#### CARP:

common address redundancy protocol

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# CARP goals

#### Contacts

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I'm just a messenger, don't shoot me :-)

Goal: to have a completely patent-free protocol

we believe VRRP does not infringe any of HSRP claims - we made very specific and detailed analysis

CARP mechanism diverges from HSRP patent even further (NOTE: we are not lawyers, so you should do your own homework)

we'd like the IETF and Cisco to cooperate with us.

Cisco to give us formal assurances that the HSRP patent does not apply

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### **CARP Technical Summary**

Has some features in common with VRRP Variable advertisement interval, most frequent advertiser becomes master Advertisement protected by a SHA1 HMAC Addresses not in Advertisement, but in HMAC Supports layer 2 load balancing (ARP based) IPv4 and IPv6 support Still being worked on: replay protection and other things.

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## Community reaction

CARP was imported to OpenBSD on Oct 17

after OpenBSD implemented CARP, in less than 1 month, FreeBSD and NetBSD are integrating it

we planned to cleanup CARP on KAME tree (for portability), but FreeBSD/NetBSD action was quicker!

no \*BSD had VRRP implementation due to CISCO patent claim, 5+ years after the VRRP RFC was published

KAME had VRRP6 implementation but was removed due to CISCO patent claim

speed of adoption = evidence of how much people want something that is \*really\* free