HCE technology is comparatively new; deployment costs and processes are variable and not yet well defined.

**Known costs**

- SP – Trusted Service Manager (SP-TSM)
- Agreement with MNO for UICC space
- Testing & Validation

**Known service provider costs include**:

- SP – Trusted Service Manager (SP-TSM)
- Agreement with MNO for UICC space
- Testing & Validation

**Back-end infrastructure costs**

- Certification per OS/device etc
- Development & deployment costs

**Known, yet undefined service provider costs include**:

- Cost per transaction
- Tokenisation management cost
- Certification per OS/device etc
- Development & deployment costs

**Additional Costs to Consider**

- Increased support costs; investment in technical support/IT processes to address customer service issues across a variety of devices.

**Collaboration creates opportunities**

- Sharing costs with a partner will lead to cost-efficiencies.
- MNO services such as data and messaging can be leveraged; services can be promoted through MNO wallets or deployed phones.
- Usage of an MNO’s TSM can enhance service security, reducing risk, increasing customer satisfaction and reducing cost.
- An OEM’s eSE can provide additional security to create innovative service offerings / cross-marketing opportunities.

**SE deployment costs and processes are transparent as it’s an established technology.**

**Service providers face a level of ‘unknowns’ with HCE deployment; responsibility to establish the right processes and relationships rests with them.**

**With SE deployment models, the risk of hackers attacking the NFC service is negligible.**

**Attacks on a mass scale are not possible; attackers need to obtain and break individual devices in order to benefit, making the effort versus reward ratio very low.**

**Conclusions:**

- HCE may appear more cost effective on first glance, but as many deployment costs are variable / undefined, total outlay may be comparable with SE deployment, yet the security risk is higher.
- Service providers face a level of ‘unknowns’ with HCE deployment; responsibility to establish the right processes and relationships rests with them.
- SE deployment costs and processes are transparent as it’s an established technology.
- Collaboration creates opportunities:
  - Sharing costs with a partner will lead to cost-efficiencies.
  - MNO services such as data and messaging can be leveraged; services can be promoted through MNO wallets or deployed phones.
  - Usage of an MNO’s TSM can enhance service security, reducing risk, increasing customer satisfaction and reducing cost.
  - An OEM’s eSE can provide additional security to create innovative service offerings / cross-marketing opportunities.
- SE manufacturers have strong NFC credentials; they are experts in deployment and have technical infrastructure in place.