

MSC

(Mobile Switching Centre)

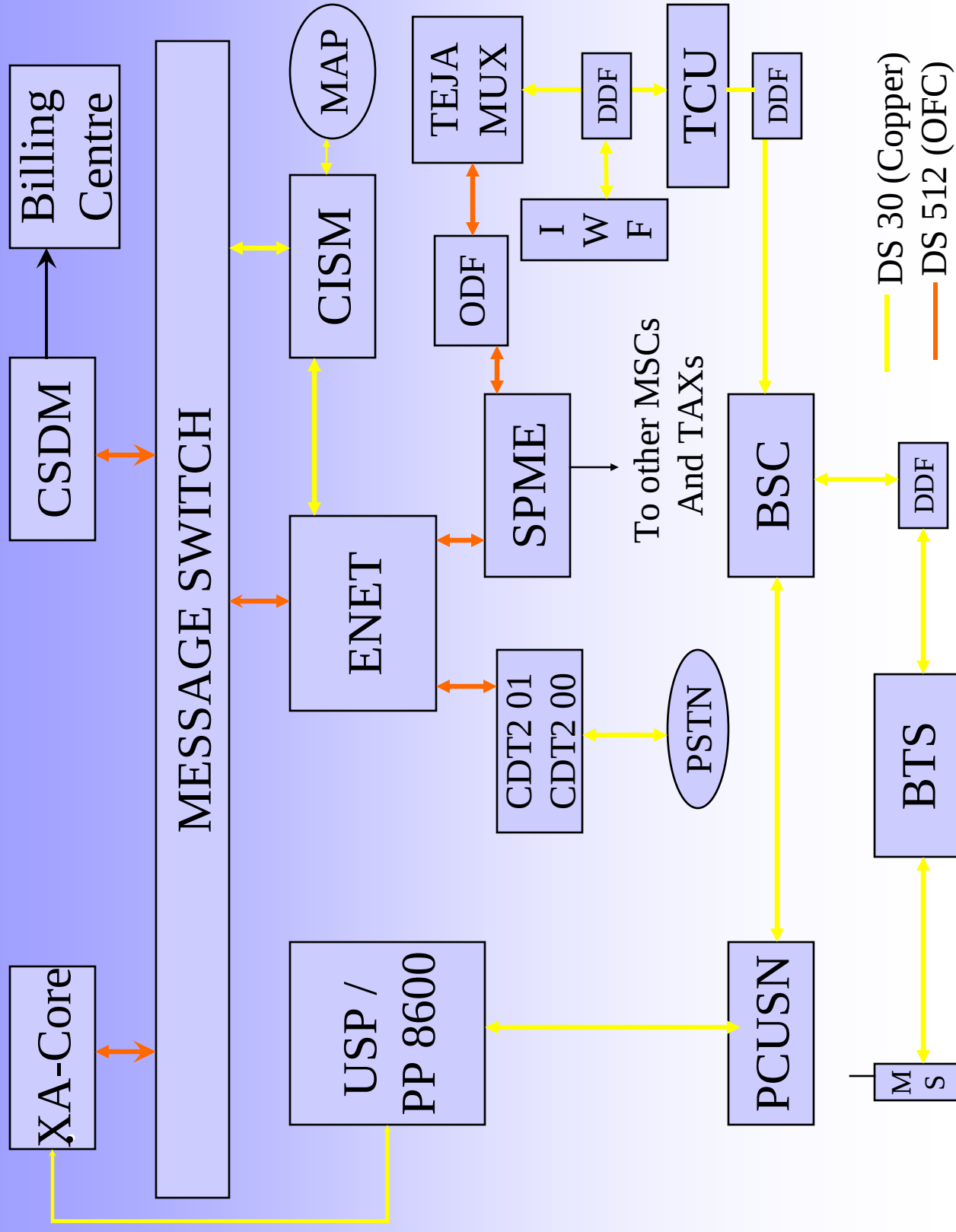
■ Contents :

- Block diagram of MSC
- Description of different blocks.
- Power cable Routing.
- Optical cable Routing.

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Block Diagram Of MSC :



Description of Each Blocks :

- XA-CORE
- ENET
- LIM
- SPME
- CISM
- CSDM
- MAP Terminal

XA-Core :

Front View



Back View



XA-Core :

It is the heart of MSC network.

- Controls all events on the switch, including call processing, call accounting, supervision and switch performance.
- ENET connection control.
- Loading of software and monitoring of processor sanity.
- Contains a dedicated operating system known as Support Operating System(SOS).

ENET (Enhanced NETwork):

Front View



Back View



ENET (Enhanced NETwork):

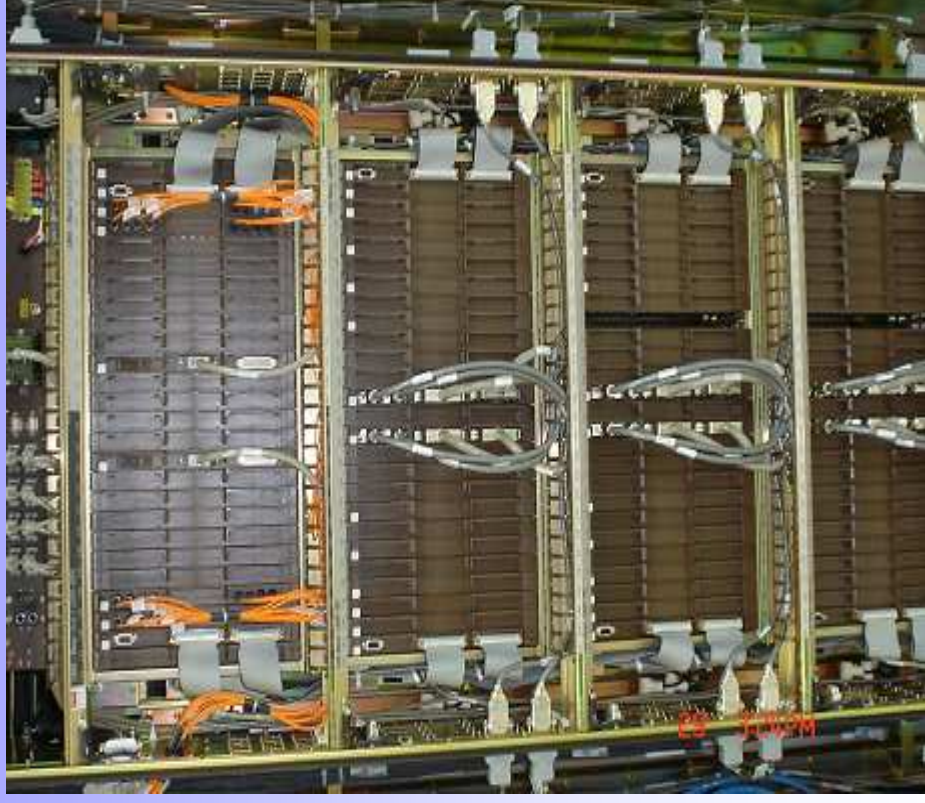
- The ENET is a part of the messaging/connectivity hardware layer of the DMS-MSC.
- Make speech connection between peripheral module(SPME) nodes.
- Makes message connection between Core module(DPCX) and peripheral module(SPME)
- It is single stage time switch.

LIM (Link Interface Module) :

Front View



Back View



LIM (Link Interface Module)/ FLPP(Fiberised Link Peripheral Processor):

- The FLPP is MS-based peripheral that provides the signaling interface between the XA-Core and the CCS7 signaling network.
- The FLPP cabinet provides the following connections :
 - » CCS7 signaling links to the other nodes in the wireless network, PSTN, wireless Gateway.
 - » TCP/IP link to the Inter Working Function via a LAN.

SPMIE

(Spectrum Peripheral Module Equipment)



Peripheral Module (SPMIE-Spectrum Peripheral Module Equipment) :

- It placed between Switch to BSC.
- It is used to perform local processing action within each PM and control the flow of message between PM and XA-Core.
- PM provide low level scanning, signaling, call processing and maintenance of functions in support of higher level processing done by the XA-Core.
- It uses for PCM30 Interfaces.

CISMI

(Cabinetized Integrated Service Module) :

Front View



Back View



CISM(Cabinetized Integrated Service Module) :

- ❖ It serves as an Operations, Administration & Maintenance (OA&M) system to store and use all circuit packs required for service support in switch maintenance testing, alarms, recorded announcements and conference calling.
- ❖ One CISM cabinet contains an Alarm Cross Connection Unit (AXU) and 3 ISM shelves.
 - The first two ISM shelves are for the primary and secondary alarms.
 - The IOM cannot be mounted on these shelves. The third ISM shelf can mount one IOM
- ❖ A second CISM cabinet must be provisioned to house the fourth ISM shelf for the second IOM, since only one IOM can be mounted per ISM shelf.

CSDM

(Cabinetized Supernode Data Manager) :

Front View



Back View



CSDM(Cabinetized Supernode Data Manager) :

- ❖ It is used billing purpose.
- ❖ This cabinet supports following softwares :
 - Operating System Services
 - SDM-internal software.
- ❖ SDM can support the following OAMP services:
 - CEM(DMS-MSC,DMS-HLR)
 - HLR-PS
 - Call intercept
 - SDM Billing Applications

MAP

(Maintenance & Administration Position) :

- Provides an interface between operator and DMS-MSC/HLR.
- It is used to perform general operation, administration and maintenance functions.



MAP

(Maintenance & Administration Position) :

- It includes a VDU and testing facilities.
- By the use of this terminals, we can recognized critical, major and minor alarms.
- Commissioning is done through this MAP terminal only.

Power Cable Routing

- CPDC (Centralised Power Distribution Cabinet)
- DCDCB (DC Distribution Box)
- SPME

CPDC

Front View



Back View



CPDC



DCDB



SPMIE



Optical Fiber Cable Routing in various cabinets

XA-Core

ENET



Optical Fiber Cable Routing in various cabinets

SPMIE



Optical Fiber Cable Routing in various cabinets

CDT2 XX

CCTS



Thank You