

Distinguish, differentiate, compare and explain what is the Difference between Ratable and Non-ratable Protocols. Comparison and Differences.

The application layer protocols we use to actually do things on our networks or the internet use protocols which sit on top of IP (usually TCP or UDP). Because IP can send packets between subnets, you might assume that all Application layer protocols that use IP under the hood would also be able to work across different subnets, but youâd be mistaken. Many, even most, application layer protocols can indeed cross routers to move between subnets, but a subset of them canât. Protocols that rely on IP broadcast packets are confined to the reach of those packets, i.e., to the local subnet. Because these protocols canât cross routers, they are known as un-ratable protocols.

Difference between Ratable and Non-ratable Protocols

Ratable protocols work with a router and are used to build large networks. Non-Ratable protocols are designed to work on small, local networks and cannot be used with a router.

The un-ratable protocols are mostly designed around zero-config sharing of some sort. They are likely to encounter on your home network. The idea is that computers that share a subnet can easily share data or some other resource. The user does not need to do much if any, configuration. For example, the most common such protocol is mDNS or Bonjour. Apple is very fond of unratable protocols for things like AirVideo, iTunes sharing and printer sharing.

The fact that these protocols are confined within the local subnet is actually a security feature. Something which canât possibly be accessed remotely needs a lot less security than something which could be accessed by anyone on the internet. If anyone anywhere on the planet could send their screen to your Apple TV youâd definitely need to set a password on it, and a long one at that, but because AirPlay is un-ratable, you donât need to bother, making the experience much more pleasant.