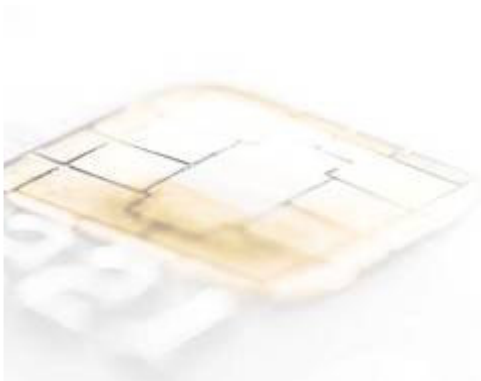
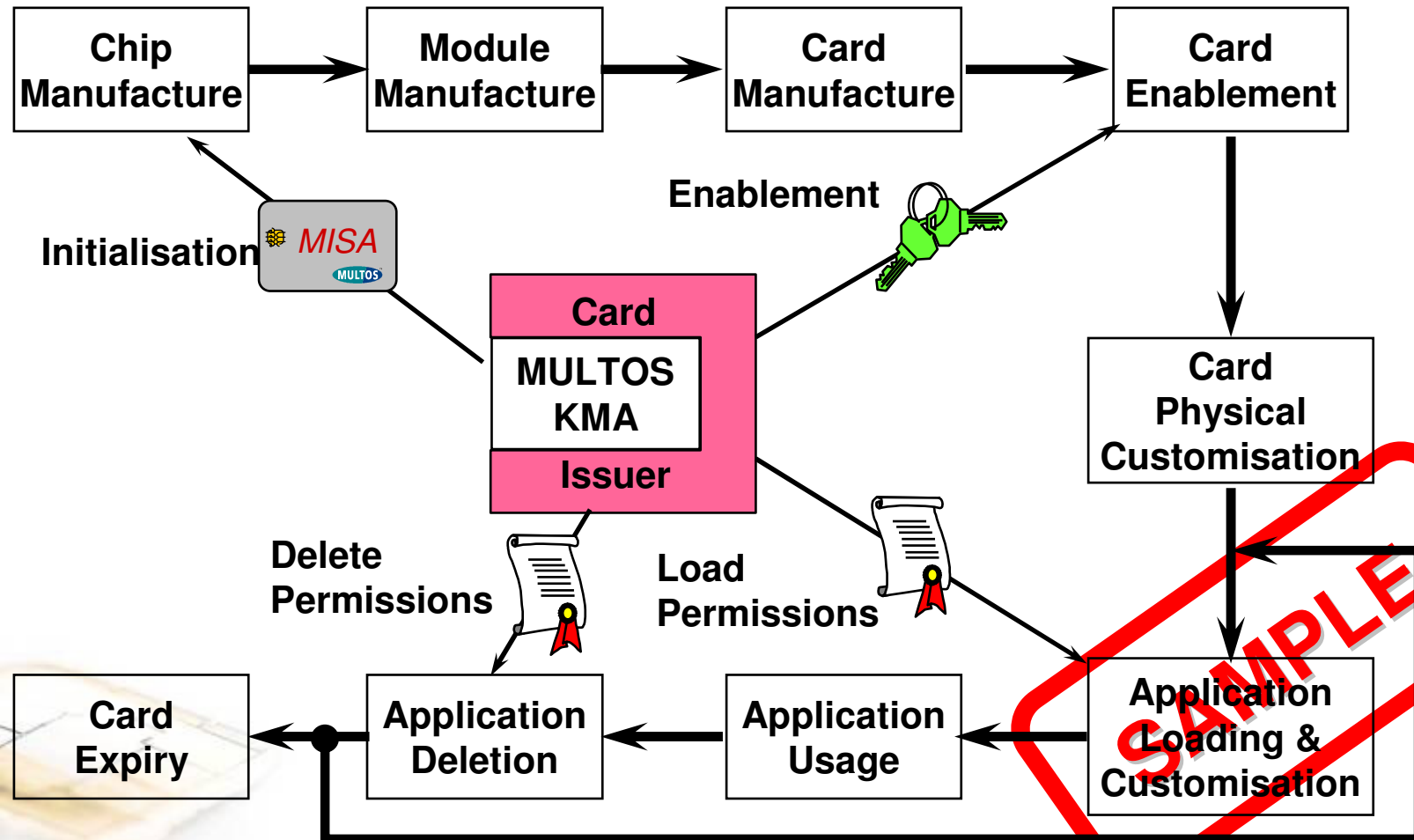


MULTOS Training Program

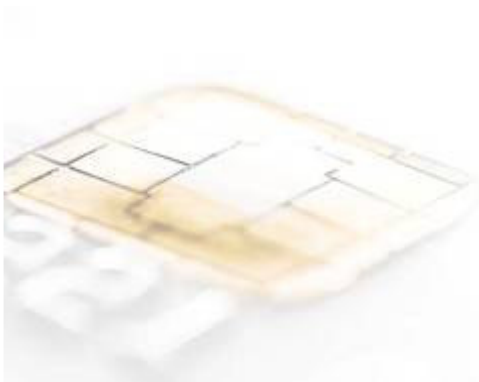
MULTOS Card Life Cycle Review



MULTOS Card Life Cycle Review

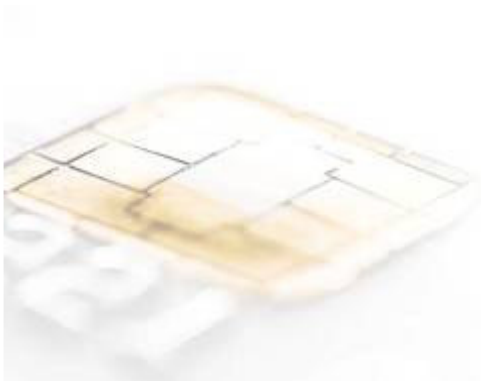


- At manufacture, the MULTOS Key Management Authority provides each chip with a transport key and a unique chip id
- Each chip is therefore protected as soon as it is created
- A “Protected Card” has very limited functionality, and will not allow applications to be loaded
 - this avoids the need to subject these “commodity” products from export controls



Card Enablement

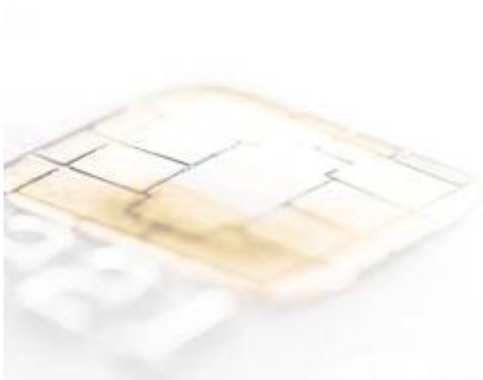
- MULTOS Enablement Data is encrypted with the KMA's Transport Key
- The enablement data is similar to the MULTOS card's 'birth certificate' and the data binds each card to a specific Issuer
- Enabled cards are then ready to accept applications



Physical Personalisation



SAMPLE

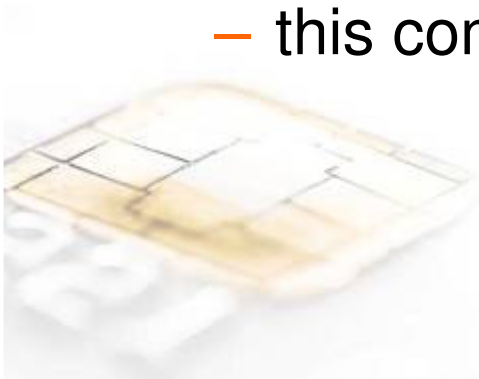


Application Loading

- The MULTOS KMA provides a load certificate, which includes details of the application to be loaded, together with some Issuer-specific information
- The Issuer provides the application load unit – the software

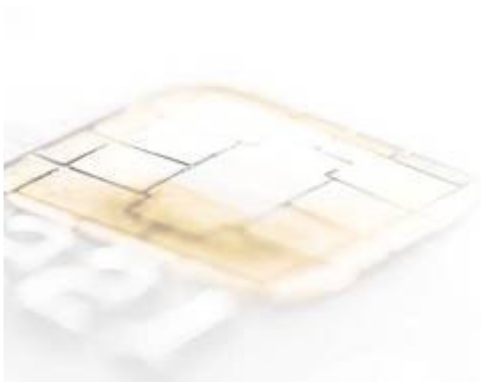


- Based on Issuer policy
 - card upgrade or renewal events
 - card's useful lifetime expired
- Some applications also have an expiry date
 - in these cases, the application can be deleted instead of the card being replaced
 - this helps to extend the life of the card and maximises the Issuer's investment in chip cards
- Card Block
 - this command disables all applications on the card



Summary

- Enablement Data
- Application Load Units
- Load Certificates
- Delete Certificates
- Application Customisation data
- Variants and versions



MULTOS & M/Chip Training Program

Questions and Answers

