

Host Links for Windows, Linux and UNIX
Software Release Bulletin
Release 6.3
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Gallagher & Robertson A/S, Kongens gate 23, N- 0153 Oslo, Norway
Tel: +47 23357800 Fax: +47 23357801
World Wide Web server: <http://www.gar.no/>
Internet: support@gar.no

This release

Release number (6.3)

This is the code base of a minor release. Any updates will have the same release identifier (6.3) and an update number (6.3.1).

New platforms

Platform code **x6412**: AMD/Intel x64_86, Linux kernel 2.x

Product platforms

All server products (Ggate, GUFT, Gspool, Gweb, Gmailer, Gproxy, etc.) and features mentioned in this release bulletin are available on UNIX, Linux and Windows server platforms. The emulators (Qsim, V78sim, G3270 and G5250) and other products that support terminals are available on UNIX and Linux, but cannot be used directly on Windows servers because there is no terminal support. However all the emulations can be used by Gweb and GlinkWeb on UNIX, Linux and Windows web servers to provide host access for browsers. The client products run on the user workstation.

For a list of platform codes supported in this release see section **Delivery** and **Supported platform codes**.

Incompatibilities

Mixing of releases

Do not install programs from this release into a directory with G&R programs from a previous release. Mixing of releases will not work. Note that this limitation also includes customer written applications using GlAPI. If such programs are to run in a 6.3 environment, they have to be re-linked with the GlAPI libraries. Gmail customers who want this release because of new functionality in Host Links products should also update Gmail, although there are no functional changes, just error corrections.

If you need to run multiple releases simultaneously on a UNIX system they have to be installed in separate directories and the PATH and GAR_SYSDIR have to be set accordingly, as per the documentation. Installation and execution of components from multiple releases is not supported on Windows platforms, even if they are installed in separate directories.

DSA configuration recompilation

The version number of DSA configurations has been incremented; you must recompile dsa.cfg under the R6.3 version of gcc.

New license file

All installations need an updated license file.

License file example:

```
Site Agent=G&R A/S; Name=ABC; Platform=rs6a4; CustomerID=5;
      RefNum=6;Key=12345678
Basic      Key=61b3af54;
Gproxy     Key=485b5d90;
Guftc      Key=539bd345;
Marben2K   Release=6.3; Licenses=50; Key=47565b8e;
Ggate      Release=6.3; Licenses=30; SiteLimit=90; Community=1;
      Corporate=200; Key=36a36c5b;
Gweb7800   Release=6.3; Licenses=20; SiteLimit=40; Community=1;
      Corporate=60; Key=e7cbd9df;
```

(NB: In the actual license file, lines must not be wrapped)

Contact your distributor for an update of the license file.

New programs

The Ggate Monitor utility

The Windows version of this release includes a new Ggate User monitor program, *Ggate Monitor*. The Ggate monitor program is a Windows GUI program that shows the Host Links administrator all active Ggate users and each user's session attributes in a 'tree-view' style. The load information is maintained by Ggate in a mapped memory file when the Ggate command line parameter:

```
-MON
```

is used.

The following user and session information is optionally available in the tree-view:

For each user:

- The IP-address of the user
- The station ID of the user
- The UID of the user
- Number of sessions (if session view is disabled)
- Last update time (if session view is disabled)

For each session:

- Session number
- Session thread ID
- Session start time
- Host application (mailbox name)
- IO-count upstream (to host)
- IO-count downstream (from host)
- Last update time
- Gline parameters used to establish the session

Most of the information mentioned above can be enabled/disabled from the View menu. You may want to run with session information disabled and then selectively open the user item when necessary.

The Action menu offers the following:

- Refresh
request screen update (to be used if automatic update is disabled).
- Kill user
send request to Ggate to terminate all the sessions belonging to the selected user.
- Kill session
send request to Ggate to terminate the selected session.
- Save as
generate a hard copy of the current User and session information to specified file.

The Option menu offers the following:

- Screen refreshing
Choose between manual refresh, automatic refresh each time a Ggate event occurs or periodic refresh with a configurable number of seconds between each.
- Enable update warning
if you want Ggate Monitor to warn you when/if Ggate is not updating the load information.
- Sort users
sort users alphabetically (on IP-address).
- Toggle IP address format
toggle host IP address between symbolic and numeric format.

Important Ggate and Gline command line parameters

In order to have a high precision level in Ggate Monitor's event reporting, you may want to adjust some Ggate and Gline parameters:

Ggate:

-CI n (seconds, default 10).

The check interval parameter tells Ggate how often it should update administrative information and e.g. detect and clean up sessions that have been terminated.

Gline:

-IOC n (seconds, no default)

This parameter is necessary in order to see communication IO counts (i.e. host messages sent or received) in Ggate Monitor. The parameter can be configured as part of the resource/coname used for the connection or set as additional parameters in Glink's host communication dialog box. If you want to see the IO counts for all client connections, you could tell Ggate to supply the -IOC parameter automatically by means of the Ggate parameter -CPARA as show in the example here:

```
gg_tcp.exe .... -mon -ci 5 '-cpara "-ioc 10"'
```

In this case Ggate will look for terminated sessions every 5 seconds and the Ggate line handlers will update IO counts every 10 seconds.

GGATE changes

Ggate now supports the TELNET protocol on the client side in addition to TNVIP and native Ggate protocol. This makes it possible to connect dumb asynchronous terminal emulators or communications programs that do not support better client protocols. The TELNET client dialog is configured in much the same way as TNVIP - by means of RESOURCE directives in the DSA configuration file. Typically TELNET clients will be set up to use a DNS Terminal Manager (TM) style of dialog where the client is prompted for the necessary connection parameters before the host connection is attempted.

TELNET support is enabled by a new Ggate command line parameter

```
-TEL [port number(s), default 23]
```

Port number usage

Up to 4 different connection ports can be given per client protocol on the respective protocol port number parameter -GGA (or -LP; supported, but no longer documented), -TEL, or -TNV as in the following example

```
gg_tcp.exe -gga 30843 31111 -tel 23 -tnv 7323 7355
```

i.e. Ggate clients can use port number 30843 or 31111, TELNET clients can use 23 and TNVIP clients can use 7323 or 7355.

The default port numbers used by Ggate are

Ggate	30841 (SSL 30851)
TNVIP	7323
TELNET	23

TNVIP connections are also supported on the Ggate port(s) but will only work for TNVIP clients that initiate TNVIP dialog (don't expect the server to initiate the TNVIP negotiation).

Configuring a Terminal Manager style dialog for TELNET clients

The TM style dialog used for TELNET clients is configured in RESOURCE directives in the DSA configuration file (dsa.cfg). The following TM messages are supported:

- 0000 - Banner, information only
- 1000 - Heading, information only
- 1300 - Billing, generates a -DB Gline parameter
- 1400 - User ID, generates a -DU Gline parameter
- 1500 - Project, generates a -DP Gline parameter
- 1600 - Password, generates a -PW Gline parameter
- 4200 - Model, generates a -TM Gline parameter
- 4700 - Connect to, generates a -CO parameter (or parameters)
- 7900 - MB (mailbox), generates a -DA Gline parameter
- 8100 - EXT (extension), generates a -DX Gline parameter
- 8800 - as 4700

In addition to

8900 - \$*\$

that can be used to force a command line prompt at any point in the dialog.

Each of the TM messages mentioned above can be configured by means of -CODE parameters on a RESOURCE directive and can be optionally followed by a -TEXT parameter if you want to change the default (TM) text for that message e.g.

```
RESOURCE tell -desc "Sample resource" -type tm
  -code 4200 -text "Enter terminal model"
  -code 4700
```

Default for Telnet clients

A default TELNET dialog can be configured with a RESOURCE directive named "TELNET" e.g.

```
RESOURCE telnet -desc "Default dialog for TELNET" -type tm
  -code 1000 -text "Hello - this is your Host Links system"
  -code 4200
  -code 1400 -text "Enter your User ID"
  -code 4700
```

would result in the following dialog:

```
$$1000 Hello - This is your Host Links system
$$4200 MODEL:
$$1400 Enter your User ID:
$$4700 CONNECT TO:
```

If no default TELNET resource is configured, a TELNET client will receive the standard 4700 message e.g.

```
$$4700 CONNECT TO:
```

where the client can enter the name of a RESOURCE that must be preconfigured, or enter DNS or Gline type of connection parameters directly.

Restricting access to TELNET or TNVIP resources

Standard DSA configuration filters can be applied for TELNET or TNVIP resources in order to deny access from unauthorized users or networks e.g.

```
resource telnet -type tm -filter only_net10
-code 1000 .....
```

```
filter only_net10
permit tcp 10.99.10.0/24
```

would only allow connection from users with IP-address 10.99.10.x

New Ggate parameters

A new Banalize Ggate command line parameter is introduced

```
-BA [on/OFF]
```

When set, Ggate will use the default resource if no resource name is given in the TNVIP dialog or the given resource name does not exist.

A new Echo Ggate command line parameter is introduced

```
-ECHO [on/OFF]
```

If set, Ggate will default to echoing of TELNET client data even though the client did not suggest it in the TELNET dialog.

Tracing the TELNET/TNVIP dialog

The TELNET or TNVIP dialog cannot be traced by means of the standard trace and debug routines because the Gline trace routines are not activated yet. A new Ggate command line parameter:

```
-TELD [on/OFF]
```

can be supplied to enable tracing of this dialog. The trace will be written to:

```
..\gar\debug\telnet.dbg
```

Note that TELNET/TNVIP tracing can be toggled dynamically using the standard Gmanager command interface - just hit the command button in Gmanager and enter the TELD on/off command.

Support of service commands

The following service commands are supported at the command prompt in the TM dialog:

```
$$ID          - returns the 1000 message with resource name,
                session ID (SCID) and terminal type (model).
$$CN          - connect command line
$$DI [HD/off] - disconnect command, hold/logout connection
$$LC [ON/off] - lower case to host on or off. OFF maps messages
                to the host to upper case.
```

TELNET/TNVIP host protocol restriction

DSA is the only host protocol supported for these TELNET and TNVIP clients (i.e. the DIWS protocol is not supported).

GLINE changes

Support for TELNET client side protocol in line handlers started by Ggate.

More descriptive attached print messages for Ggate sessions.

GSPool changes

New Gspool session history log

Gspool now maintains a session summary log. The session log is optionally updated each time a host session terminates, and contains session status information: amount of data received, copy of print data (if the print command failed) etc. The history log makes it easier for the administrator to follow Gspool activity and make sure that print problems are resolved.

The history log is located in Gspool's server directory:

```
\gar\servers\SCID.gsp\report.history
```

where 'SCID' is the local session control ID.

The history logging is controlled by a new Gspool command line parameter:

```
-HIST [ON/off/all]
```

If all is specified, Gspool writes information about all sessions in the history log. In the default case (on), only failing sessions are logged.

New LPR utility

LPRSTAT is a utility that can be used to verify that an LPR Daemon is ready to accept print data. This can be included in Gspool print jobs to improve reliability.

GWEB changes

Management of multiple sessions

You can start several host sessions from the same browser, and switch between the sessions by selecting the session name from a list.

The list of currently active sessions is also presented in the screen that displays preconfigured sessions.

Supports real function keys

The JavaScript routines that control the keyboard have now been extended to support "real" function keys. Whereas prior versions of Gweb required "Alt/1" to transmit the F1 function to the host, all the function keys can be used directly.

New presentation method

A presentation method has been added that uses CSS extensively to make sure fixed text and input fields are displayed with the exact same sizes, to ensure screen output that is true to the original, while retaining a simple HTML code.

New parameter to enhance security in faceliftd applications

The new parameter "-stay" can be used in situations where only some of an application's screens are faceliftd. With this option enabled, the user is not permitted to enter host screens that are not faceliftd.

Automatic screen refresh

The JavaScript routines that control the screen have now been updated to automatically refresh the screen when the host has sent a form to the browser but keeps the turn. While it is still possible to click the Refresh button, the scripts run silently in the background and seamlessly update the screen whenever the host sends more data.

GWEBS changes

Supports name-based virtual hosts

The Gweb web server configuration has been extended to support name-based virtual hosts, where the configuration subset is selected based upon the host name part of the URL sent from the browser.

The Gwebs server-status screen has also been updated to display information on a per-hostname basis.

Delivery and supported platforms

We deliver the software in a number of different ways; these instructions assume you have placed the files in a directory on your server system. These files are only used during installation and you may remove them when it is done.

UNIX/Linux deliveries

Deliverables

install.630	Installation script
srbhl.630	Software Release Bulletin
licenses	License keys to activate software
unzcccoo	Unzip program to unpack delivery
pppcccoo.630	One or more ZIP archives with software

The 0 extensions above refer to the Host Links version number. Maintenance releases will have the last digit incremented, e.g. 631 and 632. Minor releases will have the middle digit incremented, e.g. 630 and 640. Major release will have the first digit incremented, e.g. 600 and 700. Beta releases always have the last digit replaced with a letter, e.g. a and b.

The 'ppp' above refers to the product code.

The 'cccoo' above refers to the CPU family and operating system.

Product codes

ppp	Product name
bas	Basic
g32	G3270
g52	G5250
gga	Ggate
gli	Gline
glp	GlAPI
gsp	Gspool
guf	GUFT
pth	Pthru
qsi	Qsim
v78	V78sim
gpr	Gproxy
gwb	Gweb

Supported 32 bit UNIX/Linux platforms:

386l2	Intel Pentium PCs, Linux kernel 2.x
386so	Intel Pentium PCs, Solaris release 7/8
hpp11	Hewlett-Packard, HP-UX 11.x
ppca5	Bull Escala, AIX 5L for Power V5.1/5.2/5.3
rs6a4	Bull Escala/Estrella, IBM RS/6000, AIX 4.3
spaso	Sun SPARC, Solaris 7/8

Supported 64 bit UNIX/Linux platforms:

i64l2	Intel Itanium 2, Linux kernel 2.x
a64l2	AMD/Intel x64_86, Linux kernel 2.x
i64hl	Hewlett-Packard, HP-UX 11i v2

Examples

Some examples of complete filenames:

ggaspaso.630	Ggate for Sun SPARC, Solaris release 2.x, release 6.3.0
gsp386l2.630	Gspool for Intel x86, Linux kernel 2.x, release 6.3.0
gwbppca5.630	Gweb for Bull, AIX 5L for Power V5.1, release 6.3.0

These files are packaged in ZIP format archives using Info-ZIP's compression utility. This format is also compatible with PKWARE Inc's PKZIP version 2. The installation script uses the delivered unzip program to decompress the files.

All programs require a license key to run. Your distributor will include a licenses file in the delivery. If you receive an updated licenses file after delivery, you must copy it to the configuration directory.

Make sure that all of the files end up in the same directory on your system, and that all the file names are in lower case. These files and this directory will only be used during the installation, so you can place them in /tmp, your home directory, or whatever. Proceed as described in the installation chapter.

The Info-ZIP copyright requires us to tell you:

Info-ZIP's software (Zip, UnZip and related utilities) is free and can be obtained as source code or executables from various bulletin board services and anonymous-FTP sites, including CompuServe's IBMPRO forum and <ftp://ftp.uu.net/pub/archiving/zip/>.

UNIX 32 bit deliveries by special request

The following platforms can be delivered by special request, at a cost based on time and materials and time frame depending on available test and qualification resources.

386v3	Intel Pentium PCs, SCO UNIX R5
alpdu	Alpha, Digital Unix 4.x
hppul	Hewlett-Packard, HP-UX 10.x
rs6ai	Bull DPX/20 and IBM RS/6000, AIX 4.2

Windows deliveries

Supported 32 bit platforms

386pc	Windows 2000, Windows XP, Windows 2003
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Supported 64 bit platforms

i64pc	Intel Itanium 2 Windows XP, Windows 2003
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A Windows delivery is a single self-extracting exe file e.g.

630_en32_xxxxxxxx.exe	xxxx is <complete> or product names
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Installation

Installation on Windows

Host Links products for Windows are delivered as self-extracting archives. When run they will automatically extract to a temporary directory and start the installation program.

Please read the file HLREADME.TXT and the Host Links on Windows Installation and configuration manual.

Installation on UNIX/Linux

We strongly recommend that you create a new UNIX/Linux user id and group id for Host Links. An obvious choice of names would be:

```
username=gar
groupname=gar
```

and to let the system assign the numeric id's. Log in as, or 'su' to, this user whenever you install new releases, change configuration files or start background processes such as Gspool.

Here is an outline of why this is recommended:

This user will own all files created by the installation routine, making it easy to identify the files belonging to Host Links.

If you use a disk quota system, the files' disk space will not be deducted from the quota of whoever installed them.

This user will own all daemon processes, such as the background Gspool and GUFFT server, making them easily identified.

Host Links can be installed in such a way that only users belonging to the gar group can access the software.

The Host Links default system directory is /usr/gar. Many of the Host Links programs will look for text files, configuration files, macro files and other information in the Host Links system directory. The installation script gives you a choice of selecting another directory as the default system directory. You should note that if you do that, you must define a GAR_SYSDIR environment variable that points all Host Links users to this directory. To make your installation as simple as possible we suggest the following. Before you run the installation script, log in or 'su' to the root user, create the directory /usr/gar and make the gar user the owner of it with the 'chown' command. Thereafter:

Log in as, or 'su' to, the gar user:

cd to the directory that contains the delivery files.

Start the installation script:

```
sh install.630
```

where 630 is the Host Links version number.

The script will ask you a few questions before it goes on to do the actual installation. The script is very careful not to overwrite configuration files that you have changed at your site. The sample files delivered will only be installed when you do the first time installation, not when you do upgrades. The installation script is used both for new installations and for upgrades of old ones.

If you will be using the rlogin mode of the TCP/IP line handler to reach other systems you must carry out a last step as superuser:

```
su
cd /usr/gar/bin
chown root gl_tcp
chmod u+s gl_tcp
```

Errors corrected

E1035: Gline, attached print (-PCO) license problem on GNSP

When an attached print session is initiated, the main (screen) line handler reserves a license on behalf of the print line handler. It asks for an additional 'ggate' license.

In a GNSP environment, it should have reserved a 'ggagnsp' license, and the reservation failed.

Although the license reservation failed, the print line handler continued execution but, if the print session was established and print data was sent to it, the print handler failed when trying to deliver print data back to the screen line handler and the printdata was lost.

Avoidance procedure: None.

E1039: Gproxy, redirection failed on UNIX/Linux

Gproxy needs to be able to identify a broadcast from its own network (IP) address. In particular, Gproxy needs to be able to recognize broadcast duplicates in cases where the system has several interfaces configured, since broadcasts will be sent out on all configured interfaces and may appear as coming from several different systems.

Gproxy used standard OS function calls, i.e. `gethostname()` and `gethostbyname()`, to find the local IP-address. If these functions for some reason failed, e.g. if the 'hostname' did not resolve into a valid IP-address, or the OS for some other reason returned a bad status, the Gproxy redirector and/or license server would not work correctly.

The external symptoms were typically:

- Gproxy license server process did not start and no local license were granted. This could be seen in the logfile or because there were not 2 Gproxy processes running.
- Gproxy was unable to identify the systems correctly and only redirected clients to the local system. The HTML reports or the logfiles showed that Gproxy did not receive server load and license statistics from all involved servers.

This problem has only been observed on Linux systems.

Avoidance procedure:

If the system host name does not resolve correctly, fix the

configuration.

If the configuration is apparently correct, but the name functions still fail, override the system configuration with the Gproxy parameter:

-myip IP-address (e.g. -myip 181.282.16.5)

E1041: "-bp t" option for function key placement does not always work

The "-bp t" option places the row of function key buttons on top of the browser display rather than on the bottom, which is the default.

This option did not work if a facelifting configuration existed, even if no button position was specified in the configuration.

Avoidance procedure: Specify a button position in the facelifting configuration.

E1042: Gline, incorrect handling av async terminals for GCOS7

The GCOS7 'VIP-header' varies in length, and for the synchronous terminals this is handled correctly. For the asynchronous types, notable the VIP7801, there is no header at all, and Gline was removing a three byte header that did not exist.

Work around is to use another terminal type, for example the VIP7804, and then adjust your GCOS7 profile to give the terminal the desired characteristics (roll=1, pagemode=0) for scrolling operation without prompts (if that is what you were looking for).

E1043: Gline, incorrect profile for VIP78 on GCOS7

The DSA connect letter that Gline used when connecting a VIP7800 terminal indicated incorrectly that the terminal had an 'AUTOLF' (automatic line feed after transmit) feature. This is correct for a VIP7700, and for a DKU7107, but not for a VIP7800.

On GCOS7 this resulted in the user profile (dp) showing AUTOLF=1 for the terminal. If the terminal was set into scrolling operation (roll=1, pagemode=0) then GCOS7 would not generate an LF in the replies, because it assumed the terminal had already done a line feed after the transmit. This resulted in the answer to a command overwriting the command.

The problem is not noticeable when the terminal is used in paged operation (roll=0, pagemode=1) because GCOS7 then uses cursor addressing to position the cursor to the next line for all replies.

Please note that the VIP7800 terminal does have a feature known as AUTOLF, toggled with a key on the keyboard on the real terminal, and with an emulation option in Glink. However this feature has nothing to do with the above, it is concerned with asynchronous operation only, and is triggered when the user enters a CR (rather than a transmit). We recommend that this feature never be used, even when connecting as a VIP7801 (async, using CR to send).

Work around: Set your GCOS7 profile to AUTOLF=0 if you intend working in scroll mode (roll=1, pagemode=0).

E1045: Gline, IP filters in dsa.cfg did not work on Windows

The Host Links DSA routines allow security filters to be applied for CONAMEs configured in the DSA configuration file (dsa.cfg). When users connect through Ggate, they are checked against possible access filters defined for the CONAME in question and if not permitted by the filter(s) the connection will be rejected with error message

'\$\$DSA, Restricted connection name'

You can configure filters based on user-name, station-name or IP-address.

Due to an error in the Windows version of the DSA line handler, IP filtering did not work (the connection was always rejected).

E1046: Gline, IP filter in dsa.cfg could fail if applied to part of the IPAddress

The Host Links DSA routines allow security filters to be applied for CONAMEs configured in the DSA configuration file (dsa.cfg). For an IP-address filter you can specify how much of the TCP address (how many bits) you want to check. For example, if you want to permit/deny a 'class C' network, you would append /24 to the address e.g.

filter permit 193.216.112.0/24

would only test the first 3 bytes of the address.

On 'litte-endian' machines (e.g. Intel), the filtering failed if the address expression was not on a byte boundary e.g.

filter permit 193.216.112.0/20

would fail (only 8, 16 and 24 would work).

E1049: Ggate, DIWS protocol did not work for Windows servers

Ggate was unable to locate the interprocess communication pipe that is used to communicate with the DIWS version of the Listener on the Windows platforms. Connection attempts failed. An error message:

```
"Start of line module failed"
```

was sent back to the user.

Avoidance procedure:

Use DSA protocol rather than DIWS. DIWS introduces an unnecessary protocol mapping layer on the mainframe side that is unreliable in some situations. DSA avoids this mapping and gives better performance (less mainframe overhead). DSA should always be chosen unless there are very compelling reasons for using DIWS, and we are not aware of any.

E1061: Gproxy, SNMP traps not sent

Due to an error in the Gproxy parameter routine, the SNMP agent routine did not work at all (no traps were sent).

Avoidance procedure: None

E1057: Gweb, index.cfg file does not always process "default"

Automatic actions can be specified in the "index.cfg" facelifting configuration file to perform specific tasks when specific forms arrive from the mainframe application. For example:

```
pre_logon_form:  
  Macro @E
```

would send an empty Transmit to the mainframe when the screen identified as "pre_logon_form" arrives.

However, automatic actions were not processed if they were defined in the "default:" section of the facelifting configuration file, only for specific form pages detected via a recognition patterns. This is now corrected.

E1059: glcc, dsa.dat file created with incorrect access permissions

Fix available for 6.1.1 versions created after 4.11.2004

Due to an error in the glcc umask initialization the file dsa.dat was created without correct access permissions. This blocked DSA applications run by users other than the 'gar' user with a permissions

denied error. Ggate is not normally affected.

Avoidance procedure: Every time you have used glcc, run the command:

```
chmod 666 /usr/gar/config/dsa.dat
```

E1069: GUFT, Upload to GCOS8 failed with I/O error on GCOS8

When uploading to GCOS8 the G&R/GUFT server was failing to inform the GCOS8 client about the maximum logical record size. GCOS8 defaulted to a maximum record size of zero, and the transfer aborted with an I/O error on the GCOS8 side when it tried to write the first record, which always exceeded the maximum.

Work around, initiate the transfer from the G&R/GUFT client (Unix/Linux or Windows).

E1070: GUFT, download from GCOS6 could fail with UFT dialog error

In the UFT protocol records are often split across DSA letters (spanned records). The transfer ends with a short 'End Data Transfer' record. The GCOS6 GUFT client will, when sending, split this record if there is room for the first couple of bytes in the same DSA letter as the last data record, and send the last bytes as a new DSA letter. This spanning of the EDT record was not being handled correctly by the G&R/GUFT server, and the transfer could fail with a UFT protocol error.

There is no work around.

E1071: GUFT, occasional incorrect maximum record and current file size on Windows

When interpreting the logical information about a file, the maximum record size and the current file size, GUFT did not handle the case where these sizes were sent as single bytes, when GUFT was running on a Windows (little-endian) platform. This would generally not cause a problem.

Only GCOS6 has been observed to use a single byte when the maximum record size or the current file size are small enough to be conveyed in 8 bits.

There is no work around.

E1075: Gline, unexpected session terminations

Sometimes a session could be terminated unexpectedly with an error message:

\$\$DSA: Disconnected by host

sent back to the user application. Other misleading error messages could also be generated.

The problem is due to a spurious interrupt on the host connection (TCP/IP socket) when there is, in fact, no event to handle. This was treated as a fatal by the RFC1006 line handler.

The problem has only been observed in Diane environments and typically on heavy IO sessions (filetransfer, script driven sessions or large screen buffer exchanges).

E1078: Gweb, f-keys in browser could not be used as f-keys

The F-keys in the browser have default functions, most noticeably the F1-key calls the browser help.

Because of this Gweb has assigned the F-key functions for the Terminal emulations to Alt/1 etc.

We have discovered a method of cancelling the default actions of the F-keys in Microsoft Internet Explorer only, including the F1 key which requires special handling. Enabling the f-keys to be used for the F-key functions.

The fix/enhancement consists of a new gweb.js, gwebkbd.js and a -jsbody parameter that must be added to the default section of gweb.cfg in order to activate a new event handler for the body tag. The fix is available as fkeys.zip. The Javascripts are for the browser, rather than Gweb itself, and so the fix will be added to the fixes for all platforms. As usual a fix is only available to customers with a service contract.

Netscape etc. are still under study, but we have found no solution at this time.

E1085: Gline/Ggate for Windows, pooled resources in dsa.cfg were not locked

The Gline implementation in Windows had to be completely restructured because of the inability of Windows to run large numbers of concurrent processes with any degree of efficiency. Whereas the UNIX/Linux implementation still uses a completely independent process for each session, the Windows implementation uses a thread for each session, all in a single process. This is obviously not as robust as the UNIX/Linux implementation, but had to be done to enable the Windows version to handle large numbers of simultaneous sessions.

An error introduced during this massive restructuring led to a failure of the locking logic when reserving resources from pools configured in dsa.cfg. The failure to lock the resource is not immediately obvious

when using large pools. The reservation logic, for efficiency reasons, searches for free resources starting from the last allocated resource, and thus does not cycle back to the beginning of the pool before the entire pool has been allocated once.

In the Windows version users connecting after the pool had cycled once would begin experiencing various connection problems, due to the fact that they were allocated a resource (userid, lid,...) that was in fact in use by another user.

The fix is critical for Windows versions of Ggate that remain continuously in use without booting, if they use limited resource pools.

There is no work-around.

E1088: Gweb, Web8 mode did not support cookies

Gweb in Web8 mode did not support the use of cookies to pass information between the host and the browsers. Cookie settings defined by the host were not passed on to the browser, and cookie data from the browser was not relayed up to the host.

E1105: Gline, incoming DSA sessions could be lost

Sometimes, under heavy load, incoming connections to the DSA listener could be lost because the requested application failed to initialize its DSA line handler correctly. This was observed consistently when a great many near simultaneous connections were made to the DSA listener to start Gspool after a batch job on GCOS7 generated print to a great many GTwriter terminals, and all the printers were defined on a single Host Links system.

Two different cases of startup problems have been found and corrected:

An interprocess session file used in the startup process was generated with the same name as an already existing session file. This caused the session startup to fail without returning a notification (disconnect) to the mainframe.

Sometimes the Windows OS returned an unexpected error code on a named pipe system call and this would lead to various session refusal situations and could eventually lead to a system crash.

E1106: Gline, DSA configuration filters could fail on Windows

An error in the Windows version of the filter caching routines could cause a client connection to be checked using the 'credentials' (e.g. the IP address) of a preceding session.

Avoidance procedure: None.