

SR1 host service description (Android)

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Revision history

Version	Description of the revision	Revised by	Date of revision
V0.1	Initial version		2022/3/22
V0.2	L1 layer interfaces such as card searching, power-on, APDU interaction and power-off are added.		2022/5/19

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1 EMV parameter file demo

```
{
  "name": "Terminal Configuration",
  "OperateType": "Add",
  "MerchantCategoryCode": "1234",
  "MerchantIdentifier": "424354455354",
  "MerchantName": "41424344",
  "CountryCode": "0156",
  "TerminalType": "22",
  "TerminalIdentifier": "3833323031494343",
  "TerminalCapability": "E028C8",
  "TerminalAppendCapability": "",
  "TerminalRiskManagementData": "0040000000000000",
  "TransactionCertificateDataObjectList": "9F1A0295059A039C01",
  "TerminalApplicationInterchangeProfile": "0040",
  "InterfaceDevice(IFD)SerialNumber": "00000000",
  "AcquirerIdentifier": "00000000000000",
  "TransactionCurrencyCode": "0156",
  "TransactionCurrencyExponent": "02",
  "TransactionReferenceCurrencyCode": "0156",
  "TransactionReferenceCurrencyExponent": "02",
  "TransactionCurrencyCodeandReferenceCurrencyCodeExchangeExponent": "02",
  "TerminalTransactionQualifiers": "b0400000",
  "ElectronicCashTerminalTransactionValue": "000000000000",
  "DefaultTransactionCategoryCode": "1234",
  "TransactionSequenceNumber": "0000",
  "AIDList": [
    {
      "name": "Visa Debit",
      "OperateType": "Add",
      "ApplicationIdentifier": "A000000003",
      "ApplicationSelectionFlag": "00",
      "TargetPercentToBeUsedOfRandomSelection": "00",
      "MaxTargetPercent": "00",
      "TerminalFloorLimit": "00999999",
      "ThreshholdValueBiasedRandomSelection": "5000",
      "TerminalActionCodeDenial": "0010000000",
      "TerminalActionCodeOnline": "FFFFFFFF",
      "TerminalActionCodeDefault": "FFFFFFFF",
      "TerminalDefaultDDOL": "9F3704",
      "ApplicationVersionNumber": "0200",
      "ContactlessExecuteCVMFloorLimit": "000000000099",
      "ContactlessTransactionLimit": "000009000000",
      "ContactlessOfflineFloorLimit": "000000000000",
      "ElectronicCashTerminalTransactionValue": "000000000000",
    }
  ]
}
```

错误!未定义书签。

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Chapter I Interface declaration of SR1

host service layer

1 Service layer interface declaration

1.1 Explain

The service will be output in the form of a jar package, which is independently embedded in the application layer and called directly.

The service layer interface meets the following design principles:

- Unify the exposed interface, aggregate the unified function of the application, and actively call the interface by the application program. Declared interfaces are those that return immediately after being called. They can be called directly on the main thread and should not generate ANR.
- For the interface with uncontrollable calling time, the calling result is received in the form of callback listener.
- To meet changing requirements, a complex interface will use a Bundle as an incoming parameter.

1.2 Description of service configuration

Embed directly in the lib folder of the application and add the following compilation dependency description:

implementation files('libs/magicpos_sdk.jar')

1.3 Service layer common return code definition

Return value KEY	Value	Explain
Success	0	Execution succeeded
Fail	-1	Execution failed
Param_In_Invalid	-2	Input parameter error
TimeOut	-3	Execution timed out

1.4 Service module declaration

1.4.1 Module description

It is used to manage Bluetooth, three-in-one card reading, such as magnetic stripe card, contact IC card and non-contact IC card, OTA upgrade, key management, etc.

1.4.2 Package path

com.magicpos.xpos.MPOSService

1.4.3 MPOS Service Class Description (Singleton Class)

1.4.3.1 Interface list

Interface prototype	Functional description
getInstance	Gets the service instance
setConext	Set the service context
initListener	Set up the service listener
scanMPos2Mode	Scan for all Bluetooth devices
connectBT	Connect to the specified Bluetooth device
disconnectBT	Disconnect the specified Bluetooth device
updatePosFirmware	OTA Upgrade Firmware

setMasterKey	Update Device Master Key
updateWorkKey	Update device work key
getMposInfo	Get POS Info
generateSessionKeys	generate a session key
updateRSA	Update the RSA key
getMposId	Get the POSID
getRandomNumber	Get a random number
sendMagicCmd	Command pass-through
DoCardSearch	Find the card
DoCardActive	APDU instruction data transparent transmission
DoCardExchangeCmd	Byte stream instruction passthrough
DoCardDeActive	Power off the card

1.4.3.2 Get Service Instance (get instance)

Interface prototype	MPOSService getInstance(CommunicationMode mode)	
Interface function	Get Service Layer Instance-Singleton Pattern	
Parameter description	parameter in	CommunicationMode MODE For the communication mode, see the description of Communication Mode class in the appendix.
	parameter out	None
Return value	MPOS Service service instance prototype	
Additional explanation		

1.4.3.3 Set service context (setConext)

Interface prototype	boolean setConext(Context context)	
Interface function	Set the service context	
Parameter description	parameter in	Context - Application context
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1.4.3.4 Set Service Listener (initListener)

Interface prototype	void initListener(Handler handler, MPOSServiceListener listener)
---------------------	--

Interface function	Set up the service listener	
Parameter description	parameter in	handler– Listener- service interface operation listening instance (See Appendix MPOS Service Listener Class Definition)
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 5 Scan for all Bluetooth devices (scanMPos2Mode)

Interface prototype	boolean scanMPos2Mode(Context context, long time)	
Interface function	Scan all Bluetooth device	
Parameter description	parameter in	Context - the context Time - Time out
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 6 Connect to the specified Bluetooth device (connectBT)

Interface prototype	boolean connectBT(String blueToothAddress)	
Interface function	Connect to the specified Bluetooth device	
Parameter description	parameter in	BlueToot hAddress - Bluetooth device address
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 7 Disconnect Bluetooth device (disconnectBT)

Interface prototype	void disconnectBT()	
Interface function	Disconnect the Bluetooth device	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 8 OTA upgrade firmware application (updatePosFirmware)

Interface prototype	int updatePosFirmware(byte[] data, String deviceAddress)	
Interface function	OTA Upgrade Firmware Application	
Parameter description	parameter in	Data-File byte stream DeviceAddress - Bluetooth address of the currently connected device
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 9 Update Device Master Key (setMasterKey)

Interface prototype	void setMasterKey(String key, String checkValue)	
Interface function	DUKPT mode Update Device Master Key	
Parameter description	parameter in	Key -- Key values Check value -- Key check values
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 10 Update device work key (updateIPEKKey)

Interface prototype	public void updateIPEKKey(String trackIpek, String trackIpekKcv, String trackKsn, String pinIpek, String pinIpekKcv, String pinKsn, String emvIpek, String emvIpekKcv, String emvKsn, int keyIndex)	
Interface function	DUKPT mode Updates the device work key	
Parameter description	parameter in	trackIpek - track key in DUKPT mode TrackKsn -- Track secret key CheckValue PinIpek - PIN key PinIpekKcv - PIN Key ciphertext checkValue EmvIpek - EMV keys EmvIpekKcv - EMV key checkvalue KeyIndex - Index of the working key
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 11 Get POS related information (getMposInfo)

Interface prototype	void getMposInfo()	
Interface function	Get POS related information	
Parameter description	parameter in	None
	parameter out	None

Return value	None
Additional explanation	

1. 4. 3. 12 Generate session key (generate Session Keys)

Interface prototype	void generateSessionKeys()	
Interface function	A session key is generate	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 13 Update RSA Key (updateRSA)

Interface prototype	void updateRSA(String rsaRegin, String rsaN, String rsaE)	
Interface function	Update the RSA key	
Parameter description	parameter in	rsaRegin - rsaN - rsaE---
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 14 Get POSID information (getMposId)

Interface prototype	void getMposId()	
Interface function	Get POSID information	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 15 Get RandomNumber

Interface prototype	void getRandomNumber()	
Interface function	Get a random number	
Parameter description	parameter in	None
	parameter out	None

Return value	None
Additional explanation	

1. 4. 3. 16 Instruction data passthrough (sendMagicCmd)

Interface prototype	void sendMagicCmd(int cmd, int subCmd, String cumstomCmd)	
Interface function	Command pass-through	
Parameter description	parameter in	Cmd-Command code SubCmd - subcommand code CumstomCmd-Parameter Data
	parameter out	None
Return value	None	
Additional explanation		

1. 4. 3. 17 Card search command (DoCardSearch)

Interface prototype	public boolean DoCardSearch(MPOSService.CardRoutFlag cardRoutFlag)	
Interface function	search card	
Parameter description	parameter in	CardRoutFlag — Channel type (contact/noncontact) See Card RoutFlag for values
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 18 Card Active (DoCardActive)

Interface prototype	public boolean DoCardActive(MPOSService.CardRoutFlag cardRoutFlag)	
Interface function	Card activation	
Parameter description	parameter in	CardRoutFlag — Channel type (contact/noncontact) See Card RoutFlag for values
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 19 Byte stream instruction passthrough (DoCardExchangeCmdBytesApu)

Interface prototype	public byte[] DoCardExchangeCmdBytesApu(MPOSService.CardRoutFlag cardRoutFlag,byte[] dataCmd)	
Interface function	Byte stream instruction passthrough	

Parameter description	parameter in	CardRoutFlag — See CardRoutFlag for the value of channel type (contact/non-contact) DataCmd -- byte stream data
	parameter out	None
Return value	True/False	
Additional explanation		

1. 4. 3. 20 Card power-off (DoCardDeActive)

Interface prototype	public boolean DoCardDeActive()	
Interface function	Power off the card	
Parameter description	parameter in	None
	parameter out	None
Return value	Returns true on success Returns false on failure	
Additional explanation		

1. 4. 3. 21 Digital envelope mode update key (updateWorkKey)

Interface prototype	public void updateWorkKey(String str)	
Interface function	Digital envelope mode update key	
Parameter description	parameter in	Str -- key data information, see the appendix for the format
	parameter out	None
Return value		
Additional explanation		

Chapter II Listening result callback interface declaration

1 UpdateInformationResult class definition

```
{UPDATE_SUCCESS, UPDATE_FAIL, UPDATE_PACKET_VERIFY_ERROR,
UPDATE_PACKET_LEN_ERROR, UPDATE_LOWPOWER, UPDATING,
USB_RECONNECTING;}
```

2 Display class definition

```
{TRY_ANOTHER_INTERFACE, PLEASE_WAIT, REMOVE_CARD, CLEAR_DISPLAY_MSG,
PROCESSING, PIN_OK, TRANSACTION_TERMINATED, INPUT_PIN_ING,
MAG_TO_ICC_TRADE, INPUT_OFFLINE_PIN_ONLY, CARD_REMOVED,
MSR_DATA_READY, PLEASE_TRY_AGAIN, TRY_ANOTHER_CARD;}
```

3 Error class definition

{TIMEOUT, MAC_ERROR, CMD_TIMEOUT, CMD_NOT_AVAILABLE, DEVICE_RESET, UNKNOWN, DEVICE_BUSY, INPUT_OUT_OF_RANGE, INPUT_INVALID_FORMAT, INPUT_ZERO_VALUES, INPUT_INVALID, CASHBACK_NOT_SUPPORTED, CRC_ERROR, COMM_ERROR, WR_DATA_ERROR, EMV_APP_CFG_ERROR, EMV_CAPK_CFG_ERROR, APDU_ERROR, ICC_ONLINE_TIMEOUT, AMOUNT_OUT_OF_LIMIT, EMV_AID_MISSING_ERROR, EMV_CTL_EXCEED_LIMIT_ERROR, TRANS_KEY_ERROR;}

4 CommunicationMode class definition

{AUDIO, BLUETOOTH_VER2, UART, UART_K7, BLUETOOTH_2Mode, USB, BLUETOOTH_4Mode, UART_GOOD, USB_OTG_CDC_ACM, BLUETOOTH, BLUETOOTH_BLE, UNKNOWN;}

5 Service Interface Listener Class Description (MPOS Service Listener)

5.1 Interface list

Interface prototype	Functional description
onMposIdResult	Read the POSID result
onMposKsnResult	Read POSKsnD results
onMposIsCardExist	Obtain if the card results exist
onRequestDeviceScanFinished	Bluetooth scanning device end notification
onMposInfoResult	Read POS Info result
onMposGenerateSessionKeysResult	Get SessionKey results
onMposDoSetRsaPublicKey	Get Set RSA KEY Result
onReturnSendMagicCmd	Obtain the result of instruction passthrough
onDoGetRandomNumberResult	Get random number result callback
onRequestMposConnected	POS terminal connected callback
onRequestMposDisconnected	POS Terminal Disconnection Callback
onRequestNoMposDetected	POS terminal not detected (handshake failed)
onRequestNoMposDetectedUnbond	POS terminal not detected (handshake failed, 4.0 Bluetooth protocol)
onError	Error callback
onRequestDisplay	Prompt information display
onReturnApduResult	Not used
onReturnSetSleepTimeResult	Get the result of setting sleep time
onRequestCalculateMac	Obtaining MAC results
onRequestUpdateWorkKeyResult	Obtain the result of updating work key
onReturnCustomConfigResult	Get Custom Parameter Result
onReturnSetMasterKeyResult	Get Set Master Key Result
onRequestUpdateKey	Not used
onDeviceFound	Scan to Bluetooth device

onBluetoothBonding	In Bluetooth pairing
onBluetoothBonded	Bluetooth pairing successful
onBluetoothBondFailed	Bluetooth pairing failed
onBluetoothBondTimeout	Bluetooth pairing timeout
onUpdatePosFirmwareResult	Obtain OTA update result
onBluetoothBoardStateResult	Not used
onGetPosComm	Acquire and receiving communication data
onUpdateMasterKeyResult	Acquire that result of updating the mast key
onReturnNFCApduResult	Not used
onCbcMacResult	Get CBC MAC Results
onSetManagementKey	Not used
onSetSleepModeTime	Not used
onGetSleepModeTime	Not used
onGetShutDownTime	Get the shutdown time
onEncryptData	Get the encryption result

5.2 Read POSID result callback (onMposIdResult)

Interface prototype	void onMposIdResult(Hashtable<String, String> posIdTable)	
Interface function	Read the POSID result	
Parameter description	parameter in	PosIdTable -- POS ID result
	parameter out	None
Return value	None	
Additional explanation		

5.3 Read POSKsn result callback (onMposKsnResult)

Interface prototype	void onMposIdResult(Hashtable<String, String> hashtable)	
Interface function	Read POSKsn results	
Parameter description	parameter in	Hashtable -- POS Ksn Result
	parameter out	None
Return value	None	
Additional explanation		

5.4 Get if there is a result callback for the card (onMposIsCard Exist)

Interface prototype	void onMposIsCardExist(boolean b)
Interface	Get if there is a result callback for the card

function		
Parameter description	parameter in	b -- true Card exists false Card does not exist
	parameter out	None
Return value	None	

5.5 Get the callback of the end result of Bluetooth scanning device (onRequest Device ScanFinished)

Interface prototype	void onRequestDeviceScanFinished()	
Interface function	Get Bluetooth scanning device end callback	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.6 Read POS Info result callback (onMposInfoResult)

Interface prototype	void onMposInfoResult(Hashtable<String, String> posInfoData)	
Interface function	Get POS Info Result Callback	
Parameter description	parameter in	PosInfoData - POS Info Result
	parameter out	None
Return value	None	
Additional explanation		

5.7 Get SessionKey result callback (onMposGenerateSessionKeysResult)

Interface prototype	void onMposGenerateSessionKeysResult(Hashtable<String, String> hashtable)	
Interface function	Get SessionKey Result Callback	
Parameter description	parameter in	Hashtable - SessionKey Result
	parameter out	None
Return value	None	
Additional explanation		

5.8 Get Set RSA KEY Result Callback (onMposDoSetRsaPublicKey)

Interface prototype	void onMposDoSetRsaPublicKey(boolean b)	
Interface function	Get Set RSA KEY Result Callback	
Parameter description	parameter in	B - --true set successfully false set failed
	parameter out	None
Return value	None	
Additional explanation		

5.9 Get instruction passthrough result callback (onReturnSendMagicCmd)

Interface prototype	void onReturnSendMagicCmd(String s)	
Interface function	Get the callback of the passthrough result of the setting instruction	
Parameter description	parameter in	S -- instruction passthrough result
	parameter out	None
Return value	None	
Additional explanation		

5.10 Get random number result callback (onDoGetRandomNumberResult)

Interface prototype	void onDoGetRandomNumberResult(String s)	
Interface function	Get random number result callback	
Parameter description	parameter in	S -- random number result
	parameter out	None
Return value	None	
Additional explanation		

5.11 POS terminal connected callback (onRequestMposConnected)

Interface prototype	void onRequestMposConnected()	
Interface function	POS terminal connected callback	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.12 POS terminal disconnected callback (onRequestMposDisconnected)

Interface prototype	void onRequestMposDisconnected ()	
Interface function	POS terminal disconnected callback	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.13 Device callback not detected (onRequestNoMposDetected)

Interface prototype	void onRequestNoMposDetected ()	
Interface	Device not detected, handshake with device failed	

function		
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.14 Device callback not detected (onRequestNoMposDetectedUnbond)

Interface prototype	void onRequestNoMposDetectedUnbond ()	
Interface function	Device not detected, handshake with device failed, 4.0 Bluetooth protocol	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.15 Error callback (onError)

Interface prototype	void onError(MPOSService.Error errorState)	
Interface function	An error result is returned	
Parameter description	parameter in	ErrorState-see the Error class definition
	parameter out	None
Return value	None	
Additional explanation		

5.16 Prompt message display callback (onRequestDisplay)

Interface prototype	void onRequestDisplay(MPOSService.Display displayMsg)	
Interface function	A prompt message is displayed	
Parameter description	parameter in	displayMsg-see Display class definition
	parameter out	None
Return value	None	
Additional explanation		

5.17 Get the set sleep time result callback (onReturnSetSleepTimeResult)

Interface prototype	void onReturnSetSleepTimeResult(boolean isSuccess)	
Interface function	Set sleep time result return	
Parameter description	parameter in	IsSuccess - true set successfully false set failed
	parameter out	None
Return value	None	

Additional explanation	
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5.18 Get MAC result callback (onRequestCalculateMac)

Interface prototype	void onRequestCalculateMac(String calMac)	
Interface function	MAC results are returned	
Parameter description	parameter in	CalMac - mac results
	parameter out	None
Return value	None	
Additional explanation		

5.19 Get Set Master Key Result callback (onReturnSetMasterKeyResult)

Interface prototype	void onReturnSetMasterKeyResult(boolean isSuccess)	
Interface function	Set Master Key Result Return	
Parameter description	parameter in	IsSuccess - true set successfully false set failed
	parameter out	None
Return value	None	
Additional explanation		

5.20 Bluetooth device scan result callback (onDeviceFound)

Interface prototype	void onDeviceFound(BluetoothDevice bluetoothDevice)	
Interface function	Scan to Bluetooth device	
Parameter description	parameter in	BluetoothDevice-Bluetooth Device Information
	parameter out	None
Return value	None	
Additional explanation		

5.21 Callback in Bluetooth pairing (onBluetoothBonding)

Interface prototype	void onBluetoothBonding()	
Interface function	In Bluetooth pairing	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.22 Bluetooth pairing successful callback (onBluetoothBonded)

Interface prototype	void onBluetoothBonded ()
---------------------	---------------------------

Interface function	Bluetooth pairing successful	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.23 Bluetooth pairing failure callback (onBluetoothBondFailed)

Interface prototype	void onBluetoothBondFailed ()	
Interface function	Bluetooth pairing failed	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.24 Bluetooth pairing timeout callback (onBluetoothBondTimeout)

Interface prototype	void onBluetoothBondTimeout ()	
Interface function	Bluetooth pairing timeout	
Parameter description	parameter in	None
	parameter out	None
Return value	None	
Additional explanation		

5.25 Get cashback card data callback (onReturniccashBack)

Interface prototype	void onReturniccashBack(Hashtable<String, String> result)	
Interface function	Get the cashback card data	
Parameter description	parameter in	Result - Contains serviceCode, trackblock, and other tags
	parameter out	None
Return value	None	
Additional explanation		

5.26 Get OTA update result callback (onUpdatePosFirmwareResult)

Interface prototype	void onUpdatePosFirmwareResult(MPOSService.UpdateInformationResult arg0)	
Interface function	Obtain OTA update result	
Parameter description	parameter in	arg0 -- see the Update Information Result class definition
	parameter out	None
Return value	None	
Additional		

explanation		
5.27 Get the callback of received communication data (onGetPosComm)		
Interface prototype	void onGetPosComm(int mod, String amount, String posid)	
Interface function	Acquiring received communication data	
Parameter description	parameter in	Mod-Transaction Mode Amount-Transaction amount information Posid -- posid information
	parameter out	None
Return value	None	
Additional explanation		
5.28 Get the update master key result callback (onUpdateMasterKeyResult)		
Interface prototype	void onUpdateMasterKeyResult(boolean arg0, Hashtable<String, String> arg1)	
Interface function	Acquire that result of updating the mast key	
Parameter description	parameter in	Arg0 --true Update successful false Update failed Arg1 - contains RN1, POSID tags
	parameter out	None
Return value	None	
Additional explanation		
5.29 Get CBC MAC Result Callback (onCbcMacResult)		
Interface prototype	void onCbcMacResult(String s)	
Interface function	Get CBC mac results	
Parameter description	parameter in	S - mac value
	parameter out	None
Return value	None	
Additional explanation		
5.30 Get the shutdown time callback (onGetShutDownTime)		
Interface prototype	void onGetShutDownTime(String s)	
Interface function	Shutdown time	
Parameter description	parameter in	S - Shutdown time
	parameter out	None
Return value	None	
Additional explanation		
5.31 Get encryption result callback (onEncryptData)		
Interface	void onEncryptData(Hashtable<String, String> hashtable)	

prototype		
Interface function	Obtain data encryption result	
Parameter description	parameter in	Hashtable - Contains encryptedData, ksn tags
	parameter out	None
Return value	None	
Additional explanation		

Chapter III Appendix

1 Work key data format

```

680100008B1E23C4D2E5F4A323547348EC6DBF27FE00F952081C654EC0F08B2D71A22F67996
67B7D1FD73AE7E5FA952DD06FDD772AB1AA5FD7408B5FA4473E56DE71FA49219DB1E239
E5352F2D478477DD94A1226CA4C38D53FC5C8E09B4232A9467CBAA23B94B42E037F2335AB
ACEA62909DEE7560D8CBC9CDA5D775A6EB539D453F09610CED8DE5D44DCD3DE90845B7
BD4AC8DF70E1EE090C4A30CEE5F3BF9DB7EF639B7BE5BDFA473AB4639FDB1C9B6F06E8
CC977B7FE61E23A1B5A57CBF2FAF56501B63FE9C87A6ED4D17314A6E79AE4F3C56A460FF
4C7342B4C728ED804B97AD3E17FDA7DC89616714B60BEE2292E2700463C11ACBA8C66A8C
BCC750F6B6F654916196CFF91D06C4F1EB3DC6F381758458CAD2718284475BD8B8D38323A9
56C65191F920543FF1C8968DD4B02BAEF5699B7E9BB7B6E91CD891AF910FE36EFAB04BDA
2CC4F44D71B5E9D435631D95EE2661D3AB6FD4508566D4F6C48D41E9D3C3360BCC62327756
6525CFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
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