

Q.No#1 Explain the principles of Simple Network Management Protocol (SNMP)

Ans Simple Network Management Protocol (SNMP) is an Internet standard protocol. It is defined by IETF Internet Engineering Task Force. Devices that typically support SNMP include routers, switches, servers, workstation printers, modems, racks and more. It is used mostly in network management. SNMP is an application program that allows a manager to retrieve value of an object defined in agent and a manager to store value in an object defined in agent.

SNMP works on application layer of OSI model, traditionally UDP is used as a transport, and interaction between agent and manager performs with a encapsulated PDU (Protocol Data Unit) objects. When encryption is enabled, default TRAPs are sent

to udp port 10162 and communication is done on udp port 10161.

Q2 Name the feature of common management information services (CMIS)

Explain the services of associated with CMIS?

Ans Feature of CMIS:-

Services of a simple request/response approach

* Associated Services

* Operation Services

* Notification Services

* Scoping

* Synchronization

* Linked Replies

* Function Units.

*:- ⇒ Associated Services:-

Provided by ACSE.

Used to negotiate functional unit and protocol version

⇒ A - Associate.

→ Establishes a management associated.

⇒ A - Release.

Terminates a management associated in an orderly

manner

→ A - Abort

Terminates a management associated (in an abrupt number)

* Operation Services

M- Get

Used to retrieve the value of one or more attributes of an or more Mos Scoping / Filtering Linked Replies and Synchronization

M- Set

Used to replace the value of one or more attributes of an one or more Mos

M- Action:-

Conveys objects class/instance Action type and option specific information. Meaning dependent on Mo action specification. May be conformed or un conformed

M- create:-

Permits creation of new instances of an objects classes Permits specification of default values (of attributes explicitly and/or by reference

→ M - delete:

Permit deleting of object class instance. Scoping / Filtering linked Replace of Synchronization Continued Service only.

→ M - cancel - Cret

Permit linked Cret response to be transmitted serves only

→ Notification Services

→ M - Event - Report.

Carry object classes report / instance Event specific information May be conformed, or unconformed.

★ Scoping and Filtering:

Select object to be operated with in the managed objects containment tree. Scoping defined relative to be base managed object.

Base managed object

★ Filtering: ~

Permits objects within scope to be selected according to test criteria

★ Synchronization: - Applies only to operations on multiples

Atomic Synchronization

Best Effort Synchronization

Q.No: 3

Briefly explain the main elements of a core Network (CN).

Ans

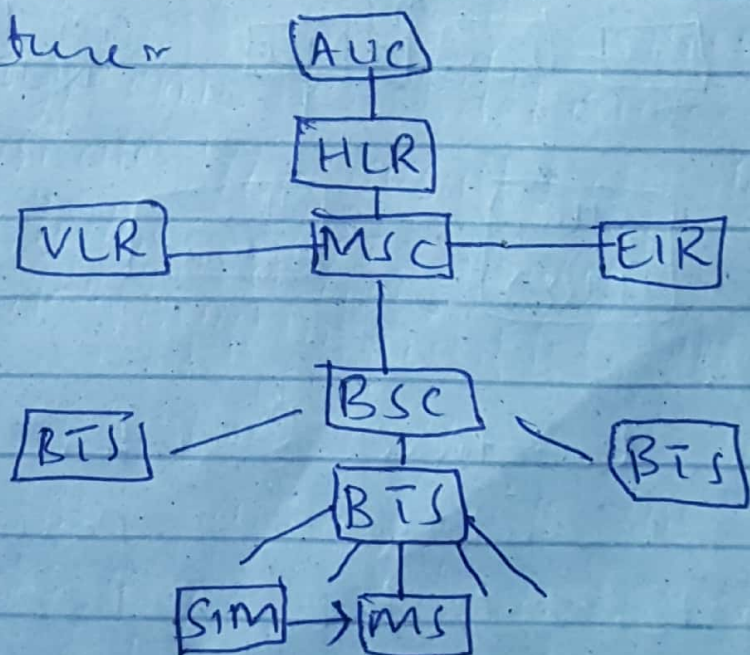
A core network is a telecommunication network's core part, which offers numerous services to the customer who are interconnected by the access network.

Elements of Core Network:-

The major elements of within core network include. Mobile Services Switches Center (MSC)

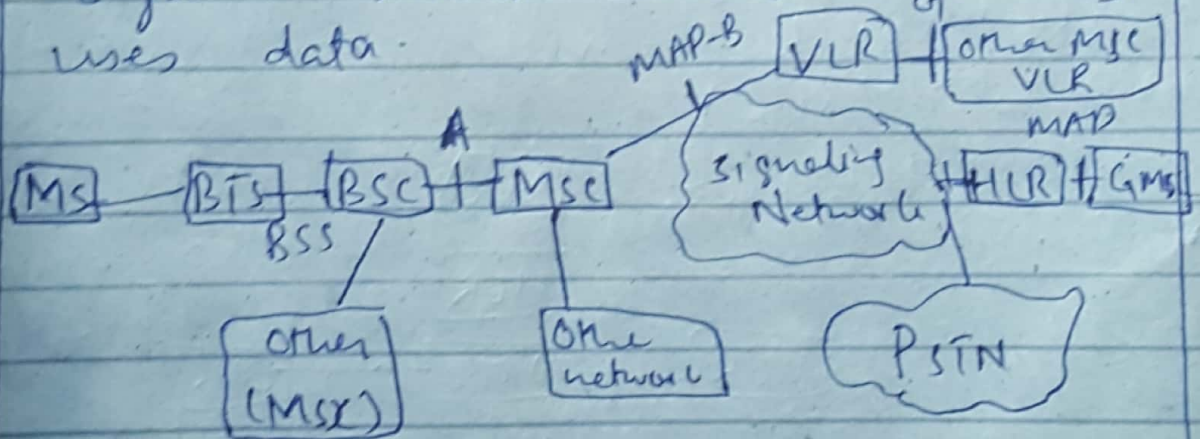
The main element within the core network area of the overall GSM network architecture is the Mobile Services Center (MSC)

Architecture



Q4:- What is Public Land Mobile Network (PLMN)? Draw the describes the network elements in PLMN)

Ans Public Land mobile Network (PLMN) is any wireless communication system intended for use by terrestrial subscribers in vehicles or on foot. A public requires special security measure because special to eavesdropping and unauthorized uses than a hard-wired system. Smart cards containing uses data.



- * Home Location Register (HLR)
HLR maintains a permanent register of the subscribers. For instances
- * Authentication Center (AC)
The authentication center

provides security information to the network so that we can verify the SIM cards.

* Equipment Identity Register (EIR)

As for AUC Equipment Identity Register is used of security response. But while the AUC provides information for verify the SIM cards authentication between the mobile equipment when this optical network is element is in uses the mobile station is required to provides the international Mobile Equipment Identify (IMEI) number. The EIR contains three lists, A mobile equipment in the white list is allowed to operate normally. If the mobile equipment is reported stole or it is otherwise, the mobile use it allowed to operate in the network it is placed in the black list.

Q Nos Explain Enterprise the WAN Architectur with the help of diagram.

Definition of WAN

The distinction is that enterprise WAN services were designed primarily to connect a given enterprise's branches offices and data centers while the internet provides connectivity to a huge range of resources with myriad owners.

The WAN is a place in the network that aggregates various types speeds and links running a disparate set of protocol together crossing metropolitan state and even country of boundaries.

The WAN aggregation role can be subdivided into the following three categories based on what is typically found in the enterprise networks.

