pa gets:

message pa.RegistrationRequest {

// Device record. Required.

ot.DeviceData device\_data = 1;

}

The pa.RegistrationRequest layout is:

message ot.DeviceData {

string sku = 1;

message DeviceId {

message HardwareOrigin {

SiliconCreatorId silicon\_creator\_id = 1;

ProductId product\_id = 2;

fixed64 device\_identification\_number = 3;

fixed32 cp\_reserved = 4;

};

bytes sku\_specific = 2;

}

DeviceLifeCycle device\_life\_cycle = 3;

message Metadata {

DeviceRegistrationState registration\_state = 1;

uint64 create\_time\_ms = 2;

uint64 update\_time\_ms = 3;

string ate\_id = 4;

string ate\_raw = 5;

uint32 year = 6;

uint32 week = 7;

uint32 lot\_num = 8;

uint32 wafer\_id = 9;

uint32 x = 10;

uint32 y = 11;

}

bytes wrapped\_rma\_unlock\_token = 5;

bytes perso\_tlv\_data = 6;

bytes perso\_fw\_sha256\_hash = 7;

}

PA sends the pa.RegistrationRequest to the registry\_shim.

Google's registry\_shim (src/pa/services/registry\_shim) sents the record to proxy\_buffer which gets:

message DeviceRegistrationRequest {

ot.RegistryRecord record = 1;

}

so Google's registry\_shim converts from ot.DeviceData to ot.RegistryRecord:

message ot.RegistryRecord {

string device\_id = 1; // incoming ot.DeviceData.DeviceId

string sku = 2; // incoming ot.DeviceData.Sku

uint32 version = 3; // fixed val - 0

bytes data = 4; // incoimng ot.DeviceData (the entire pa.RegistrationRequest as bytes)

bytes auth\_pubkey = 5; // output from spmClient.EndorseData

bytes auth\_signature = 6; // output from spmClient.EndorseData

}

Nuvoton's registry\_shim (vendor/registry\_shim) sents the record to regitry\_buffer which gets:

message RegistrationRequest {

device\_id.DeviceRecord device\_record = 1;

}

so Nuvoton's registry\_shim converts from ot.DeviceData to device\_id.DeviceRecord:

message device\_id.DeviceRecord {

string sku = 1; // incoming ot.DeviceData.Sku

message DeviceId {

message HardwareOrigin {

message DeviceType {

SiliconCreator silicon\_creator = 1; // (enum, need to find eq. new enum) incoming ot.DeviceData.DeviceId.HardwareOrigin.SiliconCreatorId

uint32 product\_identifier = 2; // incoming ot.DeviceData.DeviceId.HardwareOrigin.ProductId to num

}

fixed64 device\_identification\_number = 2; // incoming ot.DeviceData.DeviceId.HardwareOrigin.device\_identification\_number

};

bytes sku\_specific = 2; // incoming ot.DeviceData.sku\_specific

fixed32 crc32 = 3; // ?? 0's?

}

message DeviceData {

repeated DeviceIdPub device\_id\_pub = 1; // ?? 0's?

bytes payload = 2; // incoimng ot.Device (the entire pa.RegistrationRequest as bytes)

bytes next\_owner\_keys = 3; // ?? 0's?

DeviceLifeCycle device\_life\_cycle = 4; // incoming ot.DeviceData.DeviceLifeCycle

message Metadata { // all from ot.DeviceData.Metadata

DeviceState state = 1; // (enum, need to find eq. new enum) incoming ot.DeviceData.Metadata.DeviceRegistrationState

uint64 create\_time\_ms = 2;

uint64 update\_time\_ms = 3;

string ate\_id = 4;

string ate\_raw = 5;

uint32 year = 6;

uint32 week = 7;

uint32 lot\_num = 8;

uint32 wafer\_id = 9;

uint32 x = 10;

uint32 y = 11;

}

}

}