

Are Your Auditors and NIST Security Configuration Controls Driving You Crazy? Configuration Manager Implementation

Session 16910

Monday, March 2, 2015: 11:15 AM - 12:15 PM



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Agenda

- Introduction
- Audit Requirements
- DISA STIGs and NIST
- VCM Usage at US Bank
- Systems Programmer Point of View
- Install and Configuration
- Using VCM



2014 3rd Quarter Stats:

- Ranking U.S. Bank is 5th largest
- U.S. commercial bank
- Period-end assets \$391 billion
- Period-end deposits \$273 billion
- Period-end loans \$246 billion
- Customers 17.9 million
- Bank branches 3,177
- ATMs 5,026

Hardware Configuration

- 6 Sysplexes Running z/OS V2.1
- 3 Z196's, 1 Z13, and
- 3 ZEC12's
- 27 Ipars, 20 of them are RACF and 7 are ACF2

RACF DB Stats

- Each RACF DB is 2K Cyls
- 83,713 USER profiles
- 29,794 DATASET profiles
- 35,406 GENERAL RESOURCE profile
- 6,845,719 USER-GROUP CONNECT profile

Why VCM for US Bank?



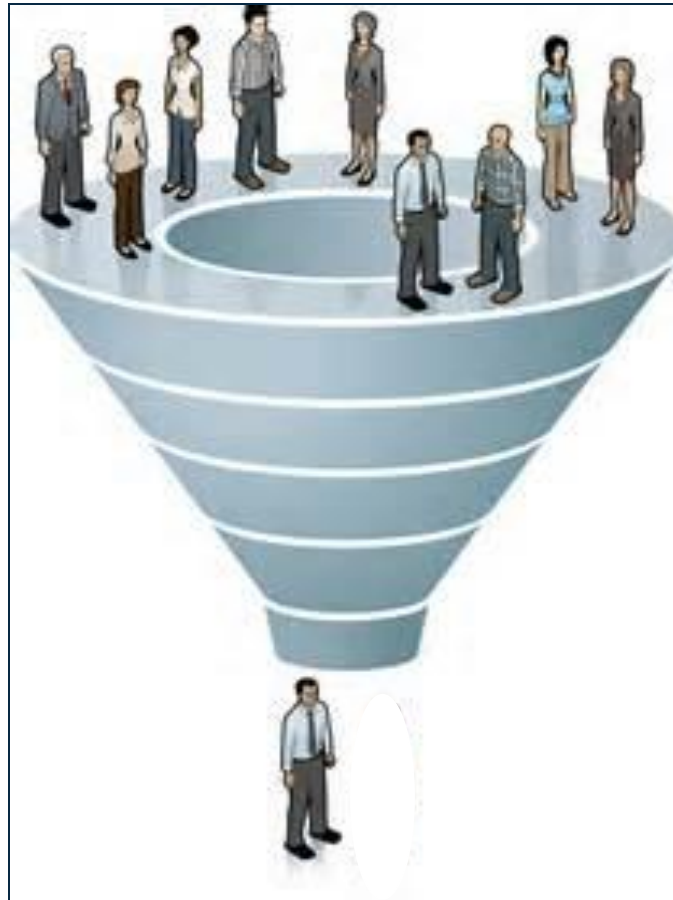
- Multiple Audits from different groups - internal & external
- Many auditors with different knowledge/skill sets
- Goal: Produce one report for distribution to each auditing group

The reports from VCM help us show compliance for internal and external audits. Sox, PCI, OCC Requirements,

.....

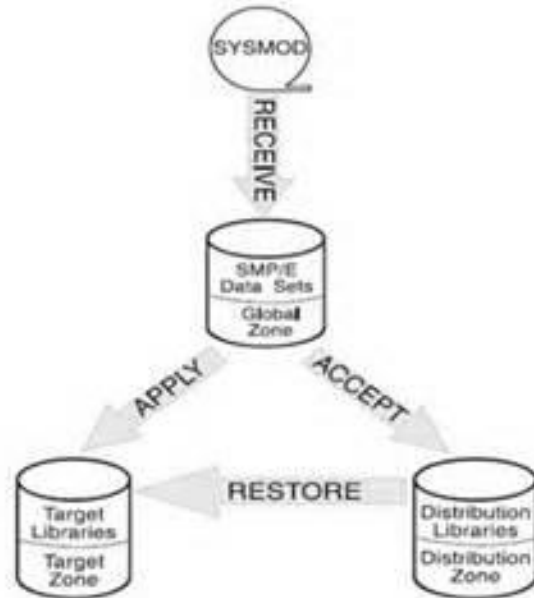
VCM Helps Reduce Time Impacts to Staff

Before VCM, information for an audit had to be requested from several IT staff members.



With VCM, audit information requests are quickly handled by one person.

VCM Install



- At US Bank VCM is smp/e installed as part of our Vanguard product set
- Usage requires a Vanguard product code (datecode).

VCM Opening panel

```
Help
-----
2.1                                VANGUARD GRC
Command ==> _____ Scroll ==> PAGE

                                Configuration Manager

Select (S) one of the following baselines:

DISA STIG Baselines                Enterprise Baselines
- DISA STIG 6.21                    - DB2 Security Checks
- DISA STIG 6.20                    - PCI DSS 3.0
- DISA STIG 6.19
- DISA STIG 6.18
- DISA STIG 6.17
- DISA STIG 6.16
- DISA STIG 6.15
- DISA STIG 6.14

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```

Pick your STIG or DB2 or PCI DSS 3.0

VCM Supported Compliance Checks

- VCM Currently Supports
 - DISA STIG levels 6.14 to Current 6.21 (completely)
 - Unlike other vendors, Vanguard Configuration Manager supports every single check in the DISA STIGs at the current level and back over 2 years.
 - DB2 Checks – VCM has built in DB2 checks that are posted on the NIST NVD.
 - PCI DSS 3.0 – VCM supports the checking of PCI DSS 3.0 requirements on the mainframe.
- VCM Future Support (Later 2015)
 - Health Checker Exploitation
 - 300+ additional Vanguard Checks

Input and Results Dataset Name Panel

```
(A) TN3270_DRzws - PASSPORT
File Edit View Communication Options Transfer Macro Help

Vanguard Configuration Manager

Command ==> _____
DISA STIG 6.19
Enter datasets for Configuration Baseline.
New datasets will be created.

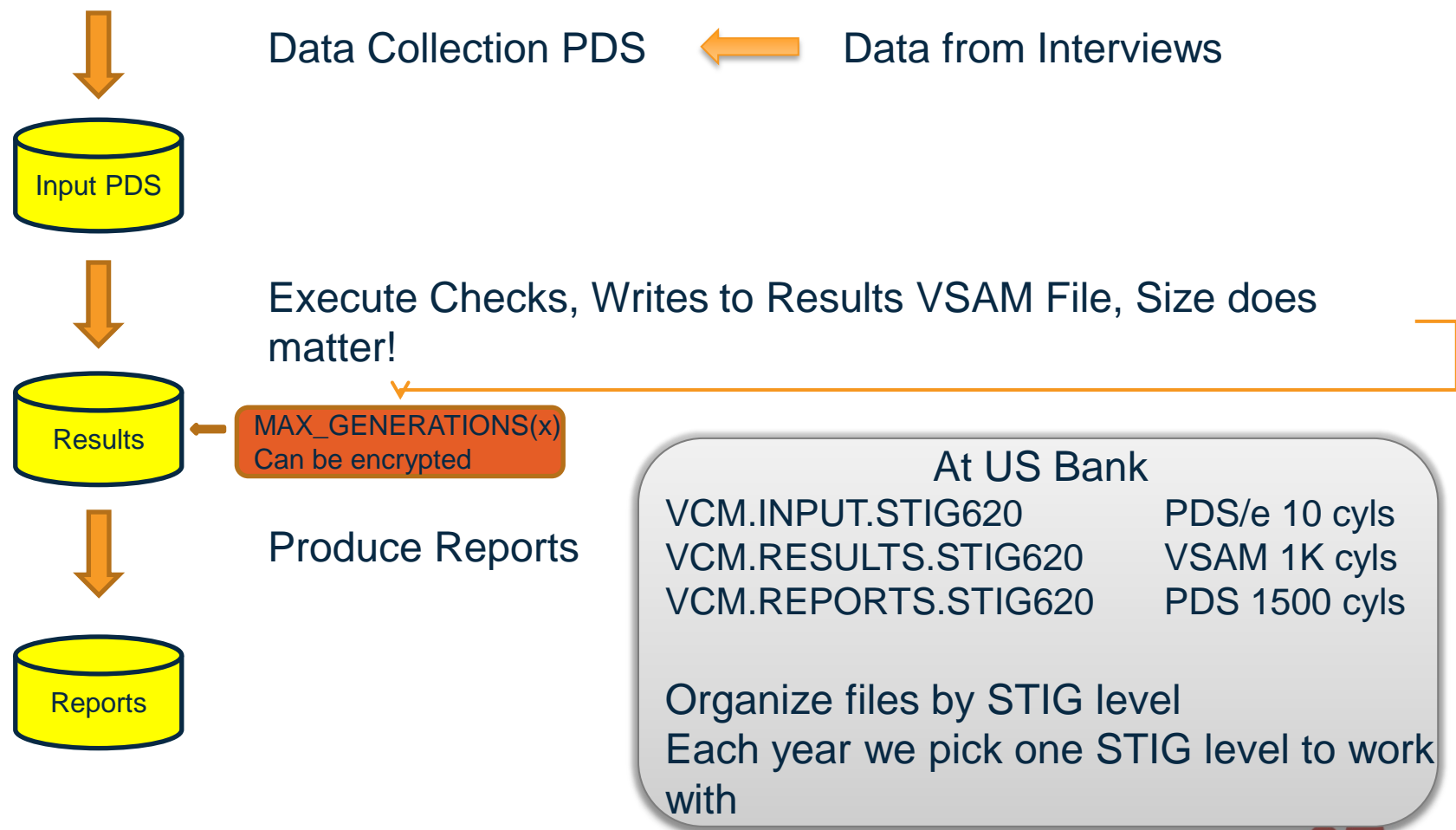
Input data (PDS)          Message
_____                Dataset name is required.

Results (VSAM)           Message
_____                Dataset name is required.

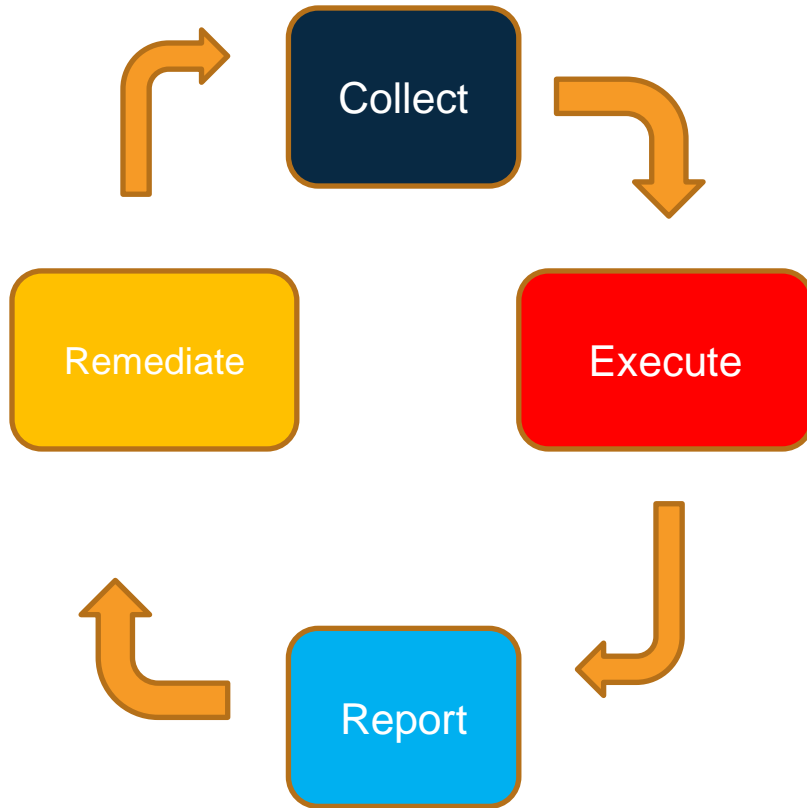
Press Enter to continue.
Press F3 (END) to return to previous panel.

*VCM PDSE
Te SSL          ↑          R 11 C 30  TNCO0025
```

VCM Required Data Files



The Flow



- Common Configuration
- Interview Process
- Execute the checks
- Report and Remediate
- Audit Deliverables
- Repeat

VCM Main Panel



Batch Reports Jobcard Display Help

Vanguard Configuration Manager

Row 1 to 16 of 48

Command ==>

Scroll ==> PAGE

DISA STIG 6.20

Line commands: S - Select category R - Summary report C - Comp Cntl report
X - Exclude V - CSV report

Cmd	Prefix	Category	Description	
___	ACOM	Common	Configuration	
___	AAMV	z/OS Operating System	Environment	
___	ACP	Security Server (RACF)	for z/OS system data	
___	IFTP	File Transfer Protocol		
___	ISLG	z/OS UNIX SYSLOG		
___	ITCP	TCP/IP Communications	Server	
___	ITNT	TN3270 Telnet Server		
___	IUTN	z/OS UNIX Telnet Server		Excluded
___	RACF	Security Server (RACF)	Settings	
___	ZADT	CA Auditor		Excluded
___	ZAID	Compuware Abend-AID		Excluded
___	ZCA1	CA-1 (Tape Management)	System	
___	ZCCS	CA Common Services		
___	ZCIC	CICS Transaction Server		
___	ZCLS	CL/Supersession		Excluded
___	ZCSL	Catalog Solutions		Excluded

00.3

R 12 C 28 TNC2HI23

STIG 6.20 has 48 Categories

Complete your session evaluations online at www.SHARE.org/Seattle-Eval



Collect

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run
File Edit View Communication Options Transfer Macro Help

  Display Help
  Vanguard Configuration Manager      Row 1 to 17 of 66
  Command ==> _____ Scroll ==> CSR
  DISA STIG 6.20 ACOM Common Configuration
  Line commands: C - Collect/Review

  - Collected/Reviewed --
  Cmd Id      Description      Stat By      Date
  ___ ACOMPROD Optional Products Installed      SYS28      2014/11/14
  ___ ACOM0001 IDMS CV Names
  ___ ACOM0004 Classified Systems      WTBOURG     2015/01/12
  ___ ACOM0005 Telnet Configuration Files      WTBOURG     2015/01/12
  ___ ACOM0006 ICSF Started Task Names      WTBOURG     2015/01/12
  ___ ACOM0007 WebSphere MQSeries SSIDs      WTBOURG     2015/01/12
  ___ ACOM0008 All Started Tasks      WTBOURG     2015/01/12
  ___ ACOM0009 TADZ Started Task Names
  ___ ACOM0010 WebSphere Started Task Userids
  ___ ACOM0011 Emergency Userids      WTBOURG     2015/01/12
  ___ ACOM0012 SDSF Application Development Users      WTBOURG     2015/01/12
  ___ ACOM0013 Operations Personnel Userids      WTBOURG     2015/01/12
  ___ ACOM0014 List of Systems Programmers      WTBOURG     2015/01/12
  ___ ACOM0015 Storage Management Userids      WTBOURG     2015/01/12
  ___ ACOM0016 PROFILE.TCPIP Datasets      WTBOURG     2015/01/12
  ___ ACOM0017 Trusted Started Tasks      WTBOURG     2015/01/12
  ___ ACOM0018 System Special Userids      WTBOURG     2015/01/12

Tel SSL          :01.2          R 11 C 28 TNC27C11
```

Common Config expedites the interview process by providing a central data repository from which the checks can share information.

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Common Configuration

```
[A] / POD11a3270.zwz / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run
File Edit View Communication Options Transfer Macro Help

Help
-----
Vanguard Configuration Manager      Row 1 to 1 of 1
Command ==> _____ Scroll ==> CSR

DISA STIG 6.20 ACOMPROD Optional Products Installed
Press F3 (END) to accept. Press F6 (CANCEL) to cancel.

Information is required for this request.

Answer . . Yes (Yes/No)

Interview Question:
Is JES2 installed on this system?
***** Bottom of data *****

T8 SSL          :00.1          R 12 C 39  TNC27C11
```

```
[A] / POD11a3270.zwz / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run
File Edit View Communication Options Transfer Macro Help

Help
-----
Vanguard Configuration Manager      Row 1 to 1 of 1
Command ==> _____ Scroll ==> CSR

DISA STIG 6.20 ACOMPROD Optional Products Installed
Press F3 (END) to accept. Press F6 (CANCEL) to cancel.

Information is required for this request.

Answer . . No (Yes/No)

Interview Question:
Is WebSphere installed on this system?
***** Bottom of data *****

T8 SSL          :00.1          R 12 C 39  TNC27C11
```

ACOMPROD Interview questions

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Common Configuration

```
(A) TN3270_DR,zws - PASSPORT
File Edit View Communication Options Transfer Macro Help

Commands Help
-----
Vanguard Configuration Manager          Row 1 to 3 of 3
Command ==> _____ Scroll ==> CSR

DISA STIG 6.16 ACOM0014 Common Configuration
Press F3 (END) to accept. Press F6 (CANCEL) to cancel.

If request is not applicable, leave input field(s) blank.
Data Collection Only. See help for list of checks that use this info.

User Id or Mask . . _____
Group Id or Mask _____

Line commands: D - Delete entry    V - View group    X - Expand group

Cmd List of Systems Programmers:
____ RTECOP03 (Group)
____ RTECOP06 (Group)
____ X00NMVS  GREG BLINDAUE SUPER
***** Bottom of data *****

*STGPINO
Tel SSL                               R 12 C 50  TNCO0025
```

ACOM0014 List of System Programmers

List of Systems Programmer userids Used in: over 100 checks throughout Configuration Manager

The list of sysprogs can be modified for each check that references ACOM0014

DISA STIG 6.16 ACP Security Server (RACF) for z/OS System Data

```
(A) TN3270_DRzws - PASSPORT
File Edit View Communication Options Transfer Macro Help

Commands Help
-----
Vanguard Configuration Manager      Row 1 to 13 of 34
Command ==> _____ Scroll ==> CSR

DISA STIG 6.16 ACP Security Server (RACF) for z/OS system data

Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review   V - View Result   S - Select Results
                E - Execute         R - Report       N - Comp Controls

Cmd Id      Valid  Description
---  ---  ---
___ ACPO0010 V-108  SYS1.PARMLIB
___ ACPO0020 V-109  SYS1.LINKLIB
___ ACPO0030 V-110  SYS1.SVCLIB
___ ACPO0040 V-111  SYS1.IMAGELIB
___ ACPO0050 V-112  SYS1.LPALIB
___ ACPO0060 V-113  APF-Authorized Libraries
___ ACPO0070 V-114  Link Pack Area (LPA) Libraries
___ ACPO0080 V-115  SYS1.NUCLEUS
___ ACPO0100 V-116  Libraries With PPT Modules
___ ACPO0110 V-117  LINKLIST Libraries
___ ACPO0120 V-118  ACP Files and Databases
___ ACPO0130 V-119  Master Catalog
___ ACPO0135 V-4850 User Catalogs

*STGPSVU
Te SSL                                R 4 C 44 TNC00025
```

List of Sysprogs used here

```

(A) TN3270_DRzws - PASSPORT
File Edit View Communication Options Transfer Macro Help

  Commands Help
  _____
                                Vanguard Configuration Manager      Row 1 to 9 of 53
  Command ==> _____      Scroll ==> CSR

  DISA STIG 6.16 ACP00060 Security Server (RACF) for z/OS system data
  Press F3 (END) to accept. Press F6 (CANCEL) to cancel.

  If request is not applicable, leave input field(s) blank.
  Enter the list of Systems Programmer userids who can have UPDATE or higher
  access to each APF authorized library.
  User Id or Mask . . _____
  Group Id or Mask

  Line commands: D -
  _____
  List of Systems Programmer userids who can have UPDATE
  or higher access to each APF authorized library.

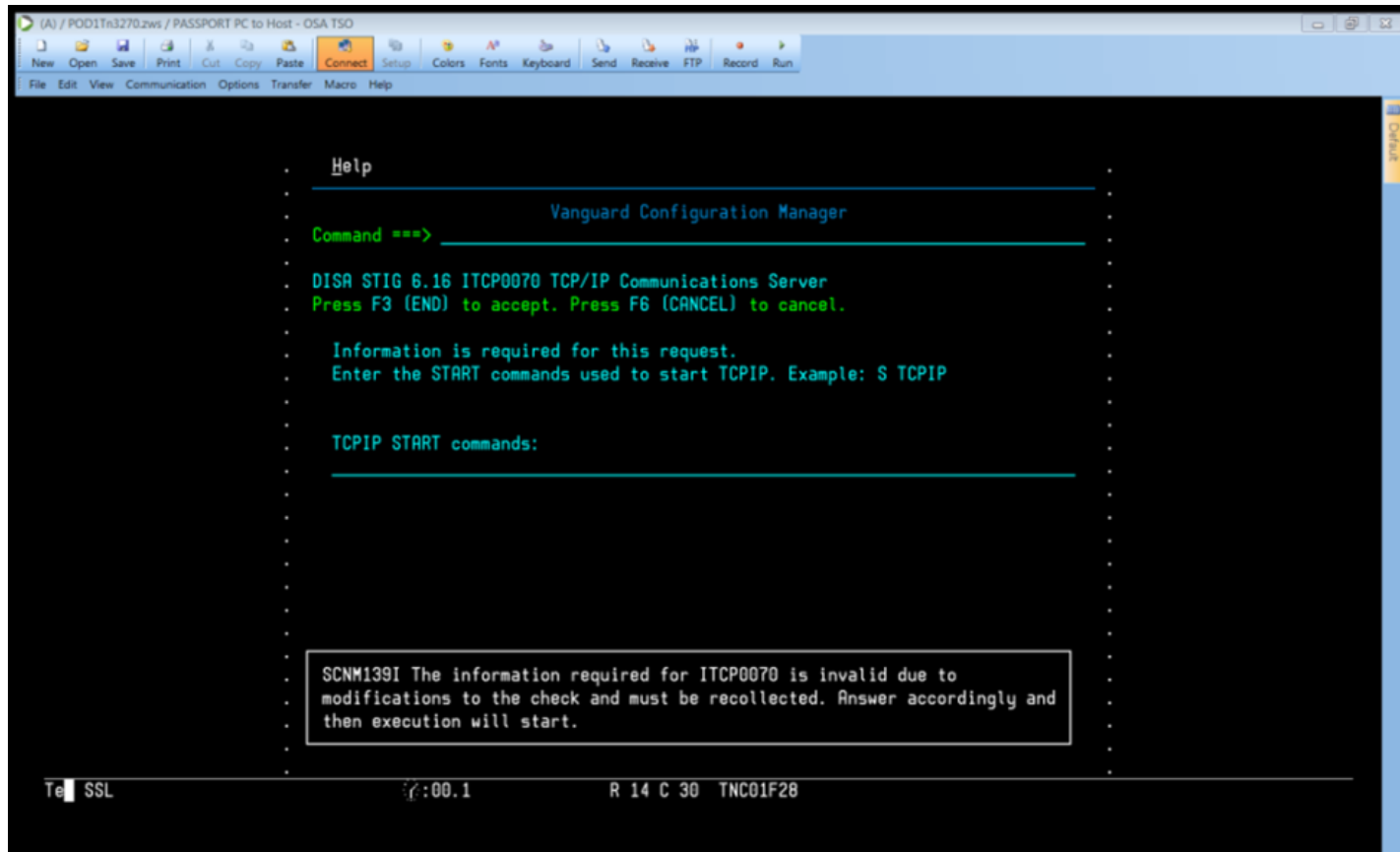
  Cmd List of Systems Programmers:
  _____
  $$STCPDS (Group)
  _____
  C0013011 (Group)
  _____
  C0013090 (Group)
  _____
  C0013093 (Group)
  _____
  C0013094 (Group)
  _____
  C0013095 (Group)
  _____
  C0013096 (Group)
  _____
  C0013097 (Group)
  _____
  C0081091 (Group)

  *STGPINO
  Te SSL
  R 12 C 50 TNC00025
  
```

Not all APF LIBs are administered by the original list of sysprogs as defined in ACOM0014, for specific checks you may need to add to the sysprog List

Collection - Recollect

VCM will let you know if data for a specific check needs to be recollected.



Collection Hints

- Must have management support
- Collection questions can be printed via batch report
- You can set when data must be recollected
- `DAYS_VALID` specifies the number of days the collected data is valid before requiring a review. The range is 0 - 365, inclusive
- A value of 0 specifies that the collected data never expires, the default value is 30

Auto Data Collection

```

Display Help
-----
Vanguard Configuration Manager          Row 1 to 13 of 21
Command ==>                               Scroll ==> PAGE
DISA STIG 6.20 AAMV z/OS Operating System Environment
Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review  V - View Result      S - Select Results
                E - Execute         R - Report         N - Comp Controls
                X - Exclude

Cmd Id  Vuid  Description
-----  ---  -
AAMV0010 V-82  Software Change Management Process
AAMV0012 V-7545 Operating System Software Releases
AAMV0014 V-7546 Operating System Software Support
AAMV0016 V-7547 DoD-CERT/VCTS Mailing List
AAMV0018 V-15209 Security Related Software Patches
AAMV0030 V-83  APF Libraries Parameter
AAMV0040 V-84  APF Libraries
AAMV0050 V-85  APF Library Duplicate Utilities
AAMV0060 V-86  APF Library AC=1 Modules
AAMV0160 V-90  Invalid Program Properties Table Entries
AAMV0325 V-5605 Link Pack Area (LPA) Libraries
AAMV0350 V-100 Linklist Libraries
AAMV0370 V-101 SMF Data Collection Options

:00.3          R 15 C 28 TNC2HI23

Display Help
-----
Vanguard Configuration Manager          Row 1 to 13 of 21
Command ==>                               Scroll ==> PAGE
DISA STIG 6.20 AAMV z/OS Operating System Environment
Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review  V - View Result      S - Select Results
                E - Execute         R - Report         N - Comp Controls
                X - Exclude

Cmd Id  Stat  Collected/Reviewed  Date  Comp Controls
-----  ---  -
AAMV0010 Cur  WTBOURG  2015/02/20  No
AAMV0012 Cur  WTBOURG  2015/02/20  No
AAMV0014 Cur  WTBOURG  2015/02/20  No
AAMV0016 Cur  WTBOURG  2015/02/20  No
AAMV0018 Cur  WTBOURG  2015/02/20  No
AAMV0030 ---  ---  ---  No
AAMV0040 ---  ---  ---  No
AAMV0050 ---  ---  ---  No
AAMV0060 Cur  WTBOURG  2015/02/20  No
AAMV0160 ---  ---  ---  No
AAMV0325 ---  ---  ---  No
AAMV0350 ---  ---  ---  No
AAMV0370 Cur  WTBOURG  2015/02/20  No

:00.1          R 27 C 28 TNC2HI23
    
```

Not all checks require data collection, VCM will automatically gather the required data when the check is executed.

Collection is not required for checks that have --- in the Stat column.

PF11 takes you to the second screen.

Interactive Check Execution

```

Vanguard Configuration Manager      Row 1 to 13 of 21
Command ==>                          Scroll ==> CSR
Progress
Category : ARMV      z/OS Operating System Environment
ID       : ARMV0030  APF Libraries Parameter
Status   : No Findings
Press Enter to continue.

ARMV0012 V-7545  Operating System Software Releases
ARMV0014 V-7546  Operating System Software Support
ARMV0016 V-7547  DoD-CERT/VCTS Mailing List
ARMV0018 V-15209 Security Related Software Patches
E ARMV0030 V-83   APF Libraries Parameter
  ARMV0040 V-84   APF Libraries
  ARMV0050 V-85   APF Library Duplicate Utilities
  ARMV0060 V-86   APF Library AC=1 Modules
  ARMV100 V-90    Invalid Program Properties Table Entries
  ARMV0325 V-5805 Link Pack Area (LPA) Libraries
  ARMV0350 V-100  Linklist Libraries
  ARMV0370 V-101  SMP Data Collection Options

*STGPPRO
Te SSL                               R 6 C 29  TNC00025
Connect
  
```



E to execute check

```

Vanguard Configuration Manager      Row 1 to 13 of 34
Command ==>                          Scroll ==> CSR
Progress
Category : ACP       Security Server (RACF) for z/OS system data
ID       : ACP00040  SYSI.IMAGELIB
Status   : Findings
Press Enter to continue.

ACP00020 II Never run
ACP00030 II Never run
E ACP00040 II Findings 02/11/2014 28 2 28
  ACP00050 II Findings 02/11/2014 56 30 26
  ACP00060 I Never run
  ACP00070 II Never run
  ACP00080 II Never run
  ACP00100 II Never run
  ACP00110 II Never run
  ACP00120 II Never run
  ACP00130 II Never run
  ACP00135 II Never run

*STGPPRO
Te SSL                               R 6 C 29  TNC00025
Connect
  
```



Execution Counts

```
(A) TN3270_DR.zws - PASSPORT
File Edit View Communication Options Transfer Macro Help

Commands Help
-----
Vanguard Configuration Manager      Row 16 to 30 of 34
Command ==> _____ Scroll ==> CSR
DISA STIG 6.20 ACP Security Server (RACF) for z/OS system data

Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review  V - View Result  S - Select Results
                E - Execute         R - Report      N - Comp Controls
                X - Exclude

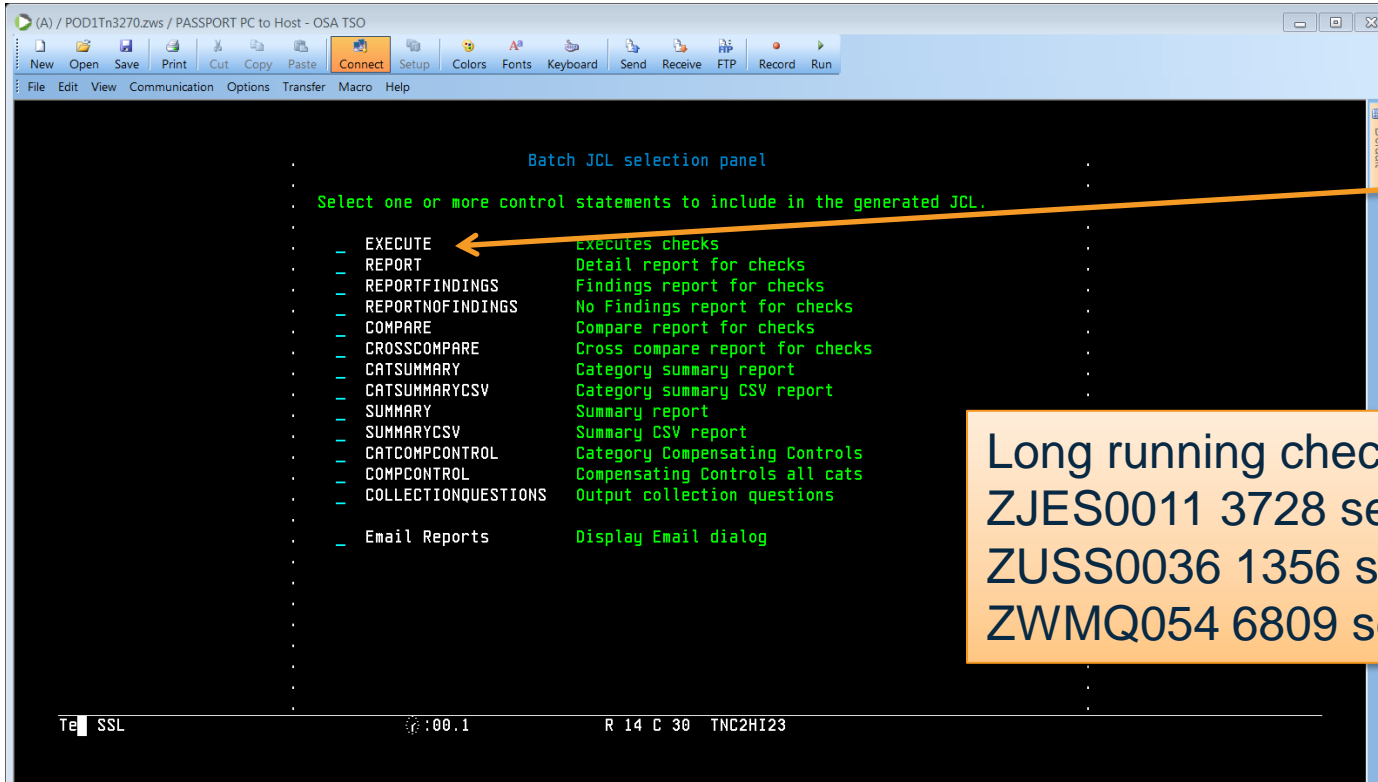
----- Execution Results ----- Execution Counts -----
Cmd Id   Cat Status   Date       Checks  Findings  No Findings
-----
ACPO0170 II No Findings 05/07/2014 24      0         24
ACPO0180 II No Findings 05/21/2014 561     0         561
ACPO0190 II No Findings 05/21/2014 48      0         48
ACPO0200 II No Findings 05/21/2014 132     0         132
ACPO0220 II No Findings 05/07/2014 21      0         21
ACPO0230 II No Findings 05/07/2014 522     0         522
ACPO0240 II No Findings 05/07/2014 44      0         44
ACPO0250 II Findings   06/03/2014 2762    7         2755
ACPO0260 II No Findings 05/14/2014 456     0         456
ACPO0270 I  No Findings 05/14/2014 373     0         373
ACPO0282 II Findings   06/03/2014 10327   145      10182
ACPO0291 II No Findings 05/07/2014 0        0         0
ACPO0292 II No Findings 05/07/2014 1        0         1
ACPO0293 II No Findings 05/07/2014 0        0         0
ACPO0294 II No Findings 05/07/2014 146     0         146

Te SSL R 4 C 41 TNC00025
Connected | _____ | CAP NUM 4.41 TNC00025
```

We like zero's

Non-zero's more Work to do

Batch Execution



```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run
File Edit View Communication Options Transfer Macro Help

Batch JCL selection panel
Select one or more control statements to include in the generated JCL.

- EXECUTE          Executes checks
- REPORT           Detail report for checks
- REPORTFINDINGS  Findings report for checks
- REPORTNOFINDINGS No Findings report for checks
- COMPARE          Compare report for checks
- CROSSCOMPARE    Cross compare report for checks
- CATSUMMARY       Category summary report
- CATSUMMARYCSV   Category summary CSV report
- SUMMARY         Summary report
- SUMMARYCSV      Summary CSV report
- CATCOMPCONTROL  Category Compensating Controls
- COMPCONTROL     Compensating Controls all cats
- COLLECTIONQUESTIONS Output collection questions
- Email Reports   Display Email dialog

Te SSL          :00.1          R 14 C 30  TNC2HI23
```

Generates JCL

Long running checks at US Bank:
ZJES0011 3728 seconds
ZUSS0036 1356 seconds
ZWMQ054 6809 seconds

VCM generates the JCL for executing all of the checks. Edit as required.

HINT:

```
//SYSTSIN DD *
PROFILE VARSTORAGE(HIGH) <<< Help prevent some 878 abends
ISPSTART CMD(%VCMBATCH) NEWAPPL(VCM)
```


Vanguard Options

- Product settings VANOPTS(VCMOPT00)
- MAX_GENERATIONS(3)
 - Can be 1 to 20
- DETAIL_REPORT(SYS2.VCM.REPORTS.STIG616)

MAX_GENERATIONS specifies the maximum number of result generations to be saved for a check.

Value can be from 1 to 20

Will impact size of the results file

Reporting, Interactive

```
Display Help
Vanguard Configuration Manager Row 1 to 13 of 35
Command ==> Scroll ==> PAGE

DISA STIG 6.20 ACP Security Server (RACF) for z/OS system data

Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review V - View Result S - Select Results
                E - Execute R - Report N - Comp Controls
                X - Exclude

Cmd Id Volid Description
___ ACP00010 V-108 SYS1.PARMLIB
___ ACP00020 V-109 SYS1.LINKLIB
___ ACP00030 V-110 SYS1.SVCLIB
___ ACP00040 V-111 SYS1.IMAGELIB
___ ACP00050 V-112 SYS1.LPALIB
___ ACP00060 V-113 APF-Authorized Libraries
___ ACP00070 V-114 Link Pack Area (LPA) Libraries
___ ACP00080 V-115 SYS1.NUCLEUS
___ ACP00100 V-116 Libraries With PPT Modules
___ ACP00110 V-117 LINKLIST Libraries
___ ACP00120 V-118 ACP Files and Databases
___ ACP00130 V-119 Master Catalog
___ ACP00135 V-4850 User Catalogs

:00.1 R 15 C 28 TNC2HI23
```

V to View a report with filtering switches

R to generate a report that can be searched & emailed

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

View the Report

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSD
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

Vanguard Configuration Manager Results
Command ==> _____ Scroll ==> CSR

DISA STIG 6.16 ACP00050 SYS1.LPALIB

Valid . . . . . : V-112
Category . . . . . : II
Collected/Reviewed by : WTBOURG On 2014/07/14 08:05
Executed by . . . . . : WTBOURG On 2014/02/11 11:59

Enter "/" to select message types to show
 / N 26 / F 30 / C 0 / E 0 - I 1 ← Total: 57

Msg ID Message Line 1 of 112
***** Start of Messages *****
ACP00050-24N The covering profile SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB is not in WARNING mode.
ACP00050-17N The covering profile of SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB has a UACC of NONE.
ACP00050-05N The covering profile SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB specifies AUDIT(FAILURES(READ)) as
required.
ACP00050-26F The covering profile SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB must specify an AUDIT SUCCESS access
level. All UPDATE and ALTER access must be logged.
ACP00050-22N ID(*) found in Standard access list of the covering profile SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB
with access READ. Access READ is allowed.
ACP00050-06F User CICSTEST via group C020309A found in Standard access list of the covering profile SYS1.LPALIB (G) in class
DATASET for resource SYS1.LPALIB with access ALTER. Only access READ or less is allowed.
ACP00050-06F User JMYOUNG via group TOSMV01 found in Standard access list of the covering profile SYS1.LPALIB (G) in class DATASET
-EC1PISV *STGSPMS
Tel SSL :00.1 R 2 C 15 TNC2JM93

Connected to: CAP NUM 2.15 TNC2JM93
```

Set switch to show msgs

No Info msgs will be displayed

N = Normal
F = Findings
C = Compensating Control

E = Errors
I = Informational

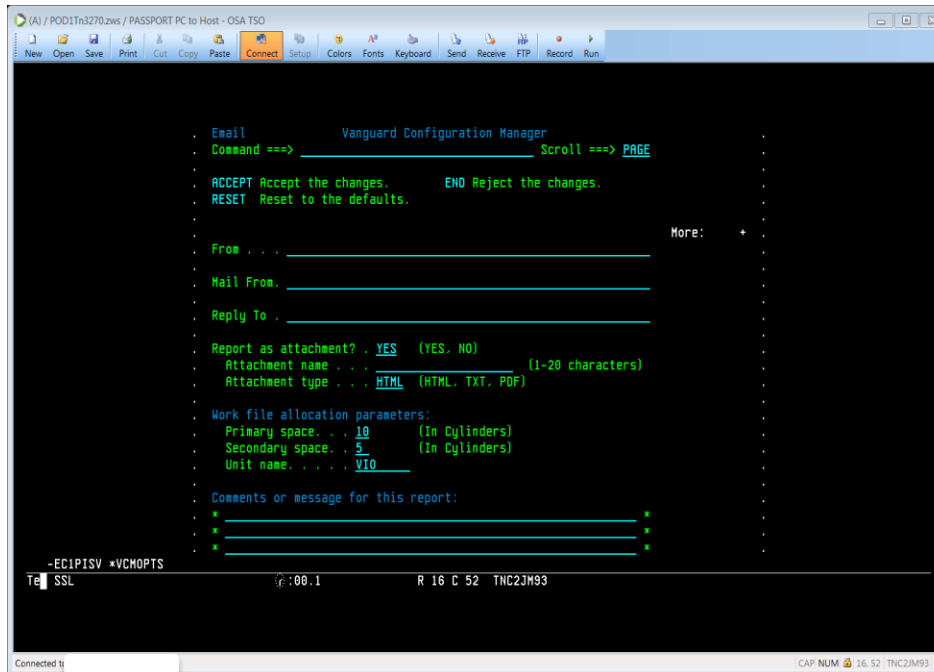
Generate a Report

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

Report: Detailed Check Report                               Columns 00001 00124
Command ==>                                               Scroll ==> CSR
Available Commands
EMAIL      Email Report          PRNT      Print Report
-----
***** Top of Data *****
000001 1Vanguard GRC - Configuration Manager (TM)          Detailed Check Report          Report Date: JUL 22, 2
000002 DISA STIG 6.16
000003 ACP Security Server (RACF) for z/OS system data
000004
000005 Check Title.: SYS1.LPALIB
000006 Check ID....: ACP00050
000007 Vulid.....: V-112
000008 Category...: II
000009 Executed by.: WTBOURG
000010 Executed on.: 02/11/2014 11:59
000011 Status.....: Findings
000012
000013                               Execution Counts
000014 -----
000015 Findings:      30      No Findings:    26      Errors:      0      Total tests:   56
000016 -----
000017 Check Messages:
000018 ID           Text
000019 -----
000020 ACP00050-24N   The covering profile SYS1.LPALIB (G) in class DATASET for resource SYS1.LPALIB is not in WARNING mode.
-EC1PISV *VCMEDE
Te| SSL          :00.1          R 2 C 15 TNC2JM93
Connected to [ ] CAP NUM 2, 15 TNC2JM93
```

VCM can also generate the JCL to create a report in batch.

Convert Report to PDF



VANOPTS(EMAILOPT)

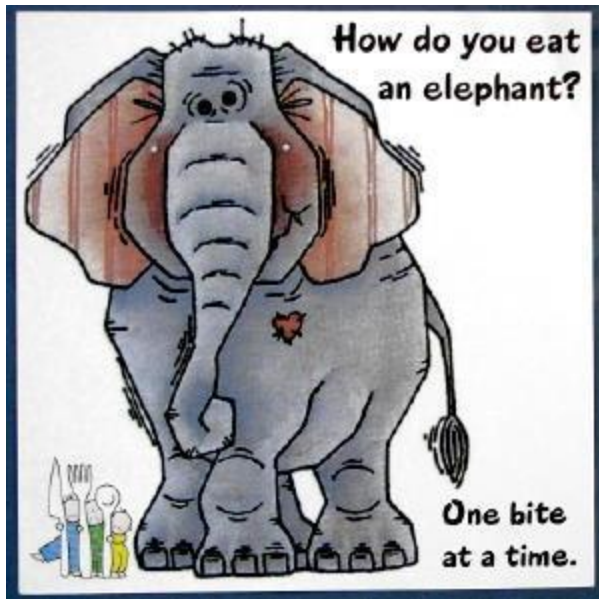
- * The following parameters are for PDF support
- * The TXT2PDF utility must be installed to use this feature.
- *
- * EMAILPDFLOAD(TXT2PDF load library)
- * EMAILPDFEXEC(TXT2PDF exec library)
- EMAILPDFLOAD(SYS7.XMITIP.LOAD)**
- EMAILPDFEXEC(SYS7.XMITIP.EXEC)**
- *
- * EMAILPDFCONFIG(<HLQ>.VANSAMP) Sequential or PDS dataset.
- * EMAILPDFCONFIGM(PDFCONFIG)
- EMAILPDFCONFIG is a PDS,
- EMAILPDFCONFIG(SYS1.VANGUARD.VANOPTS)**
- EMAILPDFCONFIGM(PDFCONFIG)**

TXT2PDF and XMITIP can be found at Lionel B Dyck's site:
<http://www.lbdsoftware.com/>

Three Choices

- Correct the reported finding
- Modify the collection data (if possible)
- Create a Compensating Control and/or a policy statement

Remediate



Tools to Help
VRA – UserID in access list Report
SMF data
RACF Authority ****

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Some reports can be vary large
ACP Security Server (RACF) for z/OS
system data
Check Title.: APF-Authorized Libraries
Check ID....: ACP00060

ACP0060 is about 300,000 lines.
Originally it had close to 100,000 findings.

View Report with only 'I' filter selected.
This will give a list of RACF profiles. Work
one profile at a time.

Use DISA STIG Addendum as guidance.

Track your RFCs!

```
(A) / POD1Tr3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

File Edit Edit_Settings Menu Utilities Compilers Test Help

VIEW      SYS2.VCM.REMEDIAT.RACF.CHANGES(ACP00060) - 01.99      Columns 00001 00124
Command ==> _____ Scroll ==> CSR
002734 =====
002735
002736 RFC request 6016031 06/12/2014 for ALL RACF lpars. Completed 06/16/2014
002737 VCM Audit Finding remediation Check Title.: APF-Authorized Libraries
002738 Check ID.....: ACP00060
002739
002740 This change is for all RACF lpars.
002741
002742 Please create the following Dataset profile:
002743 SYS2.VTAM.PROD.USERLIB.*
002744
002745 Change Audit settings so that:
002746 All UPDATE and ALTER access must be logged
002747
002748 Add the following Groups to the access list:
002749 *      READ
002750 RTECOP03      ALTER
002751 TOSMV01      ALTER
002752 TOSMV02      ALTER
002753 TOSMVS01     ALTER
002754 EMERSYS2     ALTER
***** Bottom of Data *****
Te  SSL          00.1          R 6 C 9 TNC29F21
```

What did you do when?
“What happened to my access?!?”

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

DISA STIG ADDENDUM

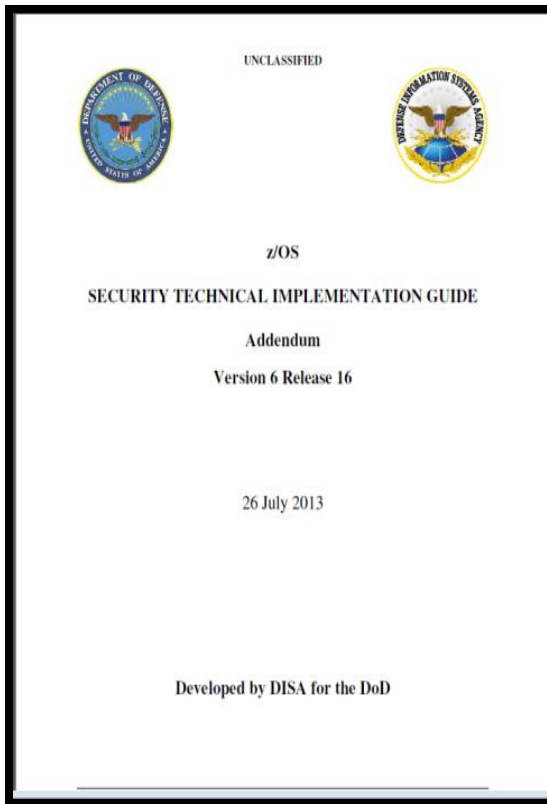


Table 15 - Controls on z/OS System Commands

Referenced by: ACP00282, ZIOA0040

CONTROLS ON z/OS SYSTEM COMMANDS				
Command/Keyword	Access	Resource-Name	Auth	Log
ACTIVATE	UPDATE	MVS.ACTIVATE	a o s t	Y
CANCEL device	UPDATE	MVS.CANCEL.DEV.device	a o s t	Y
CANCEL jobname (others)	UPDATE	MVS.CANCEL.JOB.jobname	a o s t	Y
CANCEL jobname (own jobs)	UPDATE	MVS.CANCEL.JOB.jobname	*	Y
The previous commands are for jobs that are not a started tasks.				
CANCEL jobname.id	UPDATE	MVS.CANCEL.STC.mbrname.id	a o s t	Y
CANCEL id	UPDATE	MVS.CANCEL.STC.mbrname.id	a o s t	Y
The previous command is for a started task for which an identifier is provided.				
CANCEL jobname	UPDATE	MVS.CANCEL.STC.mbrname.jobname	a o s t	Y
The previous command is for a started task for which an identifier was not provided. mbrname is the name of the member containing the JCL source.				
CANCEL jobname	UPDATE	MVS.CANCEL.ATX.jobname	a o s t	Y
The previous command is for APPC transaction programs.				
CANCEL U=userid	UPDATE	MVS.CANCEL.TSU.userid	a o s t	Y
CHNGDUMP	UPDATE	MVS.CHNGDUMP	a o s t	Y
CMDS DISPLAY	READ	MVS.CMDS.DISPLAY	*	Y
CMDS SHOW	READ	MVS.CMDS.SHOW	*	Y
CMDS REMOVE	CONTROL	MVS.CMDS.REMOVE	a o s t	Y
CMDS ABEND	CONTROL	MVS.CMDS.ABEND	a o s t	Y
CONFIG	CONTROL	MVS.CONFIG	a o s t	Y
CONTROL	READ	MVS.CONTROL.A	*	
Note: The access authority for all CONTROL commands except CONTROL M is normally READ, but the L=name (console name) operand can change the access level. When L=name specifies a console that is not full-capability and is not the issuing console, the access authority is UPDATE. When L=name specifies a console that is full-capability and is not the issuing console, the access authority is CONTROL.				
CONTROL C	READ	MVS.CONTROL.C	*	
Note: See the note for the CONTROL A command for exceptions.				
CONTROL D	READ	MVS.CONTROL.D	*	
Note: See the note for the CONTROL A command for exceptions.				
CONTROL E	READ	MVS.CONTROL.E	*	
Note: See the note for the CONTROL A command for exceptions.				
CONTROL M	CONTROL	MVS.CONTROL.M	a c o s t	
CONTROL N	READ	MVS.CONTROL.N	*	

Contains background, guidance, definitions, and so on...

Download from Vanguard

https://www.go2vanguard.com/download_checklist1.php

Download from DISA Website

http://iase.disa.mil/stigs/os/mainframe/z_os.html

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

DISA STIG ADDENDUM

Referenced by: ACP00282, ZIOA0040

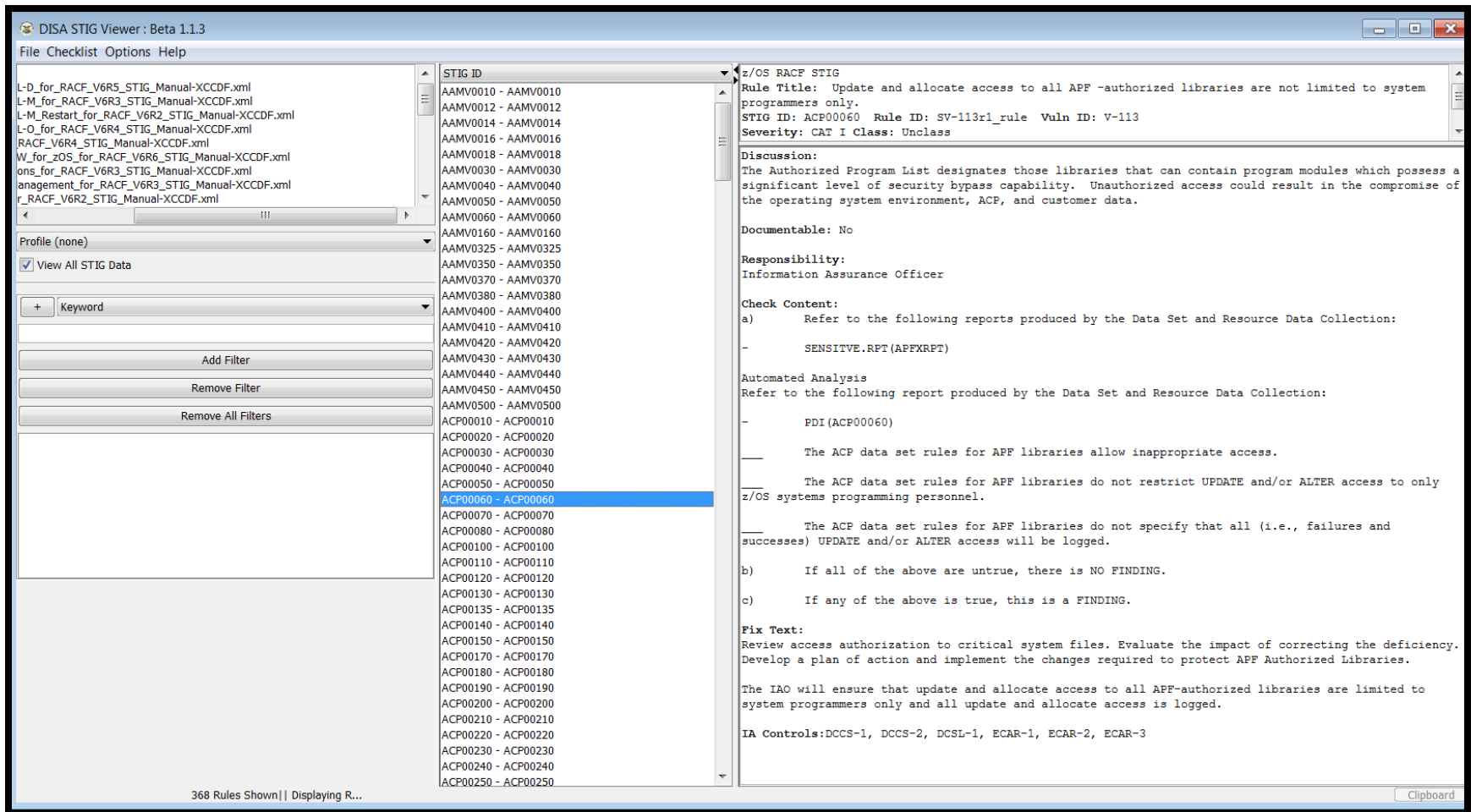
CONTROLS ON z/OS SYSTEM COMMANDS				
Command/Keyword	Access	Resource-Name	Auth	Log
ACTIVATE	UPDATE	MVS.ACTIVATE	a o s t	Y
CANCEL device	UPDATE	MVS.CANCEL.DEV.device	a o s t	Y
CANCEL jobname (others)	UPDATE	MVS.CANCEL.JOB.jobname	a o s t	Y
CANCEL jobname (own jobs)	UPDATE	MVS.CANCEL.JOB.jobname	*	Y

The previous commands are for jobs that are **not** a started tasks.

Auth column

- a - AUTOAUDT, Automated operations.
- c - CONSOLES, System consoles
- d - DASDAUDT, Storage Management
- o - OPERAUDT, Operations staff
- s - SYSPAUDT, Systems Programming staff
- t - TSTCAUDT, Trusted Started Tasks
- * - All Users
- \$ - May be given to All Users using SDSF, CA Roscoe, and similar products that interface with a user's input/output requiring the issuing of console commands.

Java Viewer



The screenshot shows the DISA STIG Viewer interface. The main window is titled "DISA STIG Viewer : Beta 1.1.3". The interface is divided into several sections:

- File Checklist Options Help**: A menu bar at the top.
- Left Panel**: A list of STIG files, including "L-D_for_RACF_V6R5_STIG_Manual-XCCDF.xml", "L-M_Restart_for_RACF_V6R2_STIG_Manual-XCCDF.xml", and "r_RACF_V6R2_STIG_Manual-XCCDF.xml". Below this is a "Profile (none)" dropdown, a "View All STIG Data" checkbox, and a "Keyword" search field with "Add Filter", "Remove Filter", and "Remove All Filters" buttons.
- STIG ID List**: A list of STIG IDs, with "ACP00060 - ACP00060" selected. The list includes IDs from AAMV00010 to ACP00250.
- Right Panel**: Details for the selected STIG ID "z/OS RACF STIG". It includes:
 - Rule Title**: Update and allocate access to all APF -authorized libraries are not limited to system programmers only.
 - STIG ID**: ACP00060 Rule ID: SV-113r1_rule Vuln ID: V-113
 - Severity**: CAT I Class: Unclass
 - Discussion**: The Authorized Program List designates those libraries that can contain program modules which possess a significant level of security bypass capability. Unauthorized access could result in the compromise of the operating system environment, ACP, and customer data.
 - Documentable**: No
 - Responsibility**: Information Assurance Officer
 - Check Content**:
 - a) Refer to the following reports produced by the Data Set and Resource Data Collection:
 - SENSITIVE.RPT (APFXRPT)
 - Automated Analysis: Refer to the following report produced by the Data Set and Resource Data Collection:
 - PDI (ACP00060)
 - The ACP data set rules for APF libraries allow inappropriate access.
 - The ACP data set rules for APF libraries do not restrict UPDATE and/or ALTER access to only z/OS systems programming personnel.
 - The ACP data set rules for APF libraries do not specify that all (i.e., failures and successes) UPDATE and/or ALTER access will be logged.
 - b) If all of the above are untrue, there is NO FINDING.
 - c) If any of the above is true, this is a FINDING.
 - Fix Text**: Review access authorization to critical system files. Evaluate the impact of correcting the deficiency. Develop a plan of action and implement the changes required to protect APF Authorized Libraries. The IAO will ensure that update and allocate access to all APF-authorized libraries are limited to system programmers only and all update and allocate access is logged.
 - IA Controls**: DCCS-1, DCCS-2, DCSL-1, ECAR-1, ECAR-2, ECAR-3

Download from http://iase.disa.mil/stigs/stig_viewing_guidance.html

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Compensating Controls

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

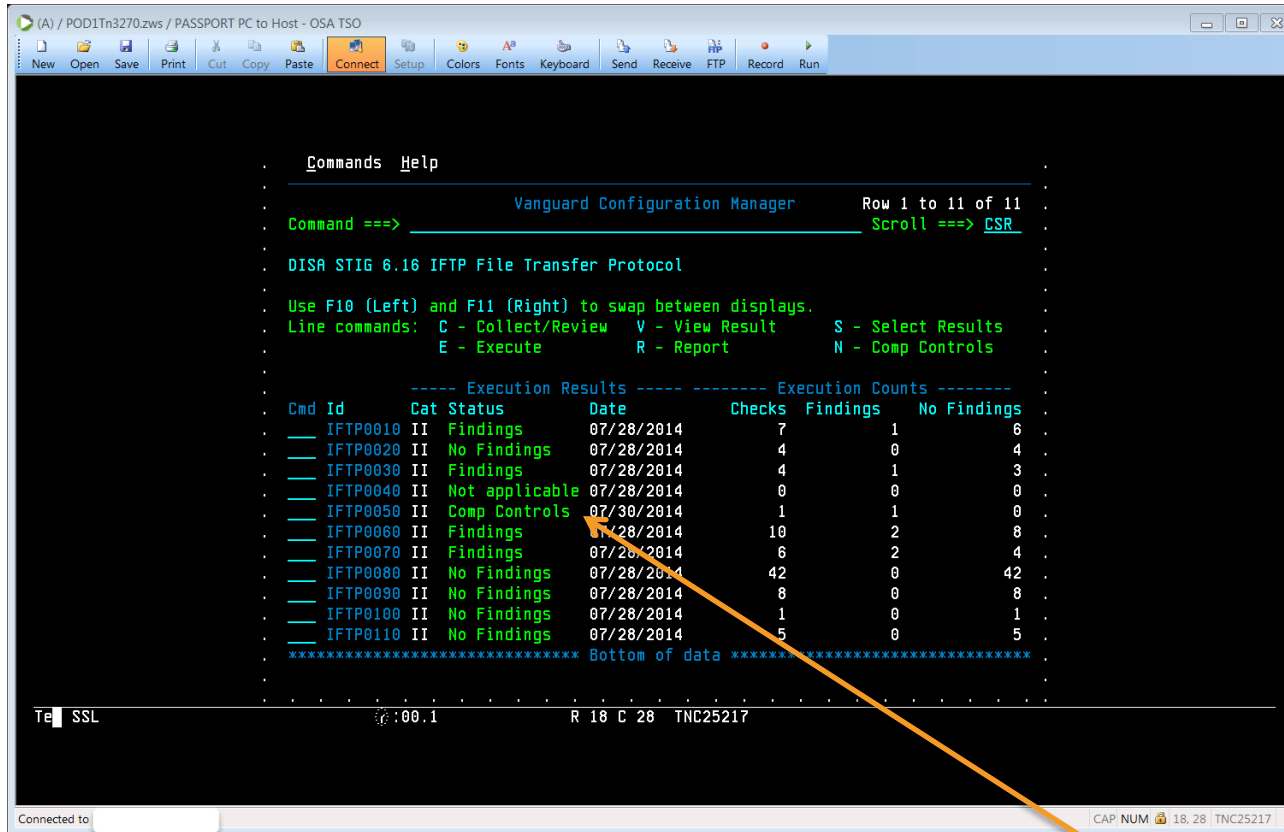
Vanguard Configuration Manager Results
Command ==> _____ Scroll ==> CSR
DISA STIG 6.16 IFTP0050 DoD Banner
Category . . . . . : II
Collected/Reviewed by : WTBOURG On 2014/02/06 09:32:54
Executed by . . . . . : X00NMVS On 2014/05/07 12:32
Enter "/" to select message types to show
_ N 0 / F 1 _ E 0 _ I 6 Total: 7
Msg ID Message Line 1 of 3
***** Start of Messages *****
IFTP0050-09F Banner text does not match required DOD content.
***** End of Messages *****

Te SSL :00.1 R 2 C 15 TNC2JM93
Sends the host key: Enter CAP NUM 2.15 TNC2JM93
```

But we are a Bank not the DOD!

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Compensating Controls



```
Commands Help
Vanguard Configuration Manager Row 1 to 11 of 11
Command ==> Scroll ==> CSR

DISA STIG 6.16 IFTP File Transfer Protocol

Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review V - View Result S - Select Results
                E - Execute R - Report N - Comp Controls

----- Execution Results -----
Cmd Id   Cat Status      Date           Checks Findings No Findings
-----
IFTP0010 II Findings       07/28/2014     7       1         6
IFTP0020 II No Findings    07/28/2014     4       0         4
IFTP0030 II Findings       07/28/2014     4       1         3
IFTP0040 II Not applicable 07/28/2014     0       0         0
IFTP0050 II Comp Controls 07/30/2014     1       1         0
IFTP0060 II Findings       07/28/2014    10       2         8
IFTP0070 II Findings       07/28/2014     6       2         4
IFTP0080 II No Findings    07/28/2014    42       0        42
IFTP0090 II No Findings    07/28/2014     8       0         8
IFTP0100 II No Findings    07/28/2014     1       0         1
IFTP0110 II No Findings    07/28/2014     5       0         5
***** Bottom of data *****

Tel SSL 0:00.1 R 18 C 28 TNC25217
```

N to open text box
to enter Compensating
Control

Re-execute the check, status changes to Comp Controls

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Compensating Controls

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

Vanguard Configuration Manager Results
Command ==> _____ Scroll ==> CSR
DISA STIG 6.16 IFTP0050 DoD Banner
Vulid . . . . . : V-3237
Category . . . . . : II
Collected/Reviewed by : WTBOURG On 2014/02/06 09:32
Executed by . . . . . : WTBOURG On 2014/07/30 08:16

Enter "/" to select message types to show
_ N 0 / F 1 / C 1 / E 0 / I 6 Total: 8

Msg ID Message Line 1 of 10
***** Start of Messages *****
IFTP0050-06I Verified existence of "FTP PROCLIB" "SYS2.PROCLIB(FTPD)".
IFTP0050-06I Verified existence of "FTP PARMS" "SYS2.NETWORK.TCPIP.DATA.K6P(FTPSAP3)".
IFTP0050-10I Processing FTP parms file "SYS2.NETWORK.TCPIP.DATA.K6P(FTPSAP3)".
IFTP0050-05I Banner File Content location specified as "SYS2.NETWORK.TCPIP.DATA.K6P(FTPBMNR)".
IFTP0050-06I Verified existence of "BANNER DSN" "SYS2.NETWORK.TCPIP.DATA.K6P(FTPBMNR)".
IFTP0050-09F Banner text does not match required DOD content.
IFTP0050-00C US Bank has a corporate approved VTAM banner screen.
IFTP0050-98I Analysis completed with Findings and Compensating Controls were specified.
***** End of Messages *****

Tel SSL 100.1 R 2 C 15 TNC25217
Connected | CAP NUM 2, 15 | TNC25217
```

The finding is still there;
Why the number will never be zero
Msg IFTP0050-00C

VCM Filters

```
Batch Reports Jobcard Display Help
Vanguard Configuration Manager Row 1 to 16 of 26
Command ==> Scroll ==> PAGE

Line commands: S - Select category R - Summary report C - Comp Cntl report
                X - Exclude         V - CSV report

Cmd Prefix Category Description
___ ACOM Common Configuration
___ AAMV z/OS Operating System Environment
___ ACP Security Server (RACF) for z/OS system data
___ IFTP File Transfer Protocol
___ ISLG z/OS UNIX SYSLOG
___ ITCP TCP/IP Communications Server
___ ITNT TN3270 Telnet Server
x_ IUTN z/OS UNIX Telnet Server
___ RACF Security Server (RACF) Settings
___ ZCA1 CA-1 (Tape Management System)
___ ZCCS CA Common Services
___ ZCIC CICS Transaction Server
___ ZDBM Database Management Systems
___ ZFDR Fast Dump Restore
___ ZHCD Hardware Configuration Definition
___ ZHCK IBM Health Checker

:00.5 R 19 C 29 TNC2HI23
```

An X will hide the category

Remove unwanted categories and individual checks from your display

VCM Filters

```
Batch Reports Jobcard Display Help
Vanguard Configuration Manager Row 1 to 16 of 25
Command ==> _____ Scroll ==> PAGE
DISA STIG 6.20
Line commands: S - Select category R - Summary report C - Comp Cntl report
                X - Exclude          V - CSV report
Cmd Prefix Category Description
___ ACOM Common Configuration
___ AAMV z/OS Operating System Environment
___ ACP Security Server (RACF) for z/OS system data
___ IFTP File Transfer Protocol
___ ISLG z/OS UNIX SYSLOG
___ ITCP TCP/IP Communications Server
___ ITNT TN3270 Telnet Server
___ RACF Security Server (RACF) Settings
___ ZCA1 CA-1 (Tape Management System)
___ ZCCS CA Common Services
___ ZCIC CICS Transaction Server
___ ZDBM Database Management Systems
___ ZFDR Fast Dump Restore
___ ZHCD Hardware Configuration Definition
___ ZHCK IBM Health Checker
___ ZICS Integrated Cryptographic Service Facility
:00.4 R 19 C 28 TNC2HI23
```

The IUNT z/OS UNIX Telnet Server category is now filtered from the display.

VCM Filters

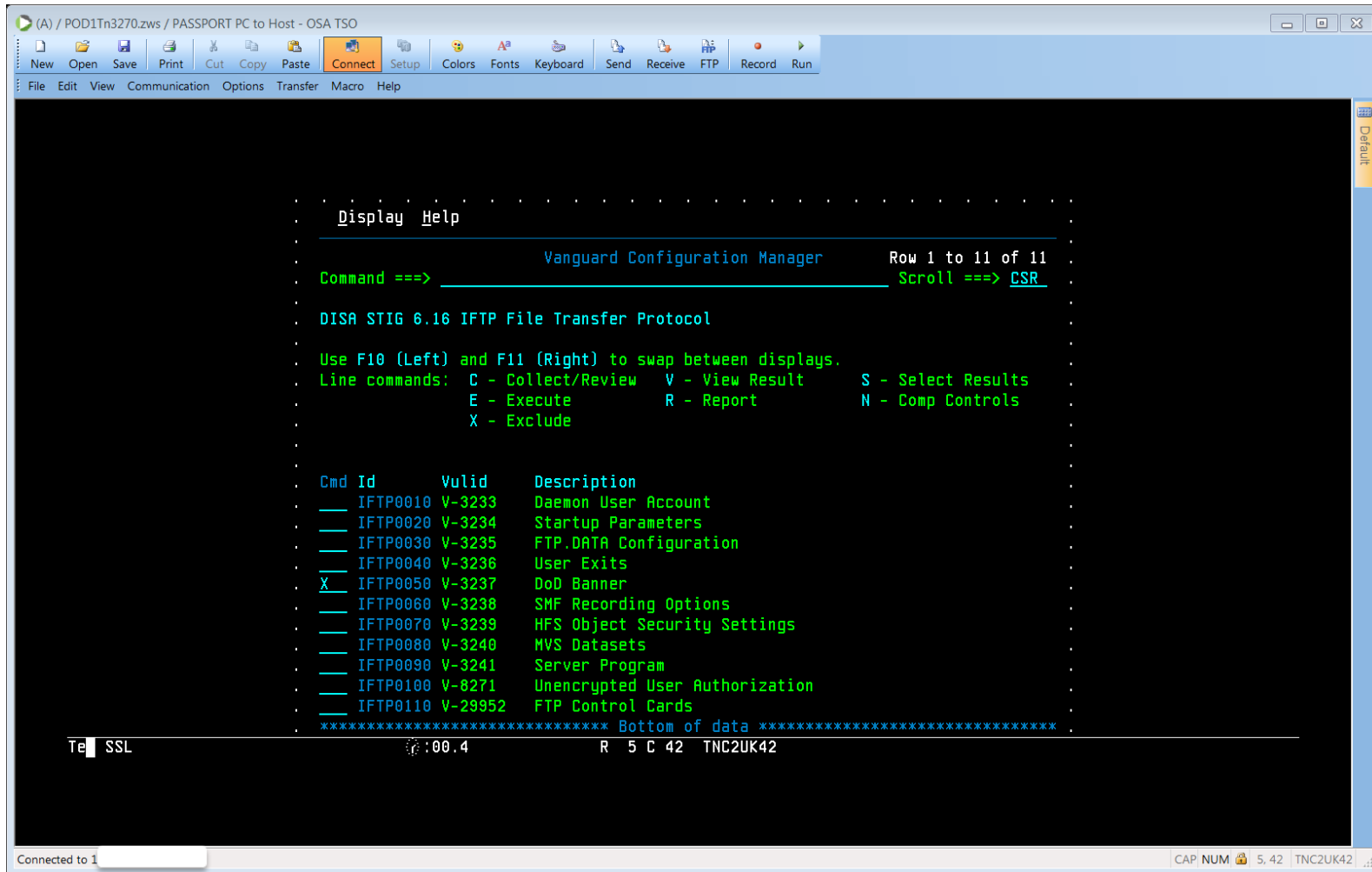
```
Batch Reports Jobcard Display Help
Command ==> _____ Var - _____ anager Row 1 to 16 of 48
DISA STIG 6.20
Line commands: S - Select category R - Summary report C - Comp Cntl report
                X - Exclude          V - CSV report

Cmd Prefix      Category Description
___ ACOM         Common Configuration
___ AAMV         z/OS Operating System Environment
___ ACP          Security Server (RACF) for z/OS system data
___ IFTP         File Transfer Protocol
___ ISLG         z/OS UNIX SYSLOG
___ ITCP         TCP/IP Communications Server
___ ITNT         TN3270 Telnet Server
___ IUTN         z/OS UNIX Telnet Server Excluded
___ RACF         Security Server (RACF) Settings
___ ZADT         CA Auditor Excluded
___ ZAID         Compuware Abend-AID Excluded
___ ZCA1         CA-1 (Tape Management System)
___ ZCCS         CA Common Services
___ ZCIC         CICS Transaction Server
___ ZCLS         CL/Supersession Excluded
___ ZCSL         Catalog Solutions Excluded

:00.3 R 12 C 28 TNC2HI23
```

Use the Display drop down menu to see what is currently removed from the category list.

VCM Filters



```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run
File Edit View Communication Options Transfer Macro Help

Display Help
-----
Vanguard Configuration Manager Row 1 to 11 of 11
Command ==> _____ Scroll ==> CSR

DISA STIG 6.16 IFTP File Transfer Protocol

Use F10 (Left) and F11 (Right) to swap between displays.
Line commands: C - Collect/Review V - View Result S - Select Results
                E - Execute R - Report N - Comp Controls
                X - Exclude

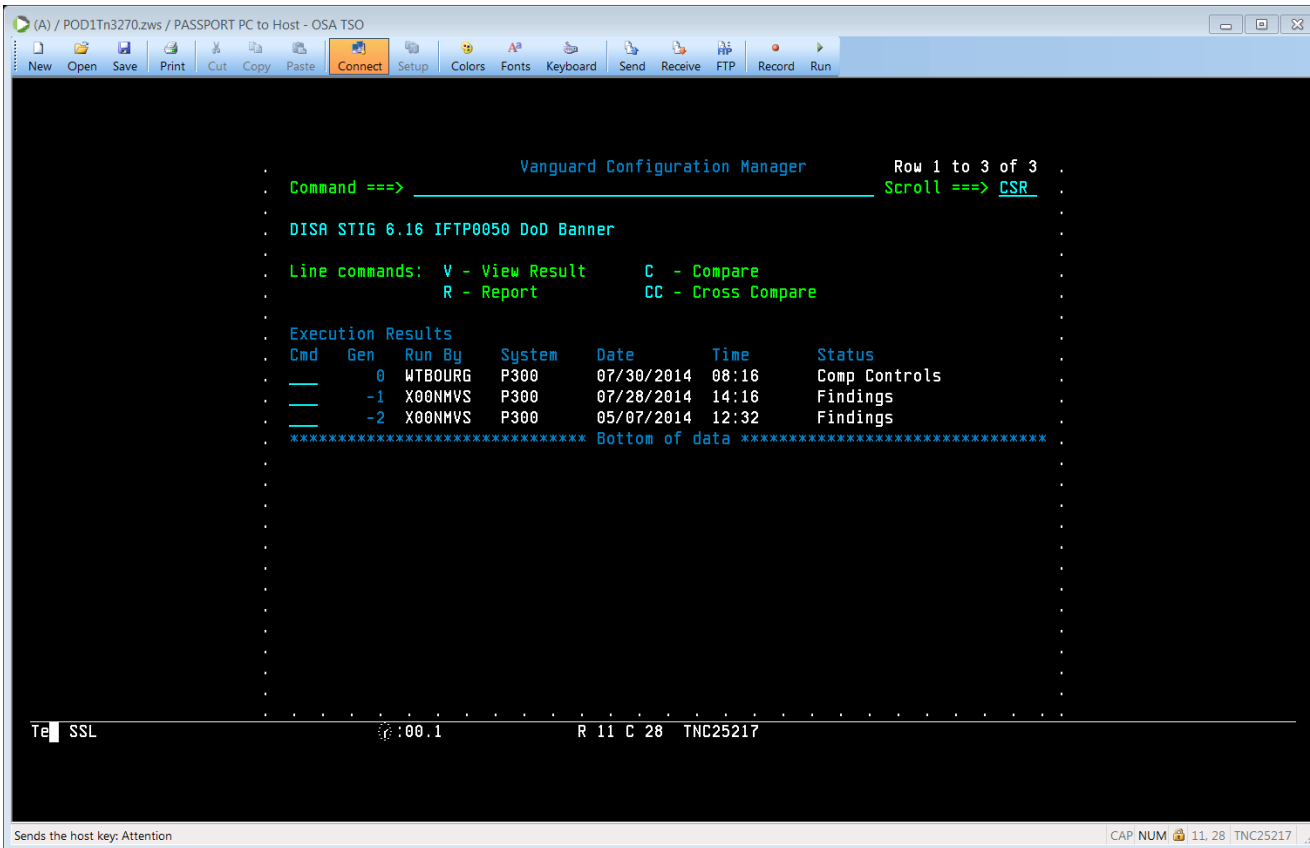
Cmd Id      Vvalid      Description
-----
IFTP0010 V-3233      Daemon User Account
IFTP0020 V-3234      Startup Parameters
IFTP0030 V-3235      FTP.DATA Configuration
IFTP0040 V-3236      User Exits
X IFTP0050 V-3237      DoD Banner
IFTP0060 V-3238      SMF Recording Options
IFTP0070 V-3239      HFS Object Security Settings
IFTP0080 V-3240      MVS Datasets
IFTP0090 V-3241      Server Program
IFTP0100 V-8271      Unencrypted User Authorization
IFTP0110 V-29952     FTP Control Cards
***** Bottom of data *****

Tel SSL 00.4 R 5 C 42 TNC2UK42
Connected to 1 CAP NUM 5, 42 TNC2UK42
```

X to exclude an individual check

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

VCM Compare



The screenshot shows a terminal window titled "Vanguard Configuration Manager" with a menu bar including options like New, Open, Save, Print, Cut, Copy, Paste, Connect, Setup, Colors, Fonts, Keyboard, Send, Receive, FTP, Record, and Run. The terminal content includes:

```
Command ==> _____ Scroll ==> CSR
DISA STIG 6.16 IFTP0050 DoD Banner
Line commands: V - View Result      C - Compare
                R - Report          CC - Cross Compare
Execution Results
Cmd  Gen  Run By  System  Date       Time       Status
---  ---  ---    ---    ---        ---        ---
0    WTBOURG  P300    07/30/2014  08:16     Comp Controls
-1   X00NMVS  P300    07/28/2014  14:16     Findings
-2   X00NMVS  P300    05/07/2014  12:32     Findings
***** Bottom of data *****
```

At the bottom of the terminal, there is a status bar with the text: "Tel SSL :00.1 R 11 C 28 TNC25217".

From main category list select using an S to get this panel
C is used to pick the new and old Gen to compare
CC is used for a cross stig level compare

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Compare Results

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

Vanguard Configuration Manager
Command ==> _____ Scroll ==> CSR

IFTP0050 DoD Banner

Key in REPORT and press enter for printable report.
Press F3 (END) to exit report.

          New          Old
Baseline . . . . . : DISA STIG 6.16  DISA STIG 6.16
Generation . . . . . : 0              -1
Executed System . . . : P300          P300
Executed By . . . . . : WTBOURG       X00NHVS
Executed Date . . . . : 07/30/2014    07/28/2014
Executed Time . . . . : 08:16         14:16

New Old Msg ID      Message                               Line 1 of 5
***** Start of Messages *****
X      IFTP0050-00C  US Bank has a corporate approved VTAM banner screen.
X      IFTP0050-98I  Analysis completed with Findings and Compensating Controls were specified.
X      IFTP0050-98I  Analysis completed with Finding(s).
***** End of Messages *****

Telnet SSL          : 01.1          R 2 C 15  TNC25217

Sends the host key: Attention          CAP NUM 2.15 TNC25217
```

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Cross STIG Level Compare

```
(A) / POD1Tn3270.zws / PASSPORT PC to Host - OSA TSO
New Open Save Print Cut Copy Paste Connect Setup Colors Fonts Keyboard Send Receive FTP Record Run

Vanguard Configuration Manager
Command ==> _____ Scroll ==> CSR

IFTP0050 DoD Banner

Key in REPORT and press enter for printable report.
Press F3 (END) to exit report.

          New          Old
-----
Baseline . . . . . : DISA STIG 6.16  DISA STIG 6.19
Generation . . . . . : 0              0
Executed System . . . : E081          E081
Executed By . . . . . : WTBOURG       WTBOURG
Executed Date . . . . : 07/10/2014    07/30/2014
Executed Time . . . . : 15:06         08:42

New Old Msg ID      Message                               Line 1 of 5
***** Start of Messages *****
X   IFTP0050-00C Will never happen
X   IFTP0050-98I Analysis completed with Findings and Compensating Controls were specified.
X   IFTP0050-98I Analysis completed with Finding(s).
***** End of Messages *****

-DSLIST *DSLIST
Tel SSL                :00.8          R 2 C 15  TNC25217

Sends the host key: Attention                                     CAP NUM 2, 15 | TNC25217
```

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

More Information

- www.go2vanguard.com
- iase.disa.mil/stigs/

Stop by and visit us at Booth 607!

