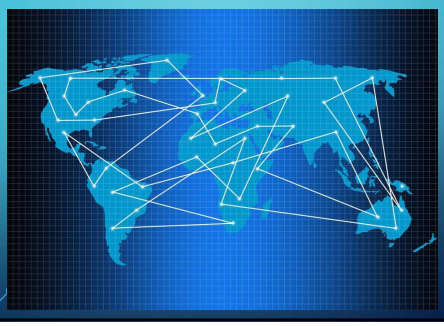
Summer Camp Lets Communicate



By Jorge Amodio
@jamodio
Summer 2019

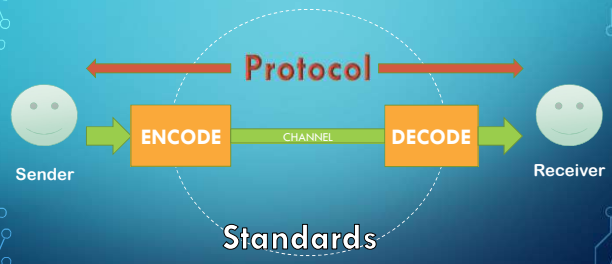
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Communication Networks



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The Communication Process



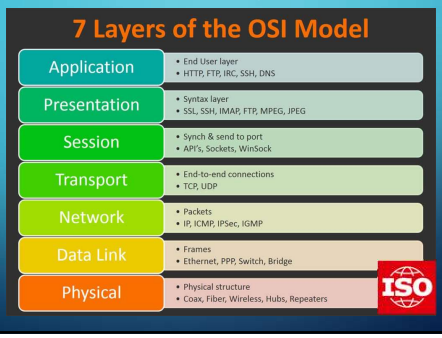
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Who develops the Standards ?



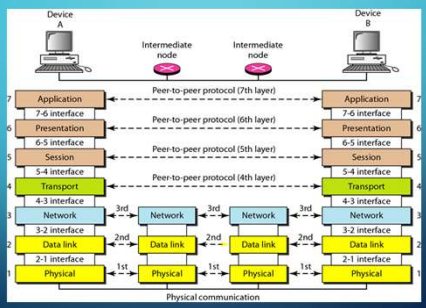
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The famous seven layers of cake ☺



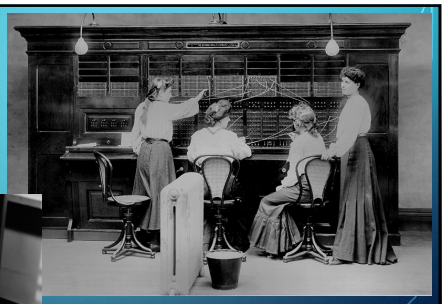
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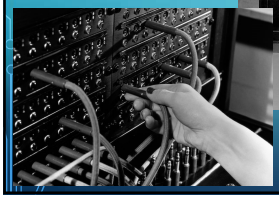
The OSI Model in Computer Networks



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The early days of the Public Switched Telephone Network





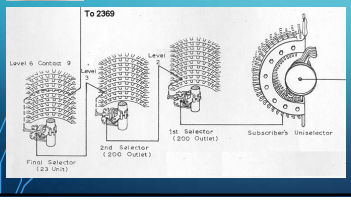
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Electromechanical Phone Switches
(Strowger Switch)



Almon Strowger (1839-1902)
Penfield, New York
Invented the first automatic telephone exchange in 1889



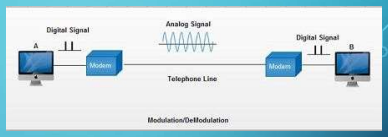




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Data Communications over the Telephone Network









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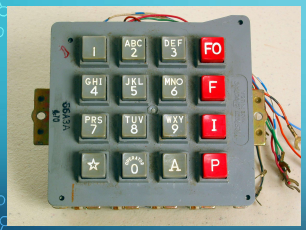
Central Office Telephone Switches

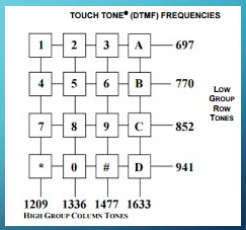




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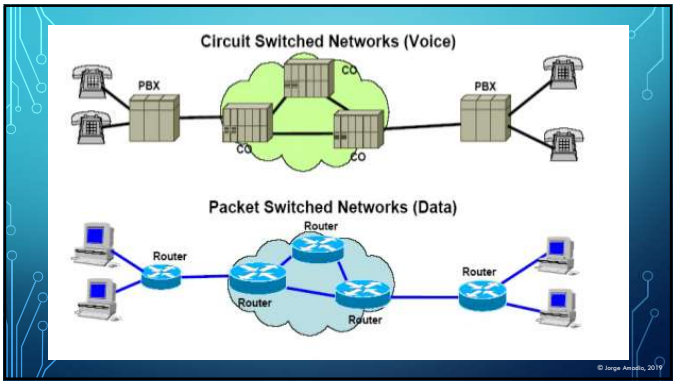
DTMF Signaling
(Dual Tone Multi Frequency)

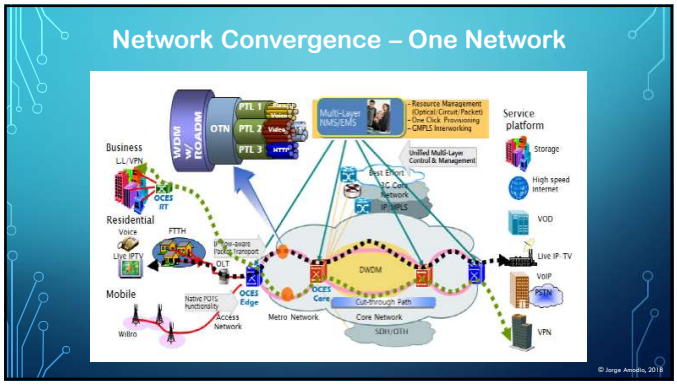


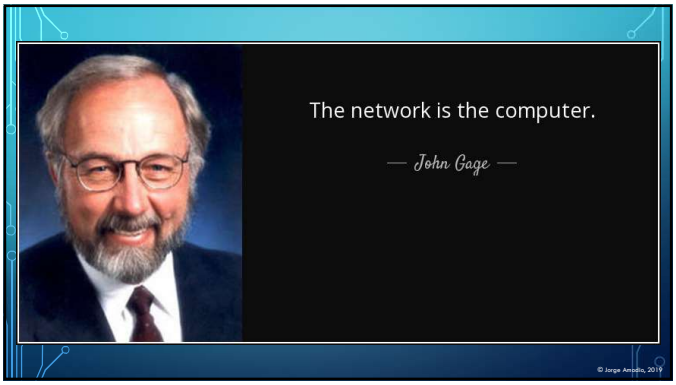


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Circuit Switched Networks (Voice)
PBX
CO
CO
CO
CO
PBX
Packet Switched Networks (Data)
Router
Router
Router
Router
Router


Network Convergence – One Network
WDM w/ ROADM
OTN
PTL 1
PTL 2
PTL 3
Multi-Layer NMS/EMS
Resource Management (Optical/Circuit/Packet)
One Click Provisioning
GMPLS Interworking
Unified Multi-Layer Control & Management
Service platform
Storage
High speed Internet
VOD
Live IP-TV
VoIP
PSTN
VPN
Business
LL/VPN
Residential
Voice
Live IPTV
FTTH
OLT
Mobile
WiBro
Native POTS functionality
Access Network
OCES RT
OCES Edge
OCES Core
Metro Network
Best Effort
NG Core Network IP/MPLS
DWDM
Cut-through Path
Core Network
SDH/OTH


The network is the computer.
— John Gage —


QUESTIONS