

# Trusted Update Package Introduction

System Software Development Department,

InfoTech,

Connected Advanced Development Division,

Toyota Motor Corporation

Contact : Okino, Naoto ([naoto.okino@toyota-tokyo.tech](mailto:naoto.okino@toyota-tokyo.tech))

# Revision History

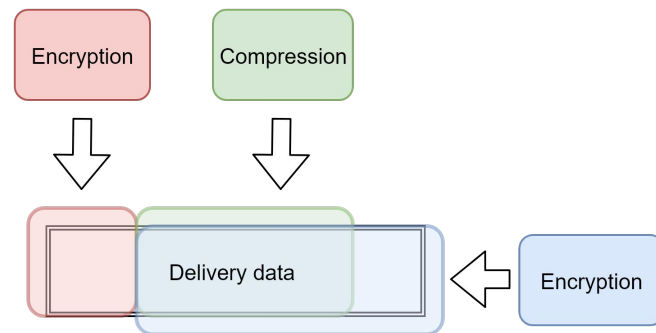
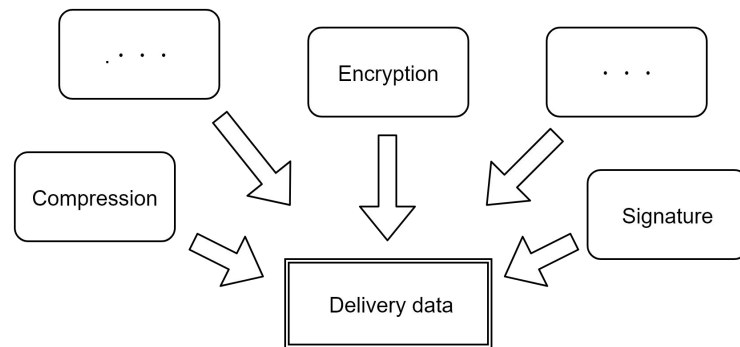
PROTECTED

関係者外秘

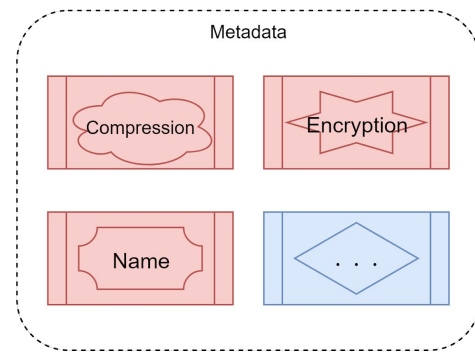
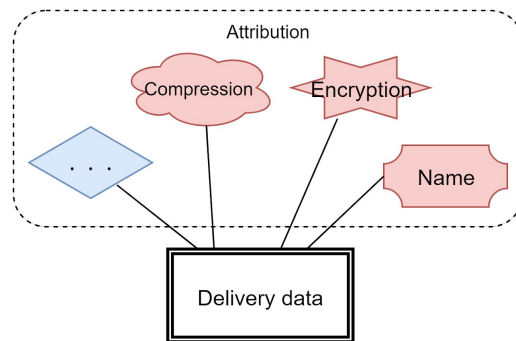
Version	Date	Description
1.0	September 22nd, 2021	Initial release version

- There are various update target system.
- Update data of multiple systems need to be contained in one package.
  - CPU Arch
  - Memory Size
  - Storage
  - OS
  - With or Without Hardware acceleration for some functions  
( e.g. Decompression, decryption/encryption and hash )
- There are also various update target component.
  - Apps
  - System software
  - DLC (Download Contents)

- Delivery data can be processed in various ways such as compression and encryption, depending on the target.
- Processes like compression and encryption can be applied not only to the whole delivery data but also to each area.



- Metadata has attribution of delivery data and TUP itself, and can represent both attribution of TUP common and vendor specific.

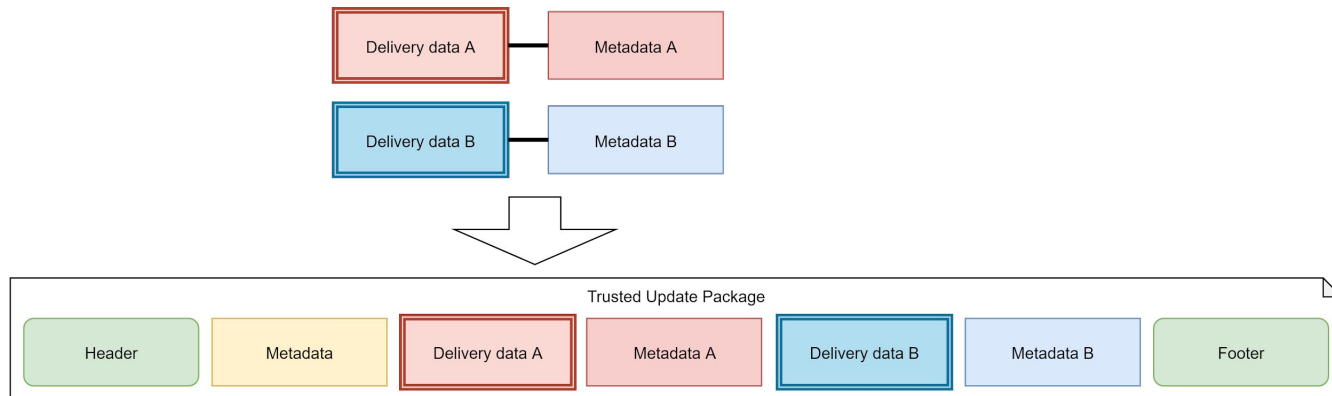


- Metadata is in TLV (Type-Length-Value) format that can be flexible and extensible since delivery data can have various attribution for each target.

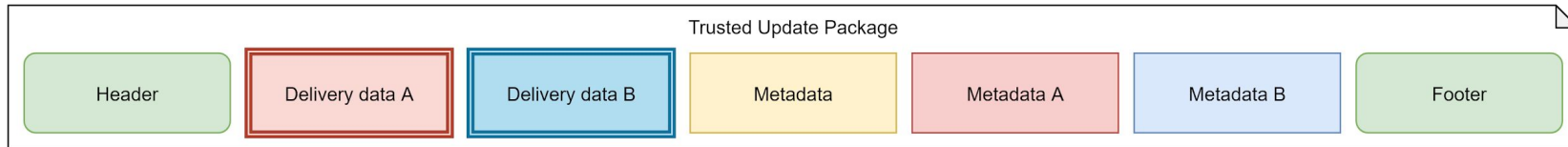
TLV (Type-Length-Value)

Type	Length	Value

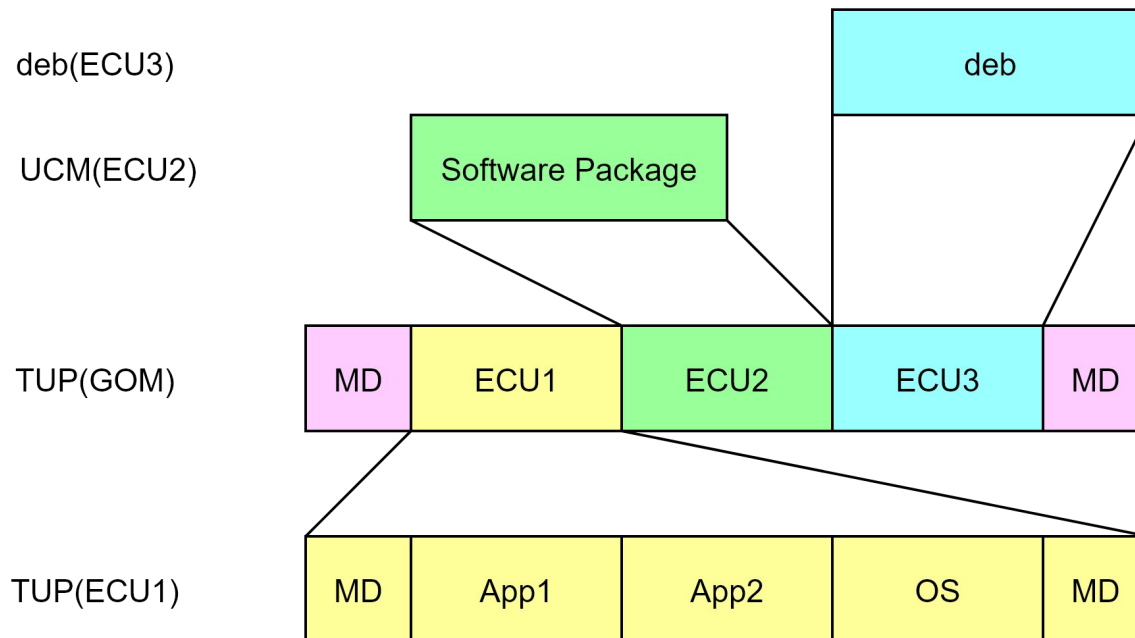
- Trusted Update Package(TUP) can contain multiple delivery data and its metadata.



- These delivery data and metadata can be placed at any position inside TUP.



# Nested Package



- TUP Design
  - Trusted Update Package Format Design
- TUP Specification
  - Trusted Update Package Format Specification