

## Head-end in the Sky - A Digital Reality

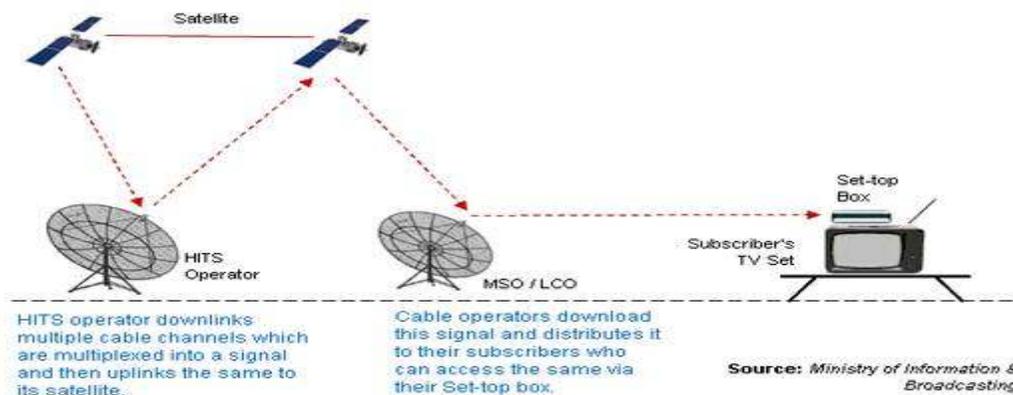
### Introduction

The Telecom Regulatory Authority of India (“**TRAI**”), on the request of The Ministry of Information and Broadcasting (“**MIB**”) has formulated the much awaited guidelines (“**Guidelines**”) for grant of permission to establish and operate Head-end-in-the-Sky (“**HITS**”) broadcasting service from India. These Guidelines were passed pursuant to the Union Cabinet decision dated November 12, 2009.

HITS technology is expected to change the way digital broadcasting is implemented in India. It will provide digitally compressed programming via satellite with a uniform encryption system using a single headend. This will bring a paradigm shift in the way broadcasting signals have traditionally been transmitted and help decrease the divide between urban and rural digitization of broadcasting signals, especially in the non-conditional access system areas of the country. The present bulletin discusses the HITS technology, its possible impact on the broadcasting and digital network across India and the legal approvals and pre-requisites to be fulfilled before acquiring a HITS license.

#### 1.0 HITS- A giant leap for mankind?

HITS is a multichannel downlinking, distribution and transmission technology that enables all pay channels to be downlinked at a central facility and then again be uploaded by the HITS operators to its satellite after the encryption of channels. These signals are then downlinked by various Multi System Operators (“**MSOs**”) and Local Cable Operators (“**LCOs**”) using a single satellite antenna and sent to the customers/subscribers, who can view these pay channels by using their set-top box. HITS services are allowed in both C-Band<sup>1</sup> and Ku-Band<sup>2</sup> and uplinking is permitted to both Indian as well as foreign satellites. The diagram below illustrates how the HITS technology is used:



<sup>1</sup> C-band is a name given to certain portions of the electromagnetic spectrum used for communications. For satellite communications, the lower frequencies used by C-Band perform better under adverse weather conditions

## 2.0 Advantages of a HITS license

HITS, as compared to other forms of digital broadcasting, is a more cost-effective method of achieving digitization since it doesn't require heavy investment from the cable operator, who merely has to equip homes with set-top boxes and become a franchisee. There are certain distinct advantages a HITS licensee has, namely:

1. The licensed HITS operator is allowed to directly contract with various broadcasters for buying their content.
2. He can also put all the broadcasting content at one place (hub/teleport) and then uplink it, using his own encryption, to a satellite hired by him. This uplinked content is then available to the LCOs for downlinking, by using a dish antenna, and is then distributed to the television homes. Such a system allows the HITS operator to work like a conventional MSO except that the head-end is in the sky instead of being located on the ground.
3. The HITS operator can provide infrastructure facilities as well.
4. The licensed operator can also provide simulcrypting/multicrypting of channels aggregated by different MSOs with different encryption systems to one or more MSOs who wish to uplink these channels to a HITS satellite and then downlink them for transmission to the consumers. This allows the HITS operator to avoid contracting with the various broadcasters for content and the operator can simply enter into a contract with one or more MSOs or cable operators who wish to uplink their aggregated channels to the HITS satellite.

## 3.0 Eligibility conditions

There are certain pre-requisites that have to be complied with before a company is granted a HITS license. The company seeking a license should be a company incorporated under the Companies Act, 1956 and comply with the following terms:

- a) The company has to obtain a prior permission from the MIB and a wireless operational license (“**WOL**”) from the Wireless Planning and Coordination Wing (“**WPC**”) of the Ministry of Communications and Information Technology. Once granted, the permission will be valid for a period of ten years from the date of issue of the WOL.
- b) The net worth of the company should be INR 100,000,000 and the same has to be certified by the statutory auditor of the company.
- c) The total foreign direct investment (“**FDI**”)<sup>3</sup> in the company must not be more than 74% at the time of application and during the period of permission. Prior approval is required from the Foreign Investment Promotion Board for any FDI in excess of 49%.<sup>4</sup>

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<sup>2</sup> Ku-band is primarily used for satellite communications, and particularly for satellite from remote locations back to a television network's studio for editing and broadcasting

<sup>3</sup> For the purposes of calculating FDI, reliance will be placed on Press Note 2, 3 and 4 of 2009 dated February 13, 2009, issued by the Department of Industrial Policy and Promotion, under the Ministry of Commerce and Industry

This will further encourage foreign participants to invest in the Indian broadcasting transmission industry.

d) Any broadcasting or DTH company will not be allowed to hold or own more than 20% of the total paid up capital in the company holding the HITS license. Simultaneously, the HITS permission holder cannot hold more than 20% equity in a broadcasting or DTH company. Additionally, any person or company holding more than 20% equity in a broadcasting or DTH company, cannot hold more than 20% equity in a company having HITS permission, and vice versa. This will ensure that there is no vertical integration amongst these companies and to promote competition amongst the market players. Such cross media holding restriction will not apply to financial institutional investors, or MSO/cable operator companies.

e) The HITS operator company will be allowed to uplink signals only from India and will have to install short messaging service and an encryption system.

f) The applicant company will also have to furnish a bank guarantee of INR 400,000,000, valid for a period of three years.

g) The majority Directors, of the company seeking the HITS license, have to be of Indian citizens and all the senior officials, namely the Directors, Managing Director, Chief Executive Officer and the Chief Financial Officer, have to obtain security clearance from the Ministry of Home Affairs. However, no time frame has been provided in the Guidelines for such clearances. Any subsequent change in directorship, key executives or FDI will also be required to be notified to the MIB.

#### **4.0 HITS operator: regulatory compliances**

Once the company seeking a HITS license is granted the license, it has to ensure compliance with certain requirements, else its license may get revoked. Some of these conditions are:

a) The HITS licensee has to commence its uplinking/downlinking operations within 1 year from the date of issuance of clearance from the WPC. If failed, half the bank guarantee will be forfeited and if services do not commence within 2 years from the date of clearance from the WPC, the entire bank guarantee will be forfeited and action for revocation of permission will also be considered. However, if the roll-out obligations are fulfilled within 1 year from the date of clearance from the WPC, the entire bank guarantee will be refunded and if the roll-out obligations are fulfilled after 1 year but within 2 years of the issuance of WPC, half the bank guarantee will be refunded.

b) Signals have to be provided directly from the HITS satellite to the registered MSOs/cable operators. The licensee company is not permitted to provide signals directly to the consumer. However, the HITS operator can provide signals directly to consumers using

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<sup>4</sup> In the DTH sector, FDI is still capped at 49%

his own cable network by first downlinking the signals from the HITS satellite to his terrestrial receiving station.

c) The set-top boxes provided by the HITS operator should be interoperable so that if the consumer decides to switch to any other service provider, he should be able to do so at the bare minimum cost.

d) The content that the HITS operator will provide has to pass through the encryption and digital addressable system located within the earth-station situated on Indian soil.

e) The HITS operator is not allowed to enter into any exclusive contract for the distribution of various television channels. It will also have to provide access to various broadcasting channels on a non-discriminatory basis.

f) The content transmitted through the HITS operator is not prohibited by the MIB. What is interesting to note is that the HITS operator will also not broadcast the contents of a broadcaster who has violated the provisions of the Competition Act, 2002.<sup>5</sup> This demonstrates that the intention of the policy makers is to ensure that a level playing field is maintained for all the players in the broadcasting market. The HITS licensee further has to ensure that the channels carried through its network follow the Programme Code<sup>6</sup> and the Advertising Code<sup>7</sup> stated under the Cable Television Networks (Regulation) Act, 1995<sup>8</sup> and the Rules framed thereunder.

## 5.0 HITS versus DTH: An Analysis

HITS offers direct competition to the DTH operators. Unlike DTH, there will be sharing of revenue between the broadcasters, HITS operator and the various cable operators under the HITS system. The reception of signal is also expected to be better in HITS as compared to DTH transmission. Further, DTH operates only in Ku-Band, which is vulnerable to rain and causes deterioration of signal, whereas HITS is allowed to operate in both C-Band and Ku-Band. Since all channels can be transmitted across MSO/LCOs using a single HITS satellite, the customer will be able to enjoy a wide range of channels at a cheaper cost.

One can expect the DTH operators to change their business model to suit the new emerging broadcasting setup. The healthy competition amongst DTH and HITS operators will provide an impetus to digitization, narrow the digital gap between rural and urban areas and reduce prices of transmission of broadcasting signals and set-top boxes.

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<sup>5</sup> This is a legislation enacted by the parliament to curb practices that have a detrimental impact on competition within a market

<sup>6</sup> Rule 6 of the Cable Television Networks Rules, 1994 (“**Rules**”)

<sup>7</sup> Rule 7 of the Rules

<sup>8</sup> The legislation was enacted to regulate the operation of cable television in India

## Conclusion

TRAI has formulated these Guidelines keeping in mind the long term goal of digitalization of cable television across the country. Content distribution through HITS will certainly enhance the overall customer experience from this medium. The Guidelines cover the distribution of channels of multiple broadcasters through a single source streamed through satellite to the cable operators and thereby enable expansion of the digital content services industry. HITS technology will allow a faster and more convenient system of distribution of broadcasting signals across vast networks, especially since multiple broadcasters can transmit their content to a single HITS operator, who in turn, forwards these signals to other MSOs and LCOs. This will provide an alternate means to the DTH services and enable a larger outreach and more consumer-friendly prices. India is slowly migrating to digital transmission and systems like HITS, which offers cost effective high quality signals, are a real boon to the end users.

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