ARP and RARP both map the address from one space to another. In this respect they are similar. However, their implementation are fundamentally different. In what major way do they differ?

Senders must have a MAC address as well as a destination IP address in order to transmit data (Bryant, 2014). If the MAC address is unknown at the outset, the sender transmits a broadcast ARP request to the destination address. The device which has a matching Layer Three address will send back an ARP reply, indicating for the sender which device to transmit data to.

RARP is fundamentally different in implementation from ARP. Where ARP broadcasts a request for a MAC address, RARP gets a devices IP address when it already knows its own MAC address (Bryant, 2014). The RARP request is responded to by a RARP server, which tells the device what its own MAC address is.

In short, ARP converts an IP address to a physical ethernet address whereas RARP converts the physical address to an IP address. Through the use of both of these procedures, an ARP table can be both used and maintained dynamically by hosts on a network (“ARP vs RARP”, 2012). While ARP continues to be implemented, RARP has become obsolete has been replaced by DHCP and BOOTP protocols.

References

Bryant, C. (2014). “The definitive guide to ARP, IARP, RARP, and Proxy ARP.” Retrieved from <http://www.mcmcse.com/cisco/guides/arp.shtml>

“ARP vs RARP” (2012). Retrieved from <http://www.rfwireless-world.com/Terminology/ARP-vs-RARP.html>