

1. DVB stands for:

Data Video Broadcasting

Digital Video Broadcasting

Database Video Broadcasting

2. Write three core services which the DVB technology provides!

1. video broadcasting
2. audio broadcasting
3. data broadcasting

3. Assign services below to interactive or pseudo-interactive group!

| interactive | pseudo-interactive |
|-------------------------|-------------------------------|
| 2 – Electronic banking | 1 – Electronic news |
| 3 – Video-services | 4 – Webcasting |
| 6 – Internet access | 5 – Auction systems |
| 7 – Electronic business | 8 – Advertisement information |
| | |
| | |
| | |

- 1 – Electronic news
- 2 – Electronic banking
- 3 – Video-services
- 4 – Webcasting
- 5 – Auction systems
- 6 – Internet access
- 7 – Electronic business
- 8 – Advertisement information

4. What standard is not DVB standard?

| | | | | |
|-------------------|--------------------|---------------------|------------------|----------------|
| DVB-S | DVB-C | DVB-TV | DVB-SI | DVB-T |
| DVB-SK | DVB-CSA | DVB-Data | DVB-H | DVB-WEB |

5. Specify functions performed by the MPEG-2 systems layer.

1. multiplexing
 2. packetization
 3. timing and synchronization
 4. conditional access
-

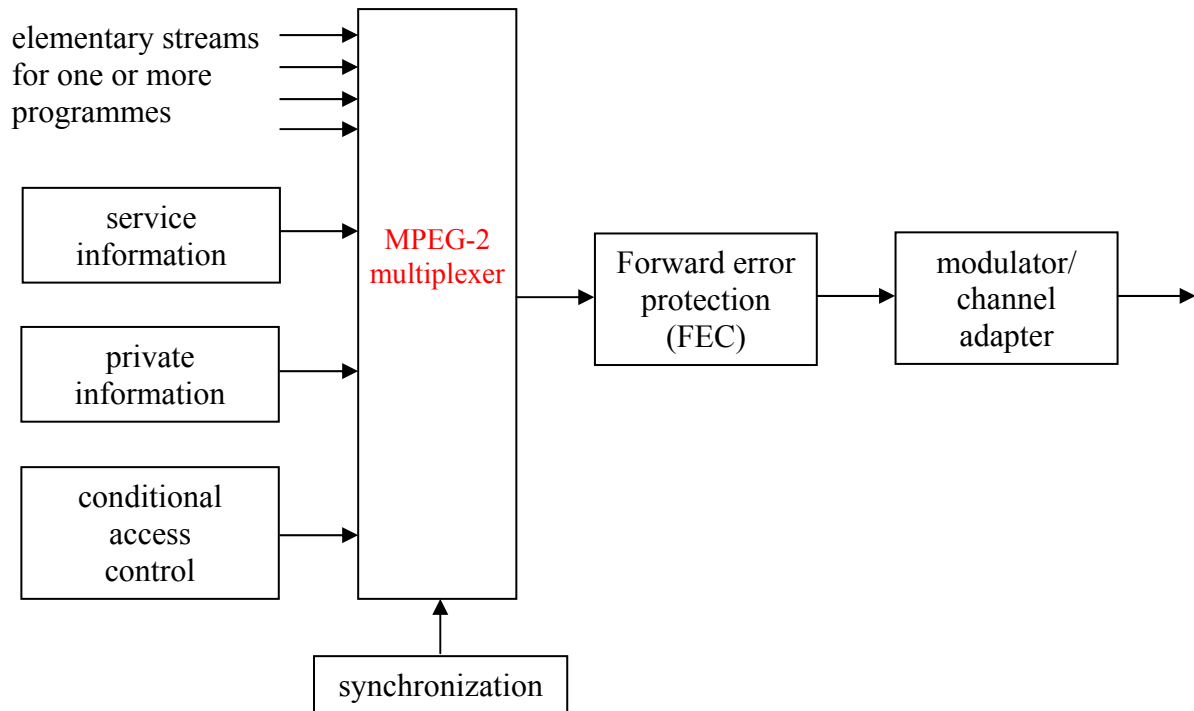
6. What definition of the MPEG-2 systems layer is correct?

- X** MPEG-2 systems layer defines how various elementary streams representing one or multiple programmes are multiplexed together.
- ☐ ~~MPEG-2 systems layer defines how data streams representing multiple programmes are multiplexed together.~~
- ☐ ~~MPEG-2 systems layer defines how elementary streams representing one or multiple programmes are distributed.~~
-

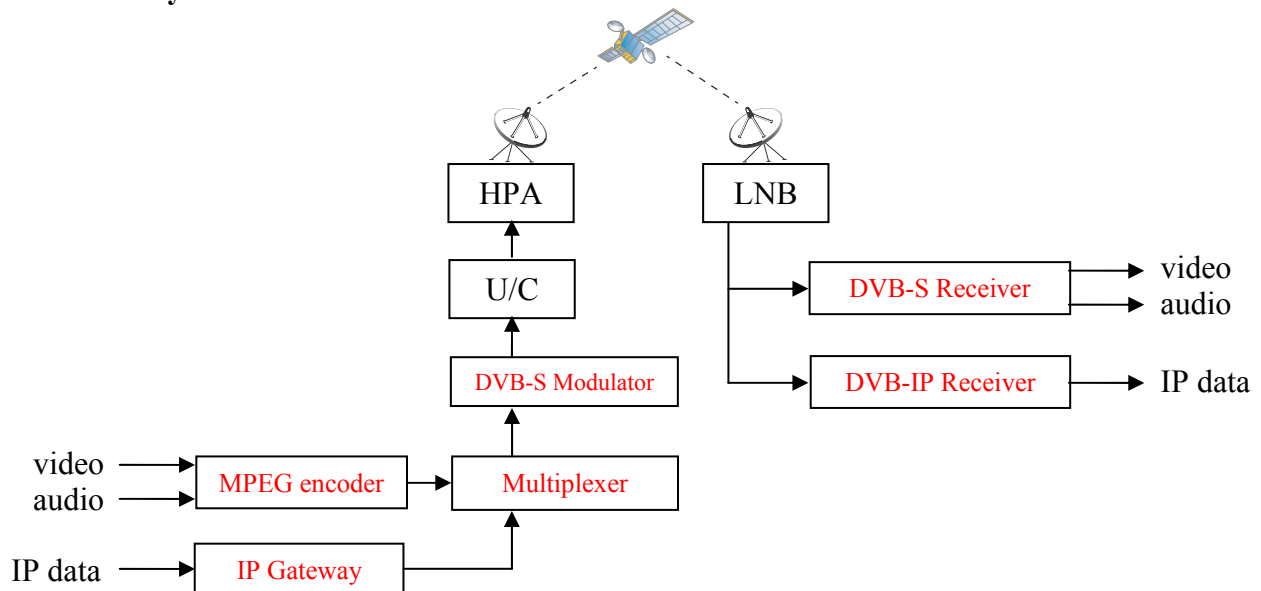
7. What does PES (*Packetized Elementary Stream*) represent?

All elementary streams consisting of the access units are transformed into so called packetized elementary streams (PES). Each PES consists of PES packets.

8. Complete (fill up) name of empty box in the block diagram for multiplexing of packetized elementary streams!



9. Fill up the empty boxes (by titles below) to complete a simplified block scheme of the DVB-S system!



DVB-S Modulator

Multiplexer

MPEG encoder

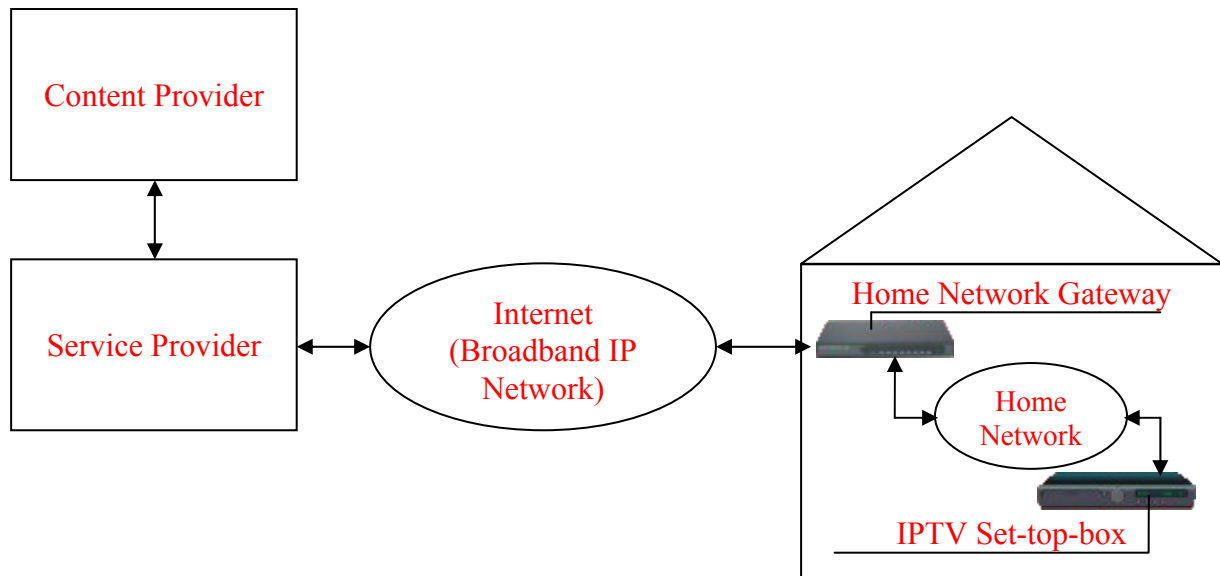
IP Gateway

DVB-S Receiver

DVB-IP Receiver

© Courtesy: Jason C. Fisher a Tracey Saxby, Integration and Application Network, University of Maryland Center for Environmental Science (ian.umces.edu/imagelibrary/)

10. Complete a block scheme of the basic IPTV architecture!



Content Provider

Service Provider

Internet (Broadband IP Network)

Home Network Gateway

Home Network

IPTV Set-top-box