**Programmatic Buying: A Perspective**

### Client-Side Auction

1. **Auction**
2. **DSP with Client-Side Auction**
3. **Winning Bid**
4. **Bid Request**
5. **Winning Bid**
6. **Server with Client-Side Auction**
7. **Winner's Bid**
8. **Winning Bid**
9. **Bid Response**
10. **Winner's Bid**

In a client-side bidding entire auction is conducted on user’s browser, thus it is also known as browser-side header bidding. It involves a header bidding wrapper (javascript) that consists of multiple tags of different demand partners. Every time page loads, the ad request is sent by the user’s browser in real-time to multiple demand partners. DSP’s then send bids and the highest bidder wins the auction.

#### Complicated

Implementing client-side header bidding wrapper involves adding multiple scripts in the page header. With so many different demand partner adapters, the implementation is complex and raises compatibility issues in a few browsers.

#### High

Since all bidding is happening on the client’s / user’s browser, it increases the page load time significantly leading to high latency and poor ad performance.

#### Not optimized

With so many demand partner adapters, complex navigation across tags and high latency issues, buyers get a longer supply path.

#### Limited ad requests

Browsers have a limit on the number of requests they can send at one time. Since in client-side bidding, requests are sent from a browser only a limited number of demand partners can participate.

#### Not suitable for video ads

Video files take more time to load on web pages. With so many bid requests happening simultaneously on the user’s browser, it causes serious damage to the user experience when used with client-side.

### Server-Side Auction

1. **Auction**
2. **DSP with Server-Side Auction**
3. **Bid Request**
4. **Bid Response**

In a server-side bidding entire auction takes place in a server instead of the user’s browser. It involves sending just one bid request every time the page loads to the ad server which then sends bid requests to all demand partners. Winning bid is returned to publisher’s ad server and subsequently, the ad is displayed.

#### Easy

Server-side bidding involves direct server-to-server connection with no complex tags/wrappers to navigate. All demand partners and exchanges communicate via direct server-server connection.

#### Low

Since all auctions are conducted in a server, the user’s browser is unaffected which reduces the page load time considerably and reduces the overall latency.

#### Optimized

Server-side auction involves the shortest path to publishers by removing an extra step enabling buyers to trust the supply path. Since all auctions are happening on the server, latency is controlled, additionally there are no complex wrappers to navigate.

#### No limit on no. of ad requests

Unlike browsers, there are no limits on the number of ad requests sent by the ad server. Publishers can add any number of demand partner as they wish and buyers get more inventory to bid on.

#### Suitable for video ads

Video bidding is managed over a server and has no impact on web page load time. Additionally, all major OTT advertising is done server-to-server since there is no open-ended webpage ecosystem.