

Geutebrück

G-Health Monitoring Service

USER GUIDE

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GEUTEBRÜCK
Competence in Video Security

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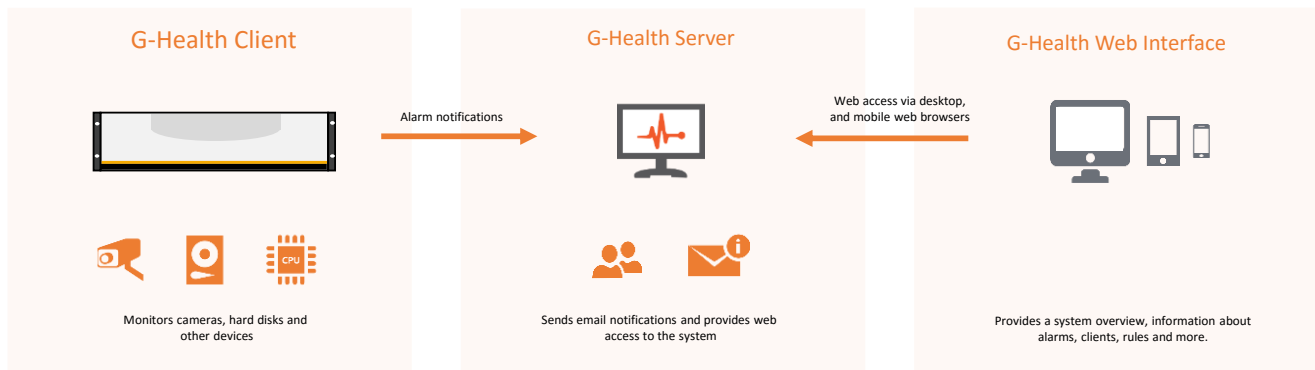
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Overview

The G-Health Monitoring Service monitors the health of CCTV systems based on the Geutebrück GeViScope and G-Core NVR platforms. When critical events such as camera loss or hard drive errors are detected, the G-Health Client reports these events to the central G-Health Server which can then alert the network Administrators through emails and on screen alerts via the G-Health Web Interface.



G-Health Client

The G-Health Client is installed on each Geutebrück platform NVR. Once it has been installed and registered with a G-Health server it will begin monitoring the supported devices on the system.

If a problem is detected, an alarm is created and sent to the G-Health server.

G-Health Server

The G-Health Server is installed on a single machine. It manages the G-Health Clients and stores health notifications which each client reports back upon connecting to the server.

The G-Health Server runs as a Windows Service and it is recommended that it is installed on a dedicated server.

The G-Health server also provides a web interface for managing G-Health. This web interface can be accessed using a modern internet browser such as Google Chrome, Apple Safari, or Microsoft Edge.

After logging in, the operator will be able to view the status of each G-Health Client on the network as well as any alarms which are active in the system.

Installation Requirements

	G-Health Server	G-Health Web Interface	G-Health Client
Operating System	Windows Vista SP2 (32/64bit) , Windows 7 (32/64bit), Windows Server 2003 (32/64bit), Windows Server 2008 (32/64bit), Windows Server 2012 (32/64bit)	Google Chrome v28+, Apple Safari v6+, Mozilla Firefox 28+, Microsoft Internet Explorer 11+ Microsoft Edge	Microsoft Windows XP SP3 (32bit), Windows Vista SP2 (32/64bit) , Windows 7 (32/64bit), Windows Server 2003 (32/64bit), Windows Server 2008 (32/64bit), Windows Server 2012 (32/64bit)
Memory	4,096 MB or greater		512 MB or greater
Hard Drive	10GB free space		2GB free space
Microsoft .NET	.NET 4.0		.NET 4.0
TCP Ports	TCP/3000 (Incoming) TCP/4002 (Incoming)	HTTP/3000 (Outgoing)	TCP/4002 (Outgoing)
Other software	ElasticSearch, Java, Node.js		

Getting Started

1. Install the G-Health Server (GHealthServer-v3.2.x.full.exe) onto a dedicated Windows server computer.
2. Open a compatible web browser and navigate to -
http://[server]:3000/ where **[server]** is the network address of the G-Health server.
3. If required, change the language using the language selection drop down at the top of the page.
4. Login to the web interface with the default credentials (Username: sysadmin Password: masterkey).
5. [Change the default password](#) and [configure the server settings](#) for Alarms and Email server settings.
6. Go to the server license section (Settings -> Server Settings -> Licenses) and enter a valid license unlock code.
7. Modify the System Administrator user profile or [set up a new user](#) to set the email address for alarm notifications.
8. Install the G-Health Client (GHealthClient-v3.2.x.full.exe) onto a Geutebrück NVR computer.
9. Register the client to the server using the [G-Health Client Registration Tool](#).

Installing the G-Health Components

There are two components within the G-Health system. These are:

- G-Health Server – GHealthServer-v3.2.x.full.exe
- G-Health Client – GHealthClient-v3.2.x.full.exe

Each setup application will first perform a check to ensure that the required prerequisite software is installed on the computer. If a required software component is not installed, the prerequisite wizard will attempt to install the software before proceeding with the rest of the installation.

G-Health Server

It is recommended that the G-Health Server is installed on a standalone server computer with no other 3rd party services running.

The prerequisites for the G-Health Server are as follows (these are all installed as part of the G-Health Server's installation process):

- Microsoft .NET 4.0
- Oracle Java JRE 1.7 or greater
- Joyent Node.js 0.12.0 or greater
- Elasticsearch 1.5 or greater

G-Health Client

The G-Health Client should be installed on computers running the Geutebrück NVR software.

The prerequisites for the G-Health Client are:

- Microsoft .NET 4.0

Registering the G-Health Client

The G-Health client must be registered to a server before it will start monitoring the NVR.

To register the client:

1. From the Start menu, open the G-Health Client Registration Tool.
2. Enter the Server Address.
3. Optionally, set the site number if it is known.
4. Start the registration by clicking on the 'Register' button.

The client will attempt to connect and register with the server. If the registration is successful then the client information will appear in the G-Health Web Interface.

G-Health Web Interface

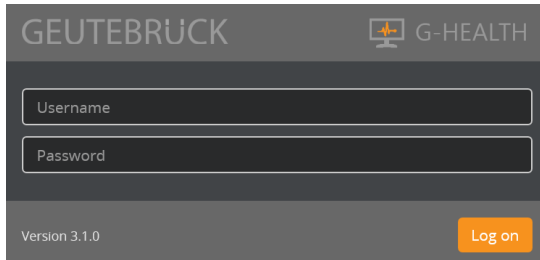
This section provides a more in-depth look at the features of the G-Health Web Interface.

Logging into the web interface

Using a compatible web browser, navigate to the G-Health Server at **http://[server]:3000/** (where **[server]** is the IP address or hostname of the G-Health Server).


Default username: sysadmin

Default password: masterkey

The image shows the login page of the G-Health Web Interface. At the top left is the 'GEUTEBRÜCK' logo, and at the top right is the 'G-HEALTH' logo with a monitor icon. Below these are two input fields: 'Username' and 'Password'. At the bottom left, it says 'Version 3.1.0'. At the bottom right, there is an orange 'Log on' button.

It is recommended that you change the password after you have logged in. To do this:

1. Click on the System Administrator link at the top right of the screen and select Account Settings.
2. Click the Change Password link.
3. Enter the current password, then the new password and click the 'Save' button.

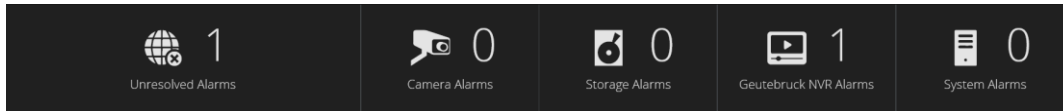
The image shows a 'Change Password' dialog box. It has a title bar with 'Change Password' and a close button (X). Inside, there are three input fields labeled 'Current Password', 'Password', and 'Confirm'. At the bottom right, there are two buttons: 'Save' and 'Cancel'.

Dashboard

The dashboard is designed to give an overview of the health of your client network. It provides a summary of alarm activity and client statistics.

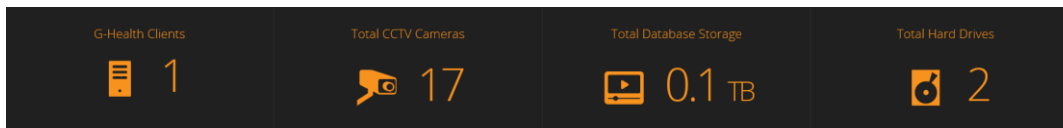
Unresolved Alarm Summary

The alarm summary displays the number of unresolved alarms for each type of device. To view the unresolved alarms for a device type, click the device icon and the browser will be redirected to the alarm list showing only unresolved alarms for the selected device.



Client Summary

The client summary details the total number of clients, cameras and hard drives being monitored by the G-Health server.



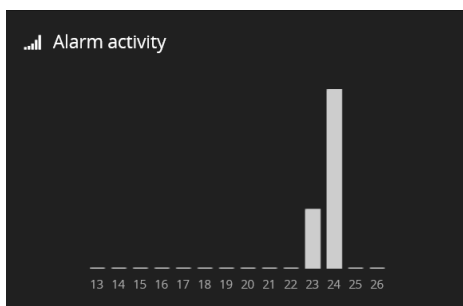
Recent Alarms

The recent alarm list displays the 5 most recent alarms for the last two weeks. This includes alarms which have been resolved, and/or acknowledged by an operator.

Recent Alarms				
Time	Alarm	Client	Site	Severity
2 days ago	Archive Alert The database archive is 0.1 days.	GB-NVR-001	All Sites	INFORMATION
2 days ago	Recording Throughput Database throughput is 0.00 kb/sec.	GB-NVR-001	All Sites	CRITICAL
2 days ago	Archive Alert The database archive is 0.0 days.	GB-NVR-001	All Sites	INFORMATION

Alarm Activity

The recent alarm list displays a bar chart of the number of alarms per day for the last 14 days. To view the total number for each day, either hover over the bar (if using a desktop browser), or tap on the bar (if using a mobile browser).



Configuring the Server Settings

To configure the server settings, navigate to Server Settings > Settings.

Email Settings

In order for email notifications to be sent when an alarm is generated, the email settings must be configured.

1. Enter the SMTP server address
2. Enter the SMTP server port
3. Enter the email address that notifications are to come from.

Note: Each operator must also be configured to receive email notifications. This can be done from the '[Users](#)' section.

The screenshot shows the 'Server Settings' page with the 'Email Settings' tab selected. The page has a dark theme. At the top, there is a navigation bar with icons for Dashboard, Alarms, Clients, Sites, Rules, and Settings. The 'Email Settings' section contains three input fields: 'Server Address' with the value 'mail.mydomain.com', 'Server Port' with the value '25', and 'From Address' with the value 'ghealth@mydomain.com'. Below these fields is an orange 'Save Settings' button. On the left side, there is a sidebar menu with options: Email Settings (highlighted), Alarm Priority Reporting, Licenses, and Reset Rules.

Alarm Priority Reporting

When an alarm is generated, the G-Health Client checks the alarm priority reporting settings to determine whether or not it should immediately connect to the G-Health Server. If the Alarm Priority Settings do not trigger an immediate connection to the server, the alarm will be reported at the next scheduled connection.

Select which level of alarm you would like to receive immediate notifications for.

The screenshot shows the 'Server Settings' page with the 'Alarm Priority Reporting' tab selected. The page has a dark theme. At the top, there is a navigation bar with icons for Dashboard, Alarms, Clients, Sites, Rules, and Settings. The 'Alarm Priority Reporting' section contains a heading 'Select which alarm priorities should cause the client to immediately connect to the server.' Below this, there is a table with two columns: 'Priority' and 'Connect Immediately'. The 'Priority' column has three rows: 'Information' (blue), 'Warning' (orange), and 'Critical' (red). The 'Connect Immediately' column has three rows: 'Information' with an unchecked checkbox, 'Warning' with a checked checkbox, and 'Critical' with a checked checkbox. Below the table is an orange 'Save Settings' button. On the left side, there is a sidebar menu with options: Email Settings, Alarm Priority Reporting (highlighted), Licenses, and Reset Rules.

Licences

Before the G-Health server will accept any G-Health client connections a valid license unlock code must be entered. Getting a license is a two-step process. First, the Server ID must be sent to the integrator or supplier who will be providing the license unlock code. The next step is to enter the unlock code provided by your integrator or supplier. If the unlock is accepted then the license details will be displayed.

The screenshot displays the 'Server Settings' page in the G-Health Web Interface. The top navigation bar includes the 'GEUTEBRÜCK' logo, a notification bell with '356' alerts, and user information 'English' and 'System Administrator'. The main navigation menu contains icons for Dashboard, Alarms, Clients, Sites, Rules, and Settings (which is highlighted). On the left sidebar, under 'Server Settings', the 'Licenses' option is selected. The main content area is titled 'Licenses' and contains the following fields and controls:

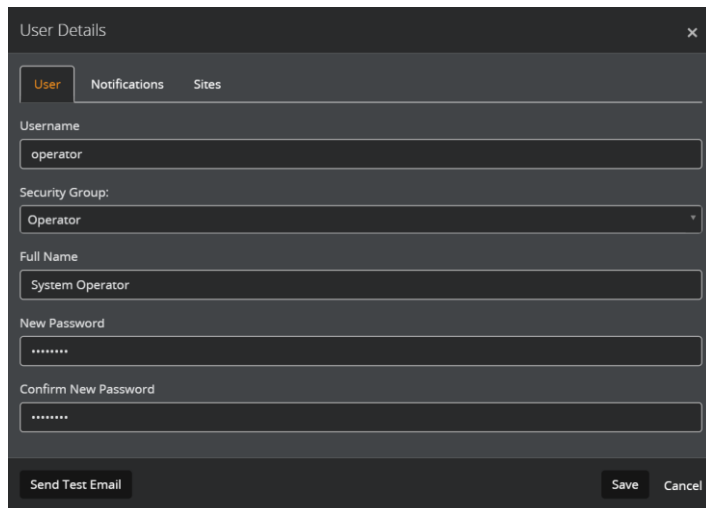
- Server ID:** A text field containing the value '410788-960974'.
- Unlock Code:** An empty text field for entering the unlock code.
- Update License:** An orange button to submit the unlock code.
- Total License Count:** A text field showing '1000'.
- Number of Clients:** A text field showing '280'.
- Remaining Clients:** A text field showing '720'.
- License Type:** A text field showing 'Full License'.
- License Expiry:** A text field showing 'Never Expires'.

Users

Creating a New User

1. Navigate to Settings > Users.
2. Click the 'Create User' button.
3. Fill in the user details and select one of the security groups.
4. To enable the user to receive alarm notification click on the Notifications tab, then:
 - a. Check the 'Enable Alarm Notifications' checkbox.
 - b. Enter the email address for the email notifications.
 - c. Select the minimum alarm priority for email notifications.
 - d. Select the email notification language.
5. Select the sites which the user has access to. If a user does not have access to a site then the site's clients and alarms will not be visible to the user.
6. Optionally, click 'Send Test E-mail' to validate the email settings. If the message was sent successfully then the user should check their email account to ensure the test email was received.

Note: Notifications will only be sent to a user if they meet or exceed the minimum alarm priority and also if they have access to the site which the alarm was generated in.



The screenshot shows a 'User Details' modal window. It has a dark theme with a light gray header bar containing the title 'User Details' and a close button. Below the header are three tabs: 'User' (highlighted in orange), 'Notifications', and 'Sites'. The 'User' tab contains the following fields:

- Username: A text input field containing 'operator'.
- Security Group: A dropdown menu with 'Operator' selected.
- Full Name: A text input field containing 'System Operator'.
- New Password: A text input field with masked characters (dots).
- Confirm New Password: A text input field with masked characters (dots).

At the bottom of the form are three buttons: 'Send Test Email' (on the left), and 'Save' and 'Cancel' (on the right).

Changing Passwords

1. Navigate to Settings > Users.
2. Select the user by selecting on their username from the users list.
3. The User Details window will appear allowing you to edit the password.
4. Click 'Save'

New users will need to use their login credentials to access the web interface i.e. username, password.

Sites

Sites play an important role within G-Health as they:

1. Allow clients to be grouped.
2. Can be used to limit which clients a user has access to.
3. Provide a hierarchy for rules (see the section '[Rules](#)' for more information).
4. Determine the beacon interval for clients within the site.

Creating a New Site

1. Navigate to Sites from the navigation bar.
2. Click 'Create Site'.
3. Enter the Site name, and the parent site.
4. Set/confirm the Beacon Interval for the site. By default it is set to dial every 1 hour.
5. Set/confirm the Overdue Interval for the site. By default it is set to 1 hour.
6. Click 'Save'

Changing the Client Beacon Interval

The beacon interval (amount of time the client will wait between connections to the server) for a client is determined by the site beacon interval. If the site beacon interval is changed the change will only take place on the client after it has connected to the server and retrieved the updated site beacon interval.

Changing the Overdue Interval

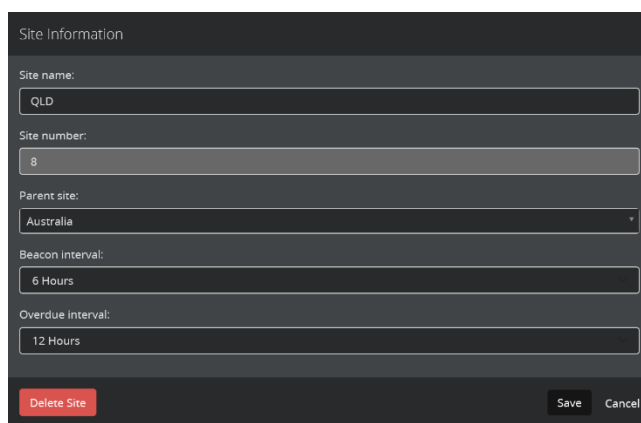
The overdue interval is the amount of time the server will wait after the client was scheduled to beacon before creating an overdue alarm for the client.

Modifying or Removing a Site

The site name and beacon interval can be modified by selecting the site from the site list. A site can also be deleted by selecting the site and then clicking the 'Delete Site' button.

Registering a Client with a Site Number

The site number can be used when registering a G-Health Client so that it is placed into the site upon successful registration with the server.



The image shows a 'Site Information' form with the following fields and values:

- Site name: QLD
- Site number: 8
- Parent site: Australia (dropdown menu)
- Beacon interval: 6 Hours
- Overdue interval: 12 Hours

At the bottom of the form, there are three buttons: 'Delete Site' (red), 'Save' (dark grey), and 'Cancel' (light grey).

Clients

The client list is populated when registering a new client using the G-Health Client Registration Tool as explained in [‘Registering the G-Health Client’](#).

To display a client, click on the name of the client. This will redirect the browser to the client details screen.

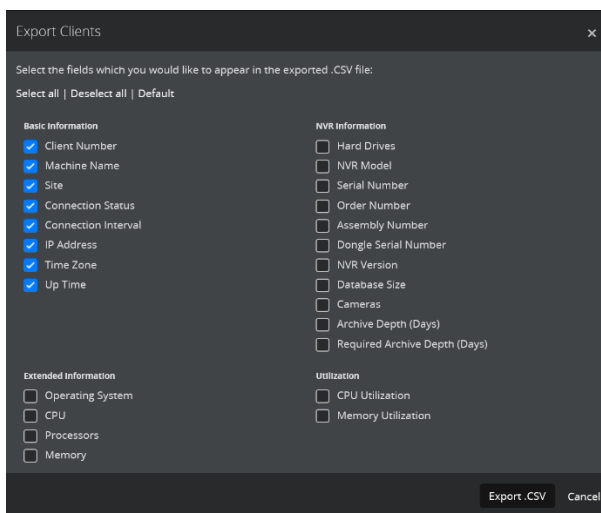
Filtering

To filter the client list, click the filter button on the right of the list. This will display the client filter panel. Set the filter options and finally click the ‘Apply Filter’ button. When the client list is filtered the “Filter Active” text will appear at the top of the list.

Exporting Client Information

The G-Health web interface allows client summary information to be exported to a .CSV file which can be read by spreadsheet software such as Microsoft Excel. This export uses the same filter which is applied to the alarm list.

To export the list of clients, first apply a filter (if required), then click the ‘Export Clients’ button. Next, select the fields which you want to appear in the .CSV file, and finally click the ‘Export .CSV’ button.



Export Clients

Select the fields which you would like to appear in the exported .CSV file:

Select all | Deselect all | Default

Basic Information	NVR Information
<input checked="" type="checkbox"/> Client Number	<input type="checkbox"/> Hard Drives
<input checked="" type="checkbox"/> Machine Name	<input type="checkbox"/> NVR Model
<input checked="" type="checkbox"/> Site	<input type="checkbox"/> Serial Number
<input checked="" type="checkbox"/> Connection Status	<input type="checkbox"/> Order Number
<input checked="" type="checkbox"/> Connection Interval	<input type="checkbox"/> Assembly Number
<input checked="" type="checkbox"/> IP Address	<input type="checkbox"/> Dongle Serial Number
<input checked="" type="checkbox"/> Time Zone	<input type="checkbox"/> NVR Version
<input checked="" type="checkbox"/> Up Time	<input type="checkbox"/> Database Size
	<input type="checkbox"/> Cameras
	<input type="checkbox"/> Archive Depth (Days)
	<input type="checkbox"/> Required Archive Depth (Days)
Extended Information	Utilization
<input type="checkbox"/> Operating System	<input type="checkbox"/> CPU Utilization
<input type="checkbox"/> CPU	<input type="checkbox"/> Memory Utilization
<input type="checkbox"/> Processors	
<input type="checkbox"/> Memory	

Export .CSV Cancel

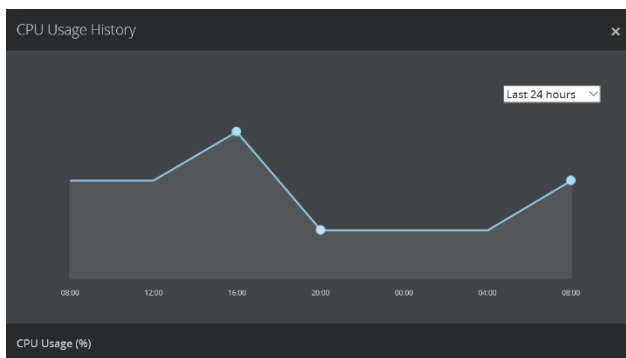
Client Details

The client details screen provides information about the registered G-Health client. In this screen you will be able to view:

- Information about the client hardware, operating system and system performance.
- Information about the Geutebrück NVR, including cameras, archive depth, licenses and recording performance summaries.
- A list of alarms on the client which are unresolved.
- Information about the internal storage, such as hard drive temperature, RAID arrays and controllers.
- Information about the network cards installed in the NVR.

Summary Charts

The client details screen provides interactive charts for CPU and memory utilization, NVR recording performance, and also hard drive temperature. To view the history of each type of chart, click the link below the chart (CPU and Memory), or click the model number link for hard drives.



Changing the Geutebrück NVR credentials

When the G-Health client is installed, it attempts to connect to the local GeViScope or G-Core service using the default credentials (username: sysadmin, password: masterkey).

If the G-Health client is unable to connect to the local NVR service due to invalid credentials then an alarm will be generated.

To change the credentials which the G-Health client uses to connect to the local NVR service, select 'Update Credentials' from the Actions menu at the top right part of the client details screen. In the screen which appears, enter the updated credentials then click the 'Update' button.

The updated credentials will be sent to the G-Health client the next time it connects to the server. If the client is able to connect to the NVR using the updated credentials then the 'Invalid Credentials' alarm will be marked as resolved.

The form is titled 'Update Geutebrück NVR Credentials'. It contains three input fields: 'Username' with the value 'sysadmin', 'Password' with masked characters '*****', and 'Confirm' with masked characters '*****'. At the bottom right, there are two buttons: 'Update' and 'Cancel'.

Changing the G-Health client site

The site which a client belongs to will decide the rules, beacon interval and the amount of time the system will wait before marking the client as overdue. To change the G-Health client's site, select 'Change Site' from the Actions menu at the top right part of the client details screen.

Once the Change Site screen appears, select the new site, and click the 'Save' button.

Saving Geutebrück Setup Files

Each time the Geutebrück NVR configuration changes the G-Health Client will upload the new configuration to the G-Health Server. You can download a copy of the configuration by selecting 'Download Setup File' from the Actions menu at the top right part of the client details screen.

Automatic Updates

Automatic updating of G-Health clients was added in version 3.1.0. When the G-Health client connects to the server it will check to see if there are any updates. If there are, the update files will be downloaded and the G-Health client will automatically apply the updates and restart.

The automatic updates are only available for G-Health clients running 3.1.0 or newer.

If for any reason you do not wish for a G-Health client to update then the automatic updates can be turned off by toggling to 'Update Automatically' switch in the G-Health Information panel of the client details screen.

Deleting a client

If the G-Health client no longer reports to the G-Health server then the client can be deleted. To delete the client, select 'Delete Client' from the Actions menu at the top right part of the client details screen.

Alarms

When an alarm is generated on a G-Health Client it will appear in the alarm list as soon as the client has connected to the server.

New alarms should be viewed by operators and then marked as acknowledged.

For alarms which are able to be resolved, such as a camera coming back online after being disconnected, the G-Health client will send a notification to the server informing it that the alarm has finished. Once this has occurred the operator should mark the alarm as archived.

The alarms screen provides a list of all alarm activity (with the exception of archived alarms). From this screen you can filter and action alarms.

Filtering and Viewing Alarms

To filter the alarm list, click on the filter button at the top right part of the screen. From here you can filter the alarm list using a number of options. Click the 'Apply Filter' button to apply the filter, or to remove the filter, click 'Reset Filter'.

To view the alarm in more detail click the link in the alarm description column.

Acknowledging Alarms

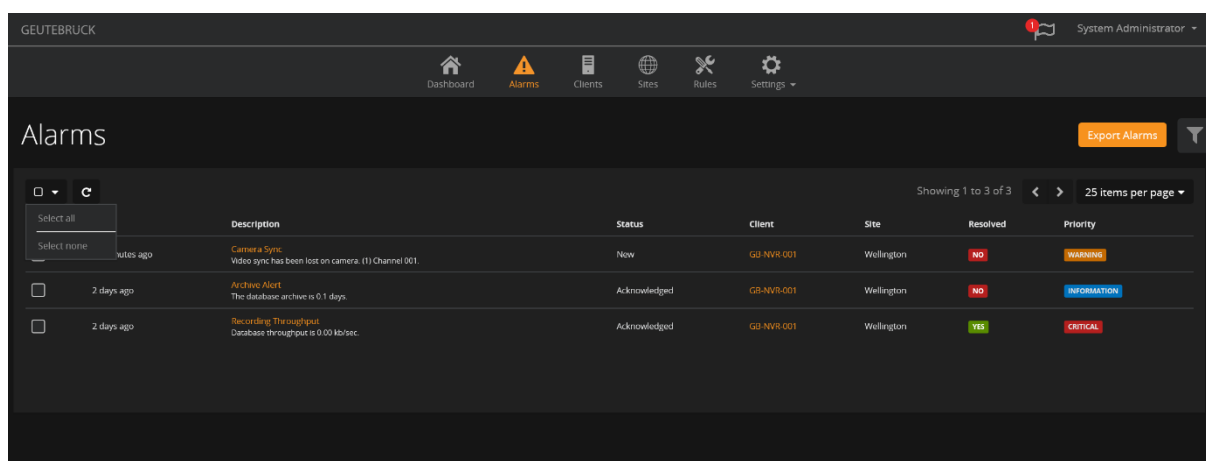
When a new alarm is received by the G-Health server an operator should check the details of the alarm, and when ready, mark the alarm as acknowledged.

An alarm can be acknowledged by clicking on the checkbox in the alarm list and then clicking the 'Acknowledge' button at the top of the list. Using the select all option from the checkbox dropdown alarms can be acknowledge in bulk.

Archiving Alarms

When a new alarm has been resolved, or is unable to be resolved, the operator should archive the alarm.

An alarm can be archived by clicking on the checkbox in the alarm list and then clicking the 'Archive' button at the top of the list. Using the select all option from the checkbox dropdown alarms can be archived in bulk.



The screenshot shows the 'Alarms' section of the G-Health web interface. At the top, there's a navigation bar with icons for Dashboard, Alarms (active), Clients, Sites, Rules, and Settings. The 'Alarms' title is on the left, and an 'Export Alarms' button is on the right. Below the title, there's a table with three rows of alarm data. Each row has a checkbox on the left for selection. The table columns are: Description, Status, Client, Site, Resolved, and Priority. The first alarm is 'Camera Sync' with status 'New', client 'GU-NVR-001', site 'Wellington', resolved 'NO', and priority 'WARNING'. The second is 'Archive Alert' with status 'Acknowledged', client 'GB-NVR-001', site 'Wellington', resolved 'NO', and priority 'INFORMATION'. The third is 'Recording Threshold' with status 'Acknowledged', client 'GU-NVR-001', site 'Wellington', resolved 'YES', and priority 'CRITICAL'. At the bottom right of the table, it says 'Showing 1 to 3 of 3' and '25 items per page'.

	Description	Status	Client	Site	Resolved	Priority
<input type="checkbox"/>	Camera Sync Video sync has been lost on camera. (1) Channel 001	New	GU-NVR-001	Wellington	NO	WARNING
<input type="checkbox"/>	Archive Alert The database archive is 0.1 days.	Acknowledged	GB-NVR-001	Wellington	NO	INFORMATION
<input type="checkbox"/>	Recording Threshold Database throughput is 0.00 kb/sec.	Acknowledged	GU-NVR-001	Wellington	YES	CRITICAL

Rules

The rules in G-Health determine when an alarm is created on a client. After G-Health is installed, a default set of system rules are automatically created by the server.

The settings for most system rules can be customized. To determine if a rule can be customised, check the "Customisable" column for that rule.

How rules are applied to clients

Rules are applied to clients using the site hierarchy. The system will choose the rule closest to the client's site when deciding which rules to send to the client. System rules are set at the site root (All Sites) whereas custom rules must be set further down the site hierarchy.

Rule properties

Below is a table of the available rule properties and their descriptions:

Name	Description
Rule Type	This defines the type of rule which is being created, or modified.
Plugin	This is the plugin on the client which is responsible for monitoring for the alarm.
Site	The site where the rule will be set.
Alarm Priority	The priority given to the alarm which is created if this alarm is triggered.
Alarm Trigger Interval	The amount of time that the system will wait before creating an alarm after the rule has been triggered.
Alarm Threshold	The value that the rule uses to determine when it should trigger.
Trigger Count	The number of times the rule must be triggered before creating an alarm.
Alarm Reset Interval	The amount of time that the system will wait before stopping an alarm once the rule is no longer being triggered.
Event Name	The name of the event which is started on the NVR when an alarm is first triggered. This event will also be stopped after the last instance of the alarm has been reset.

Customizing a system rule

The default set of system rules are created to provide the best monitoring of hardware in most cases. If however, these values are not appropriate for your environment then some of these values can be changed.

To customize a system rule, click on the alarm name in the rule list. This will display the Rule Details screen. Modify the system rule as required, and when ready click the 'Save' button.

Creating a custom rule

To create a custom rule, click on the 'Create Rule' button from the 'Rules' screen. This will display the Rule Details screen.

Select the rule type and the site which you want the rule to apply. This will then populate the rule with the values from the system rule. You can then change the values which need to be customized, and when ready click the 'Save' button.

Disabling Rules

To disable a rule, click on the rule from the rule list. This will display the Rule Details screen. From this screen click the 'Disable Rule' button. To enable the rule again, follow the same steps but this time click on the 'Enable Rule' button instead.

Rule Events

When an alarm is triggered, G-Health can also start an event on the Geutebrück NVR. When the G-Health client receives its rule set from the server it automatically creates the event configuration on Geutebrück NVR.

Using the Geutebrück NVR GscSetup/GSet software, this event can be updated to perform other actions when it has been started, and when it stops. An example of this would be setting a digital contact when there is a problem with a hard drive array.

Deleting Rules

Only custom rules can be deleted from G-Health. To do this, click on the rule from the rule list. This will display the Rule Details screen. From this screen click the 'Delete Rule' button.

Resetting Rules

The rules can be reset back to their original default settings.

Database Retention

The G-Health server periodically purges old data to ensure the amount of data it holds doesn't get too large. Below is a table of the types of data, and the retention durations.

Type	Retention
Client Information	Only the last report is kept, previous reports are purged immediately.
Alarms	Alarms are kept until they are marked as archived. Once an alarm has been marked as archived it will remain in the system for 6 months.
Health Reports	Kept for 6 months, then purged.

G-Health Registration Tool

The G-Health registration tool is used to update the G-Health clients' registration with a G-Health server. If the G-Health client is not registered with a server it does not monitor the health of the local NVR.

When starting the registration tool, it will attempt to connect to the local G-Health Client service running on the local machine. If the G-Health service is not running a warning message will appear indicating that the connection to the local G-Health Client service is not operational. If this occurs, please start the G-Health client service from the Windows services control panel applet.

Registering with a G-Health server

The G-Health client must be unregistered before it can be registered with a server. If the client is already registered with a server and you wish to change the server you must first de-register the client before attempting to re-register it with the new server.

To register a G-Health client, enter the DNS address or IP address of the G-Health server, then click the 'Register' button.

The G-Health client will then attempt to connect to the G-Health server and register with it. The result of the registration status will be displayed in the Status field.

De-registering the G-Health client

If a client machine no longer needs to be monitored, or is switching to another G-Health server, then the client needs to be de-registered. During the de-registration process the client will attempt to connect to the server and if successful the server will remove all registration information from the NVR.

If the client is unable to connect to the G-Health Server then de-registration can be forced. When forcing de-registration, the client will attempt to connect to the server. If a successful connection is established with the server then a normal de-registration will occur, however if after 1 minute of attempting to connect to the server a successful connection has not been made, then the client will continue the forced de-registration process and clear its configuration.

If the forced de-registration option was not used then the G-Health Client will continue to attempt to connect to the G-Health Server until it has successfully established a connection and de-registered itself.

Note: If a client has been forcibly de-registered then the client details will still remain on the server. An operator can remove this client by going into the client details, then selected Actions > Delete Client.

To de-register the client:

1. From the start menu open the G-Health Client Registration Tool
2. Connect to the G-Health Client service by clicking the 'Connect' button.
3. De-register the client by clicking the 'Deregister' button.
4. Optionally force the de-registration by clicking 'Yes' in the confirmation dialog box.

Changing the G-Health client name

The name of the client as it appears in the G-Health web interface can be changed from the G-Health registration tool. To update the client name, set a new name in the Client Name textbox within the Client Settings section, and click the 'Update Settings' button.

Updating the NVR credentials

By default the G-Health client will use the default NVR credentials (username: sysadmin, password: masterkey). If these credentials are known to be incorrect they can be changed by entering the new credentials in the Client Settings section and clicking the 'Update Settings' button.

Appendix 1 – Plugins

The G-Health client contains many plugins that provide health monitoring capabilities. Below is a list of the plugins and their supported hardware configuration:

Plugin	Supported Hardware Configurations
Geutebrück NVR Plugin	Geutebrück GeViScope v7.6.972 Geutebrück G-Core v1.2.7.55
System Plugin	All systems supported by the G-Health Client
Storage Plugin	SATA/IDE hard drive directly connect to the mainboard.
HighPoint Plugin	HighPoint Inband RAID controllers
LSI Plugin	LSI MegaRAID PCIe controllers
GeViStore RAID Plugin	Geutebrück RAID (Areca) controllers running firmware v1.50 or v1.51.

Geutebrück NVR Plugin

The Geutebrück NVR plugin is responsible for gathering information about a Geutebrück NVR and also reporting any health alarms which are generated. It gathers the following information:

- NVR software version
- NVR database size
- The date of oldest video and archive depth
- The camera configuration
- The recording throughput
- The licenses in use on the NVR
- A copy of the current system configuration

It also monitors the following:

- Connectivity to the NVR
- Video Sync Loss
- Camera Position Authentication Events (Scene Validation)
- Fall-back Recording Cache Events
- System Errors (server, database, dongle and DVSP4 errors only)
- Date of oldest video
- Recording throughput
- Redundant power supply warnings (requires USB-MIO84).

System Plugin

The System plugin is responsible for gathering information about the local operating system. It gathers the following information:

- G-Health Client Version
- Hostname
- Domain/Workgroup
- Time Zone
- Time since last restart (Up time)
- Operating System Version, Service Pack and Architecture
- Processor Type and count (CPUs/Cores)
- Physical Memory
- Available Memory
- System Drive Free Space
- Network Interfaces
 - DHCP enabled
 - IP Address
 - Subnet Mask
 - Gateway

The system plugin will also monitor the following:

- CPU utilization
- Memory utilization
- Up time
- System restarts
- Free disk space on the operating system drive

Storage Plugin

The Storage plugin is responsible for gathering information and monitoring the physical hard drives directly attached to the mainboard. It gathers the following information:

- Model Number
- Size
- Serial Number
- Temperature
- Firmware
- SMART Status

The storage plugin will also monitor the following:

- Temperature
- SMART Status
- Drive missing

HighPoint Plugin

The HighPoint plugin is responsible for gathering information and monitoring the physical hard drives which are attached to the HighPoint PCIe RAID controller. It gathers the following information:

- Controller information (Vendor and Model)
- Array information
 - Name
 - Type
 - Size
 - Status
 - Number of Disks
- Hard Drive Information
 - Model Number
 - Size
 - Serial Number
 - Temperature
 - Firmware
 - SMART status

The HighPoint plugin will also monitor the following:

- Array health changes
- Temperature
- SMART Status
- Drive missing

LSI Plugin

The LSI plugin is responsible for gathering information and monitoring the physical hard drives which are attached to the LSI PCIe RAID controller. It gathers the following information:

- Controller information
 - Product name
 - Serial number
 - Firmware Version (Application, BIOS and NV)
 - Physical disks (present, predicted failure and failed)
 - Logical disks (present, degraded and offline)
- Array information
 - Name
 - Type
 - Size
 - Status
 - Number of Disks
- Hard Drive Information
 - Model Number
 - Size
 - Serial Number
 - Temperature
 - Firmware
 - SMART status

The LSI plugin will also monitor the following:

- Array health changes
- Temperature
- SMART Status
- Drive missing

GeViStore RAID Plugin

The GeViStore RAID plugin is responsible for gathering information and monitoring the physical hard drives which are attached to the GeViStore RAID PCIe controller. It gathers the following information:

- Controller information
 - Vendor name
 - Serial number
 - Firmware Version (firmware, boot and board)
 - Model name
 - Valid configuration password
- Array information
 - Name
 - Type
 - Size
 - Status
 - Number of Disks
- Hard Drive Information
 - Model Number
 - Size
 - Serial Number
 - Temperature
 - Firmware
 - SMART status

The GeViStore RAID plugin will also monitor the following:

- Array health changes
- Temperature
- SMART Status
- Drive missing

Appendix 2 – Troubleshooting

Unable to download the prerequisites

G-Health provides two types of installers for the server and client. The installers which end in .full.exe contain all of the required prerequisites to install the application.

The installers which do not end with .full.exe should only be used when upgrading an existing install of G-Health.

Unable to connect to Server

If the G-Health Client is unable to connect to the G-Health Server, or the G-Health Web Interface is inaccessible, then it's possible that the firewall is blocking the incoming ports on the G-Health Server. Ensure that the following ports are open and accessible on the G-Health Server.

HTTP/3000 (Incoming)

TCP/4002 (Incoming)

Failed to connect to the G-Health Client Service

If the G-Health Client Registration Tool is unable to connect to the local G-Health Client Service, then it's possible that the G-Health Client service may not be started.

To start the G-Health Client Service, open the services applet from the Administrative Tools group within the Windows Control Panel. Select the 'Geutebrück G-Health Client' service from the list. Right click on the service and select 'Start'. The status column will indicate that the service has 'started'.

G-Health Server services fails to start

The G-Health server uses two services. The 'Geutebrück G-Health Proxy' service is responsible for communicating with the G-Health clients and the 'Geutebrück G-Health Web' service is responsible for running the G-Health Web Interface.

In the event that either of the G-Health Server services fails to start, check the Windows Event Viewer (found in the Administrative Tools group of the Windows Control Panel).

Search for an Error in the Windows Application Logs for "GHealthProxy" or "GHealthWeb". This log will provide more information on what went wrong, and suggestions of how to fix it.