# Computer Networking

Access List is a record that identifies and manages traffic. After identifying the traffic, an administrator can specify various events that happen to that traffic.

Implicit deny everything else goes at the bottom of an access list.

How does ACL help protect your network from viruses?
We can use ACL to act as a packet sniffer to list packets that meet a certain requirement.
If there is a virus that sends traffic on IRC port 194, we can identify that traffic using extended ACL

If you only see an ACL that only has deny statements, you can say it denies everything.

In order to apply an ACL, it should be grouped and have a direction.
Prefer Extended Access List because you have less changes to make.
ACL permit/deny ports and IP address.

Management Agent
What is SNMP?
Simple Network Management Protocol (SNMP) is an application-layer protocol defined by the Internet Architecture Board (IAB) in RFC1157 for exchanging management information between network devices.
It is a part of Transmission Control Port / Internet Protocol (TCP/IP) protocol suite.

Management Agent has two types :-

1) Client
2) Server - Tell Network Admins about what is going on.

WMI - Management Agent developed by Microsoft is still used today

Management Agent should not given read/write access and at most read access. There are many incidents which indicate management agent can change configs for routers and devices.

Management Information Database or Management Information Base

Organizations should use SNMPv3 - (User-Based Security)

Windows Management Instrumentation, an API in the Windows O.S. that enables devices and systems in a network.

As long as a device has an IP and you are able to ping them, you can manage them.