

Service Data Collection and Packaging (sdcp) tool - usage and operation

This document describes the usage and function of the Service Data Collection and Packaging tool, *sdcp*. This tool was released first with fix pack V5.3.1.5 and this documentation is current for that version of *sdcp*.

Introduction

Sdcp is an OSS shell script that can be used to collect and package important data from a WebSphere MQ installation on an HP NonStop Server system. *Sdcp*'s primary purpose is to significantly reduce the time and effort required from customers as well as from IBM to gather the most critical and commonly required data in support of the technical analysis of a PMR. *Sdcp* gathers data about the WMQ installation and the queue managers running in that installation. Data is also collected about the general operating environment on the HP NonStop Server. Queue Managers do not need to be stopped when running *sdcp*.

No customer application message data is collected in order to avoid inadvertently collecting sensitive information. Use of WebSphere MQ utilities to collect queue, channel and authority information may be excluded if necessary. *Sdcp* requires no interactive input from the user and makes no modifications to the system, WMQ installation or the queue managers.

Usage

Sdcp runs from the OSS shell and requires a logged-in user ID that is an administrator of the WMQ installation. *Sdcp* also requires the normal environment variables to have been established for the WMQ installation being used. This is typically done by "sourcing" the *wmqprofile* file from the *...var/mqm* directory – often performed automatically as part of a login script.

The command line interface is very simple:

```
sdcp [-d] [-e] [-w workdir] [-m queuemgr] [-p pmrNumber]
```

where:

- d if specified, enables OSS shell debug output for the script
- e if specified, excludes the use of WMQ utility programs to collect configuration and status information about running queue managers. If not specified, WMQ command line utilities are used to collect this data for running queue managers.
- w *workdir* if specified, is an OSS directory where *sdcp* stores temporary files that it uses while running, and where the final output is created.

- If not specified, the current working directory is used.
- m queuemgr** if specified, is the name of the queue manager to collect data for. If not specified, sdcp collects data for all queue managers in the installation.
- p pmrNumber** if specified, defines the final archive and intermediate file name prefix, and must be formatted as an IBM Technical Support PMR number, branch and country code; with each item being separated by a dot (.) or comma (.). Ex: 11111.222.333

Note: the use of the `-p` flag is recommended when collecting data for submission to IBM Technical Support. Proper use of this flag will ensure that the file gets uploaded to the appropriate storage location.

For simple usage, simply typing “sdcp” will cause the collection of data from the installation, plus all queue managers in that installation (whether running or not).

To reduce the volume of data and the time taken to collect the data, normally it is best to run sdcp to collect data for a specific queue manager:

```
sdcp -m qmgr
```

In the unlikely event that one of the queue managers you are collecting information on appears to be unresponsive, specify the `-e` parameter to exclude the use of WMQ utilities to collect data for running queue managers:

```
sdcp -m qmgr -e
```

An example of collecting data with typical parameters specified:

```
sdcp -w /home/mike -m QM1 -p 99999,888,777
```

Result of running sdcp

Running sdcp creates a compressed tar archive (“tarball”) in the working directory (or current directory, if `-w` was not specified) containing all of the data that sdcp collected from the installation, queue managers and the system.

This tarball may then be transferred electronically to IBM Support (using binary mode ftp) for analysis.

The working directory is also used as a location for temporary files created as data is gathered about the installation. By Default, all files created in the working directory will have a common prefix of WMQSDCP, followed by the date and time when sdcp was started, for example: "WMQSDCP-090220-123729".

If the `-p` flag is specified, the prefix will consist of the PMR number appended with 'SDCP', followed by the date and time when `sdcp` was started, for example: "03825,122,000-SDCP-090220-123729".

The final tarball is named using the same prefix that was used for the temporary files, followed by "-archive.tar.Z", or example: "WMQSDCP-090220-123729-archive.tar.Z".

What sdcp does

Sdcp uses standard HP NonStop Server OSS and Guardian utilities to collect data about:

- The OSS and Guardian filesystem objects for the WMQ installation and queue managers
- Versions of all WMQ binaries
- Information about the users of WMQ shared memory files
- The status and state of all WMQ processes running for queue managers
- Information about the HP NonStop Server operating system level, versions of critical HP system software subsystems
- Basic information about the OSS shell environment that `sdcp` is running in
- TMF subsystem status
- Disk space summary for the system
- Physical and virtual memory status of each CPU
- OSS fileset status
- Basic configuration of the EMS subsystem
- Status of all TCP/IP subsystems
- The contents of the WMQ errors and trace directories
- The WMQ installation wide configuration files `wmq.ini` and `proc.ini`
- The results of running `dspm` (which queue managers are defined and their state)
- For each running queue manager:
 - the output of the `ecasvc` tool and the `Pathway` status and `info` command output to capture the configuration and state of process management for the queue manager
 - unless excluded using the `-e` parameter, configuration and status data for all WMQ objects, channels, authority data and clustering objects

Sdcp typically takes a few minutes to run, depending on system load, but does not interrupt any operations.

IBM Support intends to direct customers to use this tool in situations where a queue manager is experiencing problems, to quickly and accurately capture data, and enable faster progress into problem recovery mode (where necessary) with higher confidence that data to analyze the problem has been captured.

It is likely that as experience increases, IBM will update this tool regularly to improve the automation of data collection capabilities.