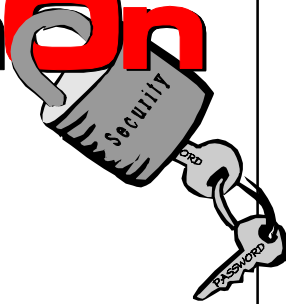




CICS/SignOn

User and Transaction Security for CICS



What is CICS/SignOn?

CICS/SignOn gives you back the benefits of the familiar internal security (DFHSNT) which has been removed in the new CICS releases. You do not have to be forced down the path to external security with all of its hassles and overhead... you now have a choice.

CICS/SignOn provides security for CICS transactions, terminals, and users; complete signon/signoff functions for users; and transparent support for programs executing EXEC CICS INQUIRE/ASSIGN commands for Userid and Operator ID.

Features:

- Security for CICS transactions, terminals, and users.
- Automatic password expiration after x number of days
- Complete Signon/signoff functions
- Users can change their own password
- Transparent support for EXEC CICS INQUIRE/ASSIGN commands for userid and opid. (No changes necessary to your programs).
- Access to user's operator keys (OPERKEYS) and user name (now expanded to 30 bytes) using the CICS/Sign-On Application Programming Interface.
- Utilities provided to automatically migrate your internal CICS transaction, terminal, and user security definitions
- Protection: Passwords and definitions are encrypted to protect against unauthorized access.
- Complete audit log of all signons, signoffs, and resource changes.
- Ability for System Administrator to reset passwords.

SNIMSO CICS/SIGNON APPLID: TEST410

Type your userid and password, then press ENTER:

Userid ==> BWHITE ← Password hidden
Password ==> _

New Password ==>

Enter= Signon

PF1=Help

PF3=Exit

Is CICS/SignOn a solution looking for a problem?

Hardly. Here's why.....

CICS internal security has been removed in all new releases of CICS for MVS and VSE. As you face CICS version upgrades, you will be forced to address several issues:

- Do we purchase a full-blown external security package? If so, how much will it cost?
- How much re-training will we have to do?
- How much time will it take to install and administer the package?
- What if we don't want/need the additional security levels of a full-blown security package?
- If internal CICS security is removed, how do we secure our CICS transactions? Without external security or CICS/Signon, CICS transactions are no longer secured.
- Will we have to change CICS programs retrieving USERID and OPID from EXEC CICS INQUIRE and ASSIGN commands?
- How will CICS users are uniquely identified without being able to sign on?
- We use CICS terminal autoinstall , so user security can't be based on terminal ids. What do we do?

The solution for all these issues? CICS/SignOn!

MacKinney Systems CICS/SignOn provides seamless integration of user signon/signoff into current CICS releases including those, which have internal security, removed.

- CICS/SignOn is for CICS installations that wish to upgrade to new releases of CICS but do not want full-blown external security packages. CICS/SignOn provides signon/signoff for users, transaction security, terminal security, user security, and transparent support for programs to continue doing EXEC CICS INQUIRE TERMINAL and EXEC CICS ASSIGN commands for USERID and OPID.
- CICS/SignOn gives your users the ability to signon/signoff of CICS with the same look and feel of the former CICS internal security. Users do not have to be retrained, and applications do not need to be changed.
- CICS/SignOn replaces your old CICS internal security without changes to your existing code. It supports the commands your programs use to determine user identification. Transparently! For example, all programs executing the CICS commands
“EXEC CICS INQUIRE TERMINAL USERID/OPERID”
or “EXEC CICS ASSIGN USERID/OPID”
will automatically and transparently have the correct userid and operid returned by CICS/SignOn. No changes, assemblies, or compiles are required to your programs.
- CICS/SignOn replaces your old CICS security without a time-consuming conversion. Installation time is minimized because the migration to CICS/SignOn is a simple, one step process that takes just a few short minutes. During this process, our migration utilities import your existing transaction, user, and terminal internal security, while reporting progress and statistics to your administrator. This migration process takes only minutes!
- CICS/SignOn provides user password expiration. CICS/SignOn provides the ability to require users to change their password after an administrator-specified number of days.
- CICS/SignOn fully supports multi-region operation (MRO) installations. Your application owning region (AOR) programs will be supplied with the security the users qualified for when they originally signed on to the terminal owning region (TOR).

-
- CICS/SignOn results in a much more secure CICS environment. Unlike the old internal DFHSNT (table-based) security, your users can change their own passwords without systems programmer intervention and without bringing the CICS region down. More importantly, no one knows the password but the user. The old macro-based security was not secure because systems programmers had to know every password, including the payroll systems password, in order to build signon tables. Worse yet, those passwords were in an assembler source member that someone could read. ***CICS/SignOn passwords and definitions are encrypted for protection from unauthorized access.***
 - With CICS/SignOn, your administrators can determine who is signed on to a particular terminal. The old DFHSNT (table/macro-based) internal security allowed that only with a third party product (like our CICS/TIMEOUT product).
 - CICS/SignOn provides easy to use, online administration of users, transactions, and terminals rather than DFHSNT (table/macro-based) internal security that requires scanning source members by hand/eye. You can manage user, terminal, and transaction security directly from a terminal in the desired region.
 - CICS/SignOn can secure CICS transactions with up to 64 keys. CICS/SignOn has the ability to define CICS transaction security with multiple keys alleviating much of the need to expand past 64 CICS keys and saving considerable administration time.
 - CICS/SignOn is centrally controlled. Help desk personnel or an authorized system administrator may reset passwords. When a user's password is reset, CICS/SignOn requires that the user change the password the next time the user signs on.
 - CICS/SignOn monitors your security. Had a security breach? A complete audit log of signons, signoffs, and changes is maintained so you can find the perpetrator and eliminate the problem.
 - ***CICS/SignOn is ONLY for CICS.*** Other security packages affect ***performance*** and administration of your ***entire system*** even if you only wish to secure CICS. CICS/SignOn is able to take advantage of many performance and usability enhancements because it is designed specifically and entirely for CICS.
 - CICS/SignOn includes an Application Programming Interface allowing you to call CICS/SignOn from your programs.

Sign-on

```

NTMSO                      CICS/SIGNON                      APPLID: TEST410

Type your userid and password, then press ENTER:

      Userid  ==> BWHITE
      Password ==>      _
      New Password ==>

Enter=Signon          PF1=Help          PF3=Exit
  
```

```

SNTE001- 10:09:36 SIGN-ON IS COMPLETE
  
```

Just as you would expect from your current CICS security, you get a short message indicating you have successfully signed-on to CICS.

Sign-off

```

CSSF LOGOFF
  
```

User decides to signoff and logoff of CICS.

```

SNTE002- 10:09:36 SIGN-OFF IS COMPLETE
SNTE060-LOGOFF REQUEST BEING PROCESSED
  
```

In that fleeting moment after sign-off but before the terminal is disconnected from CICS and returned to the control of VTAM, CICS/SignOn displays a pair of messages saying the user has been signed-off and is in the process of being logged off (disconnected from CICS).

Migration

After executing the CICS/SignOn “export” transaction in an old CICS with internal security, the user now starts the import process in the target CICS.

The “import” function updates the screen constantly with migration status information.

A summary report documents all the work that has been performed.

The entire “export” and “import” process takes only minutes for each function!

```
SNTE150-IMPORT MIGRATION PROCESS STARTING

NOTE=> YOU CAN TERMINATE THE PROCESS AT ANY TIME BY PRESSING THE
"ATTENTION" KEY. THE IMPORT PROCESS CAN BE RESTARTED AT ANY POINT.

SNTE154-SUMMARY OF PREVIOUS EXPORT MIGRATION
      NUMBER OF EXPORTED USERS          00020
      NUMBER OF EXPORTED TRANSACTIONS   00394
      NUMBER OF EXPORTED TERMINALS      00005
      APPLID OF EXPORTED CICS           CICSTEST

SNTE166-IMPORT OF TRANSACTION PROFILES BEGINNING
SNTE167-EACH "." REPRESENTS TRANSACTION PROFILES IMPORTED
-----
-----
-----
-----
-----
SNTE170-IMPORT OF TERMINAL PROFILES BEGINNING
SNTE167-EACH "." REPRESENTS TERMINAL PROFILES IMPORTED.
-----
SNTE163-IMPORT OF USER PROFILES BEGINNING
```

```
*****
                                SUMMARY

SNTE165-USER PROFILES SUCCESSFULLY IMPORTED.          USERS IMPORTED=00020
                                                    DUPLICATES IGNORED=00000
SNTE168-TRANSACTION PROFILES SUCCESSFULLY IMPORTED.  TRANSACTIONS IMPORTED=00399
                                                    DUPLICATES IGNORED=00000
SNTE172-TERMINAL PROFILES SUCCESSFULLY IMPORTED.     TERMINALS IMPORTED=00009
                                                    DUPLICATES IGNORED=00000

SNTE189- IMPORT MIGRATION COMPLETE.

*****
SNTE191- PRESS THE "PF3" KEY NOW TO EXIT
```


CICS/SignOn Administration

```

SNTMADM          MACKINNEY SYSTEMS CICS/SIGNON VER x.x      04/02/2000 13:50
                  Administration Menu

0 - Installation Passwords
1 - Installation Options
2 - SIGNON/SECURITY Interfaces (ENA/DIS/INQ/REFresh)
3 - User Profiles (ADD/UPDate/REIndex)
4 - Transaction Profiles (ADD/UPDate)
5 - Terminal Profiles (ADD/UPDate)
6 - Import Migration Profiles (NOOverwrite/OVERwrite)
7 - Inquire Terminal Signon Status (term)

Option:          Option Data:          (C) Copyright 1997 MacKinney Systems

ENTER=Process  PF1=Help  PF3=End

```

CICS/SignOn has several options intended to offer flexibility to the administrator. Security should be as invisible as possible. These options help administrators customize CICS/SignOn according to the needs of their organization.

```

SNTMOPT          CICS/SIGNON INSTALLATION OPTIONS          04/02/2000 14:02

Overtyp e and press PF3 to update or PF12 to cancel

CESN SIGNON TRAN: CESN      CICS trans to verify operator USERID with password
CSSN SIGNON TRAN: CSSN      CICS trans to verify operator NAME with password
SIGNOFF TRAN:      CESF      CICS transaction defined to signoff

SIGNON MAP:          NO      User-customizable map (SNTMSO2) sent after SIGNON
SUPPORT OPERID:      YES      Support 3 character CICS OPERATOR ID (YES/NO)
DEFAULT PSWD EXP:    NO      Default Password Expiration (1-366 days,"no "-none)
MRO TCTUA OFFSET:    NO      TCTUA offset for 16-bytes for CICS MRO (NO|0-240)
TRANS SECURITY:      YES      CICS transactions validated for proper security
UNDEFINED TRAN:      $DEFAULT Action for CICS trans undefined to CICS/SIGNON

SIGNON  EXIT:          PROGRAM/TRANSID to XCTL/START after signon (Opt)
SIGNOFF EXIT:          User exit PROGRAM to get control after signoff(Opt)

PF1=Help  PF3=Update  PF9=Show Maintenance  PF12=Cancel

```

CICS/SignOn installation options allow great flexibility for site customization.

Updating Users

Rather than keeping userid and password information in source code form where anyone can read it, CICS/SignOn provides a VSAM-based online system for maintaining this information. Best of all, this information is encrypted and secure.

```
SNTMUSD                      CICS/SIGNON USER DIRECTORY          04/02/2000 15:47
Begin display with USER                      Current Order: USER

Enter E to Edit, C to Copy or D to Delete Profile

Sel  USERID      NAME                                OPERID
$DEFAULT  DEFAULT USER
BWHITE    BOB WHITE                                BBW
BWIRE     BARB WIRE                                BAW
CROAST    CHUCK ROAST                              CAR
SSMOOTH   SAM SMOOTH                               SOS

ENTER=PROCESS  PF1=HELP  PF3=END  PF6=ADD  PF7=BWD  PF8=FWD  PF9=TOGGLEORDER
```

You can reset a password, update the user description, assign security keys, etc.

This user has access to all CICS transactions since all security keys have been specified.

```
SNTMUSE                      CICS/SIGNON PROFILE UPDATE          04/02/2000 19:01
Mode: UPDATE

Overtime and press PF3 to update, or PF12 to cancel

USERID: BWHITE
NAME: BOB WHITE
NETTERM: Optional NETNAME/TERMINID to suppress signon screen
OPERID: BBW Specify operid (Optional)
PWD EXPIRE: DEF Password Expiration (1-366 days,"DEF"-default,"NO "-none)

CICS KEYS: (PLACE AN "X" NEXT TO THE DESIRED KEYS)
01 X 02 X 03 X 04 X 05 X 06 X 07 X 08 X
09 X 10 X 11 X 12 X 13 X 14 X 15 X 16 X
17 X 18 X 19 X 20 X 21 X 22 X 23 X 24 X
25 X 26 X 27 X 28 X 29 X 30 X 31 X 32 X
33 X 34 X 35 X 36 X 37 X 38 X 39 X 40 X
41 X 42 X 43 X 44 X 45 X 46 X 47 X 48 X
49 X 50 X 51 X 52 X 53 X 54 X 55 X 56 X
57 X 58 X 59 X 60 X 61 X 62 X 63 X 64 X

ENTER=PROCESS  PF1=HELP  PF3=END  PF5=RESET-PSWD  PF9=COPY-MODE  PF12=CANCEL
```

Updating Transactions

```
SNTMUSD          CICS/SIGNON TRANSACTION DIRECTORY      04/02/2000 19:40
Begin display with TRAN                                Current Order: TRAN

Enter E to Edit, C to Copy or D to Delete Profile

Sel  TRANSID      DESCRIPTION                                OPERID
     $DEF         DEFAULT TRANS
     ADH$         MIGRATED ENTRY
     ADH%         MIGRATED ENTRY
     ADH#         MIGRATED ENTRY
     ADH@         MIGRATED ENTRY
     ADHA        MIGRATED ENTRY
     ADHJ        MIGRATED ENTRY
     ADHL        MIGRATED ENTRY
     ADHM        MIGRATED ENTRY
     ADHQ        MIGRATED ENTRY
     ADHS        MIGRATED ENTRY
     ADHV        MIGRATED ENTRY
     ADH0        MIGRATED ENTRY
     ADH1        MIGRATED ENTRY
     ADH2        MIGRATED ENTRY

ENTER=PROCESS  PF1=HELP  PF3=END  PF6=ADD  PF7=BWD  PF8=FWD
```

CICS/SignOn offers transaction security. Here is a list of transactions that were migrated from our ADHOC product. Next we'll see the screen where one of these transactions is secured.

```
SNTMUSE          CICS/SIGNON PROFILE UPDATE              04/02/2000 07:34
                                                         Mode: UPDATE

Overtyp e and press PF3 to update, or PF12 to cancel

  TRANID: ADH$                      CICS trans ID. (CCCC|'HHHHHHHH')
DESCRIPTION: MIGRATED ENTRY          Description (optional)

CICS KEYS: (PLACE AN "X" NEXT TO THE DESIRED KEYS)

    01 X    02      03      04      05      06      07      08
    09      10      11      12      13      14      15      16
    17      18      19      20      21      22      23      24
    25      26      27      28      29      30      31      32
    33      34      35      36      37      38      39      40
    41      42      43      44      45      46      47      48
    49      50      51      52      53      54      55      56
    57      58      59      60      61      62      63      64

ENTER=PROCESS  PF1=HELP  PF3=END                      PF9=COPY-MODE  PF12=CANCEL
```

This transaction has a security key of "01". Just as in the old CICS security, key "01" allows access to all users.

The old CICS internal security allowed only 1 key specified for each CICS transaction. CICS/SignOn will let you define multiple keys for a single CICS transaction. This gives you additional flexibility in the assignment of your security keys. For example, you have a new CICS transaction "INQA" which is used by the PAYROLL department and the SALES department. The PAYROLL department users have a user security key of 5 and the SALES department users have security key of 20. CICS/SignOn will let you define the "INQA" transaction with a security key of 5 AND 20. Without the ability to assign multiple keys to a CICS transaction, you would have to define a new security key (64 for example) and add key '64' to all the PAYROLL department users, the SALES department users, and the "INQA" transaction. In addition to the extra work, you would eventually use up all your keys. With CICS/SignOn's ability to define multiple keys to a transaction, you simply define the "INQA" transaction with keys "5" and "20" and you are done. No need to change the PAYROLL or SALES department's userids. You not only saved extra work, but you didn't need to use any of your limited number of available keys.

Updating Terminals

CICS/SignOn allows you to force a terminal to use a particular userid, just as DFHSNT-based security did. A list of terminals is shown here, each of which was migrated from the TCT. On the screen following this one, you can see how the terminal's use is restricted to one userid.

```
SNTMUSD                      CICS/SIGNON TERMINAL DIRECTORY          04/03/2000 07:53
Begin display with TERM                      Current Order: TERM

Enter E to Edit, C to Copy or D to Delete Profile

Sel  TERMID      DESCRIPTION                                OPERID
    $DEF        DEFAULT TERMINAL
    CNSL        MIGRATED ENTRY
    P01         MIGRATED ENTRY
    P02         MIGRATED ENTRY
    P03         MIGRATED ENTRY
    P04         MIGRATED ENTRY

ENTER=PROCESS  PF1=HELP  PF3=END  PF6=ADD  PF7=BWD  PF8=FWD
```

CICS/SignOn offers backward compatibility to the old DFHSNT-based security. Here the user is viewing the default userid setting for this terminal.

```
SNTMTEE                      CICS/SIGNON PROFILE UPDATE              04/02/2000 19:01
Mode: UPDATE

Overtyp e and press PF3 to update, or PF12 to cancel

    TERMID: CNSL
DESCRIPTION: MIGRATED ENTRY
    USERID: CNSL      Optional USERID to be associated with this terminal
    OPERID: CNS       Optional OPERID

CICS KEYS:  (Place an "X" next to the desired keys)
    01 X    02 X    03 X    04 X    05 X    06 X    07 X    08 X
    09 X    10 X    11 X    12 X    13 X    14 X    15 X    16 X
    17 X    18 X    19 X    20 X    21 X    22 X    23 X    24 X
    25 X    26 X    27 X    28 X    29 X    30 X    31 X    32 X
    33 X    34 X    35 X    36 X    37 X    38 X    39 X    40 X
    41 X    42 X    43 X    44 X    45 X    46 X    47 X    48 X
    49 X    50 X    51 X    52 X    53 X    54 X    55 X    56 X
    57 X    58 X    59 X    60 X    61 X    62 X    63 X    64 X

PF1=Help  PF3=End  PF9=Copy Mode  PF12=Cancel
```

Who is on terminal xxxx?

```
SNTMADM                MACKINNEY SYSTEMS CICS/SIGNON VER x.x      04/02/2000 13:50
                        Administration Menu

0 - Installation Passwords
1 - Installation Options
2 - SIGNON/SECURITY Interfaces (ENA/DIS/INQ/REfresh)
3 - User Profiles (ADD/UPDate/REIndex)
4 - Transaction Profiles (ADD/UPDate)
5 - Terminal Profiles (ADD/UPDate)
6 - Import Migration Profiles (NOOverwrite/OVERwrite)
7 - Inquire Terminal Signon Status (term)

Option: 7   Option Data: TRM1                (C) Copyright 1997 MacKinney Systems

ENTER=Process  PF1=Help  PF3=End
```

Now you can see which user is signed-on to a particular terminal.

Enter option "7" and termid "TRM1".

```
SNTMADM                MACKINNEY SYSTEMS CICS/SIGNON VER x.x      04/02/2000 13:50
                        Administration Menu

0 - Installation Passwords
1 - Installation Options
2 - SIGNON/SECURITY Interfaces (ENA/DIS/INQ/REfresh)
3 - User Profiles (ADD/UPDate/REIndex)
4 - Transaction Profiles (ADD/UPDate)
5 - Terminal Profiles (ADD/UPDate)
6 - Import Migration Profiles (NOOverwrite/OVERwrite)
7 - Inquire Terminal Signon Status (term)

Option:      Option Data:                (C) Copyright 1997 MacKinney Systems

SNTTE012-TERMINAL TRM1 IS SIGNED ON WITH USERID (USER0001 )  OPERID (USR)
ENTER=Process  PF1=Help  PF3=End
```

Message SNTTE012 displays the userid and operator id signed on to terminal TRM1.

Resetting Passwords

The SNTR transaction allows help desk personnel to change a user's password.

SNTR

Help desk personnel or system administrators can reset a user's password. Unlike the old internal CICS security, the user is forced to change this password with its first usage.

```
SNTRMS03                                CICS/SIGNON                APPLID: TEST410
                                User Password Reset function

This function is intended to reset a user's password to a new password.
The user is then able to logon with the new password and will be required
to change the password when first used.

                                USERID ==> _____ -OR- USER NAME ==> _____

NEW PASSWORD ==>                                The new password to be given to the user

VERIFY PASSWORD ==>                            Enter the new password again for verification

ENTER=Reset User's Password  PF1=Help  PF3=Exit
```

FREE 30 DAY TRIAL

Call (417) 882-8012 for a FREE 30-day trial.
CICS/SignOn has a simple 1-2 hour installation.

OPERATING SYSTEMS

MVS: CICS 3.1 OR higher, including all releases of CICS Transaction Server.
VSE: CICS 2.2 OR higher, including all releases of CICS Transaction Servier.

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