

Submission From Information Technology Division, The Hong Kong Institution of Engineers for the LegCo Panel on Security

### HKSAR Identity Card

Honorable Chairman & Panel Members,

Thank you for this opportunity to allow the engineers from the Information Technology Division of the Hong Kong Institution of Engineers to express our views on the proposed HK Identity Card system.

We believe a smart ID card system with multi-application capacity would provide an infrastructure enabling innovative IT applications for the benefit of Hong Kong residents.

However, there should be a careful balance among privacy protection, security, user convenience, and cost. A suggestion is to divide the card into two parts: an identity authentication core and an optional added-value component. Residents should have complete freedom to decide whether to engage any optional applications.

While no information system can be completely risk-free, security risks on the core data should not be allowed to exceed our current ID card system. The public should be duly informed of security risks of optional applications, so that they can make intelligent choices.

Monitoring and ensuring proper usage of the data stored on the smart ID card should be a continuing process. The public's concern on this issue should be carefully addressed. Efficient dissemination of relevant information is of great importance. Administration of the system is a long-term issue and may touch upon multiple Government agencies, maybe even private enterprises. The ownership of this issue requires careful consideration.

Interoperability and flexibility should be key design goals. Interoperability is not merely a matter between the cards and the back-office computers; it also requires that transaction processes from different Government agencies can work together harmoniously. So thorough analysis and testing are needed.

Flexibility in the design would allow the card system to evolve as technology changes, and nowadays, technology changes rapidly. The life cycle of smart card technology is very short, a typical figure cited is six months. A good example of flexibility in design is to consider a system with 2048-bit PKI key length instead of today's 1024-bit.

We believe that "Technology" is not the major hurdle. Previous testimonies have touched upon this point. The pitfalls would most likely come from human issues such as administration and improper card usage. It is important that Hong Kong should learn from the experiences of other countries. Not that many countries have adopted the smart ID card system; but their experiences are valuable input for us.

Whether the system will be successful no doubt depends greatly on the implementation model and its execution. To ensure success, we recommend using pilot trials that limit usage to only a fraction of the population. Similarly, optional applications should be introduced gradually to minimize risks in implementation.

Although technology is not considered a major hurdle, there are nevertheless many challenging technical questions. To start, it was observed that the technical requirements are not clearly defined in the Brief.

The tradeoff between contact and contactless cards is an important consideration. The use of a hybrid system combining both contact and contactless features should not be ruled out. Data synchronization is another important technical issue that needs to be examined.

To help establish the local IT industry, involvement of local professionals in the design and implementation of the proposed system and associated applications should be strongly encouraged. We sincerely believe local IT professionals are capable of making useful contributions in such a venture. Let's work together to transform Hong Kong into a cosmopolitan IT city.

Thank you.