

Figure 1. Functional Division of Telecommunications Services

A. Network Components ( Horizontal Components )		Subscribers	Access routes		Access Nodes		Trunk Routes		Trunk Nodes		Control Nodes		Contents Supply Nodes	
B. Layers Components ( Vertical Components )			One-way ( Broadcast )		Two-way ( Communication )		(Subscribers Switch, Broadcasting Station )							
			Wireless	Wired	Fixed	Mobile			Short-distance, Wired    Wireless		Long-distance Wired    Wireless			
Services	Customer Services ( Agent )	Platform One-stop-shopping services												
	Information Production/Supply	WWW sites Production of Programs												
	Transmission	"Broadcasting"    Telephone Services ( Point-Point Connection ) , Private Services, Conference Services ( Multi-point Connection ) Cable TV    Internet Services (E-mail、 WWW)												
Network	Network Administration and Operations	Subscribers' Numbers • IP Address Administration Channel Administration    Roaming Voice Transmission    Video Transmission, Bit Stream Transmission    Transmission of Packets, Frames, and Cells Traffic Administration, Control Signaling "Multiplexing"												
Equipment and Infra-structure	Equipment	Customers' Premise Equipment				Subscribers' Switch, Routers				Trunk Switches, Routers				
		TV and Radio				Wireless Communications Equipment				Multiplexers				
		Personal Computers, Headend								Studios and Broadcast Equipment				
	Transmission Media	Antennas, Transponders								Terrestrial Broadcasting Equipment				
		Radio Spectrum    Coaxial Cables    Copper Cables    Spectrums								Radio Spectrum				
	Infrastructures	Optical fibers								Optical Fibers				
Satellites				Communication Poles ( Pole Attachment Spaces )				Conduit (Underground/seabed )    Satellites						
								Tunnels						
	Common Spaces	Orbital Spaces On Ground/Underground Spaces Orbital Spaces Underground/Seabed Space												

Figure 2. Functional Division of DSB-related Services

A. Network Components (Horizontal Components)		Subscriber	Access route	Access Nodes	Trunk Roots	Trunk Nodes	Control Nodes	Contents Supply
B. Layers Components (Vertical Components)			One-way (Broadcast)	(Broadcasting)				Nodes
			Wireless		Wireless			
Services	Customer Services (Agent)	Platform A (ppc and ppv Administration, Billing)						
	Information Production/Supply	Producing Programs						
	Transmission	"Broadcasting" Video Transmission						
Network	Network Administration and Operations	Platform B (Channel Administration)  Bit Stream Transmission						
Equipment and Infra- structure	Equipment	TV and Radio Platform C STB Supply and maintenance Studios and Broadcast Equipment						
		Antennas, Transponders Terrestrial Equipment						
	Transmission Media	Spectrums Spectrums						
	Infrastructures	Satellites Satellites						
	Common Spaces	Orbital Spaces Orbital Spaces						

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