

Proxy Host IDs

This document is a superset of the information in the Proxy Host manual, and describes issues with the fact that the Proxy Gateway Server requires that each Host that it manages has a unique ID (called the HostID). We provide a utility that ensures each machine generates their own unique HostIDs.

Background

Each Proxy Host installation is identified by a unique identifier, called the HostID. This identifier is used by the Gateway server to identify a Host, even as other information about the Host, such as the machine name, may change. This identifier contains no additional information and has no use other than to allow the Gateway server to identify individual Hosts on the network. The HostID is a GUID, a 16-byte number with a text representation like "{C8E645A4-AF10-46f7-838B-A75105C8AA13}".

Issues arise with operating system imaging, the process by which an operating system is installed on one machine and then replicated to other machines. Typically, a third-party utility program is used for operating system imaging.

If Proxy Host is installed on an operating system that is then imaged, all of the machines will have the same "unique" ID. This causes the Gateway Server to behave as though all machines are the same Host, which makes it impossible for the Gateway Server to effectively manage them. Note that this problem occurs independent of how the imaging or replication is done, and affects Proxy Host v4.0 and later installations. (Even though the Host v4.0 does not work with the Gateway Server v5.0 or later, it still assigns itself a HostID that is preserved when the Host is upgraded to a later version.)

There are two strategies for dealing with this issue:

- The preferred solution is to prepare the Host installation for imaging before creating the operating system snapshot to be duplicated. Just as you use the Microsoft-provided "SysPrep" utility to prepare the operating system, you can use the Proxy Host "HostPrep" utility to prepare the Host before imaging. This is described in the next section.
- If a deployment has been completed and duplicate HostIDs exist on the network, the Proxy Host "RmHostID" utility can be used to remove the duplicate HostIDs Proxy Host IDs Technical Note page 1 of 4 and cause the affected machines to be assigned a new (and unique) ID. This is described later in this document.

Preparing the Host and operating system for imaging

Proxy Host includes a utility program named `hostprep.exe` to address issues with operating system imaging. To avoid the problem of having duplicate HostIDs, you must run the `hostprep` utility to delete the ID before the operating system image is captured.

NOTE: You must prepare the Host software for imaging just before you use the Microsoft-provided SysPrep utility to prepare the operating system.

After the machine is set up and all Host settings are configured, and immediately before running your preferred image snapshot utility, run the `hostprep.exe` utility from a command prompt. The optional command line argument `"-y"` can be used to avoid a prompt to continue. When HostPrep runs, it stops the Host service and prepares the Host for imaging. It is critical that the Host service not restart before the operating system image is captured because when the Host starts, it undoes the actions completed by the HostPrep utility.

For more information about operating system imaging, please see the Microsoft TechNet Desktop Deployment Center at <http://www.microsoft.com/technet/desktopdeployment/>

HostPrep Command Line Syntax

The HostPrep utility is installed with the Proxy Host. HostPrep accepts a command line flags that control its behavior:

- y Do not ask for confirmation; default is to prompt before continuing
- yes Same as '-y'
- guid Deletes the HostID only, but does not prepare the settings
- restart Restarts the Host Service when compute; should only be used with '-guid'

To prepare an installation for imaging, run `hostprep.exe` with no arguments, and press the "y" key when prompted. To delete the HostID on the local computer and cause a new one to be assigned immediately, run the command line `"hostprep.exe -guid -restart"`. HostPrep runs on all versions of Windows that are supported by the Proxy Host.

Running `"hostprep -y"` right before you take your image snapshot is the key.

RmHostID Command Line Syntax

The RmHostID utility runs on one computer and searches one or more computers for Host installations that have a specified HostID. If a matching HostID is found, the HostID is deleted and the Host Service restarted so that a new ID will be assigned. This utility can be used to “clean up” Host installations with duplicate IDs on a LAN.

RmHostID accepts command line flags that control its behavior:

- p Prompt for confirmation before deleting HostID
- prompt Same as ‘-p’
- ? Displays help text describing how to use RmHostID

RmHostID expects two arguments (in addition to any flags) on its command line. The first argument specifies which HostIDs should be considered duplicates, and therefore should be deleted. The second argument specifies which machine or machines should be examined. The HostID specification (first argument) can be one of:

- A specific GUID, in the form “{C8E645A4-AF10-46f7-838B-A75105C8AA13}”
- A star (“*”), signifying that all HostIDs found should be deleted
- An at sign (“@”) followed immediately by a filename. This causes the specified file to be read, and each line should contain a single GUID.

The machines specification (second argument) can be one of:

- If the machine specification is missing, the local machine is checked
- A specific machine name, as either a NetBIOS machine name or a DNS name
- A star (“*”), which instructs RmHostID to enumerate all machines on the network
- An at sign (“@”) followed immediately by a filename. This causes the specified file to be read, and each line should contain a single machine name (as either a NetBIOS machine name or a DNS name).

Examples:

```
RmHostId {078A9A01-6931-42A3-9371-EA00F1DC7D99} *
```

This example enumerates the machines on the network, and deletes the HostID of any installations that match the specified ID.

```
RmHostId {078A9A01-6931-42A3-9371-EA00F1DC7D99} MACHINE04
```



PREPARING AN IMAGE WITH THE HOST? READ THIS FIRST!

This example connects to the one machine named "Machine04", and deletes the HostID on that machine if and only if it matches the specified ID.

```
RmHostId * MACHINE04
```

This example connects to the one machine "Machine04", and deletes the HostID unconditionally, because "*" was specified as the HostID pattern.

```
RmHostId GUIDS.TXT *
```

This example enumerates the machines on the network, and deletes the HostID of any installations that match any of the IDs specified in the GUIDS.TXT file.

Example GUIDS.TXT file:

```
{078A9A01-6931-42A3-9371-EA00F1DC7D99}
```

```
{078A9A02-6931-42A3-9371-EA00F1DC7D99}
```

NOTE: This utility runs on all Windows operating systems supported by the PROXY Pro Host. The user must be logged in as Administrator, or otherwise have access permissions to the ADMIN\$ share on the Host machines. The Host machines must allow remote access to the Service Control Manager and to the Registry. Typically, this means that Microsoft File & Printer Sharing is enabled and that these services are not blocked by a firewall. Enumerating machines on the network with "*" can take some time; this utility uses the same algorithm and APIs to enumerate the network as the Proxy Deployment Tool. Host GUIDS can be obtained by copying from:

- The Host Control Panel "Gateways" tab
- The Gateway Administrator Host Properties General tab
- Within the registry in HKCR\Proxy.Host\HostID\GUID

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