eMail LIST SERVER

DOCUMENTATION

September 1, 2004

Cowtown Vettes

eMail List Server User Survival Guide

Initiative

As our club continues to grow, the ability for a member to send emails to various groups of members or to the entire membership is becoming more and more difficult. This is primarily due to the difficulty of members needing to maintain their own email lists for this need.

This continues to get even more complicated as members' email addresses change when they change email service providers or even jobs. Another issue is that some Corporations limit incoming emails, checking to see how many people are on the distribution to help fight the email spam issue – unless everyone knows who these members are so they can be individually emailed, these members end up missing emails.

There is also a need to be able to send an email to a list of members when you're not at your system that has "your maintained CTV lists" on it, when you're maybe at work or out of town.

Solutions

As this topic has been discussed several times over the past year, investigation into the available List Server Services was performed. The outcome of that investigation led to Digitex (CTV's web hosting provider) not offering such a service and third party companies being extremely expensive for the list services. These third party Internet services were quoting rates of $35 a month for up to 6 email lists with a limit of 20 emails to each list per month – if you wanted more lists or more email volume, the price went up, easily reaching $75 to $100 a month.

While this need is important and it has caused issues within the club, the feeling was that this is something that CTV shouldn't be spending club dollars for. Having some experience with List Servers setup and maintenance along with having some retired hardware, Doug has provided this List Server functionality for Cowtown's use at zero cost.

System Overview

Our email and mailing list server is running on loaned hardware and software, physically residing in the McMahan residence. Firewall ports have been opened up for the Internet to access this Cowtown List Server located on their internal network.

This email and mailing list server is running the Sun Java Desktop System (JDS). In a nutshell, this is a Linux operating system (SuSE) with Sun Microsystem's graphical desktop environment. Since this is a Unix system, much of the periodic maintenance is handled by the system itself, though proper shutdown is a highly recommended practice.

The List Server's functional software is described further down in this document.

Expected Behavior – Regular eMail Services

This section deals with the way in which Members will send/receive email, NOT the way that list email will work. Regular users/Members are the list users, however the list owner is the system user "ctv". This is necessary since the list server requires lists to be "owned" by a local system account.

This server is using qmail (http://www.qmail.org) as the email transport. It was built off the netqmail-1.05 source tree. To read all about qmail you can surf the site and etc., but suffice it to say that qmail is a very fast transport and is not susceptible to many of the email "hacks" that are common on the internet today. It does **NOT** support relaying by default, will **NOT** accept email for root on the local file system, and has a variety of ancillary applications and plug-ins which further enhance what it does.

Expected Behavior - Mailing List

Global Aspects

All Cowtown Vette mailing lists will be of the format:

```
ctv-[listname]@ctv.gotdns.org
```

[listname] is the actual name of the list containing one or more email addresses.

Current Lists on the Server

The current email lists are below. On the left is the name of the list, on the right is the email address that will be used for the list.

List Name	Internet Address for List	Type	Purpose
All	ctv-all@ctv.gotdns.org	M	All CTV Members
Board	ctv-board@ctv.gotdns.org	C	Current CTV Officers & Board Members
Car Show	ctv-cs@ctv.gotdns.org	M	All CTV Car Show Committee Members
Committee	ctv-committee@ctv.gotdns.org	C	All CTV Committee Chairs
Guests	ctv-guest@ctv.gotdns.org	M	All CTV Guests (until they join CTV)
NCCC Racing	ctv-ncccracing@ctv.gotdns.org	M	NCCC Flyers / Points
Progressive Dinner	ctv-progdinner@ctv.gotdns.org	M	Progressive Dinner Committee Members
TMS 2004 Chairs	ctv-tms04c@ctv.gotdns.org	M	TMS 2004 Coordinators, Event and Worker Chairpersons

Since this is CTV's List Server, we can create as many email Lists as we need, quickly. When the Committee / function ceases to exist (i.e. 30th Anniversary Committee) then that list can be removed from the List Server. Keep this in mind for all your needs / efforts, even if they are short term activities (i.e. Progressive Dinner Committee shown above) which enables consistency for all communications during its lifespan.

When you send an email to a list address, it will be delivered to each subscribed email address. The email header itself will display the actual list address as the "To" on the email header – and will not display the list members, as shown below:

Note: This is a security feature intended to block spammers from obtaining list members' individual email addresses.

Sending eMail to a Cowtown List

To send email to one or more of the lists, you can use one or more of the email lists to reach the intended audience.

To do this, simply use the list name(s) in any of the email address fields (i.e. To:, Cc: or Bcc:). Each member of the list will receive the email at their email address which was used in the list subscription, but the address line will only show the list address. This enables one email to be sent to a large group of members without worry about who can or can't receive mass mailings at their company email.
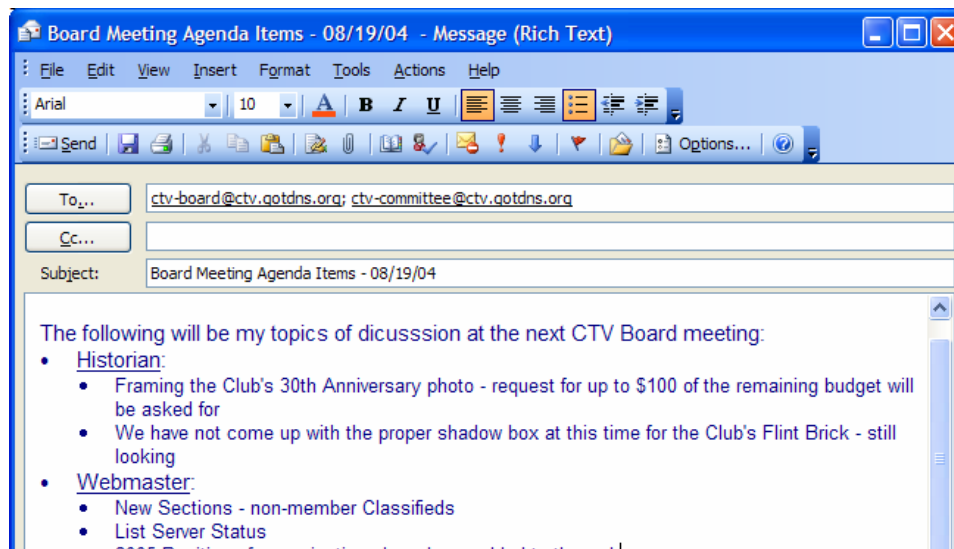
Single List Use Example:

This email will be sent to all *Members* of Cowtown Vettes

Multiple List Use Example:

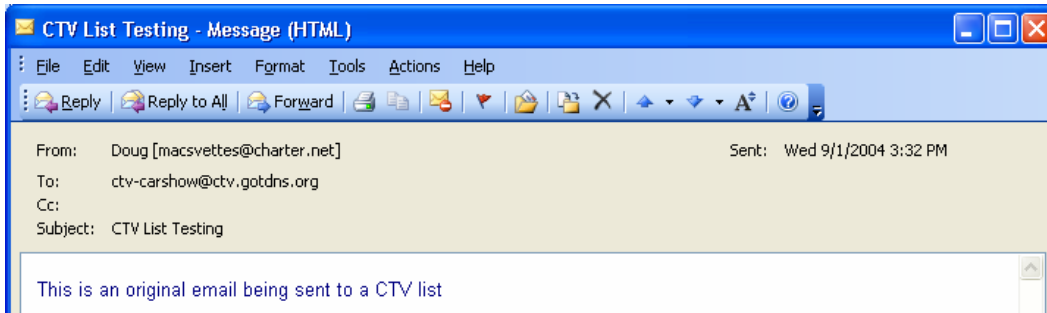This email will ONLY be sent to all *Officers, Board Members* and *Committee Chairs* for Cowtown Vettes
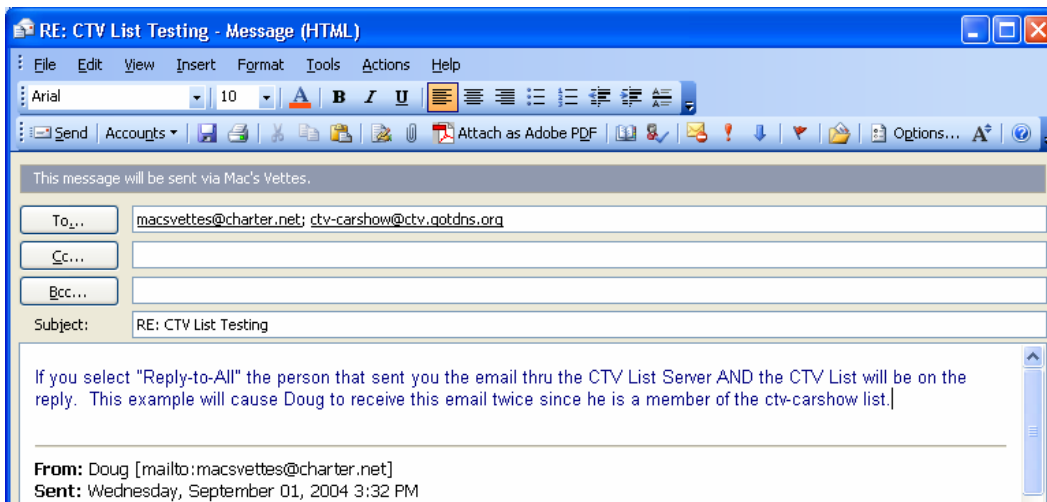
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### *Replying to an eMail You Receive from a Cowtown List*

When you receive an email, sent to a Cowtown List, the sender of the email will be listed in the "From:" field, as it would with any standard email.

When you "Reply" or "Reply to all" you will notice that both are listed in the "To:" field. This is fine but when the person that is listed separate in the "To:" field is also a member of the list, that person will receive two emails from you.

It is recommended that you remove their email address and just reply/send back to the same CTV List they sent to. If you forget, nothing lost – they will just get two emails.
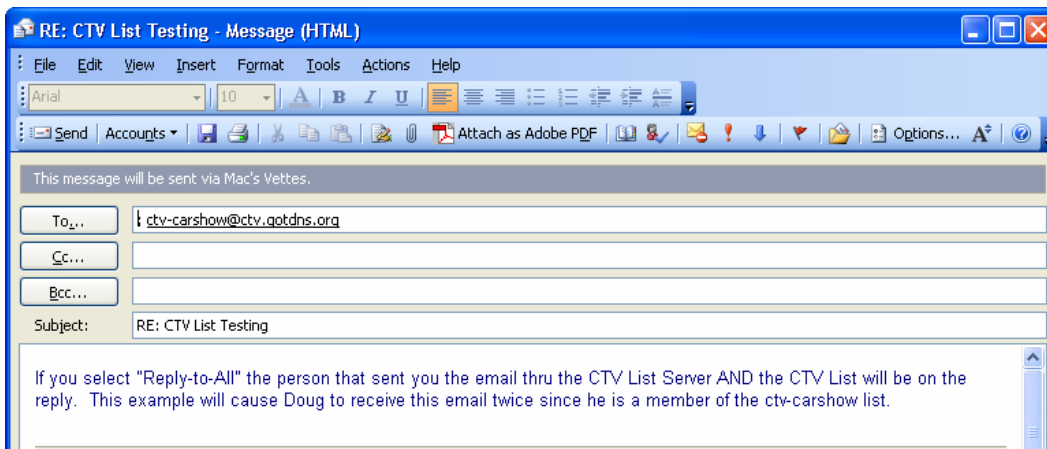

Technical Process Flow

This section will technically explain the List Server process; refer to the full size diagram in the Appendix while referring to the numbers in the process flow.

When a Member composes ① and sends an email to a CTV List, the email first goes to the Member's ② Internet Service Provider (ISP), like any other email they send. Their ISP email system looks up the ctv.gotdns.org DNS root name for resolution, which gets resolved to the Dynamic DNS site ③, where the free DNS name was obtained. Dynamic DNS knows that the Internet Protocol (IP) address registered belongs to the ISP charter.net ④. Charter then routes the request thru the cable modem and firewall ❹ at the McMahan home, where it is received at the CTV List Server.

⑤ The CTV List Server looks up the email List that the Member's email was sent to, enumerating it for all the members of that List. The CTV List Server then sends to the appropriate ISP email servers ⑥ (using DNS) for each member on the list. When the recipient members login to their email application, they will then receive the email from their ISP to their home or work system ⑦.

<u>Note</u>: if the email a member is using is a "work" email account, then the email references to ISP would be that Member's Work eMail system.

eMail List Server Process Flow
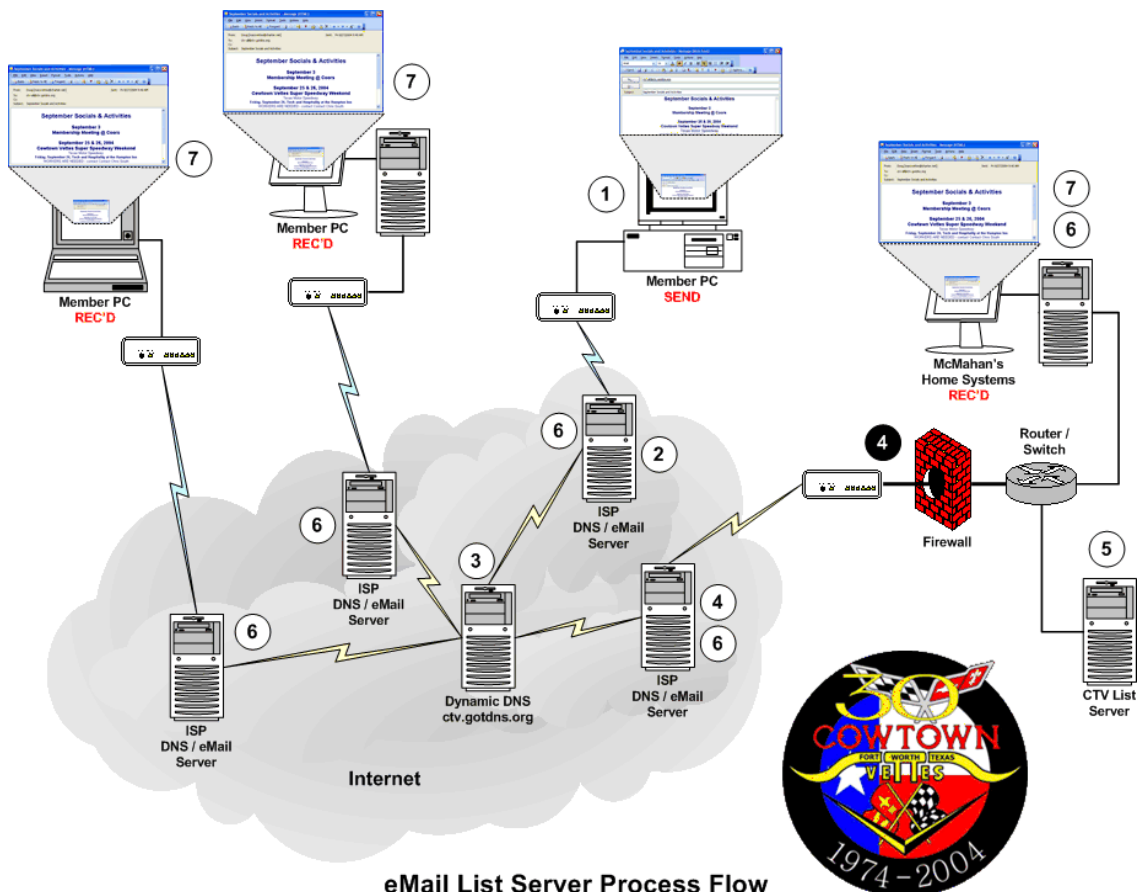
List Server – List Administration

There are several aspects of the List Server that do need administration, beyond the hardware itself. The primary administrative role for any Mailing List maintenance will be by the Webmaster.

Since we do want control of who is on the lists, we have opted to only have "closed" (C) and "moderated" (M) lists, no "open" lists. Closed lists must have email addresses added and removed by the Webmaster. A member can subscribe to any moderated list via email; however, they will not actually be placed on that list until the List Moderator confirms and approves their addition to the list. This prohibits non-CTV Members from subscribing to CTV lists along with Members adding themselves to lists they shouldn't be on (i.e. Board).

### *Maintaining Mailing Lists*

This section deals with the actual creation and some of the maintenance functions of the mailing list software. First, all of the "closed" mailing lists are administered by logging in as the mailing list owner. This core maintenance will be performed by the Webmaster directly at the List Server.

Create Mailing List

All Mailing Lists will be created by the Webmaster, directly at the List Server. When a list is created, the Webmaster will notify the CTV Board of that list creation, for informational purposes.
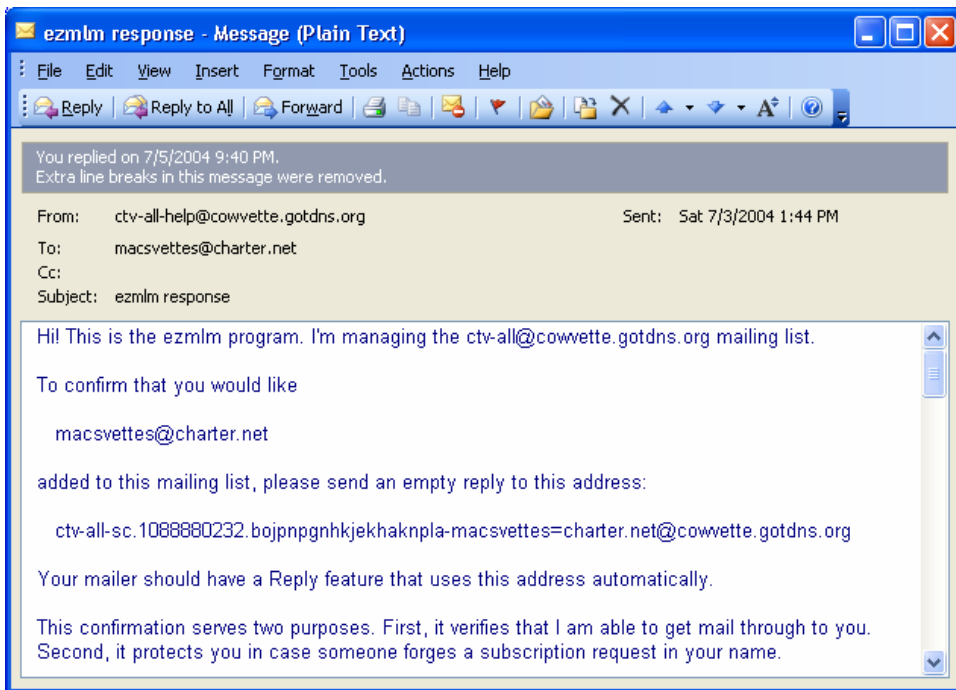
Add User to a Mailing List

The Webmaster can manually add a Member to an email list however, we will be asking for Members to add themselves to eliminate problems with handwritten email addresses. Members are only able to subscribe (via email) to moderated lists (M), not closed (C) lists. The process is simple, since the Member simply sends a blank email to the List Server from their email account as shown below:
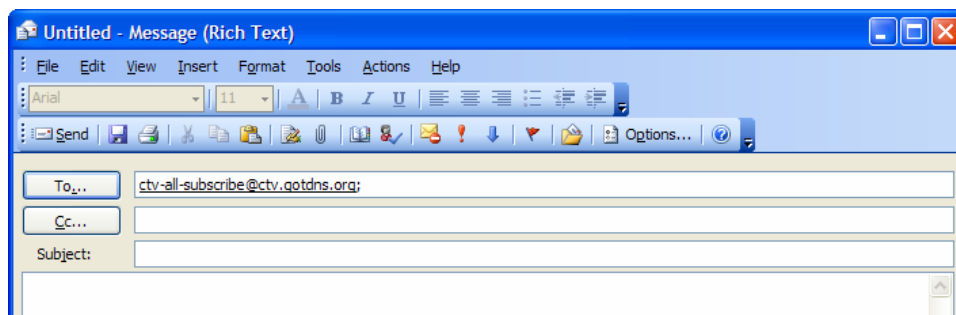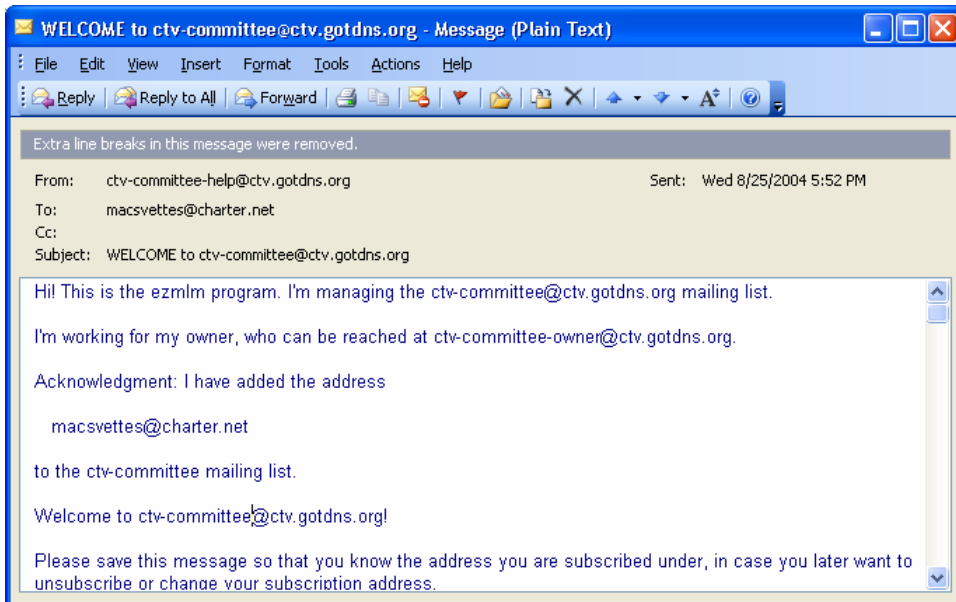

The List Server will respond to the Member with an email, confirming that they did indeed ask to be added to the list.

At that point, the List Moderator will approve the addition of the Member to that list. The Member will then receive a confirmation email from the List Server stating that they have been added to the List.

Remove User from a Mailing List

Although the Webmaster can manually remove a Member from any email list when requested, we will be asking Members to remove themselves to eliminate problems with handwritten email addresses. Members can unsubscribe (via email) to any list they are on, without moderation intervention.

Note: This does open it up where a member can remove themselves from all CTV lists if they so desire, without notifying anyone.
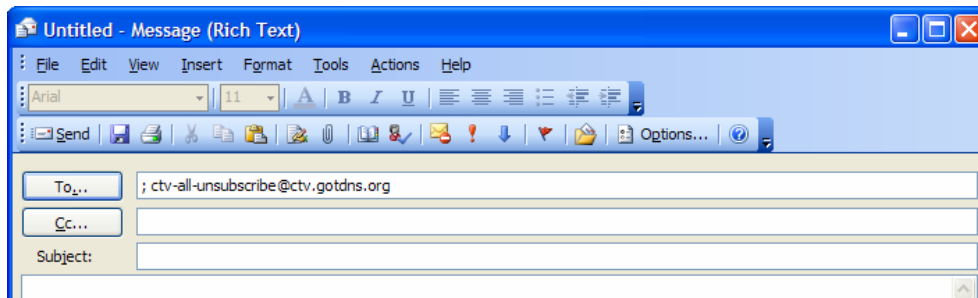
Find out who is subscribed to a Mailing List

For security reasons and Internet Hacker reasons, we have not implemented a method for you to look to see who is on the list. Likewise, you cannot expand the list when you type it on the "To:" field of your email. If you need to know who is on that particular CTV list, email the Webmaster (Doug) and he will get back with you on it.

Dynamic DNS

The Internet DNS name of the list server is: ctv.gotdns.org. This is a free DNS service which assigns an Internet DNS name to our Internet connection, making it available to the Internet once Doug's home network configuration was modified to allow access thru the firewall. If for some reason this Dynamic DNS re-registration doesn't take place if Doug's network IP address changes (from Charter), Members sending to the email list will receive a bounce. While this is easy to manually correct, it isn't a desired scenario – automation is the key here.

The main thing to understand with Dynamic DNS is that the IP must be re-registered or updated to the service approximately once a month. You will get reminder emails should you not re-register the IP address, until the time period runs out – in which case you might lose the DNS name.
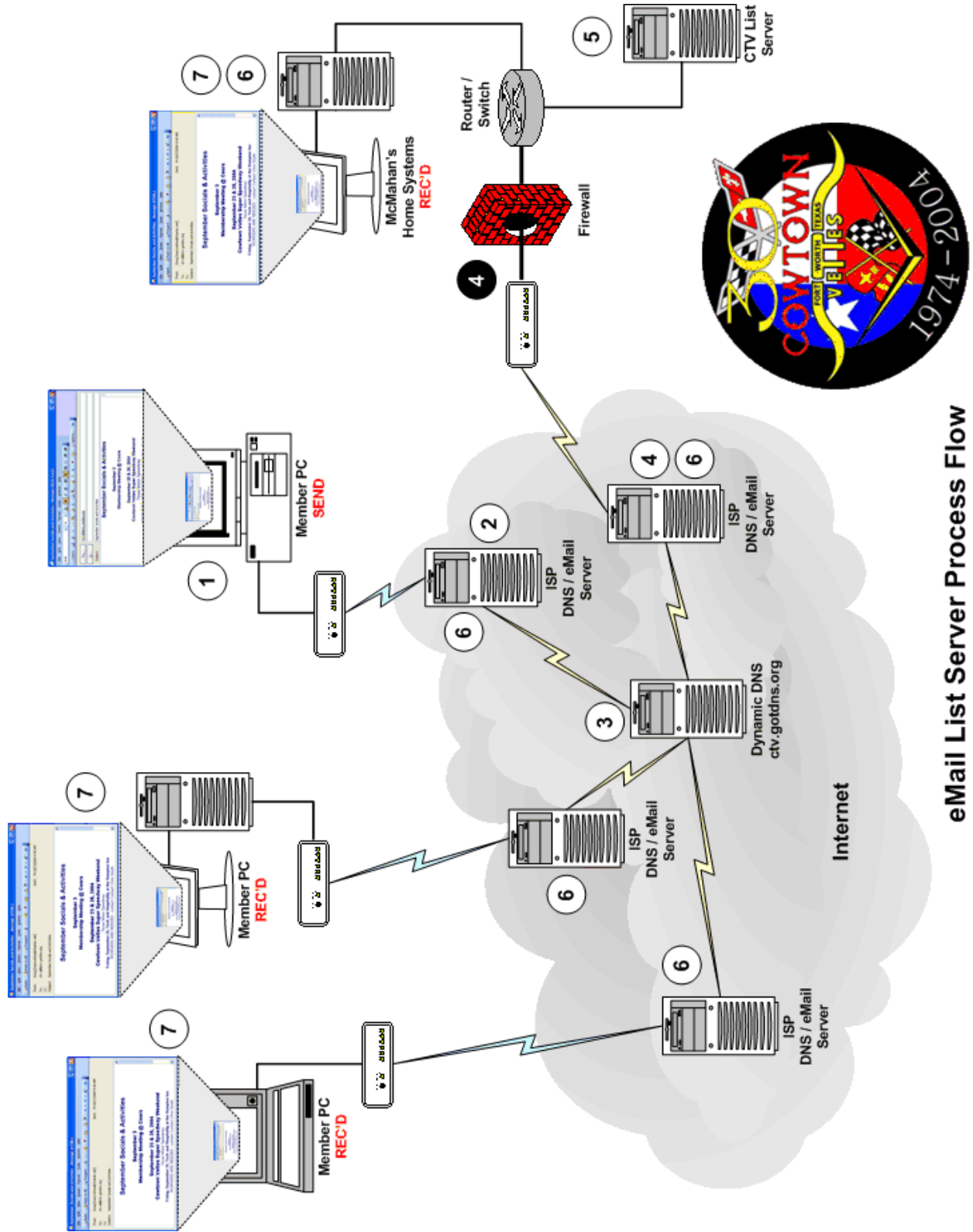
Client Updates

The client updates are done through software - *DirectUpdate* is the program we use. It is no cost, and it is loaded on one of Doug's Home Systems, behind the same router / firewall that the computers sit behind.

DirectUpdate will automatically re-register the currently assigned IP address on a periodic basis with Dynamic DNS, so that the lists continue to be resolved. It polls automatically and once configured should never have to be touched. It is a good practice to re-run the software if your machine has been turned off for an extended period of time – just to ensure that the right IP address is registered.

Appendix A

eMail List Server Process Flow