Protected-Mode Address Translation

1. **Logical Address**
   - CPU: Selector, Offset
   - GDT/LDT: Base, Limit, Flags

2. **Segment Translation**
   - Linear Address
   - Page Translation

3. **Physical Address**
   - RAM

4. **Page Table**
   - PPN, Flags

5. **Page Directory**
   - PPN

6. **CR3**

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**Physical Page Number**

- **P** - Present
- **W** - Writable
- **U** - User
- **WT** - 1 = Write-through, 0 = Write-back
- **CD** - Cache Disabled
- **A** - Accessed
- **D** - Dirty (0 in page directory)
- **AVL** - Available for system use

Page table and page directory entries are identical except for the D bit.