

Re: LISP for web

Source: <http://coding.derkeiler.com/Archive/Lisp/comp.lang.lisp/2005-06/msg01111.html>

- *From:* Frank Goenninger DG1SBG <frank_goenninger@xxxxxxxxxxx>
 - *Date:* Tue, 14 Jun 2005 21:03:49 +0200
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"Marco Baringer" <mb@xxxxxxx> writes:

[Snippedy-Snip]

>>

>> Need more input? Ask!

>

> i'm asking :)

>

So you dare you ask, hm ? ;-) Here you go:

Any large scale web app that is business critical is based on a few fundamental components.

1. All components are redundant

-> So you need at least two routers, two switches, two machines ...
And also two UPS boxes, two power supplies in each devices...

2. Load balancing is done based on content and on network traffic
Cisco and Baynetworks are examples for producers of stuff like LoadBalancer that direct traffic based on content and network bandwidth requirements to parts of the network infrastructure and to the application servers

3. High availability is achieved on application level either by having multiple instances of a given app on several machines (which of course are running in buildings that are at least 2 km apart – according to NATO regulations) and/or by putting the apps in packages that are switchable between machines in case of a hardware failure. Commercial solutions are IBM'S HACMP or HP's MC/ServiceGuard. These solutions facilitate the switching based on monitoring critical resources and also by updating each node in a cluster about health status of each node. If a node experiences problems all other nodes are either notified actively or passively (when that node is no more reachable). Then the packages (a DB, a CL image proces, the Web server, whatever) gets shutdown on the problem node and started on another, pre-defined failover sequence node. In doing so the IP address of that app (NOT of the interface, in a HA cluster

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each application is assigned an IP address) is taken onto the new node's network interface. The network infrastructure is notified about the new MAC address to IP address mapping using the ARP protocol and other mechanisms. Therefore the load balancer, the switch and all other devices "know" that the app is now running on a new node. Or, more precisely, they don't care because the switches next to the nodes take care of this using IP protocol facilities.

Even Amazon and Ebay are running based on the architecture outlined above.

Hey, normally I do charge 1250 EUR for this type of consulting ;-)

Want more? Ask!

Frank

- *Follow-Ups:*

- ◆ **Re: LISP for web**
◇ *From:* Tim X

- *References:*

- ◆ **LISP for web**
◇ *From:* Damir
- ◆ **Re: LISP for web**
◇ *From:* drewc
- ◆ **Re: LISP for web**
◇ *From:* R. Mattes
- ◆ **Re: LISP for web**
◇ *From:* Marco Baringer
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◇ *From:* Peter Scott
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◇ *From:* Brad Anderson
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