SWAN – BANDWIDTH MANAGER

Development Center

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Welcome to SWAN 3.0

This manual contains enough information to help you understand **SWAN 3.0**and get you started.

SWAN 3.0has been customized to suit the needs of the ISP sector. It is the most comprehensive server installation, equipped with latest operating system kernel, a simplified installation process and a customized administration interface.

Symphony Solutions, the brainchild behind **SWAN 3.0** is a technology-based company that provides installation, support, consultancy and project management to our partners and customers as part of our package-based solutions approach.

SWAN 3.0 does not place a heavy load on your machine, and can be easily configured on the simplest of machines. It is designed for making optimal use of the available system resources. At the same time, it is highly scalable for use in high-end environment processors.

SWAN 3.0 is compatible with all Pentium processors and is also compatible with alternative processors like Cyrix and AMD.

Hardware Compatibility List / Minimum Specifications / Requirements

Hard Disk

SWAN 3.0 lends support to both IDE as well as SCSI hard disks. **SWAN 3.0** installs and operates on a separate hard disk and creates its own partitions. For optimum use of **SWAN 3.0,** it is preferable to use at least a 4 GB hard disk. The Hard Disk after installation of SWAN CANNOT be used for any other purpose, as SWAN needs a dedicated Server for optimum performance.

Memory

SWAN 3.0 requires at least 256MB RAM for working, but for smooth functioning of all its features, 512MB RAM is recommended. RAM depends on the number of users that the system handles.

100-200 users == 512MB
200-400 users == 750MB
400-700 users == 1GB

CD-ROM Drive

SWAN 3.0 installs itself directly from a bootable CD-ROM. Therefore; it is essential that the computer has a CD-ROM drive with support for CD-ROM booting. The BIOS has to be at the same time configured for booting from the CD-ROM.

Display Cards and Monitors

SWAN 3.0 supports all display cards and monitors.

Network Adapter

SWAN 3.0 supports all PCI Network Adapter cards. Two PCI Network adapters are required for the server.

Internet and Networking Prerequisites

- The class of network and a static/real IP address for PCI Network card 1(eth0), and the class of network and a LAN IP address for PCI Network card 2 (eth1).
- The subnet mask for both the networks.
- Related parameters such as Network Address, Broadcast, and Gateway for both the cards.
- DNS server entry for the **SWAN 3.0**

✓ Note: The class of your network and the subnet mask determine the total number of

permissible hosts on the network.

BIOS Settings

Ensure that the BIOS settings reflect the correct date and time since **SWAN 3.0**, Picks up the date and time directly from the BIOS settings.

BIOS Configuration

It is essential to configure the BIOS before installation because in most cases the machine is assigned to boot from the hard disk or a floppy drive. Perform the following alteration to the BIOS settings.

a) Power on the computer and enter BIOS settings by pressing the **Del** key or the **F2** key as prompted by your system.
b) Set the system date and time in BIOS to reflect the current date and time.
c) Change the boot sequence in BIOS from the present configuration to CD-ROM, C, A i.e. (CD-ROM first.)
d) Save the BIOS settings.
e) Ensure that the **SWAN 3.0** CD-ROM is in the drive and restart the computer.

MINIMUM HARDWARE REQUIREMENTS:

Pentium-III Processor
256 MB RAM
20 GB SCSI HDD
CD-ROM Drive with 52X speed and above
BIOS with support for booting from CD-ROM
ISA/PCI display card
Monitor
Keyboard
2 PCI Network Card
Connection to the Internet
SWAN supports all types of Internet media connection viz. Lease line, wireless, Vsat.

STEP-BY-STEP INSTALLATION PROCEDURE:

Booting from the CD-ROM

After inserting the CD in the CDROM, the BOOT screen appears. On seeing the boot prompt, to continue with the installation, press **ENTER**. A blue screen is displayed after which the installation starts.

- ✓ *Note: Please take a back up of the necessary existing data. SWAN needs a dedicated Hard Disk and will erase all data on the disk during installation. (Typically on a low-end machine the time taken for the installation is approximately 6 mins.)*

a) It starts with formatting the file system. After which the installation of SWAN packages begin.

b) This takes approximately 5/6 mins depending on the machine configuration.(On a Pentium 3 with 128 mb ram it will take about 6 mins)

c) After Installation it will perform the post install process which might take about 6/7 mins depending on the machine config

d) On completion of the installation, the system automatically ejects the CD and reboots.

On rebooting it will detect the "First Boot" and ask the user to enter some information . For registration
(Make sure that the machine has an active connection to the internet)

The registration form has the following fields

- ✓ *Note: No spaces are to be entered while entering the information and all fields are required to be filled in proper format, as mentioned.*

1) **Company Name**. Name of the company for which installation is been done.

2) **Address** : Address of the company.

3) **Phone Number**: Telephone numbers of the company.

4) **E-mail** Email address of the administrator

5) **Contact Person**: Name of the person to contact in the company.

6) **Installation Done By**: Name of the person carrying out the installation.

7) **Internet Connection IP**: This screen prompts for the IP address to be assigned to the NIC/Ethernet card (eth0) through which SWAN connects to the Internet. Following fields have to be provided.

For Eg.

IP address: <Internet_ip_add> the public IP to be given. E.g. 202.144.144.144.
Netmask: The netmask of the Public IP used. E.g. 202.255.255.252
Gateway: Check with your ISP

- ✓ *Note: The gateway IP address (PUBLIC IP) to be entered should be of the Router at the ISP end or the Router at the operator's end. Router IP address is optional and needed only in case of displaying the In/Out Traffic Graph for the particular router.*
- ✓ ***Note: Internet Connection is needed to complete the installation***

8) **Internet Connection Net mask:** Netmask for the internet Connection IP provided above.

9) **Internet Connection Gateway** : IP address of the router/machine acting as the gateway to the internet.

10) **Lan Connection IP: IP address:** <lan_ip_Add> The IP addressed to be used by the SWAN server to connect to the LAN

- ✓ *Note: Ideal Network designing would require LAN IP to be provided in the range defined by Inter NIC. The range contain the following Network series:*
  Class C: 192.168.100.0
  Class B: 172.16.0.0
  Class A: 10.0.0.0

11) **LAN Connection Netmask:** Netmask to be given to the LAN IP addres entered above.

12) Primary DNS and Secondary DNS Server:

Primary: By default, the primary DNS server is the local loop back address 127.0.0.1. This is because SWAN also contains caching DNS server to speed up Name Lookups.

Secondary and Ternary can be any valid DNS Server addresses.
(Typically provided by ISP)

For DNS Name lookups, SWAN will first try to get the information from the Primary DNS server. If Not available, it will try fetching the information from the Secondary DNS server and finally from the Ternary DNS server.

After Entry of all the details. Press Next to go the next screen.

The machine will then check and setup the system setting.

It will ask for the product registration and Passkey if provided.

Please enter the Passkey provided.

If you do not possess the passkey, select NO and proceed ahead.

(Please make sure that the Machine is connected to the internet.

This will complete the installation and the machine will then reboot.

In case of problems please email or contact "*helpdesk_symphonysolutions@yahoo.com*" or support@symphonysolutions.biz

After installation, any further information for setup/configuration can be added through the Administrative Control.

TO ACCESS THE GRAPHICAL USER INTERFACE (Administrative Control)
From a windows client machine in the LAN, open any browser and type the url
http:// <lan_ip_Add> /admin/ for e.g. http://172.16.0.1/admin/

Or

http://<internet_ip_add>/admin/ for e.g. http://202.144.144.144/admin/

Use "admin" as login and "admin221" as password.

The Demo CD is an evaluation version for 4 days, having a 50 user license.

- ✓ *Note: The Demo version is activated as a full version only after an authorized person from Symphony Solutions has ACTIVATED it.*

INSTALLATION - FREQUENTLY ASKED QUESTIONS (FAQS)

IN some cases you may not be able to install **SWAN 3.0** properly. Here are some problems put forward and the solutions.

Unable to Boot from the CD-ROM----You may not be able to boot from the CD-ROM drive due to any of the following reasons.

Problem1): The system used for installation has no support in the BIOS for booting from CD-ROM.
Solution: Upgrade the system or change to one that supports booting from CD-ROM.

Problem2: The CD-ROM drive used for installation has no booting support or does not have the required speed.
Solution: Change the CD-ROM drive.

Problem3): The system tries to boot from the HDD/FDD first.
Solution: Change the boot sequence so that CD-ROM is the first choice.

Problem4): The CD-ROM is detected by the system as primary master.
Solution: Check the CD-ROM configurations. You may have to change the jumper settings or cable settings or motherboard so that the CD-ROM gets configured as the primary slave.

Installation Startup Fails----If you are able to boot from the CD-ROM, but if the system still fails to install, the following could be the possible causes:

Problem1): The hard disk has not been detected by the system BIOS.
Solution: Check the cable connecting the system motherboard to the hard disk and then set the disk to “Auto” in the BIOS.

Problem2): The motherboard or RAM in the system in use is not compatible with **SWAN 3.0**or is faulty.
Solution: Change the machine.

Problem3): The hard disk used is not compatible with **SWAN V2.2.5F**
Solution: Change the hard disk.

Installation Halts without Successful Completion----There may arise a possibility wherein the installation process “hangs” and hence does not proceed to completion. It could happen due to:

Problem1): The hard disk used for installation has bad sectors or has insufficient disk space.

Solution: Use a fresh hard disk with minimum capacity of 8 GB.

Problem2): The hard disk mode set in the BIOS setup is not compatible with **SWAN 3.0**installation.
Solution: Change the hard disk mode in the BIOS setup to USER or AUTO.

SWAN 3.0 Crashes Abruptly after Installation ---After installation, ideally the machine should reboot. In case, during the startup process **SWAN 3.0** suddenly shuts down, these could be the reasons why:

Problem: The **SWAN 3.0** version installed is not a registered package since the activation key entered during installation is incorrect.
Solution: Reinstall **SWAN 3.0**using the correct activation key provided with the software pack.

Problem: The demo version had been installed, which has now expired.
Solution: Please contact "*helpdesk_symphonysolutions@yahoo.com"* or "*support@symphonysolutions.biz"*

SWAN 3.0MANUAL.

SWAN (Bandwidth Management Software) 3.0is classified under following major sections.

1) **Real Ip (Public Ip's)**
2) **Pool (Ip Range) Management Module**
3) **User Management Module.**
4) **Proxy restriction Management.**
5) **Policy Management Module**
6) **Logs & Browsing Reports**
7) **SERVER Management Module**
8) **Announcements**

1) Real IP

Normally, an ISP would give a range of real IP's based on the requirement of a corporate. These Real IP's could be used & allotted to the clients, to give them an advantage to work on Real IP's. All the customers working on Real IP's can be remotely administered.

Real IP Pool:
What is a Pool?
Pools are groups of IP address covering a range of IP's.
Pools can be treated as groups in an corporate environment.
For E.g. We can have a pool of employees in the accounting department, a pool of employees in the marketing department etc.

One can create a pool of real ip addresses allocated by the ISP.
The various fields here are :
a) Pool Name: Name of the respective Pool

c) Gateway Ip : This will be aliased with the Lan Interface of the Swan Server..
d) Netmask: the netmask for the real ip .
e) Bandwidth (kbps) : The total bandwidth to be allocated to the real ip pool.
f) Pool type : Single / Shared.

1) ***Shared Bandwidth***: All the IP's added in this pool will share the total bandwidth allocated to the pool

2) ***Single Bandwidth***: All the IP's added to this pool will each get the total bandwidth allocated to this pool

Real IP User.

We can create the real ip users who have to be allocated the real ip address. First we need to select the respective pool and then add the user to it.

2) POOL Management

What is a Pool?
Pools are groups of IP address covering a range of IP's.
Pools can be treated as groups in an corporate environment.
For E.g. We can have a pool of employees in the accounting department, a pool of employees in the marketing department etc.

2.a) <u>Create Pool</u>

This consists of a) Pool Name, b) Start IP add c) End IP add, d) Bandwidth (kbps), e) Pool Type, f) Online User limit, g) Password for Zone Management.
E.g.

Name	START IP	END IP	BANDWIDTH (kbps)	POOL TYPE
Group1	172.16.0.1	172.16.0.10	64	Single/Shared

In this way the admin can create various groups of IP addresses.

- ✓ *<u>NOTE</u>: the bandwidth allocated here is not for the entire pool but for each user in that pool. A pool can be assigned **SHARED or SINGLE (Dedicated) Bandwidth**.*

Shared Bandwidth: All the IP's added in this pool will share the total bandwidth allocated to the pool

Single Bandwidth: All the IP's added to this pool will each get the total bandwidth allocated to this pool.

<u>'Zone Management'</u> → It's an addon module, which is available for a token payment.

A brief description of Zone Management is as given: -

By Zone Management feature the system administrator can create users who can access the **GUI** of the SWAN. These users will have the access limited to a particular pool. This feature is useful for creation of franchisee.

The procedure for creation of user for a particular zone (pool) is as given below: -

If the administrator wants to give an existing pool for ***'Zone management'*** he can do it by selecting the **'Modify pool'** in the **'Pool Management'** section. All he has to do is to provide a password in this page under the **'Password for zone-management'.**

The administrator also can create a new pool and create a user for zone-management at the time of creation by assigning the password. The users created for ***'Zone Management'*** can access the respective GUI by typing following **URL** in the browser: -

<u>http://IP-ADDRESS:800/username/</u>

After sending this request the user will be getting a login-popup in which he is to enter the user name as “POOL-NAME” and password to be entered will be the one assigned by the administrator for that pool. If the User-Name and password given by him match with passwords in the database the user will be given access to the GUI.

It is also possible to control the level of access-rights allocated to the administrator of a particular zone via ***'access-control mechanism'***.

2.b) View Pools.

The admin can view the various pools that he has created using “Create Pools”.
E.g.

Name Type	Start IP	End IP	Bandwidth	Pool
demo	172.16.1.1 Shared	172.16.1.20	128	
demo1	172.16.1.21	172.16.1.30	64	Single

2.c) Modify Pools.

The admin can modify/make changes using the modify pool screen.

- ✓ *NOTE: the admin has to checkmark the “select” checkbox for the respective pool which he has to modify or click on the name of the Pool.*

2.d) Delete Pools
The admin can delete any of the pools that he has created using this screen.

- ✓ *NOTE: the user has to checkmark the “select” checkbox for the respective pool, which he has to delete.*

3) USER MANAGEMENT

3.a) Create User

The admin can add the users using this screen.
He is prompted to select the pool under which he has to add the user. On selecting the required pool, the add user screen appears, which has the following two sections.

I] User Personal Details:

1. *Full Name:* The Full name of the User to be added.

2. *Address:* The complete address of the user can be entered here, which can be then viewed from the "View User " screen.
3. *Person-In-Charge:* The Full Name of the person who is responsible for this particular user.
4. *Telephone no:* The telephone number of the user to be added for contact.
5. *Email ID:* Any email id of the user for contact purpose.

II] <u>User Access Details:</u>

6. *Login name:* The login name of the user to be added for Internet access.
7. *Password:* The password for the login name of the user.
8. *Confirm Password:* Re-enter the password of the user to be added.
9. *MAC Address:* Select the checkbox to bind the MAC Address (Ethernet/NIC card) of the user to be added or leave it unchecked to reset/clear MAC later on.
10. *IP address:* The IP address of the user. This has to be selected from the drop down list of IP addresses. This IP address list will contain the entire range of IP's defined while creating the pool. *Once a particular IP add is selected, it is deleted from the scroll down list.*
11. *Reg. Date:* Registration Date is the current date, while adding a user.
12. *Policy:* We can allot the different policies available for each user. For. E.g. if the user has to given a monthly, it can be selected from the scroll down list of all the policies.
13. *Expiry Date:* Expiry Date is the last date of the policy attached after which User will not be allowed to login and access the Internet.
14. *Downlink Bandwidth (kbps)*: Here specify the downlink bandwidth that the user should be allotted.

✓ <u>NOTE:</u> *this is specified in kilobitspersec (kbps) e.g. 32 kbps or 64 kbps.*

15. *Up Link Bandwidth (kbps)*: Here specify the uplink bandwidth that the user should be allotted.

✓ *NOTE: This is specified in kilobitspersec (kbps). The uplink bandwidth should be ideally 1/8 the of the downlink bandwidth allotted.*

After filling in all the details, pressing on the "**SUBMIT**" button will enter all the data into the database; Successfully, giving the user with a "user successfully added" message.

3.b) View User.

The admin can view the users that he has created using "Add user".
He has to select the POOL of which users he wants to view.

Modify User.
Their will be link to every login name of users listed in View User Screen, click on the respective user login name link to go to modify user details screen.

3.c) Delete Users

The admin can delete any of the users that he has created using Add User screen. He has to select the POOL of which users he wants to delete. It will show all the users of that Pool, from this list "Select" checkbox for the respective user, which has to be deleted.

3.d) Activate / Deactivate Users

The admin can temporarily ACTIVATE or DEACTIVATE users from this screen.
He has to select the POOL of which users he wants to change the status. After select the POOL it will show the list of users with current status.
Select checkbox of respective user and choose Activate User or Deactivate User from the drop down list and click on "**GO**" button to make changes of the selected users.

✓ *NOTE: There are two buttons "Select All" and "Invert Selection".*
If you want to select all the users from the list, then click on "Select All".
And use "Invert Selection" button to reverse your selection from the list and vice-versa.

Proxy Restriction Management:

Proxy restriction management acts like a web access control for the corporate.
Here, the admin can create various policies , based on his requirements.

a) Creating a new policy:
Name: Give an appropriate name to the policy
Description: Description of the policy being created.

Web Access Restrictions:

IP address: Give the IP address to be restricted

Pattern in Domain Name: Any pattern in the domain for E.g to ban the site www.chat.com , the admin can enter "chat" in the box provided.
Multiple entries can be entered , each on a separate line.

Pattern in the Entire URL: Any pattern in the entire url.
For e.g. to ban the yahoo chat site from www.yahoo.com/chat
The admin can enter the phrase "chat" here.

Time Schedule For Web Restrictions:

The admin can choose to apply this restriction based on time restrictions.
For , eg. He can choose the "chat" to be banned during working hours from 10 am to 6pm.
Also . he can chosee the days in the week for this rule to be applied.
Alternatively he can choose which days this rule should be applied. By choosing the day and time from **Except these days:** option

After creating the policies , the admin can select the users which are to allocated this policy from the list of users shown.
He has to Checkmark the box in front of the user name / login name for the user to be selected.

b) View Policies
This screen shows all the Policies created with described values. From this screen you can modify and delete the policies.

c) Modify Policies
From the View Policies list click on Policy Name link to modify the policy values.

d) Delete Policies
From the View Policies list select the checkbox and click on "Delete" button to delete that respective policies.

4) POLICY MANAGEMENT

Policies are created and designed based on various parameters.

4.a) Create Policies

Name:	Describe the name of the Policy to be created for reference
Period (In Days):	Mention number of days for the policy to be created
Time (In Hours):	Mention time in hours for the policy to be created
Maximum Traffic (Upload & Download):	Mention total traffic (Upload & Download) allowed for the policy to be created
Maximum Traffic (Download):	Mention maximum traffic (Download only) allowed for the policy to be created
Maximum Traffic (Upload Only):	Mention maximum traffic (Upload Only): allowed for the policy to be created

Admin can create any number of policies with his own choice of permutations & combinations & he can classify the Users under these policies, while adding them.

- ✓ *NOTE: Select checkbox to define policy value or leave it unchecked to make that particular condition to Unlimited.*

4.b) View Policies

This screen shows all the Policies created with described values. From this screen you can modify and delete the policies.

Modify Policies

From the View Policies list click on Policy Name link to modify the policy values.

Delete Policies

From the View Policies list select the checkbox and click on “Delete” button to delete that respective policies.

4.c) Policy Expiry Details

This is great MIS tool provided to the administrator to see user accounts (Policy Expiry) details with different set of options like.

Days
Hours
Total Traffic (Mbits)
Down Link Traffic (Mbits)
Uplink Traffic (Mbits)

Based on the above parameters, admin can view the users policy expiring details. This list shows the remaining usage available of user account. Red denotes reason of expiry of the user account

4.d) Create Time Rule

Admin can view existing time rules from this screen. Admin can define new time rules and he can also modify and delete from this screen.

Admin has to mention and describe time rule name and select the time duration out of available five options to create a new rule.

Time Duration Option: For e.g. Users can be bounded to be online from particular Hrs. to Hrs. only during the day.

4.e) Time Restrictions

The admin can create time wise restrictions on browsing / surfing of the users.
Admin can create a number of rules and allot them to users through Time Restriction Users field.

4.f) Time Restriction Users

With this option, Users can be classified & can be governed between Time Limits.
Admin has to select the POOL of which users he wants to set the time rule. From the list he can select checkbox of the respective user/s and select time rule from the drop down list and click on “Apply Changes” button to set time rule.

4.g) Skip Cache rules.

The admin can create different number of rules giving the name of the web sites, which he doesn’t want to cache.
For E.g. A rule with name “hotmail” will not cache the hotmail website locally and always will download it form the server. He can specify either the website address or the server ip address of the website.

4.h) Block Sites.

The admin can create rules to block sites giving URL name.
For E.g. A rule with name “block yahoo” and Rule Type “Pattern in domain name” will

block the website www.yahoo.com for ALL the users browsing through SWAN.

7) Logs & Browsing Reports

The admin can view the detailed logs of any user after selecting the Login or IP of that particular user. The admin can view the logs of the user during a particular duration on selecting the correct date using the FROM and TO options.

7.e) Raw Logs

The admin can download logs Zip file from this screen.

7.h) Login Logout History:

The admin can view the Login & Logout details of any user by select login name from this screen.

7.c) Internet usage Summary

The admin can select a particular pool and view the Internet usage history of the entire Pool as well as the users in the pool.

7.a) Bandwidth Analysis (MRTG)

The admin can see a graphical representation of the actual Bandwidth received by each of the Ethernet/NIC cards from the ISP.
Alternatively he can select from User , Pool , Server and view the respective bandwidth utilized by each of them.

The admin can view the Bandwidth traffic by each DAY, WEEK, MONTH, YEAR or all the details together by clicking on the respective link.

7.b) Machines Online

The admin can see how many machines are connected in his network at that point of time with their Login Names, IP Addresses and MAC Addresses.

- ✓ Note: To prevent duplication/misuse, the admin can compare the registered machines IP's with the auto generated ones. The same can be done with the MAC addresses.

7.c) Online Users:

This screen tells you the number of online users at that point of time with their Time of Login, IP Address, Pool they belong to and the bandwidth there are using currently. This page gets refreshed every 5 minutes and also the total bandwidth (Download & Upload)

is being used by the online users currently.

5) SERVER MANAGEMENT

1) Search Engine

This Search page is pretty fast and one stop can do many things screen. Admin can search users by IP or by User Login Name, will display all the users list according to the input given or click on "Search" button to get the list of all registered users.

From results list, admin can click on login name link to modify or can select checkbox to delete user/s information.

2) Authentication

Depending on the choice of the Users & the policy of ISPs **SWAN 3.0** supports both options viz: client based authentication, where the client is provided with User ID & Password to logon or no authentication at all. This sort of facility can be used in Cyber Cafe, where the Cyber Café operators do not want users to authenticate on the machines, while the corporate & Home User ask for authentication.

This option allows the administrator to classify the users to authenticate with their Valid User Id & password or discard the same.

The admin can temporarily Enable or Disable Authentication of users from this screen.

He has to select the POOL of which users he wants to change the status. After selecting the POOL it will show the list of users with current status. Green denotes that user Authentication is ON and Red denotes that user Authentication is OFF.

Select checkbox of respective user and choose Enable or Disable Authentication from the drop down list and click on "**GO**" button to make changes of the selected users.

✓ *NOTE: There are two buttons "Select All" and "Invert Selection".*
If you want to select all the users from the list, then click on "Select All".
And use "Invert Selection" button to reverse your selection from the list and Vice-versa.

3) System Utilities

This screen informs the admin about the system utilities.

1)*Caching Server Status*: Green light denotes that the caching is ON and Red light

denotes that the caching is OFF. You can change the status of caching by clinking on "Start" or "Stop" button.

2) *Proxy Cache flush*: Click on the "Flush Now" link will flush the local cache of the server.

3) *Delete Browsing Usage Logs*: Click on "Delete Browsing Logs" link will delete the entire user logs from SWAN Server.

4) L*og Off All Users*: Click on "Logoff Now" link will logoff all users, at once.

5) *Delete Daily Usage Logs:* Click on this link to delete daily usage logs.

6) Upload Image: Specifying the path for this, will upload the desired image, on the Authentication Screen.

7) Default Pop Up Page: Here, specifying the URL of any web page, will open that web page, the moment any user logs in, through the Authentication Screen. By Default, the URL http://www.symphonysolutions.biz gets opened, however, this can be changed.

4) Server database Backup and Restore

The admin can take a backup of the entire database, including users detail etc. on to the windows machine.

- ✓ *NOTE: For demo version of the software, the backup option will be protected with a password, which will be enabled in the final version.*

The admin can restore the backup of the database, with this option, taken on his windows machine.

- ✓ *NOTE: For demo version of the software, the restore option will be protected with a password, which will be enabled in the final version.*

5) Ping , Trace Ip , Host.

The admin can use these tools to ping , trace the ip address of the client/user. And do a DNS look up.

6) Mail Relay

Users can be categorized for the Mail Relay option with a simple checkbox setting. The users provided with Mail Relay option will be able to send the mails.

7) Mail Relay for Real IP's

Users provided with real IP's, can be categorized for the Mail Relay option with a simple checkbox setting. The Real IP users provided with Mail Relay option will be able to send the mails.

8) Messaging

The admin can write the message in the box provided which and on submitting, the message will then be displayed in the AUTHENTICATION SCREEN appearing for each user before the user starts browsing. Messaging can be done to all cum selective Users. Also, there are 2 types of messages.

Message 1 : This Message which can be send to selected users, as selected.

Message 2 : This Message can be appended to a single user or all the users, as desired, by selecting appropriately.

6) PASSWORD MANAGEMENT

6.a) Admin Password

The admin can change the default admin password provided through this screen.

6.b) Operator Password

Other than the admin who can control the entire working, there are 2 levels of operation The operator can be given some specific links and not the total control over the GUI. For e.g. the operator can be restricted from adding or deleting users, he can only modify them. The admin can change the default password provided to the operator through this screen.

6.c) Field Password

Other than the admin who can control the entire working, there are 2 levels of operation The field can be given some specific links and not the total control over the GUI. For e.g. the field can be restricted from adding or deleting users, he can only modify them. The admin can change the default password provided to the filed through this screen.

6.d) User Password

The admin can modify the users password using this option.
He is presented with screen with two columns USER NAME and FULL NAME. Clicking on the username will present the admin with a screen prompting him for the new user password. After entering new password & confirm password in the fields, click on SUBMIT PROFILE button will make changes to the database.

8) ANNOUNCEMENTS

The admin can display message for all of its users, to make announcements, regarding various interests/aspects. This message is displayed on the Login Pop-Up of its users, as and when they try to login. This message is not a scrolling message.

7.d) Log Generator:

7.f) Daily Usage

There are four categories of reports admin can see from this screen.

1) Server Traffic Usage: click on this link to view server traffic details by selecting date FROM and TO and also report in bits or bytes.

2) Summary of User Statistics: click on this link to view users statistics based on following parameters:

Select Date:	FROM and TO
Traffic In:	Bits or Bytes
Record Type:	Time, Total Traffic, Download or Upload based.
View Top:	Select number of top users from the drop down list.

After selecting it will show the list of top users statistics based on record type between the date range given and the traffic in Bits or Bytes selected.

3) Users List: click on any particular user name link to view usage details by selecting date FROM and TO and also report in bits or bytes.

4) Real IP Users List: click on any particular real IP user name link to view usage details by selecting date FROM and TO and also report in bits or bytes.

7.g) Internet Usage

The admin can view the current account (policy usage) details of any user by selecting login name and he has choice to see this report in bytes as well as in bits by selecting any one from this screen. Report shows the bandwidth and time consumed by the user right

from the start date of the policy to the current day and the total consumption.

✓

6.d) <u>Send Mail</u>

With this option, Users can send the messages to Users for whom the e-mail Id is specified in the User Profile. However, Messaging option can be used to send the messages, to users, whose e-mail ID are not available.

The admin can send emails to an individual user or any number of users by selecting there respective checkbox, writing the subject in the box provided, the body in the box provided By pressing send, the mail will be sent to all the users selected through the checkbox.

- ✓ <u>NOTE:</u> Only those users whose mail ids have been added in the option provided while adding users will be visible in the send mail option.