

Tuning EIGRP

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This past week I learned more about tuning and troubleshooting EIGRP. One of the things used with EIGRP is route summarization. Route Summarization is the ability that allows routers to group networks together and advertises them as a single summarized route, making EIGRP more efficient but can also cause a loss of explicit data in the process. It decreases the number of entries when making routing updates, lowers the number of entries in local routing tables, reduces the bandwidth utilization for routing updates, and has faster routing table lookups. It works by recognizing subnets within a network as single class networks (Class A, Class B, Class C) and creates only one entry in the routing table for the summary route. All the updates sent out through EIGRP will include the subnet information. From Cisco IOS 15.01(1) and 12.2(33) automatic route summarization was disabled. Summarized updates are sent only when there is an interface with a different major classful network. This all is only effective on IPv4. On IPv6 there is no classful addressing; therefore, there is not a need for automatic summarization while using EIGRP for IPv6. Overall, routing summarization can be useful but has its own drawbacks, and with development in routing hardware, the need for automatic summarization may slowly diminish.