Hewlett Packard Enterprise

Device Entitlement Gateway

Entitlement management

Communications service providers are investing in auto-configuration or entitlement servers to provide service configuration data to devices both during service initialization and on a regular basis.

Entitlement management is technology that grants, resolves, enforces, revokes, and administers fine-grained access entitlements—also referred to as authorizations, privileges, access rights, permissions, and/or rules. The purpose of entitlement management is to execute access policies toward services, devices, data (structured/unstructured). To manage entitlements, communications service providers are investing in auto-configuration or entitlement servers to provide service configuration data to devices during service initialization and on a regular basis.

What is HPE's Device Entitlement Gateway

Hewlett Packard Enterprise (HPE) offers a flexible entitlement management product that handles device entitlements for both the iOS and Android platforms—Device Entitlement Gateway (DEG).

Two main functions are handled by HPE DEG:

• Authentication of the subscriber and device

• Service configuration

With HPE DEG, iOS device management is simplified and made compliant with iOS entitlement server requirements. For the Android mobile platform, HPE DEG offers a service configuration function similar to the one used for RCS-compliant devices.

HPE DEG has a number of core functions to handle an entitlement framework:

• Device and subscriber authentication

• Authorization of device entitlements

• SMS-less Feature Registration

• Usage and Subscription dynamic notifications

• VoLTE Entitlement Management

• VoWiFi Entitlement Management

• Non-SIM Devices Service Entitlement Management (iOS only)

HPE DEG architecture

HPE DEG is composed of two main sub-components:

- The core DEG element identified as the DEG Application Server—hosts the main services needed to process the requests from devices, and support all required interfaces to the carrier's platforms and back-end systems

- The DEG Manager Server—hosts the different management tools and the centralized data view of the HPE DEG deployment and configuration.

Within the sub-components, HPE DEG offers:

- Direct HTTPS-based interactions with iOS and Android devices

- Authentication function—leveraging information from the device's U/ISIM and the carrier's 3GPP AAA/HSS system

- Authorization function—interacting with the carrier's Subscriber Information and Profile database to obtain the entitlement status of devices.

- Outbound provisioning—interacting with the carrier's core network system to initiate/activate entitlements as needed

- Apple Push Notification Service (APNS) interface to deliver Push Notifications related to configuration updates to iOS devices

- Flexible XML "templates" for service configuration data toward Android devices

- Websheet integration—allowing for close collaboration between HPE DEG and the carrier's web/portal servers associated with service configuration (for example, VoWiFi Location update)
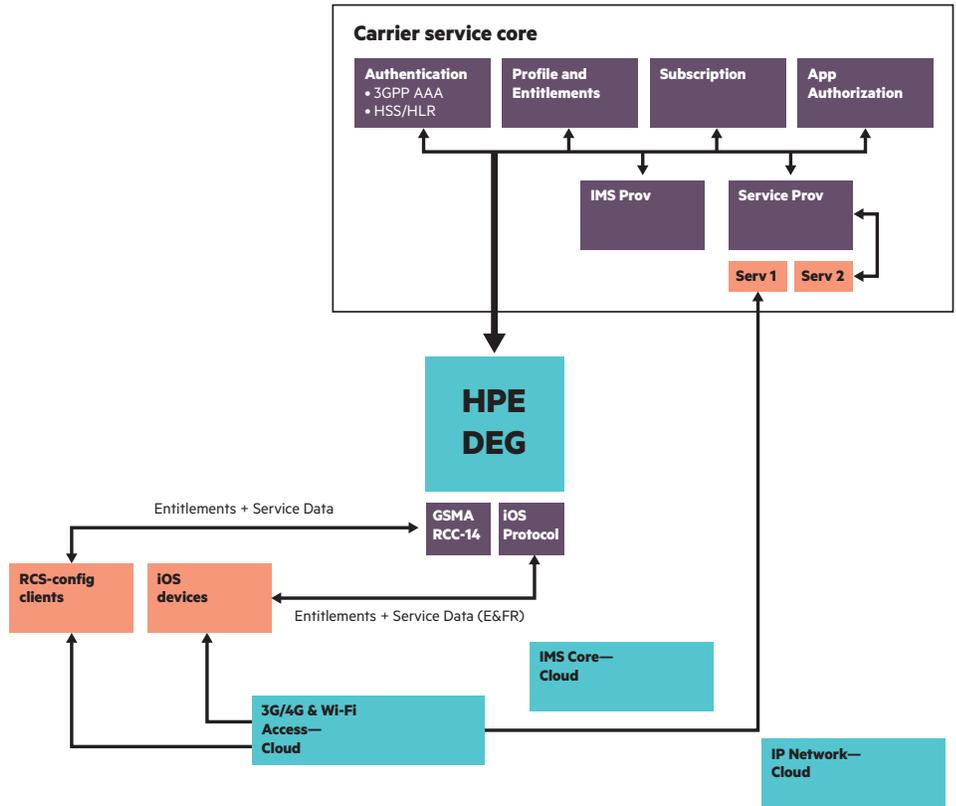

Figure 1: The network architecture for HPE DEG—The different integration points among DEG, the carrier back-end systems, and devices.

The DEG Manager has a number of management tools for ease-of-operation and platform manageability:

- Monitoring tool to track the activity of specific devices

- KPI tool—offers periodic generation of key performance indicator (KPI) reports

- An Operations Console to monitor the different HPE DEG modules of the platform

- An alarm interface based on SNMP, connected to the Customer' Network Operations Center (NOC)

Why HPE

Hewlett Packard Enterprise has deployed HPE DEG around the world for both iOS and Android use cases, ensuring deep technical and market expertise about the evolving market for advanced device entitlements.

Learn more at
hpe.com/csp/eium

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