**EXPRESSION OF INTEREST**

**Direct to Home Television RFI**

# Introduction

PTCL is interested to get information from Vendors having DTH TV system expertise and background in supplying, installing, testing & commissioning of complete systems. The requirements given in below paragraphs are quite generic and open to discussion.

PTCL need information about latest DTH TV systems Technology meeting all applicable standards issued by concerned International bodies. PTCL is already providing IPTV TV and OTT services to its Wireline customers. Information interested, but not limited to, is the following:

**Technical Specifications:**

* Latest applicable standards
* Technical specifications of all subsystems inclusive of Main Transmission Hub & Remotes; (Up/Down chain, Headend, Dish antenna/LNBs/BUC, variable bit rate encoders/decoders, middleware, Multiplexers, NMS, etc.)
* Interface specifications

**Satellite:**

* Satellites having good Ku band footprint on all over Pakistan without skipping any part & possible beam steerability.
* Link budget Power Equivalent Bandwidth requirements with service availability of 99.5% with less than one (1) meter Dish antennas for customers with initial Transmission of 125 SD channels and 25 HD Thematic channels with Rx/Tx at Islamabad.

**Ground Segment equipment:**

* Transmission Ku Band Hub with allied subsystems based on DVB S2
* Transponder based Up link Power control systems at Hub
* Remote customer end equipment Specifications & BoQs of Antenna, LNB, STBs possible options

# Requirement:

* TV channels Receptions and Main Transmission Hub may be assumed near Islamabad (Latitude: 33.768889° N; Longitude: 73.21555556° E).
* Targeted customers are 2~3 million in 3-years time frame
* A Video wall at Islamabad city by backhauling from Earth station location
* Transmission capacity needed for backhaul media
* Recommended data rates per SD/HD TV channel
* Possible internal synergy options with already available resources currently being used by PTCL for IPTV &OTT.
* Uplink High Power Amplifier should be capable transmitting 250 channels (200 SD & 50HD).
* Uplink RF Power control for automatic operation in rainy part of the country only.
* List of possible services while PTCL already has extensive coverage of Broadband throughout Pakistan. How PTCL can be benefitted with this coverage.
* Hybrid options of IPTV/OTT/DTH
* Radio channel transmission system and its components
* Subscriber Management system, Encryption system and a good Conditional access (CA) system multiple options.
* Multiplexers in Ground segment equipment
* Back-office support systems Integration with Operations Support System, On-line Charging system & Customer Relationship Management
* Network Management system and its integration with National NoC
* Security & navigational functionality
* Possible synergy options with different DTH license holders
* Interactive program guide
* Issues / challenges for Wireline operators in rolling out DTH TV systems and what remedies were successful to overcome those issues.
* Power plant to fully meet AC & DC requirements.
* Applicable noise standards in equipment rooms and how the noise can be avoided in the rooms.
* Any other related useful information, etc.

# How to Respond:

This is the initial RFI stage, requiring information gathering and understanding of what is available in the market. Detailed costing is not required but it would be good to have rationalized budgetary prices of all subsystems involved with overall summary for a turnkey solution. Proposals (hard and soft copies) need to be submitted by 20 November 2015 at following address, later formal presentations may be required:

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