1. Discuss the role of a computer architect.

**“Design and develop solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions”.**

<http://job-descriptions.careerplanner.com/Computer-Systems-Engineer-Architect.cfm>

1. Discuss LAN, WAN, and Internet. Provide examples from your own experience.

“A **local area network** (**LAN**) is a [computer network](https://en.wikipedia.org/wiki/Computer_network) that interconnects computers within a limited area such as a residence, school, laboratory, or office building. A local area network is contrasted in principle to a [wide area network](https://en.wikipedia.org/wiki/Wide_area_network) (WAN), which covers a larger geographic distance and may involve [leased telecommunication circuits](https://en.wikipedia.org/wiki/Leased_line), while the media for LANs are locally managed.

[Ethernet](https://en.wikipedia.org/wiki/Ethernet) over [twisted pair](https://en.wikipedia.org/wiki/Twisted_pair) cabling and [Wi-Fi](https://en.wikipedia.org/wiki/Wi-Fi) are the two most common transmission technologies in use for local area networks. Historical technologies include [ARCNET](https://en.wikipedia.org/wiki/ARCNET), [Token Ring](https://en.wikipedia.org/wiki/Token_Ring), and [AppleTalk](https://en.wikipedia.org/wiki/AppleTalk)”.

<https://en.wikipedia.org/wiki/Local_area_network>

The first time I was introduced to, the Internet, Local Area Networks, and Wide Area Networks, was when I was serving in USAF(E) at the 48th Fighter Wing’s Comm Squad. At the time, I heard of this thing called a firewall and it seemed to be pretty important to everybody.

I didn’t really understand what was so important about protecting an email I was writing to a friend or colleague. It all seemed pretty innocent, to me. Of course, I was only 19 years old at the time. I certainly wasn’t involved in the leasing of telecommunication circuits, but I did manage to keep the Air Traffic Control Tower powered up and fully operational – with respect to communications.