ANDROID 16 NFC API AND STATIC CONFIG CHANGES

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NXP Proprietary API Changes in A16 – Card Emulation Feature

SNO	Exiting NxpNfcExtension API in A15	Proposed New AOSP API in A16	Remarks
1	void DefaultRouteSet(int routeLoc, boolean fullPower, boolean lowPower, boolean noPower);	public void overwriteRoutingTable(int protocol,int technology, int **emptyAid**,int systemCode)	1. New AOSP API does not support power state input as argument rather application shall rely on "Secure NFC" feature as alternative. 2. Also, Samsung already moved to AOSP API for this use cases. CardEmulationManager.java - Android Code Search
2	void MifareDesfireRouteSet(int routeLoc, boolean fullPower, boolean lowPower, boolean noPower)	public void overwriteRoutingTable(int **protocol**,int technology, int emptyAid,int systemCode)	Same as SNO#1
3	void MifareCLTRouteSet(int routeLoc, boolean fullPower, boolean lowPower, boolean noPower);	public void overwriteRoutingTable(int protocol,int **technology**, int emptyAid,int systemCode)	Same as SNO#1
4	void NfcFRouteSet(int routeLoc, boolean fullPower, boolean lowPower, boolean noPower);	public void overwriteRoutingTable(int protocol,int **technology**, int emptyAid,int systemCode)	Same as SNO#1

NXP Proprietary API Changes in A16 – T4T and eSE Feature

SNO	Exiting NxpNfcExtension API in A15	Proposed New AOSP API in A16	Remarks
1	int doWriteT4tData(in byte[] fileId, in byte[] data, int length);	public @WriteDataStatus int writeData(@IntRange(from = 0, to = 65535) int fileId, @NonNull byte[] data)	T4tNdefNfcee.java
2	byte[] doReadT4tData(in byte[] fileId);	public byte[] readData(@IntRange(from = 0, to = 65535) int fileId) {	
3	NA	public NdefCcFileInfo readCcfile()	This API newly added in A16
4	NA	int clearNdefData();	This API newly added in A16
5	NA	boolean isNdefOperationOngoing();	This API newly added in A16
6	NA	boolean isNdefNfceeEmulationSupported();	This API newly added in A16
7	int[] getActiveSecureElementList(String pkg);	List<String> getActiveNfceeList();	
8	void changeDiscoveryTech(IBinder binder, int pollTech, int listenTech);	setDiscoveryTechnology	Deprecated as similar API is present in AOSP

Un-Supported NXP Proprietary API's in A16

SNO	Exiting NxpNfcExtension API in A15	Proposed New AOSP API in A16	Remarks
1	int getMaxAidRoutingTableSize();	NA	Deprecated. Not used.
2	int getCommittedAidRoutingTableSize();	NA	These API are used because now Listen Mode Routing table is defined in number of bytes and not in number of AID routes. Refer:artf1140770
3	int selectUicc(int uiccSlot);	NA	Deprecated.This API used for static UICC switching.
4	int getSelectedUicc();	NA	Now, we support dual UICC and both UICC's can be active at same time. Based on the payment application, data can be routed to UICC1 or UICC2.
5	int configureSecureReader(boolean on, String readerType);	NA	TeamForge : artf953211: [SN220V3][System I&V][Mifare_Digitization_Type1]Observed STATUS_REJECTED for RF_Discover_MAP_CMD while starting Mifare reader mode.
6	void enableWlc(INxpWlcCallBack callback);	NA	Deprecated and AOSP WLC recommended
7	void disableWlc(INxpWlcCallBack callback);	NA	Deprecated and AOSP WLC recommended
8	boolean isWlcEnabled();	NA	Deprecated and AOSP WLC recommended
9	void updateStatus(int status)	NA	Deprecated and AOSP WLC recommended

Un-Supported NXP Proprietary Static Configurations in A16

SNO	Static Configuration	Alternative Proposal	Remarks
1	NXP_CE_ROUTE_STRICT_DISABLE	Not used.	NA
2	DEFAULT_AID_PWR_STATE	Not Supported	Static power state configuration does not supported in Android-16
3	DEFAULT_DESFIRE_PWR_STATE	Not Supported	Same as SNO#2
4	DEFAULT_MIFARE_CLT_PWR_STATE	Not Supported	Same as SNO#2
5	DEFAULT_FELICA_CLT_PWR_STATE	Not Supported	Same as SNO#2
6	DEFAULT_T4TNFCEE_AID_POWER_STATE	Not Supported	Same as SNO#2
7	NXP_CHECK_DEFAULT_PROTO_SE_ID	Not Supported	Confirmed in below artifact https://www.collabnet.nxp.com/sf/go/artf1137700
8	AID_MATCHING_PLATFORM	Not Used	NA
9	FORWARD_FUNCTIONALITY_ENABLE	Not Supported	Check and update the reference
10	DEFAULT_SYS_CODE_PWR_STATE	Not Supported	Same as SNO#2
11	NXP_CE_PRIORITY_ENABLED	not supported	It is added for BMW project. we need to discuss with ROW CAS https://www.collabnet.nxp.com/sf/tracker/do/viewArtifact/projects.pn547sw/tracker.venus_row_mw/artf1063518 Check and update the refernce
12	SCREEN_OFF_POWER_STATE	Not Used	

New NFC API from AOSP in Android-16

SNO	Feature	New API added in Android-16	Remarks
1	Vendor Extension Support – NfcOemExtension.java	1. RF Discovery management API and overwriteRoutingTable APIs 2. OEMExtensionCallbacks covers Tag dispatch status, Routing and CE events, RF state updates	NfcOemExtension.java - Android Code Search