Job Description

Cryptocontroller Engineer

Within the Product & Tools Infrastructure Group, the cryptocontroller engineer plays a major role in building and reinforcing the core competence of NEC in microcontrollers for smart cards.

Both with a technical and a theoretical approach, he(she) excels in putting to work with the best performances the cryptographic features implemented in the NEC microcontroller family.

Software Development Activity

The cryptocontroller engineer is responsible for the complete software infrastructure related to the NEC cryptocontroller family.

This task consists in:

- Defining and implementing low and high-level cryptography libraries for customer use (e.g. RSA, DSA, ECC),
- Implementing specific libraries upon customer request,
- Maintaining the existing libraries,
- Defining and implementing the complete test environments for the devices and the development tools,
- Assisting the customer support team for a better technical comprehension of the NEC cryptocontrollers.

Design Support Activity

The cryptocontroller engineer is responsible for the specification of advanced cryptographic peripherals to foresee the cryptography evolution in smart card microcontrollers.

This task consists in:

- Pursuing advanced research in cryptocontroller for smart cards aiming at defining today's and future state-of-the-art cryptographic peripherals,
- Defining new cryptocontroller functionnalities in accordance with technology evolution,
- Interfacing with local and external NEC design facilities for specifying and collaborating in the design of cryptographic peripherals,
- Liaising with third parties subcontracted by NEC that may participate in the implementation of cryptographic features.

As a member of the cryptography community, he(she) will represent NEC in technical conferences and workshops.