

# 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

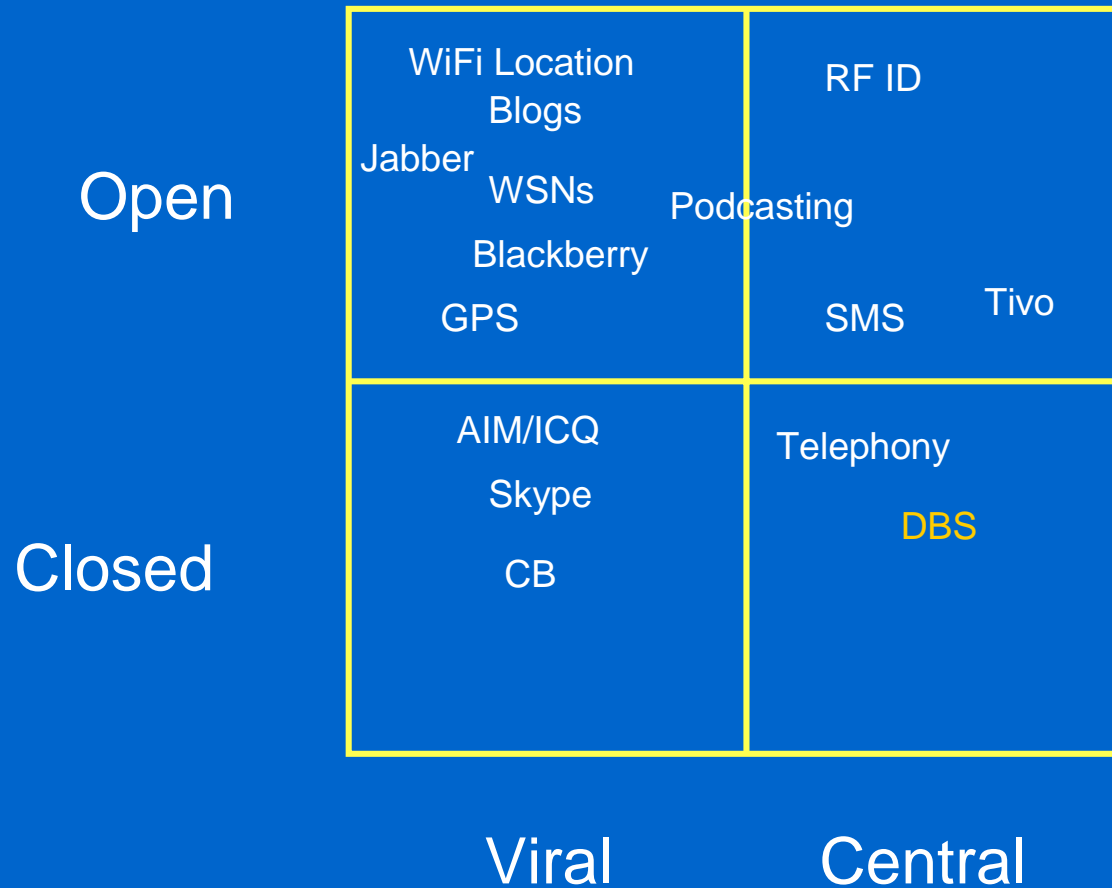
# Frameworks

## Architecture

		Architecture	
Open		Blogs WiFi-Location	Podcasting Tivo Blackberry Jabber
Closed		CB Skype WSNs	RF ID DBS GPS    AIM/ICQ Telephony SMS
		Viral	Central

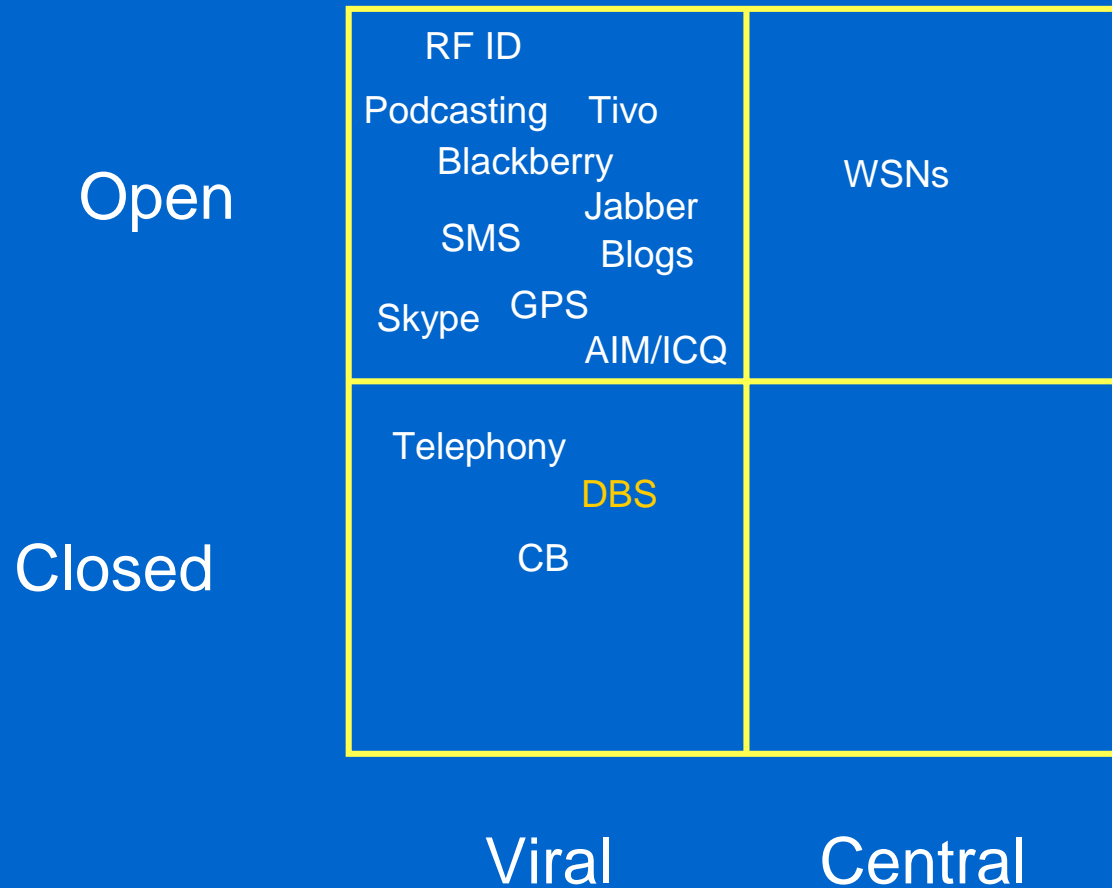
# Frameworks

## Interfaces



# Frameworks

## Marketing



# 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.

# DBS Starts and Fails

- In early 1980s, the use of Direct-To-Home(DTH) satellite receivers become 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.

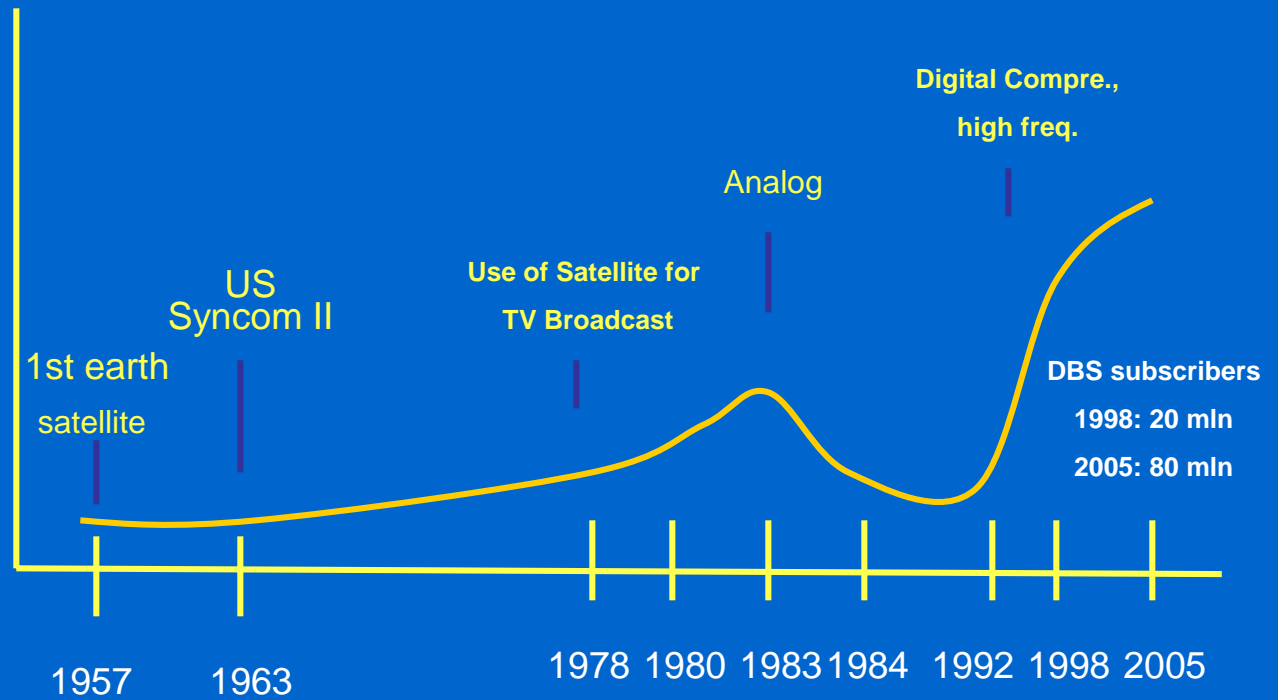
# DBS Real Beginning

- 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



# 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+)