Difference Between ARP and RARP

Address resolution protocol (ARP) and Reverse Address Resolution Protocol (RARP) are both LAN protocols, and they have certain similarities and differences. Let us check the difference between ARP and RARP mentioned in the table below.

ARP vs RARP

Difference Between ARP and RARP	
ARP	**RARP**
The broadcast MAC address is utilized in ARP.	Broadcast IP addresses are used under RARP.
The local host manages or maintains the ARP table in ARP.	When in RARP, the RARP server manages or maintains the RARP table.
To find out the MAC addresses of other hosts and routers in their networks, hosts and routers employ the ARP protocol.	RARP is utilized by customers with limited resources.
The ARP table in ARP updates itself using the ARP reply.	When using RARP, the RARP table configures IP addresses using the RARP reply.
ARP converts a node's IP address to a MAC address.	RARP translates an IP address from a 48-bit MAC address.
ARP is used by a host or router to determine the physical address of another host or router in a LAN.	RARP is utilized by thin clients with restricted resources.

ARP and RARP

Both ARP and RARP are network layer protocols. Every time a host has to transmit an IP datagram to another host, the sender needs the recipient's logical and physical addresses. Two protocols, ARP and RARP are offered by dynamic mapping. Below we have provided the difference between ARP and RARP, along with a basic introduction to them.

What is ARP?

ARP (Address Resolution Protocol) is a protocol used at the network layer. Each host in the network is aware of another host's logical address since ARP is a dynamic mapping mechanism. Let's say that a host needs to send an IP datagram to another host.

The IP datagram, however, needs to be encased in a frame in order to travel through the physical network between the sender and the recipient. In ARP, When a packet travels across a physical network, the sender needs the recipient's physical address to be able to identify whose receiver it belongs to.

What is RARP?

Another network layer protocol is RARP (Reverse Address Resolution Protocol). TCP/IP protocol, known as RARP, enables any host to get its IP address from the server. The ARP protocol served as the basis for RARP, which is simply ARP in reverse.

RARP is now out of date for two reasons. The RARP must be present at every network because it utilizes the data-link layer's broadcast service. Second, RARP just offers IP addresses, but modern computers also require other data.

Key Difference Between ARP and RARP

The key difference between ARP and RARP is given below.

- The ARP protocol finds the receiver's physical address. The RARP protocol, on the other hand, gets the protocol's logical (IP) address.
- ARP converts a receiver's 48-bit physical address from a 32-bit logical (IPv4) address. However, RARP converts the receiver's 32-bit logical address from its 48-bit physical address.