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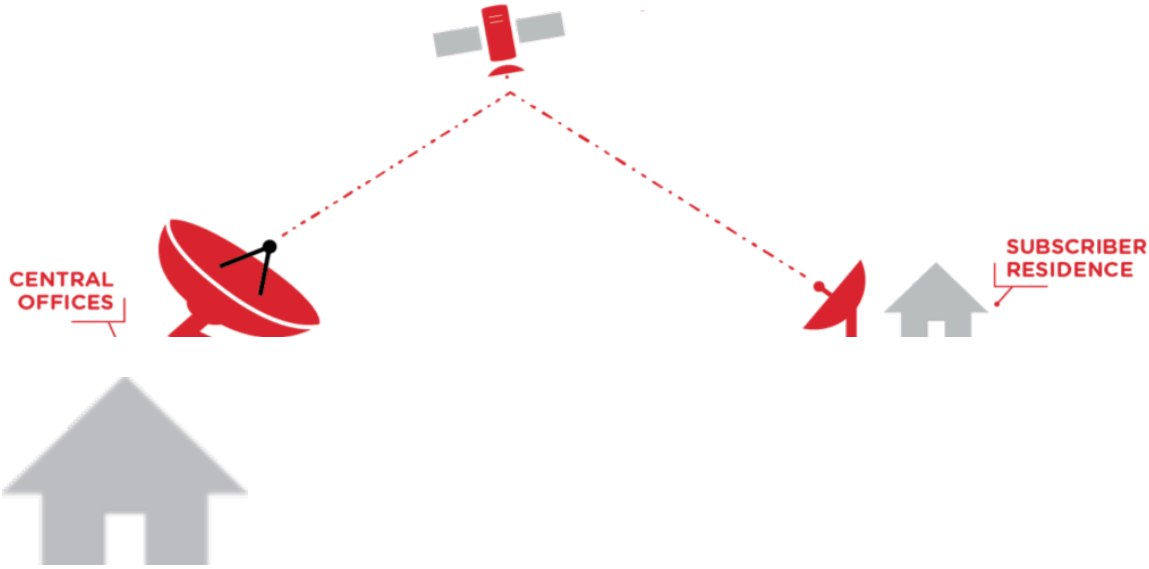
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Badr 7 *[Astrium]*

1. BACHGROUND

ARABSAT has selected in January 2009 the consortium of Astrium and Thales Alenia Space to build and deliver in orbit the new satellite Badr 7 (or Arabsat 6B). The contract was modified to include Ka-band capacity and was signed in January 2013 that is schedule to be launched December 2015.

Arabsat-6B will be co-located with the rest of Arabsat's Badr constellation of Direct-To-Home satellites at its 26° East video "hot-spot", extending in-orbit capacity for television services. Also a Eurostar- 300 model, equipped with a payload featuring 24 transponders in Ku-band and 24 Ka-band spot-beams as well as 3 Ka-band transponders, Arabsat-6B will have a spacecraft power of 12 kW at the end of its 15-year design lifetime. The orbital position 26° East was one of the three GEO orbital positions assigned to Iran for many years, which do to not using it ITU took it back and re-assigned it.

Astrium and Thales Alenia Space are jointly responsible for building the satellites and delivering them in orbit. Astrium, the leading partner, will supply the Eurostar-300 platforms and integrate the satellites. Thales Alenia Space will design and build the communications payloads. The team will also upgrade the ground control segment for the extended ARABSAT satellite fleet.

2. COMMENTS

The general conclusions on the ArabSat Ka band interest (Badr 7) are:

2.1. The Company called EMC was selected 2013 to operate the operation and

services. They had made series of logical proposals for operation in 2013. The company (EMC) has gone through series of administrative & technical changes. Therefore NOW in 2015 they cannot produce or preform what they had proposed in 2013. They are simply going through this exercise to use ArabSat in developing reasonable credentials to sell the company for profit.

2.2. EMC had promoted this program through a division called TRI-O that does not exist.

2.2. There are information on EMC website, but they are outdated & over estimated.

2.3. Basic idea (or concept) is to have a depository of HD movies pushed to the edge and have an interface for the end user to access the content on demand. Taking advantage of core advantage of satellite to update the library as frequent as needed which will have the minimum cost.

System would have four (4) services; HD video on demand, DVB receiver for free to air programs, Internet, Phone.

2.4. 16 Ka band beams and overlapping Ku:

- Integrated SatLink VSAT IDU & "Set-Top Box" for Video Services
    - ➢ With friendly Web-Based Consumer Interface (similar to Netflix) to access digital media services
- Multiple DVB-S2 Receivers (with DVB-S support too)
    - ➢ Enables Broadband Internet& Linear TV concurrently (Ku and/or Ka)
- Digital Video Recorder for Linear TV
- Built-in WiFi Router for convenient multiple user access
- Internet Download (Rx) Speeds up to 50 Mbps of IP
- Internet Upload (Tx) Speeds up to 15 Mbps of IP
- Intelligent Media Distribution to Large Internal Hard Disk
    - ➢ Enables immediate access to 100's of HD movies matching the user's preferences
    - ➢ Plus greatly enhances web caching and distribution of other digital media