Slotmaster Install Guide

Slotmaster is a quick login utility for VMS systems. SlotMaster is a combination of items which include DCL procedures and MUMPS routines. It utilizes a feature available under VMS LAT known as dedicated LAT ports where an application can be dedicated to a specific LAT device. Slotmaster saves users time by letting the user connect directly to an active M partition. This saves users from sitting through VMS process creation and loading an M partition, allowing them to log in to DHCP directly.

Slotmaster also conserves system resources by re-using the same VMS process for new users, rather than creating a new process for each new user.

If You Already Are Using a Version of Slotmaster

Several versions of the Slotmaster software exist. The version of Slotmaster distributed with Kernel merges in features from several existing Slotmaster versions.

One advantage of switching to Kernel's Slotmaster implementation is that it is integrated with Kernel; no patching of Kernel routines is required to run Kernel's version of Slotmaster. Another advantage is that Kernel's version of Slotmaster is supported within the ISC structure as released software.

There are no major new features in Kernel's version of Slotmaster. The experience you have gained managing your current Slotmaster configuration will be useful when working with Kernel's. One convenience is that only the STARTUP$ZSLOT.COM file needs editing.

Slotmaster only runs in "DETACHED" mode.

The M routines for Slotmaster are provided in a OpenVMS host file (rather than being installed with the rest of Kernel), in order to allow you to continue using your current implementation of Slotmaster until you are ready to upgrade to Kernel's.

FILES INCLUDED IN THIS KIT

SLOTMASTER COMMAND FILES -

startup$zslot.com -customized file to start any number of dsm slots.
create_zslot_user.com -file to create VMS slot user
stop_zslot.com -file to abruptly (yet cleanly) shutdown the slots and

optionally the SlotMaster process.

SLOTMASTER ROUTINE FILES -

zslot_v8.kid -contains SlotMaster routines in KIDS format.
zzfex.rtn -one mgr routine to be used with stop_zslot.com (optional).

SLOTMASTER DOCUMENTATION FILES -

zslot-ig.txt -Install guide text version (this file)
zslot-mg.txt -Management guide text version
zslot-mg.pdf -Management guide in acrobat reader format
zslot-ug.pdf -User guide in acrobat reader format

1. Required Versions

As a minimum, the following versions of software must be installed on your system prior to installing Slotmaster:

. • DSM 6.3 for OpenVMS AXP
. • OpenVMS AXP (TM) Version 6.1
. • Kernel 8.0

Installation

Before installing Slotmaster on your production system, you should set it up and run it in a test account. Only when you are comfortable with the operation of Slotmaster should you consider installing Slotmaster for your

production system.

Follow these steps to install Slotmaster:

1. VMSINSTAL

Use VMSINSTAL to load the product.

What SYSUPDATE:VMSINSTAL will do! After locating the install kit it will move ZSLOT.RELEASE_NOTES (Quick release notes) to the SYS$HELP directory, then it will ask for a DEVICE to locate three

directories ([DSMSLOT], [.LOG], [.WORK]) it will create. Then it will load the COM and other files into the [DSMSLOT] directory. **Note**: If you are already running a version of Slotmaster, you probably already have Slotmaster directories. You may want to create the directories on a different device, so that you can evaluate Kernel's Slotmaster version without interfering with the operation of your current Slotmaster version. **Note:** You should delete any LOG and other old files if installing this in a currently used directory.

After the install you will have the following directories:

VA1$:[DSMSLOT] main DSMSLOT directory
VA1$:[DSMSLOT.LOG] directory to store log files
VA1$:[DSMSLOT.WORK] default directory for user files.

You will have the following files in [DSMSLOT] directory:

STARTUP$ZSLOT.COM ZSLOT-IG.TXT ZSLOT-MG.TXT ZSLOT-IG.PDF ZSLOT-MG.PDF

ZSLOT_V8.KID

CREATE_ZSLOT_USER.COM

STOP_ZSLOT.COM ZZFEX.RTN
Startup file for Slotmaster. Install guide text version Management guide text version Install guide in acrobat reader format Management guide in acrobat reader format KIDS install file with routines and options. A COM file to create the DSMSLOT user. A COM file to quickly stop all slots. MGR routine use in conjunction with the STOP_ZSLOT.COM file.

2. An example install is in the SYS$HELP:ZSLOT.RELEASE_NOTES file.

3. DSMSLOT USER

If you don't have a DSMSLOT user then use the
CREATE_ZSLOT_USER.COM file to create one. If you already have a
DSMSLOT user check that its VMS account is similar to the following, for
use by the Slotmaster processes.

```
Username: DSMSLOT Owner: DHCP Slotmaster
Account: DSMMGR UIC: [50,2] ([DSMSLOT])

CLI: DCL Tables: DCLTABLES
Default: VA1$:[DSMSLOT]
LGICMD: LOGIN.COM
Flags: Captive,DisCtlY Restricted DisWelcome DisNewMail DisReport
Primary days: Mon Tue Wed Thu Fri
Secondary days: Sat Sun
Primary 000000000011111111112222 Secondary
000000000011111111112222
Day Hours 012345678901234567890123 Day Hours
012345678901234567890123
Network: -----No access ----------No access -----
Batch: ##### Full access ###### ##### Full access ######
Local: ##### Full access ###### ##### Full access ######
Dialup: ##### Full access ###### ##### Full access ######
Remote: ##### Full access ###### ##### Full access ######
Expiration: (none) Pwdminimum: 6 Login Fails: 0
Pwdlifetime: 180 00:00 Pwdchange: (pre-expired)
Last Login: 6-NOV-1991 11:10 (interactive), 18-NOV-1991 16:48
(non
```

```
interactive)
    Maxjobs:        0  Fillm:      150  Bytlm:      64000
```

```
   Maxacctjobs:     0  Shrfillm:       0  Pbytlm:      0
Maxdetach:         0  BIOlm:         64  JTquota:    1024
  Prclm:          30  DIOlm:         64  WSdef:       900
   Prio:           4  ASTlm:        300  WSquo:      1400
 Queprio:          0  TQElm:         10  WSextent:   1864
CPU:           (none)  Enqlm:        600  Pgflquo:  100000
   Authorized Privileges:
```

GRPNAM GROUP TMPMBX NETMBX SYSLCK
Default Privileges:

GRPNAM GROUP TMPMBX NETMBX SYSLCK
UAF>

Set the UIC to an unused value that is compatible with the UIC group you use for M users.

The account should not have a password. As with all non-password accounts, however (except the ANONYMOUS account if you allow anonymous network access to your system), the DSMSLOT account should have network access disabled. This prevents users of network utilities such as ftp from using the DSMSLOT account to gain access to unauthorized file areas. The UAF command "MOD <username> /NONETWORK" disables network access. The account should also be captive, to ensure no DCL command-line access is allowed.

If your main DSMSLOT directory is not VA1$:[DSMSLOT], adjust the Device and Directory parameters to match the location you are using. If the main login command file for slot processes will not be LOGIN.COM, adjust the LGICMD parameter accordingly.

4. KIDS install.

The KIDS file is ZSLOT_V8.KID. Use KIDS menu to install:
(D ^XPDKRN can also be used).

• ROUTINE MAPPING Be sure to unmap any of the ZSLOT routines that

you have mapped. You can also delete the ZSLOTZU routine as it will not
be needed anymore.

```
Select Kernel Installation & Distribution System Option: INstallation

Select Installation Option: Load a Distribution
Enter a Host File: [DSMSLOT]ZSLOT_V8.KID

KIDS Distribution saved on Aug 21, 1995@15:28:27
Comment: ZSLOT M routines for production account

This Distribution contains Transport Globals for the following Package(s):
     ZSLOT 8.0

Want to Continue with Load? YES//
Loading Distribution...

Use ZSLOT 8.0T1 to install this Distribution.

Select Installation Option: INstall Package(s)
Select INSTALL NAME: ZSLOT 8.0      Loaded from Distribution

This Distribution was loaded on Aug 22, 1995@13:21:36 with header of
ZSLOT M routines for production account  ;Created on Aug 21, 1995@15:28:27
The tape consisted of the following Install(s):
ZSLOT 8.0


Install Questions for ZSLOT 8.0

Want to DISABLE Scheduled Options, Options and Protocols? YES// NO

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//
```

5. Make sure that you are using Kernel V8 routines. These are integrated
with Slotmaster.

6. STARTUP$ZSLOT.COM
   Edit the values being assigned to symbols in the

STARTUP$ZSLOT.COM command file. Each symbol is set (and documented) at the top of this command file. Edit the command file to adjust the values of these symbols as necessary to reflect your desired Slotmaster configuration. The first time STARTUP$ZSLOT.COM is run it will test for a LOGIN.COM file and create one if it doesn't exist. Decide how many slots to run on each node, and what range of LTA ports to run those slots in.

Here are some further descriptions of some of these symbols:

start_zslot **This come set to "0" so that startup$zslot will only generate files but not startup zslot. Be sure to edit this to a "1" to cause startup$zslot to START ZSLOT.**

user Set to the username of the VMS user account set up in step #3.

st_port Set to the default starting point for slot creation. This value can be overridden by passing parameter p2 to the STARTUP$ZSLOT.COM command file.

en_port Set to the default end point for slot creation. en_port must be higher than st_port, and the difference between them determines the number of slots created by the command file. Can also be passed as parameter p3.

service_name Set to the LAT service name to use for slots. For production, you may want to set this to DHCP. If you are testing, you should set this to a LAT service name that won't conflict with your production users.

ztime Interval ZSLOT0 (slot process) waits at read command

First Section of STARTUP$ZSLOT.COM Command Procedure

```
$! vvvvv SITE TO MODIFY
vvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvvv
$
$ START_ZSLOT = 0 !Values 0 or 1, 0 generates files only
$ USER = "DSMSLOT" !VMS Username to submit zslot jobs
$ ENV_MGR = "DSMMGR" !VMS Username for DSM Environment mgr
$ SYS_MGR = "SYSTEM" !VMS Username authorized to start ZSLOT
$ ST_PORT = 7700 !Port to start with
$ EN_PORT = 7799 !Port to end with
```

```
$ SLOT_DIR = "VA0$:[DSMSLOT]" !Location of LOGIN.COM
$ LOG_DIR = "VA0$:[DSMSLOT.LOG]" !Directory to hold the log
files
$ WORK_DIR = "VA0$:[DSMSLOT.WORK]" !Directory to hold HFS files.
$ EXCLUDE = "xxxA01" !Node(s) NOT to run zslot (node,node)
$ INTERACTIVE = 30 !Interactive LOGIN value, 0 to not reset
$ QUE_PREFIX = "DSM$SLOT_" !Batch queue name prefix, node appended
$ QUE_SUFFIX = "" !Batch queue name suffix, node precedes
$ QUE_LIMIT = 1 !Batch queue job_limit
$ SERVICE_NAME = "DHCP" !LAT service name to use broadcast
```

```
$   SERVICE_ID   = "VA Hospital Computers"    !LAT ID for LAT service
$   ZTIME        = 600                        !How often does ZSLOT0 end READ & reset
$   ALLOW_PROG   = 0                          !1 to allow prog mode, 0 to prevent
$                                             ! >>NOTE<< Allowing programmer mode
$                                             ! access could cause locally written
$                                             ! spawned command procedure failures.
$
$!   ^^^^^  SITE TO       ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
           MODIFY
$!  You can submit this with starting/ending port numbers.
$!
$!  $@startup$zslot   detach 9001 9010
$!                    ^        ^    ^
$!                    p1       p2   p3
```

7. If you choose to leave the ALLOW_PROG flag as zero then you should
    check application routines for USE 0 or USE $P. Otherwise, the
    applications will exit with end-of-file errors whenever USE 0 or USE $P
    commands are encountered. The following is a list of common routines
    that use these commands:

```
    ^%SY
    ^FORCEX
```

The following is a list of options that call routines that have this type of
code in them:

```
    XUPROGMODE
    XU BLOCK COUNT
    XUPRGL
    XUROUTINE OUT
    XUROUTINE IN
```

You can search for routines that USE 0 or USE $P with the ^%RSE (routine search) DSM for OpenVMS utility.

It is recommended that any options that USE 0 or USE $P be disabled when running within slots. In the entry action for each such option, a call to $$CHK^ZSLOT0 (see the Programmer Tools section below) can check if the process is running in a slot; if it is, set XQUIT=1 to disable the option. You can use the following code as an entry action to disable such options:

```
S:$$CHK^ZSLOT0 XQUIT=1
```

8. Starting up Slotmaster.

Refer to the ZSLOT-MG.TXT to start up zslot.