

Cisco Express Forwarding

CEF May 9, 1997

What is it?

A Cisco proprietary method of mirroring the routing tables on the router system processor to the interface processors (adapters), where by packets can be processed at the interface level without having to go to the route processor tables to make the packet forwarding decision.

Observations from a marketing perspective

- I. CEF is another Cisco attempt to keep the customers hooked on to large router based architecture as opposed to a switching infrastructure with scaleable routing functionality.
- II. It is again a Cisco proprietary marketecture, on top of their proprietary Netflow switching (that they announced in 1996).
- III. This is another extension of Cisco's lock-in strategy similar to Cisco's IGRP and will most likely be costly to Customers in the long run.
- IV. CEF will require the use of a bigger processor and more memory to perform conventional routing faster without addressing the current deficiencies of router networks like lack of QOS, support for video applications or integration of voice, video and data.
- V. CEF, currently, supports IP only.
- VI. This is available only on Cisco 7500 first and Cisco 7200 later.
- VII. With edge routers running Netflow switching, express forwarding and tag switching, trouble shooting, problems in the edge routers, will be the network manager's nightmare.
- VIII. With extensive mirroring of the routing tables, scaleability of CEF in a large network will be a major concern.

IBM Solution:

IBM Switched Virtual Networking (SVN) using MSS allows the Customer to implement a cost effective solution without the limitations of Cisco's router based solutions. MSS is scaleable proven in the field, acknowledged by the industry as best of breed. Network design with MSS enables our Customers to implement high speed switching solutions supporting new emerging applications like multi-media etc. With the intelligence of MSS, Customers will be able to rollout simple flat network topologies, resulting in network simplicity and operational cost savings. IBM MSS is supports open industry standards, thereby, enabling implementation of multi-vendor

networks. Cisco's white paper on this subject is available on Cisco's home page that can be accessed from URL :www.cisco.com.

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