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SDK API

The followings are a set of APIs that initialize device management information and that are used for dynamic memory control and PIN code generation.

- BS2_Version: Returns the SDK version.
- BS2_AllocateContext: Allocates the device management Context.
- BS2_ReleaseContext: Releases the device management Context.
- BS2_Initialize: Initializes the device management Context.
- BS2_ReleaseObject: Releases dynamic memory.
- BS2_MakePinCode: Encrypts the PIN.
- BS2_SetMaxThreadCount: Specifies the maximum thread count.
- BS2_ComputeCRC16CCITT: Calculates the CRC-16 CCITT checksum.
- BS2_GetCardModel: Retrieves the supported card models.
- BS2_GetDataEncryptKey: Gets the encryption key for the device.
- BS2_SetDataEncryptKey: Sets the encryption key for the device.
- BS2_RemoveDataEncryptKey: Removes the encryption key for the device.

Structure

BS2CredentialKeyInfo

```
/**
 * BS2_CRED_KEY_REQ
 */
enum
{
    BS2_CRED_KEY_REQ_COMM = ,
    BS2_CRED_KEY_REQ_DATA = 1,
};

enum
{
    BS2_CRED_KEY_SIZE = 32,
};

/**
 * BS2CredentialKeyInfo
 */
typedef struct
{
    uint32_t maxPacketSize;          ///< 4 bytes
    uint8_t  key[BS2_CRED_KEY_SIZE];     ///< 32 bytes
    uint8_t  dualIDSupported;        ///< 1 byte
    uint8_t  useAlphanumericID;         ///< 1 byte
    uint8_t  credentialKeySupported;    ///< 1 byte
    uint8_t  credentialKeyRequest;      ///< 1 byte
```

```
    uint8_t  reserved[28];          ///< 28 bytes (reserved)
} BS2CredentialKeyInfo;
```

1. *maxPacketSize*
The maximum TCP packet size allowed by the device.

2. *key*
The key value used by the device.
Depending on the credentialKeyRequest setting, you can get a communication encryption key, or a data encryption key.

3. *dualIDSupported*
Indicates whether the device's userID format (number, character) is allowed to change.

4. *useAlphanumericID*
A flag indicating whether the device uses an alphanumeric userID.

5. *credentialKeySupported*
Indicates whether data key changes are allowed.
Device supports data credential key changes when the release date of FW for each device is later than 30 Mar 2018,
So it indicates whether the currently connected device supports the modification of these keys.

6. *credentialKeyRequest*
You can use this setting to request a key for the device.
This setting is applicable only when the release date of FW for each device is later than 30 Mar 2018.
In the case of the previous FW, only the communication key is returned regardless of whether this is set or not.

Value	Description
BS2_CRED_KEY_REQ_COMM	Communication credential key request
BS2_CRED_KEY_REQ_DATA	Data credential key reuqest

7. *reserved*
Reserved space.