IOPMP Task Group Meeting
June 6, 2024

Video link

Minutes

- Spec-related affairs:
  - Those updates after the draft 6: are they posted in GitHub? Update today (6/6)
  - PoC:
    - QEMU: by September (if spec can be stable in June/July)
    - C/C++ model and stimulus would be delivered by? By the end of year.
- Programming model:
  - The Read-Modify-Write issue!? (showed in the following slides)
  - Decide to vote if we should add a WorldGuard Model as the second programming model.

Programming model

➢ Suggested initial sequence:

outer-loop: for each rrid

```
for each rrid i
    w=r=0;
    for each region R[j]
        r |= (if-rrid-i-can-read-R[j])<<i;
        w |= (if-rrid-i-can-write-R[j])<<i;
    end for
    SRCMD_R[i] = r;
    SRCMD_W[i] = w;
end for;
for each region R[j]
    entry[j].addr = R[j]; // set region's address
    entry[j].A = NAPOT; // enable
end for
```

inner-loop: for each region/MD

NO Read-Modify-Write

Partial Update

- Update "<u>the permissions for one entry</u>" v.s. "<u>the permissions for one RRID</u>"

What to update	perms of one entry	perms of one RRID
WorldGuard Checker	more convenient 😃	multiple access are needed
IOPMP	multiple access are needed	more convenient 😃

Update permissions for one RRID: when you switch an I/O agent between different security contexts.

Update the permissions for one entry

- Channing's proposal:
    - Register **ENTRY_SEL**: entry selector
    - Register **ENTRY_PERM**: the permissions of the entry selected by **ENTRY_SEL**