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EXTENDS *Naturals*

Access rights.

CONSTANTS

AccessDupObject,
AccessNice,
AccessDebug

Allows to duplicate the object.
Allows to modify scheduling.
Allows to allocate a debugger.

Right flags.

CONSTANTS

AccessFlagNone,
AccessFlagAllowKernelPrivileged,

AccessFlagAllowPrivileged,

AccessFlagUncachedCheck,
AccessFlagAllowOwner

No access?
Lowest access, allows a kernel client to access it.
Allows a privileged process to access the client.
Always check do not cache result.
Unknown???

TODO: Confirm this is correct.

AccessMask \triangleq

{ *AccessDupObject*
, *AccessNice*
, *AccessDebug*
, *AccessFlagNone*
, *AccessFlagAllowKernelPrivileged*
, *AccessFlagAllowPrivileged*
, *AccessFlagUncachedCheck*
, *AccessFlagAllowOwner*
}

Share access flags.

CONSTANTS

AccessShareTypeNone,
AccessShareTypeAll,

No sharing.
All can access this device.

<i>AccessShareTypeOsSecurityToken</i> ,	Client handles from the same <i>UID</i> can access this object.
<i>AccessShareTypeClient</i> ,	Share with specific client id.
<i>AccessShareTypePid</i> ,	Shares with all clients from same <i>PID</i> .
<i>AccessShareTypeSmcPartition</i> ,	Shares with what shares the <i>SMC</i> partition.
<i>AccessShareTypeGpu</i> ,	Shares with the physical gpu.
<i>AccessShareTypeFabricClient</i>	Shares with fabric manager clients.

AccessShareTypes \triangleq

```
{ AccessShareTypeNone
, AccessShareTypeAll
, AccessShareTypeOsSecurityToken
, AccessShareTypeClient
, AccessShareTypePid
, AccessShareTypeSmcPartition
, AccessShareTypeGpu
, AccessShareTypeFabricClient
}
```

Share actions.

Use Revoke to remove an existing policy from the list.

Allow is based on OR logic, Require is based on AND logic.

To share a right, at least one Allow (non-Require) must match, and all Require must pass.

If Compose is specified, policies will be added to the list. Otherwise, they will replace the list.

CONSTANTS

<i>AccessShareActionRevoke</i> ,	Revokes the share action.
<i>AccessShareActionRequire</i> ,	Requires the share action.
<i>AccessShareActionCompose</i>	Composes the share action.

AccessShareActions \triangleq

```
{ AccessShareActionRevoke
, AccessShareActionRequire
, AccessShareActionCompose
}
```

RsSharePolicy \triangleq

```
[target : Nat
, access : AccessMask
, type : AccessShareTypes
, action : AccessShareActions
]
```

Target to share.
Access mask to apply.
Type of share to use.
Actions to use.

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\ * Last modified *Mon Jun 20 15:55:53 EDT 2022* by *mbuchel*
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