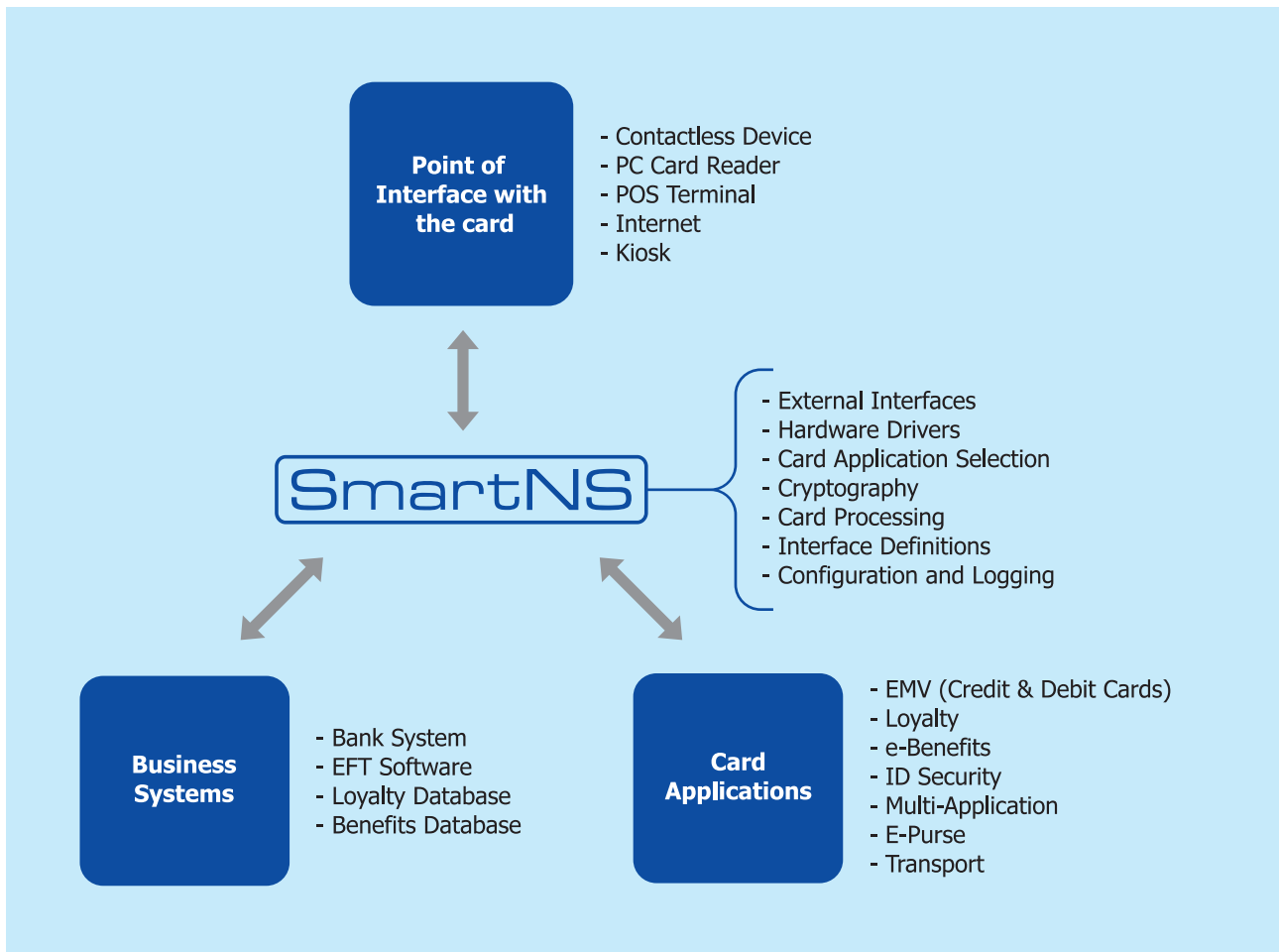


SmartNS™ delivers a “Smart Card Enablement Layer” that supports and integrates any smart card application, through any point of interface to any business system.



SmartNS Provides Maximum Flexibility

Flexibility in Card Application

SmartNS has the power to address the future of smart cards. This might be Government ID, Loyalty, Contactless, e-Purse or a new application that hasn't even been developed yet. With SmartNS it doesn't matter – card application kernels can simply be added to deal with new card types.

Flexibility in Point of Interface

The infrastructure that makes contact with the smart card is also evolving. Readers may be contactless, built in to PC's or POS systems or operating over the Internet or mobile phone networks. SmartNS has a constantly expanding list of hardware drivers and fully supports IP based communication.

Flexibility in Business Systems

All of these advances may require connectivity to back end software, e.g. for payment, ID checks, encryption, authorisation or settlement. SmartNS provides the flexibility to allow the card to interact with any number of other systems, using industry standard interfaces such as Java, Windows DLL or TCP/IP.

Proven Success

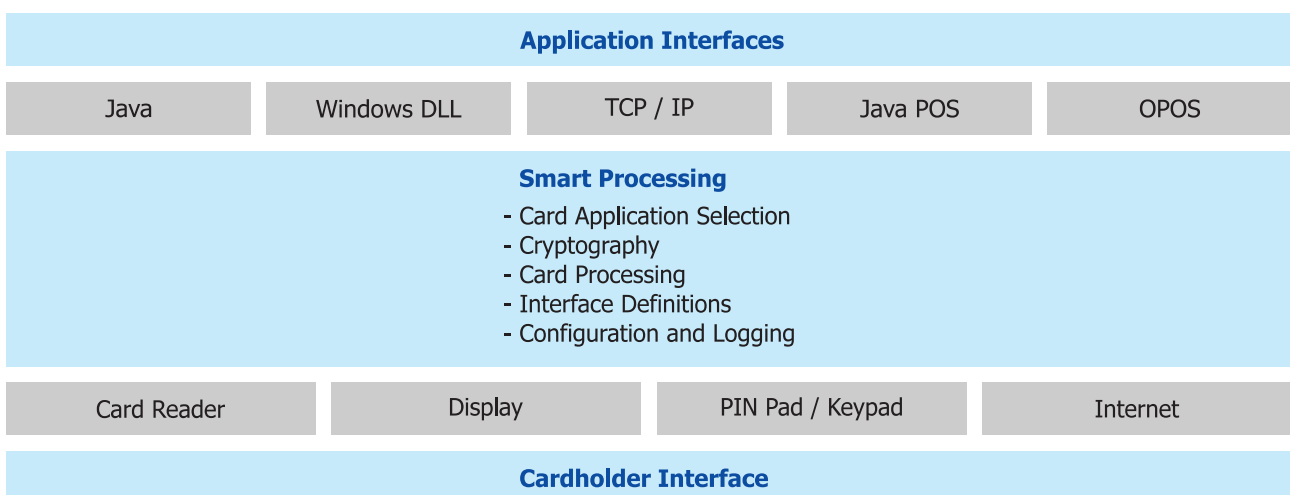
End users can write their own card application kernels using the SmartNS framework or key kernels can be provided directly from STS and partners. Examples of live kernels already installed in thousands of devices globally are:

- Emvelink** EMV Level 2 kernel for credit and debit card processing in software. Emvelink processed the first integrated POS transaction in the UK Northampton trial and is integrated into the software of several global solution providers.
- Wiclink** Processing e-Benefits smart cards in the US for the Federal Women, Infants and Children food aid program. Developed and tested within 5 weeks using the existing functionality of SmartNS.
- Loyalty** Developed by one of our partners using the SmartNS platform for a major UK retailer's loyalty program. SmartNS provides the card processing components, fully integrated into the POS application and business systems.

Benefits of SmartNS

- Written in Java – runs anywhere a Java Virtual Machine (JVM) is supported (including Windows, UNIX, Linux and Windows CE)
- Can be deployed anywhere in the architecture and in client or server configuration
- Protects hardware investment by providing the card application intelligence in a separate software kernel
- Proven technology, published interfaces and an open architecture enables vendors to reduce their time to market with smart card applications
- Flexible enough to meet any future smart card requirements
- Simple to upgrade, maintain and modify in the field
- Reduces the Total Cost of Ownership of a smart card solution, by providing a single layer of software for all the disparate uses of smart cards

SmartNS Technical Architecture



Smart Technology Solutions Limited (STS) is a market leading software company that delivers innovative smart card solutions through industry partnerships. STS has built over 20 years' experience into its award-winning products and continues to pioneer new advances in smart card acceptance. STS is the only company that specialises in enabling the use of smart cards at any point of interaction such as retail stores, unattended devices or over the Internet. STS' vision is to drive the ubiquitous use of smart cards by working with key partners to develop the full potential of the smart card infrastructure.