

# IBM Education Assistance for z/OS V2R1

Item: ISGENQ Change

Element/Component: BCP GRS



## Agenda

- Trademarks
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Migration & Coexistence Considerations
- Appendix



## Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.



## Overview

- Problem Statement / Need Addressed
  - Exploiters couldn't downgrade their ENQ from Exclusive to Shared
    - Changing ENQ control was only allowed from Shared to Exclusive
- Solution
  - ISGENQ REQUEST=CHANGE provides CONTROL=SHARED option
    - Local ENQ support available in all GRS modes
    - Global ENQ support available in Star mode
- Benefit / Value
  - New throughput gains now possible for ENQ usage



## Usage & Invocation

- REQUEST=CHANGE
- CONTROL=SHARED|EXCLUSIVE
  - Change from Exclusive to Shared to optimize throughput
  - Change from Shared to Exclusive will be the default for compatibility
- RESLIST=YES|NO
  - For RESLIST=YES, all requests must be for the same control
- OWNINGTTOKEN
  - Authorized requester may direct the request to another task
- CONTENTIONACT not applicable
  - Changing from Shared to Exclusive will still fail in cases of contention



## Usage & Invocation

xxxx0C10 Name: ISGENQRsn\_UnsupportedMode

Meaning: The current GRS mode does not support this specific request

xxxx0C11 Name: ISGENQRsn\_MasidNotSupported

Meaning: The resource that was the target of this REQUEST=CHANGE, CONTROL=SHARED request currently or at one time contained MASID users. REQUEST=CHANGE,CONTROL=SHARED is not supported for resources that involve MASID requestors.



## Interactions & Dependencies

- Software dependencies
  - New GRS exit support for alternate serialization products
- Hardware dependencies
  - None
- Exploiters
  - MVS Allocation via “SYSDSN ENQ downgrade in JCL” functionality



## Migration & Coexistence Considerations

- Release toleration APAR OA36207 required for lower-level systems
  - Available for z/OS V1R12 and z/OS V1R13
  - Mixed-level GRS complex will encounter Wait States without it
  - Lower-level systems can then participate in the change request
  - Change to Control=SHARED must be initiated from z/OS V2R1 system





## Appendix

- z/OS V2R1 MVS Assembler Services Reference IAR-XCT  
–SA22-7607
- z/OS V2R1 MVS Authorized Assembler Services Reference EDT-IXG  
–SA22-7610

