

Asigra Cloud Backup v14.2

DS-Billing User Guide

April 2023

The Asigra logo, featuring the word "asigra" in a lowercase, sans-serif font. The letters "a", "s", "i", and "g" are in a dark teal color, while the letters "r" and "a" are in a lighter teal color.

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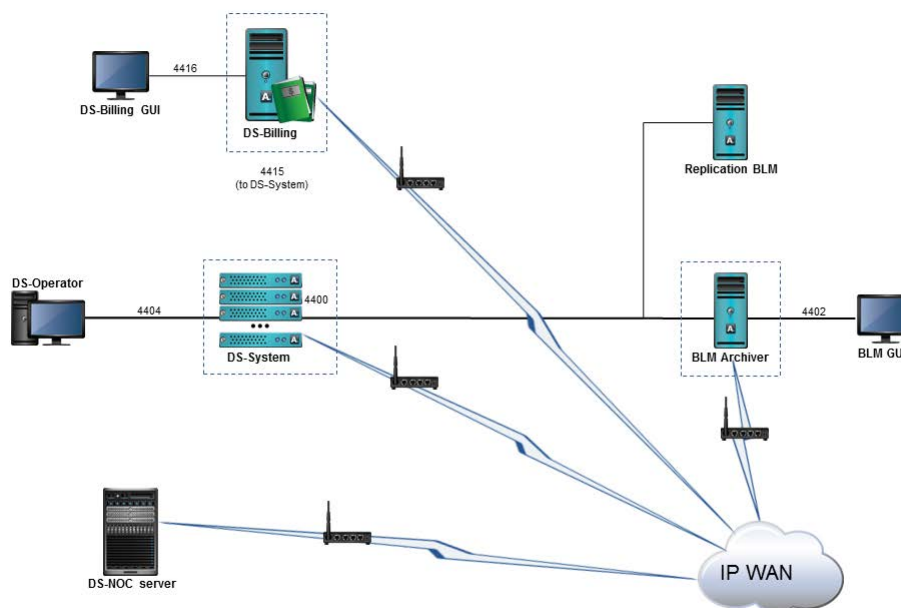
Document history

Version	Date	Summary
1.0	August 31, 2020	<ul style="list-style-type: none">Released for General Availability.
1.1	January 20, 2021	<ul style="list-style-type: none">The DS-Client DS-Tools page now includes Cybersecurity.The units of measurement in the DS-Billing GUI have been updated to include TB in addition to MB and GB.
1.2	April 10, 2023	<ul style="list-style-type: none">Updated third-party components used by DS-Billing to address potential security vulnerabilities. Requires DS-Billing v14.2.0.3 or later.

1 Getting started

The DS-Billing server is a separate, optional installation which can then be configured to interact with DS-Systems and BLM Archivers as the billing server.

The following diagram provides an overview of the major DS-Billing components.



NOTE: Throughout this document, the term **DS-Billing server** is used interchangeably to refer to the service on Windows and the daemon on Linux.

A single DS-Billing server installation can support an entire organization, because it can connect to all the billing components (DS-Systems, BLM Archivers) if they are visible via TCP/IP connection. The DS-Billing GUI is the remote management software for the DS-Billing server.

NOTE: Before proceeding, ensure you have read the *DS-System User Guide* and *BLM Archiver User Guide*.

1.1 Connecting to a DS-Billing system

The first time you connect to a DS-Billing, you must log on as an administrator (Windows) or root user (Linux). You can then configure the roles for other user accounts. For more information, see [Section 2.4, “Configuring roles”, on page 22](#).

To connect to a DS-Billing system:

1. Start the **DS-Billing GUI** application.
2. In the **DS-Billing(s)** list, select the DS-Billing to which you want to connect.
 - To switch between the computer name and IP address, right-click the list and then select **Sort by name** or **Sort by IP**.
 - To rescan the network for available DS-Billing servers, click **Refresh**.

If there is a local DS-Billing server on the same machine as the DS-Billing GUI you are running, it appears in blue. DS-Billing servers that are not running appear in red.

NOTE: If the DS-Billing server you want does not appear, you can add it to the initialization settings. For more information, see [Section 2.2.1, “Configuring the connection settings”, on page 17](#).

3. In the **Protocol** box, select a protocol for communication between the DS-Billing GUI and the DS-Billing service. Your options are as follows:
 - **Encrypted:** All the data between the DS-Billing GUI and the DS-Billing service will be encrypted with a random encryption key at every connection.
 - **Standard:** This option is offered only for backwards compatibility with old service or daemon versions that do not have this feature.
4. Under **Credentials**, type your user name and password. This must be a valid user account on the computer running DS-Billing.
5. In the **From** box, select the domain or server on which these credentials will be verified.
6. To save these credentials for the duration of the DS-Billing GUI session, select the **Remember credentials** check box.

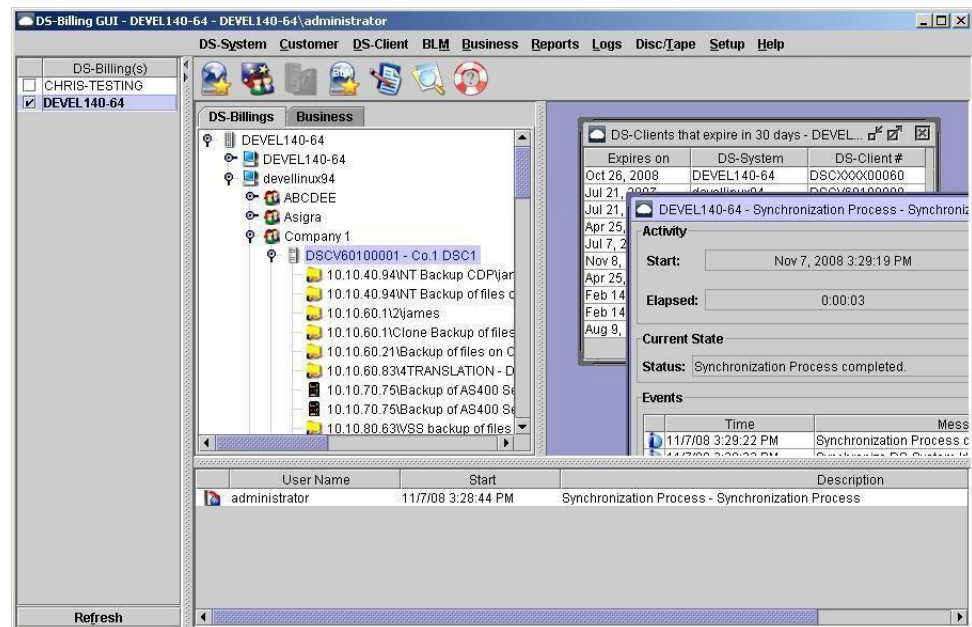
NOTE: Exiting the DS-Billing GUI application will clear these credentials.

7. Click **Connect**.

When you successfully connect, the DS-Billing main window is activated. You can connect to more than one DS-Billing server, if available.

1.2 Working in the DS-Billing main window

After you have successfully connected to a DS-Billing server, you can access all the functions required to manage a DS-Billing server from the main window.



- **Title Bar:** Displays the name of the DS-Billing server.
- **Menu Bar:** Items here allow you to perform the various tasks necessary to manage and administer the DS-Billing server.
- **DS-Billings:** Allows you to perform various tasks necessary to manage and administer the DS-Billing server. Some items in the menu bar only appear if the corresponding tool is enabled or depending on your operating system.
- **Toolbar icons:** Icons allow quick access to the most commonly used features:






Icon	Function
	Adds a new DS-System to the DS-Billing server
	Creates a new customer account
	Creates a new DS-Client account. (Only activates when a customer account is selected.)
	Adds a new BLM Archiver
	Opens the Schedules dialog box

Table 1 Tool bar icons

Getting started

Starting or stopping the DS-Billing service or daemon




Icon	Function
	Opens the Activity Log
	Opens the Event Log
	Help

Table 1 Tool bar icons

- **DS-Billings Tab:** Allows you to manage customers, DS-Clients, and view customer backups. DS-Clients appear in one of the following colors:
 - Black, if the DS-Client is active.
 - Blue, if the DS-Client is unregistered.
 - Orange, if the DS-Client is locked.
 - Red, if the DS-Client is deactivated.
- **Business Tab:** Allows you to manage the business settings.
- **Current Activity Monitor:** Displays the active processes running on a DS-Billing server.
 - To view the details of any process, select the process, right-click, and then click **Monitor**.
 - To stop a process, select the process, right-click, and then click **Stop**. This process is irreversible.

1.3 Starting or stopping the DS-Billing service or daemon

Occasionally, you may need to stop the DS-Billing service or daemon (for example: for software upgrades).

To start or stop DS-Billing via the service manager:

1. On the **Start** menu (Windows) or **Applications** menu (Linux), click **DS-Billing Service Manager**.
2. In the **DS-Billing Service Manager** dialog box, click **Start** or **Stop** to toggle the service on or off.

NOTE: If you are experiencing problems with a newly configured or a reconfigured setup, you must shutdown and restart the DS-Billing machine.

To start a Linux DS-Billing via the command line:

- Type the following command:

```
/etc/init.d/ds_billing start
```

To stop a Linux DS-Billing via the command line:

- Type the following command:

```
/etc/init.d/ds_billing stop
```

1.4 Viewing DS-Billing information

You can view information about the DS-Billing server, including its license configuration, port configuration, and Java Runtime Environment (JRE) properties.

To view the DS-Billing information:

1. On the **Help** menu, click **About DS-Billing GUI**.
2. To view detailed information about the DS-Billing server, including its license configuration, click **DS-Billing Info**.
3. To view the ports used by the DS-Billing server to communicate with other components, click **Ports**.
4. To view information about the Java Runtime Environment (JRE) properties, click **JRE**.
5. Click **Close**.

1.5 Disconnecting from a DS-Billing Server

You can disconnect from a DS-Billing server at any time. This does not close the DS-Billing GUI application, and it does not affect other DS-Billing server connections.

To disconnect from a DS-Billing server:

- In the DS-Billing GUI, clear the check box beside the DS-Billing server.

1.6 Exiting the DS-Billing GUI application

You can exit the DS-Billing GUI application at any time. This closes all connections to DS-Billing servers.

To exit the DS-Billing GUI:

- On the **DS-System** menu, click **Exit**.

Getting started

Exiting the DS-Billing GUI application

2 Configuring the DS-Billing system

To enable the optimal functioning of the DS-Billing system, you must configure the settings of various parameters and associated applications.

2.1 Configuring the DS-Billing settings

Most default configuration settings are defined during installation. However, you might need to edit some default configurations and settings for DS-Billing.

2.1.1 Configuring the default settings

You can configure the default settings for DS-Billing.

To configure the default settings:

1. On the **Setup** menu, click **Configuration**.
2. Click the **Setup** tab.
3. Under **Connection Frequency**, do the following:
 - a) In the **Connect to DS-systems every** box, select the frequency at which the DS-Billing server will automatically connect to DS-Systems to synchronize the billing information.
 - b) In the **Connect to BLM Archivers every** box, select the frequency at which the DS-Billing server will automatically connect to BLM Archivers to synchronize the billing information.
4. Under **Keep Log Settings**, in the **Keep logs for** box, enter the number of months you want to retain logs in the DS-Billing database.
5. Under **Keep Recovery Log Settings**, in the **Keep logs for** box, enter the number of months you want to retain logs in the DS-Billing database.
6. Click **OK**.

2.1.2 Configuring the notification settings

You can configure the DS-Billing to send reports and notifications by email.

To configure the notification settings:

1. On the **Setup** menu, click **Configuration**.
2. Click the **Notification** tab.
3. To activate email notifications, select the **Send E-Mail notification** check box.
4. Beside the **SMTP Server** box, click [...], and then do the following:
 - a) In the **SMTP server** box, type the name or IP address of the SMTP server.
 - b) In the **Port** box, enter the port number the SMTP server will use. The default port is 25.

NOTE: Do not change the port number unless you have a specific requirement to do so.

- c) To enforce authentication for the SMTP server, select the **Server requires authentication** check box, and then type the required details.
 - d) To use encryption to protect the transfer of data and information, select the **Use TLS** check box.
 - e) Click **OK**.
5. In the **“From” (E-Mail Address)** box, type the email address from which the email notification will be sent.
6. In the **“From” (Display Name)** box, type the name you want to appear in the email header.
7. Under **Administrator Notification Settings** section, do the following:
 - a) In the **E-Mail address** box, type the email address of the recipient for the DS-Billing notifications.
 - b) To send a test email notification, click **Test**.
 - c) To configure notifications, click **Notification Settings**. To send an email notification if the synchronization with the DS-System or BLM Archiver fails, select the **DS-System or BLM Archiver synchronization failed** check box, and then click **OK**.
8. Click **OK**.

2.2 Configuring the initialization settings

You can configure the initialization settings in the DS-Billing GUI without logging on to a DS-Billing server.

2.2.1 Configuring the connection settings

You can configure the connection settings to specify an address where the DS-Billing server GUI will look for a DS-Billing service. You can also configure the GUI to scan entire subnets.

NOTE: If you do not specify an address, the DS-Billing GUI scans the local computer and its subnet.

To configure DS-Billing connection settings:

1. On the **Setup** menu, click **Initialization**.
2. Click the **Connection** tab.
3. In the **LAN search time** box, enter the time, in seconds, the DS-Billing server GUI should spend scanning the LAN for DS-Billing servers.

NOTE: If you set this value to 0, the DS-Billing server will not search the LAN. Only a DS-Billing server that is running will appear in the DS-Billing server(s) connection list.

4. Under **Additional DS-Billing Systems**, do one of the following:
 - To add a DS-Billing server, click **New**.
 - To modify a DS-Billing server, select the server, and then click **Modify**.

NOTE: To delete a DS-Billing server, select the server, and then click **Remove**.

5. In the **Add / Modify a DS-Billing System** dialog box, do the following:

- a) In the **Address** box, type the IP address or DNS of the DS-Billing server that you want to add. The DS-Billing GUI will scan for this specific IP or DNS address.
- b) In the **Port** box, enter the port number the DS-Billing server will use for communicating.

NOTE: Do not change the port number unless you have a specific requirement to do so.

- c) To discover a DS-Billing service on the subnet, select the **Use UDP protocol to discover DS-Billing Service** check box.
 - d) Click **OK**.
6. Under **Additional Subnets**, do one of the following:
- To add a subnet, click **New**.
 - To modify a subnet, select the subnet, and then click **Modify**.

NOTE: To delete a subnet, select the subnet, and then click **Remove**.

7. In the **Add/Modify a Subnet** dialog box, do the following:
- a) In the **Address** box, type the address of the subnet where the DS-Billing GUI will search for available DS-Billing servers.
 - b) In the **Port** box, enter the port number the DS-Billing servers will use for communicating.

NOTE: Do not change this setting unless you have a specific requirement to do so.

- c) Click **OK**.
8. Click **OK**.

2.2.2 Configuring the regional settings

You can configure the language settings and other regional formatting of the DS-Billing GUI.

NOTE: You must restart your machine for the changes to take effect.

To configure the regional settings:

1. On the **Setup** menu, click **Initialization**.
2. Click the **Regional** tab.
3. In the **GUI Language** box, select a language for the GUI.
4. Under **Date/Time display format**, do the following:
 - To use the standard formatting conventions of a particular language, click **Format using**, and then select a language.
 - To customize the formatting, click **Use custom formatting**, and then type the format that you want to use.
5. Under **Date Format Strings**, specify the format you want to use for dates.
6. Under **Number Format Strings**, specify the format you want to use for numbers.

NOTE: You can edit the number format strings only if you have selected **Use custom formatting**.

7. Click **OK**.

2.2.3 Configuring the plug-in settings

Some plug-ins are automatically applied depending on the configuration of the DS-Billing GUI. You can manually enable or disable, and configure these settings.

To configure the plug-in settings:

1. On the **Setup** menu, click **Initialization**.
2. Click the **Plugins** tab.
3. Enable or disable the plug-ins as required.
4. To configure a plug-in, select the plug-in, and then click **Configure**.
5. Specify the plug-in settings, and then click **OK**.
6. Click **OK**.

2.2.4 Configuring the keep alive settings

You can limit the amount of idle time on DS-Billing GUI, after which the connection with the DS-Billing server will be terminated.

To configure the keep alive settings:

1. On the **Setup** menu, click **Initialization**.
2. Click the **Keep Alive** tab.
3. Under **Keep Alive Settings**, do the following:
 - a) In the **Send “Keep Alive” probes when a connection is idle for ‘...’ seconds** box, enter the interval at which the DS-Billing GUI will send keep alive probes until it receives a response or the maximum number of probes have been sent.
 - b) In the **Send keep alive probes every ‘...’ seconds** box, enter the interval at which the DS-Billing GUI will send keep alive probes until it receives a response or the maximum number of probes have been sent.
 - c) In the **Terminate Connection after trying ‘...’ times** box, enter the maximum number of retries before the DS-Billing GUI terminates the connection with the DS-Billing server.
4. Under **Refresh Settings**, do the following:
 - a) To automatically refresh the DS-Billing list after a connection is lost, select the **Automatically refresh the DS-Billing list after losing a connection** check box.
 - b) In the **Refresh after** box, enter the time, in seconds, after which the next refresh will happen.
5. Click **OK**.

2.3 Configuring the advanced settings

By default, the DS-Billing server is optimized for maximum performance. However, advanced configurations are available for users who want to change the DS-Billing behavior.

To configure the advanced settings:

1. On the **Setup** menu, click **Advanced Configuration**. The following advanced configuration parameters are displayed:

Parameter	Description
AllowUnencrypted Connections	DS-Billing accepts unencrypted connections from the DS-System and DS-Billing GUI and regular HTTP connections from DS_NOC. When disabled, DS-Billing accepts only encrypted connections from DS-System and the DS-Billing GUI and HTTPS connections from DS-NOC. <ul style="list-style-type: none"> • 0 = Off • 1 = On (default)
DBDumpDays	Number of days a database dump will be kept. The dump location is set in the DS-Billing configuration (.cfg) file. For more information, see Section 2.12, "Updating the DS-Billing configuration file parameters" , on page 29. <ul style="list-style-type: none"> • Default = 2 • Range = 1 to 10,000
DBDumpEnd	Number of hours after which the database backup window will end. <ul style="list-style-type: none"> • Default: 23 (Windows) 17 (Linux) • Range: 0 to 23
DBDumpMethod	The DS-Billing server performs a database dump during the dump window created between the DBDumpStart and DBDumpEnd parameters. <p>For Windows:</p> <ul style="list-style-type: none"> • 0 = Differential (default). DS-Billing server performs a full database dump (by default at midnight - 00:00) every day and a differential backup of its database every hour. The differential database backup is appended to the full dump file. • 1 = Full. DS-Billing server performs a full database dump once a day (by default at midnight - 00:00) and it does not perform any other differential backups for that day. <p>For Linux:</p> <ul style="list-style-type: none"> • 0 = Custom (default). DS-Billing server dumps the database in compressed TAR format. • 1 = Tar. DS-Billing server dumps the database in uncompressed TAR format. • 2 = Plain text. DS-Billing server dumps the database in plain text format.
DBDumpStart	Hour at which the database backup window starts. To create a valid window, this number must be less than the value of the DBDumpEnd parameter. <ul style="list-style-type: none"> • Default: 0 (Windows), 8 (Linux) • Range: 0 to 23

Table 2 Advanced configuration parameters

SkipDBDump	Skips the database dump. <ul style="list-style-type: none"> • 0 (False) = Database is dumped based on DBDumpMethod, DBDumpStart, and DBDumpEnd parameters • 1 (True) = Skips DB Dump
SMTPDebug	Enables logging of SMTP connection information for email notifications. Debug information is saved to the DS-Billing Event Log. <ul style="list-style-type: none"> • 0 = OFF (default) • 1 = ON

Table 2 Advanced configuration parameters

2. To change the value of an advanced configuration parameter, select the parameter, and then click **Edit**.
3. In the **Value** box, enter a value, and then click **OK**.
4. To update the list, Click **Refresh**.
5. Click **Close**.

2.4 Configuring roles

You can configure roles to restrict access to DS-Billing functionality to specific users or groups. Initially, DS-Billing permits logons only from root users on Linux or Administrators on Windows.

NOTE: Only DS-Billing administrators can modify the roles.

To configure roles:

1. On the **Setup** menu, click **Roles**.
2. In the **Assign Roles** dialog box, do one of the following:
 - To add a role, click **Add**.
 - To modify a role, select a user or group, and click **Edit**.

NOTE: To delete a role, select the role, and then click **Remove**.

3. In the **Add/Edit Role** dialog box, do the following:
 - a) In the **Type** box, select whether you are assigning the role to a user or group.
 - b) In the **User/Group Name** box, type a name for the user or group.
 - c) In the **From** box, select the domain or server where the user or group is defined.

- d) Under **Roles**, select the role(s) for the user or group. Your choices are as follows:
 - **View Reports:** View reports and logs stored on the DS-Billing server. This role is applied to all users and groups by default.
 - **Account Manager:** Manage the account profiles, create, update, or delete customers and DS-Clients.
 - **Role Manager:** Create, update or delete roles for other users and groups. This role is reserved for members of the 'Administrators' group (on Windows) or the 'root' super-user (on Linux).
- e) Click **OK**.
4. To update the list, click **Refresh**.
5. Click **Close**.

2.5 Scheduling an email report

You can create a schedule or modify an existing schedule to automatically email various reports.

NOTE: This procedure describes the pages in the **New Schedule Wizard**, which correspond to the tabs in the **Edit Schedule** dialog box.

To schedule an email report:

1. On the **Setup** menu, click **Schedule**.
2. Do one of the following:
 - To add a schedule, click **Add**.
 - To modify a schedule, select the schedule, and then click **Edit**.

NOTE: To delete a schedule, select the schedule, and then click **Delete**.

3. On the **Schedule Type** page, select **Email Report**, and then click **Next**.
4. On the **Schedule Time** page, select the frequency of the schedule, and then do the following:
 - a) If you selected **One Time**, enter the date, when the schedule should run.
 - b) If you selected **Daily**, enter the interval in days the schedule should run.
 - c) If you selected **Weekly**, enter the interval in weeks the schedule should run.

- d) If you selected **Monthly**, enter the day of each month and the interval in months or the day and associated weekday of each month the schedule should run.
 - e) Under **Daily Frequency**, enter the time each day the schedule should run.
 - f) Under **Status**, select the status of the schedule.
 - g) Click **Next**.
5. On the **E-Mail Reports** page, enter a description for the schedule, and then do the following:
- a) To add a scheduled report, click **Add**.
 - b) To modify a scheduled report, select the report, and then click **Edit**.

NOTE: To delete a scheduled report, select the report, and then click **Delete**.

- c) In the **Report Description** box, type a description for the scheduled report.
 - d) In the **Report Type** box, select the type of report.
 - e) Beside **Report Format**, specify if you want the report format to be **HTML**, **CSV**, or **PDF**.
 - f) In the **Branding** box, select the branding you want to apply to the report.
 - g) Under **Options**, configure the report you selected.
 - h) Click **OK**.
 - i) Click **Next**.
6. On the **E-Mail Settings** page, do the following:
- a) In the **To** box, type the email address of the recipient of the email.
 - b) In the **Subject** box, type the subject of the email.
 - c) In the **Message** box, type the message of the email.
 - d) Click **Finish**.
7. To run a schedule on demand, select the schedule, and then click **Execute Now**.
8. To change the font used in the PDF reports, click **PDF Font**, and then select a font.
9. To update the list of schedules, click **Refresh**.
10. Click **Close**.

2.6 Configuring the printer settings

The DS-Billing GUI can interface with the existing printers configured on the computer when it is installed.

To configure the printer settings:

1. On the **Setup** menu, click **Printer Setup**.
2. In the **Print** dialog box, use the **General**, **Page Setup**, and **Appearance** tabs to configure the printer.

2.7 Configuring the branding settings

The branding settings are defined on the individual DS-Billing server. If no branding is specified, none will appear in any of the DS-Billing reports.

To configure the branding settings:

1. On the **Setup** menu, click **Branding** and then do one of the following:
 - To add branding, click **Add**.
 - To modify branding, select the branding, and then click **Modify**.

NOTE: To delete a branding, select the branding, and then click **Remove**.

2. Do the following:
 - a) In the **Description** box, type a name for the branding setting.
 - b) In the **Logo Image** box, select the branding image.
 - c) To assign as the default branding, select the **Default Branding** check box,
 - d) Click **OK**.
3. To update the list of available branding, click **Refresh**.
4. Click **Close**.

2.8 Configuring the service provider information

You can enter your company's information that you want to appear on the DS-Billing reports.

To configure your service provider information:

1. Click the **DS-Billings** tab.
2. Right-click the DS-Billing server for which you want to configure the service provider information, and then click **Service Provider Info**.
3. Enter or update the information, and then click **OK**.

2.9 Configuring the appearance of the main window

You can configure the appearance of the DS-Billing main window.

To configure the appearance of the main window:

1. On the **Setup** menu, point to **Look & Feel**, and then select one of the available themes.
2. If you selected the **Metal** theme, you can further configure the look and feel as follows:
 - a) On the **Setup** menu, click **Initialization**.
 - b) Click the **Look & Feel** tab. This tab will not appear for other themes.
 - c) Under **Metal Theme**, select a default theme or under **Custom Colors**, select your colors, and then click **OK**.

2.10 Managing DS-Billing activities

You can communicate with users connected to DS-Billing, disconnect users, view the database connections and threads, clear the database logs, perform real-time troubleshooting, and shut down the DS-Billing computer.

2.10.1 Viewing the system status

You can view the DS-Billing system status information. System status information includes current network connections and processes database connections, and threads.

To view the system status:

3. On the **Setup** menu, click **System Activities**.
4. Click **System**.
5. To view the network connections, click the **Network Connections** tab, and then do the following:
 - a) To send a message to a user, select the user, click **Message**, type the message, and then click **Send**.
 - b) To remove a connection from the DS-Billing server, select the user, and then click **Disconnect**.
6. To view the database connections, click the **Database Connections** tab.
7. To view the threads, click the **Threads** tab.
8. To view the connection managers, click the **Managers** tab.
9. To update the data, click **Refresh**.

NOTE: To print or save an item under any of these tabs, select the item, right click, and then click **Print** or **Save**.

10. Click **Close**.

2.10.2 Deleting DS-Billing logs

You can selectively delete older entries from the DS-Billing database logs.

To delete DS-Billing logs:

1. On the **Setup** menu, click **System Activities**.
2. To delete the DS-Billing logs, click **Clear**.
3. Select the check box beside each log whose entries you want to delete.
4. Enter how old the logs must be to qualify for deletion.
5. Click **Delete**.
6. Click **Close**.

2.10.3 Shutting down the DS-Billing server

Using this feature you can shut down the DS-Billing system.

To shut down the DS-System server:

1. On the **Setup** menu, click **System Activities**.
2. To shutdown the system, click **Initiate**.

NOTE: If the system shutdown is in process, the tab will display **Abort**.

2.11 Viewing the memory allocation

Memory information applies to the current instance of the GUI (not the underlying service).

To view the memory allocation:

1. On the **Setup** menu, click **Show Memory**.
2. In the top right corner of the GUI, a memory usage bar appears. If you hover the cursor over the bar, the following information appears in a tooltip:
 - **Maximum Memory:** Maximum amount of memory the GUI can use on the computer.
 - **Total Memory:** Total amount of memory used (allocated) on the computer for this GUI instance.
 - **Free Memory:** Amount of the allocated memory that is still free to use.
 - **Used Memory:** Amount of memory that is currently being used.

2.12 Updating the DS-Billing configuration file parameters

DS-Billing has a configuration file (**dsbilling.cfg**) that is created during the installation process. The configuration file is a text file that contains parameter and value pairs (assume the value is case sensitive), where the parameter is separated from the value by a colon (":"). In general, these values must not be edited.

The file contains the following parameters:

Parameter	Description
Database Dump Path	Specifies the path where the dsbilling database is dumped, according to the configurations in Setup > Advanced Configuration. Windows: C:\Program Files\CloudBackup\DS-Billing Linux: /opt/CloudBackup/DS-Billing
Database Home (Linux)	Specifies the directory where the PostgreSQL client is installed. The default is: <code>bin\psql</code>
Database Host	Specifies the name or IP address of the computer where the database is installed. If the database is installed on the local machine, the following appears: <ul style="list-style-type: none"> Windows: (local) Linux: 127.0.0.1
Database Password (Linux)	Specifies the database user password written in encrypted format by the installation setup. Do not change this value manually.
Database Port (Linux)	Specifies the service port on the database server available for DS-Billing connections. The default is 5432 .
Database Type	Specifies the type of database being used. <ul style="list-style-type: none"> Windows: MSSQL Linux: PostgreSQL or PostgreSQL_Embedded
Database User (Linux)	Specifies the user name required to log on to the database for the DS-Billing service.
Installation Path	Specifies the installation path where the DS-Billing application files are installed. Windows: C:\Program Files\CloudBackup\DS-Billing Linux: /opt/CloudBackup/DS-Billing

Table 3 DS-Billing configuration file parameters

IMPORTANT: If you make any changes to the configuration file, you must restart the DS-Billing service or daemon for the changes to take effect.

Configuring the DS-Billing system

Updating the DS-Billing configuration file parameters

3 Managing the DS-Billing system

You can register DS-Systems and BLM Archivers on the DS-Billing server and understand the role that DS-Billing plays in the disc/tape restore process.

3.1 Registering a DS-System

You must register each DS-System that you want to use for billing with the DS-Billing server.

NOTE: You must also register the DS-Billing server with the DS-System. For information, see the *DS-System User Guide*.

To register a DS-System:

1. Connect to the DS-Billing server on which you want to register the DS-System.
2. On the **DS-System** menu, click **New DS-System**.
3. In the **System Name** box, type a name for the DS-System. The name is only a description and does not have to match the actual computer name.
4. Under **TCP/IP Connection**, do one of the following:
 - To add a DS-System, click **Add**.
 - To modify a DS-System connection, select the connection, and then click **Edit**.

NOTE: To delete a DS-System connection, select the connection, and then click **Delete**.

5. In the **New/Modify DS-System Address** box, do the following:
 - a) To enter the IP address of a DS-System, select **Single IP**, and then type the IP address.
 - b) To enter the DNS name of a DS-System, select **Single DNS**, and then type the DNS name of the DS-System.
 - c) To enter a range of IP addresses, select **IP Range**, and then type the IP addresses to specify the range.

NOTE: For N+1 DS-Systems, you must add the address of each node on separate lines.

6. Click **OK**.

7. To synchronize the configured branding with the DS-System, select the **Synchronize DS-System Report Branding** check box.
8. Click **Finish**.

IMPORTANT: The DS-Billing server imports existing customer accounts and DS-Client account information to its database. Billing specific fields will be empty and appear in red in the configuration dialog boxes.

3.2 Configuring a DS-System

After you register a DS-System with the DS-Billing server, you can configure it. The DS-Billing server connects to the DS-System to perform the corresponding changes you make.

To configure a DS-System

1. Click the **DS-Billings** tab.
2. Right click the DS-System you want to configure, and then click **Edit**.
3. On the **System Name** tab, do the following:
 - a) In the **System Name** box, type a name for the DS-System. The name is only a description and does not have to match the actual computer name.
 - b) Under **TCP/IP Connection**, do one of the following:
 - To add a DS-System connection, click **Add**.
 - To modify a DS-System connection, select the connection, and then click **Edit**.

NOTE: To delete a DS-System connection, select the connection, and then click **Delete**.

- c) To enter the IP address of a DS-System, select **Single IP**, and then type the IP address.
- d) To enter the DNS name of a DS-System, select **Single DNS**, and then type the DNS name of the DS-System.
- e) To enter a range of IP addresses, select **IP Range**, and then type the IP addresses to specify the range.

NOTE: For N+1 DS-Systems, you must add the addresses of each node on separate lines.

- f) Click **OK**.
4. To synchronize the configured branding with the DS-System, select the **Synchronize DS-System Report Branding** check box.
5. On the **Billing** tab, do the following:
- a) Select the **Generate DS-System Invoice** check box.

NOTE: You cannot enable the DS-System invoice if the customers of the DS-System have different sales representatives. All the customers of a DS-System must have the same sales representative.

- b) Under **Charge Plan**, do one of the following:
- To configure a charge plan, click **New**.
 - To apply a charge plan, click **Join**, select the charge plan, and then click **OK**.
 - To modify a charge plan, select the charge plan, and then click **Edit**.

NOTE: This procedure describes the pages in the New Charge Plan Wizard, which correspond to the tabs in the Edit Charge Plan dialog box.

- c) On the **Charge plan name** page, do the following:
1. In the **Charge Plan Name** box, type a name for the charge plan.
 2. Beside the **Billing Cycle** box, click [...]. Select a billing cycle or configure a new billing cycle, and then click **OK**.
 3. In the **Billing Location** box, select a billing location or click [...] to configure a new billing location, and then click **OK**.
 4. In the **Billing Info** box, select a billing info or click [...] to configure a new billing info, and then click **OK**.
 5. Click **Next**.
- d) On the **Charge sequence** page, do the following, and then click **Next**.
- To configure a charge sequence, click **New**. Configure a charge sequence, and then click **OK**.
 - To modify a charge sequence, select the charge sequence, and then click **Modify**.

NOTE: To delete a charge sequence, select the charge sequence, and then click **Delete**.

- e) On the **Select promotion** page, do the following:

1. To evaluate a promotion, select the **Evaluation** check box.
2. In the **Evaluation period ends on** box, select a date when the evaluation period ends.
3. To reset the DS-Client Service end date, click **Reset DS-Client(s) service End Date**.
4. Click **Finish**.
- f) Click **OK**.
6. To view the tools on the DS-System that are enabled from the DS-License server, click the **DS-Tools** tab.
7. Click **OK**.

3.3 Viewing DS-System statistics

Backup statistics are updated each time the DS-Billing server runs a synchronization process with a registered DS-System and BLM Archiver. These statistics categorize the backup data according to type (protected size / stored size / native size) and location.

To view DS-System statistics:

1. Click the **DS-Billings** tab.
2. Select the DS-System for which you want to view the backup statistics.
3. On the **DS-System** menu, click **Statistics**.
4. Click **Close**.

3.4 Deleting a DS-System

You can delete a DS-System from the DS-Billing server.

To delete a DS-System:

1. Click the **DS-Billings** tab.
2. Select the DS-System you want to delete.
3. On the **DS-System** menu, click **Delete**.
4. When prompted to confirm that you want to delete the DS-System, type the name of the DS-System, and then click **Delete**.

NOTE: The DS-System name is case sensitive. The delete button is activated only when the names match.

3.5 Registering a BLM Archiver

You must register each BLM Archiver you want to use for billing with the DS-Billing server.

NOTE: You must also register the DS-Billing server with the BLM Archiver. For more information, see the *BLM Archiver User Guide*.

To register a BLM Archiver:

1. On the **BLM** menu, click **Edit BLM**, and then do one of the following:
 - To add a BLM Archiver, click **New**.
 - To modify a BLM Archiver, select the BLM Archiver, and then click **Edit**.

NOTE: To delete a BLM Archiver, select the BLM Archiver, and then click **Delete**.

2. In the **BLM Name** box, type a name for the BLM Archiver you want to register.
3. In the **BLM IP Address** box, type the IP address of the BLM Archiver you want to register.
4. To synchronize the configured branding with the BLM Archiver, select the **Synchronize DS-System Report Branding** check box.
5. Click **Finish**.

NOTE: You must run a synchronization to complete the registration. For more information see, [Section 3.8, “Synchronizing the DS-Billing server”, on page 40](#)

3.6 Configuring the bandwidth throttle settings

The bandwidth throttle settings allow you to limit bandwidth usage per DS-Client account. This is useful if there are several DS-Clients are on the same network. You can set the bandwidth throttle settings for both directions; to the DS-System (backups) and from the DS-System (restores).

- Default bandwidth throttle settings for all DS-Client accounts can be configured when creating a customer account. For more information, see [Section 5.1, “Configuring a customer account”](#), on page 69.
- Individual bandwidth throttle settings can be configured for each DS-Client account when creating a DS-Client account. For more information, see [Section 6.1, “Configuring a DS-Client account”](#), on page 79.

IMPORTANT: This feature performs a configuration change on the selected DS-System. The same steps can be performed using the DS-Operator with some minor differences because DS-Billing can connect to multiple DS-Systems

To configure bandwidth throttle settings:

1. On the **DS-System** menu, click **Bandwidth Throttle**.
2. In the **DS-System** box, select the DS-System you want to configure.
3. To filter the results, under **Select by**, do the following:
 - a) To filter by customer account, select **Account#**, and then click [...]. In the **Select Customer** dialog box, further filter the results by selecting the customer name or account #, and then click **Find**.
 - b) To filter by DS-Client, select **DS-Client #**, click [...]. In the **Select DS-Client** dialog box, further filter the search by customer name, description, or account #, and then click **Find**.
 - c) Click **Find**.
4. Select the check box beside the DS-Client(s) you want to configure, and then click **Edit**.
5. In the **Set Bandwidth Throttle** dialog box, do the following:
 - a) To use the maximum bandwidth to perform operations as fast as possible, select **Unlimited**.
 - b) To define the bandwidth usage, select **Limited to ... KB/sec**, and then specify the bandwidth in KB/sec.
 - c) To configure a bandwidth throttle schedule, click **Scheduled**, and then click [...].
6. If you selected **Scheduled**, in the **Select Bandwidth Throttle Schedule** dialog box, do one of the following:

- To add a bandwidth throttle schedule, click **New**.
- To modify a bandwidth throttle schedule, select the schedule, and then click **Edit**.

NOTE: To delete a bandwidth throttle schedule, select the schedule, and then click **Delete**.

7. In the **Bandwidth Throttle Schedule** box, type a name for the bandwidth throttle schedule detail, and then do one of the following:

- To add a schedule detail, click **New Detail**.
- To edit a schedule detail, select the detail, and then click **Edit Detail**.

NOTE: To delete a schedule detail, select the detail, and then click **Delete Detail**.

8. In the **New/Edit Bandwidth Throttle Schedule Detail** dialog box, do the following:
 - a) Under **Week Days**, select the days of the week for the schedule detail.
 - b) Under **Starting at**, enter the start time of the schedule detail.
 - c) Under **Bandwidth throttle**, select whether you want the bandwidth to be unlimited or limited to a specific amount.
 - d) Click **OK**.

NOTE: The schedule detail will be an exception to the default setting.

9. Click **Add Schedule** or **Update Schedule**.
10. To apply a bandwidth throttle schedule, select the schedule, and then click **Select**.
11. Click **OK**.
12. Click **Close**.

3.7 Configuring storage quotas

For each DS-System, you can set a storage quota to limit the maximum storage amount that the DS-System will allow at the customer account and DS-Client account levels.

IMPORTANT: This feature performs a configuration change on the selected DS-System. The same steps can be performed using the DS-Operator with some minor differences because DS-Billing can connect to multiple DS-Systems.

To configure storage quotas:

1. On the **DS-System** menu, click **Storage Quotas**.
2. In the **DS-System** box, select the DS-System you want to configure.
3. To configure the customer account storage quota, click the **Customer Quota** tab.
4. To filter the customer list, in the **Account #** box, type the account number you want to find or click [...] to perform an advanced search.
5. Select the check box beside the customer account(s) or DS-Clients you want to configure with the same quota, and then click **Edit**.
6. Under **Customer Storage Quota**, do the following:
 - a) Select the **Enable Customer Quota Management** check box.
 - b) In the **Quota** box, enter the quota.
 - c) In the **Calculation method** box, select a calculation method. Your options are as follows:
 - **Based on Protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored Size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Native Size** – Invoicing is based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
 - d) In the **Stop Backup level ... % over the quota** box, enter a value at which the DS-System will stop all backups for the customer(s).
 - e) To send an email notification when a percentage of the quota is consumed, select the **Send E-mail when the following are reached** check box, and then enter the values for the warning levels.

7. Under **Default DS-Client Storage Quota**, do the following:
 - a) In the **Quota** box, select **Limited to**, and enter the value.
 - b) In the **Calculation method** box, select a calculation method. The options are the same as for Customer Storage Quota.
 - c) In the **Stop Backup level box ... % over the quota** box, enter a value at which the DS-System will stop all backups for the customer(s).
 - d) To send email notification when a percentage of the quota is consumed, select the **Send E-mail when the following are reached** check box, and then enter the values for the warning levels.
 - e) Click **Save**.
8. To configure DS-Client account storage quota, do the following:
 - a) Click the **DS-Client Quota** tab, and then click **Find**.
 - b) To filter the DS-Client list, select whether you want to search by account # or DS-Client #. Type the account # or DS-Client # that you want to find or click [...] to perform an advanced search. Enter the search parameters in the corresponding dialog boxes, and then click **Find**.
 - c) Select the check box beside DS-Client account(s) you want to configure with the same quota, and then click **Edit**.
9. Under **DS-Client Storage Quota**, do the following:
 - a) Select the **Enable DS-Client Quota Management** check box.
 - b) In the **Quota** box, select **Limited to**, and then enter the value.
 - c) In the **Calculation method** box, select a calculation method. The options are the same as for **Customer Storage Quota**.
 - d) In the **Stop Backup level box ... % over the quota** box, enter a value at which the DS-System will stop all backups for the customer(s).
 - e) To send email notification when a percentage of the quota is consumed, select the **Send E-mail when the following are reached** check box, and then enter the values for the warning levels.
 - f) Click **Save**.
10. Click **Close**.

3.8 Synchronizing the DS-Billing server

Synchronization between the DS-Billing server and all registered DS-Systems and BLM Archivers is automatically performed based on the configured default settings. For more information, see [Section 2.1.1, “Configuring the default settings”, on page 15](#).

However, you can perform the synchronization process on-demand at any time to ensure the DS-Billing server and the DS-Systems and BLM Archivers have the same customer account and DS-Client account settings.

IMPORTANT: You must regularly synchronize the DS-Billing server with the DS-Systems and BLM Archivers.

To synchronize the DS-Billing server:

1. On the **DS-System** menu, click **Synchronize**.
2. To synchronize with a DS-System, select the **DS-System** check box, and then select a DS-System. To synchronize all, select **All**.
3. To synchronize with a BLM Archiver, select the **BLM Archiver** check box, and then select a BLM Archiver. To synchronize all, select **All**.
4. To record an expanded log of the synchronization process to the Event Log, select the **Detailed Log** check box.
5. Click **Synchronization**.

3.9 Validating the DS-Billing server

Validation scans the configurations of the DS-Billing server to determine if a billing object has a potential issue.

To validate a DS-Billing system:

1. On the **DS-System** menu, click **Validate**.
2. To update the list of billing objects with potential issues, click **Refresh**.
3. Click **Validate**. The **Validation Process** window appears and displays the results of the validation process.
4. To view the event log, click **Event Log**. For more information, see [Section 10.4, “Viewing the Event Log”, on page 102](#).
5. Click **Close**.

3.10 Configuring the disc / tape media for a DS-System

You can configure the disc/tape media for a DS-System. This is the same task you can perform using the DS-Operator, but the media that is configured will also include service charge and per unit price. Most of the disc/tape related tasks are performed on the DS-System. For more information, see the *DS-System User Guide*.

IMPORTANT: You must use the DS-Billing GUI to create and maintain the disc/tape media, because you have access to billing-specific options that are not available in DS-Operator.

To configure disc/tape media for a DS-System:

1. On the **Disc/Tape** menu, click **Media**, and then do one of the following:

- To add a disc/tape media, click **Add**.
- To modify a disc/tape media, select the disc/tape media, and then click **Modify**.

NOTE: To delete a disc/tape media, select the disc/tape media, and then click **Delete**.

2. On the **New media information** page, do the following:

- a) In the **Media Name** box, type a name for the media.
- b) In the **Media Type** box, select a media type.
- c) In the **Service Charge (\$)** box, enter the price to charge for each disc/tape request using the media type selected.
- d) If you selected the disk media type, beside **Media Size**, do one of the following:
 - To specify various capacity parameters, select **Limited size**.
 - To write disc/tape requests without considering media size limits, select **Unlimited size**.
- e) In the **Total Capacity (MB)** box, type the capacity of each unit of the media type.
- f) In the **Guard Size (MB)** box, type the buffer capacity that is subtracted from the total capacity of the media unit for the purpose of calculating how many units are required.

- g) In the **Block Size (Bytes)** box, type the size of the blocks.

IMPORTANT: Do not change the default value for the block size unless you have a specific requirement to do so.

- h) In the **Per Unit Price (\$)** box, enter the price to charge for each unit of the media type that is shipped to the customer.
- i) Click **Next**.
3. On the **Select media location** page, select the DS-System(s) where the disc/tape media configuration will be created.
4. Click **Finish**.

NOTE: DS-Clients users can now use the disc/tape option and DS-System users can now create on demand disc/tape snapshots at the backup level.

3.11 Viewing the mailed disc/tape log

You can view the mailed disc/tape log, which is a permanent historical list of disc/tape orders that have been flagged **Mark Mailed** on the DS-System.

To view the mailed disc/tape log:

1. On the **Disc/Tape** menu, click **Mailed Disc/Tape Log**.
2. To filter the results, under **Select by**, do the following:
 - a) To specify a different start date and time, beside the **From** box, click [...], and then enter a date and time. No activities before this date and time will be displayed.
 - b) To specify a different end date and time, beside the **To** box, click [...], and then select a date and time. No activities after this date and time will be displayed.
 - c) To filter by DS-System, select **DS-System**. In the DS-System box select the DS-System for which you want to view the mailed disc/tape log.
 - d) To filter by customer, select **Customer**. Beside the **Account #** box click [...], apply the required filters, and then select the customer for which you want to view the mailed disc/tape log.
 - e) To filter by DS-Client, select **DS-Client**. Beside the **DS-Client #** box, click [...], apply the required filters, and then select the DS-Client for which you want to view the mailed disc/tape log.
 - f) To update the list, click **Refresh**.

3. Select an item in the list and click **More Info**. The following information is displayed:

Columns	Description
User Name	Name of the owner of the backup
Time Requested	Time when the disc/tape order was requested.
Time Mailed	Time when the disc/tape order was marked as Mailed by the DS-System.
Files	Total number of files generated to the buffer.
File Size	Total size of the files generated to the buffer.
Contact Person	Name of the contact person for the customer account.
Telephone	Telephone number of the contact person for the customer account.
Mailing Address	Mailing address for shipping the disc/tape.
Media	Number of media units in one set of the disc/tape order.
Copies	Number of sets of the disc/tape order generated.
Unit Price	Price charged for each media unit.
Service Charge	Flat price charged for the service (in addition to the total price for all media units).
Total Charges	Sum of all charges for the disc/tape order.

Table 4 Mailed disc/tape log details

4. Click **Close**.

4 Configuring the DS-Billing business settings

You can configure the DS-Billing business settings that can be accessed from the Business tab (global options, sales groups, and billing scales).

4.1 Configuring the global options

The global options are business settings that apply to the entire DS-Billing server.

4.1.1 Configuring a service charge

You can configure the service charges that are assigned per DS-Client account. The service charge list contains the fees for one-time or recurring services as well as add-on products (hardware and software). Once created, the charges can be applied to DS-Client accounts.

NOTE: The service charges that are configured can be selectively added to DS-Client accounts. Predefined charges that appear with an asterisk (*) can only be updated. They cannot be deleted from the service charge list.

To configure a service charge:

1. On the **Business** menu, click **Additional Charges**.
2. To filter the results, under **Select by**, select the charge type, the effective date, and then click **Find**.
3. To add a service charge, click **Add**, and then do the following:
 - a) In the **Charge Name** box, type the name of the service charge.
 - b) In the **Charge Type** box, enter the frequency for the service charge.
 - c) In the **Price** box, enter the price for the service charge, and then specify if you want to enforce a fixed price service charge or a per unit charge.
 - d) In the **Unit/Item Description** box, type a description for the service charge.
 - e) Beside the **Effective Date** box, click [...], select a date from which the service charge will be effective, and then click **OK**.
 - f) Click **Save**.
4. To create a new version of an existing service charge, select the service charge, and then click **New Version**. To modify a service charge version, select the Service Charge Version, and then click **Update**. Then do the following:

- a) In the **Price** box, enter the price for the service charge.
 - b) In the **Description** box, type a description for the service charge.
 - c) Beside the **Effective Date** box, click [...], select a date from which the service charge will be effective, and then click **OK**.
 - d) Click **Save**.
5. To delete a service charge version, select the service charge, and then click **Remove**. When prompted to confirm you want to delete the service charge, click **Yes**.

NOTE: You cannot delete a service charge that is currently applied to a DS-Client account or a service charge that appears with an asterisk (*). When you remove the last service charge version, the service charge is deleted from the Service Charge List.

6. Click **Close**

4.1.2 Configuring a billing plan

You must configure a billing plan to provide the information required for the credit card companies.

To configure a billing plan:

1. On the **Business** menu, click **Billing Plans**.
2. In the **Billing Plan** box, select a billing plan.
3. Enter the information for the plan, and then click **OK**.

4.1.3 Configuring a tax rate

Tax rates are applicable from one effective date to the next, which means only one tax rate is applicable at any given time. Older versions remain in the database for historical purposes. The tax rates apply to all invoices, except those with exemptions.

To configure a tax rate:

1. On the **Business** menu, click **Business Parameters**, and then do one of the following:
 - To add a tax rate, click **New**.
 - To modify a tax rate, select the tax rate, and then click **Edit**.

NOTE: To delete a tax rate, select the tax rate, and then click **Delete**. You cannot edit or delete a tax rate that has been used in an invoice.

2. In the **Effective Date** box, enter the date from which the tax rate will be effective.
3. In the **Tax1** and **Tax2** boxes, enter the tax rates you want to apply, and then click **OK**.
4. Click **Close**.

4.1.4 Configuring a promotion

A promotion is a limited-time, fixed percentage reduction to a billing scale charge that overrides the billing scales in all charge plans by using a defined percentage discount. A promotion automatically applies to all charge plans. Only one promotion can be in effect at a time (no overlaps).

To configure a promotion:

1. On the **Business** menu, click **Promotions**.
 - To add a promotion, click **Add**.
 - To modify a promotion, select the promotion, and then click **Update**.

NOTE: To delete a promotion, select the promotion, and then click **Delete**.

2. In the **New/Edit Promotion** dialog box, do the following:
 - a) In the **Promotion Name** box, type a name for the promotion.
 - b) In the **Start Date** box, enter a start date for the promotion.
 - c) In the **End Date** box, enter an end date for the promotion.

- d) In the **Online Discount** box, enter the percentage discount you want to apply to online storage charges for plans affected by the promotion.
 - e) In the **BLM Discount** box, enter the percentage discount you want to apply to BLM storage charge for plans affected by the promotion.
 - f) In the **Local-Only Discount** box, enter the percentage discount you want to apply to Local-Only storage charges for plans affected by the promotion.
 - g) In the **Recovery Discount** box, enter the percentage discount you want to apply to recovery charges for plans affected by the promotion.
 - h) In the **VM Replication Discount** box, enter the percentage discount you want to apply to VM Replication charges for plans affected by the promotion.
 - i) Click **OK**.
3. To update the list of promotions, click **Refresh**.
 4. Click **Close**.

4.1.5 Configuring the recovery performance score

If you are using a DS-License Server RLM (Recovery License Model) with a DS-System or BLM Archiver, you can apply a recovery billing scale to charge plans and configure the default recovery performance score on the DS-Billing server.

To configure the recovery performance score:

1. On the **Business** menu, click **Recovery Performance Score**.
2. In the **Term Length** box, select the number of months that will make up a term on the DS-Billing server. Your options are as follows:
 - **12 months** – the entire year is one term (January-December).
 - **6 months** – the year is divided into two terms (January-June and July-December).
 - **4 months** – the year is divided into three terms (January-April, May-August, and September-December).
 - **3 months** – the year is divided into four terms (January-March, April-June, July-September, October-December).
 - **2 months** – the year is divided into six terms (January-February, March-April, and so on)
 - **1 month** – each month is a term.

3. In the **First Term Recovery Performance Score**, enter the score to use during the first term.

NOTE: No historical information is available to calculate the recovery performance score for new billing objects. You must assign a default score that will be used until at least one term of logs have been accumulated to make a calculation.

4. Under **Recovery Performance Score**, select a score and configure the default recovery to backup percentage. Each consecutive score step down must have a higher recovery to backup percentage than the previous one.

NOTE: If you change the default settings used for all recovery billing scales, it will affect all recovery billing scales except those defined by using custom settings.

5. Click **Save**.

4.2 Working with sales groups

You can tailor your marketing structure as required by using the sales group options either exclusively or in combination. You can switch the responsibility for customer accounts amongst sales representatives as required.

Each sales group is automatically assigned a House Account. This serves as a default salesperson if you need to transfer responsibility for a customer account from one of your salespeople or if there are no salespeople in the organization.

If there are no sales people in the organization or the payment structure does not include commissions on sales, you can use the House Account.

Every month, a credit report is generated for each sales group defined on the DS-Billing server. This report displays a breakdown of the commissions generated by each of the VAR's sales representatives.

4.2.1 Configuring a sales group

You must create a sales group profile for each of the sales organizations on the DS-Billing server. Each customer account must be associated with a sales representative to record commissions and generate invoices. If you do not have the appropriate sales representative, you can assign the customer to the House Account of the sales group.

To configure a sales group:

1. On the **Business** menu, click **New Sales Group**.
2. On the **Sales group profile** page, do the following:
 - a) In the **Company Name** box, type the name of the company.
 - b) Beside **Business Relation**, select one of the following options:
 - **VAR** – Allows you to use the default House account to manage your own sales force or take control of customer accounts from other sales groups.
 - **Referral** – Allows you to contract out to referral companies who will sell the service. You retain the responsibility for installation and service of the DS-Clients at the end-customer sites.
 - c) Click **Next**.
3. On the **Sales Group's address** page, enter the contact details of the sales group, and then click **Next**.

NOTE: To add a city, beside **City**, click [...] and follow the wizard.

4. On the **Sales group billing type** page, select a billing type. Your options are as follows:
5. If you want the sales group to receive a commission based on a charge plan, select **Sales Group Receives Commission**, and then do the following:
 - a) To add a sales group commission, click **New**.

NOTE: To delete a sales group commission, select the sales group commission, and then click **Remove**.

- b) Under **Sales Amount**, enter the base sales amount at which the corresponding commission rate will apply.
- c) Under **Commission Rate**, enter the percentage commission that will appear in the sales group report based on monthly sales revenue from invoices associated with the sales group.
- d) Click **Next**.

6. If you want the sales group to have its own invoice based on a charge plan that is applied to the total storage of all DS-Clients, select **Generate Sales Group Invoice**.
 - a) To add a new charge plan, click **New**:
 - b) On the **Charge plan name** page, type a name for the charge plan.
 - c) In the **Billing Cycle** box, click [...]. Select a billing cycle or configure a billing cycle, and then click **OK**.
 - d) In the **Billing Location** box, select a billing location or click [...]. Beside the billing location box, configure a new billing location, and then click **OK**.
 - e) In the **Billing Info** box, select a billing info or click [...]. Beside the billing info box, configure a a billing info, and then click **OK**.
 - f) Click **Next**.
 - g) On the **Charge sequence** page, do one of the following:
 - To configure a charge sequence, click **New**. Configure a charge sequence, and then click **OK**.
 - To modify a charge sequence, select the charge sequence, and then click **Modify**.

NOTE: To delete a charge sequence, select the charge sequence, and then click **Delete**.

- h) Click **Next**.
- i) On the **Select Promotion** page, select the **Evaluation** check box.
- j) In the **Evaluation period ends on** box, select a date when the evaluation period ends.
- k) To reset the DS-Client Service end date, click **Reset DS-Client(s) service End Date**.
- l) Click **Finish**.

NOTE: To apply a charge plan, click **Select**, select a charge plan, and then click **OK**. To modify a charge plan, select the charge plan, and then click **Edit**.

7. If you want each sales group to have its own consolidated monthly invoice that provides a summary of all its customer invoices and references, select **Generate Consolidated Invoice**, and then do the following:
 - a) To add a consolidated invoice, click **New**.
 - b) In the **Name** box, type a name for the consolidated invoice.

- c) Beside the **Billing Cycle** box, click [...]. Select a billing cycle, and then click **OK**.
- d) In the **Billing Location** box, select a billing location or click [...] to configure a new billing location, and then click **OK**.
- e) In the **Billing Info** box, select a billing info, or click [...] to configure a new billing info, and then click **OK**.
- f) In the **Start Date** box, enter a date. No consolidated invoice will be created for billing periods before this date.
- g) Click **Finish**.
- h) Click **Next**.

NOTE: To select a consolidated invoice, click **Select**, select a consolidated invoice, and then click **OK**. To modify a consolidated invoice, select the consolidated invoice, and then click **Edit**.

- 8. On the **Sales group advanced settings** page, do the following:
 - a) To configure branding for a sales group, under **DS-Client autoupgrade package branding**, click [...]. Select the branding. Each branded auto-upgrade package must be built individually so you must request the branding package from Asigra.

NOTE: If the sales group applies to more than one DS-System, you must ensure the same auto-upgrade folder exists on all the DS-Systems. For more information see the *DS-System User Guide*.

- b) To force all charge plans associated with a sales group to use the selected charge sequence, select the **Apply charge sequences to all charge plans** check box. Under **Charge Sequence**, select a charge sequence.
- c) To automatically generate a charge plan based on a selected template, select the **Automatically generate charge plan for customers** check box.
- d) Click **Finish**.

4.2.2 Configuring a sales group representative

Each customer must be associated with a sales representative.

NOTE: Sales representatives receive the sales group's commission rates. For more information, see [Section 4.2.3, "Configuring a sales group commission"](#), on page 53.

To configure a sales representative:

1. Click the **Business** tab.
2. Under **Sales Groups**, right-click the sales group to which you want to add a sales representative, and then do one of the following:
 - To add a sales representative, click **New Sales Representative**.
 - To modify a sales representative, click **Edit**.
 - To view the DS-Client account associated with a sales representative, click **Show DS-Clients**. Click **Close**.

NOTE: To delete a sales representative, select the sales representative, and then click **Delete**. You cannot delete the House Account as it is automatically created with the sales group.

4.2.3 Configuring a sales group commission

Each version of a sales group commission is made unique by its effective date. When you create a new version, the newer one will supersede the older version on the newer effective date.

To configure a sales group commission:

1. On the **Business** menu, click **Sales Group Commissions**, and then do one of the following:
 - To create a new version of a commission, select a commission, and then click **New Version**.
 - To modify a commission, select the commission, and then click **Change**. You can only change or delete a commission that has not been used in a report or invoice.

NOTE: To delete a commission version, select the version, and then click **Delete**.

2. In the **New/Modify Commission Version** dialog box, do the following:
 - a) In the **Effective Date** box, enter the date from which the sales group commission will be effective.
 - b) Under **Commission**, click **New**.
 - c) Under **Sales Amount**, enter the base sales amount at which the corresponding commission rate will apply.
 - d) Under **Commission Rate**, enter the percentage commission that will appear in the sales group report based on monthly sales revenue from invoices associated with the sales group.
 - e) Click **Save**.

NOTE: You can create a scale with different commission rates at different sales levels. All the sales representatives of the sales group will receive this commission.

3. To search for a version by its effective date or by company name, select the appropriate option. In the **Effective On** box, select a date, and then click **Find**.
4. Click **Close**.

4.3 Working with billing scales

Billing scales are used to determine the storage charges and credits.

4.3.1 Configuring an online billing scale

An online billing scale applies to DS-System storage. You can create online billing scales to accommodate different billing situations or promotions, and apply them to individual charge plans.

When creating a new billing scale, you must specify at least one billing scale detail. Each detail specifies the base service charge up to a maximum storage amount, and a surcharge amount for storage above the maximum storage amount.

When an invoice is generated, the DS-Billing server will automatically select the best billing detail from the selected billing scale, depending on the storage used.

To configure an online billing scale:

1. On the **Business** menu, click **New Billing Scale**.
2. On the **Enter billing scale parameters** page, do the following:

- a) In the **Name** box, type a name for the billing scale.
 - b) Under **Invoice Calculation Method**, select a calculation method. Your options are as follows:
 - **Based on protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM, or Local-Only storage.
 - **Based on Native Size** – Invoicing is based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
 - **Flat Fee** – Invoicing is based on a flat fee, regardless of the amount of data backed up or restored in the case of recovery billing scales.
 - c) Under **Storage Size Calculation Method**, select a calculation method. Your options are as follows:
 - **Size at the end of the billing period** – Storage size is calculated based on the storage at the end of a billing period.
 - **Average size of billing period** – Storage size is calculated based on the average daily storage during the billing period.
 - **Peak size of billing period** – Storage size is calculated based on the peak storage amount recorded during the billing period.
 - d) Click **Next**.
3. On the **Billing scale details** page, do the following:
 - a) To add a billing scale, click **New**.
 - b) In the **Base Amount**, **Base Price**, and **Extra Price** boxes, specify the billing scale details.

NOTE: This does not apply for the Flat Fee invoice calculation method.

- c) To verify the amount that the billing scale detail will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, “Testing a billing scale”, on page 65](#).

NOTE: To delete a billing scale detail, select the billing scale detail, and then click **Delete**.

- d) Click **Next**.
4. On the **Billing scale filters** page, do the following:

- a) Under **Filter Name**, do the following:
 1. To add a billing scale filter, click **Add**.
 2. To modify a billing scale filter, select the filter, and then click **Edit**.
 3. In the **Filter Name** box, type a name for the filter, select the backup type, and then click **OK**.

NOTE: To delete a billing scale filter, select the filter, and then click **Remove**.

- b) Under **Billing Options**, do one of the following:
 1. To add a billing scale detail, click **New**.
 2. In the **Base Amount**, **Base Price**, and **Extra Price** boxes, specify the billing scale details.
 3. To verify what the billing scale will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, “Testing a billing scale”, on page 65](#).

NOTE: To delete a billing detail, select the billing detail, and then click **Delete**.

- c) Click **Finish**.

4.3.2 Configuring a BLM billing scale

A BLM billing scale applies to DS-Client data stored in the BLM Archiver storage. You can configure a BLM billing scale per DS-Client account. For accounts to be displayed on the DS-System, you must register the DS-System with the BLM Archiver and configure the DS-System on the BLM Archiver. You can do this only from the DS-Operator. For more information, see the *DS-System User Guide*.

NOTE: To use this feature, you must enable the Backup Lifecycle Management module and activate the feature using your license key. For more information, see [Section 6.1, “Configuring a DS-Client account”, on page 79](#).

To configure a BLM billing scale:

1. On the **Business** menu, click **New BLM Billing Scale**.
2. On the **BLM Billing Scale Parameters** page, do the following:

- a) In the **Name** box, type a name for the billing scale.
 - b) Under **Invoice Calculation Method**, select a calculation method. Your options are as follows:
 - **Based on protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored Size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM, or Local-Only storage.
 - **Flat Fee** – Invoicing is based on a flat fee, regardless of the amount of the data backed up or restored in the case of recovery billing scales.
 - c) Under the **Storage Size Calculation Method**, select a calculation method. Your options are as follows:
 - **Size at the end of the billing period** – Storage size is calculated based on the storage at the end of a billing period.
 - **Average size of billing period** – Storage size is calculated based on the average daily storage during the billing period.
 - **Peak size of billing period** – Storage size is calculated based on the peak storage amount recorded during the billing period.
 - d) Click **Next**.
3. On the **BLM Billing Scale Details** page, do the following:
 - a) To add a billing scale detail, click **New**.
 - b) Under **Base Amount**, enter the limit after which the extra price amount is applied.
 - c) Under **Base Price**, enter the fixed price for all data that falls below the base amount limit.
 - d) Under **Extra Price**, enter the amount you want to charge for any data above the base amount limit.

NOTE: This does not apply for the Flat Fee invoice calculation method.

- e) To verify the amount that the billing scale will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, “Testing a billing scale”, on page 65](#).

NOTE: To delete a billing detail, select the detail, and then click **Delete**.

- f) Click **Next**.
4. On the **BLM Billing Scale Filters** page, do the following:

- a) To add a billing scale filter, click **Add**.
- b) In the **New Billing Scale Filter** dialog box, do the following:
 1. In the **Filter Name** box, type a name for the filter.
 2. Under **Backup Set Types**, select the backup sets to associate with this filter for this billing scale.

NOTE: If a backup is associated with another filter for this billing scale, then it is grayed out.

3. Click **OK**.
4. To modify a billing scale filter, select the filter, and then click **Edit**.

NOTE: To delete a filter, select the filter, and then click **Remove**.

- c) Under **Billing Options**, do one of the following:
 1. To add a billing scale detail, click **New**.
 2. Under **Base Amount**, enter the limit after which the extra price amount is applied.
 3. Under **Base Price**, enter the fixed price for all data that falls below the base amount limit.
 4. Under **Extra Price**, enter the amount you want to charge for any data above the base amount limit.
 5. To verify what the billing scale will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, "Testing a billing scale", on page 65](#).

NOTE: To delete a billing detail, select the billing detail, and then click **Delete**.

- d) Click **Next**
5. On the **BLM Billing Scale Replication Details** page, select a calculation method for the monthly storage charges. Your options are as follows:
 - To calculate the monthly storage charges of BLM replicated data together with the primary storage size, select **Add to primary size**, and then click **Finish**.
 - To calculate the monthly storage charges separately for BLM replicated data and primary storage data, select **Calculate separately**, and then click **Next**.

- a) On the **Billing scale details** page, select a billing scale, or to add a new billing scale detail, click **New**.
- b) Under **Base Amount**, enter the limit after which the extra price amount is applied.
- c) Under **Base Price**, enter the fixed price for all data that falls below the base amount limit.
- d) Under **Extra Price**, enter the amount you want to charge for any data above the base amount limit.
- e) To verify what the billing scale will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, "Testing a billing scale", on page 65](#).

NOTE: To delete a billing scale detail, select the billing scale detail, and then click **Delete**.

- f) Click **Next**.
 - To apply no charges for BLM replicated data, select **None**, and then click **Finish**.
6. On the **BLM Billing Scale Replication Filters** page, do the following:
- a) To add a billing scale filter, click **Add**.
 - b) In the **New Billing Scale Filter** dialog box, do the following:
 1. In the **Filter Name** box, type a name for the filter.
 2. Under **Backup Set Types**, select the backup sets to associate with this filter for this billing scale.

NOTE: If a backup is associated with another filter for this billing scale, then it is grayed out.

3. Click **OK**.
4. To modify a billing scale filter, select the filter, and then click **Edit**.

NOTE: To delete a filter, select the filter, and then click **Remove**.

- c) Under **Billing Options**, click **New** to add a BLM billing scale replication detail.
- d) Under **Base Amount**, enter the limit after which the extra price amount is applied.

- e) Under **Base Price**, enter the fixed price for all data that falls below the base amount limit.
- f) Under **Extra Price**, enter the amount you want to charge for any data above the base amount limit.
- g) To verify what the billing scale will charge at different storage amounts, click **Test**. For more details, see [Section 4.3.6, “Testing a billing scale”, on page 65](#).

NOTE: To delete a billing detail, select the billing detail, and then click **Delete**.

- h) Click **Finish**.

4.3.3 Configuring a local-only billing scale

A local-only billing scale is similar to an online billing scale, but applies to DS-Client data from Local-Only backups stored at the local-only capacity storage location. You can configure a local-only billing scale per DS-Client account.

NOTE: To use this feature, you must enable the Local Storage module and activate the feature using your license key. For more information, see [Section 6.1, “Configuring a DS-Client account”, on page 79](#).

To configure a local-only billing scale:

1. On the **Business** menu, click **New Local-Only Billing Scale**.
2. On the **Local-Only Billing Scale Parameters** page, do the following:
 - a) In the **Name** box, type a name for the local-only billing scale.
 - b) Under **Invoice Calculation Method**, select a calculation method. Your options are as follows:
 - **Based on protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored Size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM, or Local-Only storage.
 - **Based on Native Size** – Invoicing is based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.

- **Based on Local-Only Capacity** – Invoicing is based on the allocated Local-Only capacity of each DS-Client. Storage size will automatically use the amount of Local-Only Capacity allocated to each DS-Client on the day the invoice is generated.
 - **Flat Fee** – Invoicing is based on a flat fee, regardless of the amount of the data backed up or restored in the case of recovery billing scales.
- c) Under **Storage Size Calculation Method**, select a calculation method. Your options are as follows:
- **Size at the end of the billing period** – Storage size is calculated based on the storage at the end of a billing period.
 - **Average size of billing period** – Storage size is calculated based on the average daily storage during the billing period.
 - **Peak size of billing period** – Storage size is calculated based on the peak storage amount recorded during the billing period.

NOTE: If you selected the invoice calculation method based on local-only capacity or flat fee, the storage size calculation method is not available.

- d) Click **Next**.
3. On the **Local-Only Billing Scale Details** page, do the following:
- a) To add a local-only billing detail, click **New**.
 - b) Under **Base Amount**, enter the limit after which the extra price amount is applied.
 - c) Under **Base Price**, enter the fixed price for all data that falls below the base amount limit.
 - d) Under **Extra Price**, enter the amount you want to charge for any data above the base amount limit.
 - e) To verify the amount that the billing scale will charge at different storage amounts, click **Test**. For more information, see [Section 4.3.6, “Testing a billing scale”](#), on page 65.

NOTE: To delete a local-only billing detail, select the billing detail, and then click **Delete**.

- f) Click **Finish**.

4.3.4 Configuring a recovery billing scale

A recovery billing scale applies to data restored from DS-Systems and BLM Archivers using a DS-License Server (RLM). You can configure a recovery billing scale that applies to all qualifying recovery data (such as on demand restores, BLM restorable images, and disc/tape requests). The recovery billing scale is then added to a charge sequence and applied to billing objects using the DS-Systems and/or BLM Archiver licensed by the DS-License Server (RLM). The DS-Billing server automatically selects the best billing detail for the customer.

To configure a recovery billing scale:

1. On the **Business** menu, click **New Recovery Billing Scale**.
2. On the **Recovery Billing Scale Parameters** page, do the following:
 - a) In the **Name** box, type a name for the recovery billing scale.
 - b) Under **Storage Size Calculation Method**, select a calculation method. Your options are as follows:
 - **Size at the end of the billing period** – Storage size is calculated based on the storage at the end of a billing period.
 - **Average size of billing period** – Storage size is calculated based on the average daily storage during the billing period.
 - **Peak size of billing period** – Storage size is calculated based on the peak storage amount recorded during the billing period.
 - c) Under **Options**, select a method to include the recovery size. Your options are as follows:
 - **Recovery Size includes BLM Archiver Restorable Image Size** – Select this option to add the BLM Archiver restorable image size to the recovery size.
 - **Recovery Size includes DS-System Disc/Tape Size** – Select this option to add the DS-System disc/tape size to the recovery size.
 - **Waive largest recovery from recovery size** – Select this option to exclude the largest recovery amount from the total recovery size.
 - d) Click **Next**.
3. On the **Recovery Billing Scale Details** page, do the following:

- a) In the **Recovery to Backup Percentage** column, assign the price you want to charge for each score level. The recovery performance score of the billing object determines what price is charged for recovery data in a billing period.

NOTE: By default, the dialog box is populated with the default settings. You must assign the amount to charge for each of the recovery performance score levels.

- b) To make the billing scale independent from the DS-Billing default settings, select **Custom Recovery performance Score Percentage Definition**.

NOTE: If the global settings are changed, the billing scale will be altered as well (only recovery to backup percentages).

- c) Click **Next**.

4. On the **DR Drill Billing Parameters** page, do the following:

- a) Select how DR Drill data is charged by a recovery billing scale. Your options are as follows:
 - **Add to Recovery size** – Select this option to add data from scheduled DR Drills to the recovery size.
 - **Calculate Separately** – Select this option to define separate billing details for DR Drill data.
 - **None** – Select this option if you do not want to apply any charges for DR Drill data.
- b) To verify what the billing scale will charge at different storage amounts, click **Test**. For more information, see [Section 4.3.6, “Testing a billing scale”, on page 65](#).

NOTE: To delete a recovery billing detail, select the billing detail, and then click **Delete**.

- c) Click **Finish**.

4.3.5 Configuring a VM replication billing scale

A VM replication billing scale applies to VM replication based on the VM replication count (number of VM replicated machines) or VM replication capacity (native capacity of the virtual machine). You can configure a VM replication billing scale per DS-Client account. The DS-Billing server automatically selects the best billing detail for the customer from the billing scale selected.

NOTE: To use this feature, you must enable the VM Replication module and activate the feature using your license key. For more information, see [Section 6.1, “Configuring a DS-Client account”, on page 79](#).

To configure a VM replication billing scale:

1. On the **Business** menu, click **New VM Replication Billing Scale**.
2. On the **VM Replication Billing Scale Parameters** page, do the following:
 - a) In the **Name** box, type a name for the billing scale parameter.
 - b) Under **Invoice Calculation Method**, select a calculation method. Your options are as follows:
 - **Based on Used VM Replication Count** – Invoicing is based on the number of virtual machines used for replication.
 - **Based on Allocated VM Replication Count** – Invoicing is based on the number of virtual machines allocated for replication.
 - **Based on Used VM Replication Capacity** – Invoicing is based on the total storage capacity used for replication (storage space of all virtual machines). Select a storage size calculation method.
 - **Based on Allocated VM Replication Capacity** – Invoicing is based on the total storage capacity allocated. Select a storage size calculation method.
 - **Flat Fee** – Invoicing is based on a flat fee, regardless of the amount of the data backed up.
 - c) Click **Next**.
3. On the **VM Replication Billing Scale Details** page, do the following:
 - a) If you selected an invoice calculation method based on the used VM replication count, specify the VM replication price per VM.
 - b) If you selected an invoice calculation method based on the allocated VM replication count, specify the VM Replication price per VM.
 - c) If you selected an invoice calculation method based on the used VM replication capacity, click **New**, click in the **VM Replication Price** column and enter a price per VM.

- d) If you selected an invoice calculation method based on VM replication capacity, click **New**, and in the **Base Amount**, **Base Price**, and **Extra Price** boxes, specify the billing scale details.

NOTE: This does not apply for **Flat Fee**.

- e) To verify what the billing scale will charge at different storage amounts, click **Test**. For more information, see [Section 4.3.6, “Testing a billing scale”](#), on page 65.
- f) To delete a VM replication billing detail, select the billing detail, and then click **Delete**.
- g) Click **Finish**.

4.3.6 Testing a billing scale

You can test a billing scale against any storage amount.

To test a billing scale:

1. Click the **Business** tab.
2. Right-click the billing scale that you want to test, and then click **Edit Billing Scale**.
3. Click the **Versions** tab.
4. Under **Effective Date**, select the billing scale version you want to test, click **Modify**, and then click **Test**.

The **Test Billing Scale** dialog box displays a chart, where, the horizontal x-axis represents the amount in GB and the vertical y-axis represents the price.

By default, the storage amounts that are plotted show the lowest and highest storage amount at each **Base Price** level in the billing scale.

5. Click the **Table** tab to view specific values for each plotted point in the chart.
6. To find the price that the billing scale charges for a specific storage amount, in the **Storage Size** box, type a number, click **Add**, and then click **Close**.

NOTE: For recovery billing scales, there is a separate tab to test the **Recovery Performance Score**.

4.3.7 Updating a billing scale

You can update a billing scale to change its name, version, or other details depending on the type of billing scale.

To update a billing scale:

1. Click the **Business** tab.
2. Under **Scales**, select the billing scale, right-click, and then click **Edit**. Depending on the type of billing scale, do one of the following:
 - Modify the name and view the calculation methods.
 - To view or edit the scale's versions, click **Versions**. For more information, see [Section 4.3.6, "Testing a billing scale"](#), on page 65.
 - For BLM billing scales, click the **Replication** tab to specify if replicated BLM Archiver data will be charged. For more information, see [Section 4.3.7, "Click OK."](#), on page 66.
 - For recovery billing scales, click the **DR Drill** tab to specify how to handle charges for recovered data from scheduled DR Drills. For more information, see [Section 4.3.4, "Configuring a recovery billing scale"](#), on page 62.
3. Click **OK**.

4.3.8 Viewing the associated billing objects

For each billing scale, you can view the billing objects that are associated with it. A billing object can be a DS-System, account, DS-Client account, backup, or sales group.

To view associated billing objects:

1. Click the **Business** tab.
2. Right-click the billing scale for which you want to view associated billing objects, and then click **Show Billing Objects**.
3. Click **Close**.

4.3.9 Viewing the associated charge plans

For each billing scale, you can view the charge plans that are associated with it.

To view the associated charge plans:

1. Click the **Business** tab.
2. Right-click the billing scale for which you want to view associated charge plans, and then click **Show Charge Plans**.
3. Click **Close**.

4.3.10 Deleting a billing scale

You can delete billing scales that are not being used.

To delete a billing scale:

1. Click the **Business** tab, and then open the **Scales** branch.
2. Select the billing scale that you want to delete, right-click, and then click **Delete Billing Scale**.
3. When the system prompts you to confirm deletion, click **Yes**.

5 Working with customer accounts

If you are using DS-Billing as part of your solution, you must use the DS-Billing GUI to manage customer accounts because you have access to billing-specific dialog boxes and settings that are not available in the DS-Operator GUI.

Any customer accounts or DS-Client accounts that are created using DS-Operator will not have the required DS-Billing information. These boxes will be empty, and/or appear red in the DS-Billing GUI.

5.1 Configuring a customer account

For each customer, you must create a customer account that is then created on the corresponding DS-system. From the customer account, you can define as many DS-Client accounts as required. Each DS-Client account can be billed separately or you can assign a common billing location to some or all of them.

NOTE: This procedure describes the pages in the New Customer Wizard, which correspond to the tabs in the Edit Customer dialog box. Some configurations are available only from the DS-Operator.

To configure a customer account:

1. Click the **DS-Billings** tab.
2. Select the DS-System on which you want to create a customer account.
3. On the **Customer** menu, click **New**.

NOTE: To edit a customer account, select the customer, and on the **Customer** menu, click **Edit**.

4. On the **Customer Profile Info** page, do the following:
 - a) In the **Account #** box, type the account ID number of the customer on the DS-System.
 - b) In the **Company** box, type the name of the company with which the customer and DS-System are affiliated.
 - c) In the **Contact** box, type the name of the contact person at the customer's main location.

- d) To specify a sales representative, beside the **Sales rep** box, click [...]. Select a sales representative, and then click **Select**.

NOTE: If no sales rep is appropriate, use the House Account from the In House sales group.

- e) Click **Next**.
5. On the **Customer Location** page, do the following:
 - a) In the **Location Name** box, type the name of the location.
 - b) In the **Address** box, type the address of the location.
 - c) To enter the name of the city, beside the **City** box, click [...], and then follow the wizard to select the country, province/state, and city.
 - d) In the **Postal/Zip** box, type the postal code or zip code of the corresponding city.
 - e) In the **Phone** box, type the contact phone number.
 - f) In the **Fax** box, type the fax number.
 - g) In the **E-Mail** box, type the contact email address.
 - h) Click **Next**.
 6. On the **Customer Storage Settings** page, do the following:
 - a) Beside **Storage Group**, click [...]. Select the default storage group for this customer.
 - b) To include the stored size of the storage group in the Backup Sets Report of DS-Clients, select the **Show stored size in Backup Sets report for all DS-Clients** check box.
 - c) To configure the customer storage quota, select the **Enable Customer Quota management** check box.
 - d) In the **Quota** box, enter a value for the quota.
 - e) In the **Calculation Method** box, select a calculation method. Your options are as follows:
 - **Based on protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored Size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM, or Local-Only storage.
 - **Based on Native Size** – Invoicing is based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.

- f) In the **Stop Backup level ‘...’% over the quota** box, enter the customer storage amount at which the DS-System must stop all backups of the customer.
 - g) To send an email when specified warning levels are reached, select the **Send E-mail when the following are reached**, and then enter the values for the warning levels.
 - h) Click **Next**.
7. On the **Defaults for new DS-Clients** page, do the following:
- a) For new DS-Clients, in the **Default DS-Client Bandwidth Throttle** section, select the bandwidth in the **To DS-System** box and in the **From DS-System** box. Your options are as follows:
 - **Unlimited** – The backup or restore bandwidth is not limited to any value.
 - **Limited to ... KB/sec** – The backup or restore bandwidth is limited to the specified value.
 - **Scheduled** – You can adjust the bandwidth throttle as per a schedule. For more information, see [Section 3.6, “Configuring the bandwidth throttle settings”, on page 36](#).
 - b) To modify the bandwidth throttle settings for existing DS-Clients, click **Manage DS-Client Bandwidth**.
 - c) In the **Default DS-Client Storage Quota** section, select a quota. If you selected **Unlimited**, proceed to the next step. If you selected **Limited to**, then do the following:
 - 1. Beside **Limited to** enter a value.
 - 2. In the **Calculation method** box, select a calculation method, and enter the corresponding values.
 - 3. To send an email when specified warning levels are reached, select the **Send E-mail when the following are reached**, and then enter the values for the warning levels.
 - d) Under **Storage History Settings for New DS-Clients**, select the interval at which DS-System will record storage history information for the customer’s DS-Clients.
 - e) Click **Next**.
8. On the **Customer Billing Type** page, select a billing type. Your options are as follows:
- To generate an invoice for an individual DS-Client, select the **DS-Client Invoice** option.
 - To generate an invoice for an individual customer, select the **Customer Invoice** option.

- To generate a **Consolidated Invoice** for the customer account—
9. If you selected the **DS-Client Invoice** option, then do the following:
 - a) Select the **Apply charge sequences to all DS-Clients' charge plans** check box, and then select a charge plan.
 - To configure a charge plan sequence, click **New**.
 - To modify a charge plan sequence, select the charge plan sequence, and then click **Modify**.
 - To delete a charge plan sequence, select the charge plan sequence, and then select **Delete**.
 - b) In the **New/Edit Charge Plan Sequence** dialog box, do the following:
 1. In the **Effective from** box, select the date from which the scales will apply.
 2. Beside **Online Billing Scale**, click [...], and select the billing scale for DS-System online data storage charges.
 3. To select a billing scale for BLM Archiver data storage charges, select the **BLM Billing Scale** check box. Click [...], and select a billing scale.
 4. To select a billing scale for DS-Clients using local-only capacity, select the **Local-Only Billing Scale** check box. Click [...], and select a billing scale.
 5. To select a billing scale for recovered data (restore, restorable image, disc/tape, etc.), select the **Recovery Billing Scale** check box. Click [...], and select a billing scale.
 6. To select a billing scale for VM replication capacity or VM replication count used by a DS-Client, select the **VM Replication Billing Scale** check box. Click [...], and select a billing scale.
 7. Click **OK**.
 - c) To automatically generate charge plans based on a template for new DS-Clients and for existing DS-Clients without a charge plan, select the **Automatically generate charge plan for DS-Clients using template** check box.
 - To configure a charge plan, click **New**.
 - To modify a charge plan, select the charge plan, and then click **Edit**.
 - To apply a charge plan, click **Select**. Select the charge plan, and then click **OK**.
 - d) On the **Charge plan name** page, do the following:

1. In the **Charge Plan Name** box, type a name for the charge plan.
 2. To select a billing cycle, click [...] beside **Billing Cycle**, select a billing cycle or create a new billing cycle, and then click **OK**.
 3. In the **Billing Location** box, select a billing location, or click [...] beside the billing location box, configure a new billing location, and then click **OK**.
 4. In the **Billing Info** box, select a billing info, or click [...] beside the billing info box, configure a new billing info, and then click **OK**.
 5. Click **Next**.
- e) On the **Charge Sequence** page, select a charge sequence or click **New** to configure a charge plan sequence, and then click **OK**.
1. To modify a charge sequence, select the charge sequence, and then click **Modify**.
 2. To delete a charge sequence, select the charge sequence, and then click **Delete**.
 3. Click **Next**.
- f) On the **Select a Promotion** page, do the following:
1. To evaluate a promotion, select the **Evaluation** check box.
 2. Select a date when the evaluation period ends.
 3. Click **Reset DS-Client(s) service End Date** to reset the DS-Client Service End Date to the new date.
 4. Click **Finish**.
10. If you selected the **Customer Invoice** option, select a charge plan or click **New** to configure a charge plan.
- To modify a charge plan, select the charge plan, and then click **Edit**.
 - To join an existing charge plan for this customer, click **Join**, and then select a customer charge plan.

NOTE: This procedure describes the pages in the New Charge Plan Wizard, which correspond to the tabs in the Edit Charge Plan dialog box.

- a) On the **Charge plan name** page, do the following:
1. In the **Charge Plan Name** box, type a name for the charge plan.
 2. To select a billing cycle, click [...] beside **Billing Cycle**, select a billing cycle or create a new billing cycle, and then click **OK**.

3. In the **Billing Location** box, select a billing location, or click [...] beside the billing location box, configure a new billing location, and then click **OK**.
 4. In the **Billing Info** box, select a billing info, or click [...] beside the billing info box, configure a new billing info, and then click **OK**.
 5. Click **Next**.
 - b) On the **Charge Sequence** page, select a charge sequence or click **New** to configure a charge plan sequence, and then click **OK**.
 1. To modify a charge sequence, select the charge sequence, and then click **Modify**.
 2. To delete a charge sequence, select the charge sequence, and then click **Delete**.
 3. Click **Next**.
 - c) On the **Select a Promotion** page, click **Finish**.
 - To evaluate a promotion, select the **Evaluation** check box, select a date when the evaluation period ends, click **Reset DS-Client(s) service End Date** to reset the DS-Client Service End Date to the new date.
 - d) Click **Finish**.
11. If you selected the **Consolidated Invoice** option, then do the following:
- Select a consolidated invoice or click **New** to configure a consolidated invoice.
 - To modify a consolidated invoice, select the consolidated invoice, and then click **Edit**.
 - To apply a consolidated invoice, click **Select**, select the consolidated invoice, and then click **OK**.
- a) On the **Consolidated invoice name** page, do the following:
 1. In the **Name** box, type a name for the consolidated invoice.
 2. To select a billing cycle, beside **Billing Cycle**, click [...], select a billing cycle or create a new billing cycle, and then click **OK**.
 3. In the **Billing Location** box, select a billing location, or click [...] beside the billing location box, configure a new billing location, and then click **OK**.
 4. In the **Billing Info** box, select a billing info, or click [...] beside the billing info box, configure a new billing info, and then click **OK**.
 5. In the **Start Date** box, select a date. No consolidated invoice will be created for billing periods before this date.

6. Click **Finish**.
- b) To apply a charge sequence to all charge plans of a DS-Client, select the **Apply charge sequences to all DS-Clients' charge plans** check box, and then select a charge sequence.
 - To configure a charge plan sequence, click **New**.
 - To modify a charge plan sequence, select the charge plan, and then click **Modify**.
 - To delete a charge plan sequence, select the charge plan, and then click **Delete**.
- c) In the **Add/Edit Charge Plan Sequence** dialog box, do the following:
 1. In the **Effective from** box, select the date from which the scales will apply.
 2. Beside **Online Billing Scale**, click [...], and select the billing scale for DS-System online data storage charges.
 3. To select a billing scale for BLM Archiver data storage charges, select the **BLM Billing Scale** check box. Click [...], and select a billing scale.
 4. To select a billing scale for DS-Clients using local-only capacity, select the **Local-Only Billing Scale** check box. Click [...], and select a billing scale.
 5. To select a billing scale for recovered data (restore, restorable image, disc/tape, etc.), select the **Recovery Billing Scale** check box. Click [...], and select a billing scale.
 6. To select a billing scale for VM replication capacity or VM replication count used by a DS-Client, select the **VM Replication Billing Scale** check box. Click [...], and select a billing scale.
7. Click **OK**.
- d) To automatically generate charge plans based on a template for new DS-Clients and for existing DS-Clients without a charge plan, select the **Automatically generate charge plan for DS-Clients using template** check box.
- e) On the **Charge plan name** page, do the following:
 1. In the **Charge Plan Name** box, type a name for the charge plan.
 2. To select a billing cycle, click [...] beside **Billing Cycle**, select a billing cycle or create a new billing cycle, and then click **OK**.
 3. In the **Billing Location** box, select a billing location, or click [...] beside the billing location box, configure a new billing location, and then click **OK**.
 4. In the **Billing Info** box, select a billing info, or click [...] beside the billing info box, configure a new billing info, and then click **OK**.

5. Click **Next**.
- f) On the **Charge Sequence** page, select a charge sequence or click **New** to configure a charge plan sequence, and then click **OK**.
 1. To modify a charge sequence, select the charge sequence, and then click **Modify**.
 2. To delete a charge sequence, select the charge sequence, and then click **Delete**.
 3. Click **Next**.
- g) On the **Select a Promotion** page, click **Finish**.
 - To evaluate a promotion, select the **Evaluation** check box, select a date when the evaluation period ends, click **Reset DS-Client(s) service End Date** to reset the DS-Client Service End Date to the new date.
- h) Click **Finish**.

5.2 Finding a customer account

If the DS-System has a large number of customer accounts, you can search for a specific customer account.

To find a customer account:

1. On the **Customer** menu, click **Find Customer**.
2. To filter the results, under **Select by**, do the following:
 - a) In the **Sales Group** box, select a sales group to search for customers assigned to a specific sales organization.
 - b) In the **Sales Representative** box, select a sales representative to search for customers assigned to a specific sales representative.
 - c) In the **DS-System** box, select a DS-System to search for customers associated with a specific DS-System.
 - d) In the **Customer Name** box, type the name of the customer that you want to find. You can also search for a character pattern, for example: customer*.
3. Click **Find**
4. Select the customer you want to find, and then click **Select**. The selected customer is highlighted in the tree on the DS-Billings tab.

5.3 Locking or unlocking a customer account

Multiple DS-Systems and BLM Archivers can register with a single DS-Billing server. If an account is locked, none of the customer's DS-Clients can connect with the DS-System.

To lock or unlock a customer account:

1. Click the **DS-Billings** tab, and select the customer that you want to lock or unlock.
2. On the **Customer** menu, click **Lock Customer** or **Unlock Customer**. Locked accounts are displayed in orange.

5.4 Viewing customer account statistics

You can view the current statistics at the DS-System, customer, DS-Client, or backup level.

To view a customer account's statistics:

1. Click the **DS-Billings** tab, and select the customer for which you want to view the account statistics.
2. On the **Customer** menu, click **Statistics**. The following information is displayed:

Fields	Description
Rows	<ul style="list-style-type: none"> • Protected Size: This is the original size of the files that were backed up. • Stored Size: This is the actual size occupied on the storage location. • Native Size¹: This is the original size of the latest generation of all data that the DS-Client has backed up to the DS-System.
Columns	<ul style="list-style-type: none"> • Online Size: This is the corresponding amount for DS-System online storage. • BLM Size: This is the corresponding amount for BLM Archiver storage. • BLM Replication Size: This is the corresponding amount from the Replication BLM Archiver storage. All BLM Archivers where data has been replicated must be registered with the DS-Billing server. • Local-Only Size: This data is updated by each DS-Client when a connection is made to DS-System. It displays the amount of Local-Only storage actually used and does not apply at the backup level.

Table 5 Customer account statistics

- 1 Native size is the restorable size of data, as seen in the DS-User Restorable Report. This includes restorable data that has been deleted from the source, but not from the online storage. You must configure the NativeSize (advanced configuration parameter) on the corresponding DS-System. Otherwise this column will display 0.

5.5 Deleting a customer account

You can delete a customer account only if it does not have any DS-Client accounts associated with it. For information about removing DS-Client accounts from a customer account, see [Chapter 6, “Working with DS-Client accounts”](#).

To delete a customer account:

1. Click the **DS-Billings** tab, and select the customer that you want to delete.
2. On the **Customer** menu, click **Delete**.
3. When prompted to confirm, click **Yes**.

6 Working with DS-Client accounts

If you are using DS-Billing as part of your solution, you must use the DS-Billing GUI to manage DS-Client accounts because you have access to billing-specific dialog boxes and settings that are not available in the DS-Operator.

Any customer accounts or DS-Client accounts that are created using DS-Operator will not have the required DS-Billing information. These boxes will be empty, and/or appear red in the DS-Billing GUI.

Additional DS-Client accounts can be added as required. For multiple DS-Clients, you can have a consolidated invoice or have the billing done at the customer-level, DS-System-level, or sales group level.

6.1 Configuring a DS-Client account

For each customer account, you must create a DS-Client account that is then created on the corresponding DS-System. After you create a DS-Client account, you must give the DS-Client account number to the customer. For more information, see the *DS-System User Guide*.

NOTE: This procedure describes the pages in the New Customer Wizard, which correspond to the tabs in the Edit Customer dialog box. Some configurations are available only from the DS-Operator.

To configure a DS-Client account:

1. Click the **DS-Billings** tab.
2. Select the customer for which you want to create a new DS-Client account.
3. On the **DS-Client** menu, click **New**.

NOTE: To edit a DS-Client account, select the DS-Client, and on the DS-Client menu, click **Edit**.

4. On the **Profile** page, do the following:
 - a) In the **Location** box, select a location or click [...], to configure a new location.
 - b) In the **Contact** box, type the name of a contact person at the location of the DS-Client.
 - c) In the **Description** box, type a descriptive name for the DS-Client.
 - d) In the **Service Starts** box, enter the date when the DS-Client service will start.

- e) To select an end date for the DS-Client service, select the **Service Ends** check box, and then enter the date.
 - f) Click **Next**.
5. On the **Connection** page, do the following:
- a) To add a DS-Client, click **Add**.
 - b) To modify a DS-Client connection, select the connection, and then click **Modify**.

NOTE: To delete a DS-Client connection, select the connection, and then click **Delete**.

- c) To enter the IP address of a DS-Client, select **Single IP**, and then type the IP address.
 - d) To enter the DNS name of a DS-Client, select **Single DNS**, and then type the DNS name of the DS-System.
 - e) To enter a range of IP addresses, select **IP Range** and then type the IP addresses to specify the range.
 - f) Click **OK**.
 - g) To allow a connection from any IP address, select the **Allow any IP** check box.
 - h) To enforce the registration of DS-Client with a DS-System before backups can be done, select the **Requires Registration** check box.
 - i) Click **Next**.
6. On the **DS-Tools** page, do the following:
- a) Select the DS-Client tool(s) you want to use. Your options are as follows:
 - **DS-Recovery Tools** – Enables the DS-Client to use the DS-Recovery Tools to perform item level backup and restore of Microsoft Outlook, Microsoft Exchange, and Microsoft SharePoint.
 - **Local Storage** – Enables the DS-Client to keep the latest generation of the online data in local storage of a backup at the customer's DS-Client site.
 - **Disc/Tape** – Enables DS-Client users to request a disc/tape backup of their data.
 - **Cybersecurity** – Enables the DS-Client to scan for malware during the backup and restore processes.
 - **Snapshot Manager** – Enables the DS-Client to use the Snapshot Manager feature to perform snapshot transfers.

- **Disable Common Files** – Enables DS-Client users to exclude backup files from common file storage reduction.
 - **Backup Life Cycle Management** – Enables the DS-Client to use the BLM Archiver feature to archive data. If you select this tool, you must define at least one BLM billing scale.
 - **Enable VM Replication** – Enables VM replication on the DS-Client.
- b) Beside **Local-Only Capacity**, select a method to measure capacity and enter a value. This allows the data of a designated backup to be retained only in local storage at the customer's site. Your options are as follows:
- **Protected Size** – Capacity is measured based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Stored Size** – Capacity is measured based on the actual size occupied by files on the DS-System, BLM Archiver, or Local-Only storage.
 - **Native Size** – Capacity is measured based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
- c) Beside **Local DS-VDR Count**, enter a value for the total Local DS-VDR count that has been allocated to the DS-Client. The allocated count to a DS-Client is reduced by one for each virtual machine that is cloned.
- d) Beside **Remote DS-VDR Count**, enter a value for the total Remote DS-VDR count that has been allocated to the DS-Client. The allocated count is reduced by one for each backup that is configured to use the Remote DS-VDR.
- e) If you enabled **VM Replication**, do the following:
- Beside **VM Replication Capacity**, specify if you want the capacity to be unlimited or enter the capacity amount.
 - Beside **VM Replication Count**, specify if you want the count to be unlimited or enter the number of replicated virtual machines.

NOTE: If you select this tool, you must specify the VM replication capacity, the VM replication count, or both.

- f) Click **Next**.
7. On the **Parameters** page, do the following:
- a) Under **Bandwidth Throttle**, select the bandwidth in the **To DS-System** box and in the **From DS-System** box. Your options are as follows:
- **Unlimited** – The backup or restore bandwidth is not limited to any value.

- **Limited to ... KB/sec** – The backup or restore bandwidth is limited to the specified value.
- **Scheduled** – You can adjust the bandwidth throttle as per a schedule. For more information, see [Section 3.6, “Configuring the bandwidth throttle settings”](#), on page 36.

NOTE: The **To DS-System** parameter limits the backup bandwidth of the DS-Client. The **From DS-System** parameter limits the restore bandwidth of the DS-Client.

- b) Under **DS-Client Storage Quota**, select the **Enable DS-Client Quota Management** check box to configure DS-Client quota management, and then do the following:
 1. In the **Quota** box, enter the quota.
 2. In the **Calculation method** box, select a calculation method. Your options are as follows:
 - **Based on Protected Size** – Invoicing is based on the original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
 - **Based on Stored Size** – Invoicing is based on the actual size occupied by files on the DS-System, BLM, or Local-Only storage.
 - **Based on Native Size** – Invoicing is based on the original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
 - c) In the **Stop Backup level box ... % over the quota** box, enter a value at which DS-System will stop all backups for DS-Clients of the customer.
 - d) To send an email notification when a percentage of the quota is consumed, select the **Send E-mail when the following are reached** check box, and enter the values for the warning levels.
 - e) To classify the recovery activities of the DS-Client separately during the trial period, select the **Trial DS-Client for restore activities** check box. You can enable this option only when creating a new DS-Client.
 - f) Click **Next**.
8. On the **Advanced** page, do the following:
 - a) To enable users on the DS-Client side to view additional information about the stored size in the Backup Sets Report, select the **Show stored size in Backup Sets report** check box.
 - b) In the **History Interval** box, select the interval at which DS-System will record storage history information for the DS-Client.

- c) In the **Storage Group** box, click [...], and then select the storage group where data from the DS-Client will be stored.
- d) Click **Next**.

NOTE: If the DS-System level or customer level invoicing is enabled, the billing page will not appear. For information on updating a charge plan, see [Section 7.1, “Updating a charge plan”, on page 91](#).

- 9. On the **Billing** page, do one of the following:
 - To apply the charge plan for the DS-Client account, select the **DS-Client Invoice** option.
 - To apply the charge plan to individual backups, select the **Backup Set Invoice** option.
- 10. If you selected **DS-Client Invoice**, then do the following:
 - To create a charge plan, click **New**.
 - To apply a charge plan, click **Join**. Select a charge plan, and then click **OK**.
 - To modify a charge plan, select a charge plan, and then click **Edit**.
- a) On the **Charge plan name** page, do the following:
 - 1. In the **Charge Plan Name** box, type a name for the charge plan.
 - 2. To select a billing cycle, click [...] beside **Billing Cycle**, select a billing cycle or create a new billing cycle, and then click **OK**.
 - 3. In the **Billing Location** box, select a billing location, or click [...] beside the billing location box, configure a new billing location, and then click **OK**.
 - 4. In the **Billing Info** box, select a billing info, or click [...] beside the billing info box, configure a new billing info, and then click **OK**.
 - 5. Click **Next**.
- b) On the **Charge Sequence** page, select a charge sequence or click **New** to configure a charge sequence, and then click **OK**.
 - To modify a charge sequence, select the charge sequence, and then click **Modify**.
 - To delete a charge sequence, select the charge sequence, and then click **Delete**.
- c) On the **Select a Promotion** page, click **Finish**.

- To evaluate a promotion, select the **Evaluation** check box. Select a date when the evaluation period ends, and then click **Reset DS-Client(s) service End Date** to reset the DS-Client Service End Date to the new date.
11. If you selected **Backup Set Invoice**, then do the following:
- a) To apply charge sequences to the charge plans of all the backups, select the **Apply charge sequences to all Backup Set's Charge plans** check box.
 - To configure a charge plan sequence, click **New**, configure the charge plan sequence, and then click **OK**.
 - To modify a charge sequence, select the charge sequence, and then click **Modify**.
 - To delete a charge sequence, select the charge sequence, and then click **Delete**.
 - b) To generate a charge plan for backups using a template, select the **Automatically generate charge plan for backup sets using template** check box.
 - To configure a charge plan, click **New** and follow step 10 above.
 - To modify a charge plan, select the charge plan, and then click **Edit**.
12. Click **Finish**.

6.2 Configuring additional charges for a DS-Client account

You can configure additional charges for products or services that you offer to your customers, such as initial backup or disc/tape restore. Once configured, they can be applied to individual DS-Client accounts.

To configure an additional charge for a DS-Client account:

1. Click the **DS-Billings** tab.
2. Select the DS-Client account for which you want to configure additional charges.
3. On the **DS-Client** menu, click **Additional Charges**, and then do one of the following:
 - To add an additional charge for the DS-Client, click **New**.

- To modify an additional charge, select the additional charge, and then click **Modify**.

NOTE: To delete an additional charge, select the additional charge, and then click **Delete**. You can only modify or delete charges that have not yet been invoiced.

4. To filter the results, under **Select by**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date, and then click **OK**.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date, and then click **OK**.
 - c) In the **Charge Name** box, select a charge name.
 - d) Click [...] beside the DS-Client box, select a DS-Client, and then click **Select**.
 - To filter the results, under **Select by**, enter the DS-System, Customer name, Sales Group, Account #, Description, Sales Representative, and then click **Find**. For more information, see [Section 6.3, "Finding a DS-Client account"](#), on page 86.
 - To search for DS-Clients that were deleted, click **Find Deleted**.
5. Click **Find**.
6. In the **Add/Edit Charge** dialog box, do the following:
 - a) In the **Date** box, enter the date from which this charge is effective.
 - b) In the **Charge Name** box, select a charge name.
 - c) In the **Quantity** box, enter the number of units, if the charge type is applied to per unit.
 - d) In the **Amount** box, enter the default value of the charge. For per unit charges, the amount is the product of the quantity and the unit price.
 - e) In the **Notes** box, type any additional text you want to associate with the charge.
 - f) Click **Save**.
7. Click **Close**.

6.3 Finding a DS-Client account

If the DS-System has a large number of DS-Client accounts, you can search for a specific DS-Client account.

To find a DS-Client account:

1. On the **DS-Client** menu, click **Find DS-Client**.
2. To filter the list, under **Select by** do the following:
 - a) In the **DS-System** box, select a DS-System.
 - b) In the **Customer Name** box, enter the name of the customer account.
 - c) In the **Sales Group** box, select a sales group.
 - d) In the **Account #** box, type the account number of the corresponding DS-Client.
 - e) In the **Description** box, type a description of the DS-Client account.
 - f) In the **Sales Representative** box, select a sales representative.
3. Click **Find**.
4. Select the DS-Client account you want, and click **Select**. The selected DS-Client account is highlighted in the tree on the DS-Billings tab.

6.4 Locking or unlocking a DS-Client account

You can selectively lock and unlock DS-Client accounts. If a DS-Client account is locked, the DS-Client cannot connect with the DS-System.

To lock or unlock a DS-Client account:

1. Click the **DS-Billings** tab.
2. Select the DS-Client account you want to lock or unlock.
3. On the **DS-Client** menu, click **Lock** or **Unlock**. Locked DS-Client accounts appear on the **DS-Billings** tab in orange.

6.5 Viewing DS-Client account statistics

You can view the current statistics at the DS-System, customer account, DS-Client, or backup level.

To view DS-Client account statistics:

1. In the **DS-Billings** tab, select the DS-Client account you want to view.
2. On the **DS-Client** menu, click **Statistics**. The following information is displayed:

Fields	Description
Rows	<ul style="list-style-type: none"> • Protected Size: Original size of the files that were backed up. • Stored Size: Actual size occupied on the storage location. • Native Size¹: Original size of the latest generation of all data that the DS-Client has backed up to the DS-System.
Columns	<ul style="list-style-type: none"> • Online Size: Corresponding amount for DS-System online storage. • BLM Size: Corresponding amount for BLM Archiver storage. • BLM Replication Size: Corresponding amount from the Replication BLM Archiver storage. All BLM Archivers where data has been replicated must be registered with the DS-Billing server. • Local-Only Size: Data is updated by each DS-Client when a connection is made to DS-System. It displays the amount of Local-Only storage actually used and does not apply at the backup level.

Table 6 DS-Client account statistics

- 1 Native size is the restorable size of data, as seen in the DS-User Restorable Report. This includes restorable data that has been deleted from the source, but not from the online storage. You must configure the NativeSize (advanced configuration parameter) on the corresponding DS-System. Otherwise this column will display 0.

6.6 Viewing expiring DS-Client accounts

You can view a list of the DS-Clients that are configured with a service end date within the next 30 days. DS-Clients that reach their service end date will not be able to connect to a DS-System after that date.

To view the expiring DS-Client accounts:

- On the **DS-Client** menu, click **Show Expiring DS-Clients**. A list of DS-Clients whose service end date expires within the next 30 days is displayed.

6.7 Deactivating a DS-Client account

You must deactivate a DS-Client account before you can delete the files on the DS-Client. If applicable, a final invoice is created to cover the period from the last invoice to the deactivation date.

To deactivate a DS-Client account:

1. On the **DS-Client** menu, click **Deactivate**.
2. In the **DS-System** box, select the DS-System containing the DS-Client account you want to deactivate.
3. In the **DS-Client** box, type the DS-Client number.
4. Click **Deactivate**.
5. When prompted to confirm you want to deactivate the DS-Client, click **Yes**.

NOTE: Deactivated DS-Client accounts appear in red in the DS-Billings tab.

6.8 Reactivating a DS-Client account

You can reactivate a deactivated DS-Client account with the same configurations it had at the time of deactivation.

The final invoice that was created when the DS-Client account was deactivated is kept in the database. A new invoice will cover the period starting from the current date to the next invoice date.

To reactivate a DS-Client account:

1. Click the **DS-Billings** tab, and select the DS-Client account you want to reactivate.
2. On the **DS-Client** menu, click **Reactivate**.
3. When the system prompts you to confirm reactivation, click **Yes**.

6.9 Deleting a DS-Client account

You can delete an unregistered DS-Client account immediately. These DS-Clients appear blue in the **DS-Billings** tab.

To delete a DS-Client account:

1. Click the **DS-Billings** tab, and select the DS-Client account you want to delete.
2. On the **DS-Client** menu, click **Delete**.
3. When prompted to confirm, click **Yes**.

6.10 Removing a DS-Client account and its backed up files

You can only remove files from a deactivated DS-Client account. Deactivated DS-Client accounts appear in red in the **DS-Billings** tab. For more information, see, [Section 6.7, “Deactivating a DS-Client account”, on page 88](#).

To remove a DS-Client account and its backed up files:

1. Click the **DS-Billings** tab.
2. Select the deactivated DS-Client account you want to remove.
3. On the **DS-Client** menu, click **Remove DS-Client and backed up files**.
4. To archive all DS-Client data, select the **Archive all DS-Client data to BLM before deletion** check box.

NOTE: The DS-System must be registered with a BLM Archiver and the BLM module must be enabled.

5. To use a new archive package, select the **Force new BLM Archive package** check box. Otherwise, the archive request is added to the current archive package on the BLM Archiver (if applicable).
6. To allow the archive package to contain references to older packages, select the **Use back-references** check box. If this option is not selected, then each archive package will contain all of the required files.
7. When prompted to confirm you want to remove the DS-Client account, click **Remove**.

NOTE: Depending on the DS-System configuration, files are either deleted immediately or are moved to a trash folder. For more information, see the *DS-System User Guide*.

Working with DS-Client accounts

Removing a DS-Client account and its backed up files

7 Working with charge plans

A charge plan is a collection of billing information that can be applied at the following levels:

- DS-System (all DS-Client accounts on the DS-System)
- Customer account (all DS-Client accounts belonging to the customer)
- DS-Client account
- Sales groups (DS-Client accounts)

Each DS-Client account must have a charge plan (either its own unique plan, or a common plan used by other DS-Client accounts or sales groups). You can also apply a charge plan based on VM replication billing (on the basis of the number of replicated virtual machines or native capacity of the virtual machines).

7.1 Updating a charge plan

You can update a charge plan for a billing object, including a DS-System, customer account, DS-Client account, or sales group.

To update a charge plan:

1. Click the **Business** tab.
2. Right click on the charge plan you want to update, and click **Edit Charge Plan**.
3. Click the **Name** tab, and then do the following:
 - a) In the **Charge Plan Name** box, type a name for the charge plan.
 - b) To select a billing cycle, click [...]. Beside **Billing Cycle**, select a billing cycle or create a new billing cycle, and then click **OK**.
 - c) In the **Billing Location** box, select a billing location or click [...]. Beside the billing location box, configure a new billing location, and then click **OK**.
 - d) In the **Billing Info** box, select a billing info or click [...]. Beside the billing info box, configure a new billing info, and then click **OK**.
4. Click the **Billing Objects** tab, select a billing object, and then click **OK**.
5. Click the **Charge Sequence** tab, and then do the following:
 - a) Select the charge plan, click **Modify**, make the required changes, and then click **OK**.
 - b) To add a charge plan sequence, click **New**, configure the charge plan sequence, and then click **OK**.
 - c) To delete a charge plan, select the charge plan, and then click **Delete**.
6. Click the **Promotion** tab, and then do the following:

- a) To evaluate a promotion, select the **Evaluation** check box.
 - b) Select a date when the evaluation period ends.
 - c) To set the DS-Client Service End Date to the new date, click **Reset DS-Client(s) service End Date**.
7. Click **Apply** or **OK**.

7.2 Configuring a recovery performance score for a charge plan

You can configure the recovery performance score for a charge plan that is calculated for each term.

NOTE: For more information, see [Section 4.1.5, “Configuring the recovery performance score”, on page 48](#).

To configure a recovery performance score for a charge plan:

1. Click the **Business** tab.
2. Right-click the charge plan for which you want to configure a recovery performance score.
3. In the **Charge Plan Recovery Performance Score** dialog box, do one of the following:
 - To add a recovery performance score, click **Add**.
 - To modify a recovery performance score, select the recovery performance score, and then click **Modify**.

NOTE: To delete a recovery performance score, select the recovery performance score, and then click **Remove**.

4. In the **Charge Plan Name** box, select a charge plan.
5. In the **Start Date** box, enter the date from which the charge plan will be effective.
6. In the **End Date** box, enter the date when this charge plan will end.
7. In the **Recovery Performance Score** box, enter a value between 1 - 10.
8. Click **OK**.
9. To filter the results, under **Select By**, do the following:

- a) To specify a different start date, beside the **From** box, click [...], and select a date, and then click **OK**.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date, and then click **OK**.
 - c) In the **Charge Plan** box, select a charge plan.
 - d) Click **Find**.
10. Click **Close**.

7.3 Deleting a charge plan

You can delete a charge plan if it is no longer being used by any billing object.

To delete a charge plan:

1. Click the **Business** tab.
2. Right click the charge plan you want to delete, and then select **Delete Charge Plan**.
3. When prompted to confirm you want to delete the charge plan, click **Yes**.

Working with charge plans

Deleting a charge plan

8 Working with consolidated invoices

Consolidated invoices are configured per customer or sales group. If configured, a separate consolidated invoice is generated each billing period for the customer or sales group that contains a summary of what would otherwise be the individual invoices. Each individual invoice referenced in a consolidated invoice is also generated, but the title is changed to Reference for search purposes.

8.1 Updating a consolidated invoice

You can update a consolidated invoice for a customer account or a sales group using the Billing tab of the respective customer profile sales group profile.

To update a consolidated invoice:

1. Click the **Business** tab.
2. Right-click the consolidated invoice you want to modify, and then click **Edit**.
3. Click the **Name** tab, and then do the following:
 - a) In the **Name** box, type a name for the consolidated invoice.
 - b) Beside **Billing Cycle**, click [...]. Select a billing cycle or create a new billing cycle, and then click **OK**.
 - c) In the **Billing Location** box, select a billing location or click [...] to configure a new billing location, and then click **OK**.
 - d) In the **Billing Info** box, select a billing info or click [...] to configure a new billing info, and then click **OK**.
 - e) In the **Start Date** box, select a date. No consolidated invoice will be created for billing periods before this date.
4. Click the **Billing Objects** tab to view the billing object assigned to the consolidated invoice.
5. Click **OK**.

8.2 Removing unassigned consolidated invoices

You can automatically remove any consolidated invoices that are not currently assigned to at least one customer account or sales group.

To remove unassigned consolidated invoices:

1. Click the **Business** tab.
2. Right click **Consolidated Invoices**, and then click **Remove Unassigned Consolidated Invoices**.
3. When prompted to confirm you want to remove all unassigned consolidated invoices, click **Yes**.

8.3 Deleting a consolidated invoice

You can delete a consolidated invoice if it is no longer being used by a customer account or sales group.

To delete a consolidated invoice:

1. Click the **Business** tab.
2. Right click the consolidated invoice you want to delete and select **Delete**.
3. When prompted to confirm you want to delete the consolidated invoice, click **Yes**.

9 Working with backups

In the DS-Billings tab, under each DS-Client account there is a list of each backup with data stored on the DS-System or BLM Archiver.

9.1 Updating backup billing

You can update billing for a backup if you have selected the **Backup Set Invoice** option in the DS-Client - Billing tab. For more information, see [Section 7.1, "Updating a charge plan"](#), on page 91.

To update backup billing:

1. Click the **DS-Billings** tab.
2. Select the backup for which you want to configure billing.
3. Right click the backup for which you want to view the properties, and then click **Properties**.
4. Click the **Billing** tab.
 - To configure a charge plan, click **New**.
 - To modify a charge plan, select the charge plan you want to modify, and then click **Edit**.
5. Click **OK**.

9.2 Viewing backup statistics

Backup statistics are updated each time the DS-Billing server runs a synchronization process with a registered DS-System or BLM Archiver. These statistics categorize the backup data according to type (protected size / stored size / native size) and location.

To view DS-System statistics:

1. Click the **DS-Billings** tab.
2. Select the DS-System for which you want to view the backup statistics.
3. On the DS-System menu, click **Statistics**.
4. Click **Close**.

9.3 Viewing backup properties

You can view the properties of a backup.

To view the properties of a backup:

1. Click the **DS-Billings** tab.
2. Right click the backup for which you want to view the properties, and then click **Properties**.
3. Click **OK**.

10 Viewing logs

You can generate logs to view past activities and events that occurred on the DS-Billing server.

NOTE: If the log contains a large number of entries, a warning is displayed. You can continue with the option to display all the entries, which can be a lengthy process. You have the option to display a specific number of entries.

10.1 Viewing the Activity Log

The Activity Log displays the activities that occurred on the DS-Billing server.

To view the Activity Log:

1. On the **Logs** menu, click **Activity Log**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date and time, beside the **From** box, click [...], and select a date. No activities before this date and time will be displayed.
 - b) To specify a different end date and time, beside the **To** box, click [...], and select a date. No activities after this date and time will be displayed.
 - c) To filter by a specific activity, from the **Activity Type** box, select the activity.
3. Click **Find**. The following information is displayed:

Column	Description
ID	ID number of the corresponding activity.
Type	Type of activity.
Description	Backup set associated with the activity (if available).
Errors	Number of errors that occurred.
Start Time	Date and time the activity was started.
End Time	Date and time the activity was completed.
Duration	Length of time between the start and end time.
Completion	How the activity finished. <ul style="list-style-type: none"> • Premature – the activity was discontinued before it was completed normally. • Successful – the activity completed normally. • With errors – the activity completed normally but with errors.

Table 7 DS-Billing Activity Log

4. To view events specific to an activity, select an activity, and click **Event Log**. For more information, see [Section 10.4, “Viewing the Event Log”, on page 102](#).
5. Click **Close**.

10.2 Viewing the Audit Trail

The audit trail displays all the changes made to the DS-Billing server database.

To view the Audit Trail:

1. On the **Logs** menu, click **Audit Trail**.
2. To filter the results, under **Select by**, do the following:
 - a) To specify a different start date and time, beside the **From** box, click [...], and select a date. No activities before this date and time will be displayed.
 - b) To specify a different end date and time, beside the **To** box, click [...], and select a date. No activities after this date and time will be displayed.
 - c) To view a particular type of operation, in the **Operation** box, select a type of operation.
 - d) To view a particular type of table that was modified, in the **Table** box, select a table.
 - e) To view the activities of a particular user, in the **User** box, type the user name.
3. Click **Find**. The following information is displayed:

Column	Description
Time	Time when the modification was done.
User	User name that performed the modification.
Operation	Type of modification that was performed.
Table	The table that was modified.
Description	Details of the modification that was performed.

Table 8 DS-Billing Audit Trail Log

4. Click **Close**.

10.3 Viewing the DR Drill Request Log

The DR Drill Request Log displays all DR Drill requests made on DS-Systems and BLM Archivers registered with the DS-Billing server. DR Drill requests are made per backup.

To view the DR Drill Request Log:

1. On the **Logs** menu, click **DR Drill Request Log**.
2. To filter the results, under **Select by**, do the following:
 - a) In the **Log Type** box, select the type of log you want to view.
 - b) To specify a different start date and time, beside the **From** box, click [...], and select a date. No activities before this date and time will be displayed.
 - c) To specify a different end date and time, beside the **To** box, click [...], and select a date. No activities after this date and time will be displayed.
 - d) Do one of the following:
 - To filter by sales group, select the **Sales Group** option, and then select the sales group for which you want to view the log.
 - To filter by DS-System, select the **DS-System** option, and then select the DS-System for which you want to view the log.
 - To filter by customer, select the **Customer** option, beside the **Account #** box click [...]. Apply the required filters, select the customer for which you want to view the log, and then click **Select**.
 - To filter by DS-Client, select the **DS-Client** option, beside the **DS-Client #** box, click [...]. Apply the required filters, select the DS-Client for which you want to view the log, and then click **Select**.
3. Click **Find**. The following information is displayed:

Column	Description
Log Type	Log from which the DR Drill request was sent.
DS-System	DS-System where the backup is defined for which the DR Drill request was made.
Account #	Customer account where the backup is located for which the DR Drill request was made.
DS-Client #	DS-Client where the backup is defined for which the DR Drill request was made.
Backup Set	Name of the backup for which the DR Drill request was made.
Registered Time	Date when the DR Drill was registered on the DS-System or the BLM Archiver.
Scheduled Time	Scheduled start date and time for this DR Drill.
Active Time	Date when the DR Drill actually becomes active.

Table 9 DR Drill request log

Column	Description
Closed Time	End date of a DR Drill.
Quota	Maximum amount of data that can be restored during the DR Drill period and classified as a DR Drill for recovery billing.
Used	Actual amount of data restored and counted as DR Drill.
Received Date	Date when the log information was received form the DS-System or BLM Archiver.

Table 9 DR Drill request log

4. Click **Close**.

10.4 Viewing the Event Log

The Event Log displays the error, warning, and information messages that occurred on the DS-Billing server for the period selected.

To view the Event Log:

1. On the **Logs** menu, click **Event Log**.
2. To filter the results, under **Select by**, do the following:
 - a) To specify a different start date and time, beside the **From** box, click [...], and select a date. No activities before this date and time will be displayed.
 - b) To specify a different end date and time, beside the **To** box, click [...], and select a date. No activities after this date and time will be displayed.
 - c) To filter by type of event, in the **Type** box, select the type of event you would like to see.
 - d) To filter by category, in the **Category** box, select the category you would like to see.
 - e) To view events related to a particular user, in the **User** box, type the user name.
 - f) To view events associated with a specific ID number, select the **ID** check box, and type the ID number.
 - g) To view events associated with a specific error ID, in the **Event#** box, type the error ID code.
 - h) To create a list of errors to exclude from the list of events, click **Exclude**, and then do the following:
 1. To add an event ID, in the **Event #** box, type the event ID number, click **Add**, and then click **OK**.
 2. To select an event ID #, click **Select**. Select an event, click **Select**, and then click **OK**.

3. To delete an event from the exclusion list, select the event, and then click **Remove**.
 4. To clear the exclusion list, click **Clear**.
 5. Click **OK**.
3. Click **Find**. The following information is displayed:

Column	Description
Time	Date and time when the event occurred.
User	Name of the DS-Client or the DS-Billing user whose account logged the error.
Category	Category of the message.
Event #	Error ID code.
ID	Session ID number associated with the event.
Text	IP connection if applicable.
Description	Describes the event.

Table 10 Event log

4. Click **Close**.

10.5 Viewing the Recovery Log

The Recovery Log displays a record of recovery-based activities. This log is used by the DS-Billing Server to count the total recovery amount used for billing purposes.

To view the Recovery Log:

1. On the **Logs** menu, click **Recovery Log**.
2. To filter the results, under **Filter**, do the following:
 - a) In the **Log Type** box, select the type of log you want to view.
 - b) To specify a different start date and time, beside the **From** box, click [...], and select a date. No activities before this date and time will be displayed.
 - c) To specify a different end date and time, beside the **To** box, click [...], and select a date. No activities after this date and time will be displayed.
 - d) In the **Show Logs** box, select the type of restore log you want to view.
 - e) Do one of the following:
 - To filter by sales group, select the **Sales Group** option, and then select the sales group for which you want to view the log.
 - To filter by DS-System, select the **DS-System** option, and then select the DS-System for which you want to view the log.

- To filter by customer, select the **Customer** option, beside the **Account #** box click [...]. Apply the required filters, select the customer for which you want to view the log, and then click **Select**.
 - To filter by DS-Client, select the **DS-Client** option, beside the **DS-Client #** box, click [...]. Apply the required filters, select the DS-Client for which you want to view the log, and then click **Select**.
- f) In the **Restore Type** box, select the type of restore activities you want to view.
3. Click **Find**. The following information is displayed:

Column	Description
DR Drill	Indicates if the activity was counted as a DR Drill.
Log Type	Log from which the DR Drill request originated.
DS-System	DS-System where the backup is defined for which the DR Drill request was made.
Account #	Customer account where the backup is located for which the DR Drill request was made.
DS-Client #	DS-Client where the backup is defined for which the DR Drill request was made.
Backup Set	Name of the backup for which the DR Drill request was made.
Restore Type	Source of the restore request.
Date	Date and time of the restore.
Size	Amount of data restored during a activity.
Received Date	Date when the log information was received form the DS-System or BLM Archiver.

Table 11 Recovery log details

4. Click **Close**.

11 Working with reports

You can generate reports of activities performed on the DS-Billing server.

11.1 Configuring the font for reports

You can customize the font used in the PDF reports that a DS-Billing GUI generates.

To configure the font for reports:

1. On the **Reports** menu, click **Report Setup**.
2. Under **Report Font**, click **Select**.
3. Browse for a font file, and then click **Open**.
4. Click **OK**.

11.2 Generating an Additional Charges Report

An Additional charges Report displays the additional charges billed each month sorted by sales group.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate an Additional Charges Report:

1. On the **Reports** menu, click **Additional Charges**.
2. In the **Year** box, enter the year for which you would like to generate the report.
3. In the **Month** box, select the month for which you would like to generate the report.
4. In the **Sales Group** box, select a sales group for which you would like to generate the report.
5. In the **Branding** box, select the branding you want to apply to the report.
6. To exclude invoices without additional charges from the report, select the **Exclude invoices without additional charges** check box.
7. To view the report, click **OK**. The following information is displayed:

Column	Description
Sales Group	Sales group associated with the corresponding invoice.
Sales Rep	Sales representative associated with the corresponding invoice.
Ref / Inv #	Reference number or invoice number associated with the amount listed in the additional charges column.
Charge Plan	Charge plan used in the invoice.
Additional Charges	Additional charge amount in the invoice.

Table 12 Additional Charges Report

11.3 Generating a Backup Sets Report

A Backup Sets Report provides a summary of all the backups of a DS-Client or customer.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Backup Sets Report:

1. On the **Reports** menu, click **Backup Sets**.
2. Under **Report Selection**, do one of the following:
 - To view the backups for a specific DS-System, select the **DS-System** option. In the **DS-System** box, select the DS-System for which you want to view the report.
 - To view the backups for a specific customer, select the **Customer** option. In the **Account #** box, select the account for which you want to view the report.
 - To view the backups for a specific DS-Client, select the **DS-Client** option. In the **DS-Client #** box, select the DS-Client for which you want to view the report.
3. In the **Branding** box, select the branding you want to apply to the report.
4. Under **Column Selection**, select the columns you want to view in the report.
5. To view the report, click **OK**. The following information is displayed.

Column	Description
Backup Set List	List of backups covered by this report.
DS-System	Corresponding DS-System.
DS-Client #	Corresponding DS-Client number.

Table 13 Backup Set Report

Column	Description
Backup Set	Share \ Name \ Owner of the backup.
Protected Size	Original size of the data that is backed up to the DS-System, BLM Archiver, or Local-Only storage.
Stored Size	Actual size of data that the DS-Client has backed up to the DS-System, BLM, or Local-Only storage.
Native Size	Original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
BLM Protected Size	Size of data that the DS-Client has backed up to the BLM Archiver.
BLM Stored Size	Size of data that the DS-Client has backed up to the BLM Archiver.
BLM Replication Protected Size	Size of replicated data on the Replication BLM Archiver (size of the files as they were backed up).
BLM Replication Stored Size	Size of replicated data on the Replication BLM Archiver (physical size of data on the Replication BLM Archiver).

Table 13 Backup Set Report

11.4 Generating a Billing Plan Report

A Billing Plan Report provides a summary of monthly billings from a particular billing plan (check, credit card, pre-authorized bank withdrawal).

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Billing Plan Report:

1. On the **Reports** menu, click **Billing Plans**, and do the following:
2. In the **Year** box, enter the year for which you want to view the report.
3. In the **Month** box, select the month for which you want to view the report.
4. In the **Billing Plan** box, select the billing plan for which you want to view the report.
5. In the **Branding** box, select the branding you want to apply to the report.
6. To view the report, click **OK**. The following information is displayed:

Column	Description
Billing Object List	Billing objects covered by this report.
Billing Account #	Billing account number (if applicable).
Charge Plan	Charge plan used in the invoice.

Table 14 Billing Plan Report

Column	Description
Billing Object	Billing object associated with the invoice.
Invoice #	Number of the invoice.
Amount	Billed amount of the invoice.

Table 14 Billing Plan Report

11.5 Generating a DS-Client Expiry Report

A DS-Client Expiry Report provides a summary of the DS-Clients that have expired or are about to expire.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a DS-Client Expiry Report:

1. On the **Reports** menu, click **DS-Client Expiry**.
2. To include DS-Clients that are expiring in a specific number of days, select the **Include DS-Client expiring in (days)** check box, and then enter the number of days.
3. To include all DS-Client that have already expired, select the **Include expired DS-Clients** check box.
4. In the **Branding** box, select the branding you want to apply to the report.
5. To view the report, click **OK**. The following information is displayed:

Column	Description
DS-Client List	List of DS-Clients according to report selection.
DS-System	Corresponding DS-System
Customer Name	Customer name associated with the DS-Client.
DS-Client #	Corresponding DS-Client number.
Expiry Date	Expiry date of the DS-Client.

Table 15 DS-Client Expiry Report

11.6 Generating a Global List of Customers Report

A Global List of Customers Report displays a snapshot of the monthly storage for each DS-Client on the corresponding DS-System on the printing date. You can sort the report by DS-System, DS-client #, customer name, storage size (various types), or DS-Client creation date.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Global List of Customers Report:

1. On the **Reports** menu, click **Global List of Customers**.
2. Under **Report Selection**, do the following:
 - a) In the **DS-System** box, select the DS-System for which you want to view the report.
 - b) In the **Sorted by** box, select the column you want to be sorted in the report.
 - c) In the **Branding** box, select the branding you want to apply to the report.
 - d) To include all DS-Client that have no backup data, select the **Include DS-Clients with no data** check box.
3. Under **Column Selection**, select the columns you want to view in the report.

NOTE: The report supports a maximum of seven columns.

4. To view the report, click **OK**. The following information is displayed:

Column	Description
DS-System	DS-System associated with the DS-Client.
DS-Client #	DS-Client number.
Customer Name	Customer name associated with the DS-Client.
Creation Date	Date when the DS-client was created.
Promotion End Date	Date when the promotion period for the DS-Client ends (if applicable).
Status	Status of the DS-Client.
Protected Size	Original size of the data that the DS-Client backed up to the DS-System.
Stored Size	Actual size of data that the DS-Client has backed up to the DS-System
Native Size	Original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.

Table 16 Global List of Customers Report

Column	Description
BLM Protected Size	Original size of data that the DS-Client has backed up to the BLM Archiver.
BLM Stored Size	Actual size of data that the DS-Client has backed up to the BLM Archiver.
BLM Replication Protected Size	Size of replicated data on the Replication BLM Archiver.
BLM Replication Stored Size	Size of replicated data on the Replication BLM Archiver.

Table 16 Global List of Customers Report

11.7 Generating a Recovery Report

A Recovery Report displays the recovery amounts for DS-Clients that are associated with DS-Systems or BLM Archivers registered with the DS-Billing server.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Recovery Report:

1. On the **Reports** menu, click **Recovery Report**.
2. Under **Report Selection**, do one of the following:
 - To view the recovery amounts for a specific sales group, select **Sales Group**. In the **Sales Group** box, select the sales group for which you want to view the report.
 - To view the recovery amounts for a specific DS-System, select **DS-System**. In the **DS-System** box, select the DS-System for which you want to view the report.
 - To view the recovery amounts for a specific customer, select **Customer**. In the **Account #** box, select the account for which you want to view the report.
 - To view the recovery amounts for a specific DS-Client, select **DS-Client**. In the **DS-Client #** box, select the DS-Client for which you want to view the report.
3. Depending on the selection you make, the following options are available:
 - To view the subtotal of a sales group, select the **Include Sales Group's subtotal** check box.
 - To view the subtotal of a DS-System, select the **Include DS-System's subtotal** check box.

- To view the recovery size of a customer, select the **Include DS-Client's recovery size** check box.
 - To view DS-Clients with no backed up data, select the **Include DS-Clients with no data** check box.
4. In the **Branding** box, select the branding you want to apply to the report.
 5. Under **Period**, do one of the following:
 - To view the report for a specific month, select **Month**. Specify the year and month for which you want to view the report.
 - To view the report for a specific period, select **Period**. Specify the period for which you want to view the report.
 6. Under **Column Selection**, select the columns you want to view in the report.
 7. To view the report, click **OK**. The following information is displayed:

Column	Description
Sales Group	Sales group associated with the DS-Client.
DS-System	DS-System associated with the sales group.
Customer Name	Customer name associated with the DS-Client.
DS-Client #	Number of the DS-Client.
Recovery Size	Recovery size for the specified period.
DR-Drill Size	DR drill size for the period. This is the total amount of scheduled DR drills that started within the report period.

Table 17 *Recovery Report*

11.8 Generating a Sales Group Report

A Sales Group Report displays the sales generated by a particular sales group. If the selected sales group is configured to show commissions, the report includes a breakdown of the commissions generated by each sales representative.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Sales Group Report:

1. On the **Reports** menu, click **Sales Group**.
2. In the **Year** box, enter the year for which you want to generate the report.
3. In the **Month** box, select the month for which you want to generate the report.
4. In the **Sales Group** box, select the sales group for which you want to generate the report.
5. In the **Branding** box, select the branding you want to apply to the report.
6. Do one of the following:
 - To exclude a sales group without commission from the report, select the **Exclude Sales Groups without commissions** check box.
 - To include invoices or references, select the **Include invoices/references** check box.
7. To view the report, click **OK**. The following information is displayed:

Column	Description
Sales Representative	Sales representative associated with the sales group.
Charge Plan	Charge plan associated with the sales group.
Billing Object	Billing objects covered by this report.
Location	
Ref/Inv #	Unique reference number or invoice number.
Inv. Net Amount	Net amount of the invoice.
Commission	Amount of commission for each invoice.

Table 18 Sales Group Report

11.9 Generating a Storage Usage Report

A Storage Usage Report displays the current storage usage on the DS-Billing server.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a Storage Usage Report:

1. On the **Reports** menu, click **Storage Usage**.
2. Under **Report Selection**, do one of the following:
 - To view the storage amount for a specific sales group, select **Sales Group**, and then select the sales group for which you want to view the report.
 - To view the storage amount for a specific DS-System, select **DS-System**, and then select the DS-System for which you want to view the report.
 - To view the storage amount for a specific customer, select **Customer**, and then select the account for which you want to view the report.
 - To view the storage amount for a specific DS-Client, select **DS-Client**, and then select the DS-Client for which you want to view the report.

Depending on the selection you make, the following options are available:

- To view the subtotal of a sales group, select the **Include Sales Group's subtotal** check box.
 - To view the subtotal of a DS-System, select the **Include DS-System's subtotal** check box.
 - To view the subtotal of a customer, select the **Include Customer's subtotal** check box.
 - To view the storage size of DS-Clients, select the **Include DS-Clients storage size** check box.
3. In the **Branding** box, select the branding you want to apply to the report.
 4. In the **Column Selection** section, select the columns you want to view in the report.

NOTE: The report supports a maximum of seven columns.

5. To view the report, click **OK**. The following information is displayed:

Column	Description
Sales Group	Name of the sales group.
DS-System	Corresponding DS-System.
Customer Name	Customer name associated with the DS-Client.
DS-Client #	Corresponding DS-Client number.
Protected Size	Original size of the data that the DS-Client backed up to the DS-System.
Stored Size	Actual size of data that the DS-Client has backed up to the DS-System
Native Size	Original size of the latest generation of all backed up files. This is the restorable size, including files deleted from source.
BLM Protected Size	Original size of data that the DS-Client has backed up to the BLM Archiver.
BLM Stored Size	Actual size of data that the DS-Client has backed up to the BLM Archiver.
BLM Replication Protected Size	Size of replicated data on the Replication BLM Archiver.
BLM Replication Stored Size	Size of replicated data on the Replication BLM Archiver.

Table 19 Storage Usage Report

11.10 Generating a monthly report

You can generate a Billing Plan Report, Additional Charges Report, or Sales Group Report for a specific month or an invoice report for a specific month or period.

NOTE: A toolbar at the top of the report has icons that allow you to navigate, print, or save the report.

To generate a monthly report:

1. On the **Reports** menu, click **Monthly Reports**.
2. Under **Period**, do one of the following:
 - To view the report for a specific month, select **Month**. Specify the year and month for which you want to view the report.
 - To view the report for a specific period, select **Period** and specify the period using the **From** and **To** boxes.
3. Under **Reports**, select the report(s) you want to generate, and configure the options as required.
4. In the **Branding** box, select the branding you want to apply to the report.

5. To view the report, click **OK**.

11.11 Creating a custom report

Using the custom reports feature, you can create your own reports, based on the data provided from the database tables. A third-party application called JasperReports (<https://www.jaspersoft.com/>) is required to create a customized report using the exported data set.

11.11.1 Exporting a data set file for a custom report

Before you can generate a custom report, you must export a data set file containing the fields from the database. To generate multiple custom reports, you must use the data fields to create a reusable custom report template.

To create a data set file:

1. On the **Reports** menu, click **Customized Data**.
2. On the **Data Set** page, do the following:
 - a) In the **Data Set** box, do one of the following:
 - To create a data set, click **<New>**.
 - To use an existing data set, select the data set from the list.
 - b) In the **View** box, select a view, which is a pre-defined group of tables from the database. You can select only one view per data set.
 - c) Click **Next**.

NOTE: Data set selections are saved in the DS-Billing GUI .ini file (billingui.ini).

3. On the **Select Display Columns** page, do the following:
 - a) To add a data field, select the field in the **Available Columns** list and then click **Add**. To select multiple fields, use the SHIFT or CTRL keys.
 - b) To remove a data field, select the field in the **Selected Columns** list, and then click **Remove**.
 - c) To change the order of the selected data fields, click **Up** and **Down**. This is the order in which the data fields will be written.
 - d) Click **Next**.
4. On the **Select order by columns** page, do the following:

- a) To add a data field, in the **Available Columns** list, select the data field you want to add, and then click **Add**.

NOTE: To select multiple fields, use the SHIFT or CTRL keys.

- b) To remove a data field, in the **Selected Columns**, select the data field you want to remove, and then click **Remove**.
- c) To change the order of the data fields, select the data fields, and then click **Up** and **Down**. This is the order in which the data fields will be written.

NOTE: If you do not make a selection, data will be written as it is read from the database. This sort order is not used by JasperReports.

- d) Click **Next**.

5. On the **Set Data Filters** page, do the following:

- a) In the **Filter Column**, select the data field you want to filter.
- b) Configure the filter options for the data field. The **Filter Value** displays how the filter will be applied to the data field.

NOTE: If you do not set any filters, all data is exported. If you set a filter, only data that matches the filter is exported. If the filter value is left blank, no filter will be applied and all data for that field will be returned.

- c) Click **Next**.

6. On the **Enter Data set name** page, do the following:

- a) To save the data set settings (except for data filters) in the DS-Billing GUI configuration file (billinggui.ini) so you can reuse the same data set, select the **Save data set settings** check box.
- b) In the **Data Set Name** box, type a name for the data set.
- c) To export the data to a file, select the **Export data to file** check box.
- d) Click **Next**.

7. On the **Data Set Summary** page, review the summary to ensure that the data set is customized as required, and then click **Finish**.

8. If you selected the **Export data to file** option, save the data set as an XML or CSV file.

NOTE: To create a custom report template using JasperReports, you must save the exported data set file in XML format. After you have created a jasper file, copy it to the local \report subdirectory where the DS-Billing GUI is installed. If the folder does not exist, create it.

11.11.2 Creating a custom report using exported data

You can use data set file containing the fields from the database to create a custom report.

1. On the **Reports** menu, click **Customized Reports**.
2. On the **Select a report template** page, do the following:
 - a) In the **Template name** box, select the custom report you want to view.
 - b) In the **File name** box, the path to the custom report template is displayed.
 - c) In the **Query string** box, the internal query that was specified when the report was created using JasperReports is displayed.
 - d) In the **View** box, the view that the data set is based on is displayed.
 - e) Click **Next**.
3. On the **Set Data Filters** page, do the following:
 - a) In the **Filter Column**, select the data field you want to filter.
 - b) Configure the available filter options for the data field. The **Filter Value** column displays how the filter will be applied to the data field.

NOTE: By default, all data is displayed in the report. If you set a filter, the custom report will display only data that matches the filter.

- c) Click **Next**.
4. On the **Select order by columns** page, do the following:
 - a) To add a data field, in the **Available Columns** list, select the data field you want to add, and then click **Add**.
 - b) To remove a data field, in the **selected columns** list, select the data field you want to remove, and then click **Remove**.

NOTE: To select multiple fields, use the SHIFT or CTRL keys.

- c) To change the order of the data fields, select the data fields, and then click **UP** or **Down**. This is the order in which the data fields will be written.

NOTE: If you do not make a selection, data will be displayed as it is read from the database.

- d) Click **Next**.
5. On the **Confirm Report Summary** page, click **Finish**.

11.12 Exporting DS-Client information to a file

You can export information about a DS-Client to a file.

To export DS-Client information to a file:

1. On the **Reports** menu, click **DS-Client Info**.
2. Under **DS-Clients**, do one of the following:
 - To export information about all the DS-Clients, select **All DS-Clients**.
 - To export information about only the DS-Clients associated with a specific DS-System, select **DS-System**. In the **DS-System** box, select a DS-System.
 - To export information of DS-Clients associated with a specific customer, select **Customer**. Beside **Account #**, click [...], and then select a customer.
 - To export information about a single DS-Client, select **DS-Client**. Beside the **DS-Client #** box, click [...], and then select a DS-Client.
3. To include DS-Clients without any backup data, select the **Include DS-Clients with no data** check box.
4. To include data on storage size of the earlier month, select the **Storage size for previous month** check box.
5. Under **Column Selection**, do the following:
 - a) To add a data field, in the **Available Columns** list, select the data field you want to add, and then click **Add**.
 - b) To remove a data field, in the **Selected Columns** list, select the data field you want to remove, and then click **Remove**.
 - c) To change the order of the data fields, select the data fields, and then click **Up** and **Down**. This is the order in which the data fields will be written.
6. Click **Export**.

7. In the **Export** dialog box, enter a file name, select the destination folder, and then click **Export**.
8. When the system prompts you to export the DS-Client information to a file, click **OK**.
9. Click **Close**.

Working with reports

Exporting DS-Client information to a file

12 Working with invoices

You can generate an invoice for each billing object based on its configured billing cycle using the DS-Billing service. For more information on billing cycles, see [Section , "Working with charge plans", on page 91](#).

The amounts in the invoice are based on the charge plan of a billing object. A billing object can be a backup, a DS-Client, a customer account, an entire DS-System, or a sales group.

NOTE: Storage calculations can be configured using the advanced configuration parameter **ExcludeRecycleDelta** of a DS-System. If applicable, this will include or exclude the size of recycled generations. For more information, see the *DS-System User Guide*.

12.1 Browsing an invoice

You can browse and view invoices on demand.

NOTE: A toolbar at the top of the invoice has icons that allow you to navigate, print, or save the invoice.

To browse an invoice:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date. No invoices before this date will be displayed.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date. No invoices after this date will be displayed.
 - c) To filter by a specific category, in the **Filter by** box, select a category, click [...], and then select an item.
3. Click **Find**.
4. Select the check box beside the invoice you want to browse, and then click **Browse**. You can select more than one invoice, but some options may not be available.

12.2 Regenerating an invoice

You can regenerate an invoice within one month of its billing date. This allows you to review and make corrections to some charge plan information if required. You can then regenerate the invoice with the updated information.

To regenerate an invoice:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date. No invoices before this date will be displayed.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date. No invoices after this date will be displayed.
 - c) To filter by a specific category, in the **Filter by** box, select a category, click [...], and then select an item.
3. Select the check box beside the invoice you want to regenerate, and then click **Regenerate**.
4. When the system prompts you to confirm you want to regenerate the invoice, click **Yes**.

12.3 Emailing an invoice

You can email an invoice on demand at any time after it has been generated.

To email an invoice:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date. No invoices before this date will be displayed.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date. No invoices after this date will be displayed.
 - c) To filter by a specific category, in the **Filter by** box, select a category, click [...], and then select an item.
3. Select the check box beside the invoice you want to email, and then click **Send E-Mail**.
4. To send the invoice to the address specified in the billing location, select **Customer's billing location E-Mail address**.
5. To send the invoice to a specific email address, select **Address**, and type the email address in the **Address** box.

6. Under **Report Format**, select a format for the report.
7. In the **Branding** box, select the branding you want to apply to the report.
8. Click **OK**.

12.4 Marking an invoice as mailed

You can flag invoices that have been mailed to the customer.

To mark an invoice as mailed:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date. No invoices before this date will be displayed.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date. No invoices after this date will be displayed.
 - c) To filter by a specific category, in the **Filter by** box, select a category, click [...], and then select an item.
3. Select the check box beside the invoice you want to mark as mailed, and then click **Mark Mailed**.
4. Select the flag as required, and then click **OK**.

12.5 Viewing the email history of an invoice

You can view the email history for any invoice, which includes a log of each time the invoice was emailed along with the recipient's email address.

To view the email history of an invoice:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. To filter the results, under **Filter**, do the following:
 - a) To specify a different start date, beside the **From** box, click [...], and select a date. No invoices before this date will be displayed.
 - b) To specify a different end date, beside the **To** box, click [...], and select a date. No invoices after this date will be displayed.
 - c) To filter by a specific category, in the **Filter by** box, select a category, click [...], and then select an item.
3. Select the check box beside the invoice for which you want to check the email history, and then click **History**.

12.6 Generating missed invoices

In the event the DS-Billing server doesn't generate some invoices, you can view a list of charge plans and consolidated invoices that have missed invoices, and then generate missed invoices on demand.

For example, if a new charge plan was created with an invoice date that has already passed, the charge plan might contain some missing invoices.

To generate missed invoices:

1. On the **Reports** menu, point to **Invoice**, and then click **Invoice Management**.
2. Click **Missed Invoices**.
3. Select a charge plan or consolidated invoice, and then click **Generate**.
4. Click **Close**.

12.7 Exporting invoice data to a file

You can export the data that appears in invoices to a Microsoft Excel file.

To export invoice data to a file:

1. On the **Reports** menu, point to **Invoice**, and then click **Export**.
2. Under **Invoices**, do one of the following:
 - To view the invoices for a specific month, select **Month**. Specify the year and the month for which you want to view the invoices.
 - To view the invoices for a specific period, select **Period**. Specify the period for which you want to view the invoices.
3. To include references for consolidated invoices, select the **Include References** check box.
4. In the **Save as** box, select the destination folder.
5. Click **OK**.
6. When the system prompts you to confirm you want to export the invoices, click **Yes**.