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SAMSUNG SDS EMM SUPPLEMENTAL PROCEDURES

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Developed by Samsung SDS and DISA for the DoD

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1. SAMSUNG SDS EMM SERVER SOFTWARE SECURITY AND CONFIGURATION INFORMATION

Instructions to properly install the Samsung SDS EMM Server are provided in the following documents:

- Samsung SDS EMM Installation Guide, Version 2.2.5, January 2020
- Samsung SDS Push Installation Guide, Version 2.2.5, January 2020
- Samsung SDS AppTunnel Installation Guide, Version 2.2.5, January 2020
- Samsung SDS EMM Administrator's Guide, Version 2.2.5.3, March 2021

1.1 Samsung SDS EMM Server Architecture

The Samsung SDS EMM Server can be deployed with or without proxy servers in a DMZ. The following two diagrams depict these architectures.

Refer to Section 1.2 of the Samsung SDS EMM Installation Guide, Version 2.2.5, January 2020, for more details.

Figure 2-1: Samsung SDS EMM Server Single-Server Architecture

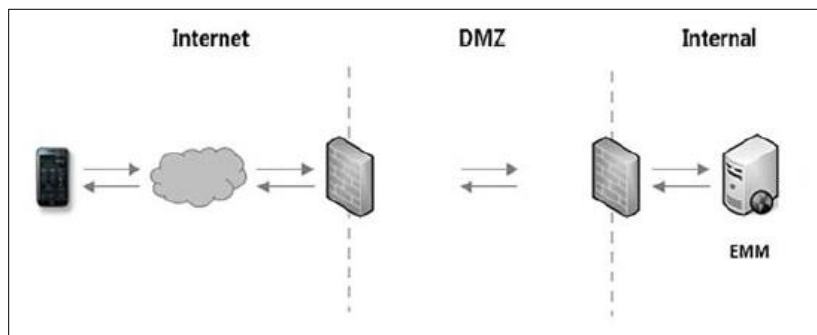
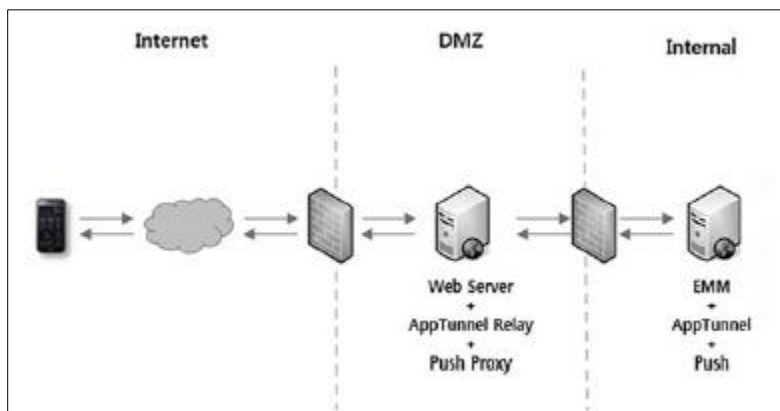


Figure 1-2: Samsung SDS EMM Server Multi-Server Architecture



2. MDM SOFTWARE COMPONENTS

Table 2-1: Samsung SDS EMM Server Core Components

Component	Description
EMM Agent	Software installed within an Android mobile device.
EMM Server	The main server running to which remote administrators connect. The EMM Server is responsible for all logic needed to manage mobile devices.
Push Server	The Push Server accepts connections from mobile devices and then relays the messages to and from the EMM Server (for example, to send policies to an Agent or to send back a reply from an Agent). One can install multiple Push Servers to allow the overall solution to scale the supported number of mobile devices (a single Push Server configuration was used during testing).
AppTunnel Server	The AppTunnel server accepts connections from the EMM Client (one of the three portions of the Agent software on Android) and allows the Client to upload log files or download mobile applications to be installed by the Agent.
AppTunnel Relay (multi-server architecture only)	A proxy to forward communication to an AppTunnel Server.
Push Proxy (multi-server architecture only)	A proxy to forward communication to a Push Server.
Web Server (multi-server architecture only)	A proxy to forward communication to an EMM Server.

2.1 Samsung SDS EMM Server MDM Required Firewall Ports

The ports listed in Table 2-2 are examples and can be adjusted during product installation as needed to meet a customer's specific network.

Table 2-2: Required Ports and Services

From	To	Port	Description
Web Browser or MD Agents	EMM Server	35443	Offers remote administration interface.
MD Agents	AppTunnel Server	36000	Supports MAS functions.
MD Agents	Push Server	35000, 35001, 35003	Supports communication between Agents and EMM Server.

From	To	Port	Description
EMM Server	Apple APNS	2195/2196	Communication between EMM and Apple APNS for iOS Support.
EMM Server	Microsoft SQL Database Server	1433	Communication to and from the database.
iOS MD Agents	Apple APNS	5223/443	Supports communication between iOS Agent and Apple APNS.
Knox Agent	Knox Licensing Server	443	Allows for license validation for Samsung Knox devices.
EMM	Knox Licensing Server	443	Allows for license validation for Samsung Knox devices.