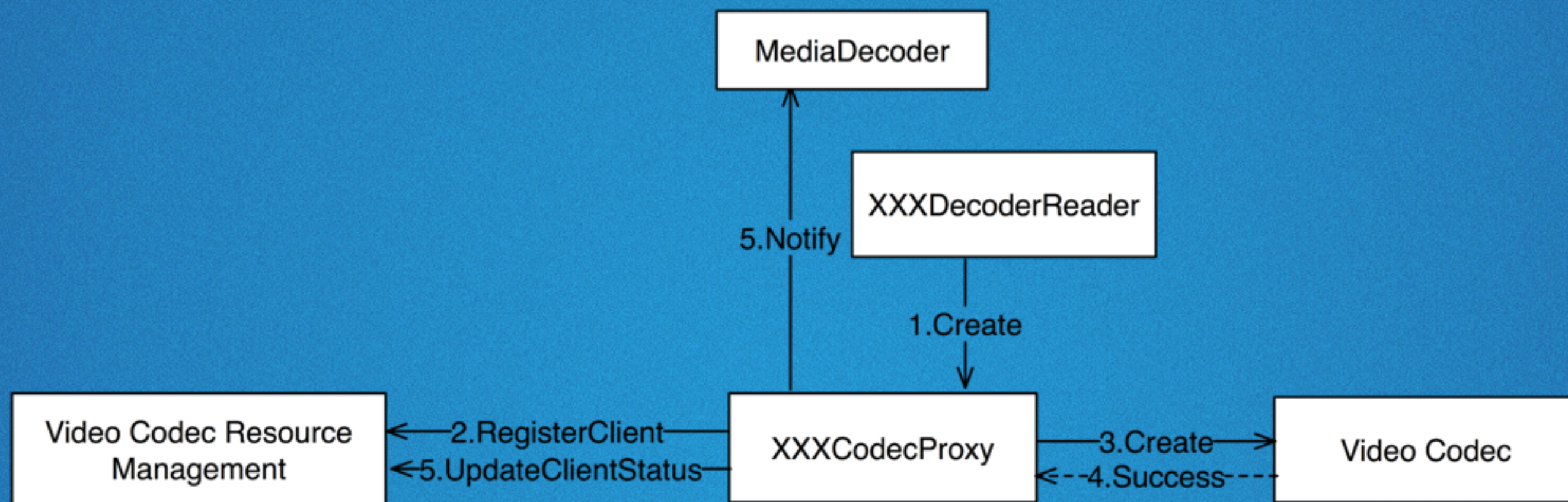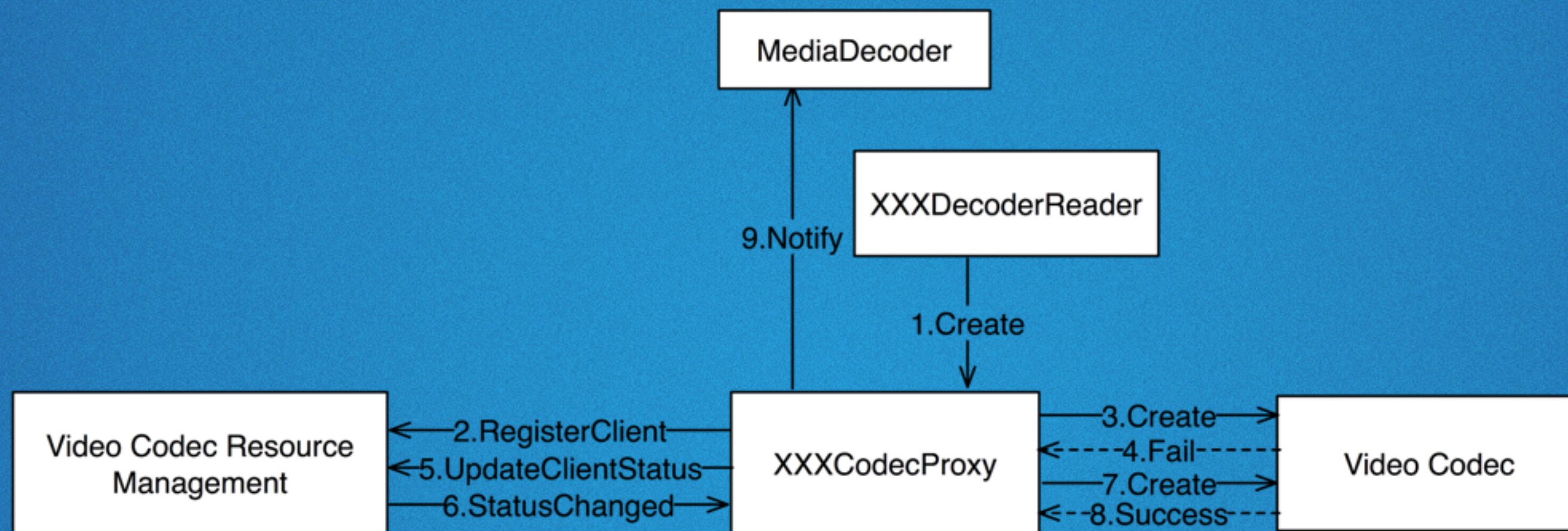# Block Diagram - 1

RegisterClient:
Register to VCRM database(client list)
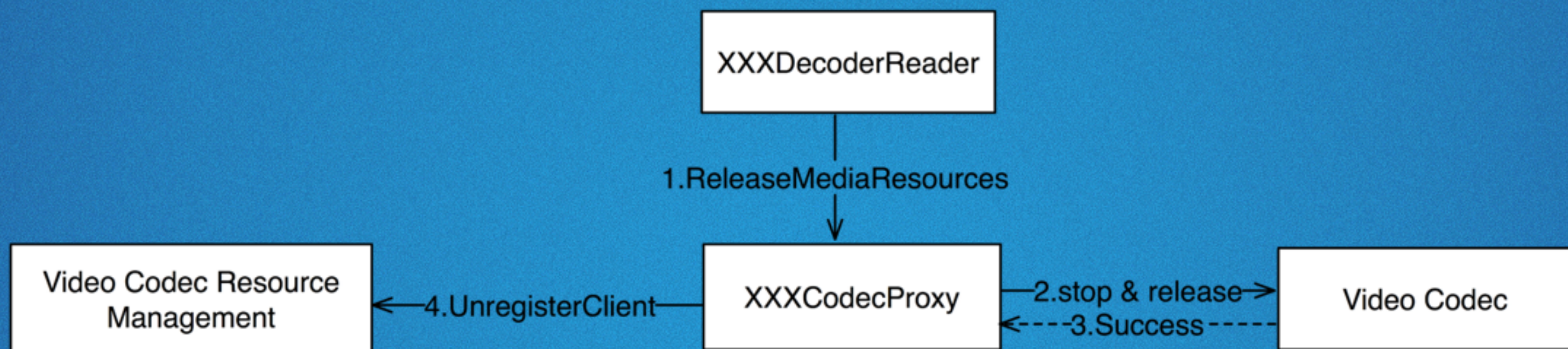**UpdateClientStatus:**
Update the state of this client to be waiting for resource or using the resource currently.

Block Diagram - 2

If fail to create codec, report to VCRM and wait for the statusChanged event from VCRM to try to create again.

VCRM will notify the earliest registered client which is waiting to create codec via statusChanged event when some client releases the codec.

Block Diagram - 3

By calling UnreigsterClient, the client will be removed from the list in VCRM.

VCRM

What VCRM does:

1. Add a registered client to a list which record which client is using codec and which is waiting.
2. Change the state of client according to their updates.

    possible state: none, allocating, waiting, and using

3. When receiving a Unregister call, it will notify to the earliest registered client who is waiting for the resource