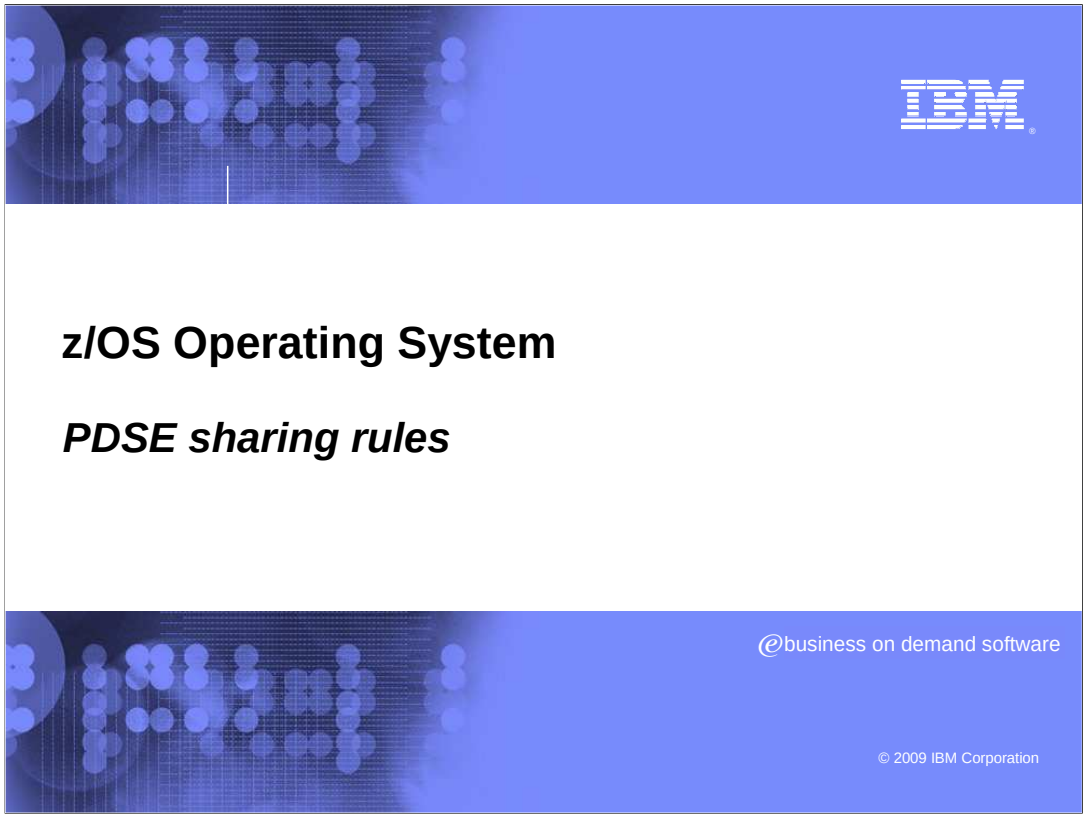


This education topic provides a detailed information on the rules for PDSE Sharing.

Agenda

- OPEN types
- PDSE sharing - Definition
- PDSE sharing - Considerations
- References

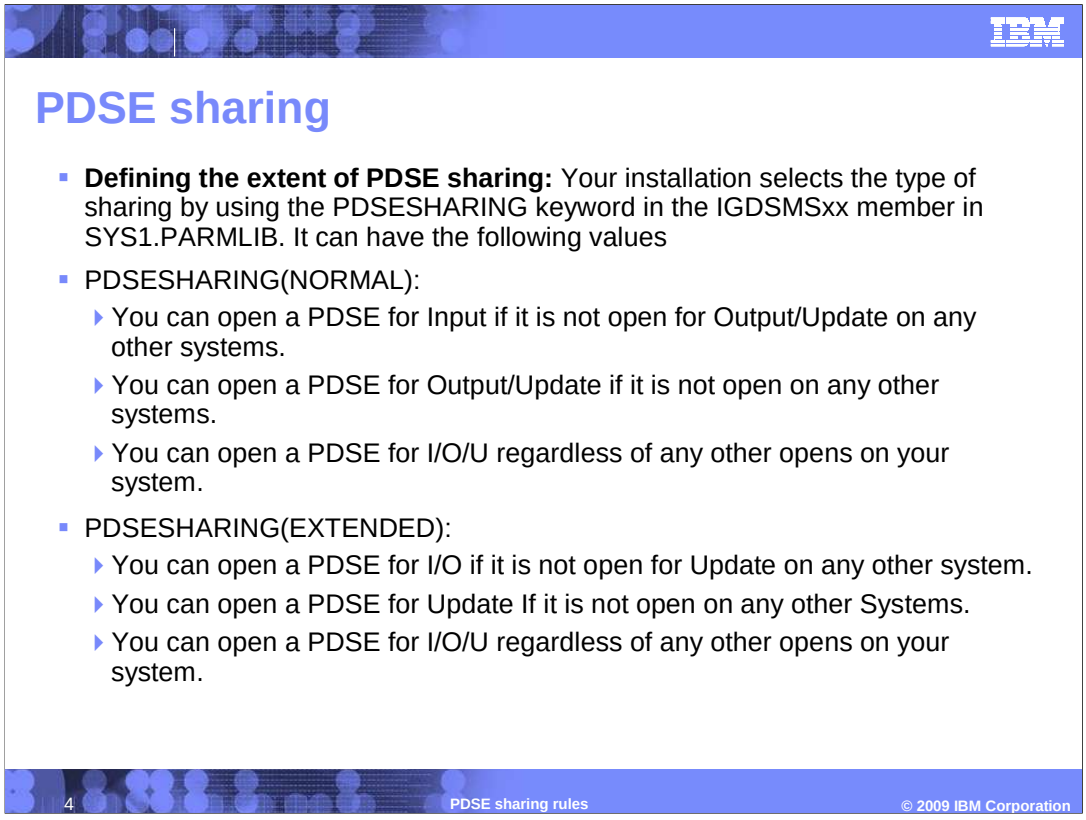
This presentation will begin with a discussion of the OPEN Types. It will then move on to discuss which the definition of PDSE Sharing and then various considerations involved. Finally, a list of References is provided.

OPEN types

- **Open for Input:** To read one or more members.
- **Open for Output:** To create new members, rename members, replace existing members or delete members. PDSE creates new members in new space without disturbing existing members, so multiple users could be creating new members at the same time.
- **Open for Update:** To update a member in place. When a member is being updated in place, the system does not allow other users to read or update it to ensure data integrity.

There are three types of OPEN: Open for Input, open for output, and open for update.

The way a PDSE is open is useful for determining if a PDSE is being used properly.



The type of PDSE sharing will be defined by your installation. The PDSESHARING keyword defined in SYS1.PARMLIB(IGDSMSxx) defines the sharing mode of your installation. There are two types: Normal and Extended.

In PDSESHARING(NORMAL) (Read slide for this section)

In PDSESHARING(EXTENDED) (Read slide for this section)

“Output” includes OutIn and InOut.

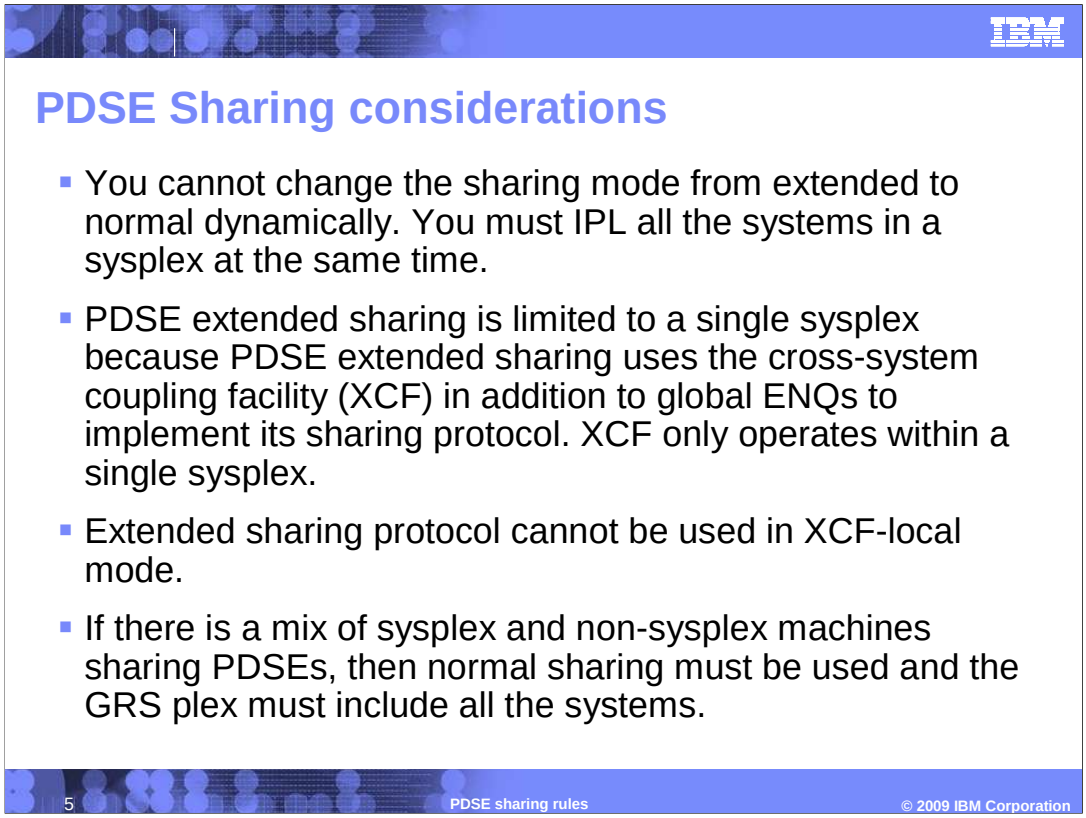
PDSE Normal Sharing across multiple MVS systems: When a user on one system has a PDSE open for output, a user from another system cannot open it.

You must have GRS running on your systems. (GRS is the only serialization product that can be used to serialize PDSE)

PDSE extended sharing across multiple systems in a sysplex: Users on multiple systems could have the PDSE open for output.

PDSE extended sharing uses GRS and XCF signaling for serialization. PDSE code that is running in the PDSE Address Spaces uses XCF to send contention messages to other systems to negotiate changes in the enqueues.

Remember: Sharing across sysplexes is not supported.



Changing the sharing mode from extended to normal: Follow these steps for each system that is running with extended sharing:

1. Change SYS1.PARMLIB(IGDSMSxx) to specify PDSESHARING(NORMAL) or remove the PDSESHARING keyword to allow the system to default to normal sharing.

2. Re-IPL all systems sharing the SMS configuration concurrently.

The following are some of the PDSE sharing considerations (for a more detailed explanation you can look at the PDSE Redbook): Read Slide.

These are some additional PDSE extended sharing requirements:

1. Every system that is sharing a PDSE must be a member of the same sysplex (base or parallel sysplex).

2. XCF must be active.

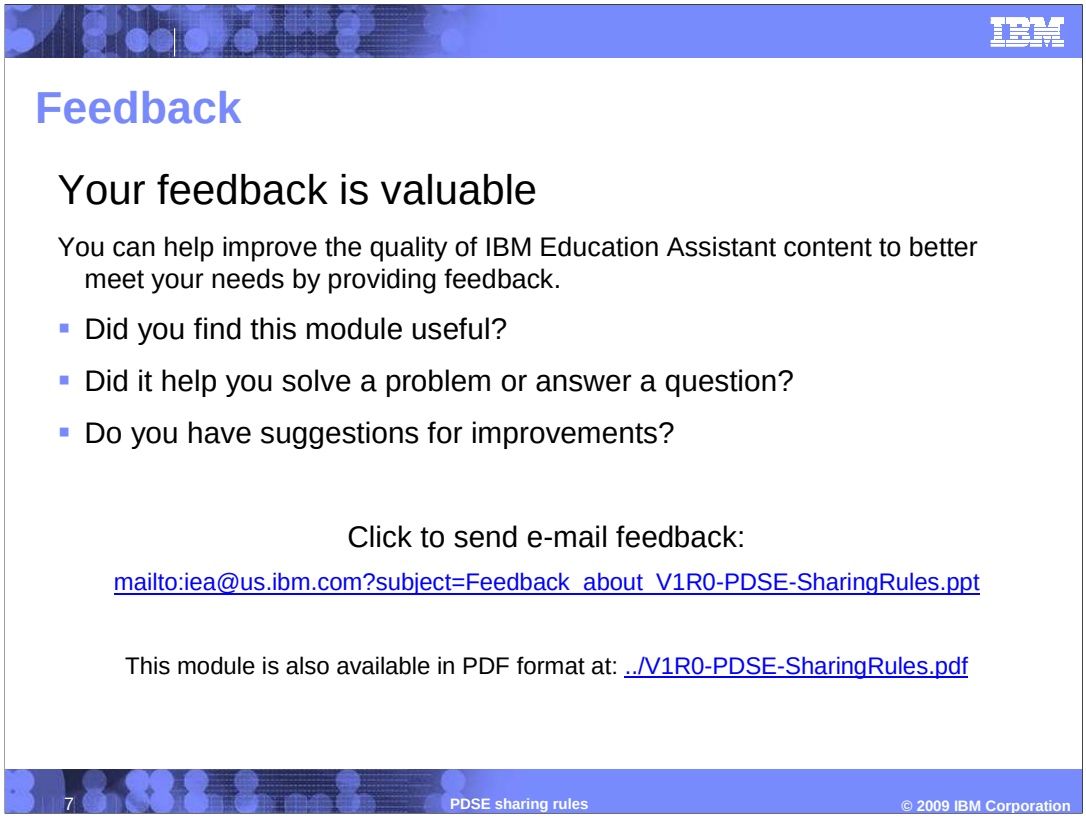
3. You must have GRS.

All systems sharing a PDSE must be communicating with each other and must be operating in the same sharing mode to prevent damage to the data set. If you share a PDSE outside a GRSPplex only read access is allowed. **Any attempt to update the PDSE may result in damage to the PDSE structures.**

References

- Partitioned Data Set Extended Usage Guide, Redbooks
  - SG24-6106-01 or http://www.ibm.com/redbooks
- z/OS® DFSMS™: Using Data Sets
  - SC26-7410-01

The Redbook for PDSEs gives more information about PDSE sharing. See the Redbook for a more detailed information.



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