



AUTOMATIC DEVICE PROVISIONING USING OMACP AND OMADM

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Abstract: In today's world it is difficult to configure each mobile device with configuration settings manually. Device provisioning aims at managing brands for the devices and also manages primitive implementation for all the configuration settings to the newly added devices. The main aim of the project is to design a system so that a single instance of the system can control multiple customers, each with different network configurations, access control, policies, device types and external interfaces. To properly enable mobile broadband, SADM (Server Device Manager) facilitates remote management of settings, applications, user data content, security and updating a firmware in mobile devices connected to the wireless mobile network.

Index Terms: Open Mobile Alliance Device Management(OMADM), Open Mobile Alliance Client Provisioning, Device Provisioning, Server Device Manager(SADM)

I. INTRODUCTION:

In today's IT industry, we see that an organization needs to adapt itself dynamically to the changing needs of the IT needs. This implies that one need to automatically manage the services for all devices without complexity of configuring setting services manually. Figure 1 shows the overview of device from device library.



Figure 1: overview of device library for devices

The OMA DM protocol provides a way to remotely synchronise devices. It defines the order of communicated packages by the server and client. The OMA Device Management (OMA DM) standard specifies the client/server protocol and the management objects to store the various configuration and provisioning parameters. Today there are plenty various devices available in the market from all major device manufacturers that support OMA DM device provisioning with an OMA DM client. When SADM is configured for OMA DM operation, OMA DM account setting is delivered using short messages (OMA CP), while all other settings are sent over IP using OMA DM sessions. This may result in a significant use of mobile network resources more efficiently, especially in the event of large numbers of additional settings. This optimized setting delivery applies in all setting management cases when OMADM is used. Besides powerful settings management, OMADM support permit the server to query the device characteristics. It authorize the server to detect configuration settings that are actually stored in a device.

II. OMACP PROVISIONING:

OMA Client Provisioning (OMACP) adds configuration of devices, as well as support for configuring application protocol parameters. OMACP allows combining of multiple type of settings into a single configuration message so that end-users can approve and save them with a single operation. This is a binary SMS based provisioning. This is a case where SADM will send the encoded packets to SMSC. Later to that SMSC will send the encoded packets which it receives from SADM to the mobile device. The packets will be decoded at the destination. The figure 2 represents how the SADM will send encoded binary message to mobile device.

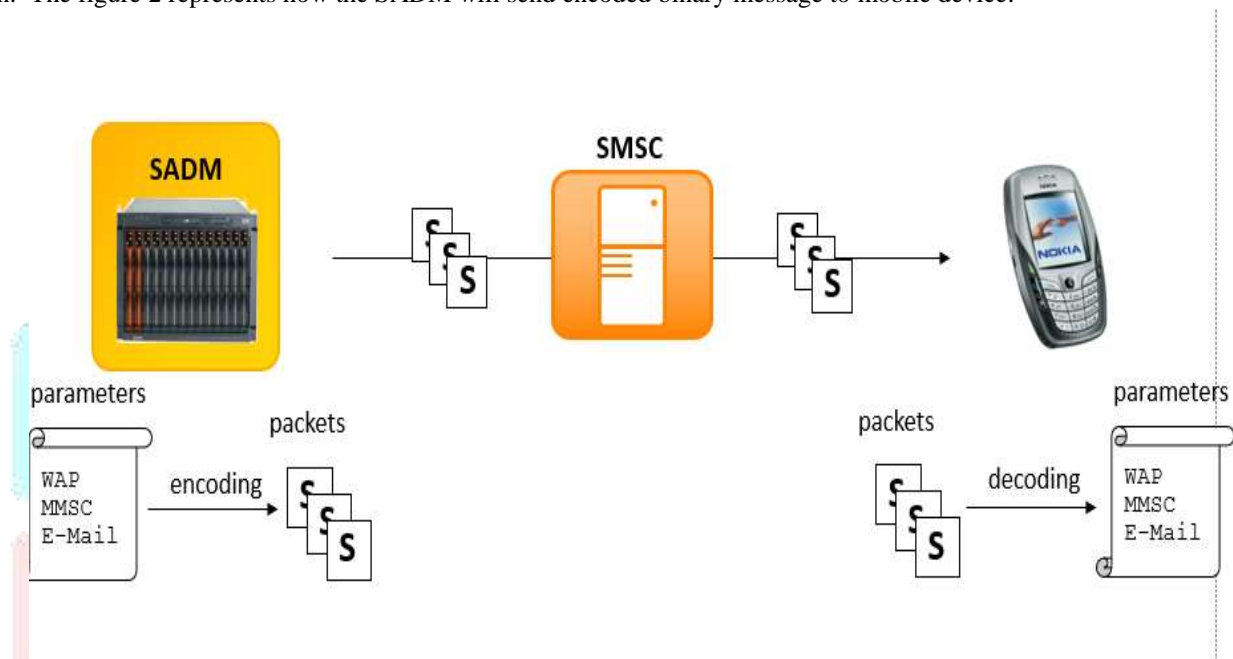


Figure 2: represents omacp provisioning for device

III. OMADM PROVISIONING:

This is based on HTTP provisioning. Here when the helpdesk user send a OMADM request to the SADM. The binary SMS request will be sent to the SMSC through the internet. Later to that request will be forwarded to the mobile device. When SADM is configured for OMA DM operation, OMA DM account setting is delivered using short messages (OMA CP), while all other settings are sent over IP using OMADM sessions. This may result in a significantly more efficient use of mobile network resources, especially in subject of large numbers of additional settings. This optimized setting delivery applies to all setting management cases when OMA DM is used. Besides powerful settings management, OMA DM support allows the server to query the device characteristics. It enables the server to detect configuration settings that are actually stored in a device as shown in figure 3.

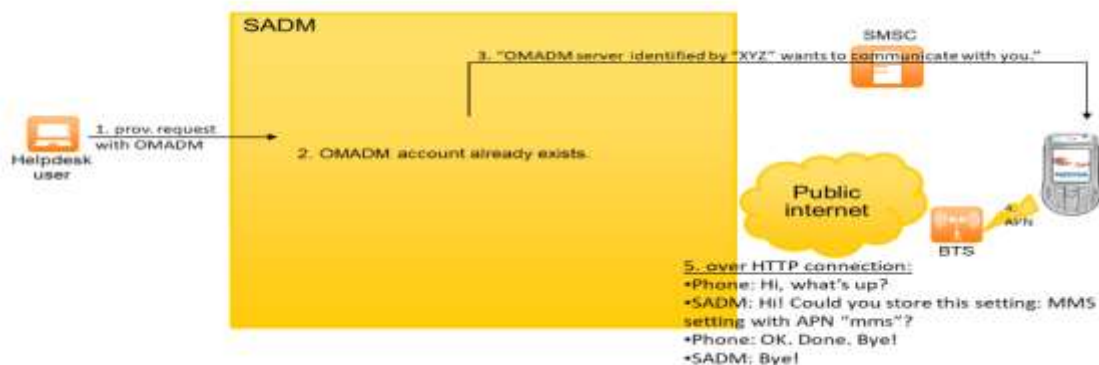


Figure 3: represents omadm provisioning for devices

IV. RESULT DISCUSSION:

The main goal of the Information Technology and Telecom industry is to add services dynamically which is flexible to adopt to new technology. The goal of OMACP and OMADM is to enable device capability services automatically for a device by using an HTTP connection. But research is also going on this direction to add more services to the device by using these two standard methods.

V. REFERENCES:

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