Dynamic Protocols

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This past week I've been learning more about dynamic protocols. There are 2 main types of dynamic protocols: Interior Gateway Protocols and Exterior Gateway protocols. Interior Gateway Protocols are used inside a network making them Intra-AS. Exterior Gateway protocols are used between multiple networks making them Inter-AS. Interior Gateway Protocols can be distance vector based networks that determine routes based on different metrics and choose the most efficient route. Interior Gateway protocols can also be Link State that makes them aware of the whole network topology and then chooses the most effective route. Distance Vector protocols include RIP and IGRP; more modern versions of these protocols are RIPv2 and EIGRP. Some Link-State protocols include OSPF and IS-IS. Exterior Gateway Protocols can be path-vector protocols like BGP. Overall Dynamic Routing Protocols have many advantages, including the fact that they can be used in topologies with multiple routers, are independent regardless of network size, and can adapt depending on changes in the network. However, even though Dynamic Routing protocols provide all these benefits there are some downsides, including the increased complexity of implementation, increased CPU and RAM requirements, and the increased configuration setting can cause it to be less secure. Overall, the use of Dynamic Routing can be especially helpful with large changing networks and can maximize efficiency.