NAME
dpath – The data path helper script

SYNOPSIS
dpath **--create|-c** *[/path/to/files]* **--source|-s** *gsiftpSourceUrl* **--destination|-d** *gsiftpDestinationUrl* **--alias|-a** *alias* **[--dpath-template** *dpathTemplate*] **[--configfile** *configurationFile*]

dpath **--batch-create|-b** *[/path/to/files]* **--hosts|-h** *hostsFile* **[--dpath-template** *dpathTemplate*] **[--config-file** *configurationFile*]

dpath **--list|-l** *[/path/to/files]* **[--verbose|-v]** **[--configfile** *configurationFile*]

dpath **--retrieve|-r** *[/path/to/files]* **[--verbose|-v]** **[--configfile** *configurationFile*]

DESCRIPTION
dpath is a helper script for **gtransfer** to support users in creating data paths, listing available data paths and retrieve the latest data paths from a preconfigured repository.

MODES
dpath has several modes of operation:

CREATE   Creates a data path file and a link to it named after the *alias* that is specified by the user.

BATCH CREATE
Creates all possible data paths between host addresses given in a file. Corresponding aliases are created automatically.

LIST   Lists all available data path files. Additionally only sources and destinations of data paths can be listed, too.

RETRIEVE
Retrieve the latest data paths available. In this mode **dpath** updates the local data paths with data available from the preconfigured repository.

OPTIONS
The options are as follows:

CREATE Mode:

--create|-c *[/path/to/files]*
Create a new data path either in the user-provided path or - if no additional path is given - in the default data path directory in:

$HOME/.gtransfer/dpaths/

--source|-s *gsiftpSourceUrl*
Set the source URL for the data path without any path portion at the end.

Example:

gsiftp://saturn.milkyway.universe:2811

--destination|-d *gsiftpDestinationUrl*
  Set the destination URL for the data path without any path portion at the end.

  Example:

  gsiftp://pluto.milkyway.universe:2811

--alias|-a *alias*
  Set the alias for the created data path. **dpath** will create a link named "alias" to the data path file
  which name is the SHA1 hash of the source destination combination.

  **NOTICE: Naming of the aliases is not restricted, but one's encouraged to use something like
  the following:**

  {{site|organization}_{resource|hostName|FQDN}|Local}--to--{site|organization}_{resource|host-
  Name|FQDN}

[--dpath-template *dpathTemplate*]
  When provided, dpath will use the given template for dpath creation. The following variables are
  expanded during dpath creation:

  $sourceWithoutPath => gsiftpSourceUrl => the host address of the source site

  $destinationWithoutPath => gsiftpDestinationUrl => the host address of the destination site

BATCH CREATE Mode:

--batch-create|-b *[/path/to/files]*
  Create data paths in batch mode either in the user-provided path or - if no additional path is given -
  in the default data path directory in:

  $HOME/.gtransfer/dpaths

  When used dpath will create dpaths for all possible connections between the hosts given in the
  hostsFile and omit connections between the same hosts.

--hosts|-h *hostsFile*
  Set the file name for the file containing the host addresses for which data paths should be created.
  The format of each line in this file is as follows:

  <PROTOCOL>://hostname.domain.tld:<PORT>

  Example contents:

  gsiftp://gridftp.omicron.mercury:2811
  gsiftp://gridftp.gamma.mars:2812
  [...]

[--dpath-template *dpathTemplate***]**
>   When provided, dpath will use the given template for dpath creation. The following variables are expanded during dpath creation:
>
>   **$sourceWithoutPath** => gsiftpSourceUrl => the host address of the source site
>
>   **$destinationWithoutPath** => gsiftpDestinationUrl => the host address of the destination site

LIST Mode:

--list|-l *[/path/to/files]* **[--verbose|-v]**
>   List all data paths available in the user-provided path or - if no additional path is given - in the default and system data path directories.

--list-sources *[/path/to/dataPaths]*
>   List all sources from the data paths in the user provided path or - if no additional path is given - in the default and system data path directories.

--list-destinations *[/path/to/dataPaths]*
>   List all destinations from the data paths in the user provided path or - if no additional path is given - in the default and system data path directories.

RETRIEVE Mode:

--retrieve|-r *[/path/to/files]* **[--quiet|-q]**
>   Retrieve the latest data paths available on the preconfigured repository and store them in the user-provided path or - if no additional path is given - in the default directory for data paths. If a "--quiet|-q" is provided, then output is omitted and success/failure is only reported by the exit value.

General options:

[--configfile *configurationFile***]**
>   Set the name of the configuration file for **dpath**. If not set, this defaults to:
>
>   */etc/gtransfer/dpath.conf* or
>
>   *<INSTALL_PATH>/etc/dpath.conf* or
>
>   */etc/opt/gtransfer/dpath.conf* or
>
>   *$HOME/.gtransfer/dpath.conf* in this order.

[--help]
>   Prints out a help message.

[--version|-V]
>   Prints out version information.

FILES

[...]/dpath.conf
>   The **dpath** configuration file.

<PATH_TO_SYSTEM>/dpaths/
>   This dir contains the system data paths usable by **gtransfer** and is configurable. Can be created
>   with **dpath**.

$HOME/.gtransfer/dpaths/
>   This dir contains the user data paths usable by **gtransfer**. Can be created with **dpath**.

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SEE ALSO
>   **dparam**(1), **sha1sum**(1), **tgftp**(1), **gtransfer**(1)