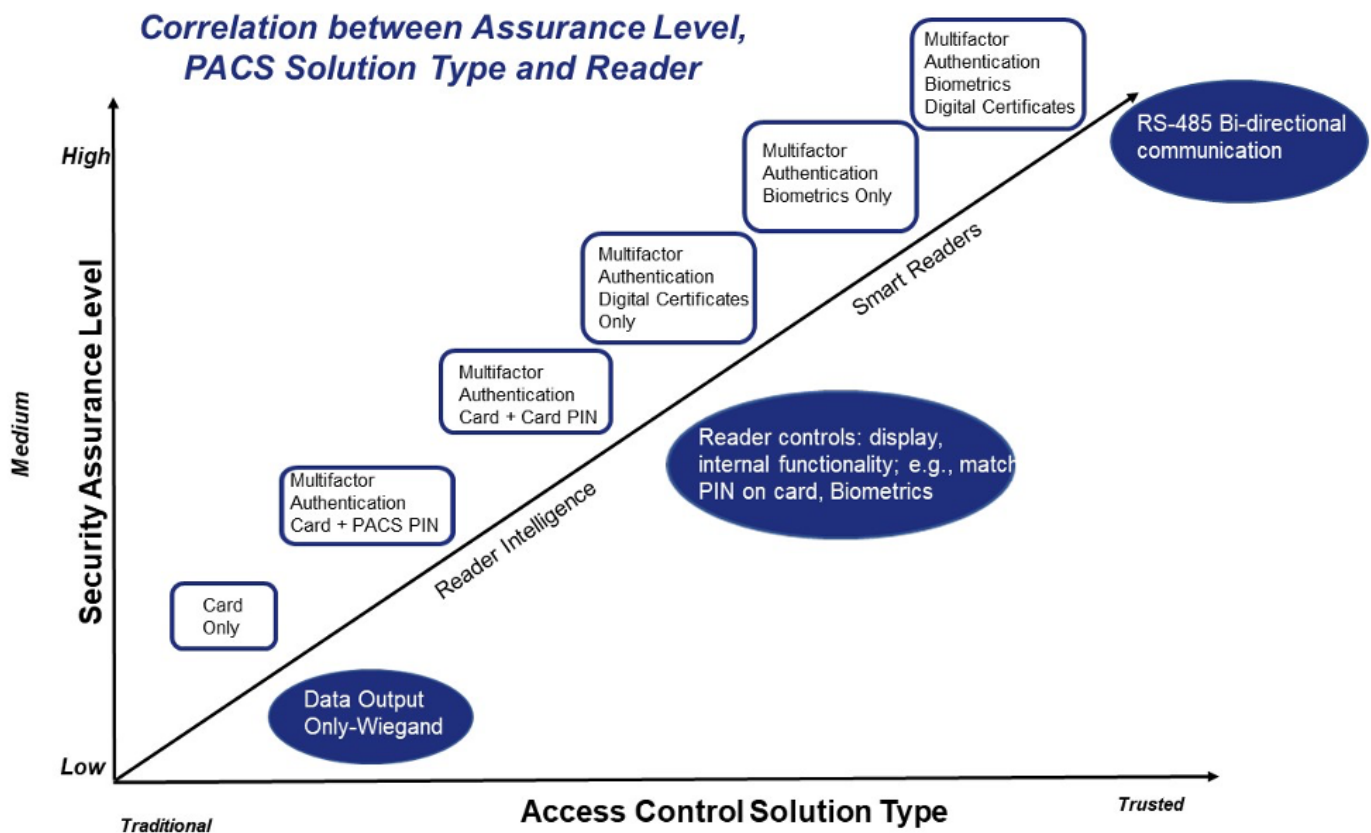
As the requirements for high-assurance access management have evolved, a need was created for a versatile reader hardware platform that meets the needs of both traditional and trusted PACS solutions and multilayered functionality for migration to an end-point solution that satisfies the latest certified standards.

We examine the design considerations to meet these demanding criteria and consider the needs of all the stakeholders: technology partners, PACS manufacturers, integrators, the end-use-customer, and the “user”, the credential holder, each having a different perspective on its implementation.

In doing so, we provide insight into Veridt’s leading edge capability and experience every step-of-the-way, from pre-TWIC, pre-911, throughout the evolution of high assurance to present day best practices.

Design Considerations

We can list a number of design criteria to be considered in developing a fully capable reader that would include form factor and environmental capability among them. We begin with examining the core functionality and the correlation between assurance level and the capabilities that define same. From those factors, we define a pathway to adding functionality in such a way that allows for a unified approach to designing a family of products with a single architecture from one factor card only to high assurance multifactor authentication.



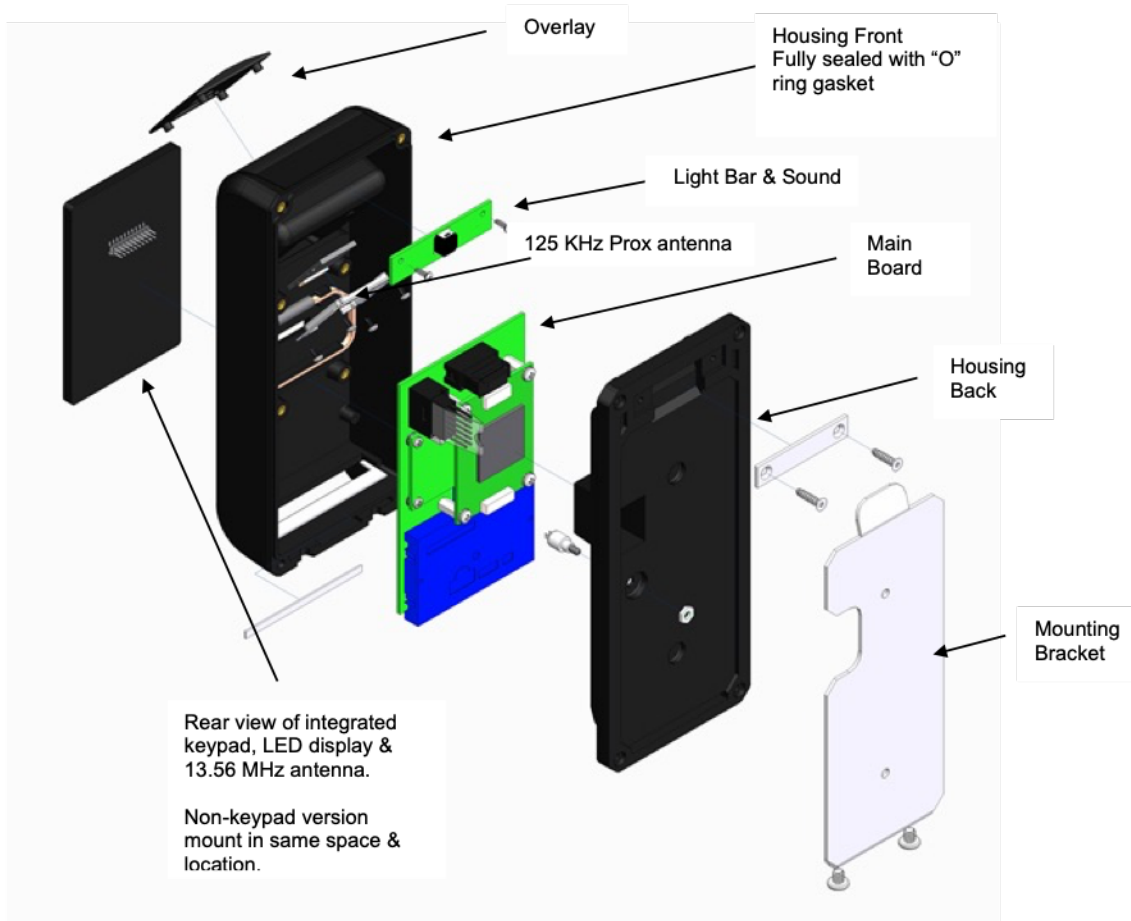
We want a reader that has a compact form factor, thoughtfully designed for incremental addition of functionality such as Keypad, Dual Card interfaces (contactless & contact), fingerprint biometrics while maintaining a very “tight” form factor allowing for “single-gang box” mounting.

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The objective is to create a unified design architecture resulting in a seamless integration of all configurations to satisfy the use cases for these mission critical environments.

- Capability to support all major credentials that conform to ISO standards and specific implementations such as PIV, PIV-I, CAC, TWIC, CIV, etc.
- Communications interfaces to support Traditional and Trusted PACS solutions: Wiegand, RS-485 (full & half duplex).
- Managing credential choices and use cases in FICAM / Non-FICAM & hybrid settings.
- Comprehensive device management: compatibility with every configuration and communications protocol; PACS connectors to support bi-directional communication (PAM & EWAC); any bridge, gateway, or edge device; OSDP (SIA v2.2, transparent mode, secure channel & file transfer); other Veridt supported protocols (Classic, HARS, & others).



- Operational capability in extreme environmental conditions around the globe, with a fully sealed unit and a minimum IP-65 rating.
- Wall mount and Mobile Handheld configurations.
- Fixed and Wireless capability.
- True Buy American: designed and manufactured locally in partnership with local suppliers.

The resulting design meets these criteria with a very efficient construction for a reader family consisting of five configurations: Bio, Non-Bio with or without keypad and contactless only or dual card interface (contactless & contact).