



# **IPTV AND VOD OVERVIEW**

IPTV and VOD are two revolutionary technologies that are transforming the way people consume media. Through satellite technology, viewers can access a wide range of content from anywhere in the world under the satellite coverage.

This slide will explore how IPTV and VOD work over satellite and share the business model idea.



# BENEFITS OF IPTV AND VOD OVER SATELLITE





With a standard DVB-S set-top box, you can access IPTV and VOD services even when you don't have Internet.



#### Wide Area Reach

Allow customers to access IPTV and VOD services from any location reachable by satellite.



## **High Quality**

Provide anyone with access to 4K and 8K content without requiring a high-speed internet connection.

"QUALITY IS NEVER AN ACCIDENT; IT IS ALWAYS THE RESULT OF INTELLIGENT EFFORT."

# POTENTIAL APPLICATION FIELDS



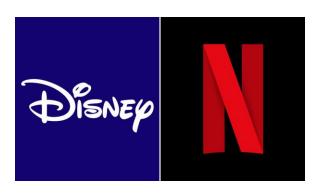
Hospitality and tourism
Offline VOD & Zero
Headend



Cooperative Comm. for Rural Area like Oil Drill & Agriculture



Education and training Offline E-Book, Audio Lib, Video Training



Extend 3rd Party
OTT Services
with Sat Coverage



Data Transfer For Mass Deployment



Offer Catch-Up & Timeshift TV to Regular Satellite STB Users



Entertainment System for Aviation, Maritime, Bus & Trains



Capacity to go
Multiscreen without
Internet

# **REVENUE MODELS**



Licensing for Over Satellite Distributed Content



Subscription Model for Premium Content



Turnkey White Label OTT Platform over Satellite



AVOD & FAST for Freemium Content



Complementary Solution Service for Internet Based OTT services to extend their range



Event Based Streaming with sponsorship and branded content

# SECURING IPTV & VOD OVER SATELLITE

## **ENCRYPTION**



#### Types of Encryption

CAS (Conditional Access System) for Data (DVB-MPE) PIDs to limit anybox access and Offline DRM AES (Advanced Encryption Standard) for content protection via external USB device.



#### Fingerprint & Watermarking

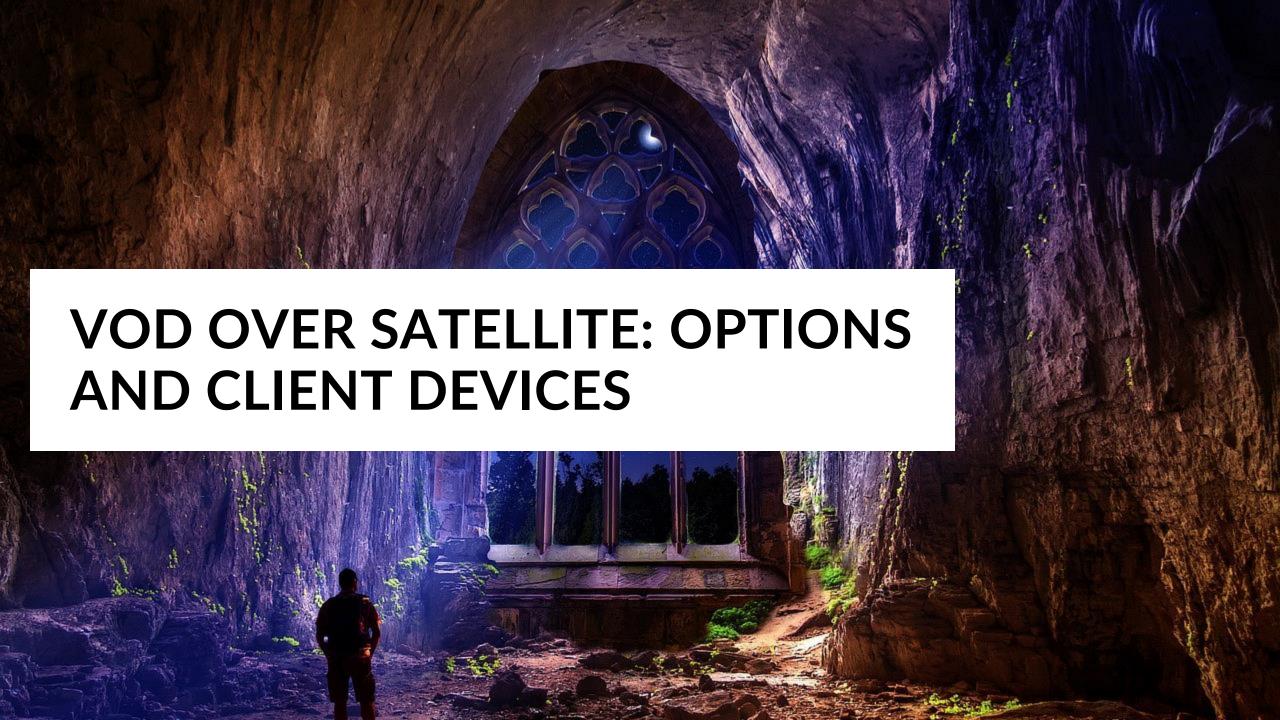
Adding a unique identifier to the video content that can be traced back to the authorized user or device



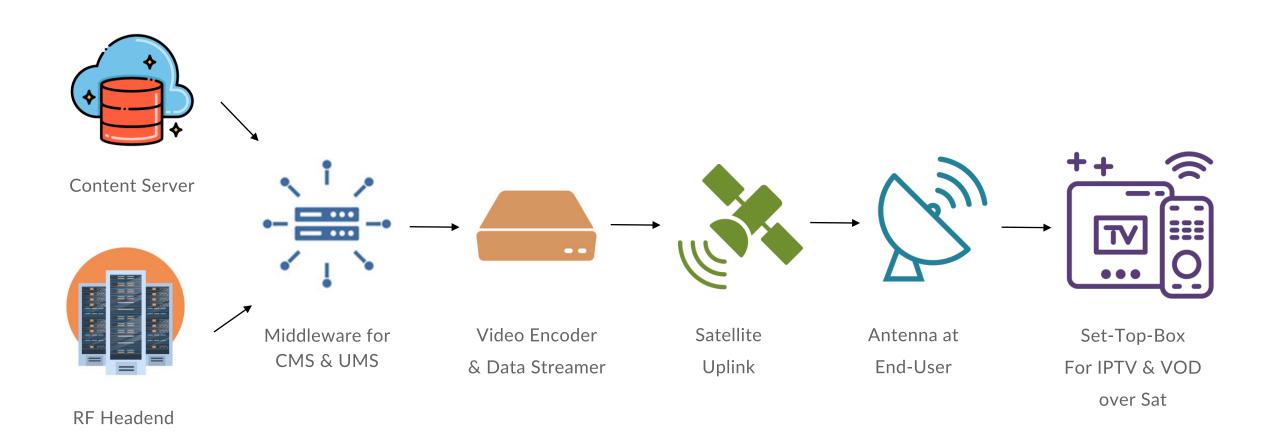
#### **Access Control**

subscriber authentication, channel mapping, or IP address filtering for restricting access to the video content to authorized users or devices

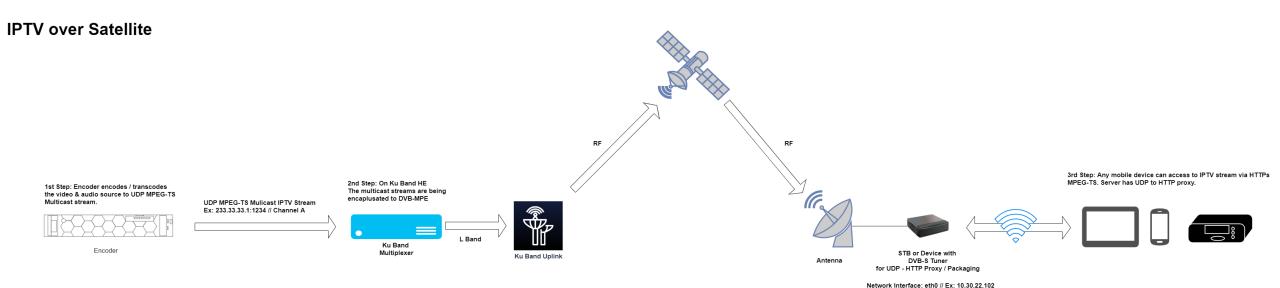
Encryption is an important tool for securing IPTV & VOD over satellite, providing users with improved security and privacy.



# **GENERAL OVERVIEW**

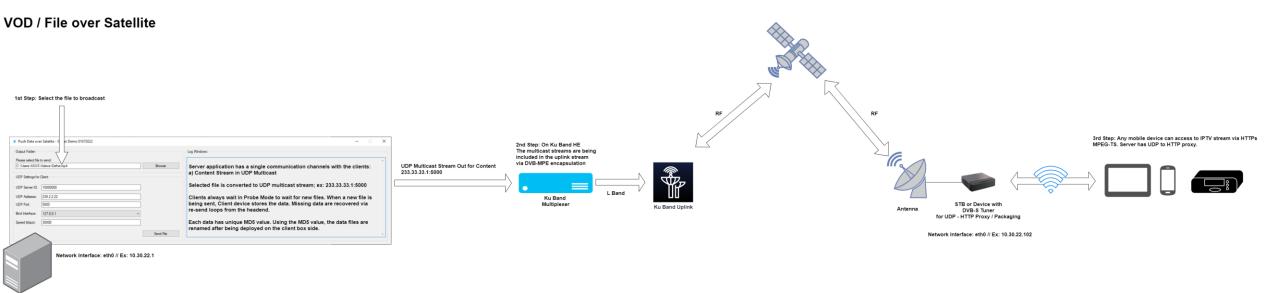


## **SYSTEM DESIGN – IPTV Without Vsat**



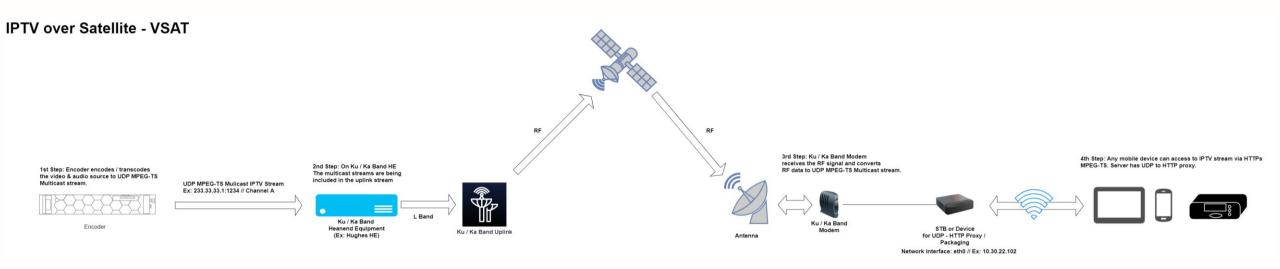
There are 4 different ways to transmit received streams in home at Local Area Connection: Direct multicast streaming, UDP to HTTP Proxy for Unicast or HLS – DASH packaging.

## **SYSTEM DESIGN - VOD Without Vsat**



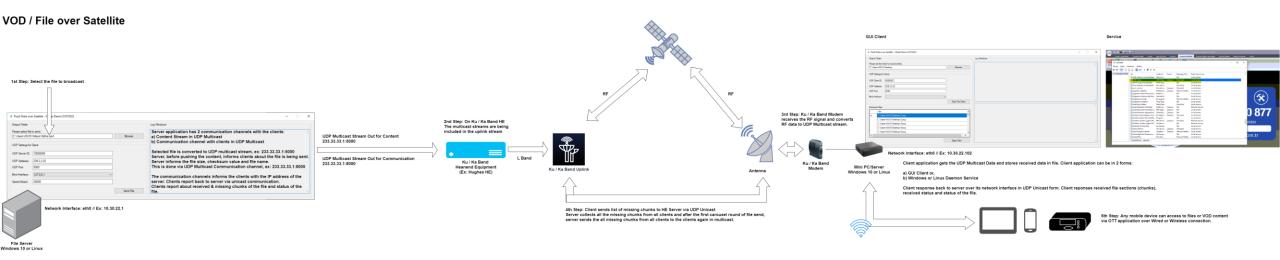
HTTP Proxy: UDP Live streams received over Ku Band via tuner to can be distributed on the local as multicast. Yet, not all client devices can get multicast streams. A UDP to HTTP Proxy can let all devices receive the Live stream transmission.

## **SYSTEM DESIGN – IPTV With Vsat**



HTTP Live Streaming (HLS): HLS is a popular unicast streaming format that uses adaptive bitrate streaming to adjust the quality of the video stream based on the viewer's network conditions.

## **SYSTEM DESIGN - VOD With Vsat**



Dynamic Adaptive Streaming over HTTP (DASH): DASH is another popular unicast streaming format that uses adaptive bitrate streaming and can support a range of different video codecs and container formats.

## **SYSTEM DESIGN - DEVICES**



## Smartphones (Android/iPhone)

APK / APP Installation to support Unicast streaming over STB or GW



#### Tablets (Android / iPad)

APK / APP Installation to support Unicast streaming over STB or GW



## PC / MAC (App or Web)

Offline Application or Web UI to access VOD content on STB or GW and play multicast streams



#### STB (Linux / RealOS)

API, SDK & code sharing to let STB developers to create application to access unicast / multicast live stream and VOD lib via external USB storage.



### Smart TVs (Android/WebOS/Tizen)

APK Installation for Android TVs and Web UI to access unicast live streams and VOD catalog via local IP/domain search



#### **Game Consoles**

API, SDK & code sharing to let Game Console developers to create application to access unicast / multicast live stream and VOD lib.

# **SYSTEM DESIGN - Highlights**



Handle the broadcasting of realtime channels and events over a network without requiring a feedback loop.



Optimization of bandwidth costs equals scalability.

Millions of people all using the same stream.



Service Quality, There is no overloading of the system even at the busiest times.

"IPTV & VOD OVER SATELLITE ARE POWERFUL TOOLS THAT CAN UNLOCK A WORLD OF POSSIBILITIES FOR BUSINESSES AND CONSUMERS ALIKE."

## **THANK YOU**

IPTV and VOD satellite businesses, with the right methods and resources, can extend the availability of information, education, and entertainment to the widest possible audience at the lowest possible price with the highest possible reliability.



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