



Content everywhere, anywhere

Use service entitlement to capitalize on new opportunities





Table of contents

1	Next generation service entitlement
2	Great benefits for more than the user
4	Summary
5	About the author

Adopting a content entitlement model means new business scenarios and relationships for communications services providers like you.

Next generation service entitlement

The restless growth of digital content, everywhere connectivity, cloud services, and proliferation of multiple devices has increased users' content consumption expectations. They expect to purchase and consume content everywhere, watch them on any device, and have them synchronized on all screens.

The attempt to satisfy these expectations makes digital media management incredibly complex. Figure 1, for example, in traditional video distribution, shows the average number of video formats for a single movie is 150. In this new ubiquitous world, where possible scenarios—location, device type, video quality, subscriptions, among others—have grown exponentially, this number rises to more than 8000.

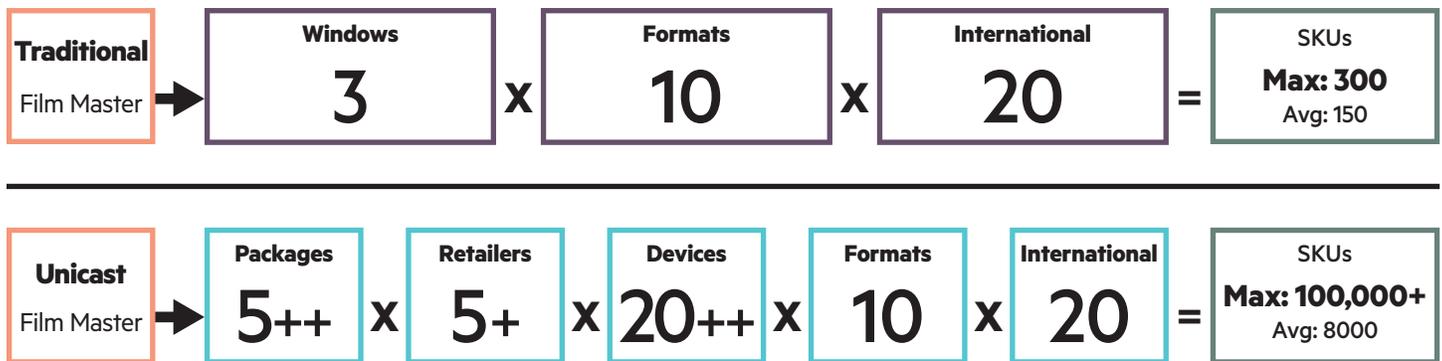


Figure 1: Media management complexity grows

This complexity made the market shift from monetization and management of content possession to content entitlements—just the right to access content. To “consume” content, users don’t need to buy it anymore; they just need to purchase the right to watch it. They don’t even need to download the content onto their device.

In this scenario, anytime users want to watch content, the system checks the users and device “rights,” to see if they are entitled to access the content and provide it in streaming or download mode on the selected device. Users can watch their favorite TV shows in HD on their Smart TV when home, in SD on their tablets when connected via Wi-Fi, or in low-quality format on their smartphones when traveling.

Great benefits for more than the user

Users are not the sole beneficiaries of this new scenario; content and service providers— and over-the-top (OTT) communication providers—also get great benefits.

For content owners, managing entitlements rather than specific formats greatly simplifies content management. An entitlement function groups all possible digital formats for a specific content; reducing the number of objects to manage allows an autonomous content distribution by communication providers. (Cable operators can distribute content at home, on mobile, or on Wi-Fi in mobility.) An example is Xfinity, which distributes its content on Comcast cable network, and also on other operator networks.

Communication providers can use entitlements to enhance their services. They can bundle their services with OTT services to create new and more attractive packages. For example, Rogers in Canada is bundling its video services with other video providers to create richer video packages.

Traditional entitlement platforms were created in the era of cable television and are relatively simple solutions. They were meant to manage TV service entitlements. Today, applications (apps) access the entitlement platform asking if a specific subscriber can “consume” the requested content. The entitlement platform checks its database for the subscriber’s entitlement status and provides back the authorization.

Adoption of the entitlement model by telecommunication operators—to support ubiquitous content entitlement—is opening new business scenarios and relationships. At the same time, it requires new entitlement systems that must be capable of:

- Providing entitlement to a wide variety of applications, not only cable services and operator owned. For example, Telco operators can use entitlement to enable roamers to use their Internet and Wi-Fi services.
- Providing entitlement to third-party services, such OTT services.
- Federating and/or consolidating subscriber’s data spread across the whole company. Telco subscribers are not uniquely defined in one system: Their profiles can be stored in different Telco systems, according to the service they provide.
- “Mashing-up” subscriber’s data in several virtual profiles, as not all applications need the subscriber’s same profile information.
- Authorizing nonTelco subscribers to sell content and services to nonTelco users.
- Managing rules and policies to detect and authorize unmanaged devices, such as tablets, smartphones, PCs, and SmartTVs, dynamically and in real time.
- Managing real-time authorization rules based on multiple parameters such as device type, subscription profile, location, number of active devices, and roaming status. For example, entitlement of unmanaged devices can imply real-time controls such as authentication on the device requesting the services and tracking, managing, and enforcing a maximum number of devices.
- Providing network status and location information.
- Providing a rich set of analytical information on how subscribers—and all their “identities”—consume services, making recommendations on new promotions and offers to present subscribers.

The previously mentioned expected benefits are clearly translated into features that an entitlement solution should include.

Table 1: Main features of next generation entitlement solutions

Function description	Traditional entitlement system	Next-gen entitlement system
Users	Only Telco subscribers	<ul style="list-style-type: none"> Telco and non-Telco subscribers, where Telco services can be sold to non-Telco subscriber; for example, a Telco operator can sell its video services via app to anyone or sell Internet services to roamers
Device	Only managed devices, which are devices distributed by Telco operators	<ul style="list-style-type: none"> Managed and unmanaged devices; multi-screen is supported
Services	Only Telco services can be entitled	<ul style="list-style-type: none"> Telcos and third-party providers can be entitled
Digital format supported	Only single screen mode supported (generally the home TV) and few digital formats (the one used by the home TV)	<ul style="list-style-type: none"> Support for multiple digital formats; user devices require different content formats, so services entitlement platform must support large number of content formats
Authorization rules	Only static authorization rules/policies based on subscription; services entitlement is an on-off switch check (conditional access)	<ul style="list-style-type: none"> Dynamic and real-time rules based on several parameters, such as device type, subscription profile, location, number of active devices, and roaming status; the entitlement on unmanaged devices implies real-time controls Authenticating the device requesting the services, Tracking and enforcing of the maximum number of devices allowed Providing network status and location information Entitlement system has to work closely with the device's session-control system.
Subscriber information	User data (subscription information) are static; generally it provides one subscriber profile only (static data model)	<ul style="list-style-type: none"> User data are federated/consolidated from different data sources; multiple subscriber profiles are supported contemporarily (virtual view)
Virtual identity	No support	<ul style="list-style-type: none"> Supported—subscriber can be identified and presented in several identify
Service applications supported (access interfaces)	Few applications are supported; no protocol support to entitle external applications	<ul style="list-style-type: none"> Large protocol support to connect any application (internal and external to Telco) to the entitlement platform.
Back-end applications supported (provisioning interfaces)	None or limited number of provisioning protocol supported	<ul style="list-style-type: none"> Large number of provisioning protocols supported, such as, diameter, LDAP, HTTP, JDBC, MAPI, and LIF/MPL
Analytic tools	Subscriber and services consumption	<ul style="list-style-type: none"> Subscriber and services consumption

An example of next generation architecture for an entitlement platform is shown in Figure 2.

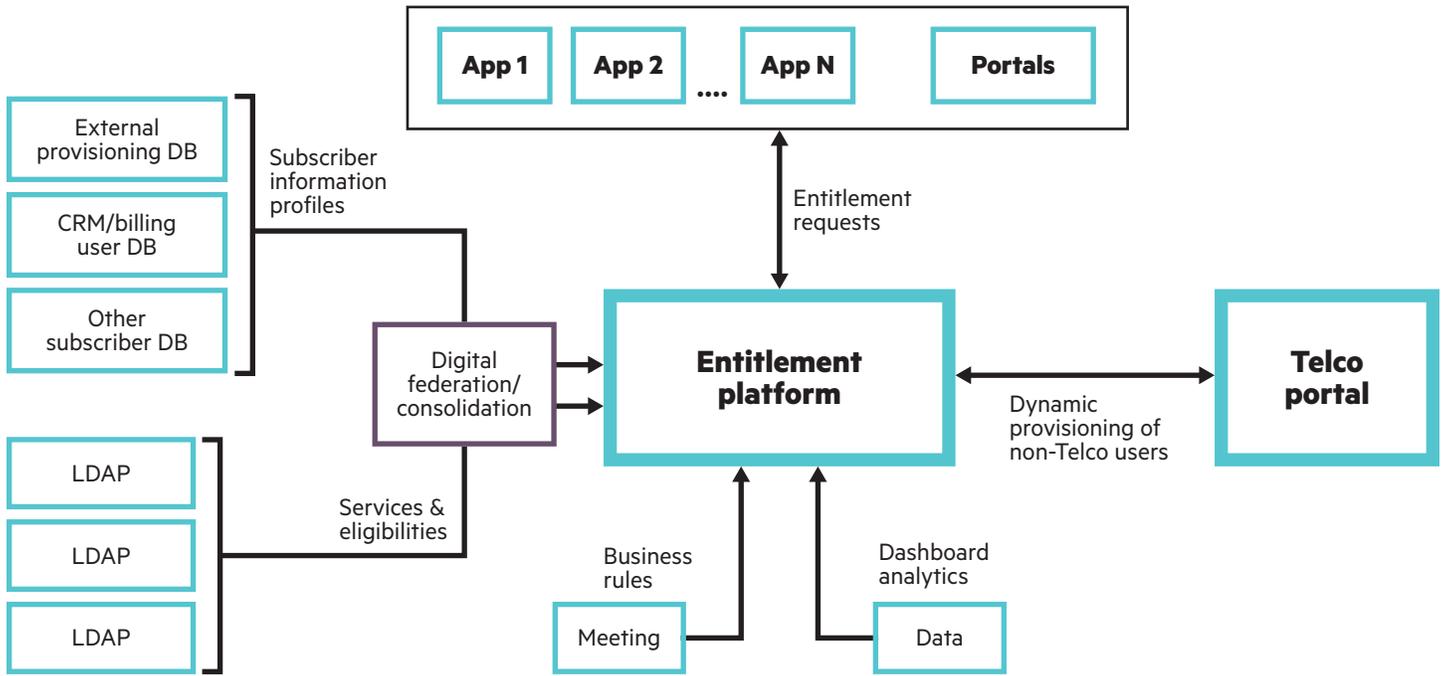


Figure 2: Next generation service entitlement architecture

Summary

As complexity of content management grows, entitlement management must evolve from a static, per-item logic to a dynamic, real-time analytics, and rule-based function.

Learn more at hpe.com/CSP/TelecomAnalytics

About the author

Andrea Fabrizi

Andrea Fabrizi is the director of Telcom Analytics business unit for Hewlett Packard Enterprise. He is responsible for the development and the commercialization of Big Data and analytics products for the telecommunications industry. Fabrizi has a degree in physics and more than 25 years of experience in the telecommunications industry. He can be reached at [**andrea.fabrizi@hpe.com**](mailto:andrea.fabrizi@hpe.com).



Sign up for updates

★ Rate this document

