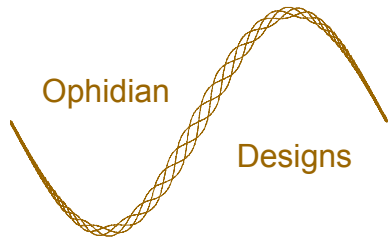


## VI addressing

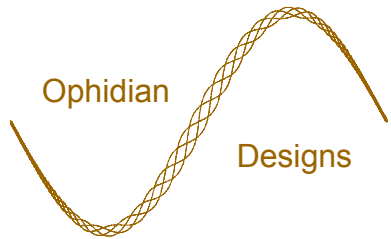
- A VI address consists of a Host Address and a Discriminator.
- A Host Address is almost always an IP address, which identifies an adapter or NIC on the underlying network.
- A Discriminator identifies a specific application program accessible through the adapter or NIC. In effect, it identifies an application protocol. For SVP it might be a well known constant, specified in SVP or a profile.



# VI connection establishment

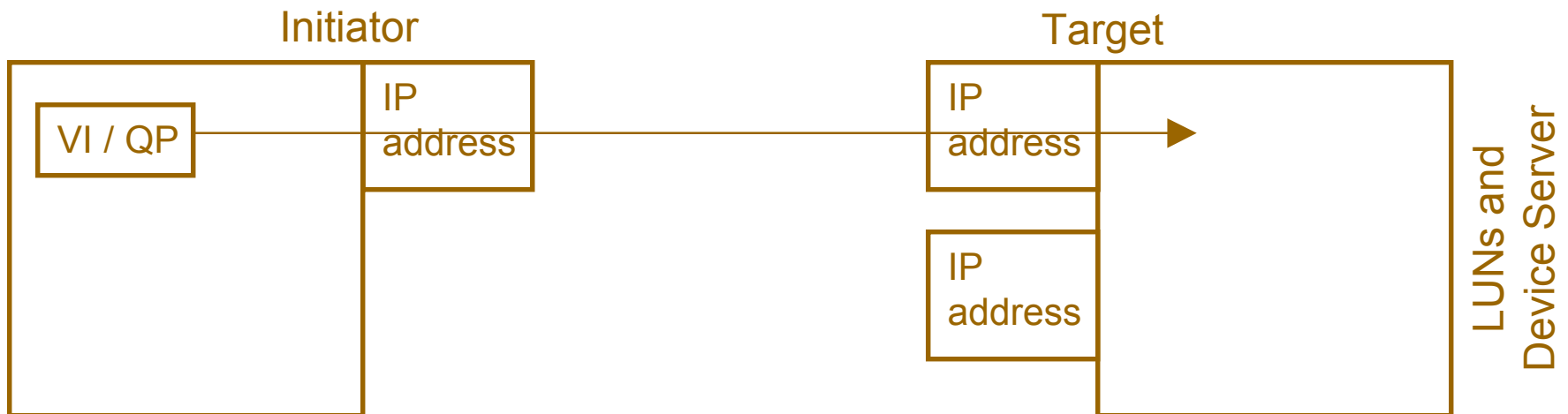
- A server waits for a connection request, specifying the VI address(es) at which it will accept connections. E.g., an SVP target specifies the Host Address(es) of its attached NICs and the well known constant SVP Discriminator.

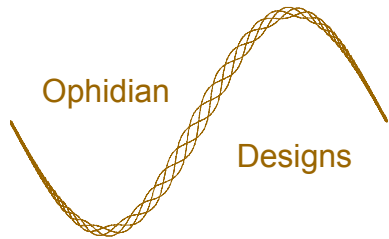




# VI connection establishment

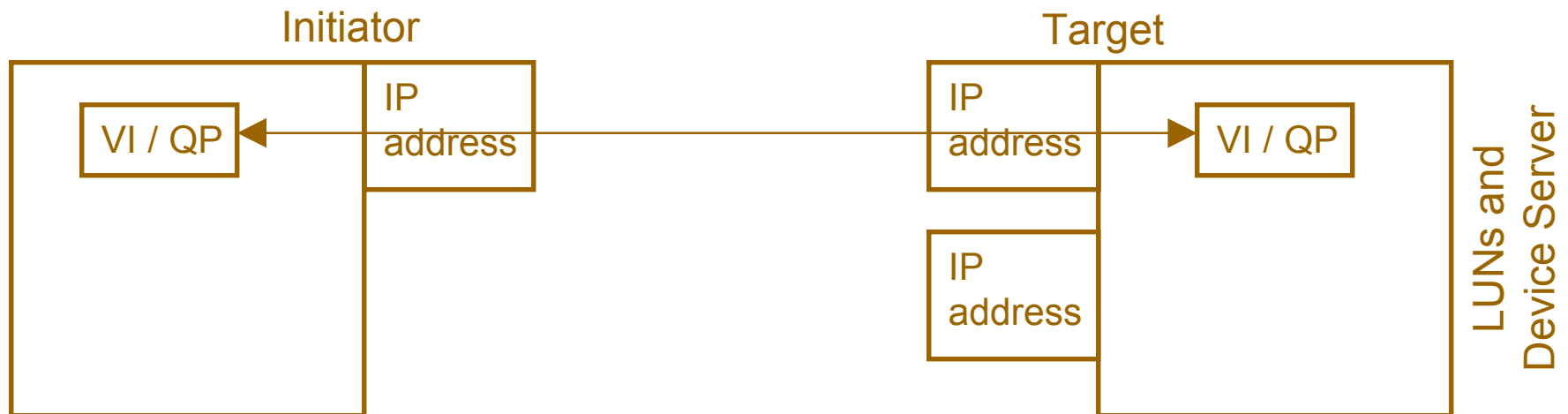
- A client creates a VI (work queue pair) and requests that it be connected to a specified VI address (server). E.g., an SVP initiator requests connection to a target.

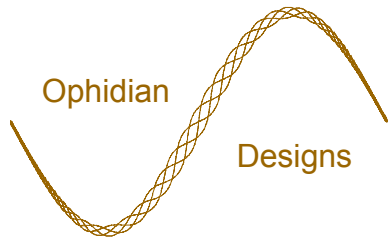




# VI connection establishment

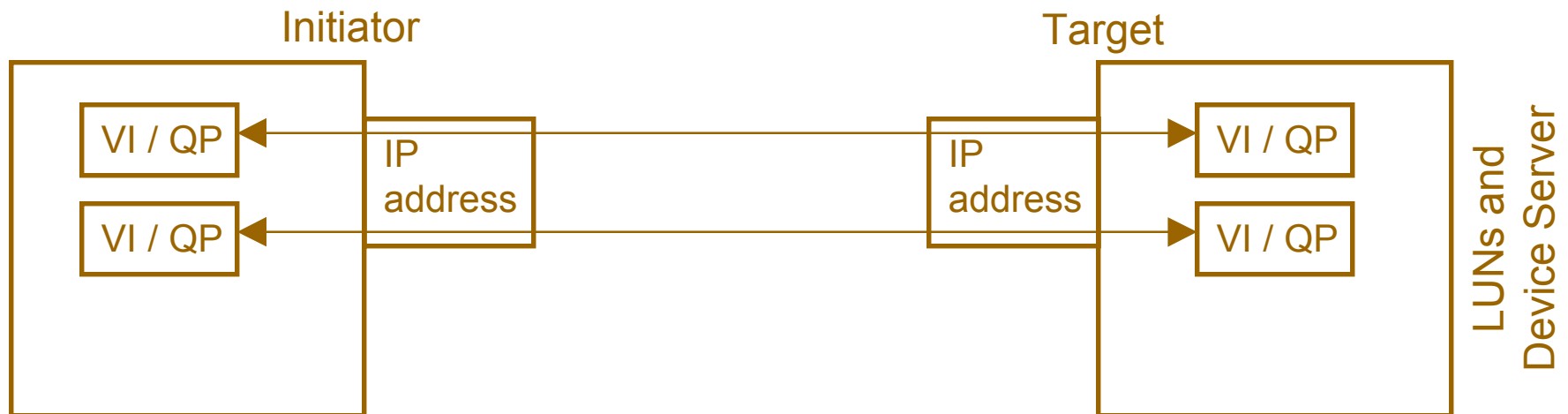
- The server receives the connect request, creates a VI (work queue pair) and accepts the connection request. E.g. an SVP target accepts an initiator connection or login.

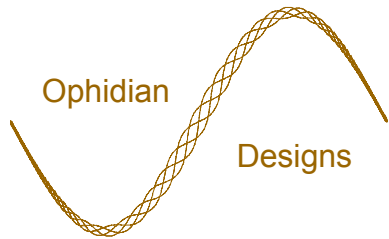




# Multiple VI connections

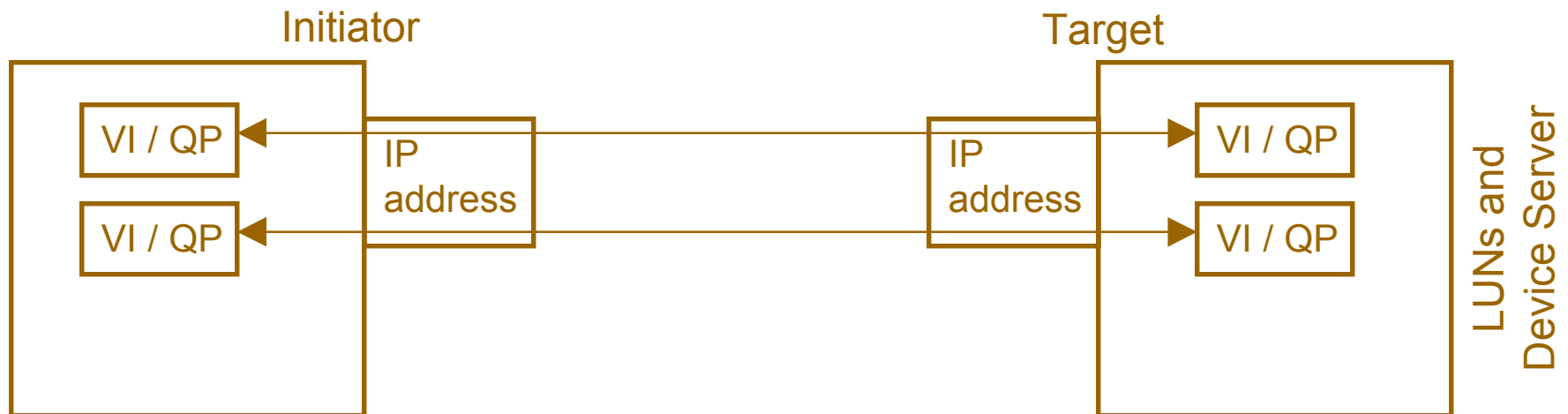
- Suppose this happens twice, that the same device driver or application client makes two or more connection requests to the same server VI address. This will be common in some environments.

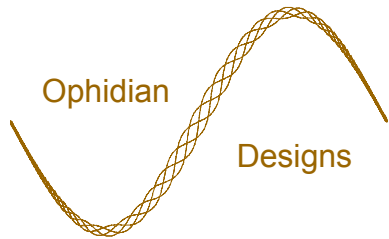




# Multiple VI connections

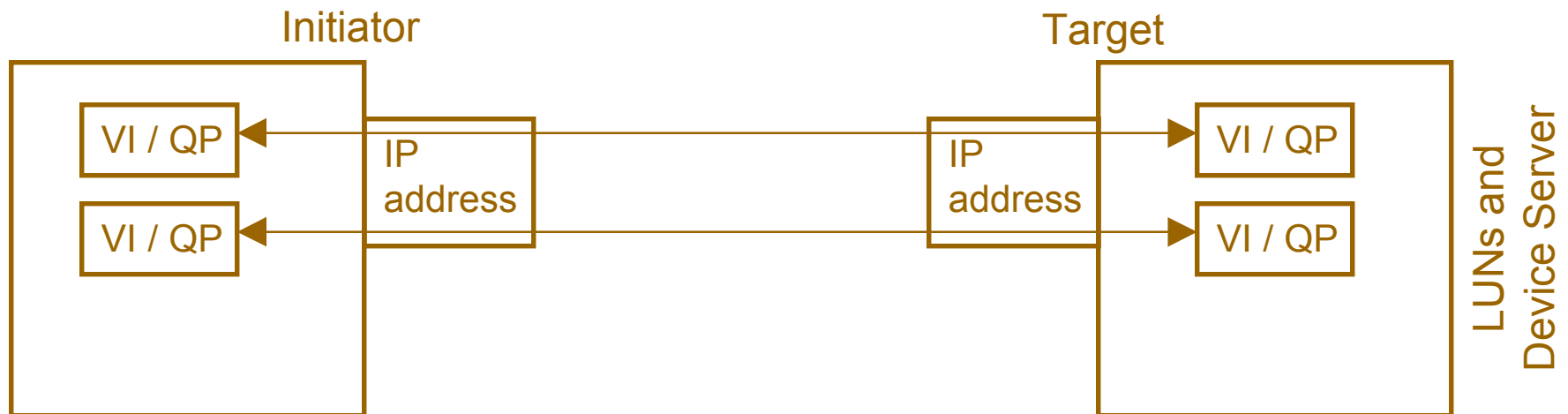
- Both connections are to the same target VI address.
- Both connections are from the same initiator adapter or NIC and have the same Host Address.

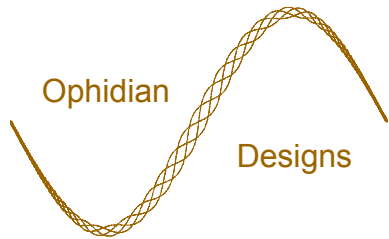




# Multiple VI connections

- The simplest assumption is that both connections specify the same initiator Discriminator.
- There are no other visible VI connection identifiers.

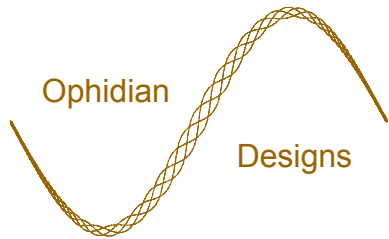




## Multiple VI connections

- The initiator has two connections to the same target VI address. Does this imply the connections are to two service delivery ports of the same target? Or to two targets? There is no way for the initiator to distinguish them except with its internal connection identifier (VI or QP handle).
  - I think that third party functions (copy, etc.) require that the target VI address being the same implies that it is the same target, that is, we have connections to two service delivery ports of the same target. Is this correct?





## Multiple VI connections

- The target has two connections from the same initiator VI address. Does this imply the connections are from two service delivery ports of the same initiator? Or from two initiators? There is no way for the target to distinguish them except with its internal connection identifier (VI or QP handle).
  - One view is that targets should treat connections independently, that is, each connection is an independent initiator regardless of its VI address.
  - This is inconsistent with the recommended initiator treatment of target addresses.