3.7.3 Reserved storage

Reserved storage can be optionally defined to an LPAR, allowing a nondisruptive image memory upgrade for this partition. Reserved storage can be defined to both central and expanded storage, and to any image mode except CF mode.

An LPAR must define an amount of main storage and optionally (if not a CF image), an amount of expanded storage. Both main storage and expanded storage can feature the following storage sizes defined:

- The *initial value* is the storage size that is allocated to the partition when it is activated.
- The *reserved value* is another storage capacity beyond its initial storage size that an LPAR can acquire dynamically. The reserved storage sizes that are defined to an LPAR do not have to be available when the partition is activated. They are predefined storage sizes to allow a storage increase, from an LPAR point of view.

Without the reserved storage definition, an LPAR storage upgrade is a disruptive process that requires the following steps:

1. Partition deactivation.
2. An initial storage size definition change.
3. Partition activation.

The extra storage capacity for an LPAR upgrade can come from the following sources:

- Any unused available storage
- Another partition that features released storage
- A memory upgrade

A concurrent LPAR storage upgrade uses DSR. z/OS uses the reconfigurable storage unit (RSU) definition to add or remove storage units in a nondisruptive way.

z/VM V6R4 and later releases support the dynamic addition of memory to a running LPAR by using reserved storage. It also virtualizes this support to its guests. Removing storage from the z/VM LPAR is disruptive. Removing memory from a z/VM guest is not disruptive to the z/VM LPAR.

SLES 11 supports concurrent add and remove.