NIMS Frequently Asked Questions

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A. CURRENT PATCHLEVELS (AS OF 19. DEC. 2001)

- NIMS 3.0 Version 3.02b, released Dec.13TH (Full update)
- NIMS 3.0 Version 3.02c, released Dec.14TH (3.0.2b imslist update)
- NIMS 2.x: Version 2.65, release Oct. 23rd 2001

B. GENERAL

1. What information should I provide when posting about a problem to NIMSTALK?
You should provide:
- What version of NIMS you are running
- What platform you are running on
- How is your system setup; single server, multiple servers, what agents are running and where
- If there is an error message, give the full context and when the error occurs
- Can the problem be reproduced?
- If you have a setup or configuration question explain what you are trying to do

2. How do I buy NIMS if I do not have an agreement with Novell?
We're still working on the issue.

3. Where/how should I report a translation error in the templates?
Send translation errors and corrections to dlatimer@myrealbox.com

4. How do I tell if I am running a valid license?
If you don't have a footer added to every message going through the system you're licensed. Your license information will also be displayed when msgsrv is loaded.

5. How do I know what version of NIMS I am running?
On NetWare you can use the "mail version" command at the console prompt that will show the version of each agent. For Linux and Solaris, you can check the /usr/nims/dbf/versions file.

6. Are there performance numbers for NIMS that have been published?
We are currently using Specmail (see www.spec.org) to test with NIMS and hope to be publishing these numbers in January. Update: Last night (19th Dec. 2001) we passed a 100,000 user test on a single server (see www.spec.org under SPECmail for comparisons)

7. How do I search the archives of the NIMSTALK or any list archive?
Send a message to listserv@nimsinfo.com using the "Search" command described below or just send a message with "info" in the body of the message and all commands will be sent back to you.

SEArch   listname keyword1 arg1 <keyN argN> Search list archives

        FROM dd/mm/yyyy   -> From this date
        TO   dd/mm/yyyy   -> To this date
        TODAY   -> To today
        WHERE
        SUBJECT "xxxx"   -> Only this subject
          AND/OR
        SENDER "xxxx"   -> Only this author

```
            AND/OR
            BODY   "xxxx"              -> Only if xxxx is found in body
```

The quotes for search strings are required. Quotes cannot be searched or escaped.

8.   Where can I get development support for writing to NIMS' APIs?
There is a list for development that the NIMS team watches over and helps out. The list is DEVTALK@nimsinfo.com, to join DEVTALK send an email message to listserv@nimsinfo.com with the body containing SUBSCRIBE listname [Full Name]
Example: SUBSCRIBE DEVTALK John Doe

9.   Where can I get the Signup Agent?
The signup agent that is used on MyRealBox.com has been provided as part of NIMS 3.0.2, including sample template sources that show how to use the agent.

10.   What should I do if my server ABENDS?
Make sure that you are running the latest support packs. Verify what is causing the ABENDs by looking at log files. If you determine that NIMS is causing the ABEND or are having trouble determining the cause you can send your ABEND log and a description of you system setup to NIMSTALK@nimsinfo.com. We will be able to look at the log and determine a course of action.

11.   Where can I get the manual or current README for NIMS?
The manual and README are available at www.nimsinfo.com under the download/documentation area.

12. I get "Could not load public key" when starting the Modular Web Agent, is there a problem?

The message "Could not load public key" just tells you that there is no certificate installed for SSL. This is not an error message it is an informative message. To read about installing a certificate, look at **Chapter 8** in the NIMS 3.0 manual

13. Is it possible to temporarily disable the receiver in SMTP?

On the console, type MAIL SMTP NOACCEPT to turn off the receiver, and type MAIL SMTP ACCEPT to turn it back on.

14. I have a user who is unable to login, what's the problem?

Make sure that the container that the user exists in is being serviced by NMAP. You can check this on the NMAP Agent object under "Context" tab; the container must be explicitly defined.

15. What ports does NIMS use?

Agent	Port
SMTP	25
Modular Web Agent	80
WebAdmin	81
POP	110
IMAP	143
LDAP	389
NMAP	689
HTTPS – Modular Web Agent	443
HTTPS – WebAdmin	444
SSL POP	995
SSL IMAP	993

For more info on these ports refer to **Appendix D** in the NIMS 3.0 manual. The ports listed are defaults; most ports can be changed through the administration tools.

16. What ports do I need to open on my firewall for NIMS to work?

Refer to the ports listed above and to **Appendix D** in the NIMS 3.0 manual. The NMAP port usually should not be opened.

17. Aliases work inside of the NIMS system, but outside email gets rejected.

Check to make sure that you do not have "Verify recipient addresses when accepting messages" enabled on the SMTP Agent object, if it is, the SMTP agent will not let mail addressed to an alias enter the system. This behavior is documented on **Page 110** in the NIMS 3.0 manual.

18. The NIMS server object in NDS is marked with a yellow "?", what is wrong?

Your postmaster user has been deleted; this causes NIMS Messaging Server objects to change to type "Unknown". This can be fixed with the IMSPMFIX utility off of www.nimsinfo.com under the download section. (Now why would you delete your postmaster account?)

19. I'm seeing Btrieve/Pervasive Errors in the log file, what's wrong?

For Pervasive/Btrieve errors you should search www.pervasive.com for the error. Look in the NIMS log file to find the pervasive error, the error should be at the beginning of the log file when the aliases are being created.

Some of the more common error codes are: (We've only seen 94 & 20 before)

Error description	Number	What to do
Permission error:	94	On Linux/Solaris: Make sure that the psql group has rwx rights to /usr/nims/dbf
Record manager inactive:	20	On Linux/Solaris: Make sure that mkded is running (start via psql init script)
I/O error:	2	
Duplicate key value:	5	
Filename bad:	11	
File not found:	12	
Disk full:	18	
Unrecoverable error:	19	
Create I/O error:	25	
Invalid owner:	51	
File already exists:	59	
Programming error:	79	Peter goofed
File table full:	86	Whoa, that's a lot of files, dude!
No handles available:	87	
Access to file denied:	46	Check rights to the .btr file
Maximum open files:	47	

20. **My aliases are not working, what's wrong?**
Make sure that Btrieve is working properly. Check the log files for any Btrieve errors and then consult the answer to FAQ Item "I'm seeing Btrieve/Pervasive Errors in the log file, what's wrong?"

21. **What to do about "Couldn't create queue.btr (Btrieve err:94)"?**
You get this error if permissions on Linux & Solaris are not configured properly. In order for Btrieve to be able to write NIMS' various databases (alias, address book and delayed queue) the psql group needs rights to write to the NIMS DBF directory (usually /usr/nims/dbf). Set the rights for these directories accordingly.

22. **MailCon reports 4,294,967,295 server connections, what happened?**
This is purely a cosmetic error, this happens when the NIMS connection count becomes negative. We have not yet found what causes the connection count to become negative.

23. **Users are receiving duplicate messages when the sender uses the Modular Web Agent.**
We've found that that is usually caused by the sender clicking the browser's "Refresh" button right after the send, and then reposting the compose request. The browser "Refresh" button will perform the last action again. So, if a user just sent a message then uses the browsers update button to "refresh" the message will be sent for a second time. This is the behavior of the browser and NIMS does not have any control over it, a user should use the update link on the web page to refresh the page.

24. **WebMail is not running after upgrading to NIMS 3.0.**
NIMS 3.0 ships with a new web-based email-interface called the "Modular Web Agent", or ModWeb. This agent replaces the WebMail agent that was used in NIMS 2.x. The WebMail agent is no longer supported in NIMS 3.0, for more information see the NIMS 3.0 README or manual.

25. **I am having problems loading images of NIMS 3.0 through our BorderManager 3.5 server?**
This is a problem with Border Manager and can be fixed with the BM35 SP3 patch available at support.novell.com

26. **How can a hosted user use Netscape to get mail, Netscape ignores everything after the @?**
Search support.novell.com with "Netscape NIMS POP" and the following TID comes up: http://support.novell.com/cgi-bin/search/searchtid.cgi?/10050943.htm

27. **The Proxy Agent is not picking up mail.**
The best place to start looking is the log files to see what proxy is doing. If a user has three proxy accounts set up and the first account is invalid NIMS will skip the other two accounts for that user. So, make sure that the proxy information entered is correct.

28. **My NIMS system cannot send to a particular site.**
There is a utility called MXTrace that is available off of www.nimsinfo.com under the download section that will simulate sending a message to any site and will return any errors received. Get this utility and test with it to see why you are being blocked. The reasons could be that the other system is blocking your email server, your DNS server is not returning correct information, the remote site is down, etc.

29. **When using IE on a Macintosh, I only get asked once for a username and password.**
This is an IE issue that NIMS has no control over, even if all caching is turned off in IE, it will still cache the username and password, even though the realm for the login is different for every login. Only when the browser has been closed will the user name and password be removed from IE's cache. Users of IE on the Mac need to be educated that IE will cache user name and password until the browser is closed.

30. **I just got a trailing redzone error on the console, what does it mean?**
The error occurs if you are running NIMS 3.0 and have enabled SMTP after POP but have not created a connection manager.
Starting with version 3.0.1 NIMS handles this configuration error and will no longer cause the redzone errors. However, you still should create a connection manager to complete the setup of SMTP after POP.

31. **I sometimes see the entire or partial message header in the body of an email message, why?**
That happens when the message does not have proper headers; usually because the software the sender used to create the message (often homemade scripts) violates the RFC specification and sends only linefeeds instead of CR/LF as line separation characters. We've seen it happen mostly on SPAM messages.

32. **I have messages to an existing user bouncing with the error message "user unknown", why does this happen?**
Cases like this have occurred if running DS version 8.77, the remedy has been to upgrade to the latest version of 8.77 or higher. Currently 8.78 is available, [TID 2960827](TID 2960827) explains the update.

33. **The finger module does not load on my Linux/Solaris system?**
On Solaris and Linux, the Finger Agent is not part of the installed product because a Finger daemon is part of the standard UNIX distribution

34. **How can I stop a looping message?**
You need to determine what is causing the looping message, whether it is a rule or an auto reply, and what user is causing the looping message. This can be found out by looking in the message queue, you should probably bring NIMS down so you can look through all messages without NIMS processing all messages. By looking at the C*.* (control) files you will be able to see who the message is from and to whom the message is being sent. You should be able to see a trend of very similar control files, and will know who is causing the

looping message. Remove all looping messages out of the queue and fix the auto reply or rule in the user object.

35. **Does NIMS detect mail loops?**
There are three types of mail loops, one is usually caused by DNS misconfiguration, the second problem is caused by two users auto-replying to each others auto-replies, and the last is caused by forwarding loops where users are forwarding a particular message between their accounts.
The first problem can be detected by NIMS in most cases, if only a single IP address is used, and NIMS will log that there is a DNS misconfiguration. If the server has multiple IP addresses bound, it cannot properly detect the situation.
The second problem are auto-reply loops, those cannot be detected automatically since it's technically not the same message being sent between the two systems. However, the NIMS Autoreply Agent will not Autoreply to messages that have the "Precedence: bulk" header, and it's auto-replies will contain this header line. This will minimize the occurrence of loops.
The third problem is forwarding loops. NIMS will not allow forwarding of a forwarded message on the same system, but it does not detect such loops if they occur between two independent servers. While it is technically possible to detect those, we have found that the code required to do this (which is in NIMS, but disabled) would cause a 55% performance decrease at all times, even if there never will be a looping situation. Since those loops are relatively rare and since it will be quite obvious from system behavior (like rapidly increasing statistics counters, high CPU utilization) that a loop is happening, we decided to opt for the performance. [FAQ Item "How can I stop a looping message?"](#) describes how to find a looping message.

36. **I disabled a NIMS agent / agents and now mail is getting stuck in a queue, how can I fix this?**
If messages are coming in the queue and not leaving, you need to find out which queue they are getting stuck in. (I.e. what is the extension of the C* files in the spool directory.) Based on the answer to that question you can find the problem and solve it.

    If the extension were 007, for example, we would suspect that the DNS server is having problems. If it is a number less than 007 then I would suspect a queue agent is still registered but no longer running. If that were the case, deleting the qclients file from the DBF directory after unloading NIMS would fix it.

37. **When is it safe to delete the qclients file?**
In general, unless you changed one of the parameters that cause qclients to be incorrect (Permanently removed an agent, IP address of server changed, DN of Messaging Server Changed), you should never delete it.
However, if you determine you need to delete it, make sure that NMAPD is not running before deleting the file. (When NMAPD exists, it always writes the file.)

38. **I changed my server's IP address and now mail is getting stuck in the queue.**
See [FAQ Item "I disabled a NIMS agent / agents and now mail is getting stuck in a queue, how can I fix this?"](#)

39. **What to do if mail is not leaving the system but is stuck in one queue?**
See [FAQ Item "I disabled a NIMS agent / agents and now mail is getting stuck in a queue, how can I fix this?"](#)

40. **Mail does not deliver; it just sits in the queue?**
See [FAQ Item "I disabled a NIMS agent / agents and now mail is getting stuck in a queue, how can I fix this?"](#)

41. **The List Agent on NetWare 4.11 does not correctly process subscription emails?**
The List Agent can only be used on NetWare 5.x and above. It is not supported for NetWare 4.x, due to the lack of some NDS functionality in NDS 6.x,

42. **What happens if there are duplicate aliases created for two users?**
The log file will contain a line describing the error when creating the aliases if there are any duplicates. If you do not fix this problem, the first user that got assigned to the alias will receive all mail sent to that alias. If SNMP monitoring is used, NIMS will also send a trap notifying the SNMP monitor about the duplicate.

43. **I cannot get the Modular Web Agent address book lookup to work on Solaris or Linux.**
There is a problem with the ModWeb / WebMail agent that only happens if NIMS loads the web interface automatically when starting. Currently, to get around this issue, the ModWeb / WebMail agent must be loaded manually after starting NIMS.

44. **The Address Book Agent is not loading, it seems there's another LDAP agent still running.**
When using eDirectory on Linux and Solaris, it automatically runs Novell's LDAP server, nldap. Run nldap –u to unload.

45. **Why does it seem like NIMS is not using a secondary DNS server?**
NIMS will only use a secondary DNS server if a response from the first DNS server is not received. If NIMS receives a response from a DNS server it will act according to the information received, even if the information received from the DNS server is incorrect. NIMS, like any other application, must assume that all information received from a DNS server is correct and therefore will not contact a secondary DNS server if a response was received from the first DNS server. If a DNS server is not returning the correct information you need to fix it or point NIMS to a different DNS server.

46. **A user is stuck with French Canadian as their language and cannot be changed?**
You should check your user's Signature content. If the Signature contains more than 8-9 "=" on the last line, the language will stick to French Canadian. The team is looking into this problem.

47. **Every time NIMS is restarted "novonyx/mail" is added to the path of the NIMS objects, eventually causing NIMS to ABEND?**
This is a symptom of a failed/incomplete schema extension. Perform a DS health check to track down any synchronization issues that you might have and then re-extend the schema using NIMSEXT.NLM. Do NOT remove NIMS first. Re-extending the schema will not overwrite any information that you have entered.

48. **What does "server encountered a processing error" really mean?**
The error reporting before NIMS 2.65 was minimal. Before analyzing this error Upgrade to NIMS 2.65 or NIMS 3.x, we have improved errors greatly with the update. Usually this error was caused because NIMS could not contact the remote site.

49. **Users do not receive bounces for messages sent to a list, could this be changed?**
Messages sent to a list do not get bounced to the sender. A list is large enough that the sender does not care if a couple people on the list do not get the message. If you would like to be notified of all failures setting up a Group would give you the desired results. For more info on mailing lists read **Chapter 10** in the NIMS 3.0 manual.

50. **What should I do if my server is experiencing high utilization?**
Start by unloading the NIMS agents one at a time to see if NIMS is causing the problem. If you find that a NIMS agent is causing the problem you need to find out what it is doing. Is it

working on a message in the queue? Is it processing a request? If you can pin point an action that triggers the high utilization that would also help. Once you have as much information about the high utilization submit a question to NIMSTALK@nimsinfo.com with the information that you have gathered. (Also see FAQ Item "I disabled a NIMS agent / agents and now mail is getting stuck in a queue, how can I fix this?")

51. **My LDAP server will not return any requests.**
    - Make sure that an address book agent object exists in NDS.
    - Make sure that the Mail Module underneath the Modular Web Agent has the correct address book information. (For single server NIMS using the Address Book Agent, entering "127.0.0.1" in the "System Wide LDAP Server field" will be enough)
    - Make sure that no other LDAP server is running on this server (NLDAP Novell LDAP server is in the autoexec and if loaded the NIMS LDAP server will not load).

52. **Why does the status of a message not change after I read it in the Web Interface?**
    If this occurs in the NIMS 3.0 web interface all you need to do is select "Update" to refresh the message view. If this occurs in with NIMS 2.6x more than likely you have a read-only connection to your mailbox, and therefore changes will not be saved. If this is the case close all connections to the mailbox then try accessing it again. Inactive connections will time out within 45 minutes, but if there is a client setup to pull mail from this mailbox every 20 minutes the read/write connection will not timeout. All sessions in NIMS 3.0 are read/write sessions and there are no longer read only sessions.

53. **What are the *.008 files in the spool directory?**
    The *.008 files are messages being bounced back to the sender; this can happen because the recipient does not exist, the messages were incorrectly formatted, the sender or domain is being blocked by NIMS, etc.

54. **I added users to a new OU and now they cannot log into NIMS.**
    When adding a new container to NIMS you need to make sure that the new context is explicitly defined in the NMAP agent. If the context is not defined in the NMAP agent the users serviced by this context will not be able to log into NIMS.

55. **Where are the log files stored for NIMS?**
    On Netware the log files by default are stored in sys:\etc\syslog.d, on Linux and Solaris the standard UNIX syslog daemon is used, check "man syslogd" to see configuration on those systems.

56. **Some aliases are not being created correctly by the Alias Agent; the alias names are being chopped off at eight characters.**
    The Alias Agent will only use up to eight characters when creating the First initial plus Last Name alias scheme (FLastnam), so a user whose name is Bill Williamson will end up having an alias of bwilliam. This is not a bug. If you want bill's alias to be bwilliamson you will have to manually create the alias. For more info refer to **Chapter 9** in the NIMS 3.0 manual.

57. **I cannot add a moderator to my list; the user that I want does not show up.**
    The moderator of a list must also be a member of the list. Add the user to the list as a member then select that user as the moderator.

58. **What user IDs are valid?**
    RFC 2821 (http://vyger.freesoft.org/CIE/RFC/821/24.htm) explains what is valid and what is not.

59. The Modular Web Agent will not load on port 80.
This usually indicates that someone other daemon is already using port 80. Either configure ModWeb to run on a different port in the Modular Web Agent configuration tab, or unload the other program that is using the port (or just re-configure it to use another port). On NetWare, you probably want to unload "httpstk" and "portal", possibly also "nshttpd".

60. How can I know if NIMS is answering on a certain port? (IMAP, POP, SMTP)
Simply use telnet to connect to the port of the protocol you'd like to check.
For example, to check if IMAP is working, enter
```
telnet <server-ip-address> 143
```
If you get a response, then NIMS is answering. (You will see if it's really NIMS by looking for a reference to NIMS or Novonyx in the answer string)

61. Where can I find an explanation of SMTP errors (503, 550 etc...)?
RFC2821 describes the standard responses.
Below is the list of responses that the NIMS SMTP Agent implements:
    211-Acceptable commands
    211-HELO MAIL RCPT DATA\r\n211-RSET VRFY EXPN HELP
    211 NOOP QUIT
    220 Novonyx SMTP ready
    220 Ready to start TLS
    221 So long, and thanks for all the fish
    250 OK
    250 Pleased to meet you
    250-ETRN
    250-STARTTLS
    250-HELP
    250-EXPN
    250-PIPELINING
    250-8BITMIME
    250-DSN
    250-AUTH LOGIN
    250-AUTH=LOGIN
    250 SIZE
    251 OK No messages waiting for you
    252 OK Messages for you are being sent
    250 Sender OK
    250 Recipient OK
    354 Send message, end with <CRLF>.<CRLF>
    421 Service not available: server shutting down
    451 Internal error: Unable to complete, please try later
    451 SMTP Receiver temporarily shut down, please try in a few minutes
    451 Too many connections, please try later
    452 Not enough disk space. Please try later
    550 Your site is blocked due to previous spamming incidents
    551 Your computer does not have a hostname, access blocked
    552 Blackholed by %s
    553 Your computer does not have a hostname, you must AUTHenticate
    500 Command unrecognized
    501 Parameter syntax error or not supported
    502 Command not implemented
    500 Line too long, closing channel
    500 Out of memory, closing channel
    501 Recipient address unknown format
    501 You don't exist. Go away!
    501 Syntax error, no sender

501 Syntax error
502 Command disabled
503 Invalid sequence of commands
504 Unrecognized authentication type
505 Authentication required
550 Mailbox not found
550 Too many recipients
552 Message size exceeds maximum allowed by this server
571 No external routing allowed
571 Remote sending only allowed with authentication!
572 Bounces are blocked due to system abuse by spammers

62. **I cannot get SSL to work.**
Bummer. Please read the manual, **Chapter 8,** first. If that doesn't help, provide the exact error message you are getting to NIMSTALK@nimsinfo.com.
[I'd like to provide how to use Novell's CA here, any volunteers to describe this? - pdb]

63. **Why can't I use "Verify recipients Addresses when accepting messages"?**
You can use it, but then you may not use aliases or host mailing lists. This switch will cause SMTP to check any recipient address against NDS, and since not all acceptable addresses have a corresponding object in NDS, they will fail. The switch is a remnant from the days of NIMS 1.x (then known as the Netscape Messaging Server for NetWare) when life was still good and people honest and SPAM was an unknown problem. It used to be NIMS' only defense against SPAM. These days this mechanism isn't enough, but we kept it for compatibility reasons. It will go away in the near future.

64. **I receive the error "Message is no longer available on the server" in Outlook Express when trying to read some messages?**
This usually indicates that the Outlook local message cache is corrupt. Select the properties for your server entry and clear all local files. If this doesn't help the message is either mal-formatted and outlook doesn't like it or there is a NIMS problem. If you can provide the team with a copy of the mailbox AND corresponding index file we can analyze it and maybe fix a bug.

D. SYSTEM SETUP

65. During the NIMS installation, NIMSExt does not accept my login credentials (I get "Login Failed"). What's wrong?

There are cases where DS cannot find the user unless it is in a specific format. Here is the list all formats that you can try while running NIMSExt:

    <user> - Should work if the admin user is in the same context as the server.

    <User>.<Organizational Unit>.<Organization>

    .<User>.<Organizational Unit>.<Organization>

    cn=<User>.ou=<Organizational Unit>.o=<Organization>

    . cn=<User>.ou=<Organizational Unit>.o=<Organization>

Please try all the formats before giving up. We don't know why some instances of eDirectory don't like certain logins, but we've found that one of the formats will always work.

66. How is NIMS licensed on NetWare 6, do I have to purchase Netware 6 licenses for all of my NIMS users?

NW 6 licensing does not affect NIMS licensing. NIMS users do not need a NetWare 6 license unless they need to use NetWare file and print services. They do need an NDS license, but that is included in the NIMS price.

67. How do I set up SMTP-after-POP?

In NWADMIN or WEBADMIN:
1. Create a Connection Manager Agent
2. Enable the "SMTP-after-POP" on the SMTP agent
3. In the Messaging Server object check the box that identifies the connection manager.
4. Wait a couple of minutes for DS to sync and then.
5. IMS Unload
6. IMS

68. How do I prevent my system from being an open relay?

Set up SMTP-after-POP in NWADMIN or WEBADMIN:
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4. Wait a couple of minutes for DS to sync and then.
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Additionally, you can use the "Allowed List" functionality. If your users usually come from a known range of IP addresses, you can add that range to the "Allowed List" and whenever a user connects from one of those addresses to SMTP, they will not have to authenticate.

69. When do I use Hosted domains and Global domains?

See **Chapter 9** in the NIMS 3.0 manual.

70. The postmaster address in bounces sent from my NIMS server has two domains appended.

There used to be a bug in NIMS 2.6 that would cause this, update to NIMS 2.65. If you are using NIMS 3.0, you probably have entered a host user as the postmaster. Postmaster and the official domain may not contain a hosted domain.

71. NSS vs. Traditional file system, what is better?

We would recommend the legacy file system over NSS. Because of the sheer number of files that get created and deleted, the file system used will largely determine the overall performance of the system. In our tests, NIMS ran 4 times faster on the legacy file system.

We have no performance numbers for NSS on NW6 yet, but we believe performance of NSS will be better there.

72. **Where is the personal address book info stored?**

The personal address book information is stored in the NDS user object.

73. **Can I change the Listserv commands or messages?**

The commands are stored in \system\nls\4\imslist\strings.txt ($NIMSDIR/nls/4/imslist/welcome.la for our UNIX guys). This allows you to change the commands the List Agent understands as well as any and all text that is sent back to the user and moderator. Just don't go overboard playing... (Also, if your NetWare server is configured for a different language than English, don't replace the 4/imslist stuff with a different language, but create, say, a 7/imslist directory for German and store the German versions in there...

74. **Does a NIMS server require an NDS replica?**

No, it does not require a local replica. However, it is very strongly recommended to have a Read-Write replica, to prevent messages from getting bounced due to network issues preventing NDS requests from being answered.

75. **Are there going to be Console One SnapIns for NIMS?**

Currently there are only WebAdmin and NWAdmin snap-ins available for NIMS. There are no engineering plans to create any Console One SnapIns for NIMS.

76. **How do I get quotas to work on NSS?**

To get NIMS quotas to work with NSS, you must:
- Install Support Pack 3 on NetWare 5.1, or Support Pack 7 on NetWare 5.0.
- NSS must be started with the /classicdirectoryquotas switch.

Example: NSS /classicdirectoryquotas

77. **How do two NIMS servers in tree talk to each other? NMAP to NMAP, or SMTP to SMTP?**

Unless you have "Distributed Processing" disabled in the Messaging Server properties, NIMS will always talk via NMAP to other servers in the tree, given that it can detect that the recipient of a message is serviced by the other Messaging Server. NIMS will always talk directly to the other server; messages do not hop across NMAP Agents. The address used to connect to the other NMAP server is read from DS (visible in the Messaging Server properties under status)

When talking to systems outside the local domain NIMS will of course use SMTP to talk to the other system, even if it is a NIMS server.

78. **How can I get the best performance out of my Solaris server?**

The performance-limiting factor on Solaris is the file system. We have found that using the Veritas file system can provide up to an order of magnitude better performance.

79. **How should I set NIMS up if I have X servers and Y users?**

This question is hard to answer, because setup depends mainly on expected traffic (concurrent connections, protocols used for access) than simple number of users. You can service several million users on a 486 if only ten access the mail server at any one time. NIMS has successfully been servicing over 150,000 users on a single server at MyRealBox.com; there are installations for over 1 Million users with just three servers.

To make an educated guess, you need the following numbers:
- How many simultaneous connections sustained are to be expected (We've seen many unrealistic numbers for this value, usually the estimates were much too high; consider how people access the system, how many dialup lines, how many computers are on campus, etc.)

- What protocols are expected to be used? POP, IMAP, ModWeb? POP has short connections and takes less resources; IMAP sessions can last very long, they also take up a bit more RAM. ModWeb connections are brief, but sessions can last quite long. ModWeb has higher memory requirements than IMAP since it's basically a full Email client running on the server.
- How many objects will be in NDS? (NDS caches all data by default, unless explicitly restricted you could end up with the whole replica in RAM)
- How many simultaneous incoming server (SMTP) connections are to be expected?

Once you have those numbers, take about 100KB for POP, 150KB for IMAP and 200KB for ModWeb per connection and see how much RAM you need to sustain your connections. Also, calculate about 250KB for any incoming SMTP connection. (These numbers are very rough estimates and include associated resources like RAM used for IP sockets, etc. Your actual "mileage" may vary)

If client protocols (POP, IMAP, SMTP and ModWeb) are run on a different server than NMAP, the memory requirements per server are about 70kb less for the server running POP, IMAP and ModWeb, and about 100KB less for the server running SMTP, since there's a split of functionality on the servers. The amount less taken on the protocol server needs to be added calculated for the NMAP server.

This will eventually lead to an idea on RAM. In real life, we're running with about 1000 client connections peak and 650 sustained on MRB with 2GB of RAM, NDS using about 1GB and 450MB free RAM for cache buffers.

For Linux and Solaris, we have been unable to gather more detailed memory requirements, but they should be about the same, since resources should not take much more than on NetWare. The NIMS binaries themselves need the same amount of RAM on all platforms.

80. **Can NMAP just service the alias of an object but not the user object itself?**
NMAP must service the context where the actual user object resides. You will see very odd problems if NMAP only services the context where only the alias of an object exists. It is ok to service both the context with the alias and the real object; NIMS will always store the data under the real object name. This requires the real object name to have valid 8bit syntax. (Double-byte characters are not supported for either the Alias or the real object; the Internet Standards do not support such addresses)

81. **Can a traditional file system be used in cluster services?**
Yes, Netware clustering can use a traditional file system and we recommend that a traditional file system be used. The traditional file system in our test performed 4 times better then a NSS file system. (We did not have numbers for NSS on NetWare 6, but rumor has it NSS improved performance on NW6)

82. **What versions of NDS does NIMS run on, what Operating Systems does NIMS run on?**
NIMS currently runs on:
- NetWare 4.x
- NetWare 5.1 SP3
- NetWare 6.x,
- RedHat Linux 6.1 and higher
- Solaris 8

On Solaris and Linux eDirectory 8.5 is required. On Netware all NDS versions from 6.x up are currently supported, however, support for any version less than 8.5 will be dropped a future release in order to allow NIMS to not require the object ID be the email ID anymore. In that future version, it will be possible to use an attribute as the email & login ID.

Support for Windows 2000 is in the works.

83. What performance optimization should/could be done with NIMS?
For optimizing a Netware server for NIMS please refer to **Appendix F** in the NIMS 3.0 manual.
For Solaris 8, the TCP parameters should be set according to expected load and as described in Sun tuning documents. The best tuning on Solaris is to use any file system other than the standard UFS file system. The NIMS team has seen very good performance improvements with the Veritas file system

84. How do I bind NIMS to a specific IP address?
This functionality was added in NIMS 3.0. On the Messaging Server properties, select the "Status" tab and then "Advanced…" In the resulting dialog you can bind NIMS to a specific IP address by selected "Force bind…"

85. What is the best block size on a volume with sub allocation?
It depends. If no sub allocation is used, the larger the better. With sub allocation enabled, the smaller the better. [Need to dig up old data to verify the latter statement – pdb]

86. Does NIMS require a web-server to run the web interface?
No, the Modular Web Agent (NIMS 3.x) and the WebMail agent (NIMS 2.x) act as their own web-server in serving up NIMS content.

87. How can I convert my existing email over to NIMS?
NIMS does have the Mail Proxy feature which will pull mail from any mailbox accessible through POP or IMAP and place it in the NIMS message store. As the feature is designed in NIMS, it requires user intervention. However, it can be automated if you know the usernames and passwords for all your existing mailboxes. One limitation of the Mail Proxy feature is that it will only pull messages that exist in the inbox. If there is a way to convert from your existing mail system to Sendmail, you could then copy the files over to the NIMS user directories since our message store uses the same format. More migration methods and tools are under consideration.

88. Can NIMS be used if I have another email system that is tied to the same domain name?
Yes, there are a variety of ways that you can be set this up. NIMS provides the ability to pass on a message that is local (same domain name) but the recipient does not exist in the NIMS system. This option is called "Forward Local Undeliverable Messages" and is configured on the NMAP Agent. This option can be used to forward mail to the second mail system that does not deliver on the first system. It is important to understand that you do not want to "forward local undeliverable messages" in both ways between the two systems this will cause a loop if a message is sent to a user that does not exist on either system.

89. Do I need to purchase eDirectory user licenses as well as NIMS user licenses?
When you purchase NIMS you are entitled to the same number of eDirectory licenses as NIMS licenses without purchasing them. Read the NIMS license for details.

90. Can NIMS be run on the same server as another email system?
Not really, both email systems will fight over ports and with NIMS if the port is already in use NIMS will not load the NIMS agent that tries to use that port.
However, if multiple IP addresses are bound to the system, it is possible to force a bind to a particular IP address (See FAQ Item "How do I bind NIMS to a specific IP address?") and run two mail systems on the same server. But: You cannot load NIMS twice, so you better have two different mail systems! (There's no reason to load NIMS twice, it's supporting multiple domains on a single port anyway.)

91. How should I organize my tree, distributed NIMS or not?
Please refer to **Chapter 2** of the NIMS 3.0 manual, it gives a very good step-by-step explanation of how to best setup your system.

92. How is SSL enabled for NIMS?
On the Messaging server object under the "Security" tab "SSL and TLS" needs to be checked. And a certificate needs to be installed into NIMS using CertGen. Please refer to **Chapter 8, "Securing your system"** in the NIMS 3.0 manual for instructions on using CertGen.

93. We are planning on creating a filtered NDS replica for NIMS authentication and we need a list of the objects and attributes that we need to replicate?
Every object class and attribute that starts with either "NIMS:" or "Novonyx:" must be replicated. Additionally, NIMS 3.0.1 and higher uses the "Internet Email Address" attribute. These are of course in addition to the standard attributes of a user and group object.

94. Where does the email address field for the address book come from?
This description is for NIMS 3:
    a. NIMS will check to see if the user has the "Internet Email Address" attribute set, if so, it is used.
    b. If the user is a hosted user the user object already has a domain name associated with it and NIMS will not look further and use the object name.
    c. If the user is not hosted then NIMS will check if the user is associated with a parent object and if that parent object has a domain assigned. If that is the case, the parent object global domain will be combined with the object name to form the email address.
    d. If a-c fails, NIMS will check the context under which the user exists to see if there is a domain name associated with the context. If a domain is configured, NIMS will combine the object name with that domain to form the email address that will be used.
    e. As last resort, if a-d fails, the "Official Domain" that is defined in the Messaging Server object will be used to form the user's email address.
In NIMS 2.x, only steps b, d and e will be performed.

95. What does the "Organization" field in the NIMS address book map to?
The "Department" field of the user is used to fill the organization field in the address book.

96. My NIMS server used to be lightning fast, but has suddenly become really slow. What happened?
This usually indicates that "Immediate Purge of Deleted Files" is not enabled. Since NIMS creates many, many temporary files, this must be enabled on your NIMS volumes, either via the global switch or via direct assignment via command-line utilities.

97. Why is NIMS creating so many temporary files?
In order to protect shared access and prevent data corruption, NIMS creates various lock files and temporary files. Since the first commandment of a mail server is to not lose mail, things have to be implemented this way, even if they seem to slow down the system or seem unnecessary.

98. How can I set up a single-sign-on solution with NIMS?
As of NIMS 3.0.2, the MWSignup ModWeb Module is provided, along with template sources for the MyRealBox signup pages. Signup is usually a very custom process and everyone has different needs, which is why the NIMS team recommends using Novell Consulting Services to create the signup solution. For those who either don't want to spend the money or like a challenge the team's own signup agent and the template sources are provided. If

you need help with them, you can post your questions to NIMSTALK@nimsinfo.com, however, users with "real" problems will have priority.

99. I'm getting an ABEND when loading the AntiVirus Agent.
The APIs that were provided to us by the AntiVirus vendors only work on those vendors' newer engine versions.
For InoculateIT, the current, known-to-work version is AVENGINE.NLM, Version 23.48, Nov 8, 2001.

For McAfee, the current, known-to-work version is MCSCAN32.NLM, Version 41.40, Jan 17, 2001.

100. The AntiVirus Agent does not seem to scan anything.
See FAQ Item "I'm getting an ABEND when loading the AntiVirus Agent."

E. SYSTEM ADMINISTRATION

101. How do I create a hosted user in NWADMIN or WebAdmin?
A hosted user ID contains the domain name as well as the user ID like this jsmith@xyz.com. In NWADMIN the user ID must be entered as "jsmith@xyz\.com". The "\" tells NDS that the "." does not refer to a context.   In WebAdmin the user ID can be created just like this "jsmtih@xyz.com" without a "\". For more info about hosted domains and users refer to **Chapter 9** in the NIMS manual.

102. How can I see and set information that is stored in NDS??
You can use a number of different utilities like DSSNOOP, JRBUtils, ConsoleOne, and DSBROWSE. You can search the archives of NIMSTALK to see what others use.

103. What is the "Forward Local Undeliverable" feature used for?
If two email systems are using the same domain name this option can be used so that email that is local to this domain but the user does not exist in NIMS can be sent to a different IP address to be processed. Usually NIMS will be the front-end system that will receive all incoming mail and local mail that cannot be delivered by the NIMS system will be sent to the location entered in the "Forward Local Undeliverable" field.
It is important to note that only one system should use "Forward Local Undeliverable" or a similar feature. Otherwise, if both systems did this, it would cause mail loops if mail sent to a user that does not exist on either system.

104. Do I need to upgrade all my NIMS servers to 3.0 at the same time?
Yes and no. Changes in NIMS 3.0 are significant enough that all of your servers should be upgraded to NIMS 3.0 simultaneously, if possible.
If this is not possible and you're using a "Hub and Spoke" system, upgrade your central servers first.
What you should not do is monitor NIMS 3.x NMAP stores with NIMS 2.x agents or vice versa.

The incompatibility is with users who are already on NIMS 3.x sending a calendar message to a NIMS 2.x user in the same tree, the NIMS 2.x server will simply drop the calendar message.

105. How can I set a default template for my users?
The default template can be set on a parent object and/or on the Modular Web Agent. If set on a parent object it will only apply to the user assigned to this parent object. The default template setting on the Modular Web agent it will apply to all users in the system but the parent object does have precedence over the Modular Web object. For further information about the Parent Objects refer to **Chapter 9** in the NIMS manual available at www.nimsinfo.com under the download section.

106. How do I control what templates are available to my users?
Here are two options to control access to templates:
1) The Modular Web Agent has the option of restricting access to templates in the "Available Template" and "Default Template" dialog boxes.
2) Use Parent Objects. The problem here is that you have to assign the parent object to all of your users. This can be done using a utility like JRB's setname. Parent objects are quite powerful and they are great if you have different user groups.

107. How can I have the same user ID for multiple domains that I might be hosting?
If you are using hosted domains this is possible. To read about hosted domains refer to **Chapter 9** in the NIMS 3.0 manual.

108. How can I send a bulk mailing to all my NIMS users?
Here are two options:
1) Create a mailing list with all users and send to that list.
2) There is a BulkMail utility that the NIMS team has created that will allow you to send a message to any number of users. This utility is available at www.nimsinfo.com under the Downloads/Other Miscellaneous. This will allow you to create multiple messages to be delivered simultaneously. You will want to play with the blocksize number to determine what will work best for your system.

109. When should I use "Bounce message control" and what does it do?
In general, don't use it. It's meant for sites with a high level of SPAM abuse, in order to control how many bounces can be generated by the system in a given time. (I.E. 300 bounces in 30 seconds means that if more than 300 bounces were generated within the last 30 seconds, NIMS will simply drop the bounce) It can also be useful if you have a malicious denial-of-service attack happening.

110. How can I import data into DS; users, user's attributes, NIMS attributes?
There are many utilities that will allow you to import data into NDS; some of these utilities are JRB utilities, NDS ICE, SetAttr (created by the NIMS team and available on www.nimsinfo.com), Bulkload, and many others.

111. Can I run NLDAP and the NIMS LDAP server on the same server?
Not unless you change the port for one of the two. The NIMS LDAP server will not load if the LDAP port is in use by another process. If you are running the NIMS LDAP server make sure that the Novell LDAP server is not loaded. Remove it from the autoexec.ncf if it exists.
Alternatively, you can change the port in the "Address Book Agent" Configuration tab, but remember to notify all clients of the changed port and also remember to update the Configuration for the ModWeb Mail Module System address book, if used.

112. How can I create a hosted mailing list (using hosted domains)?
The mailing list is created as the full name, e.g. "list@domain.com". The period (.) does not need to be escaped with any character.

113. Can the Internet Services Container be moved?
No, the Internet Services Container cannot be moved from the Root. You can however create a messaging server object anywhere in the tree.

114. How are SCMS messages stored?
An SCMS message is given an SCMS ID; the message is then stored in one of the 16 SCMS folders based on the last letter of the SCMS ID. The header of the message and the SCMS ID are stored in the recipient's mailbox. When reading the message through the web interface the body of the message is pulled from the SCMS directory using the SCMS ID stored in the header of the message in the user's mailbox.

115. How do I move a user's mailbox to another volume/system if the user has SCMS messages?
There is currently no utility that allows this. In most cases where this was requested the administrator was unaware of the distributed nature of NIMS and that it was unnecessary to physically move the user. We are, however, considering a tool for a future release.

116. If I run more than one NMAP against the store will performance be that much faster?
No, running more than one NMAP against a single store will cause unpredictable behavior. It could cause data corruption, erratic client behavior and even loss of data, this is not supported and not a wise setup.

117. Should NIMS server hold a partition of Root, or just some OU's?
A NIMS server should hold partition information on the contexts that this server services. This also includes the location of the Messaging Server object that is configured for this server (In a distributed system, you can partition off "Internet Services" and have a R/W Replica on all NIMS servers).

118. Can I use another LDAP server besides NIMS' Address Book Agent (MSGLDAP) to fulfill LDAP requests?
Yes, but the NIMS LDAP server will automatically generate all users email addresses based on the objects that the user is associated with in NIMS. In order to use a different LDAP server you would need to populate the "Internet Email Address" attribute with your users correct email addresses through the NIMS Address Book Agent. Also, the other LDAP server would need to be configured to use the "Internet Email Address" attribute.

119. How can deleted messages be restored from a backup?
Two options:
   a. Rename the restored Inbox.box to something like Restored_Messages.box and put it in the user's NIMS mail directory. NIMS will generate the *.idx file automatically, and the user will have access to the new folder from an IMAP client or the web client.
   b. If POP is the only option, you can just go ahead and append the restored Box file to the current Box file. Just make sure to put a blank line in between the messages where you append the file. It should not matter what order the messages appear in the merged inbox, as the client should take care of sorting the messages.

120. Can an email disclaimer be added to all outgoing email?
Yes, this can be accomplished with the PlusPack. For more info on the PlusPack and how to get it see the Tools and Add-Ons section of the FAQ.

121. Will NMAP service sub-containers or does every container need to be defined in NMAP?
You need to explicitly define every container that should be serviced by NIMS. Go to the "Context" tab on the NMAP Agent object to do this. For more info about the NMAP context see **Chapter 5 page 85** in the NIMS 3.0 manual.

122. What happens to mail destined for an account that has been disabled?
If an email is sent to an account that has been disabled, the email will be rejected and bounced back to the user.
Setting an account to "Disabled" will make NIMS behave as if the user does not exist.

123. What is the difference between disabling the NDS account and disabling the NIMS account?
If an NDS account has been disabled the user cannot log into NDS but the user can still log into NIMS and vice-versa. This is a nice security feature for an ISP that is hosting NIMS users but does not want these users to ever log into NDS. But, remember that just because a users NDS account has been disabled it does not mean that they cannot log into NIMS.

124. Is there a utility that will monitor our NIMS system and send a notice if there is a problem?
The NIMS team has provided BabyMon. It is available on www.nimsinfo.com under the download/Miscellaneous area. This utility runs on Linux, Solaris and Windows and will monitor a NIMS system and send an alarm if there is a problem.

125. How can I get activity numbers on our user accounts?
This description applies to IMSAudit provided by NIMS 3.0.2: NIMS provides a utility, IMSAudit, which will generate statistics about user accounts. IMSAudit has two modes, normal and detailed. In normal mode, it simply counts all accounts; this is useful for licensing purposes. In detailed mode, IMSAudit will generate a comma separated values file (CSV), which can be imported into a spreadsheet or database application or it can be further processed by custom accounting tools. Run IMSAudit with "-?" to get information on it's use.

126. Is there an option for "authentication required" for the LDAP server queries?
The NIMS manual describes such an option, but it's not available in the NIMS configuration dialog. Shortly before release of NIMS 3.0 we decided to pull the feature since it would most likely cause confusion for most users. Address Book is already one of the most misunderstood features, and we didn't want to add to the confusion. However, if the feature is required, it can be enabled directly via a NDS editing tool. Below is the table that shows how the value for the "Novonyx:LDAP Options" attribute. The attribute contains a number that can be derived by adding all values of the features required together.

LDAP_SERVER_ON	1
LDIF_EXPORT_ON	2
LDAP_REQUIRE_BASEDN	4
LDAP_REQUIRE_AUTHENTICATION	8
LDAP_USE_USERS_BASEDN	16
LDAP_SEARCH_PERSONAL	32

If you want the LDAP server enabled, allow users who authenticate to also search their personal address book and you want to require authentication, you would store 41 (32+8+1) in the NDS attribute.

127. How can the mailing list, template, or parent objects be recreated under Internet Services?
These objects can only be recreated by running NIMSExt and only selecting "Add Schema Extensions", this will not remove or reset any configuration you may have set.

128. Is there any way to clean up the SCMS directory after a user has been deleted?
We are working on a tool to cross-check the SCMS store. In order to delete, use RMBox provided with NIMS 3.0.2b; it will clean up properly.

129. Is it possible to lock down features on a per user/group basis?
   a. Disable the option on the user object itself. This will only apply to the particular user.
   b. Create a Parent Object and select the options that you want available, then add all users that you want to inherit these options to the parent object. For more info about Parent Objects and how to use them, see **Chapter 1 and Chapter 9** of the NIMS 3.0 manual.
   c. You can remove all unwanted options out of the templates. The template sources and compiler are available in the Unsupp directory. The option is unsupported but there is documentation in the Doc directory that will help you complete this process.

130. How can I limit the options/preferences available to a user and/or group?
See FAQ Item "Is it possible to lock down features on a per user/group basis?"

131. What utilities are available to create/modify user accounts in NDS?
There are a number of Novell and third party utilities like Bulkloader, ICE, DSSNOOP, ConsoleOne, JRB Utilities, etc… You can search NIMSTALK for other utilities as well.

132. How can I disable a NIMS account?
Selecting the NIMS tab on the user object and checking the "Disabled" option will disable a user.

133. What is the attribute that needs to be modified to disable a users account and what does the attribute need to be set to?
The attribute controlling a user's access to NIMS is called "Novonyx:Messaging Disabled". To disable a user, store "1" as a value.
This can be done via the Novell IMS Configuration tab in NWAdmin or with WebAdmin. Or any numbers of utilities like Bulkloader, DSSNOOP, ICE, JRB utilities, etc…

134. As admin can I log into someone's mailbox without the user knowing?
Unless you know the users password you cannot log into the users mailbox, you can reset the password and log in as the user with the reset password. The NIMS mailbox format is plain text so you could open the *.box file with a text editor like notepad are view all messages in the users mailbox. The *.box files are stored in the users directory and a *.box files exists for every folder in the users mailbox.

135. How can I find which users have subscribed to a NDS or regular list?
The members of an NDS mailing list are shown in the details of the list in both NWADMIN and WEBADMIN. The members of a mailing list are shown as subordinate objects under the list in NWAMDIN and in WEBADMIN the users are shown in the details of the mailing list object.
Also, the List Agent provides commands to request the members of a list. See the manual for details or send a message containing the word "Info" in the body to the List Agent.

136. Is it possible to run an English and Spanish ModWeb on the same server?
Yes, language settings are set on the user object and the NIMS templates contain all languages in each template so all 26 languages that NIMS supports are running on the same NIMS server.

137. How can I have one certificate for multiple variations of my domain name, i.e. mail.mydomain.com, smtp.mydomain.com?
Only one certificate is recognized so in this case you would want to buy a wildcard certificate for *.mydomain.com.

138. How can I disable a user's rules?
Apart from the regular methods with parent objects, if you simply want to remove a particular rule from a user object you can use an NDS editor like DSSnoop, JRB Utils, etc… to edit the "NIMS:Rule" attribute which contains user rules.

139. Can I change how often the proxy agent runs to collect mail?
The Proxy Agent by default runs every three hours, but this can be set as low as one hour. This is set in the details of the Proxy Agent. We recommend not running too often since it will significantly increase load on your system. MyRealBox, for example runs every three hours, but in order to process all users' proxy entries, it takes about 6 hours and more, depending on how slow the remote systems are.

140. Can I force the Proxy Agent to proxy mail for a particular account instantaneously?
No, this would wreak havoc on a server since every user would always press such a button, if provided, and system resources would go south quickly. Fuggedaboudid.

141. How can I create a mailing list for a hosted domain?
The list is created like a hosted user, list@hosted_domain.com, except that the "." does not need to be escaped in NWADMIN.

142. How can the schema be re-extended?
The schema for NIMS can be re-extended by running NIMSEXT and just selecting "Add Schema Extensions" this will not overwrite any configurations that you have added but this should only be run if you have a reason e.g. your Mailing List object was deleted.

143. How do I get a log of incoming and outgoing SMTP mail as well as NMAP deliveries?
On INFO level, SMTP will log what and for whom it successfully delivered mail. NMAP will log (also on INFO level) when messages are stored in mailboxes.

144. What changes to NIMS do not require a restart of the system?
[TBD]

145. What facilities does NIMS have to prevent looping?
NIMS Rules will not forward or reply to any message that already has been forwarded. Forward will not forward a forwarded message. Autoreply will not reply to a message that contains the "Precedence: bulk" header line.

146. What is the best way to back up NIMS?
All of a user's mailboxes are stored in the user directory by default; it is this data that is the most important to backup. If the volume that holds the message store were to die or become corrupt all that is needed is to restore the user's directories once the volume has been replaced or repaired.
NIMS does not keep any files open, in order to allow backups to be performed at any time. The only time a file is open is if it's being read or written, but that will almost always be in sub-second timeframes. Most backup software will retry at least once to backup an open file, at which time an open file should be closed again.

147. Can NIMS limit the amount of data that is bounced back to the sender if the recipient is undeliverable?
With NIMS 2.x, the full message was bounced back to the sender. With NIMS 3.x, due to user demands, only the header info of the original message is sent back to the user. Of course, after we changed it to this behavior, people started complaining that they wanted to see the whole message. Oh well, if a client supports DSN, the client can specify what he wants back in a bounce.

148. How are messages stored in the user's mailbox? What is the NIMS mailbox format?
NIMS uses the same format as Sendmail on UNIX. Every message for a single mailbox is contained in a single file, separated by a CR/LF, a From xxx line in a particular format, and another CR/LF. In order to speed up access to this file, NIMS creates an index file alongside the .BOX file. This index file is recreated in case the administrator deletes it.

149. How can I tell what messages are waiting in the mail queue?
The "mail stat" command will list the total number of messages in the queue as well as SMTP connections, client connections. (It's "nmail stat" on UNIX)

150. How can I get every piece of mail that was sent to my NIMS system even if the user does not exist?
Messages sent to non-existent users can be copied to postmaster by checking the "Bounce Control CC:Postmaster" in the Options page for the NMAP agent. All bounces will then be delivered to that mailbox. If you want all mail going through your system, you need the PlusPack Agent.

151. What is the difference between NDS aliases and NIMS aliases?
NDS aliases are actual objects in the tree and can be used when addressing emails to users in the system as long as the user and aliases exist in contexts that are serviced by NIMS. NIMS aliases that are created by the Alias Agent are not objects in the NDS Tree;

the Alias Agent creates a file in the DBF directory that keeps track of which alias matches which user. NIMS aliases can be much easier to maintain if automatic aliases are being used. For more information on NIMS aliases refer to **Chapter 9** in the NIMS 3.0 manual.

152. Using NMAP commands how can I create a folder with spaces in the name?
A white-space character is designated via the ASCII 0x7F character.

153. How can I get the sub domains to match the user when sending email?
If the user is a hosted user it already has a domain name associated with it and NIMS will use the user ID on the message. If the user is not hosted then NIMS looks to see if the user is associated with a parent object and if that parent object is assigned a domain. If the parent object is assigned a domain the message will be sent with that domain. If there is no Parent object, or no domain on the Parent object then NIMS looks at the context where the user exists to see if there is a domain name associated with the context if so the context domain is used on the email.   If NIMS has not found a domain on any of the above places the "Official Domain" that is defined in the messaging server object is used. [Huh? – pdb]

154. How does NIMS handle duplicate user IDs?
NIMS will allow duplicate user IDs but all mail for the user ID will go to the first user ID found. The first user ID depends on the order in which NDS returns data.

155. Is there a limit to the number of aliases entered in the alias agent?
No. But as always: Be reasonable – it requires processing power to handle a database.

156. Is it possible to auto-create a welcome email for any new NIMS account?
Yes, if the signup agent is used.

157. NetWare Only: Can I set syslog to roll to a new file after x bytes, or x days?
Yes, this has been implemented in NIMS 3.0.2b. You need to load syslogd before IMS is loaded in autoexec.ncf. You can provide the "-r" switch to syslogd to enable rolling of logs. Unless you plan to manually clean up or move your log-files, you most likely also want to add the "-a:<days>" switch. This switch will tell syslogd to automatically remove log-files older than <days> days.

158. NetWare Only: Can I change the size of my syslog logfiles?
Yes, load syslogd with the "-s:<size>" switch in autoexec.ncf before IMS is loaded. Size is provided in bytes. If you want to have 4KB log-files you would load it with "-s:4096"

159. NetWare Only: When copying my logfile, there's always some data missing.
Before copying the log-file, you should enter "syslog flush" on the console. This will cause the syslog daemon to flush it's log. Usually, for performance reasons, about 4KB of the log are always buffered in RAM.

160. NetWare Only: Syslog does not seem to be logging. What's wrong?
You can type "syslog config" on the console to see how the syslog daemon is configured. Remember, any changes to the syslog configuration require a restart of NIMS.

F. CLUSTERING

161. How do I use NIMS with cluster services?
[Rodney's got the goods for this one – pdb]

162. How do I split up the NIMS agents across multiple servers?
[Rodney's got the goods for this one – pdb]

163. How can I modify templates?
The source files for templates shipping with NIMS are always available. They can be found under the unsupp/template directory in the NIMS distribution.
If you do not have this subdirectory (where did *you* get your NIMS from?), then download the NIMS Evaluation ISO image from www.nimsinfo.com.
If you have a CD-R/RW drive and the associated software you should be able to write a CD from the ISO image. You can also mount the ISO on a Linux system using the following command:

```
mount –t iso9660 –o loop <isoimagename>.iso /mountpount
```

164. How can I add a logo to the templates?
ModWeb creates a logo subdirectory underneath the modweb directory. (On NetWare: Sys:system\modweb\logo, on Solaris /opt/NOVLnims/bin/modweb/logo and on Linux /usr/local/nims/bin/modweb/logo)
In this directory, store the logo file and make the filename a number, but keep the proper extension (.gif or .jpg). Example: 1.gif.

Then use a NDS editor and add the following value to the "Novonyx:Configuration" attribute on the Modular Web Agent object:
Logo=<your number>

When ModWeb is reloaded next time, it will put your logo into the designated places on the templates.

Alternatively, you can add the following value to the "Novonyx:Preferences" attribute on the user object or a Parent Object:
"ModWeb:Logo=<your number>".
This approach allows having multiple individual images per parent object and even per user, depending on how inheritance is set on parent objects. It will also work on the user if no parent objects are used on that user.

Of course, it is also possible to edit the template sources and generate templates that have hard coded logos.

165. Messages sent from Yahoo or Hotmail do not always display correctly in NIMS, especially double-byte languages.
Yahoo and Hotmail do not generate the proper charset headers for messages sent through their web-interface. If a user uses anything but US-ASCII in their browser to generate mail messages on those systems, the messages would be mislabeled. We added an extra codepath to translate those broken messages, based on the user's charset preference. However, since this fix will affect performance significantly, we will only make it available as a separate download. The performance hit will be that overall performance of modweb in the message list and message detail will be 1/3 slower than without this workaround. Please note that this is not a problem in NIMS but in Hotmail & Yahoo's web systems that are blatantly ignoring any standards required to exchange non-US-ASCII messages across the Internet. The module can be downloaded from www.nimsinfo.com.

166. How can I remove feature configuration from the templates but still have the features active?
This can be accomplished by editing the template sources in the unsupp directory. This is unsupported but there is some documentation that we have included to help you out.
Expect more detailed documentation on how to create/edit templates in the near future.

167. Is there any way to do a form-based login for NIMS?
Here is how to implement form-based login with ModWeb and NIMS 3.0.

Use the following FORM tag for METHOD="GET":
<form method="get"
action="http://your.server.name/f?username=xxx&password=xxx">

Use the following FORM tag for METHOD="POST":
<form method="post" action="http://your.server.name/f">

If the Post method is used (recommended), make sure that the username input tag is called "username" and that the password input tag is called "password".

If you want to redirect the user on a failed login attempt you can do the following:
Using DSSnoop, add the following value to the "Novonyx:Configuration" attribute of the Messaging Server Object that is running ModWeb:

FormLoginRedirectURL=<url>

e.g.

FormLoginRedirectURL=http://your.server.name/unauthorized.html

168. How can I replace images in the web interface?
This can be accomplished by editing the template sources in the unsupp directory. This is unsupported but there is some documentation that we have included to help you out.

H. CHARACTER SETS

169. What character set does NIMS send in?
In NIMS 3.0 the user can select the character set they want messages to be sent out in. This is set in the preferences/options of the web interface. Also, a default character set can be selected on the Modular Web Agent for the NIMS system.
In NIMS 2.x all messages were sent out in UTF-8 only and there was no way to change this.

170. Can a rule be created that contains extended/double byte characters?
No, NIMS will not accept rules that use extended characters. Also, if NIMS did accept and store these rules there would not be any guarantee that the rule would catch all email that you expect. NIMS stores all data into DS as Unicode and then the stored data is compared to the messages to decide if a rule should be executed or not. So, unless the character set that the message is sent in matches what is stored, the rule will not execute.

I. TOOLS AND ADDONS

171. What is the Pluspack?
The PlusPack provides:
   a. Automatic signature adding
   b. NDS Group-based blocking for sending
   c. Big-Brother automatic message copying of outbound messages to a "monitoring user/folder"

The PlusPack operates *only* on outbound messages, it will not touch messages destined for local recipients; local is defined as members of the local NIMS cluster, this can be more than one server operating in distributed mode.

172. How do I get the Pluspack?
Send an email to WantPlusPack@novonyx.com indicating the name of your organization, the number of NIMS users you represent, the approximate month and year in which you acquired NIMS (helps in determining growth patterns) and the level at which you are comfortable sharing your NIMS experience according to the following rankings:

   1) Please keep the information confidential and do not share it outside of Novell
   2) I am comfortable if the name of my organization and the number of NIMS users is published, but, I do not want to be a reference
   3) I am comfortable if the name of my organization and the number of NIMS users is published and I would be happy to be a NIMS reference
   4) I am very pleased with NIMS and I am happy to be a reference account and I would not mind having a success story written about our NIMS implementation

Your participation in this survey will help us to better target future development of NIMS. Being able to show just how large our installed base is will enable us to get more emphasis in resource allocation and marketing.

173. I sent a message to WantPlusPack@novonyx.com and never received an answer. Wassup?
Well, I've really got no excuse other than that I'm really busy. As soon as the FAQ is finished and NIMSINFO is re-done in a way that my users can actually find the files they're trying to download, I'll get on the PlusPack issue. I'll probably make it downloadable, until people start lying on the data they're required to provide. If that happens I just might recommend Novell sell it as an add-on for real money :-)

174. Is there a virus scanning solution for NIMS?
Yes, the NIMS 3.0.2 update added a virus scanning solution that integrates with McAfee NetShield, CA InoculateIT and Symantec CarrierScan. See the NIMS 3.0.2 README.

175. How can I customize the "welcome" message for a list?
There is an attribute on every list object. It's called
"NIMS:ListWelcomeMessage" (MSGSRV_A_LIST_WELCOME_MESSAGE)

You can store your welcome message in that attribute and it will be sent instead of the message stored in \system\nls\4\imslist\welcome.la
($NIMSDIR/nls/4/imslist/welcome.la for our UNIX guys).

You need to store the whole message in a single value, including any CR/LF(0x0d/0x0a) for new lines you want to have.

Of course, if you don't want a personalized message per list but just
generally a different welcome message, just change the welcome.la file.

176. Can I restrict who can send email outside the NIMS system?
The PlusPack provides the ability to restrict who can send outbound email.

177. What utilities are available for NIMS?
All utilities are available at www.nimsinfo.com under the download section.

178. How can I integrate the NIMS address book with another email system's address book like GroupWise?
NIMS supports LDAP lookups from outside of the NIMS system so if the client in use supports configurable address lookup just pointing the client to the NIMS server would do the trick.
We also have a partnership with Concentrico (www.concentrico.net) that sells a product that will integrate address books of two systems together for both systems. Their solution is very cool and is worth taking a look at.

179. Is there any content filtering solution for NIMS?
Currently there is no content filtering for NIMS; this is a feature that is on our list of potential future features for NIMS. There's got to be a reason why we keep this AntiSpam-agent thingy around.

J. USER CONFIGURATION

180. I don't want my user to have to set their time-zone on first use of the Modular Web Agent!
In NIMS 3.0.2 we added the ability to set the default time-zone on the Modular Web Agent. Simply set the proper time-zone on the NDS Object, and as long as a user hasn't stored any preferences in NIMS 3 before the time-zone was set on the Modular Web Agent object, the default time-zone will be applied to the session settings.

181. Can NIMS user's forward messages to a cell-phone/handy or Pager?
Yes, if the cell-phone/handy or pager has an email address NIMS can forward emails to that device's email address.

182. Why do I get read only access to my mailbox (SID files)?
In NIMS 2.x only the first connection to the mailbox received read/write access, all other connections were read-only access. The first connection must be logged out or timed out in order to be able to get another read/write connection. In NIMS 3.x all connections are read/write so you will never have a read-only connection. (NIMS 3.0.2b changed the locking model to memory based locking so SID files are no longer created.)

183. How do I create a sent items folder?
The sent items folder can be set up in the preferences/options of the web interface.

184. Can personal groups be created in the web interface?
Yes, creating a user and entering all addresses in the email address field can create personal groups within the web interface. Commas, semi-colons, or spaces should separate the email addresses entered in the email address field.

185. Is there anyway to synchronize the NIMS Calendar and Address book with my Palm?
We are currently considering this as a potential enhancement.

186. How can I set a default language for the web interface?
In the preferences/options of the Modular Web Agent every user has the option of setting their language. Also, starting in NIMS 3.0.2 it is possible to set a system wide default on the Modular Web Agent configuration dialog.

187. Does NIMS support multiple calendars per user?
NIMS currently has the ability to support multiple calendars per user but we do not have an interface that supports multiple calendars yet. We hope to incorporate the needed interface changes in a future release.

188. Is there any way to modify a calendar event?
Currently there is no way to modify calendar events. There are no set standards on how this should be done and because there are so many variations of who gets the updates and what should be done with the updates it is currently not possible. We would like to have this available but are waiting on the standards to be finalized.

189. Is there a way to redirect the user to a different logout screen?
Yes, add the following value to the "Novonyx:Configuration" attribute of the Modular Web Agent:
FormLogoutRedirectURL=<URL to redirect to>

190. What ICal clients are available?
The known ICAL clients are as follows: Outlook 2002, Notes R5 (we only heard rumors about this), Entourage for the Mac. These clients support ICAL only to some degree; Outlook 2002 and Entourage only support appointments currently.

191. Are user IDs case sensitive?
User IDs are not case sensitive.

192. Does the change password option in Eudora sync with NIMS?
No, NIMS does not support this Eudora feature, it's not based on any RFC standard.

193. Is it possible to import address books from a file to a user?
Yes, a personal address book entry is a multi-value attribute on the Novonyx:Addressbook Users attribute. The format is as follows:

AA_ENTRY_ID	0
AA_EMAIL_ADDRESS	1
AA_FIRST_NAME	2
AA_LAST_NAME	3
AA_PHONE_1	4
AA_PHONE_TYPE_1	5
AA_PHONE_2	6
AA_PHONE_TYPE_2	7
AA_BIRTH_MONTH	8
AA_BIRTH_DAY	9
AA_BIRTH_YEAR	10
AA_COMMENT	11

These values are carriage return (CR) delimited.
Entry_Id is a unique id for this personal address book
Email_Address is the email address of the user
First_Name is the first name of the entry
Last_Name is the last name of the entry
Phone_1 is the phone number of the entry
Phone_Type1 is a number, 0= work, 1= Home 2= Cell 3= Fax 4= Pager
Phone_2 is the phone number of the entry
Phone_Type2 is a number, 0= work, 1= Home 2= Cell 3= Fax 4= Pager
Birth_Month is the month number 1 through 12
Birth_Day is the day number 1 to 31
Birth Year is the four-digit year
Comment is any info in the comment field

Just remember that these values must be separated by a carriage return. Depending on your import utility you may be able to import a group of entries into the user database at once.

194. Is there any way I can override the NDS Object name as the FROM Address in NIMS 3.0 for the Modular Web Agent?
You can use the reply-to address as usual. Any client replying will then send to the name specified in the reply-to field.
ModWeb starting with NIMS 3.0.2b will also use the "Internet Email Address" value to set the user's email address.

195. How can I limit the NIMS address book to only search a user's domain and not any other domain running on the system?
See FAQ Item "Is there an option for authentication required for the LDAP server queries?"
– The USEBASEDN option will allow users to specify their domain as BaseDN in the LDAP client and the Address Book Agent will then filter the domains.

K. FEATURES

196. Does NIMS have a busy search feature for the calendar?
Currently NIMS does not have a busy search feature, Calendar Access Protocol (CAP) is the standard that is currently being worked on and will include the busy search functionality. Once CAP is complete NIMS hopes to include the busy search functionality. Of course we've already got the stuff for this in NMAP, there's just no interface for it available yet.

197. What is the syntax for passing the user ID and password to NIMS in the URL to bypass the popup login box?
http://<userid>:<password>@domain
An example of this would be a user named joe with the password of pass logging into test.com
http://joe:pass@test.com
Also see FAQ Item "Is there any way to do a form-based login for NIMS?"

198. How can I get Groups and mailing lists to show in the address book?
Groups and mailing lists were left out of the NIMS address book agent for security reasons. We did not want potential spammers to be able to see all of the groups and mailing lists that existed on your system, they could use information to send SPAM to your users. You can use a different LDAP server that you could configure to show groups and mailing lists but we cannot help you configure any other LDAP servers.

199. Is there a spell checker for NIMS?
There is no spell checker for the Web interface of NIMS. There are third party products that you could plug into the browser to give you the spell checker functionality.

200. Is there the "Save Drafts" ability in the Modular Web Agent?
There is not. We do have this on our list of potential features for future releases.

201. Can NIMS use NDS Group objects as mailing lists?
Yes, NIMS will deliver to NDS groups as if they were a user, a message sent to a group will be sent to all members of the group. Of course, this requires that the group members are NIMS users.
Also check out the NDS List functionality of the NIMS List Agent.

202. Can multiple NDS user objects be granted access to a common mailbox?
This is a feature being considered for a future version of NIMS.

203. Does NIMS support "Shared folders"?
Yes, but there are two kinds of shared folders. One kind the user give others access to a folder and sets rights for the other users. The other type of shared folder, and the one that NIMS supports, allows multiple, simultaneous connections to a mailbox.

204. What calendaring standard is being used for NIMS 3.x?
NIMS is using the ICAL standard, which is just a language to describe events. The RFCs that define ICAL are 2445, 2446, and 2447.

205. Is there a "notification of new mail" product?
NIMS does not ship with a program to allow for notification of new mail but there are third party products that will do this.

"I use a NLM on the server ... cheap program and it loads on the server with a windows application to setup the notification parameters.

Nothing has to be loaded on each workstation

see http://www.netwarefiles.com/mail.htm

the program is Advanced Mailbox Scanner (1st one on the list)" (Thanks to Paul Johnson for providing this information)

206. Is there any way to block types of attachments?
There is nothing currently in NIMS to block certain types of attachments. This is on our list of potential features in the future.

207. How does NIMS use the AntiSpam agent to block emails?
The Anti-Spam agent blocks email based on the "From" address in the envelope of the message. When the AntiSpam Agent was created that was a relatively easy and secure method to block SPAM, however, over the last couple of years the growing sophistication of spammers has rendered this method useless, since the envelope data can easily be forged. We are keeping the AntiSpam Agent around, though, because that's where we'd like to add future content blocking functionality.

208. Does NIMS support SSL for the address book?
No, NIMS does not currently support SSL with the address book agent. We do support password authentication as an option that can be turned on. See FAQ Item "Is there an option for "authentication required" for the LDAP server queries?" SSL support for the Address Book Agent is being considered for a future release.

209. Messages moved between IMAP folders don't seem to keep their status flags.
This only applies to NIMS 2.x; in NIMS 3.x this has been fixed.

210. Is WAP available for NIMS 3.0, or when will it be available?
Currently WAP is not available for NIMS 3.0, but it is planned to have it available before the end of 2001.

211. Can messages be addressed to an OU?
No, messages cannot be addressed to an OU, NIMS only supports users, groups and organizational roles as directly addressable NDS objects. This is done on purpose, to prevent accidental or intentional spamming of an organization. In order to provide such functionality, NDS Lists have been added to the List Agent.

212. What files does the "mail queue" command check?
The "mail queue" command that can be issued at a NetWare console prompt will only check mail entries in the remote queue (files with a 007 extension) for which delivery has been attempted at least once.

213. In what order are the UBE (Unsolicited Bulk Email, SPAM) settings checked?
Steps 1-5 are performed upon connection request, right after accepting the connection

1) Is connection from address in blocked list?
1a) Yes -> Close connection
1b) No -> Continue with check #2

2) Is connection from an address that just authenticated via POP or IMAP (SMTP-after-POP)?
2a) Yes -> Connection "trusted", ignore checks #3 & #4
2b) No -> Connection "not trusted", continue with check #3

3) Is connection from an address in allowed list?
3a) Yes -> Connection "trusted", ignore check #4

3b) No -> Connection "not trusted" (yet)

4) Is connection from address that is known to any configured RBL lists?
4a) Yes -> close connection
4b) No -> Connection "not trusted" (yet), continue with check #5

5) Does address have a reverse entry in DNS
5a) Yes -> continue with check #5
5b) No -> Close connection

The connection is now allowed to issue regular SMTP commands

6) AUTH command is received and successfully authenticated -> Connection "trusted"

7) RCPT TO is received
7a) If connection is trusted, all (local & remote) addresses are allowed
7b) If connection is not trusted, only local recipients and addresses to
domains listed in the "Relayed Domains" are accepted.

214. Does or can NIMS use the /etc/hosts or the /etc/resolv.cfg (/etc/resolve.conf) file?
NIMS will ignore all settings in the hosts and resolver configuration files on all platforms. We do this because we have extremely fast lookup code that can query the DNS server much faster than any library on any of those systems.

L. LIST AGENT

215. How can the archives of a mailing list be accessed?
If a message is sent to listserv@yourdomain.com with "info" in the body of the message the List Agent will return a message with all commands that can be used to search.

216. How does a moderator subscribe multiple users to a mailing list?
1) As the moderator try to add a user to the list. The command is: (sent to listserv@your.domain)

ADD list_name emailaddress [fullname] PW=<password>

The PW is the password set on the list.

2) You will have to set the moderator's password before you do this, according to the manual the syntax is:

PW <ListName> [Add | Change] <NewPassword> [PW=<OldPassword>]

Where the first password is the old password and the new password is the second password. Refer to **Chapter 10** in the NIMS 3.0 manual for more information about mailing lists. Please note that the PW command is documented wrong in the manual. (Also see the NIMS 3.0.1 README)

217. Can List Agent commands be localized?
While you can do that, it's not "supported". Check system\nls\4\imslist. It is strongly recommend against translating the commands themselves, since you will severely limit the users. The listserv language NIMS support is pretty common, and translating the commands means users have to learn new commands. The commands would need to be in UTF-8 encoding.

218. Can the reply to for a list be set to the list rather than the sender?
Yes, on the list object there is a option to set the "Reply-To: to list", once this option is selected on the list the reply-to address will now be the list. We strongly recommend against this setting, however, since any auto-replies from subscribers will then go to the list. NIMS' AutoReply Agent will NOT reply to list messages, since it scans for "Precedence: bulk" and does not reply if the header line is present. All list messages generate this header line.

219. Is it possible to create an "announcement-only" list?
Yes, if the option on the list under Postings "By Moderator Only" is set, only the moderator of the list can send messages to the list.

M. UPGRADING

220. How do I upgrade from NIMS 2.6 to NIMS 3.0?
Run the install from the NIMS directory and choose to upgrade, it is important that you run the SCMS move program correctly during the upgrade to insure that all SCMS messages are seen by the users after the upgrade. The SCMS directory format has been changed from NIMS 2.6x to NIMS 3.0.

221. Can I upgrade NIMS 2.1 to NIMS 3.0?
Technically this can be done but it has not been tested since NIMS 2.1 is no longer supported. We know of several customers who did this, also, Novell's DigitalMe service successfully upgraded from NIMS 2.1 to NIMS 3.0.2b without problems.

222. What is the supported upgrade path to NIMS 3.0?
The supported upgrade path to NIMS 3.0 is from NIMS 2.6x only. Updates from NIMS 2.5x to NIMS 2.6x can be found at www.nimsinfo.com.

223. How can I upgrade from an evaluation copy of NIMS 3.0 to a licensed version?
By buying the licensed version and then copying the nims.nlf license file into the directory that contains the NIMS binaries. (Netware: sys:system, Linux: /usr/local/nims/bin, Solaris: /opt/NOVLnims/bin)

224. How can I move NIMS to another server?
By assigning another NCP server object to the NIMS Messaging Server object and by copying all related data (Spool and user mailstore) to the new server. Remember to delete the qclients file if you are also copying the DBF directory, since your new servers' IP address will be different.

225. How can I move user data from Solaris to Netware or Linux or the other way?
NetWare and Linux both run on Intel processors. Solaris runs on Sparc processors. Intel and Sparc processors represent data in a different way (Big Endian vs. Little Endian). NIMS index files are processor-specific and cannot be exchanged between Solaris and Intel machines. However, all mailboxes and spool files can easily be copied between the two platforms.
Data can be moved between NetWare and Linux (and Windows, when available) without problem.

N. TOOLS AND WHERE TO GET THEM

226. NDS Tools to set or get attributes
<u>JRBUtils</u>
JRB Software has a whole suite of tools. Two tools of the suite, setname and getname, can be used to store and retrieve attributes in NDS.
For more information, go to www.jrbsoftware.com

DSSnoop
DSSnoop was created by someone in Novell's support organization (we'd love to mention the name, but we don't know the author)
Download from www.novell.com/coolsolutions/freetools_n_q.html#ndssnoop

SetAttr
SetAttr was created by the NIMS team mostly for internal purposes. It's not very polished, but it's quite powerful in setting DS attributes.
Download from www.nimsinfo.com

227. How to find out whether your SMTP server can exchange mail with another SMTP server
On NetWare, you can use MXTrace to perform this task. It uses the actual NIMS lookup routines to simulate delivery.
Download from www.nimsinfo.com

O. SECRETS AND NOT-SO SECRETS

228. Are there any configuration items you guys aren't telling us?
Sure. Whenever you write code and implement a certain feature, you use configurable defaults in order to be able to easily change those constants later if requirements change. Or there's a situation where something cool can be done, but it would confuse 95% of the user population.
In such cases, we add the ability to read the configuration option from NDS, but don't add the ability to set it with our admin tools. Not to be mean to you, but to prevent us from going nuts because everyone fiddles with it and then comes complaining to the forum that their NIMS is "kaputt".

So, here's a list of all modules & attributes. Note that they're not all secret. It's the (almost) complete list of all of them. You decide what we hid from you. Oh, and if you mess it up you're on your own! Don't go and complain that "something just stopped working". We will find out!

```
MSGSRV.NLM:
    Novonyx:Context
        <dn>                        -   Contexts to support
    Novonyx:Official Name
        <domain>                    -   Official Domain
    Novonyx:Postmaster
        <dn>                        -   Postmaster object
    NIMS:NLSDirectory
        <path>                      -   NLS location
    NIMS:BinDirectory
        <path>                      -   NIMS binaries location
    NIMS:DBFDirectory
        <path>                      -   Path for database files
    Novonyx:Work Directory
        <path>                      -   Path for temp files
    Novonyx:Server Standalone
        1                           -   Distributed system off
        0                           -   Distributed system on
    Novonyx:Configuration
        Clustered                   -   Prevent writing the current IP address to DS
        Bind:Specified Address      -   Bind to the address stored in Novonyx:IP Address
    NIMS:PKeyFile
        <path>                      -   Path & name of private key .pem file
    NIMS:CAFile
        <path>                      -   Path & name of certificate .pem file
    NIMS:ConnMgr Config
        1                           -   Connection Manager enabled

MSGALIAS.NLM
    Novonyx:Time Interval
        <number> or S<number>  -   How often to regenerate the database
                                    If starts with 'S' in seconds, otherwise days
    Novonyx:Alias Options
        <number>               -   LDAP_SERVER_ON            (1<<0)
                                   LDIF_EXPORT_ON            (1<<1)
                                   ALIAS_AUTOMATIC           (1<<2)
                                   ALIAS_FIRST_LAST          (1<<3)
                                   ALIAS_FLASTNAME           (1<<4)
                                   ALIAS_FIRST_D_LAST        (1<<5)
```

			ALIAS_FULL_DOT	(1<<6)
			ALIAS_FULL_UNDER	(1<<7)
			ALIAS_AUTO_POPULATE	(1<<8)
			POPULATE_DEFAULT	(1<<9)
			POPULATE_FIRST_LAST	(1<<10)
			POPULATE_FLASTNAME	(1<<11)
			POPULATE_FIRST_D_LAST	(1<<12)
			POPULATE_FULL_DOT	(1<<13)
			POPULATE_FULL_UNDER	(1<<14)

Add the numbers together to get the value to store.
If you don't know what 1<<0 means you shouldn't try to mess with the attributes.

ANTISPAM.NLM
  Novonyx:Action
      <number>   -   Return to sender   (1<<0)
                             CC Postmaster   (1<<1)
  Novonyx:Email address
      <multi-value list>   -   Who to block

AVIRUS.NLM
  Novonyx:Configuration
      Settings:<number>   -   AV_USE_CA   (1<<0)
                             AV_USE_MCAFEE   (1<<1)
                             AV_USE_SYMANTEC   (1<<2)
                             AV_NOTIFY_USER   (1<<3)
                             AV_NOTIFY_SENDER   (1<<4)
                             AV_SCAN_INCOMING   (1<<5)
      Patternfile:<path>   -   Path to pattern files
      CarrierHost:<hostname>   -   Name of Symantec host
      CarrierPort:<portname>   -   Port at Symantec host

FORWARD.NLM
  Novonyx:Autoreply message   -   The default autoreply message if user's is empty.

GKEEPER.NLM
  Novonyx:Configuration
      NameSupport   -   Default, Enable storing names with addresses
      NoNameSupport   -   Disable storing names with addresses

IMSLIST.NLM
  NIMS:ListDigestTime
      <0-23>   -   Hour when to generate digest
  NIMS:ListserverName
      <name>   -   Name listserv should react to (usually listserv)
  Novonyx:Language
      <Lang-ID>   -   Default language for list responses

MSGLDAP.NLM
  Novonyx:Time Interval
      <number> or S<number>   -   How often to regenerate the database
                             If starts with 'S' in seconds, otherwise days

  Novonyx:LDAP Options
      <number>   -   LDAP_SERVER_ON   (1<<0)
                             LDIF_EXPORT_ON   (1<<1)
                             LDAP_REQUIRE_BASEDN   (1<<2)

```
                                         LDAP_REQUIRE_AUTHENTICATION    (1<<3)
                                         LDAP_USE_USERS_BASEDN          (1<<4)
                                         LDAP_SEARCH_PERSONAL           (1<<5)

     Novonyx:Port
         <number>                  -     Port to bind to
     Novonyx:SSL Port
         <number>                  -     Port to support SSL on

MODWEBD.NLM
     Novonyx:Port
         <number>                  -     Port to bind to
     Novonyx:SSL Port
         <number>                  -     Port to support SSL on
     Novonyx:Language
         <lang-id>                 -     Default language
     NIMS:Timezone
         <0-74>                    -     Default Timezone ID
     Novonyx:Configuration
         FormLoginRedirectURL=<url>      URL to redirect to if root of modweb is hit, prevents
                                         Popup login box, use only if no public template avail.
         FormLogoutRedirectURL=<url>     URL to redirect to when user clicks logout
         Logo=<number>             -     Default logo to use
     NIMS:Title
         <text>                    -     Title to display as window titles

MODWEBD.NLM, read from User/Parent object on login:
     NIMS:Timezone
         <0-74>                    -     User Timezone ID
     NIMS:Locale
         DS:<DateFormatShort>      -     Short Date Format
         DL:<DateFormatLong>       -     Long Date Format
         T:<TimeFormat>            -     Time Format
         WDS:<0-6>                 -     Week starts on 0=Sunday, 6=Saturday
                                         Format strings for Date & Time strings:
                                         %a - Locales abbreviated weekday name
                                         %A - Locales full weekday name
                                         %b - Locales abbreviated month name
                                         %B - Locales full month name
                                         %d - Day of month (01-31)
                                         %H - Hour (24 hour) 00-23
                                         %I  - Hour (12 hour) 01-12
                                         %j - Day of the year
                                         %m - Month as decimal number (01-12)
                                         %M - Minute as decimal number (00-59)
                                         %n - Newline character
                                         %p - Locale equivalent of either am or pm
                                         %r - 12 hour time representation hh:mm:ss [am/pm]
                                         %S - Second as decimal number (00-59)
                                         %t  - Tab character
                                         %T - 24 hour time representation HH:MM:SS
                                         %U - Week number of the year
                                         %w - Weekday as decimal number; 0=sunday
                                         %y - Year without century
                                         %Y - Year with century as decimal number
                                         %Z - Timezone offset from UTC (+/- 0000)
```

```
NIMS:Title
    <Title>                        -    Title string to display for user
NIMS:Default Charset
    <charset>                      -    Charset name for user
Novonyx:Preferences
    ModWeb:MsgPerPage=<num>   Messages per page
    ModWeb:Logo=<num>         -    Logo ID
Novonyx:Color
    Page: <fg> <bg>
    Border: <fg> <bg>
    Section: <fg> <bg>
    Fieldname: <fg> <bg>
    Fieldbody: <fg> <bg>           -    Colors, hex values

NMAPD.NLM
    Novonyx:NMAP Trusted Hosts
        <multi-value list>
        <ip-address>               -    Trusted host
    Novonyx:Minimum Space
        <Kbytes>                   -    Space to keep on disk
    Novonyx:UID
        <uid>                      -    Next UID to use
    Novonyx:Queue Timeout
        <days>                     -    Max age of queue entries
    Novonyx:Queue Interval
        <minutes>                  -    Queue retry interval
    Novonyx:SCMS Size Threshold
        <Kbytes>                   -    SCMS minimum size
    Novonyx:SCMS User Threshold
        <number>                   -    SCMS minimum user count
    Novonyx:Quota Message
        <text>                     -    Quota full message
    Novonyx:Quota Warning
        <text>                     -    Quota 90% full message
    Novonyx:Use Quota
        <number>                   -    0 = no, 1=User, 2=System, 3=User+System Quota
    Novonyx:Quota Value
        <bytes>                    -    System Quota
    NIMS:RTS Antispam Config
        Enabled:%d Delay:%ld Threshold:%lu
    NIMS:SpoolDirectory
        <path>                     -    Spooldir path
    NIMS:SCMS Directory
        <path>                     -    SCMS path
    Novonyx:Message Store
        <path>                     -    Path to default user message store
    Novonyx:RTS Handling
        <number>                   -    0 = off, 1=bounce back, 2=cc postmaster, 3=both
    Novonyx:Queue Tuning
        Concurrent: %ld  Sequential: %ld
        Load high: %ld Load Low: %ld Queue Trigger: %ld Interval: %ld
        Debug %ld
    Novonyx:Forward Undeliverable
        <address>                  -    FUD address

MAILPROX.NLM
```

```
Novonyx:Time Interval
    <hours> or S<seconds>      -    How often to run
Novonyx:Thread Limit
    <number>                   -    How many threads to create
Novonyx:Maximum Items
    <0-3>                      -    How many proxy entries per user (Make this larger
                                    than three and watch your system go to hell)
Novonyx:NMAP Server
    <dn>                       -    DNs of NMAP servers to read contexts to be
                                    supported from
Novonyx:NMAP Queue Server
    <dn>                       -    NMAP server to drop new items off to


RULESRV.NLM
  Novonyx:Configuration
    <multi-value>
    <rules>                    -    System wide rules (don't mess with this, there's
                                    a bug that might prevent rules from running if you
                                    try to enable system rules)

SMTPD.NLM
  Novonyx:Domain
    <multi-value>
    <domains>                  -    Global Domains
  Novonyx:User Domain
    <multi-value>
    <domains>                  -    Hosted Domains
  NIMS:Relay Domain
    <multi-value>
    <domains>                  -    Relayed Domains
  NIMS:Blocked Address
    <multi-value>
    <addrfrom>-<addrto>        -    Blocked range
  NIMS:Allowed Address
    <multi-value>
    <addrfrom>-<addrto>        -    Allowed range
  NIMS:UBE Configuration
    <number>                   -    UBE switches
                                    UBE_CHECK_ALLOWED        (1<<0)
                                    UBE_CHECK_BLOCKED        (1<<1)
                                    UBE_CHECK_REVERSE        (1<<2)
                                    UBE_REMOTE_AUTH_ONLY     (1<<3)
                                    UBE_USE_RBL              (1<<4)
                                    UBE_SMTP_AFTER_POP       (1<<5)
                                    UBE_NO_REVERSE_AUTH      (1<<6)
  NIMS:Recipient Limit
    <number>                   -    Max RCPT TO lines allowed
  NIMS:RBL Host
    <multi-value>
    <hostname>                 -    RBL hosts to check against
  Novonyx:Message Limit
    <MByte>                    -    Maximum size of accepted messages
  Novonyx:NMAP Queue Server
    <dn>                       -    NMAP to queue to
  Novonyx:RelayHost
    <hostname>                 -    Host to forward *all* message to
  NIMS:RTS Antispam Config
```

Enabled:%d Delay:%ld Threshhold:%lu

MWMAIL.NLM
  NIMS:Recipient Limit
    <number>   -   Maximum recipients allowed
  Novonyx:Message Limit
    <MByte>   -   Maximum message size

MWCAL.NLM
  NIMS:Recipient Limit
    <number>   -   Maximum recipients allowed

MWPREF.NLM
  Novonyx:Configuration
    <number>   -   Dunno, ask Micah
  NIMS:PasswordConfig
    <number>   -   bit 0=allow password, bit 1=require SSL

RULESRV.NLM read from user object
  NIMS:Rule
    <multi-value>
    <rule>   -   Rule according to rulesrv.h

FORWARD.NLM read from user object
  Novonyx:Forwarding Enabled
    <0-2>   -   0=disabled, 1=forward, 2=forward & keep copy
  Novonyx:Autoreply Enabled
    <0-1>   -   0=disabled, 1=enabled
  Novonyx:Forwarding Address
    <multi-value>
    <address>   -   Address to forward to
  Novonyx:Autoreply Message
    <text>   -   Text to autoreply with

Read from USER, GROUP and ORGANIZATIONAL ROLE objects:
  Novonyx:Messaging Disabled
    1   -   Not recognized as object

229. How does inheritance work on parent objects?
Here's the logic:
    Step 1: Have the user DN; we check if there's a parent DN (=inheritance DN)
    Step 2: If we have inheritance DN, get the inheritance config of parent, else go to step 4c
    Step 3a: Inheritance is Parent->User; read features attribute from parent
    Step 3b: Inheritance is User->Parent; read features attribute from user
    Step 4a: If feature disabled return disabled state
    Step 4b: If feature from parent, read parent data attribute
    Step 4c: If feature from user, read user data attribute
    Step 5: If data attribute empty, try opposite DN attribute

230. How are the inheritance configuration and feature sets stored in NDS?
Three attributes are used, "NIMS:FeatureSet", "NIMS:FeatureInheritance" and
"NIMS:ParentObject".

NIMS:FeatureInheritance is stored only on the parent object and defines, if the
NIMS:FeatureSet attribute is first to be read from the user object or from the parent object.
It's possible values are "O" for User First and "P" for Parent First.

Then the NIMS:FeatureSet attribute is retrieved from the appropriate object. The FeatureSet attribute is a multivalue attribute that defines a matrix of features.
A feature is defined a value for row and column. For example, the IMAP feature is defined as row "A" and column "1".
The attribute by default looks like this:
```
AUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
BUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
CUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
DUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
EUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
```
The first letter designates the row, the letters after the row designator are the columns used by the feature indicators.

A "U" or "P" indicates to read an attribute from the user object if the feature set has been read from the parent, and vice versa. A "0" indicates the feature is not available, a "1" indicates the feature is available.

Here's the list of defined features, as of NIMS 3.0.2:

Feature	Row	Col
IMAP	A	1
POP	A	2
Address book	A	3
Proxy	A	4
Forward	A	5
Autoreply	A	6
Rules	A	7
Finger	A	8
SMTP Send count limit	A	9
SMTP send size limit	A	10
NMAP Quota	A	11
NMAP Store	A	12
WebMail	A	13
ModWeb	A	14
MWMail Address Book Private	A	15
MWMail Address Book System	A	16
MWMail Address Book Public	A	17
ModWeb WAP Access	A	18
Calendar Agent	A	19
Calendar	A	20
AntiVirus	A	21

If IMAP and AntiVirus are disabled, and ModWeb enabled, the attribute would look like this:
```
A0UUUUUUUUUUUU1UUUUUU0UUUUUUUUUUUUUUUUUUUU
BUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
CUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
DUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
EUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
```

If the same attribute was stored on the user object with the following settings:
```
AUUUUUUUUUUUUUUUUU1U0UUUUUUUUUUUUUUUUUUUUU
BUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
CUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
DUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
EUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
```

Based on those two attributes and assuming that inheritance is Parent->User, the user would be able to use all features but IMAP and AntiVirus based on the features from the parent object. For looking up if Calendar is enabled, NIMS would fallback to the user object (since there's "U" in the parent object for the feature) and find a "0" in the Calendar position. This would also disable the Calendar feature. In the WAP position on the user object is a "1" which enables the feature.

Combining all the results from above calculations, the end-result would be that the user cannot use IMAP, AntiVirus and any Calendar features. All other features could be used, since there's no explicit "0" stored anywhere else. NIMS always defaults to On if not explicitly disabled, for backwards compatibility.

There's two types of lookup NIMS does through this logic: 1) To determine if a feature is enabled or disabled. 2) To read an attribute (e.g. Novonyx:Forwarding Enabled)

When using the logic to read an attribute, it is possible, through inheritance, to redirect the lookup of the feature to the parent object .

All NDS lookups in all NIMS agents go through this logic every time an attribute is read from a user object. The configuration interfaces for NIMS (NWAdmin/WebAdmin) do not provide full access to this logic for all attributes to prevent misconfiguration nightmares. However, it is possible to set those values with other tools to achive some desired results.

Now, if you managed to read this whole section, congratulations! It's a brain teaser, even for us on the team. The best way to learn how it works is to have a test server, set a few values through the admin interfaces and then use DSSnoop or a similar tool to look at the attribute values and what's changed. The coolest thing is, it only takes about 40 lines of code to implement the inheritance and attribute reading, but it took two full pages to try to describe it.

231. What command-line switches exist for the various components of NIMS?
In general, if a program supports command-line switches, it will always support the "-h" and "-?" switch to find out it's usage.
The only "undocumented" two switches are for nmapd, since usually it is auto-loaded by MSGSRV and no switches can be passed in.
The first option is "recover", MSGSRV.NLM will automatically pass this argument to *all* agents if it detects that NIMS was not shut down properly last time. NMAP will do a full queue integrity check if it is loaded with "recover" as argument.
The second argument is "showload" and it will cause NMAP to display a rudimentary screen showing load trends. Use with caution.

232. Who's who on the NIMS team?
Now, if you had found the Easter egg you wouldn't have to ask.
The core NIMS team is:
    Peter Dennis Bartok (Architect & Programmer)
    Rodney Price (Programming, CPR and Benchmarking)
    David Latimer (Support & Templates)
    Micah Gorrell (Programming)
    Lynn Madsen (Product Management)
    Rick Fowles (Project Management & Right Hand of God)
    Jason Brothers (Testing, MRB and everything else)
and
    Dave Stevenson (Head Honcho & VP)