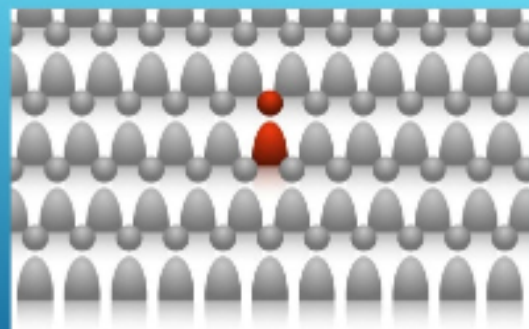# PARASITIC COMPUTING

BY SUSHMITHA..

What is *Parasitic Computing*?

PARASITIC COMPUTING refers to a technique of using the resources of one computer by another computer without the knowledge of the former.It is normally not considered as hacking, or theft of computer services,because the program does not defeat any locks or safeguards on the other equipment.This technology exploits open internet protocol.

DID YOU KNOW ?

If you're one in a million in China...

...there are 1,300 people just like you

DETAILS OF PARASITIC COMPUTING

*As the name suggests the machine that requires the service of others doesnot need to be authorised by the latter.

*Any machine which is connected to the internet,has to carry out minimum processing of any packet they receive without any authorization.

*This process is exploited by parasitic computing in order to make use of computing powers of remote machines and web servers all round the globe.So one cannot stop their machines from being utilized in this manner..

HOW TO TRICK OTHER PEOPLE COMPUTER TO SOLVE A MATHS PROBLEM?
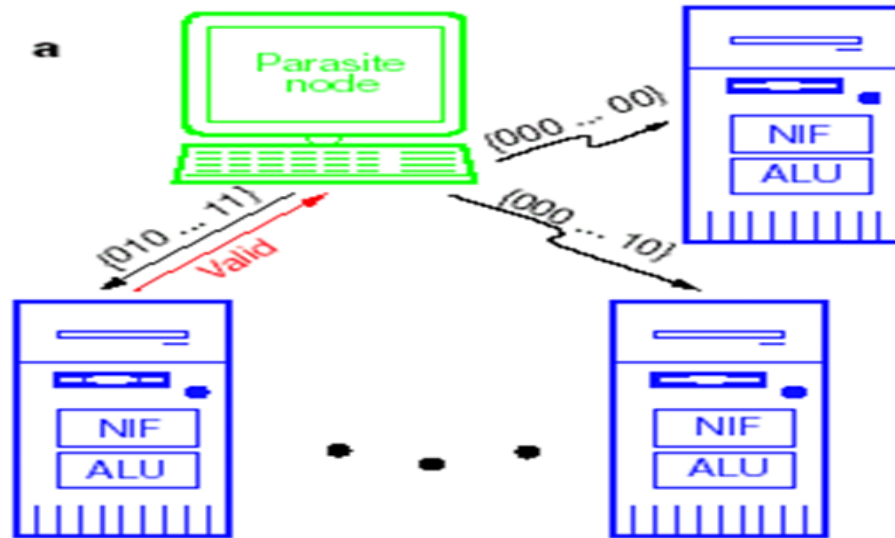
IMPLEMENTATION USING TCP

Sending a message over an internet is very sophisticated process as the message is processed across many layers from HTTP then to TCP then to IP layer,going through data link layer finally to the physical layer and in the same manner the message is constructed back to the same destination

To implement this concept of parasitic computing we can choose to exploit processing theoretically any of these layers but below TCP layer it is not beneficial.
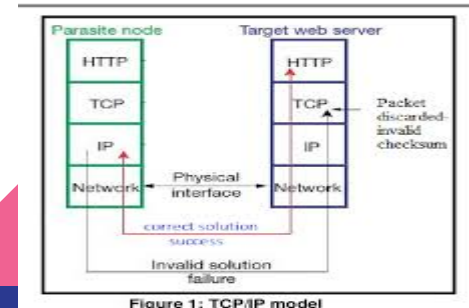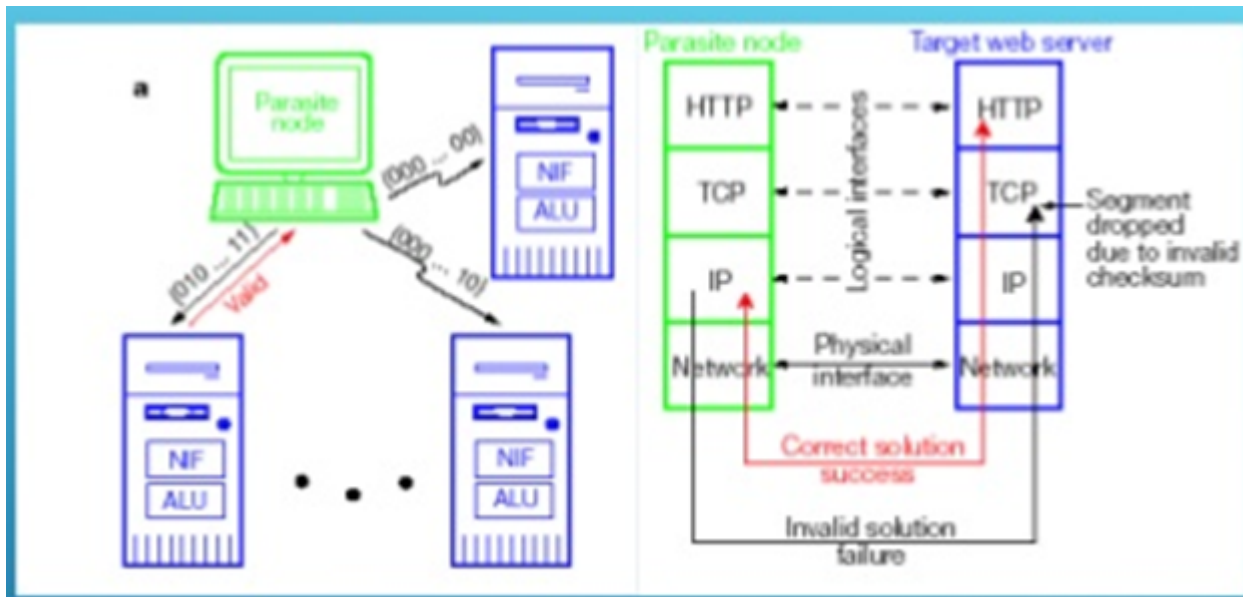

Figure 1: TCP/IP model

TCP CHECKSUM

Result of parasitic computing:

1.False positive{error message}   2.False negative{drops message}

TCP CHECKSUM

*The checksum field is the 16 bit one's complement of the one's complement sum of all 16-bit words in the header and text.

*if a segment contains an odd number of header and text octets to be check summed,the last octet is padded on the right with zeros to form a 16-bit word for checksome purposes.

*The pad is not transmitted as part of the segment.While computing the checksum,the checksum field itself is replaced with zeros.

ADVANTAGES

*Server side parasitic computation determines the fake clients.(i.e.- clients with similar IP address requesting the server)

*At schools,colleges and workplaces admin monitoring is achieved.

*Computational capacity of Remote computer is analysed.

DISADVANTAGES

*Trust Relationship is breaked.

*Denial of service attack without breaking security law.

*Remote target computer's ability to communicate with rest of the internet is eliminated...

CONCLUSION

*TCP layer can be exploited and also cannot guarantee correctness of result due to False-positive and False-negative.

*At present,parasitic computing may be slow technique to solve,but it could be used to load heavy request on server and get the solution for its problem...

THANK YOU...