

Stalker CommuniGate Pro 4.0

In the Movies

Stalker is not only the antihero of a Russian movie, but also the name the CommuniGate directors chose for their company. Not only is the server suitable for large-scale environments, but it also ensures that admins are aware of its full range of functions.

BY THOMAS GRAHAMMER

Stalker is a character from the Russian science fiction novel "Roadside Picnic" and also the title of a breathtaking movie based on the book and made in 1979 by Andrej Tarkowski. It tells the story of a man searching, and hunting in a dangerous and mythical area, called the Zone, in the company of two other men, an author and a physicist.

The laws of nature as we know them do not apply in the Zone. Stalker leads the other two men to an enigmatic room that is said to be capable of making wishes come true. Stalker Software, a US company named after this character, sees its strength in the quest for new technologies.

CommuniGate Pro by Stalker can be downloaded without any registration requirements from the Stalker site. The RPM file weighs in at around 3.2 Mbytes, and the sourcecode is also available.

Typing `rpm -i CGatePro-Linux.i386.rpm` will install CommuniGate Pro in the `/opt` directory within a few minutes, creating a *CommuniGate* subdirectory during the process. A quick look at the directory shows that it contains two files called *mail* and *sendmail*, probably intended as a replacement for the standard programs of the same name. To keep things consistent, the original *mail* program in `/bin` was renamed to *LegacyMail* and a softlink to CommuniGate mail created.

To uninstall, you simply copy the legacy mail program back to its original position. According to the installation manual – <http://www.stalker.com/CommuniGatePro/default.html#Current> – the `/etc/rc.d/init.d` should contain a

start/stop script called *CommuniGate*, and `/var/CommuniGate` is the main CommuniGate Pro directory.

Time to configure the server. To make things simple for the admin, Stalker merely asks the admin user to type `http://your.server.domain:8010`, where *your.server.domain* is your CommuniGate server's address. The admin user is required to authenticate as *postmaster* before starting to configure. The access password is generated randomly during the installation procedure, and is located in the third line of `/var/CommuniGate/Accounts/postmaster.macnt/account.settings`.

After authenticating, a page with various configuration parameters will appear. Although it may appear complex at first glance, a closer look reveals that the page is well organized.

The five items in the main menu *Settings*, *Accounts*, *Domains*, *Directory* and *Monitors* all branch off to various submenus. We will only be looking at a few of the most important parameters, as the defaults are normally quite sensible.

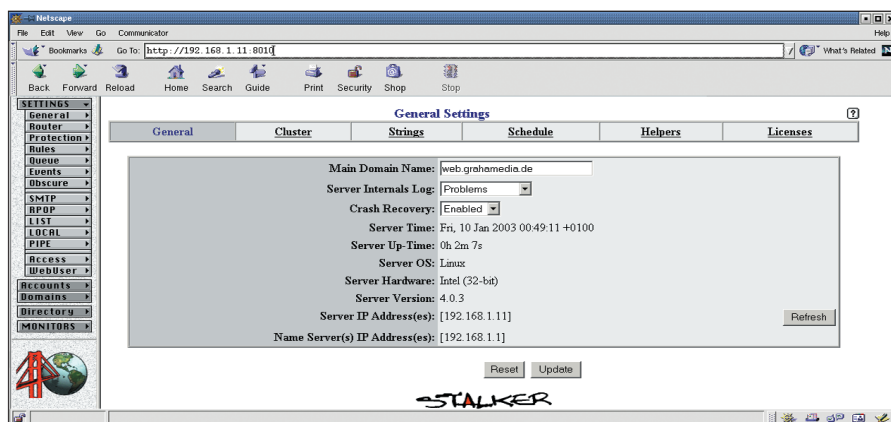


Figure 1: The *Settings* area in the Web configuration tool. Useable defaults are pre-defined for most parameters, such as the domain name, for example

Admins interested in more advanced configuration tasks are advised to consult the manual.

Settings

The *Settings* menu (Figure 1) provides access to a variety of features, allowing the admin user to quickly perform the steps for a basic setup. The first subitem, *GENERAL*, describes the basic preferences and contains the domain name for the server. You can specify the scope of the *Internal Log* by selecting from *Crashes Only*, *Failures*, *Major & Failures*, *Problems*, *Low Level* through *All Info*. The last two levels guarantee a huge logfile.

The *Crash Recovery* in the Web configuration tool refused to work in our lab. Although it restored most of the data when we provoked it by killing the process, it unfortunately lost the data used by the current instance.

This might not be a problem under practical conditions as at least two instances of CommuniGate will be running. The backup instance handles communication when the primary instance fails. In case of failure the server immediately re-initializes, and that means a downtime of less than one tenth of a second.

Divide and Conquer

Two clustering options, static and dynamic, are available to admins wanting to run CommuniGate Pro on a server with multiple domains. Static clusters use a server for each domain. If a static cluster wants to interact with an account in another cluster, it communicates with the other host-server by TCP/IP only. In the case of a dynamic cluster, the cluster server accesses the account data directly. This architecture guarantees maximum availability for the cluster, as a single server is sufficient to handle any existing accounts.

Who is Allowed to Do What?

TCP Activity Scheduling is another interesting feature, and

allows the admin user to define when and how often a server can cause TCP/IP traffic, or to be more precise, how often it can retrieve mail. Again various log levels are available.

The configuration under *ROUTER* should be appropriate for most scenarios although some advanced administration may be required if you intend to use the server as a relay for other systems, for example.

Security: Multiple Filter Support

Spam filters are applied under *Protection*. You can block specific client IPs and create a blacklist of sender IPs. To do so, you either use a so-called Blacklisting DN server or use a Realtime Blackhole List (RBL). You can even use an inverted

blacklist (Whitehole List), again accessing an external Domain Name server to do so. Header and body filters should be applied with care to avoid filtering non-spam mails.

The CommuniGate Pro server is capable of automatic mail processing. A set of rules applied to incoming mail defines the action to be taken; this is similar to the filter functions offered by many mail clients. The versatility of the rule set is convincing and allows you to filter by time of day, date, or weekday for example. The range of available actions is considerable and way beyond the capabilities of any mail clients in the author's experience. This approach provides options for pre-filtering that will be particularly useful in corporate environments – and of course CommuniGate Pro is targeted at corporations.

There is no need to change the *QUEUE* preferences, unless the admin prefers to forward specific error reports to herself or change the handling for return mail. Although this should not normally be the case in typical production environments.

This cannot be said of the *Events* item, however. As the name suggests, this item is responsible for event handling, where functions are assigned to specific events – like sending an email to the admin user, to supply a typical example. You can use the *Elements* item to assign a specific system action to an event. For example, you could assign the *warning* action to the *smtpInputActive* event, in order to mail the postmaster. The number of actions available is so immense, that the system can react sensibly to almost any situation you could imagine.

DNR and SMTP Service

CommuniGate Pro provides its own Domain Name Resolver (DNR) to handle name resolution. The resolver in turn accesses either the internal or an external DNS server. However, it does not make much sense to use

CommuniGate Pro 4.0

Manufacturer:	Stalker Software
Internet:	http://www.stalker.com
Prices:	
License charges depend on the number of user accounts and mailing lists. The number of domains, account and domain aliases, groups and forwarders, or the number of mailing list recipients is unlimited.	
Single Server:	
50 Accounts, 5 Mailing lists	approx. 580 Euro
200 Accounts, 15 Mailing lists	approx. 1,160 Euro
1,000 Accounts, 100 Mailing lists	approx. 2,320 Euro
30,000 Accounts, Mailing lists unlimited	approx. 5,800 Euro
200,000 Accounts, Mailing lists unlimited	approx. 34,800 Euro
Accounts and Mailing lists unlimited	approx. 69,600 Euro
Clusters and Virus scanners	
(McAfee and Sophos)	on request
MAPI Function:	
25 Connections	approx. 1,390 Euro
50 Connections	approx. 2,320 Euro
100 Connections	approx. 4,060 Euro
400 Connections	approx. 11,600 Euro
1,000 Connections	approx. 23,200 Euro
Support:	
2 years update download and standard email support	free
5 pre-arranged calls	approx. 700 Euro
5 calls with max. 4 hour reaction time	approx. 2,320 Euro
Up to 4 tele-sessions per month (reaction time max. 8 hrs)	approx. 5,800 Euro/year
Up to 4 tele-sessions per month (reaction time max. 6 hrs)	8,120 Euro/year

external DNS as this would lead to enormous performance overheads.

CommuniGate Pro requires you to set up an SMTP server to handle communication with the outside world (see Figure 2). Incorrect settings will prevent mail exchanges. The *Send Directly to Recipients* will send each message directly to the recipient's server – this is quite common and sensible, if you do not require any security mechanisms. However, if you use an external virus scanner or a mail proxy, you will need to forward messages to this server.

It is also possible to send SSL/TLS encrypted mail to specific domains. Mail relays are a sore point with most admins, and unfortunately CommuniGate Pro has not come up with a perfect solution to this problem.

Slave Labor

The *RPOP* item (see Figure 3) is used to set up individual accounts. Configurable polling times are extremely useful, as is the option for restricting the maximum number of accounts per user. With respect to local mail delivery the software provides variable hold times for accounts in danger of overfilling their mail queues. Hold times can range between one second to several weeks.

We were pleasantly surprised by the facility that allows POP access to be restricted to specific addresses or address ranges. This is particularly useful in intranets. The *Access* item, which allows you to set up this feature, also lets you change the listener port, and thus secure the system against external access.

Accounts & World Wide Mail

If a mobile user just happens to be visiting Majorca – well, everyone needs a vacation, it would be so nice to get away from the rain for a change – and has a laptop in his luggage, you can forget about relying on Outlook. Fortunately, CommuniGate Pro does provide a Web-based user interface that allows the user to check for the latest mail from the boss in the Internet café round the corner.

The most important CommuniGate setup steps are performed in the *Accounts* area, which allow you to create and edit various accounts, and assign users to groups. The fact that you can enable and disable specific services (POP, IMAP, Web interface, etc.) for individual users is a good thing. The limitations you can apply are praiseworthy, allowing you granular control of space restrictions at mail level, in 1 kb steps.

The *Accounts* facility also allows you to set up and maintain mailing lists. Another nice feature – *Stalker* provides user specific skins for each Web interface. Of course, the usefulness of individual Web interfaces is debatable, but our lab team was quite amused. Let's not forget the Monitoring function provided by the configuration tool; it provides attentive admins with the option of pro-actively monitoring the groupware product, from logfiles through queues to the cluster itself.

Conclusion

For the men in Tarkowski's movie "Stalker" the quest ends in oblivion. Although they find the room, fulfillment and belief elude them. As Stalker already knew, the road is the goal. So at least CommuniGate is on the right road.

The software provides an unusual rich feature set that is almost impossible to exploit fully with a single production installation. Having said that, CommuniGate remains easy to configure – even less experienced admins should have no trouble establishing a workable setup due to the sensible defaults the software provides. This alone makes CommuniGate Pro Server a genuine alternative to Microsoft's Exchange Server. Judging from the licensing fees for the MAPI drivers at least, it would seem that the manufacturer knows that.

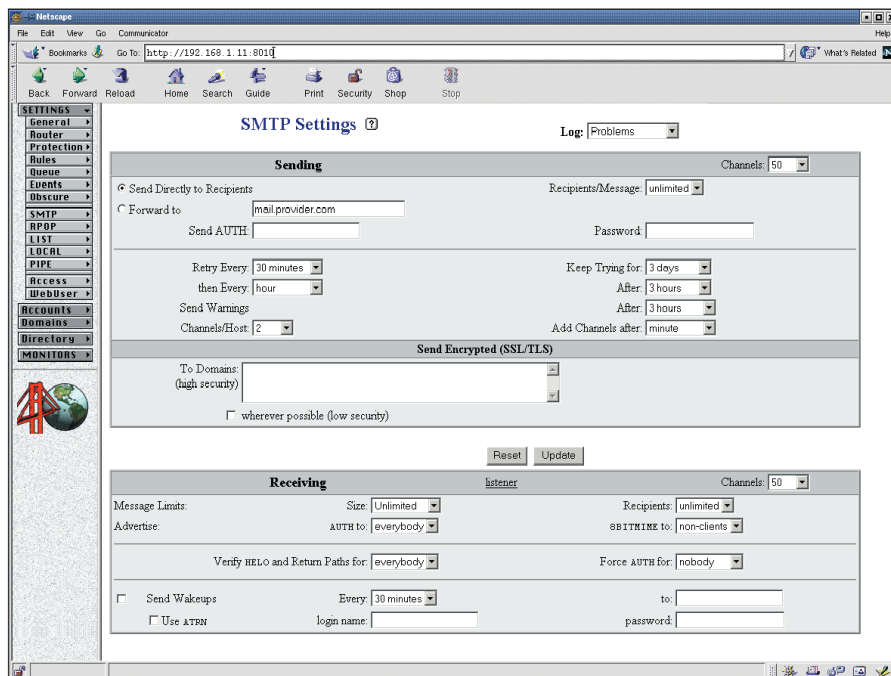


Figure 2: Setting up the SMTP service

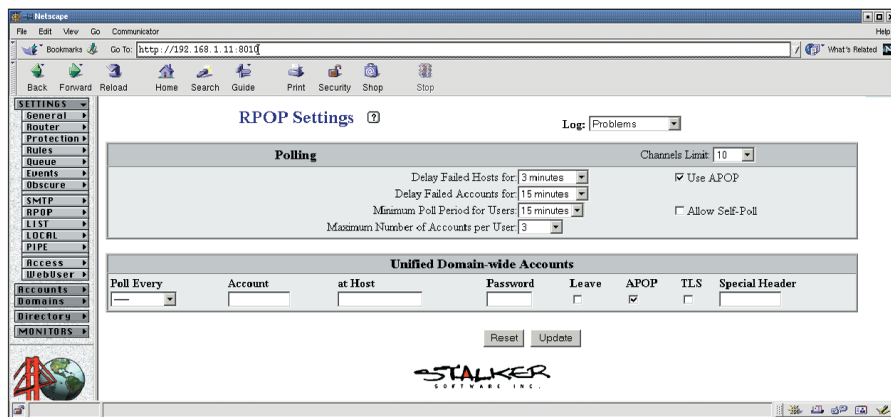


Figure 3: The RPOP area is used for administrating polling intervals, hold-times and limits