Viral Triggers: DBS

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Communicators

CB
FRS
AM/FM (Audio-casting)
Television
Telephony
SMS
IM
M2M
Imaging
Remote Controls
Positioning
RFID
DBS
Blogs
Podcasting
Fleet Communications
Frameworks

Open
- Blogs
- WiFi-Location

Closed
- CB
- Skype
- WSNs

Architecture

Viral
- Podcasting
- Tivo
- Blackberry
- Jabber

Central
- RF ID
- DBS
- GPS
- AIM/ICQ
- Telephony
- SMS
Frameworks

Interfaces

Open
- WiFi Location
- Blogs
- Jabber
- WSNs
- Blackberry
- GPS
- Podcasting

Closed
- AIM/ICQ
- Skype
- CB
- Telephony
- DBS

Viral

Central

RF ID
- SMS
- Tivo
Frameworks

Open

Closed

Viral

Central

Marketing

RF ID
Podcasting
Blackberry
SMS
Skype
GPS
AIM/ICQ
Tivo
Jabber
Blogs
Telephony
DBS
CB
WSNs
DBS Pre-history

• 1945 Arthur C. Clarke Article: "Extra-Terrestrial Relays"
• 1957 Sputnik: Russia launches the first earth satellite.
• July 26, 1963, the first successful American comm. Satellite Syncom II launched,
• The first comm. on Syncom II is between the crew of the Naval Ship Kingsport in Lagos, Nigeria Harbor and a US Army crew at Lakehurst, NJ. The first words carried by Syncom II are “Kingsport, this is Lakehurst, how do you read us?”.
• 1 March, 1978, the use of satellite for the distribution of TV programming in the US began.
In early 1980s, the use of Direct-To-Home (DTH) satellite receivers became popular for people in rural areas to receive TV programming.

With the growth of TV receive dishes, backyard dishes, the TV broadcaster contended that the use of those dish antennas was illegal. But the FCC did not agree, given the FCC’s “open skies” policy (the users have the right to receive un-coded signals as the broadcasters have the right to transmit them).

Using developed tech., the broadcaster began transmitting their satellite signals in encrypted form, so the DTH users have to buy a decoder in order to view it.

In 1980, FCC established the policy for DBS.

In 1983-1984, USSC made a first attempt at a DBS service but unfortunately failed. (high service price, big dishes, limited channels) DTH operates in C-band near 4GHz, DBS operates in Ku-band (12-17 GHz range). For analog signal, DBS can only carry 32 channels.
DBS Real Beginning

- 1992, the first successful DBS was launched in the US by Primestar with around 30 analog channels.
- 1994, using the digital compression tech., DBS can offer up to 200 channels.
- 1998, 20 mln DBS subscribers (worldwide)
- 2005, 80 mln DBS subscribers (worldwide)
Growth, Absolute

DBS Growth

- 1st earth satellite (1957)
- US Syncom II
- Use of Satellite for TV Broadcast
- Analog
- Digital Compre., high freq.

Timeline:
- 1957
- 1963
- 1978
- 1980
- 1983
- 1984
- 1992
- 1998
- 2005
DBS Issues

- Still high initial cost
- Competition from local broadcasters, cable TV
- Signal interference, snow fades, rain fades, etc.
- Advantage: a lot of channels (200+)