

Discovering security roles within CICS

Mark Pocock
John Taylor

RACF user group
23rd October 2024



What is zero trust?

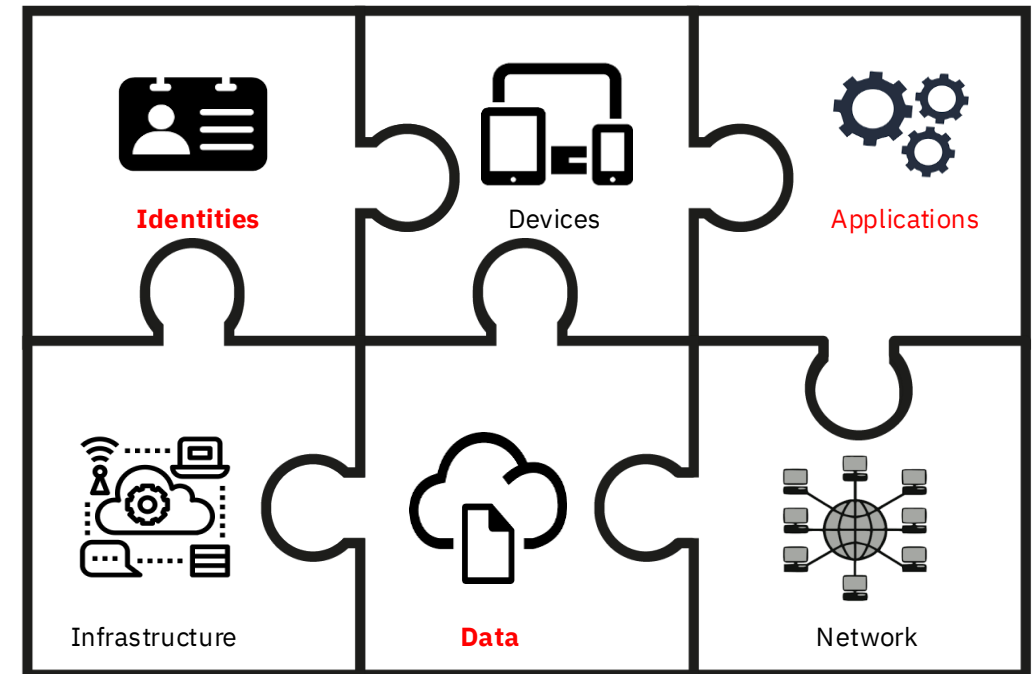
Focus on protecting resources not perimeters

Enable the **right user**,
to have the right **access**,
to the **right data**,
for the **right reasons**

Never trust, always **verify**

Assume the bad actor is already present &
continuously monitor

The key elements of a Zero Trust strategy



CICS resource security

Parameter	Class	Secures
XCMD	CICSCMD	SPI commands
XDCT	CICSDCT	TD Queues
XFCT	CICSFCT	Files
XJCT	CICSJCT	Journals
XPCT	CICSPCT	Transactions (information and starting)
XPPT	CICSPPT	Programs

Parameter	Class	Secures
XPSB	CICSPSB	PSBs
XRES	CICSRES	All other CICS resources
XTRAN	CICSTRN	Transaction execution
XTST	CICSTST	TS Queues
XUSER	SURROGAT	Surrogate access
XHFS		HFS file access

All customers with security active have XTRAN enabled. Most also have XCMD. XUSER is being used more now. Most of the others are not used at all.

Zero Trust and Resource Security

Transaction security is a form of boundary security

- Transactions can access anything on the region
- Transactions can DPL to other connected regions
- You are trusting the developer

It's the data that needs to be secured

Most customers don't have resource security

- Complexity of implementing
- CPU Cost
- Historically transaction security considered to be sufficient

Is application separation sufficient?

- An application is a set of isolated CICS regions
- Only data for the application installed
- Valid, but only if there is just one role

Importance of Roles

“Enable the right user, to have the right access, to the right data, for the **right reasons**”

A user’s access should be related to their **role**

When they leave that role, they must lose access

Some customers don’t use roles or use a mixture of roles & userids

Hard to maintain

Unused access often kept

Difficult to audit

Migrating to Resource Security

Most customers do not have

Fully automated tests

Good coverage of tests

Specific security tests

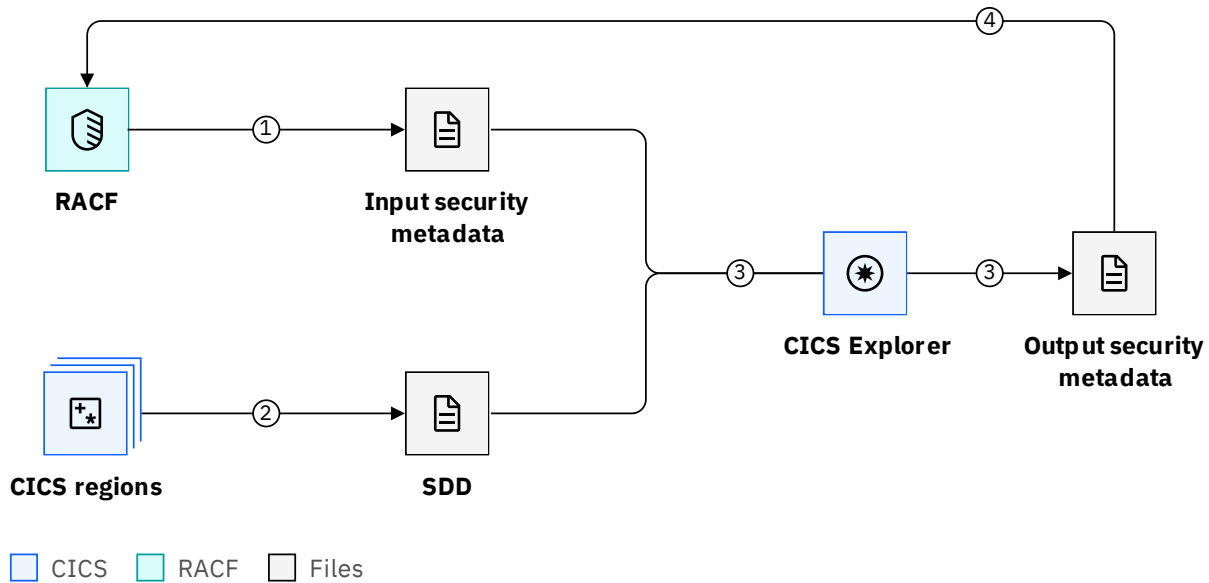
How do you identify

The roles?

What resource access is required?

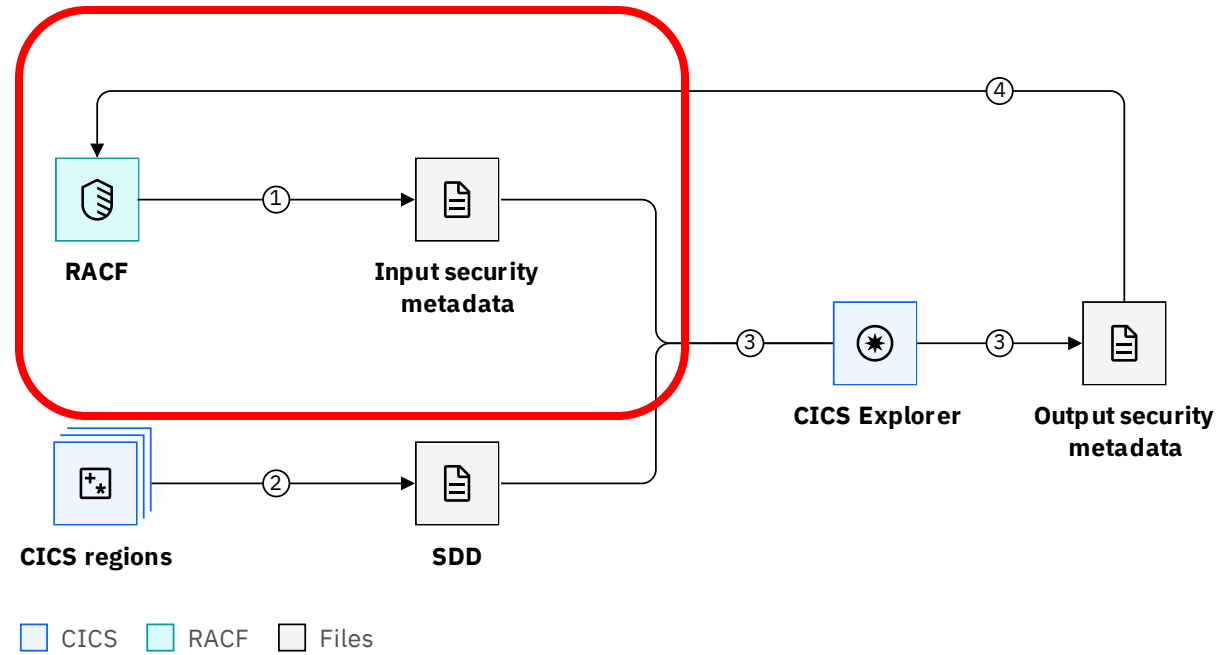
How do you migrate without breaking applications?

CICS Security Discovery



1. Extract RACF definitions
2. Capture security discovery data (SDD)
3. Analyse security definitions in CICS Explorer and export them for review
4. Create RACF commands from reviewed security definitions

1 Import RACF definitions as security metadata



```
DFH$R2SM
//SECMETA JOB
//SECMETA EXEC DFHXSMET,SAMPLIB=hlq.SDFHSAMP,
//  DIR='/u/userid/cics/', FN='regionsA'
//INPUT.SYSIN DD *
XTRAN=CICSTRN
SECPRFX=NO
//
```

```
--- # Security Metadata ---
version: 2
file_created:
- date: "17 Mar 2023"
- time: "17:27:26"
- user: SUE
group_list:
- name: MANAGER
  users:
  - MAINWRN
- name: TELLER
  users:
  - WILSON
  - PIKE
user_list:
- user: JONES
  username: "Jack Jones"
- user: MAINWRN
  username: "George Mainwaring"
- user: PIKE
  username: "Frank Pike"
- user: WILSON
  username: "Arthur Wilson"
secprfx: NO
classes:
- class: XTRAN
  name: CICSTRN
  profiles:
  - name: BANKING
    members:
    - BNK1
    - BNK2
  access_lists:
  - access: READ
    groups:
    - MANAGER
    - TELLER
  users:
  - JONES
```

Security metadata

- Imports transaction class and groups using this class
- Assumes users have good transaction security
- Separate import for each SECPRFX
- Optionally imports other CICS security classes

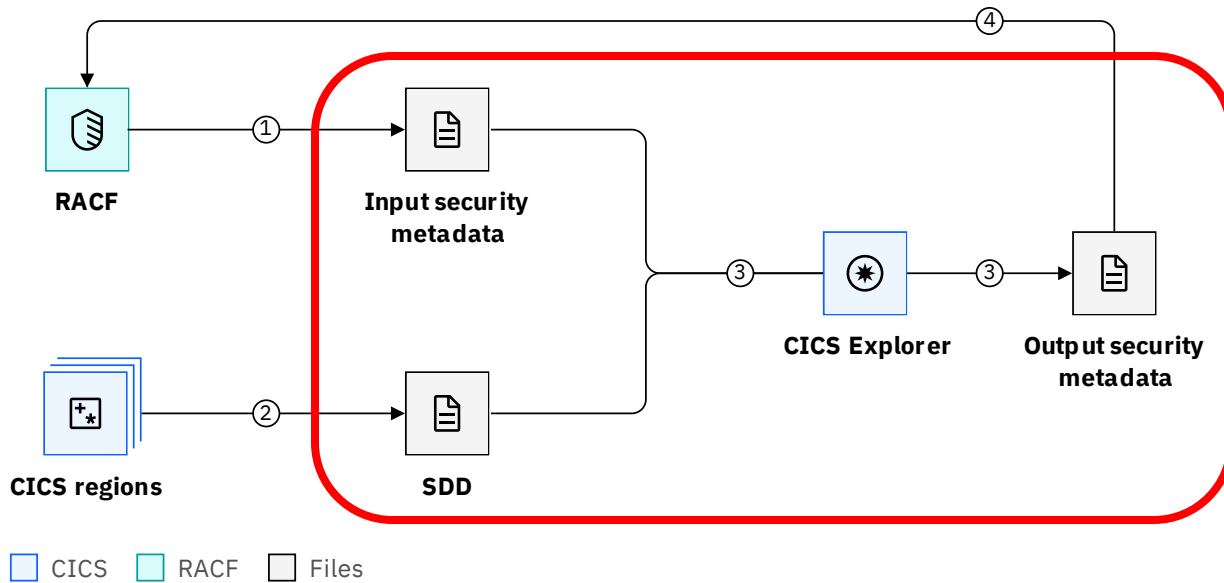
Example security metadata

```
--- # Security Metadata ---
version: 2
file_created:
  - date: "17 Mar 2023"
  - time: "17:27:26"
  - user: SUE
group_list:
  - name: MANAGER
    users:
      - MAINWRN
  - name: TELLER
    users:
      - WILSON
      - PIKE
user_list:
  - user: JONES
    username: "Jack Jones"
  - user: MAINWRN
    username: "George Mainwaring"
  - user: PIKE
    username: "Frank Pike"
  - user: WILSON
    username: "Arthur Wilson"
```

```
secprfx: NO
classes:
  - class: XTRAN
    name: CICSTRN
    profiles:
      - name: BANKING
        members:
          - BNK1
          - BNK2
        access_lists:
          - access: READ
            groups:
              - MANAGER
              - TELLER
            users:
              - JONES
```


3

Analyse security definitions in CICS Explorer and export them for review



CICS Explorer - Security Discovery Perspective

		005		m0000006		m0000007		m000...		m000...	
		T019	T021	T049	T023	T047	T025	T026	T027	T029	T030
✓	HR						R+r		R+r	R+r	R+r
✓	USR0015 Dick Pollard						Rr		Rr	R+	Rr
✓	USR0028 Callum Ferguson						R+		R+	Rr	Rr
✓	USR0064 Eddie Hemmings						Rr		Rr	Rr	R+
✓	USR0084 Norman Gifford						Rr		Rr	Rr	Rr
✓	USR0094 Tommy Mitchell						R		Rr	Rr	Rr
✓	MANAGER	R	Rr	R							
✓	USR0070 Robin Smith	R	Rr	R							
✓	SYSADMIN	Rr			Rr	Rr					
✓	USR0061 Mark Stoneman	Rr			Rr	Rr					
✓	TELLER	R+r	Rr	Rr	Rr	Rr			R+r	R+r	R+r
✓	USR0026 David Colley	R+	Rr	Rr	R	Rr			Rr	Rr	Rr
✓	USR0076 Charlie Kelleway	Rr	Rr	Rr	Rr	Rr			Rr	Rr	Rr
✓	USR0083 Len Darling	Rr	Rr	Rr	Rr	Rr			R+	R+	R+

Use security metadata to

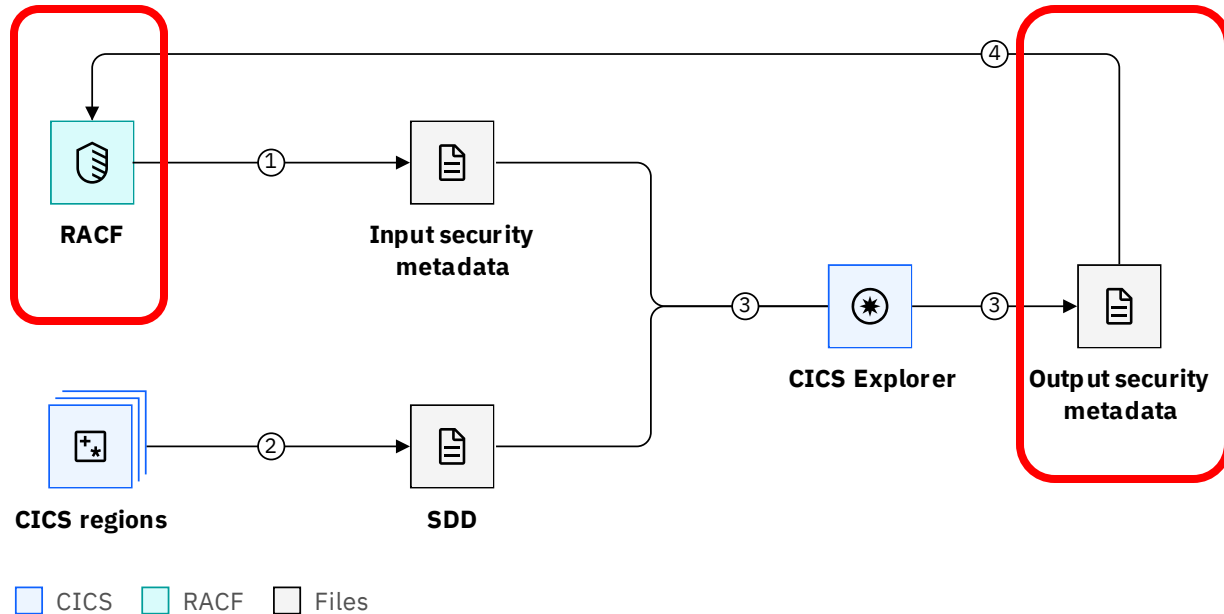
- Identify user groups (roles) and their access to transaction member lists

Use Security Discovery Data to

- Refine user groups and transaction member lists
- Identify user groups access to resource member lists

4

Create RACF commands from reviewed security definitions



Create new classes (allows easy migration)
 Configure for selected regions at a time
 Options to customise with WARNING, OWNER etc

DFH\$SM2R

```

//SECMETA JOB REGION=0M
//RACFCMD EXEC PGM=IRXJCL,PARM='DFH$XSR'
//SYSEXEC DD DISP=SHR,DSN=h1q.SDFHSAMP
//YAML DD DISP=SHR,DSN=<<security metadata>>
//XTRAN DD SYSOUT=*
//XFCT DD SYSOUT=*
...
//GROUPS DD SYSOUT=*
//SYSIN DD *
XTRAN=TESTTRN
XFCT=TESTFCT
//
  
```

```

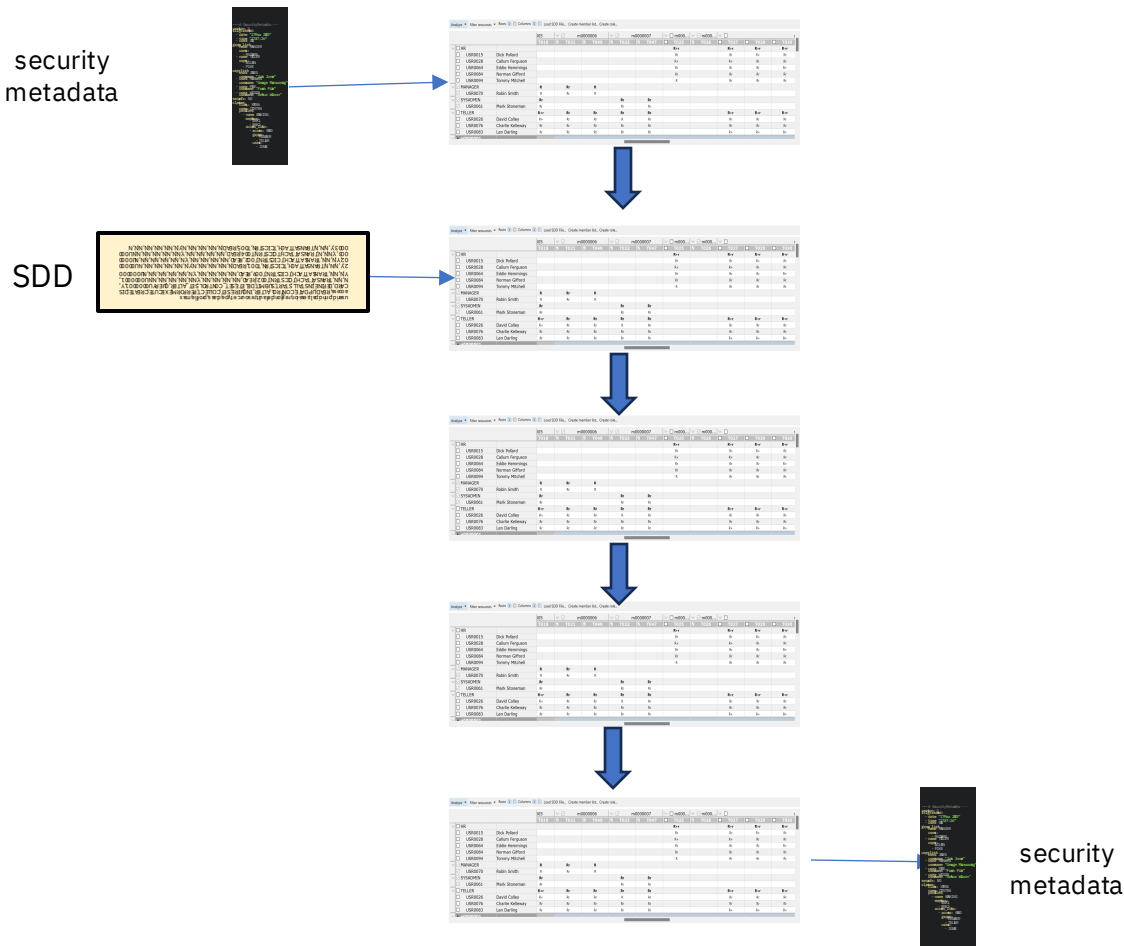
RDEFINE GCIC1TRN TGRP1 +
  UACC(NONE) +

  ADDMEM(TRNA,TRNB,TRNC,TRND)
  PERMIT TGRP1 CLASS(GCIC1TRN) +
  ACCESS(READ) +
  ID(UGRP1)
RDEFINE GCIC1TRN TGRP2 +
  UACC(NONE) +
  ADDMEM(TRNE,TRNF)
  PERMIT TGRP1 CLASS(GCIC1TRN) +
  ACCESS(READ) +
  ID(UGRP2)
  
```

Analysing the data using CICS Explorer

Details of the process of using the Security Discovery perspective in the CICS Explorer to analyse security metadata and SDD to identify roles and member lists for transactions and resources

Stages of analysis



1. Identify roles and transaction member lists
2. Refine users in roles
3. Define Application Filters
4. Identify resource member lists and refine roles
5. Export security metadata and review applications

1

RACF definitions imported into the Security Discovery editor

Analyze ▾ Filter resources ▾ Rows Columns Load SDD File... Create member list... Create role...

		Ungrouped										
		<input checked="" type="checkbox"/> T001	<input checked="" type="checkbox"/> T002	<input checked="" type="checkbox"/> T003	<input checked="" type="checkbox"/> T004	<input checked="" type="checkbox"/> T005	<input checked="" type="checkbox"/> T006	<input checked="" type="checkbox"/> T007	<input checked="" type="checkbox"/> T008	<input checked="" type="checkbox"/> T009	<input checked="" type="checkbox"/> T00a	
<input checked="" type="checkbox"/> Unresolved												
<input checked="" type="checkbox"/> U0000001	Tom Richmond	R	R	R	R	R		R	R	R	R	
<input checked="" type="checkbox"/> U0000002	Bruce Laird			R			R	R			R	
<input checked="" type="checkbox"/> U0000003	Paul Jarvis	R		R	R			R	R	R		
<input checked="" type="checkbox"/> U0000004	Jack Wilson	R	R	R	R	R		R	R	R	R	
<input checked="" type="checkbox"/> U0000005	Chris Adams			R				R	R	R		
<input checked="" type="checkbox"/> U0000006	Steve Rhodes		R			R	R	R			R	
<input checked="" type="checkbox"/> U0000007	Paul Parker			R				R	R	R		
<input checked="" type="checkbox"/> U0000008	Harry Lee		R			R	R	R			R	
<input checked="" type="checkbox"/> U0000009	Mark Ealham			R			R	R			R	
<input checked="" type="checkbox"/> U0000010	Mark Stoneman	R		R	R			R	R	R		

Import the security metadata .esm file

Example has transaction definitions by user ID (no groups or member lists)

R indicates that a user ID has READ access to the transaction

1

Transaction security definitions grouped by similarity

Analyze ▾ Filter resources ▾ Rows Columns Load SDD File... Create member list... Create role...

		m0000000				m0000001		m000...	m000...	m000...	m000...
		<input type="checkbox"/> T001	<input type="checkbox"/> T004	<input checked="" type="checkbox"/> T008	<input checked="" type="checkbox"/> T009	<input checked="" type="checkbox"/> T002	<input checked="" type="checkbox"/> T005	<input checked="" type="checkbox"/> T003	<input checked="" type="checkbox"/> T006	<input checked="" type="checkbox"/> T007	<input checked="" type="checkbox"/> T00a
▼ <input checked="" type="checkbox"/> g0000000		R+	R+	R	R			R		R	
<input checked="" type="checkbox"/> U0000003	Paul Jarvis	R	R	R	R			R		R	
<input type="checkbox"/> U0000005	Chris Adams	R+	R+	R	R			R		R	
<input type="checkbox"/> U0000007	Paul Parker	R+	R+	R	R			R		R	
<input checked="" type="checkbox"/> U0000010	Mark Stoneman	R	R	R	R			R		R	
▼ <input checked="" type="checkbox"/> g0000001		R	R	R	R	R	R	R		R	R
<input checked="" type="checkbox"/> U0000001	Tom Richmond	R	R	R	R	R	R	R		R	R
<input checked="" type="checkbox"/> U0000004	Jack Wilson	R	R	R	R	R	R	R		R	R
▼ <input checked="" type="checkbox"/> g0000002						R	R		R	R	R
<input checked="" type="checkbox"/> U0000006	Steve Rhodes					R	R		R	R	R
<input checked="" type="checkbox"/> U0000008	Harry Lee					R	R		R	R	R
▼ <input checked="" type="checkbox"/> g0000003								R	R	R	R
<input checked="" type="checkbox"/> U0000002	Bruce Laird							R	R	R	R
<input checked="" type="checkbox"/> U0000009	Mark Ealham							R	R	R	R

Suggests groups and member lists with similar access

Example has transaction definitions by user ID (no groups or member lists)

R+ indicates that if the suggestion is accepted, the user ID will gain access

1

Transaction security definitions with all proposed changes resolved

Analyze ▾ Filter resources ▾ Rows + Columns + Load SDD File... Create member list... Create role...

Resource type filter=XTRAN: Application=No application: Displayed roles=13: Displayed member lists=14

			APP3					CURRENT				
			T011	<input checked="" type="checkbox"/> T012	<input checked="" type="checkbox"/> T013	<input checked="" type="checkbox"/> T015	<input checked="" type="checkbox"/> T016	<input checked="" type="checkbox"/> T027	<input checked="" type="checkbox"/> T028	<input checked="" type="checkbox"/> T029	<input checked="" type="checkbox"/> T030	
<input checked="" type="checkbox"/>	USR0192	Jack Russell										
<input checked="" type="checkbox"/>	USR0197	Damien Martyn										
<input checked="" type="checkbox"/>	USR0216	David Hookes										
<input checked="" type="checkbox"/>	USR0238	Tom Curran										
<input checked="" type="checkbox"/>	SUPER		R	R	R	R	R					
<input checked="" type="checkbox"/>	USR0015	Andrew McDonald	R	R	R	R	R					
<input checked="" type="checkbox"/>	TELLERS											
<input checked="" type="checkbox"/>	USR0285	Martyn Moxon										
<input checked="" type="checkbox"/>	TELLERS2							R	R	R	R	
<input checked="" type="checkbox"/>	USR0045	Martin Hawke						R	R	R	R	
<input checked="" type="checkbox"/>	USR0134	Albert Trott						R	R	R	R	
<input checked="" type="checkbox"/>	USR0284	Charles Studd						R	R	R	R	
<input checked="" type="checkbox"/>	TELLERS3											
<input checked="" type="checkbox"/>	USR0233	James Tredwell										
<input checked="" type="checkbox"/>	USR0271	Rex Sellers										

User IDs moved in/out of groups, transactions in/out of member lists

Proposed new accesses (R+) are accepted

Groups and member lists are renamed

RACF definitions overlaid with SDD

Analyze ▾ Filter resources ▾ Rows Columns Load SDD File... Create member list... Create role...

Resource type filter=XTRAN: Application=No application: Displayed roles=14: Displayed member lists=14

		APP3					CURRENT				
		<input checked="" type="checkbox"/> T011	<input checked="" type="checkbox"/> T012	<input checked="" type="checkbox"/> T013	<input checked="" type="checkbox"/> T015	<input checked="" type="checkbox"/> T016	<input checked="" type="checkbox"/> T027	<input checked="" type="checkbox"/> T028	<input checked="" type="checkbox"/> T029	<input checked="" type="checkbox"/> T030	
<input checked="" type="checkbox"/>	USR0192	Jack Russell									
<input checked="" type="checkbox"/>	USR0197	Damien Martyn									
<input checked="" type="checkbox"/>	USR0216	David Hookes									
<input checked="" type="checkbox"/>	USR0238	Tom Curran									
<input checked="" type="checkbox"/>	SUPER		Rr	Rr	Rr	Rr	Rr				
<input checked="" type="checkbox"/>	USR0015	Andrew McDonald	Rr	Rr	Rr	Rr	Rr				
<input checked="" type="checkbox"/>	TELLERS										
<input checked="" type="checkbox"/>	USR0285	Martyn Moxon									
<input checked="" type="checkbox"/>	TELLERS2						Rr	Rr	Rr	Rr	
<input checked="" type="checkbox"/>	USR0045	Martin Hawke					Rr	Rr	Rr	Rr	
<input checked="" type="checkbox"/>	USR0134	Albert Trott					Rr	Rr	Rr	Rr	
<input checked="" type="checkbox"/>	USR0284	Charles Studd					Rr	Rr	R	Rr	
<input checked="" type="checkbox"/>	TELLERS3										
<input checked="" type="checkbox"/>	USR0233	James Tredwell									
<input checked="" type="checkbox"/>	USR0271	Rex Sellers									

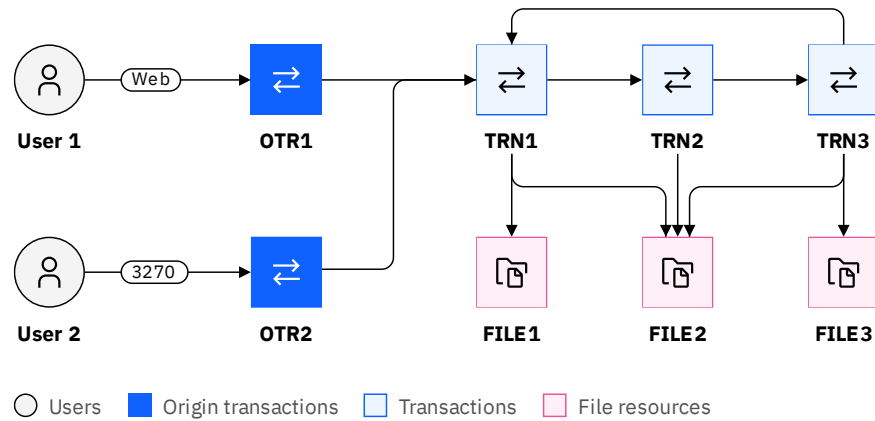
Import SDD

The r symbol indicate that the user accessed the resource during the collection period

Review if any users should be removed from groups

3

What is an application?



User in a role has access to transactions and resources

Access may be through specific entry points, represented by origin transactions

Different users (roles) may have different accesses to transactions and resources

3

Selecting origin transactions

The screenshot displays a software interface with four main panels:

- Application filter attributes:** Includes a dropdown menu for 'Filter name' (set to 'Banking'), a text field for 'Description', and a text field for 'Owner'. Below these are buttons for 'New...', 'Duplicate...', 'Rename...', and 'Delete'.
- Origin transactions:** Features a search filter, a 'Select all' checkbox, and a table with columns 'Select' and 'Origin transacti...'. The table lists transactions T002, T006, T009, T012, and T016. T002 and T006 are checked.
- Transaction member lists:** Includes a search filter, a 'Select all' checkbox, and a table with columns 'Select', 'Member list', and 'Fit'. The table lists APP1 (5/5) and APP2 (2/7). APP1 is selected.
- Application transactions:** Shows two columns: 'Included' and 'Pending'. The 'Pending' column lists transactions T001, T007, T002, T003, T004, and T005.

Select all the origin transaction associated with the application

All transactions associated with these origins will be displayed as pending

All member lists including these transaction will be displayed with # of transactions

Selecting member lists

Resource type filter=XTRAN: Application=Banking: Displayed roles=21: Displayed member lists=2

		APP2						
		<input checked="" type="checkbox"/> T006	<input checked="" type="checkbox"/> T007	<input checked="" type="checkbox"/> T044	<input checked="" type="checkbox"/> T045	<input checked="" type="checkbox"/> T046	<input checked="" type="checkbox"/> T047	<input checked="" type="checkbox"/> T048
<input checked="" type="checkbox"/>	USR0219	Chris Read						
<input checked="" type="checkbox"/>	USR0267	Tim Bresnan						
<input checked="" type="checkbox"/>	VENTUPD							
<input checked="" type="checkbox"/>	USR0007	Sammy Carter						
<input checked="" type="checkbox"/>	USR0030	Paul Collingwood						
<input checked="" type="checkbox"/>	USR0219	Chris Read						
<input checked="" type="checkbox"/>	VIEWERS		Rr	Rr	Rr	Rr	R	Rr

Application filter attributes: Filter name: Banking, Description: , Owner: [New... Duplicate... Rename... Delete]

Origin transactions: [Select all] T002, T006, T009, T012

Transaction member lists: [Select all] APP1 (5/5), APP2 (2/7)

Application transactions: Included (T001, T007, T002, T003, T004), Pending

Select all the member list which give access to this application

All user roles for the application will automatically be added when you include member lists

Warning triangles indicate transactions which are not part of the application (need resolving)

3

Transaction security definitions defined by the Banking application filter

Analyze ▾ Filter resources ▾ Rows Columns Load SDD File... Create member list... Create role...

Resource type filter=XTRAN: Application=Banking: Displayed roles=21: Displayed member lists=14

		APP2							
		T006	T007	T044	T045	T046	T047	T048	
VIEWERS		Rr	Rr	Rr	Rr	R	Rr	Rr	Rr
USR0042	George Studd	Rr	Rr	R	R	R	R	R	R
USR0099	Kurtis Patterson	R	R	R	R	R	R	R	Rr
USR0243	Bill Johnston	R	R	Rr	Rr	R	Rr	R	R
USR0256	Ernie Hayes	R	R	R	R	R	R	R	Rr
USR0293	Tom Hogan	R	R	R	R	R	R	R	Rr
VIEWERSU									

Application filter attributes

Filter name: Banking
Description:
Owner:

Origin transactions

Select all

Select	Origin transacti...
<input checked="" type="checkbox"/>	T002
<input checked="" type="checkbox"/>	T006
<input checked="" type="checkbox"/>	T009
<input checked="" type="checkbox"/>	T012

Transaction member lists

Select all

Select	Member list	Fit
<input checked="" type="checkbox"/>	APP2	7/7
<input checked="" type="checkbox"/>	CURRENT	6/6
<input checked="" type="checkbox"/>	MCP	6/8

Application transactions

Included	Pending
T044	
T022	
T002	
T032	
T000	

Application is now completely defined

This defines all the user roles and transaction member lists for the application

This can be exported into security metadata and reviewed by the application owner

3

Export security metadata and review application

```
--- # Security Metadata ---
version: 2
file_created:
  - date: "10 Mar 2024"
  - time: "12:33:24"
  - user: SUE
application:
  - name: "Current Account"
  - owner: "Claude Gordon"
  - description: "Front office account application"
  origin_transactions:
    - TRN1
    - TRN2
group_list:
  - name: MANAGER
    users:
      - MAINWRN
  - name: TELLER
    users:
      - WILSON
      - PIKE
user_list:
  - user: MAINWRN
    username: "George Mainwaring"
  - user: PIKE
    username: "Frank Pike"
  - user: WILSON
    username: "Arthur Wilson"
secprfx: NO
```

```
classes:
  - class: XTRAN
    name: CICSTRN
    profiles:
      - name: BANKING
        members:
          - BNK1
          - BNK2
        access_lists:
          - access: READ
            groups:
              - MANAGER
              - TELLER
```

Review with Application Owner

They are only looking at existing transaction security

If there are any changes go back to CICS Explorer and amend.

Security definitions overlaid with file access data from SDD

Analyze ▾ Filter resources ▾ Rows Columns Load SDD File... Create member list... Create role...

Resource type filter=XFCT: Application=No application: Displayed roles=14: Displayed member lists=1

		<input checked="" type="checkbox"/> FI0016	<input checked="" type="checkbox"/> FI0017	<input checked="" type="checkbox"/> FI0018	<input checked="" type="checkbox"/> FI0019	<input checked="" type="checkbox"/> FI0020	<input checked="" type="checkbox"/> FI0021	<input checked="" type="checkbox"/> FI0022	<input checked="" type="checkbox"/> FI0023	<input checked="" type="checkbox"/> FI0024
<input checked="" type="checkbox"/> XS										
<input checked="" type="checkbox"/> USR0107	Eddie Leadbeater									
<input checked="" type="checkbox"/> YES										
<input checked="" type="checkbox"/> USR0149	Dick Tyldesley									
<input checked="" type="checkbox"/> Unresolved										
<input checked="" type="checkbox"/> USR0003	Ted Arnold				u	r				r
<input checked="" type="checkbox"/> USR0007	Sammy Carter									
<input checked="" type="checkbox"/> USR0014	Trent Copeland			u			r	r	r	r
<input checked="" type="checkbox"/> USR0015	Andrew McDonald		r							
<input checked="" type="checkbox"/> USR0024	Roland Pope				u	u	r	r		r
<input checked="" type="checkbox"/> USR0030	Paul Collingwood									
<input checked="" type="checkbox"/> USR0042	George Studd									
<input checked="" type="checkbox"/> USR0045	Martin Hawke									
<input checked="" type="checkbox"/> USR0062	Andrew Strauss				u	r		r		r
<input checked="" type="checkbox"/> USR0064	Arthur Mold									

The resource types are addressed one at a time

The SDD identifies the resources the for origin transaction and transactions pairs

These are then matched to the user IDs

4

Role groups with proposed access to FILE resources for the application

Analyze ▾ Filter resources ▾ Rows + Columns + Load SDD File... Create member list... Create role...

Resource type filter=XFCT: Application=No application: Displayed roles=39: Displayed member lists=31

		h000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...
<input type="checkbox"/> USR0271	Rex Sellers	0017	<input type="checkbox"/> FI0028 U+u	<input type="checkbox"/> FI0030 U+	<input type="checkbox"/> FI0031 U+u	<input type="checkbox"/> FI0032	<input type="checkbox"/> FI0034 U+u	<input type="checkbox"/> FI0035 U+	<input type="checkbox"/> FI0037
<input checked="" type="checkbox"/> VENT									
<input checked="" type="checkbox"/> USR0007	Sammy Carter								
<input checked="" type="checkbox"/> USR0030	Paul Collingwood								
<input checked="" type="checkbox"/> USR0219	Chris Read								
<input checked="" type="checkbox"/> USR0267	Tim Bresnan								
<input type="checkbox"/> VENT+r			R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> USR0007	Sammy Carter		R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> USR0030	Paul Collingwood		R+	R+	R+r	R+r	R+r	R+	R+r
<input type="checkbox"/> USR0219	Chris Read		R+r	R+	R+r	R+r	R+r	R+	R+r
<input type="checkbox"/> USR0267	Tim Bresnan		R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> VENT+u			U+u	U+u				U+u	
<input type="checkbox"/> USR0007	Sammy Carter		U+u	U+u				U+u	
<input type="checkbox"/> USR0030	Paul Collingwood		U+u	U+u				U+u	
<input type="checkbox"/> USR0219	Chris Read		U+	U+u				U+u	
<input checked="" type="checkbox"/> VIEWERS									
<input checked="" type="checkbox"/> USR0042	Georae Studd								

Best file analysis will then match these with copies of the existing transaction roles

The roles have +r or +u for example to indicate that all resources are accessed READ or UPDATE

Groups are then merged or renamed

4

Role groups with proposed access to FILE resources for the application

Analyze ▾ Filter resources ▾ Rows + Columns + Load SDD File... Create member list... Create role...

Resource type filter=XFCT: Application=No application: Displayed roles=39: Displayed member lists=31

		h000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...	<input type="checkbox"/> m000...
<input type="checkbox"/> USR0271	Rex Sellers	0017	<input type="checkbox"/> FI0028 U+u	<input type="checkbox"/> FI0030 U+	<input type="checkbox"/> FI0031 U+u	<input type="checkbox"/> FI0032	<input type="checkbox"/> FI0034 U+u	<input type="checkbox"/> FI0035 U+	<input type="checkbox"/> FI0037	
<input checked="" type="checkbox"/> VENT										
<input checked="" type="checkbox"/> USR0007	Sammy Carter									
<input checked="" type="checkbox"/> USR0030	Paul Collingwood									
<input checked="" type="checkbox"/> USR0219	Chris Read									
<input checked="" type="checkbox"/> USR0267	Tim Bresnan									
<input type="checkbox"/> VENT+r			R+r	R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> USR0007	Sammy Carter		R+r	R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> USR0030	Paul Collingwood		R+	R+	R+r	R+r	R+r	R+	R+r	R+r
<input type="checkbox"/> USR0219	Chris Read		R+r	R+	R+r	R+r	R+r	R+	R+r	R+r
<input type="checkbox"/> USR0267	Tim Bresnan		R+r	R+r	R+r	R+r	R+r	R+r	R+r	R+r
<input type="checkbox"/> VENT+u			U+u	U+u				U+u		
<input type="checkbox"/> USR0007	Sammy Carter		U+u	U+u				U+u		
<input type="checkbox"/> USR0030	Paul Collingwood		U+u	U+u				U+u		
<input type="checkbox"/> USR0219	Chris Read		U+	U+u				U+u		
<input checked="" type="checkbox"/> VIEWERS										
<input checked="" type="checkbox"/> USR0042	Georae Studd									

Best file analysis will then match these with copies of the existing transaction roles

The roles have +r or +u for example to indicate that all resources are accessed READ or UPDATE

The R+ or U+ indicate the RACF access that will be given, if accepted

5

Export security metadata and review application

```
--- # Security Metadata ---
version: 2
file_created:
  - date: "17 Mar 2024"
  - time: "17:27:26"
  - user: SUE
application:
  - name: "Current Account"
  - owner: "Claude Gordon"
  - description: "Front office account application"
origin_transactions:
  - TRN1
  - TRN2
group_list:
  - name: MANAGER
    users:
      - MAINWRN
  - name: TELLER
    users:
      - WILSON
      - PIKE
user_list:
  - user: MAINWRN
    username: "George Mainwaring"
  - user: PIKE
    username: "Frank Pike"
  - user: WILSON
    username: "Arthur Wilson"
secprfx: NO
```

```
classes:
  - class: XTRAN
    name: CICSTRN
    profiles:
      - name: BANKING
        members:
          - BNK1
          - BNK2
        access_lists:
          - access: READ
            groups:
              - MANAGER
              - TELLER
  - class: XFCT
    name: CICSFCT
    profiles:
      - name: BANKING
        members:
          - CURRENT
          - SAVING
        access_lists:
          - access: READ
            groups:
              - MANAGER
              - TELLER
          - access: UPDATE
            groups:
              - MANAGER
```

Review with Application Owner

If there are any changes go back to CICS Explorer and amend.