Best of Ask the Wizard

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HP OpenVMS Support Resources and How to Use Them

HP provides a variety of support resources including web sites and customer support centers. In addition, contract support customers have access to associated databases and services. To aid its customers, HP workers also have access to a problem escalation process and problem tracking, discussion forums, and research tools.

Many of the available OpenVMS support resources are accessible to all OpenVMS customers. Among these, the OpenVMS Frequently Asked Questions (FAQ) and the OpenVMS Ask The Wizard area contain answers to many common questions, such as:

- How to reset a forgotten password on the SYSTEM username.
- How to set up or troubleshoot an IP printer.
- How to get support for OpenVMS questions.

The FAQ and the Ask The Wizard areas are both available at the following web site:

http://www.hp.com/products/openvms/

The HP Natural Language Search Assistant (AskQ) area provides direct access into the HP support databases; access to a subset of the source code examples and the support articles that are available to contract support customers. A natural-language search engine is provided at the AskQ web site:

http://www.itrc.hp.com/service/james/CPQhome.do

Major and active OpenVMS discussion forums include the Usenet newsgroup comp.os.vms and the DECUServe notes conferences:

news://comp.os.vms/
telnet://eisner.decus.org/

Search engines are also available for these forums.

Other newsgroups, web sites and discussion forums are available as well. The OpenVMS FAQ has a complete list of these support resources and pointers to common applications and to many of the available Freeware packages. If searching for commercial applications and options, the HP DSPP web site and its search engine are available for locating commercial applications for OpenVMS. The FAQ also has pointers to AskQ and to the online OpenVMS documentation web site. Pointers to example source code are also available within the FAQ.

ECO Kits

Information on the OpenVMS ECO (patch) kits is available by FTP file server and by search engines. The following ECO search engine can acquire lists of ECO kits by installation rating, making it easier for you to keep the current mandatory ECO kits installed for your particular OpenVMS release:

http://ftp.support.compaq.com.au/pub/ecoinfo/ecoinfo/top.htm

Email notifications of new ECO kits are also available. The ECO notification subscription web site is:

http://www.support.compaq.com/patches/mailing-list.shtml
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Direct and Formal HP Assistance

For customers wishing to request direct and formal HP assistance, the customer support centers are the best initial contacts. When your request for support is received at the local or regional support center for your geography, the information you need to provide includes an initial description of the particular problem. Specific information on logging calls and on your support center telephone number are all available within your hardware or software support contract documentation.

To speed the resolution of your support call, please follow these tips:
- o Be very specific in your problem description. Generic problem statements such as, "It doesn't work" or "It crashed", can and often do cover huge numbers of potential problems and even larger numbers of potential causes.
- o Provide the product version and OpenVMS platform information, as many problems can be version- or platform-specific.

- o Reference the specific commands or utilities that might provoke the problem, the full text of any error messages displayed, and the expected outcome.
- o Provide information on any installed ECO kits.

The more general the problem statement, the longer it often takes to determine the details of the problem and to then provide you with the resolution.

Regardless of the nature of the particular problem, providing HP with a method to easily reproduce the reported problem can be invaluable in providing you with the quickest response. Accordingly, HP will often request a reproducer, a way to trigger and to localize the problem and to subsequently verify the correctness of the resolution. Note that the smaller, simpler, and more targeted the reproducer; the faster HP can obtain a resolution.

Software Code Reproducer

An example of a concise software source code reproducer follows:

```
$ set noon
$ if f$search("sys$share:zzzshr.exe") .nes. ""
$ then
$   known = f$file_att("sys$share:zzzshr.exe","known")
$   if known
$   then
$     install delete sys$share:zzzshr.exe
$   endif
$   delete sys$share:zzzshr.exe;*
$ endif
$ if f$search("sys$scratch:zzz.exe") .nes. ""
$ then
$   known = f$file_att("sys$scratch:zzz.exe","known")
$   if known
$   then
$     install delete sys$scratch:zzz.exe
$   endif
$   delete sys$scratch:zzz.exe;*
$ endif
$ cc zzz/def=ZZZ/obj=sys$scratch:zzz.obj
$ cc zzz/def=ZZZSHR/obj=sys$scratch:zzzshr.obj
$ goto 'f$getsyi("ARCH_NAME")'
$Alpha:
$ link/notrace/nodebug -
sys$scratch:zzzshr/share=sys$share:zzzshr.exe,sys$input/opt
symbol_vector=(ChkPrv=procedure)
gsmatch=lequal,1,0
identification="zzzshr v1.0"
$ goto common
$VAX:
$ macro sys$input/object=sys$scratch:zzzxfr.obj
  .title $$$xfrvec transfer vector(s)
  .ident /zzzxfr v1.0/
  .psect $$$xfrvec,exe,shr,nowrt,rd,pic,quad
  .macro xfrvec entrypoint
  .align quad
  .transfer entrypoint
  .external entrypoint
  .mask entrypoint
  jmp l^entrypoint+2
  .endm
  xfrvec ChkPrv
  .end
```

```
$ link/notrace/nodebug -
sys$scratch:zzzshr,sys$scratch:zzzxfr/share=sys$share:zzzshr.exe,sys$input/opt
cluster=$$$xfrvec
collect=$$$xfrvec,$$$xfrvec
gsmatch=lequal,1,0
identification="zzzshr v1.0"
$ goto common
$Common:
$ link/notrace/nodebug -
/execu=sys$scratch:zzz.exe sys$scratch:zzz,sys$input/opt
sys$share:zzzshr/share
$
$
$! SYSLCK disabled, not installed, not installed with SYSLCK privilege
$
$ set process/privilege=nosyslck
$ run sys$scratch:zzz
$
$! SYSLCK enabled, not installed, not installed with SYSLCK privilege
$
$ set process/privilege=syslck
$ run sys$scratch:zzz
$ set process/privilege=nosyslck
$ install create sys$share:zzzshr
$
$! SYSLCK disabled, installed, not installed with SYSLCK privilege
$
$ run sys$scratch:zzz
$ install create sys$scratch:zzz
$ run sys$scratch:zzz
$
$! SYSLCK disabled, installed, installed with SYSLCK privilege
$
$ install replace sys$scratch:zzz/priv=syslck
$ run sys$scratch:zzz
$
$! clean up...
$
$ install delete sys$scratch:zzz
$ install delete sys$share:zzzshr
$ delete sys$scratch:zzz.exe;*
$ delete sys$share:zzzshr.exe;*
$
$ exit

        --
```

```
#include <prvdef.h>
#include <ssdef.h>
#include <starlet.h>
#include <stdio.h>
#include <stdlib.h>
#ifdef ZZZ
main()
 {
 int RetStat, ChkPrv();
 RetStat = ChkPrv();
 return 1;
 }
#endif
#ifdef ZZZSHR
int ChkPrv()
 {
 int RetStat;
 int PrvQWIn[2] = {0,0}, PrvQWOut[2]= {0,0};
 RetStat = sys$setprv( 0, PrvQWIn, 0, PrvQWOut );
 if ( PrvQWOut[0] & PRV$M_SYSLCK )
   printf("SYSLCK enabled\n");
 else
   printf("SYSLCK disabled\n");
 return RetStat;
 }
#endif
```

This example shows a complete and concise problem reproducer that was constructed by
HP in response to a problem report reputing errors within the OpenVMS handling of the
SYSLCK privilege and installed images. Based on this reproducer, the problem report
was shown to be incorrect or incomplete, and there were additional factors involved in
the problem trigger.

System Bugchecks

The most serious OpenVMS problems can involve a system bugcheck. When an
unrecoverable error is detected within OpenVMS, a bugcheck system crash is triggered.
By default, OpenVMS is configured to write the system state to the system dumpfile or
potentially to the system pagefile during the bugcheck processing. The contents of this
system dump file can be central to the resolution of fatal system failures. Your own
applications can utilize similar process-state, logging mechanisms; process-level dumps
can be generated upon application failures. For details on configuring and utilizing the
process dump mechanism, please see the debugger documentation and the details of the
ANALYZE/PROCESS_DUMP command.

If OpenVMS generates a bugcheck, you will want to acquire a synopsis of the crash. The ANALYZE/CRASH system Dump Analyzer (SDA) CLUE CRASH callout easily provides this synopsis of the system dumpfile, and -- when the CLUE CRASH output is written out to a file -- the synopsis can be provided to and examined by HP using HP-internal automated scanning tools. When compared against known crashes, this synopsis can speed the resolution of known problems. Whether the bugcheck is known and an answer is available, or if the bugcheck is a previously-unknown problem, the synopsis typically helps quickly isolate the particular cause and correlate this report with any other similar reports.

Summary

HP offers services that can help you to avoid, or to even weather, the occurrences of many problems, either by the preemptive application of critical ECO fixes, or by correctly configuring your OpenVMS systems and clusters for best reliability. Service offerings ranging from installation assistance, system healthcheck offerings, system management outsourcing, and consulting services such as custom programming and disaster-tolerant cluster configurations are all available.

In addition to the resources and services already mentioned here, additional OpenVMS support information and services are available to you. Further, if you are unsure of where to find the information you need or potentially how to best utilize the resources available to you, please see the OpenVMS Frequently Asked Questions (FAQ) and the HP services web site. If you do decide to utilize formal HP assistance, you can help expedite the response by providing HP with critical information. With access to the appropriate information and to the available HP services, you can speed the resolution and speed your OpenVMS systems back into the business of serving your own customers.