



# SafeNet/i

Product Change Specifications: Object & IFS Path Security  
Lookup Re-Sequence Enhancement.

PTF10.11

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# Overview

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Due to customer requirements and changing technologies, SafeNet is introducing new features in this product update.

1. Customer selectable Security authorization searches/lookups sequences. This change makes it possible to easily support an unlimited number of search sequences based on customer requests.
2. The ability to standardize QSYS.LIB path requests into regular Library/Object authorization lookups.
3. The ability to specify an alternate logfile archive library. See new command CHGARCLIB.
4. The ability to run all usage and security reports (PRTxxxUSG and PRTSECRPT) from any archive library/file.
5. New Performance options available when running the Log file purge (see STRPRGARC command)
6. New commands : CHGARCLIB and CHGJRNLIB
7. Enhancement to Profile Swapping to allow selection of a swap profile based on the server a user is accessing.
8. Integration with IBM's QRADAR family of products. See separate Qradar/SafeNet integration document or contact Kisco Information Systems for additional information.

This change also serves notice of deprecation of \*SHORT path support in SafeNet/i.

## Change Specifics

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This document will describe the newly defined methods of object & IFS path security checking within SafeNet/i.

Included in this update are:

1. The addition of three new object checking sequence routines that are customer selectable.
2. The addition of three new IFS Path checking sequence routines that are customer selectable.
3. Ability to choose when to exit lookup routines.
  - a. Customer may choose to exit upon match regardless of accept/reject status.
  - b. Customer may choose to exit only upon exhausting all possible object rules.
  - c. Customer may choose to exit upon first accepted rule match.
  - d. Customer may choose to exit upon first rejected match.
4. Ability to turn on/off the Generic Object searches . For some customers who do **NOT** use Generic object name rule entries (i.e. QGPL/ABC\*) a performance gain can be made by turning **off** this object lookup routine.
5. A new command CHGARCLIB is available to change the library used to store archive transaction log records.

6. A new SafeNet/i product direction and enhancement to treat all QSYS.LIB path requests as regular objects and libraries for authority lookups instead of treating these as long path authority lookups.  
As an example, SafeNet V9 would currently check the WrkUsrPth (pcacclng) file for any request containing:  
/QSYS.LIB/QGPL.LIB/ABC.FILE

With this new enhancement and product direction, the same request would be broken parsed into the library and object reference (QGPL/ABC) and would then be checked against the normal WrkUsrObj (PcAccess) file for authority checking. This is a more standard object lookup. See ChgSpcSet parameter LEGACYPATH for maintaining current installation compatibility.

7. Notification of the deprecation of \*SHORT path support. (CHGSPCSET PATHL(\*SHORT)). This feature will be removed in a future release of SafeNet. Customers are encouraged to use \*LONG path support. See notes below. All IFS path authority lookup changes made within this PTF release do NOT affect customers currently using \*SHORT path support. No additional changes or modifications will be made to \*SHORT path support within SafeNet/i and product direction will not support this feature in the future.
8. A new command CHGJRNLIB is available to define an alternate library to store SafeNet/i Journals and Journal Receivers in.
9. Swap User Profiling has been enhanced to allow the selection of different SwapTo profiles based on the Server point (exit point) a user is accessing the system by.
10. Integration with IBM's QRadar Suite of products. Contact Kisco Information Systems for additional documentation or visit the SafeNet/i website.

# System Settings for Object Lookup Process

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1. **CHGSPCSET** (new parameters for CHGSPCSET command)
  - a. **OBJCHKSEQ** - Object Checking Sequence
    - i. **\*STD** (See default sequence)
    - ii. \*ALT1 (See Seq#1)
    - iii. \*ALT2 (See Seq#2)
    - iv. \*ALT3 (See Seq#3)
  - b. **OBJCHKSTOP** - When to stop object lookups.
    - i. **\*OnMatch** (like current, stops on any matching rule found)
    - ii. \*OnAccept (stop when accepted matching rule found)
    - iii. \*OnReject (stop when rejecting match found)
    - iv. \*AtEnd (stop only when all possible entries checked)
  - c. **GENCHK** - Controls Generic Object Lookups. (i.e. QGPL/ABC\*)
    - i. **\*YES** - Perform generic object searches.
    - ii. \*NO - Do not perform generic object searches.

## Standard Object Lookup Sequence V8, V9, V10

---

### CHGSPCSET OBJCHKSEQ (\*STD) - Default

- |    |            |                         |
|----|------------|-------------------------|
| 1. | User       | Library/Specific Object |
| 2. | Group/Supp | Library/Specific Object |
| 3. | User       | Library/*ALL            |
| 4. | User       | Library/Generic Object  |
| 5. | Group/Supp | Library/*ALL            |
| 6. | Group/Supp | Library/Generic Object  |
| 7. | User       | *ALLLIB/*ALL            |
| 8. | Group/Supp | *ALLLIB/*ALL            |

## Alternate Object Lookup Sequence #1

---

### CHGSPCSET OBJCHKSEQ (\*ALT1)

- |    |            |                         |
|----|------------|-------------------------|
| 1. | User       | Library/Specific Object |
| 2. | User       | Library/Generic Object  |
| 3. | User       | Library/*ALL            |
| 4. | User       | *ALLLIB/*ALL            |
| 5. | Group/Supp | Library/Specific Object |
| 6. | Group/Supp | Library/Generic Object  |
| 7. | Group/Supp | Library/*ALL            |
| 8. | Group/Supp | *ALLLIB/*ALL            |

## Alternate Object Lookup Sequence #2

---

### CHGSPCSET OBJCHKSEQ (\*ALT2)

1. User Library/Specific Object
2. Group/Supp Library/Specific Object
3. User Library/Generic Object
4. Group/Supp Library/Generic Object
5. User Library/\*ALL
6. Group/Supp Library/\*ALL
7. User \*ALLLIB/\*ALL
8. Group/Supp \*ALLLIB/\*ALL

## Alternate Object Lookup Sequence #3

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### CHGSPCSET OBJCHKSEQ (\*ALT3)

1. User \*ALLLIB/\*ALL
2. User Library/Specific Object
3. User Library/Generic Object
4. User Library/\*ALL
5. Group/Supp \*ALLLIB/\*ALL
6. Group/Supp Library/Specific Object
7. Group/Supp Library/Generic Object
8. Group/Supp Library/\*ALL

## Special Considerations for Object Lookups

---

1. Exclusion Rules: Any matching Object Exclusion rule will STOP the lookup process regardless of above CHGSPCSET parameter settings. This is the current process and will remain.
2. QSYS.LIB path change: If LEGACYPATH parameter in CHGSPCSET is set to \*NO, then any IFS Path request (\*FileServer and \*FTPServer) containing a /QSYS.LIB/ path will be processed as a normal object authority lookup as outline above. If the LegacyPath parameter is set to \*YES, all /QSYS.LIB/ requests will be checked against the WrkUsrPth (long path)control entries. (*\*yes maintains existing SafeNet installation compatibility*). See additional notes in IFS change summary below.

# System Settings for Path Lookup Process

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Available with LONG Path support ONLY!

1. **CHGSPCSET** (new parms for CHGSPCSET command)
  - a. **PTHCHKSEQ** - IFS Path Checking Sequence
    - i. **\*STD** (See current sequence)
    - ii. **\*ALT1** (See Seq#1)
    - iii. **\*ALT2** (See Seq#2)
    - iv. **\*ALT3** (See Seq#3)
  - b. **PTHCHKSTOP** - When to stop path search/lookups.
    - i. **\*OnMatch** (like current, stops on any matching rule found)
    - ii. **\*OnAccept** (stop when accepted matching rule found)
    - iii. **\*OnReject**(stop when rejecting match found)
    - iv. **\*AtEnd** (stop only when all possible entries checked)
  - c. **LEGACYPATH**– Maintains compatibility to current IFS Path searches/lookups for QSYS.LIB long path entries. *This is a temporary parameter to maintain backwards compatibility.*  
See Note below for further details.
    - i. **\*YES**– Check the long path file (WrkUsrPth) for QSYS.LIB type requests.
    - ii. **\*NO** – Treat all QSYS.LIB path requests as normal system objects. Use the normal object checking routines for these path types. ( see WrkUsrObj) . Each request is broken down to Library and objects.  
i.e. a path of: /QSYS.LIB/QGPL.LIB/ABC.FILE = QGPL/ABC for object checking.

THESE NEW OPTIONS ARE AVAILABLE ONLY IF **\*LONG** PATH TYPE IS ACTIVE

## Standard IFS Path Lookup Sequence V8, V9, V10

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**CHGSPCSET PTHCHKSEQ (\*STD) - Default**

1. User /\*
2. Group/Supp /\*
3. User Specific Path
4. Group/Supp Specific Path
5. User Generic\* path
6. Group/Supp Generic\* path
7. User \*ALLFLR/\*ALL
8. Group/Supp \*ALLFLR/\*ALL

## Alternate Path Lookup Sequence #1

---

### CHGSPCSET PTHCHKSEQ (\*ALT1)

1. User Specific Path
2. User Generic\* Path
3. User /\*
4. User \*ALLFLR/\*ALL (WrkUsrObj entry)
5. Group/Supp Specific Path
6. Group/Supp Generic\* Path
7. Group/Supp /\*
8. Group/Supp \*ALLFLR/\*ALL (WrkUsrObj entry)

## Alternate Path Lookup Sequence #2

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### CHGSPCSET PTHCHKSEQ (\*ALT2)

1. User Specific Path
2. Group/Supp Specific Path
3. User Generic\* Path
4. Group/Supp Generic\* Path
5. User /\*
6. User \*ALLFLR/\*ALL
7. Group/Supp /\*
8. Group/Supp \*ALLFLR/\*ALL

## Alternate Path Lookup Sequence #3

---

### CHGSPCSET PTHCHKSEQ (\*ALT3)

1. User /\*
2. User \*ALLFLR/\*ALL
3. User Specific Path
4. User Generic\* Path
5. Group/Supp /\*
6. Group/Supp \*ALLFLR/\*ALL
7. Group/Supp Specific Path
8. Group/Supp Generic\* Path



# Special Considerations for Path Lookups (\*File and \*FTP Servers)

---

1. Exclusion Rules: Any matching Object Exclusion rule will STOP the lookup process regardless of above CHGSPCSET parameter settings. This is the current process and will remain.
2. **\*SHORT Path type is being deprecated as of this release.** \*SHORT path support will be removed in a future release of SafeNet/i. (see CHGSPCSET PATHL parameter)
3. Note: **The parameter LEGACYPATH is temporary in nature.** The ability to have QSYS.LIB entries in the PCACCLNG file (WrkUsrPth) is being **deprecated** in this release and will be removed in a future release of SafeNet/i. This parameter will also be removed in a future release of SafeNet/i.

If you currently have QSYS.LIB entries in WrkUsrPth, you should plan on moving required entries into WrkUsrObj. (Standard Object Control).

Having this option set to \*YES will cause the Path lookup sequence to continue checking the WrkUsrPth entries for any QSYS.LIB request.

Having this option set to \*NO, will cause all QSYS.LIB paths to be treated as normal native DB requests and all object authority searches will be done exclusively against the WrkUsrObj entries.

\*NO will be the Default for new SafeNet/installations.

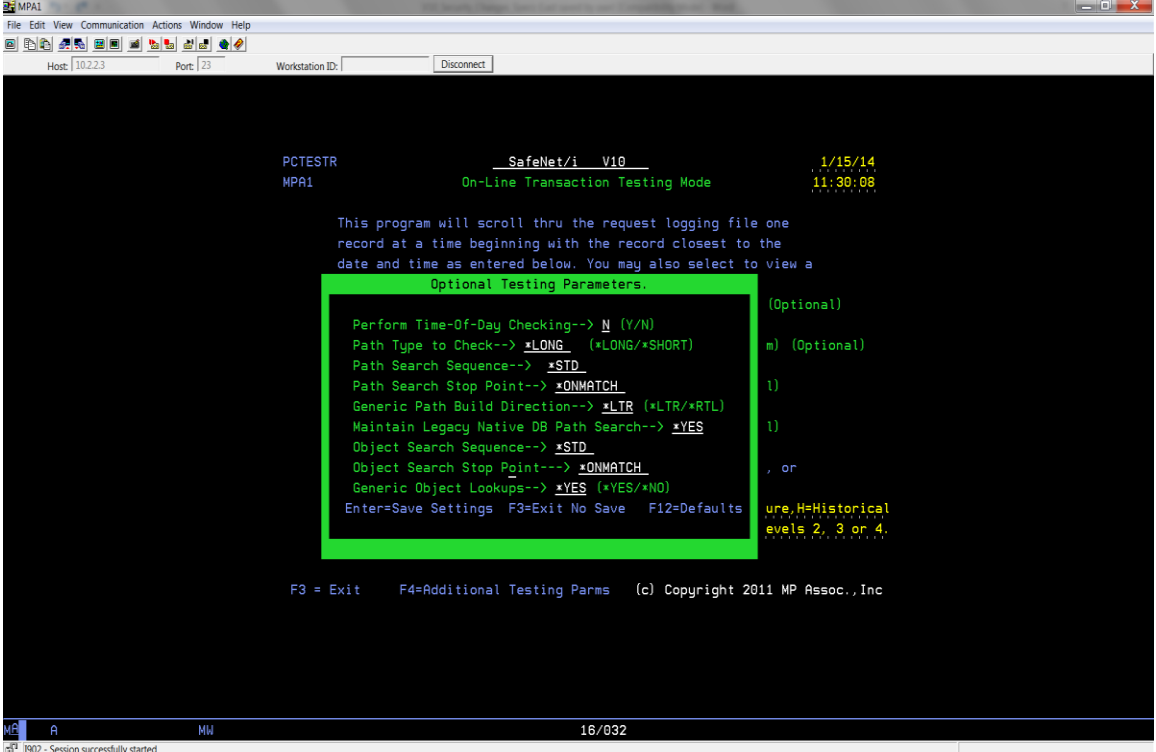
\*YES is the default for upgrading customers.

# Transaction Testing and Reporting

All the parameter options and sequence changes discussed in this document have been provided as “runtime” options for the following SafeNet/i functions:

1. PCTESTR – On-Line Transaction Testing and Review (Use F4 to set new testing parameters)
2. PRTSECRPT – Security Audit Transaction Report Testing and Review (see new PRTSECRPT command parameters)

PCTESTR testing parameters are accessible from the selection screen using F4.



The screenshot shows a terminal window titled 'MPA1' with a menu bar (File, Edit, View, Communication, Actions, Window, Help) and a toolbar. The main display area shows the following text:

```
PCTESTR                               SafeNet/i  V10                               1/15/14
MPA1                                   On-Line Transaction Testing Mode          11:30:08

This program will scroll thru the request logging file one
record at a time beginning with the record closest to the
date and time as entered below. You may also select to view a

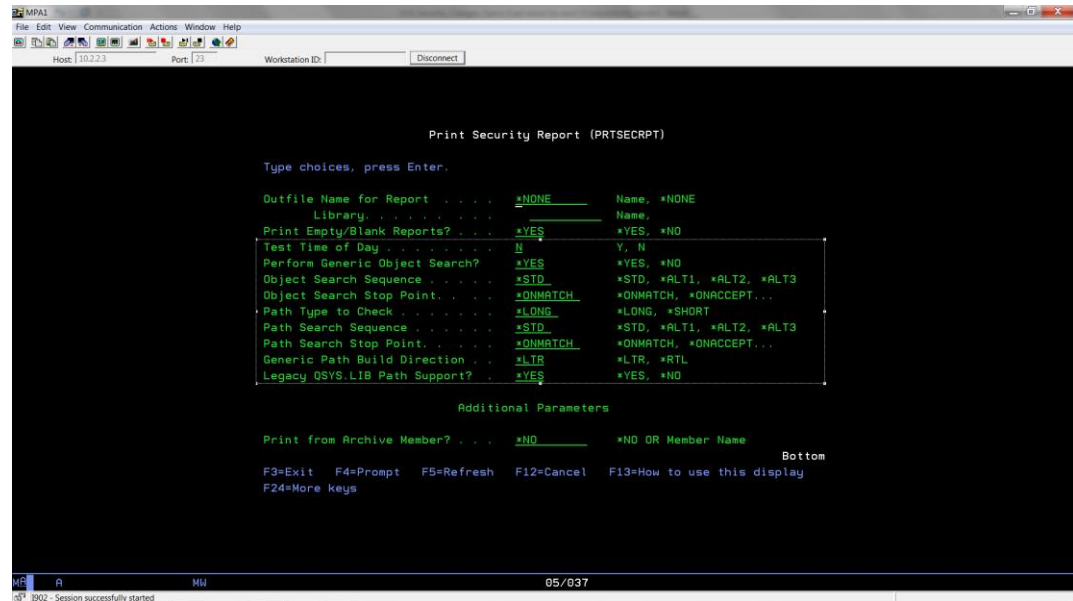
Optional Testing Parameters.

Perform Time-Of-Day Checking-->  N (Y/N)                               (Optional)
Path Type to Check-->  *LONG_ (*LONG/*SHORT)                          m) (Optional)
Path Search Sequence-->  *STD_
Path Search Stop Point-->  *ONMATCH_                                  l)
Generic Path Build Direction-->  *LTR (*LTR/*RTL)
Maintain Legacy Native DB Path Search-->  *YES                        l)
Object Search Sequence-->  *STD_
Object Search Stop Point-->  *ONMATCH_                                , or
Generic Object Lookups-->  *YES (*YES/*NO)
Enter=Save Settings  F3=Exit No Save  F12=Defaults  ure,H=Historical
                                                    evels 2, 3 on 4.

F3 = Exit  F4=Additional Testing ParmS  (c) Copyright 2011 MP Assoc., Inc
```

At the bottom of the terminal window, there is a status bar showing 'ME A MW 16/032' and a message '1902 - Session successfully started'.

PRTSECRPT command testing parameters are available if you select Future or Current for Security Level to Check parameter(LEVL) and scroll to second page of command parameters.



## Alternate Archive Library and Usage Reporting

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You can now specify the library to use for Archiving the transaction log file. (TRAPOD). You can also now specify what archive file and member to use when running any of the SafeNet usage reports. (PRTxxxUSG).

1. Use the CHGARCLIB command to specify the default library to use when running the log file purge. (STRPRGARC)
2. The commands for all the usage reports now support an archive file and member name. You can run the reports from any member of the TRAPARCW file on your system from any library. See commands PRTxxxUSG parameter ARCMBR

## Alternate Journal Library

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You can now specify the library to use for storing SafeNet Journals.

1. Use the CHGJRNLIB command to specify the default library to use with the SafeNet/i Journal feature.  
*Note:* The default under V9 of SafeNet was PCSECDTA. This default value was changed for V10 to PCSECJRN. If you currently are using V9 of SafeNet and wish to continue using PCSECDTA for the journals, please issue the following command PRIOR to upgrading to V10:

```
CRTDTAARA DTAARA(PCSECDTA/SNJRNLIB) TYPE(*CHAR) LEN(10) VALUE('PCSECDTA')
```

## Enhanced Profile Swapping

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SafeNet/i now allows you to select different SwapTo profiles for a user based on the Server function they are accessing the IBMi system by.(What Exit point they are accessing).

By defining a User and ServerId based SwapTo profile, you can attain a more granular security approach when utilizing the Swap Profile function of SafeNet/i. See the WRKSWPRF command for more information.

## Initial Default Command Values

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### CHGSPCSET →

OBJCHKSEQ(\*STD)

OBJCHKSTOP(\*ONMATCH)

GENCHK(\*YES)

PTHCHKSEQ(\*STD)

PTHCHKSTOP(\*ONMATCH)

Existing installations: LEGACYPATH(\*YES) or carry over existing setting.

New installs: LEGACYPATH(\*NO)

Note: Existing installations with this level ptf or higher will have all settings carried over to newest version.

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### CHGARCLIB →

ARCLIB(PCSECDTA)

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### CHGJRNLIB →

JRNLIB(PCSECJRN)