# Information Model - Streaming Service - Part 2

```
Overview
Model
   Figure - Viewer
      Viewer
      Wallet
   Figure - Profile
      Profile
      Anonymous Profile
      Viewer Profile
      Primary Viewer Profile
      Secondary Viewer Profile
   Figure - Device
      Device
   Figure - Viewer Device
      Viewer Device
   Figure - Sign-In Request
      Sign-In Request
   Figure - Bill
      Bill
      Payment
      Credit Card Payment
      TALNT Payment
      Subscription Bill
      Purchase Bill
      Series Purchase Bill
      Feature Purchase Bill
      Rental Bill
   Figure - Subscription
      Subscription
   Figure - Purchased Production
      Purchased Production
   Figure - Rented Feature
      Rented Feature
   Figure - Bookmarked Production
      Bookmarked Production
   Figure - Active Video
         Active Video
      Concurrent viewing constraints
   Figure - Viewed Feature
      Viewed Feature
      Viewed Ad
   Figure - Evaluated Feature
      Evaluated Feature
      Moderator
   Figure - Payout
      Payout
   Figure - Search
      Search
```

Figure - Notification
Notification

Figure - Liked Feature
Liked Feature

Figure - Recommended Collection
Recommended Collection

# Overview @

This is part 2 of the Streaming Service information model. It has been broken across multiple pages for performance reasons.

Having all of the content on one page was hogging browsers resources. If you are just starting off please begin with Information Model - Streaming Service - Part 1.

# Model *⊗*

# Figure - Viewer @



#### Viewer @

A Viewer is a User with an account on the DCP+ application to view Features through the Streaming App.

Attribute	Data Type	Requir ed	Details
Id	Identifier	•	An identifier that uniquely identifies a User.  Business rules:  Value governance: derived from the bound DCP+User,User,Id  Uniqueness: Unique among all Viewers
Name	String	⊗	A public-facing alias that a User sets to represent their identity in the DCP+ Community.  Business rules:  • Value governance: derived from the bound DCP+User.User.Name  • Required: A value for Name is required as soon as a User wishes to evaluate their first Feature (see later for details).  • Uniqueness: Unique among all Viewers
Avatar	URL	8	The image a User sets to represent themself in the DCP+ Community visually.
Email Address	Email Address	8	The User's email address  Business rules:  • Value governance: derived from the bound <u>DCP+User.User.EmailAddress.</u> Valu  • Required: Value is only set when <u>DCP+User.User.EmailAddress.</u> Validated ==  True.  • Uniqueness: Unique among all Viewers

Reputation	Float	•	A Viewer's reputation score. The score is held in their <u>User Account</u> Reputation
			Business rules:
Deactivated On	DateTime	<b>×</b>	The timestamp at which a Viewer account was deactivated. When a Viewer is deactivated, the end-user cannot use the account. We don't want to hard delete a Viewer as there is much data associated with the Viewer that must be maintained.
			Business rules:  Required:  Value must be set to the timestamp when a Viewer is deactivated.  Value must not be set when a Viewer is not deactivated.

Association constraint: User – (is a) Viewer

A Viewer is bound to a  $\underline{\text{DCP+ User}}$  as defined in the  $\underline{\text{Account Context}}$ .

# Wallet 🔗

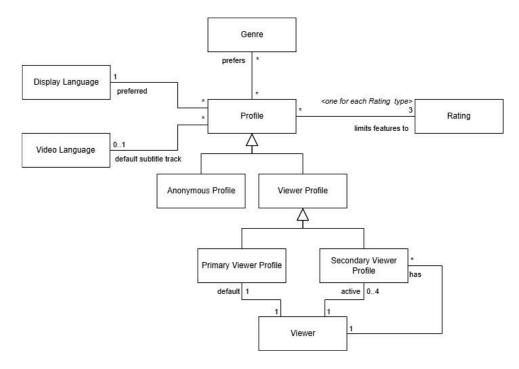
A **Wallet** identifies a Viewer's account on the TALNT Net blockchain via a publicly visible address and conveys the Viewer's TALNT balances and reputation score.

1 The Wallet is <u>bound</u> to a <u>Wallet</u> as defined in the <u>Account Context</u>.

→ Attributes: Wallet

Attribute	Data Type	Requir ed	Details
Address	PKH	•	The current public key hash (PKH) of a Viewer's TALNT Net accounts.  Business rules:  Value governance: derived from the bound DCP+User, User, Wallet. Address  Uniqueness: Unique among all Wallets
Balance	TALNT	•	A Viewer's TALNT Net cryptocurrency held in their <u>User Account Balance</u> . The Balance is the Viewer's payment account for making payments in DCP+. <b>Business rules:</b> • Value governance: derived from the bound <u>DCP+User.User.Wallet</u> .DCPBalance

Figure - Profile @



Profile 🔗

A **Profile** provides a context for a particular person to view content with their personalized experience.

Attribute	Data Type	Requir ed	Details
Id	String	•	An identifier that uniquely identifies a Profile.  Business rules:  Uniqueness: Unique among all Profiles
Created On	DateTime	•	The timestamp when the Profile was created.

#### **Association:** Profile – (preferred) Display Language

- A Profile is associated with the Display Language it prefers to use for display.
- By default, this will be the Display Language currently being used by the Streaming App at the time the Profile was created.

# **Association:** Profile – (default subtitle track) Video Language

A Profile is optionally associated with the Video Language they wish to use by default as the subtitle track when they view a Feature Video. When a Feature Video has a subtitle track for the specified Video Language, the subtitles will be displayed by default when the Feature Video is played. When a Feature Video does not have a subtitle track for the specified Video Language, then no subtitles will be displayed by default.

Implementation note: This doesn't have to be an explicit setting within a Profile. Instead, it could be that turning on/off/changing subtitles on a Feature Video is sticky. For example, if it was turned on while viewing a Feature Video, it will be turned on by default when the person views the next Feature Video.

Association: Profile - (prefers) Genre

One way a Profile may be personalized is for a Profile owner to specify preferred Genres to help govern which Productions are recommended by the DCP+.

Association: Profile - (limits features to) Rating

The Rating associated with a Profile conveys the restriction level for <u>limiting</u> which Features to present to the Profile. For example, if the MPA Rating associated with a Profile is PG-13, then Films must be restricted to those rated from G to PG-13 (inclusive) but not R to NC-17. A Feature that exceeds the specified Rating <u>will not be</u> presented in the Profile even when the Feature has been purchased or rented.

#### Association constraint: Profile – (limits features to) Rating

- A Profile must be associated with each type of Rating. This includes MPA Rating, TVPG Rating, and DCP Rating.
- By default, when a Profile is created, it will be associated with the <u>least</u> restrictive of each Rating.

Anonymous Profile 🖉

An **Anonymous Profile** is a type of Profile used by a person anonymously. It provides the context for a person who has not signed in to their Viewer account to explore Productions and view Features that can be acquired through an AVOD Feature SKU or an FVOD Feature SKU. An Anonymous Profile provides the means for a person to experience a subset of the DCP+ experience without committing to creating a Viewer account. An Anonymous Profile is made on a <u>particular</u> Streaming App device when the Streaming App is first loaded and is not shared across devices.

Viewer Profile 🔗

A **Viewer Profile** is a type of Profile associated with a Viewer. It acts as a sub-account for a Viewer to have a personalized experience.

Attributes: Viewer Profile

Attribute	Data Type	Requir ed	Details
Name	String	•	The Viewer Profile's Name.  Business rules:  Default value: By default, the value will be set to "Profile" + < Profile Number > So the first Viewer Profile created would default to "Profile 1" and the second one would be "Profile 2" and so on.  Note: The default value must be translated to the preferred Display Language associated with the Viewer Profile. So if the preferred Display Language is Spanish (es) then the default value wil be "Perfil 1", "Perfil 2" and so on.  Uniqueness: Value must be unique among all active Viewer Profiles.
Avatar	URL	•	The Viewer Profile's Avatar  Business rules:

• *Default value:* By default, the value will default to a particular generic image suitable for the Profile. TBD - what image will we use?

Primary Viewer Profile 🔗

A **Primary Viewer Profile** is a type of Viewer Profile that is created by default when a Viewer is created. A Primary Viewer Profile is where user flows related to publishing content for the DCP+ community (e.g. writing a review of a Feature) or related to commerce (e.g. purchasing or renting a Feature) may occur. Access to the Primary Viewer Profile is optionally guarded with a user-defined code to protect unauthorized individuals from using it.

Attributes: Primary Viewer Profile					
Attribute	Data Type	Requir ed	Details		
Code	Non- Negative Integer	8	An optional value specified by the individual who manages the Viewer account to secure the Primary Viewer Profile. When a code is present, the end-user must enter it correctly to load the Primary Viewer Profile. If a code is not present, the Primary Viewer Profile may be loaded without any input from the end-user.  TBD: We will need the person who owns the Viewer account to securely reset the code if they forget it.  Business rules:  Required:  When a value is set, the end-user must enter the correct value to load the Primary Viewer Profile.  When a value is not set, the end-user may load the Primary Viewer Profile without entering a value.		

Secondary Viewer Profile 🔗

A **Secondary Viewer Profile** is a type of Viewer Profile that is optionally created, allowing individuals, such as family members or friends, to have a personalized experience.

Attributes: Secondary Viewer Profile

Attribute	Data Type	Requir ed	Details
Deactivated	DateTime	⊗	The timestamp at which a Secondary Viewer Profile was deactivated. When a Secondary Viewer Profile is deactivated, the end-user can no longer use it.  We do not want to hard delete a Secondary Viewer Profile, as there is much data associated with the Secondary Viewer Profile that must be maintained.  Business rules:  • Immutability: Once a value is set, it can never be altered.

#### Association: Viewer – Secondary Viewer Profile

- active: An active Secondary Viewer Profile is one that can be loaded in the Streaming App by an end-user.
- has: The Secondary Viewer Profiles associated with a Viewer, the entire history of all the Viewer's Secondary Viewer Profiles.

#### Association constraint: Viewer – Secondary Viewer Profile

- active:
  - When a Secondary Viewer Profile is <u>not deactivated</u>, it <u>must</u> be associated with the Viewer as an *active* Secondary Viewer Profile
  - A Viewer can be associated with <u>at most</u> four *active* Secondary Viewer Profiles. Therefore, in total, a Viewer can have up to five *active* Viewer Profiles, including the Primary Viewer Profile.
- has: Once a Secondary Viewer Profile is associated with a Viewer, that association can never be broken.

# Figure - Device *⊘*



#### Device @

A **Device** is a piece of hardware that has the capabilities of hosting an instance of the Streaming App so a person may view content.

Attributes: Device

Attribute	Data Type	Requir ed	Details
DUID	String	•	A device unique identifier (DUID) is a string of characters used to identify the device uniquely. It helps distinguish one Device from another, enabling device tracking.  Business rules:  Uniqueness: Globally unique  Immutability: Immutable once set.
Туре	Enumer	•	The type of device hardware.  Business rules:  Allowed values:  Computer  TV  Mobile  Tablet  Immutability: Immutable once set.
Model	String	•	Details about the device brand and model.  Business rules:  • Immutability: Immutable once set.

Operating System	String	•	Details about the operating system and version running on the device. For example iOS 17.4.  Business rules:  • Update governance: This value must be updated when the Streaming App is opened on the Device.
IP Address	String	•	The current IP Address of the Device. This is used to identify where in the world people are using the Streaming App from. The IP Address is also used to filter out Features that are restricted from certain Countries, as well as blocking access to a DCP+ content when the IP Address is associated with a Blocked VPN.  Business rules:  • Update governance: This value must be updated each time the Streaming App detects an IP Address change on the Device.  • Value constraint: Must be a valid IPv4 or IPv6 value.
Identified On	String	•	This value records the timestamp of when the Device was first identified.  Business rules:  • Immutability: Immutable once set.
Last Turned On	DateTim e	•	This value records the timestamp of when the Streaming App was last turned on the Device.  Business rules:  • Update governance: This value must be updated each time the Streaming App turned on the Device.
Last Turned Off	DateTim e	8	This value records the timestamp of when the Streaming App was last turned off of the Device.  Business rules:  • Update governance: This value must be updated each time the Streaming App turned off on the Device.
Anonymous Profile Last Used On	DateTim e	•	This value records the timestamp of when the Streaming App last used the Anonymous Profile.  Business rules:  Update governance: This value must be updated each minute the Streaming App is turned on and the associated Anonymous Profile provides the active viewing experience.

# **Delete constraint:** Device

Once created, a Device <u>can not</u> be deleted as we track the usage of the Device for analysis purposes and fraud prevention.

# **Association:** Device (bound to) – Anonymous Profile

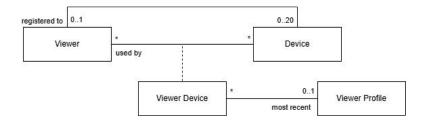
- Each Device has an Anonymous Profile bound to it. The Anonymous Profile provides viewing continuity and customization of the viewing experience for people <u>anonymously</u> using the Streaming App.
- An Anonymous Profile can be reset at any time. Resetting an Anonymous Profile entails:
  - Resetting the Display Language back to the default

- $\circ~$  Resetting each Rating to its  $\underline{\text{least}}$  restrictive.
- Removing the default subtitle Video Language
- Removing the set of preferred Genres

Association constraint: Device (bound to) – Anonymous Profile

The association between an Anonymous Profile and a Device can <u>never</u> be broken.

# Figure - Viewer Device *⊘*



Viewer Device 🔗

A **Viewer Device** tracks the Viewer's usage of a Device.

Attribute	Data Type	Requir ed	Details
First Used On	DateTim e	0	This value records the timestamp of when the associated Viewer <u>first used</u> the Device.
Registered On	DateTim e	•	This value records the timestamp of when the Device was registered. The Device registered when a Viewer signs in and starts a session on a Device that is <u>not currently</u> registered to them.
Deregistered On	DateTim e	8	<ul> <li>This value records the timestamp of when a registered Device was deregistered.</li> <li>The Device is deregistered when</li> <li>A Viewer explicitly deregisters the Device</li> <li>When the registered Device is registered with a <u>different</u> Viewer, in other words it is deregistered from the original Viewer and registered with the new Viewer.</li> <li>Business rules:</li> <li>Required:</li> <li>Value <u>must be null</u> when the Device <u>has a registered to association with the associated Viewer.</u></li> <li>Value <u>must have a value</u> when the Device <u>has no registered to association with the associated Viewer.</u></li> </ul>
Browser	String	<b>×</b>	Details about the browser and version the Viewer uses when the Streaming App runs in a browser. For example, Chrome 126.  Business rules:  • Update governance: This value must be updated when the Streaming App is opened on the Device.

Session Started On	DateTim e	•	When the Viewer has a session on the Device, this value records the timestamp of when the <u>last</u> session started.  A session starts when a Viewer signs in on the Device with no active session. The session persists even when the Streaming App is turned off.
Session Ended On	DateTim e	8	This value records the timestamp when the <u>last</u> session ended on the Device.  A session ends when a Viewer signs out of the Device.  Business rules:  • Value constraint: A non-null value must be greater than Session Started On.
Session	String	⊗	Stores the data associated with a session on the Device. This information is passed to the Device when the Streaming App is turned on, so the end-user is not required to provide their credentials again.  Business rules:  Required:  Must have a value when Session Ended On has no value.  Must have no value when Session Ended On has value.
Viewer Profile Last Used On	DateTim e	<b>②</b>	This value records the timestamp of when the Streaming App last used the Viewer Profile associated with the Viewer Device.  Business rules:  • Update governance: This value must be updated each minute the Streaming App is turned on and the associated Viewer Profile provides the active viewing experience.

#### Association: Viewer - Device

- used by:
  - Conveys the Devices a Viewer has used <u>at least once</u> over time.
  - A Device may be <u>used by</u> various Viewers over time. For example, when multiple Viewers sign in on the same Device, such as a Smart TV at a hotel.
- · registered to:
  - Conveys the Devices a Viewer <u>currently</u> has registered to them.
  - A Viewer <u>may only</u> browse and view Productions on a Device registered to them.
  - A Device may be <u>registered to various</u> Viewers over time. For example, when multiple Viewers sign in on the same Device, such as a Smart TV at a hotel.

#### Association constraint: Viewer - Device

- used by:
  - This association is set the <u>first time</u> a Device is *registered to* a Viewer.
  - Once this association is set, it can <u>never</u> be broken.
- registered to:
  - A Device may only be registered to <u>at most</u> one Viewer at a time.
  - A Viewer may have up to 20 registered Devices.
  - The Viewer the Device is registered to must be the same Viewer associated with the Viewer Device.

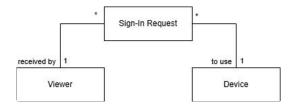
Association: Viewer Device – (most recent) Viewer Profile

Indicates the Viewer Profile that was most <u>recently used</u> on the Device by the Viewer.

Association constraint: Viewer Device – (most recent) Viewer Profile

The Viewer Profile associated with a Viewer Device <u>must be</u> associated with the same Viewer to whom the Viewer Device is associated.

# Figure - Sign-In Request @



Sign-In Request 🖉

A **Sign-In Request** is a request from someone to a Viewer to sign in to the Viewer's account on a Device not currently signed in. A scenario where this may happen is when a child wishes to use the Streaming App on their mobile phone through their parents' Viewer account. To enhance security, a Sign-In Request limits the duration during which it is active and the request can be approved.

 Attributes: Sign-In Request **Attribute Data Type** Requir **Details** ed Viewer Email Email • The email address to send the request to. Address Address X Message String An optional custom message submitted by the requesting person to help influence the Viewer to approve it. **Business rules:** • Maximum length: 250 characters. • Requested On DateTime The timestamp of when the Sign-In Request was made. **Business rules:** • Value governance: Set to the timestamp when the Sign-In Request was made. Expires On DateTime The timestamp of when the Sign-In Request is no longer active and can not be used to approve the sign-in. **Business rules:** • Value constraint: Value must be 12 hours greater than Requested On. Status Enumeratio Conveys the approval status of the Sign-In Request **Business rules:** • Allowed values: • Pending - The request window is open, and the Viewer has taken no action.

			<ul> <li>Expired - The request expires without the Viewer taking action.</li> <li>Replaced - A new Sign-In Request was sent before this one expires, or</li> </ul>	
			before the Viewer took action.	
			Approved - The Viewer approved the request.	
			Declined - The Viewer declined the request.	
			<ul> <li>Session Activated - A session was started on the Device directly while the request window was open.</li> </ul>	
			Value governance (state machine):	
			<ul> <li>→ Pending: The Sign-In Request is created [Device Session == null] / Set Request Window Closes On to Requested On + 12 hours.</li> </ul>	
			<ul> <li>Pending → Expired - The current timestamp <u>exceeds</u> Request Window Clos</li> <li>On / Set Closed On to Now()</li> </ul>	
				<ul> <li>Pending → Replaced - New Sign-In Request created [Device == this Device / Set Closed On to Now()</li> </ul>
			<ul> <li>Pending → Approved - The Viewer approved the request [Device Session = null] / Set Closed On to Now() AND create session</li> </ul>	
			<ul> <li>Pending → Declined - The Viewer declined the request [Device Session == null] / Set Closed On to Now()</li> </ul>	
			<ul> <li>Pending → Session Activated: Session started [Device == this Device] / Set Closed On to Now()</li> </ul>	
Closed On	DateTime	8	The timestamp of when the request is closed. A Sign-In Request is closed when the Status transitions to Expired, Replaced, Approved, Refused, or Session Activated.	

# **Deletion constraint:** Sign-In Request

Once created, a Sign-In Request can never be deleted. The history of Sign-In Requests may be important for the Viewer to review if they suspect fraud.

Association: Sign-In Request – (to use) Device

The Device that the person wishes to use with the Viewer's account.

Association constraint: Sign-In Request – (to use) Device

A Sign-In Request <u>cannot</u> be created for a Device if it <u>already has</u> a *Session*.

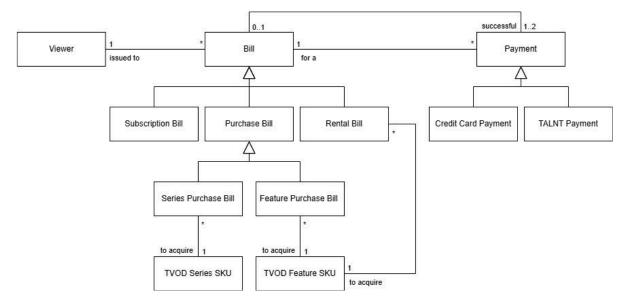
Association: Sign-In Request – (received by) Viewer

The Viewer account that the Sign-In Request is for.

Association constraint: Sign-In Request – (received by) Viewer

A Sign-In Request <u>can only</u> be associated with a Viewer with an *Email Address* with the same value as the Sign-In Request's *Viewer Email Address*.

Figure - Bill @



Bill 🖉

A **Bill** is a statement of money that a Viewer owes for a monthly subscription payment, the purchase of a Production or the rental of a Feature.

Attribute	Data Type	Requir ed	Details	
Amount in USD	Float	•	The payment obligation amount in USD that a Viewer must make.	
Issued On	ssued On DateTi me		A record of the timestamp at which the Bill was issued.  Business rules:  Value constraint:  When the Bill type is a Subscription Bill, the value is based on the subscription's bill issuance timestamp (see later for details).  When the Bill type is a Purchased Production Bill or a Rented Feature Bill, the value is set to the timestamp of when the Viewer triggered a purchase or rental (see later for details).	
Due On	DateTi me	•	A record of the timestamp at which the Bill payment is due.  Business rules:  Value governance:  When the Bill type is a Subscription Bill, the value is based on the subscription's monthly payment due timestamp (see later for details).  When the Bill type is a Purchased Production Bill or a Rented Feature Bill, the value is set to Issued On, as the Bill must be paid to acquire the Production.	
Paid On	DateTi me	8	A record of the timestamp at which the Bill was fully paid. A Bill is fully paid when the associated successful Payments' Amount In USD equals the Bill Amount In USD.	

A **Payment** records the transfer of funds to satisfy the payment stated in a Bill.

Attributes: Payment

Attribute	Data Type	Requir ed	Details	
Submitted On	DateTi me	•	A record of the timestamp at which the payment was submitted.	
Amount In USD	Float	•	A record of the USD payment amount	
Status	Enumer	•	The status of the payment.  Business rules:  Allowed values:  Pending - the submitted payment is being processed and pending completion  Succeeded - the submitted payment was received successfully  Failed - the submitted payment failed  Value governance (state machine)  → Pending - Payment submitted  Pending → Succeeded - Submitted payment accepted / set Succeeded On to Now()  Pending → Failed - Submitted payment rejected or error occurred / set Failed to Now() AND Failure Reason AND Failure Details	
Succeeded On	DateTi me	×	The timestamp when the payment completed successfully.  Business rules:  • Required:  • Value must be set when Status is Succeeded.  • Value must not be set when Status is Pending or Failed.	
Failed On	DateTi me	8	The timestamp of the payment failure.  Business rules:  Required:  Value must be set when Status is Failed.  Value must not be set when Status is Pending or Succeeded.	
Failure Reason	Enumer	8	Provides a reason for the failure.  Business rules:  Required:  Value must be set when Status is Failed.  Value must not be set when Status is Pending or Succeeded.  Allowed Values:  TODO - need to create a list of possible failures that may occur. E.g. CreditCardExpired, InsufficientTALNTBalance	
Failure Details	String	8	Additional details that describe the nature of the failure.  Business rules:  • Required: Value must not be set when Status is Pending or Succeeded.	

Credit Card Payment 🔗

A  $\textbf{Credit}\,\textbf{Card}\,\textbf{Payment}$  is a type of Payment made with a credit card.

Attributes: Fiat Payment

Attribute	Data Type	Requir ed	Details
TODO - credit			
card details.			
Either a one-			
time card usage			
or a reference to			
a card on file.			
Also need			
transaction			
details from			
Stripe.			

#### TALNT Payment 🖉

A **TALNT Payment** is a type of Payment made with TALNT held in a Viewer's Wallet *Balance*.

→ Attributes: TALNT Payment

Attribute	Data Type	Requir ed	Details
Amount	TALNT	•	A record of the TALNT payment amount. The amount specified is the market value of TALNT, the Payment <i>Amount In USD.</i>
Transaction Hash	String	⊗	The identifier of the transaction on the blockchain.  Business rules:  • Uniqueness: Value must be globally unique.  • Required:  • Value must be set when Status is Succeeded.  • Value must not be set when Status is Pending or Failed.

# **Association:** Bill – Payment

- for a:
  - Conveys all Payments associated with a Bill.
  - A Bill's payment may be made as a Credit Card Payment, a TALNT Payment, or both a Credit Card Payment and a TALNT Payment.
- successful:

- o Conveys the successful Payments associated with a Bill.
- o By definition, a Bill's payment is past due when a Bill
  - has no successful Payments and the current time is greater than the Bill Due On.
  - has one successful Payment and the amount paid is less than the Bill Amount In USD, and the current time is greater than the Bill Due On

#### Association constraint: Bill - Payment

- for a:
  - A new Payment can not be associated with a Bill when there is a pending Payment
  - A new Payment can not be associated with a Bill that has been paid.
- successful:
  - A Bill may be associated with a successful Credit Card Payment, a TALNT Payment, or a combination of one Credit Card Payment and one TALNT Payment.
  - The sum total of all successful Payments' Amount In USD must not be greater than the Bill's Amount In USD.

Subscription Bill 🔗

A Subscription Bill is a type of Bill issued monthly to collect payment for their subscription (see later for details).

Attributes: Subscription Bill

Attribute	Data Type	Requir ed	Details
Due On	DateTi me	•	A record of the timestamp at which the Bill payment is due.

Purchase Bill 🔗

A Purchase Bill is a type of Bill issued when a Viewer attempts to purchase a Production.

Series Purchase Bill 🔗

A TV Series Purchase Bill is a type of Purchase Bill for purchasing a TV Series.

Association constraint: Series Purchase Bill - TVOD Series SKU

A Series Purchase Bill can only be associated with a TVOD Series SKU under the following conditions:

- TVOD Series SKU has an active association with a series (Film Series, TV Series, Season).
- The series associated with the TVOD Series SKU has not already been purchased by the Viewer (see later for details).
- The Viewer has no active subscription.
- The Viewer has an *active* subscription, but the Features within the series <u>are not</u> associated with an *active* SVOD Feature SKU.

Feature Purchase Bill 🔗

A **Feature Purchase Bill** is a type of Purchase Bill for purchasing a Feature.

#### Association constraint: Feature Purchase Bill – TVOD Feature SKU

A Feature Purchase Bill can only be associated with a TVOD Feature SKU under the following conditions:

- TVOD Feature SKU has an active association with a Feature.
- The Viewer has not already purchased the Feature associated with the TVOD Feature SKU, or if the Feature is part of a series, and the Viewer has not already purchased the series.
- The Viewer has no active subscription.
- The Viewer has an active subscription, but the Feature is not associated with an active SVOD Feature SKU.
- The Viewer is not actively renting the Feature (see later for details).

Rental Bill 🖉

A Rental Bill is a type of Bill issued when a Viewer attempts to rent a Feature.

#### Association constraint: Rental Bill - TVOD Feature SKU

A Rental Bill can only be associated with a TVOD Feature SKU under the following conditions:

- TVOD Feature SKU has an active association with a Feature.
- The Viewer has not already purchased the Feature associated with the TVOD Feature SKU, or if the Feature is part of a series, and the Viewer has not already purchased the series.
- The Viewer has no active subscription.
- The Viewer has an active subscription, but the Feature is not associated with an active SVOD Feature SKU.
- The Viewer is not actively renting the Feature (see later for details).

# Figure - Subscription *⊘*



Subscription 🔗

A **Subscription** is a <u>monthly recurring</u> payment plan that allows a Viewer to access certain Productions on DCP+ for <u>one year</u>. A Subscription enables a Viewer to view any Production associated with an <u>active</u> SVOD Feature SKU without the need to purchase or rent the production outright through a TVOD Feature SKU or be subject to advertisements for a production acquired through an AVOD Feature SKU.

A Viewer is issued a Subscription Bill monthly to pay for their Subscription. A monthly payment provides access to the service for the following month. The monthly Subscription Bill amount is fixed regardless of the number of days in a month.

The Subscription Bill is due on the monthly anniversary of when the Viewer started their Subscription, as this is simpler for them to understand and eliminates the need for proration, as a Viewer gets a whole month from their Subscription start date.

The Subscription Bill is issued one week before the bill is due. The Viewer is notified when the Subscription Bill is issued.

When a Viewer cancels their Subscription, they maintain access to the subscription service for the remainder of the month leading up to the next billing due date. For example, if a Viewer cancels their Subscription on May 5 and their monthly subscription

anniversary is on the 15th, they will maintain their Subscription for ten more days.

A Subscription affords a Viewer a <u>five-day grace period</u> to continue viewing Features through their Subscription after the <u>first</u> Subscription Bill's Failed Payment before suspending their service. A Viewer receives a friendly and branded "dunning" email explaining that their payment failed. It includes the reason for the failure, a link to update their payment method, and the consequences if payment is not made.

**Note:** "Dunning" is the act of notifying customers that a recurring payment has failed, in an attempt to recover lost revenue and to prevent payment-related churn.

→ Attributes: Subscription

Attribute	Data Type	Requ ired	Details
Started On	Date Time	•	A timestamp that indicates when the subscription started. It also provides a means for discerning the monthly billing date. For example, when a Viewer subscription started on  • May 12, the monthly billing dates will be June 12, July 12, etc.  • January 31, the monthly billing dates will be the last day of the month for those months with 30 or fewer days. For example, Feb 28 or 29, then March 31, etc.  Business rules:  • Immutability: Immutable once set.
Ends On	Date Time	•	The <u>timestamp</u> that indicates when the subscription ends and is subject to renewal. <b>Business rules:</b> • Value constraint: Value must be <u>a full</u> 365 days greater than Started On.  • Immutability: Immutable once set.
Monthly Amount in USD	Float	•	The monthly amount of the subscription in USD.  Business rules:  • Immutability: Immutable once set.
Renew Automatically	Boole an	•	A flag indicating whether to auto-renew the subscription when it ends.
Late Payment Grace Period	Enum eratio n	•	A flag indicating the window of time a Viewer may continue to access the service after they are first notified that their Subscription Bill has not been paid by the due date. A Viewer is granted a prolonged grace period for their first late payment. A Viewer is granted a shorter grace period for subsequent late payments.  The grace period window starts on the Subscription Bill Due On, and there are no Payments, or the Payments do not cover the amount of the Bill. If a payment has no been made within the grace period, the Subscription will be suspended, and the Viewer will lose access to the subscription service. If a payment has been made within the grace window, the subscription will continue.  Business rules:
			<ul> <li>Allowed values:         <ul> <li>Prolonged - allows a Viewer to have a five-day grace period window for their first late payment.</li> <li>Short - allows a Viewer to have a one-day grace period window for subsequer late payments.</li> </ul> </li> </ul>

Suspended	Boole an	•	A flag indicating whether the Subscription has been suspended or not. Viewers with a suspended subscription will not be able to acquire Features through an SVOD Feature SKU.
Suspended On	Date Time	8	A timestamp indicating when the Subscription was suspended.  Business rules:  Required:  Value must be null when Suspended is False  Value must have a timestamp when Suspended is True
Cancelled	Boole	•	A flag indicating the Viewer has decided to cancel their Subscription. Despite a Subscription being cancelled, a Viewer maintains access to the subscription service until the next billing due date. After the next billing due date, the Viewer will not be able to acquire Features through an SVOD Feature SKU.  Business rules:  • Immutability: Immutable once set.
Cancelled On	Date Time	8	A timestamp indicating when the Subscription was cancelled.  Business rules:  • Required:  • Value must be null when Cancelled is False  • Value must have a timestamp when Cancelled is True
Cancel Reason	Enum eratio n	8	Conveys the Viewer's reason for cancelling the subscription.  Business rules:  Allowed values:  Not Used Enough  Insufficient Content  Frustrating Viewer Experience  To Expensive

Association: Subscription – Subscription Bill

A Subscription is associated with one to twelve Subscription Bills. One Subscription Bill for each month the Subscription is active during the year.

**Association:** Viewer – Subscription

- has a: A record of all Subscriptions purchased by a Viewer
- active: A Subscription that is currently active. An active Subscription is required for a Viewer to access Features through an SVOD Feature SKU.

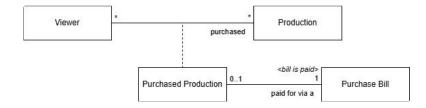
**Association constraint:** Viewer – (active) Subscription

A Subscription can only be associated as the active Subscription when the following conditions are met.

- Subscription  $\mathit{Ends}$  On timestamp must be greater than the  $\underline{\mathsf{current}}$  timestamp.
- Subscription is not cancelled OR the subscription is cancelled, but the next Subscription Bill is not yet due.

· Subscription is not suspended.

Figure - Purchased Production @



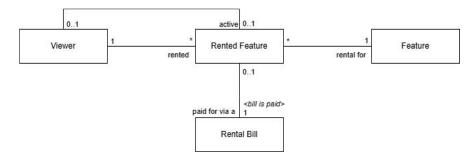
Purchased Production @

A **Purchased Production** is a Production that a Viewer has purchased through a TVOD Feature SKU or TVOD Series SKU. The Viewer is permitted to view a Purchased Production as per the rules outlined in the SKU.

#### Association constraint: Purchased Production – Purchase Bill

- A Purchased Production <u>may only</u> be associated with a Purchase Bill that <u>has been paid</u>.
- The Production associated with the Purchased Production must be the same Production that is associated with the Purchase Bill.

# Figure - Rented Feature @



Rented Feature 🔗

A **Rented Feature** is a rental agreement that a Viewer purchases to view a Feature for a <u>72-hour rental window</u>. The rental window starts when the Viewer <u>starts</u> the Feature Video associated with the Feature. The Viewer can view the Feature associated with a Rented Feature as often as they like within the rental window. When the rental window expires, the Viewer is no longer permitted to view the associated Feature. A Viewer may rent the same Feature multiple times.

Attributes: Rented Feature				
Attribute	Data Type	Requ ired	Details	
Rental Window Started On	DateTime	⊗	The timestamp at the start of the rental window.  Business rules:  • Value governance: The value is set to the timestamp the Feature Video was first started, not when the Rental Bill was paid.	
Rental Window Ends On	DateTime	*	The timestamp at the end of the rental window.	

# Business rules: • Required: • Value must be null when Rental Window Started On is null • Value must not be null when Rental Window Started On is not null • Value constraint: Value must be 72 hours greater than the Rental Window Started On.

Association: Viewer - Rented Feature

- rented: Conveys the Viewer's rental history of a particular Feature.
- active: Conveys the Rented Feature is actively being rented. The rental window has not ended yet.

#### Association constraint: Viewer – (active) Rented Feature

- Upon creation, a Rented Feature is associated with the Viewer as the active Rented Feature.
- The Rented Feature maintains its *active* association with the Viewer until the current timestamp exceeds the *Rental Window Ends On* timestamp (assuming the rental window has started).
- The Feature associated with the Rented Feature must not have expired.

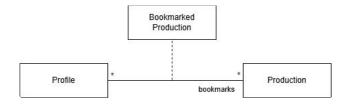
#### Association: Rented Feature - Feature

The associated Feature indicates the Feature for which the Rented Feature is intended.

# Association constraint: Rented Feature – Rental Bill

- A Rented Feature may only be associated with a Rental Bill that has been paid.
- The Feature associated with the Rented Feature must be the same Feature that is associated with the Rental Bill.

# Figure - Bookmarked Production @



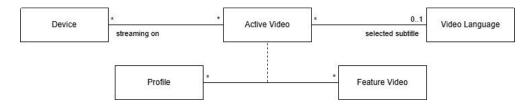
Bookmarked Production @

A **Bookmarked Production** is a Production that is of special interest to a Viewer, which they have bookmarked. A Bookmarked Production provides the Viewer with quick access to the associated Production.

#### **Deletion:** Bookmarked Production

A Bookmarked Production is deleted when the associated Production <u>acquisition period ends</u> or when the end-user manually deletes it.

Figure - Active Video @



#### Active Video 🔗

An **Active Video** is a Feature Video that a Profile is progressing through. An Active Video tracks playback location and the subtitle language. The Profile provides <u>quick access</u> to an incomplete Active Video, allowing the end-user to easily locate it to resume viewing.

If an Active Video is for an Episode TV Show, when the Episode TV Show ends, the Active Video will automatically be established for the next Episode TV Show in the series, so the Viewer will have easy access to progress through the next show.

If an Active Video is for a Feature Video being rented, the Active Video will <u>remain</u> for an <u>incomplete</u> Feature Video where the rental window has <u>elapsed</u>, so the Viewer will still be able to access the Feature Video and potentially rent it a subsequent time in order to continue where they left off.

In order not to create clutter for the Profile, only the ten newest Active Videos are maintained. The oldest ones are deleted.

When an Active Video is <u>deleted</u>, it implies the Profile is <u>done with</u> the Feature Video. This has implications for tracking viewing status on the viewed Feature. See later for details.

Attribute	Data Type	Requ ired	Details
Playback Location In Seconds	Non- Negative Integer	•	Provides the current playback location so that the Viewer can continue the Feature Video where they left off after pausing it. The playback location must be updated <u>every five seconds</u> , so in the event of a network failure or the Streaming App device is abruptly shut down, a Viewer can still continue the Feature Video where they left off when they return.
Paused	Boolean	•	A flag denoting whether playback for an Active Video is paused or not.
Completed	Boolean	•	A flag denoting whether the Feature Video is completed or not. By definition, of Feature Video is considered complete when the Playback Location In Second exceeds the start of the ending credits. For details on when the end credits start, refer to Feature Video End Credits Start In Seconds.  Business rules:  Value governance:  When Playback Location In Seconds >= Feature Video End Credits Start In Seconds, the value is True.  When Playback Location In Seconds < Feature Video End Credits Start In Seconds, the value is False.
Last Updated	DateTime	8	The timestamp when <i>Playback Location In Seconds</i> and <i>Paused</i> were last updated. The Last Updated timestamp conveys the <u>ordering</u> in which to prese the list of Active Videos to a Profile. The Active Video with the most recent La

Updated timestamp is presented first, and the Active Video with the oldest Last Updated timestamp is presented last.

#### Association: Active Video - Video Language

An Active Video maintains a record of the Video Language selected for subtitles, so the same subtitle track is selected when the Active Video is resumed.

#### **Association constraint: Active Video**

- An Active Video may only be established under the following conditions:
  - The associated Feature is associated with
    - an active FVOD Feature SKU, or
    - an active AVOD Feature SKU, or
    - an active SVOD Feature SKU, and the Viewer is associated with an active Subscription, or
    - a Purchased Production, or
    - an active Rented Feature, and
  - After a person has watched the associated Feature Video for ten seconds, or
  - When the system <u>automatically</u> sets the Feature Video associated with the next Episode TV Show in a Serial Production as the Active Video <u>after</u> the prior Episode TV Show's Feature Video is <u>completed</u>.
- An Active Video is <u>automatically deleted</u> under the following conditions:
  - When the Active Video is Completed.
  - When there are <u>ten</u> Active Videos associated with a Profile, and the Profile starts another Feature Video. When the newest Active Video is created, the <u>oldest one</u> is automatically deleted.
  - When the Feature Video is <u>deleted</u> because the associated Feature has <u>expired</u>.

#### **Association constraint:** Active Video – Language

An Active Video can only be associated with a Video Language supported as a subtitle on the Feature Video.

#### Association: Active Video - (streaming on) Device

- Indicates the Device the Active Video is currently streaming on.
- By definition:
  - An Active Video <u>is</u> streaming on a Device when the associated Feature Video is <u>loaded</u> in the player and playback is <u>not</u> <u>paused</u>.
  - An Active Video is <u>not</u> streaming on a Device when the associated Feature Video is <u>paused</u> or <u>unloaded</u> from the player or when the Streaming App is <u>turned off</u>.

# Association constraint: Active Video – (streaming on) Device

- An Active Video <u>may only be associated</u> with a Device when the concurrent viewing constraints are not exceeded. For details on the constraints, refer below.
- When the Active Video is associated with a Viewer Profile the associated Device <u>must be</u> a Device that is <u>registered</u> to the <u>same</u> Viewer as the Viewer Profile.

# Concurrent viewing constraints ${\mathscr O}$

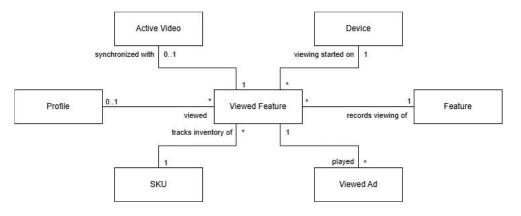
To maximize revenue, DCP+ constrains the amount of concurrent viewing of Features across a Viewer's <u>account</u>. The constraints are dependent on how a Feature is acquired. There are two kinds of constraints.

- Maximum number of concurrent views per Viewer The total number of a Viewer's registered Devices that may concurrently view Features (different titles).
- Maximum number of concurrent views per Feature The total number of a Viewer's registered Devices that may concurrently view the same Feature (same title).

	Maximum number of concurrent views per Viewer	Maximum number of concurrent views per Feature
FVOD	<ul> <li>Constraint controlled by: DCP+</li> <li>Constraint: Maximum of twenty concurrent views. One view for each registered Device.</li> <li>Why? There is no revenue, so no need to constrain.</li> </ul>	<ul> <li>Constraint controlled by: DCP+</li> <li>Constraint: Same.</li> <li>Why? Same.</li> </ul>
AVOD	<ul> <li>Constraint controlled by: DCP+</li> <li>Constraint: Maximum of twenty concurrent views.</li> <li>Why? Ad revenue is calculated per view, regardless of how often an ad is viewed on the same Viewer account. By allowing unconstrained concurrent viewing across all registered Devices, we maximize ad revenue.</li> </ul>	<ul> <li>Constraint controlled by: DCP+</li> <li>Constraint: Same.</li> <li>Why? Same.</li> </ul>
SVOD	<ul> <li>Constraint controlled by: DCP+</li> <li>Constraint: Maximum of two concurrent views per Licensor.</li> <li>Why? Subscription revenue is calculated on the first view of a Feature per Viewer account. If the same Feature is viewed multiple times on the same Viewer account, it will only contribute to subscription revenue once. Limiting concurrent viewing protects DCP's net subscription revenue and makes sure we are paying out the licensing fairly. For example, we don't want one Viewer account with 20 registered Devices all viewing subscription content simultaneously.</li> <li>Expected behaviour: A maximum of two registered Devices can be used to view a Licensor's SVOD Features on the same Viewer account. If someone opens an additional registered Device, they will not be able to view another Feature acquired through SVOD from the same Licensor. The Viewer can still view a Feature acquired from another Licensor through SVOD.</li> </ul>	<ul> <li>Constraint: Maximum of two concurrent views.</li> <li>Why? Same.</li> <li>Expected behaviour: A maximum of two registered Devices can be used to view the same Feature acquired through SVOD on the same Viewer account. If someone opens an additional registered Device, they will not be able to view the same Feature acquired through SVOD, but could view another Feature acquired through SVOD.</li> </ul>
TVOD - Purchase d	<ul> <li>Constraints controlled by: The <u>Licensor</u> controls the maximum number of concurrent views of Features they license that are acquired through purchase.</li> <li>Constraint: Refer to the Licensor setting, <i>Maximum Purchased Views Per Account</i>.</li> <li>Expected behaviour: A maximum of [<i>Maximum Purchased Views Per Account</i>] registered Devices can be used to view a Licensor's purchased Features on the same Viewer account. If someone opens an additional</li> </ul>	<ul> <li>Constraints controlled by: The Licensor controls the maximum number of concurrent views of the same Feature they license that are acquired through purchase.</li> <li>Constraint: Refer to the Licensor setting, Maximum Purchased Views Per Feature.</li> <li>Expected behaviour: A maximum of [Maximum Purchased Views Per Feature] registered Devices can be used to view the same purchased Feature on the</li> </ul>

registered Device, they will not be able to view another same Viewer account. If someone opens an Feature purchased from the same Licensor. The Viewer additional registered Device, they will not be able to can still view a Feature purchased from another view the <u>same</u> Feature. The Viewer can still view <u>another</u> Feature purchased from the same Licensor Licensor. or another Licensor. TVOD -• Constraints controlled by: The Licensor controls the • Constraints controlled by: The Licensor controls the Rental maximum number of concurrent views of Features they maximum number of concurrent views of the same license that are acquired through rental. Feature they license that are acquired through rental. • Constraint: Refer to the Licensor setting, Maximum • Constraint: Refer to the Licensor setting, Maximum Rented Views Per Account. Rented Views Per Feature. • Expected behaviour: A maximum of [Maximum Rented **Expected behaviour:** A maximum of [Maximum Views Per Account] registered Devices can be used to Rented Views Per Feature] registered Devices can be view a Licensor's rented Features on the <u>same</u> Viewer used to view the same rented Feature on the same account. If someone opens an additional registered Viewer account. If someone opens an additional Device, they will not be able to view another Feature registered Device, they will not be able to view the rented from the same Licensor. The Viewer can still same rented Feature. The Viewer can still view view a Feature rented from another Licensor. <u>another</u> Feature rented from the same Licensor or another Licensor.

Figure - Viewed Feature @



Viewed Feature 🔗

A **Viewed Feature** is a record of a Feature that a Profile has viewed; however, it <u>does not</u> necessarily mean the Profile has completed viewing the Feature. The Profile provides <u>quick access</u> to Viewed Features, so they can easily find Features they may wish to view again. A Viewed Feature is associated with the SKU <u>through which it was acquired</u> to track the inventory for a particular SKU.

A Viewed Feature is important for the analysis of Viewer behaviour. It is used to calculate revenue sharing for Features acquired through an AVOD Feature SKU or an SVOD Feature SKU.

A Viewed Feature is updated regularly with details on the Profile's viewing status for as long as there is an Active Video associated with the same Profile and Feature. Once the Active Video is deleted, the Viewed Feature is locked from further updates. When a Profile views a Feature they have already viewed in the past, then a new Viewed Feature is created to record the subsequent viewing of the Feature.

~	✓ Attributes: Viewed Feature						
	Attribute	Data Type	Requ	Details			

Started Viewing On	DateTime	•	The timestamp when the Profile first started the associated Active Video.  Business rules:  Value governance: Set to the timestamp when the Viewed Feature was created. See later for details on when the Viewed Feature is created.
Stopped Viewing On	DateTime	8	The timestamp when the Profile stopped viewing the Feature. This timestamp doesn't necessarily mean the Profile viewed the Feature in its entirety. It tracks when the associated Active Video was deleted (see above for details).  Business rules:  Value governance: Set to the timestamp when the associated Active Video was deleted.
Completed	Boolean	•	A flag indicating whether the Profile has completed viewing the Feature or not. The flag is set to True when the playback location of the Active Video exceeds the beginning of the end credits.  Business rules:  Default value: False  Value governance: Set to True as soon as the associated Active Video's Playback Location In Seconds exceeds the Feature Video End Credits Start In Seconds
Playback Location In Seconds	Non- Negative Integer	•	<ul> <li>Immutable: Once the value is set to True, it can not be set to False, even if someone rewinds the Feature Video prior to the end credits.</li> <li>Conveys the <u>latest</u> playback location in the associated Feature Video. This is useful in knowing whether someone dropped off early, rather than completing the production, and gives back information on how far someone got before</li> </ul>
			giving up.  Business rules:  • Value governance: Value must equal the associated Active Video's  Playback Location In Seconds. It is updated when the Active Video is updated.
Viewing Location	IP Address	•	Conveys the location where the end-user viewed the Feature. This is useful in understanding where in the world people are who are watching the various Features. This information can be helpful when considering curating collections that are geographically sensitive.  Business rules:  Value governance: The value is set when the Viewed Feature is created and is never changed. For example, if the Profile started viewing the Feature in New York, then continued watching it in Miami, the value would still be the New York IP Address.
Viewing Device	Enumeration	•	The type of device used to view the Feature.  Business rules:  Allowed values:  Browser  GoogleTV  GoogleMobile  AppleTV  AppleMobile

			Value governance: The value is set when the Viewed Feature is created and is never changed. For example, if the Profile started viewing the Feature in the web Streaming App, then moved to the Google TV Streaming App to finish it, the value would be "Browser".
Total Streamed In Bytes	Non- Negative Int64	•	The total number of bytes streamed. This value is used to help calculate revenue proportions to Licensors and DCP for Feature Videos acquired by an SVOD Feature SKU.  Business rules:
			• Value governance: TBD - how will we calculate this. What if someone watches and then rewinds and watches more. Total Streamed In Bytes shouldn't be greater than what a normal playing of the video would be.

Association: Viewed Feature – (records viewing of) Feature Video

The associated Feature indicates the Feature that the Viewed Feature records the viewing of. The same Feature may be viewed multiple times by the same Profile. All Viewed Features associated with a Feature convey a Profile's entire viewing history of a Feature.

#### Association constraint: Active Video - Viewed Feature

- A Viewed Feature can only be created when there is an Active Video associated with the same Feature for the same Profile.
- The system <u>automatically creates</u> a Viewed Feature as soon as an Active Video is created.
- The system will <u>automatically update</u> the attributes of the Viewed Feature for as long as an Active Video exists. Updates occur when the Active Video is updated.
- When the associated Active Video is deleted, the Viewed Feature is locked, and no further updates can be made.
- Once a Viewed Feature is created, it can <u>never</u> be deleted.

Association: Viewed Feature – SKU

A Viewed Feature is associated with the SKU with which it was acquired. This allows us to track which SKU was used to acquire the Feature, as well as track the viewing status of the Feature within the context of that SKU.

Association: Viewed Feature - Device

Conveys the Device the Profile <u>started</u> viewing the associated Feature on.

Viewed Ad 🔗

A **Viewed Ad** is a record of an advertisement that was shown during playback of a Feature that was acquired through an AVOD Feature SKU. We track the advertisements viewed to calculate advertisement-based revenue sharing.

Attributes: Viewed Ad

Attribute

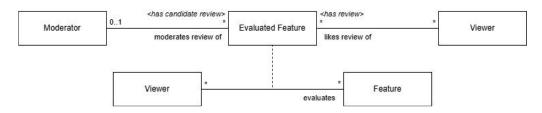
Data Type
Required
Details

TBD - what needs to be tracked.
---------------------------------

# Association constraint: Viewed Feature - Viewed Ad

A Viewed Ad may only be associated with a Viewed Feature acquired through an AVOD Feature SKU. The associated Viewed Feature must be associated with an AVOD Feature SKU.

# Figure - Evaluated Feature @



Evaluated Feature 🔗

An **Evaluated Feature** is a Feature that the Viewer provides a numeric (0-10) evaluation for and, optionally, a written review that is moderated by an individual for inappropriate content before being made public. The rating and moderator-approved review are presented publicly to all members of the DCP+ community.

In some cases, the Viewer who wrote a review is awarded an amount of TALNT proportionate to a specified review incentive. See later for details.

Attributes: Evaluated Fe	ature			
Attribute	Data Type	Requi red		
Rating	Float	•	A numeric value that rates how much the Viewer enjoyed the Feature.  Business rules:  Minimum value: 0  Maximum value: 10  Mutability: A Rating can be updated any time after the Evaluated Feature has been submitted.	
Candidate Review	String	8	A written evaluation provided by a Viewer about the Feature that the Viewer is submitting to a moderator for approval, so it becomes a Review (see later).  Business rules:  • Minimum length: TBD  • Maximum length: 500  • Value governance: Once a moderator has approved a Candidate Review, it can never be deleted altogether. However, it can be updated.	
Submitted On	Date Time	•	The timestamp when the Evaluated Feature was <u>last</u> submitted.  Business rules:  • Value governance: Value is set when the Evaluated Feature is created and updated each time the Rating or Candidate Review is updated.	

Candidate Review	Enumerati		Conveys the moderation status of the Candidate Review
Candidate Review Moderation Status	Enumerati	•	Conveys the moderation status of the Candidate Review.  Business rules:  Allowed values:  Not Required  Waiting  Approved  Denied  Value governance:  Set to Not Required when there is no Candidate Review.  Set to Waiting when there is a Candidate Review, but no Moderator is associated with the Evaluated Feature.
			<ul> <li>Can only be set to Approved or Denied when a Moderator is associated with the Evaluated Feature.</li> </ul>
Denied Reason	String	8	A written note from a Moderator that provides a reason for why the Candidate Review was denied.  TBD: should this be a set of flags instead of something written (e.g. Inappropriate Language. To Vague. Not Relevant)
Review	String	8	A written evaluation provided by a Viewer about the Feature that a moderator has approved. The Review is visible to others in the DCP+ Community.  Business rules:  Value constraint: Value is copied from Candidate Review.  Mutability: Value is set automatically when a moderator approves a Candidate Review. Moderation Status is Approved.
Review Award	TALNT	⊗	This is a record of the TALNT awarded to a Viewer for submitting a review. It shows how much TALNT was deposited into the Viewer's Wallet Balance. The Viewer is awarded a sum of TALNT, as per the review incentive conditions.  For details on review award payout eligibility and amounts, refer to Figure - Review Incentive.  Business rules:  Required:  A value is set when an award is paid out. The value is a record of the awar amount.  A value is not set when no award is paid out.
Review Award Paid On	DateTime	8	A timestamp that conveys when a review award was paid.

# **Constraint:** Evaluated Feature

- A Viewer may only evaluate a Feature that they have <u>completed viewing</u>. That means the Evaluated Feature may only be associated with a Feature that has a related Viewed Feature set to *Completed*.
- A Viewer may only evaluate a Feature when they have a value specified for their *Name* and optionally an *Avatar*. This is so the Viewer is identifiable by other Viewers that view the Evaluated Feature.
- An Evaluated Feature may <u>not be deleted</u> when it has a Review.

Moderator 🔗

A Moderator is a person who monitors the Evaluated Feature's Candidate Review for inappropriate or offensive content.

Note: A Moderator is bound to a particular <u>User</u> within the DCP Context.

→ Attributes: Moderator

Attribute	Data Type	Require d	Details
Id	String	•	An identifier that uniquely identifies a Moderator.  Business rules:  Value governance: derived from the bound User.Id  Uniqueness: Unique among all Moderators
Name	String	•	A public-facing alias that a User sets to represent their identity in the DCP+ Community.  Business rules:  • Value governance: derived from the bound User.Name  • Uniqueness: Unique among all Moderators
Avatar	URL	8	The image a Moderator sets to represent themself in the DCP+ Community visually.  Business rules:  • Value governance: derived from the bound User. Avatar
TODO - what other attributes?			

**Association:** Moderator – Evaluated Feature

Conveys the Moderator who moderated the Evaluated Feature's Candidate Review.

#### Association constraint: Moderator – Evaluated Feature

- A Moderator may only be associated with an Evaluated Feature with a Candidate Review.
- The Evaluated Feature's association with a Moderator <u>is removed</u> when the Candidate Review Moderation Status changes to *Waiting* or *Not Required*.

#### Association: Evaluated Feature - Viewer

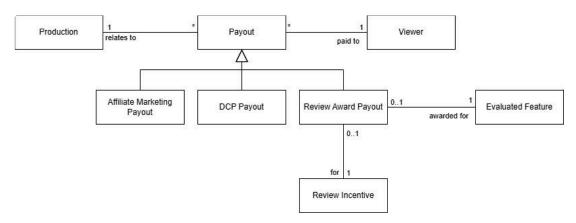
- Viewers that read another Viewer's written review can optionally choose to Like the review.
- The Viewers associated with an Evaluated Feature conveys to all of the Viewers that have Liked the Evaluated Feature's review.

#### Association constraint: Evaluated Feature – Viewer

• A Viewer can only like an Evaluated Feature when it has a Review.

- The Viewer who submitted the Evaluated Feature can not like the Evaluated Feature.
- A Viewer can only like a single Evaluated Feature for a given Feature.
- A Viewer may only like an Evaluated Feature when they have a value specified for their *Name* and optionally an *Avatar*. This is so the Viewer is identifiable by other Viewers who view the Review's like evaluation.

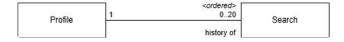
Figure - Payout @



Payout @

A Payout is a payment of TALNT as compensation for

# Figure - Search @



#### Search 🔗

A **Search** is a record of a search query a Profile submitted to find Productions. A Profile keeps a record of the most recent search history to provide the Profile with a quick means for resubmitting prior queries.



#### **Association constraint:**

• The Searches associated with a Profile are ordered from most recent to oldest based on Executed On.

- A Profile has at most twenty Searches associated with it.
- The set of queries associated with a history of Searches <u>must be</u> unique.
- When an existing Search is submitted again, it becomes the most recent Search.
- When the 21st unique Search is to be associated with a Profile, the oldest Search is deleted.

# Figure - Notification @

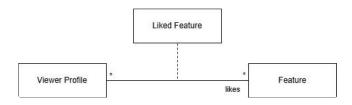


Notification 🔗

A **Notification** is an alert (typically a pop-up or other message) generated by DCP+ to notify the Viewer of a message that requires their attention.

# Figure - Liked Feature @

NOTE: Out of scope for first release



Liked Feature 🔗

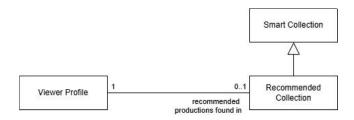
A **Liked Feature** is a Feature that the Viewer Profile evaluates with a "Like" evaluation. A Viewer Profile may like a feature or not but they are not able to dislike a Feature.

#### **Constraint:** Liked Feature

A ViewerViewer Profile may only like a Feature that they have <u>completed viewing</u>. That means the Liked Feature may only be associated with a Feature that has a related Viewed Feature set to *Completed*.

# Figure - Recommended Collection @

NOTE: Out of scope for first release



Recommended Collection  ${\mathscr O}$ 

A **Recommended Collection** is a type of Smart Collection <u>associated with a profile</u> that automatically recommends other <u>unviewed</u> Features to the Viewer Profile based on the end-user's behaviour.