Configuring Extra Domains on Global Servers

1. Introduction

By default, Global servers are configured with a single domain (e.g. B00, C00 etc.) that allows 99 sub-volumes and a total volume size of 2Gb. This document describes how to configure extra domains to allow the total volume size on a server to be extended to 20Gb. If this procedure is followed for every Global server (i.e. A-Z) the total file size supported by a configuration which includes all the possible 26 Global servers can be extended to 520Gb.

2. Existing configuration

The registry settings for a typical Global server (e.g. server "B") configuration are:

Global\Servers\B\Data\DiscreteDataFiles\DDF0=c:\global\gsmb00

Throughout this document server "B" will be used as the example Global Server.

By default, if the following registry setting is absent:

Global\Servers\B\UseConfigurationFile

domain B00 will be configured with 99 sub-volumes (from the default Global Server configuration file). The maximum data size for domain B00 is (approximately) 2Gb.

If the following registry setting is present:

Global\Servers\B\UseConfigurationFile=Off

domain B00 will be configured with 99 sub-volumes (from the configuration file synthesis logic within GLSERVER.EXE - see Technical Note In181 for complete details). The maximum data size for domain B00 is (approximately) 2Gb.

Throughout this document it will be assumed that the following registry setting is established:

Global\Servers\B\UseConfigurationFile=Off.

3. Adding a 2nd Domain as unit B50

A second domain on a Global Server is simply added by establishing the following registry setting:

Global\Servers\B\Data\DiscreteDataFiles\DDF1=c:\global\gsmb50

and using the GLDFMAIN.EXE or ALLOCATE.EXE utility to create the domain directory and allocate the Domain Header File (e.g. 00SYSDOM.SVL).

However, these two steps are not sufficient to allocate a new B50 domain as the configuration file synthesis logic within GLSERVER.EXE must be told the configuration details of **BOTH** the new B50 domain **AND** the existing B00 domain (which must be reduced from 99 to 49 sub-volumes). The precise configuration of the domains associated with DDF0 and DDF1 are defined using special "configuration file synthesis" registry settings under the Drive0 and Drive1 keys. The following settings MUST be present otherwise the configuration file synthesis logic will produce a "default" dual-DDF configuration:

```
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+DriveDescription="1st domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+UnitNumber=200
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+NumberOfSubUnits=49
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+DriveDescription="2nd domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+UnitNumber=250
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+NumberOfSubUnits=49
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+MaximumNumberOfFiles=250
```

The combined data size of domains B00 and B50 is (approximately) 2 * 2Gb = 4Gb.

3. Adding 9 Extra Domains as units B10, B20,...., B90

An extra 9 domains are added to a Global Server by establishing the following registry settings:

```
Global\Servers\B\Data\DiscreteDataFiles\DDF1=c:\global\gsmb10
Global\Servers\B\Data\DiscreteDataFiles\DDF2=c:\global\gsmb20
Global\Servers\B\Data\DiscreteDataFiles\DDF3=c:\global\gsmb30
Global\Servers\B\Data\DiscreteDataFiles\DDF4=c:\global\gsmb40
Global\Servers\B\Data\DiscreteDataFiles\DDF5=c:\global\gsmb50
Global\Servers\B\Data\DiscreteDataFiles\DDF6=c:\global\gsmb60
Global\Servers\B\Data\DiscreteDataFiles\DDF7=c:\global\gsmb70
Global\Servers\B\Data\DiscreteDataFiles\DDF8=c:\global\gsmb80
Global\Servers\B\Data\DiscreteDataFiles\DDF9=c:\global\gsmb90
```

and using the GLDFMAIN.EXE or ALLOCATE.EXE utility to create the domain directories and allocate the Domain Header Files (e.g. 00SYSDOM.SVL).

Furthermore, the following settings MUST be present:

```
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+DriveDescription="1st domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+UnitNumber=200
Global\Servers\B\Data\DiscreteDataFiles\Drive0\+NumberOfSubUnits=9
```

Global\Servers\B\Data\DiscreteDataFiles\Drive0\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+DriveDescription="2nd domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+UnitNumber=210
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive1\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive2\+DriveDescription="3rd domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive2\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive2\+UnitNumber=220
Global\Servers\B\Data\DiscreteDataFiles\Drive2\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive2\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive3\+DriveDescription="4th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive3\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive3\+UnitNumber=230
Global\Servers\B\Data\DiscreteDataFiles\Drive3\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive3\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive4\+DriveDescription="5th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive4\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive4\+UnitNumber=240
Global\Servers\B\Data\DiscreteDataFiles\Drive4\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive4\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive5\+DriveDescription="6th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive5\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive5\+UnitNumber=250
Global\Servers\B\Data\DiscreteDataFiles\Drive5\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive5\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive6\+DriveDescription="7th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive6\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive6\+UnitNumber=260
Global\Servers\B\Data\DiscreteDataFiles\Drive6\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive6\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive7\+DriveDescription="8th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive7\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive7\+UnitNumber=270
Global\Servers\B\Data\DiscreteDataFiles\Drive7\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive7\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive8\+DriveDescription="9th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive8\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive8\+UnitNumber=280
Global\Servers\B\Data\DiscreteDataFiles\Drive8\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive8\+MaximumNumberOfFiles=250
Global\Servers\B\Data\DiscreteDataFiles\Drive9\+DriveDescription="10th domain"
Global\Servers\B\Data\DiscreteDataFiles\Drive9\+VolumeFormat=T259Z
Global\Servers\B\Data\DiscreteDataFiles\Drive9\+UnitNumber=290
Global\Servers\B\Data\DiscreteDataFiles\Drive9\+NumberOfSubUnits=9
Global\Servers\B\Data\DiscreteDataFiles\Drive9\+MaximumNumberOfFiles=250

The combined data size of domains B00, B10, B20 to B90 is (approximately) 10 * 2Gb = 40Gb.

4. Summary

The examples described in section 2 (1 extra domain) and section 3 (9 extra domains) illustrate the two extremes. Furthermore, the examples make no attempt to increase the total number of sub-volumes on the Global Server. Indeed, the total number of sub-volumes actually decreases as each domain is added, as described in the following table:

Number of domains	Total number of sub-volumes
1	99
2	98
3	87
4	96
5	95
6	94
7	93
8	92
9	91
10	90

If it is necessary to preserve, or increase, the total number of sub-volumes on a Global Server, domains must be allocated in the range 100 - 199 (being careful to avoid clashes with IDF volumes and diskettes).