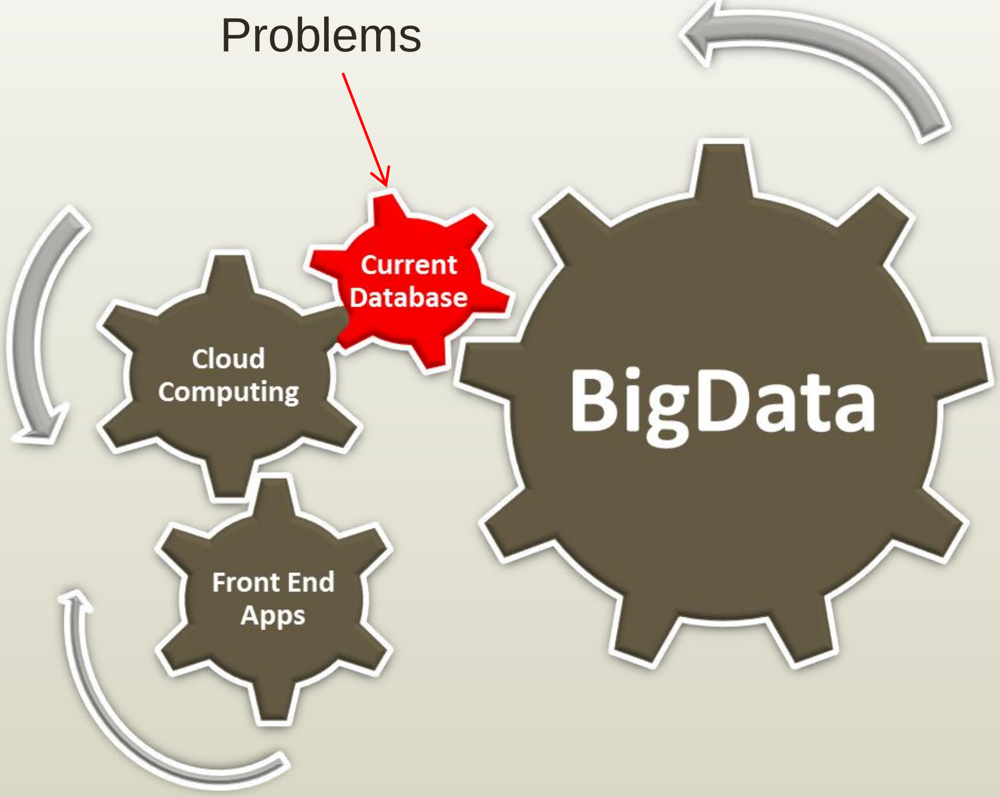
EXERAY

ArrayDB

Revolutionary Analytical Database

The Problem



Hardware Usage Inefficient

High Lateny in Reporting

Limited to Specific Workloads

Slow

Energy Consumption

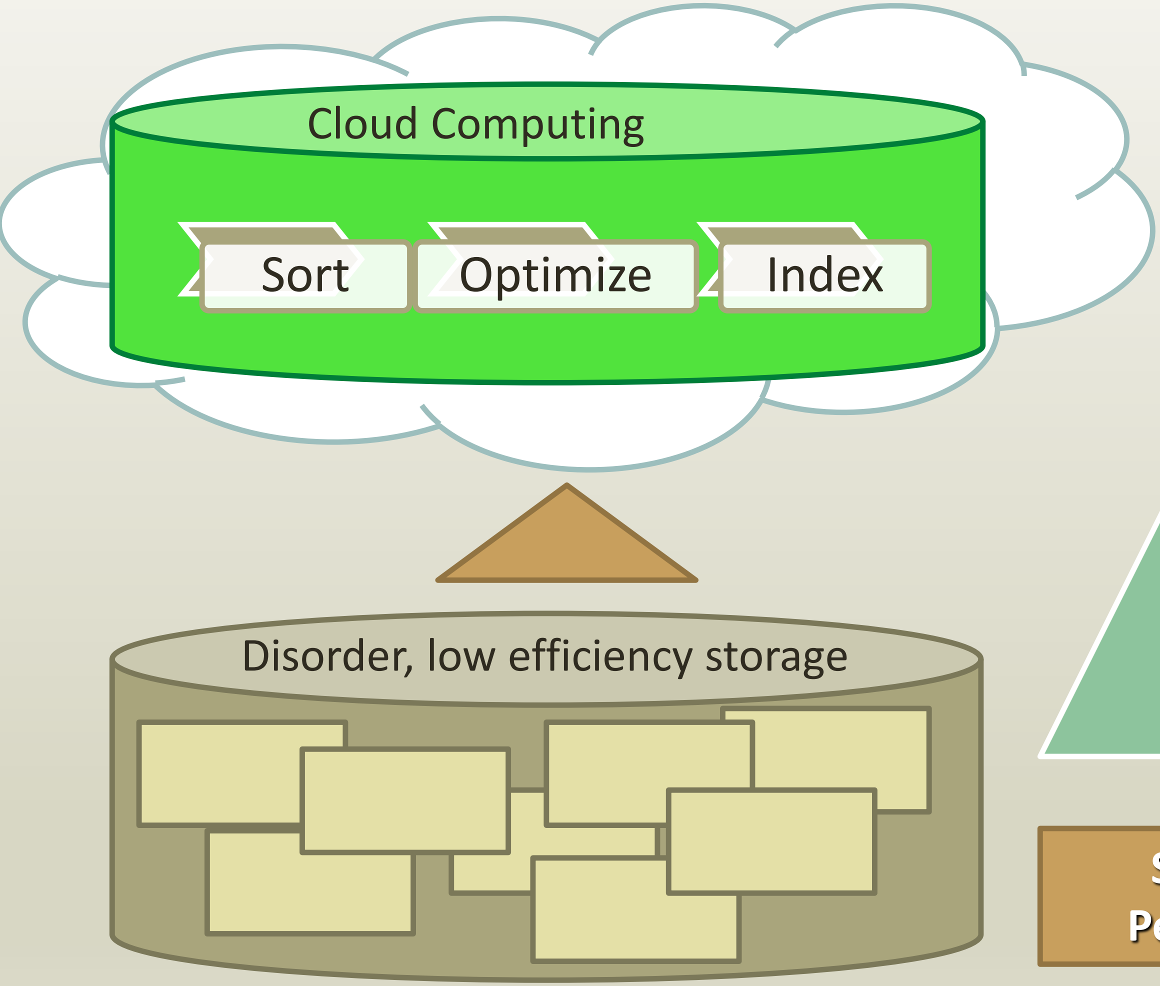
High TCO

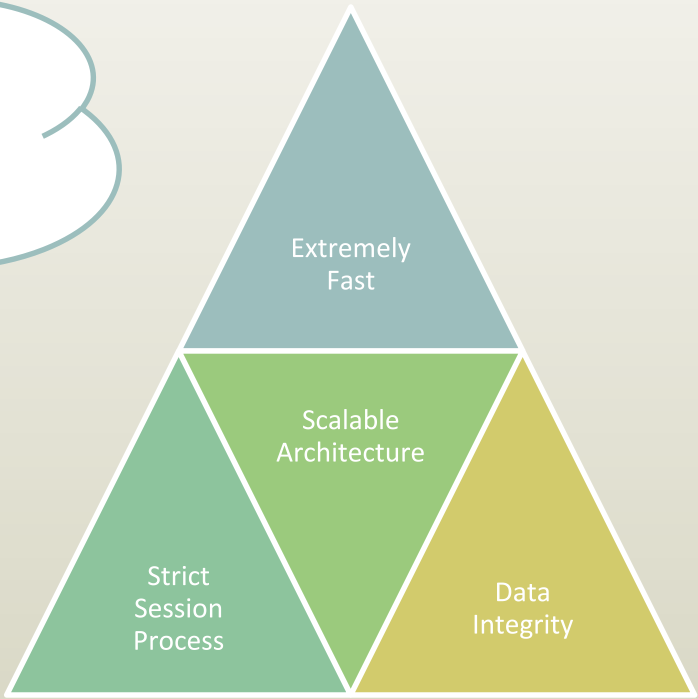
Competitive Analysis

EXERAY

Current Databases	ArrayDB Advantage
O***** •Many customers •High TCO •NOT SCALABLE	• All Index Write, 26X Faster • Index based query, 22X Faster • Low TCO • Highly SCALABLE
MySQL •NOT SCALABLE •Dated relational JOIN query •Not suitable for Big Data	• All Index Write, 26X Faster • Index based query, 22X faster • Advanced Relational JOIN • High Performance for Bid Data
Cassandra •Relational JOIN query NOT supported •For data storage only •Sort, Analysis, Statistics of Data NOT supported •Transaction NOT supported	• Advanced Relational JOIN • Fast Write/Fast Read • Support all data analytics/BI • Multiple data query • Support transaction and data integrity

ArrayDB Technology Advantage





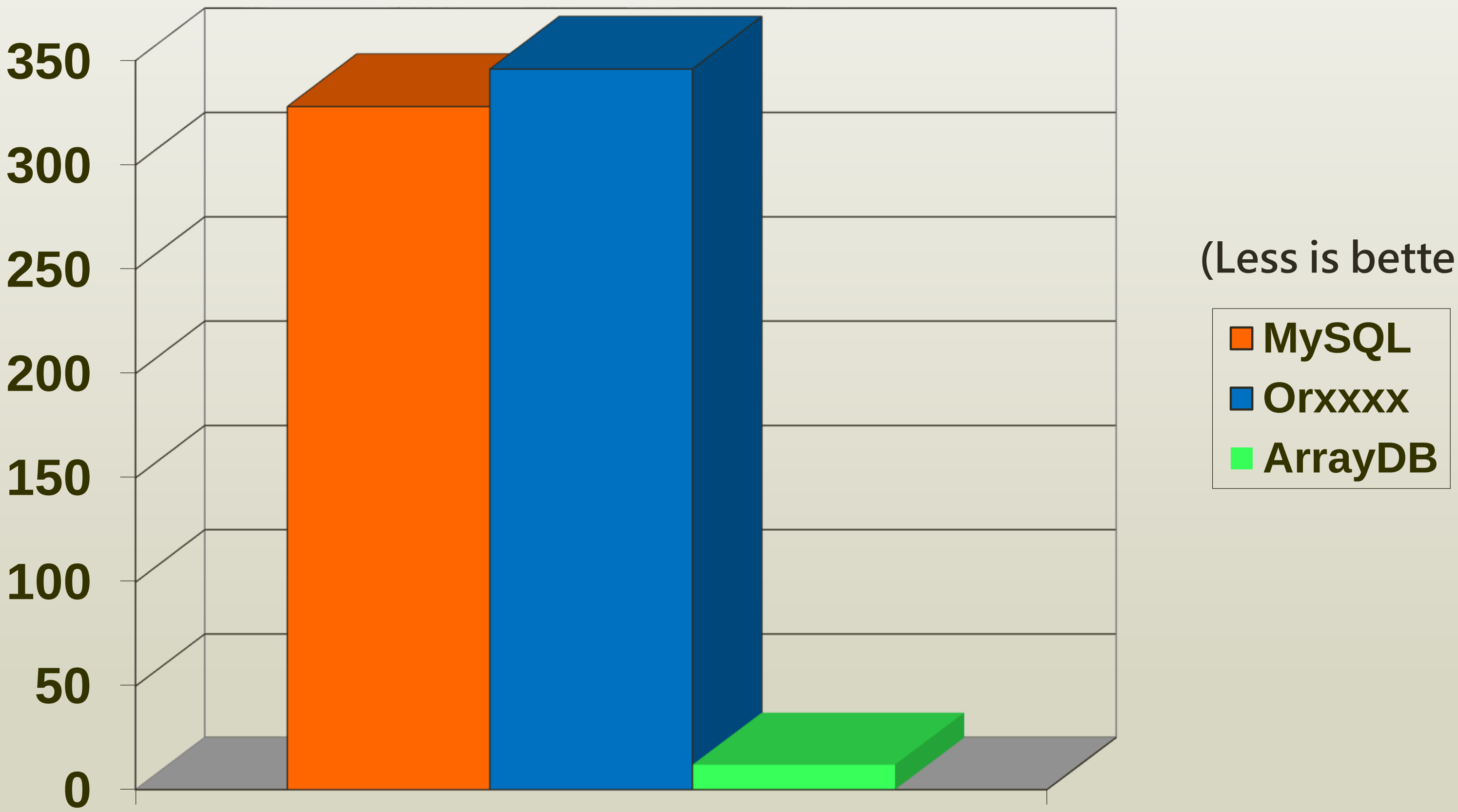
Seemless Integration of Performance and Security

Note： EXERAY Technology is Patent Pending

① Better Performance - Data Insert

EXERAY

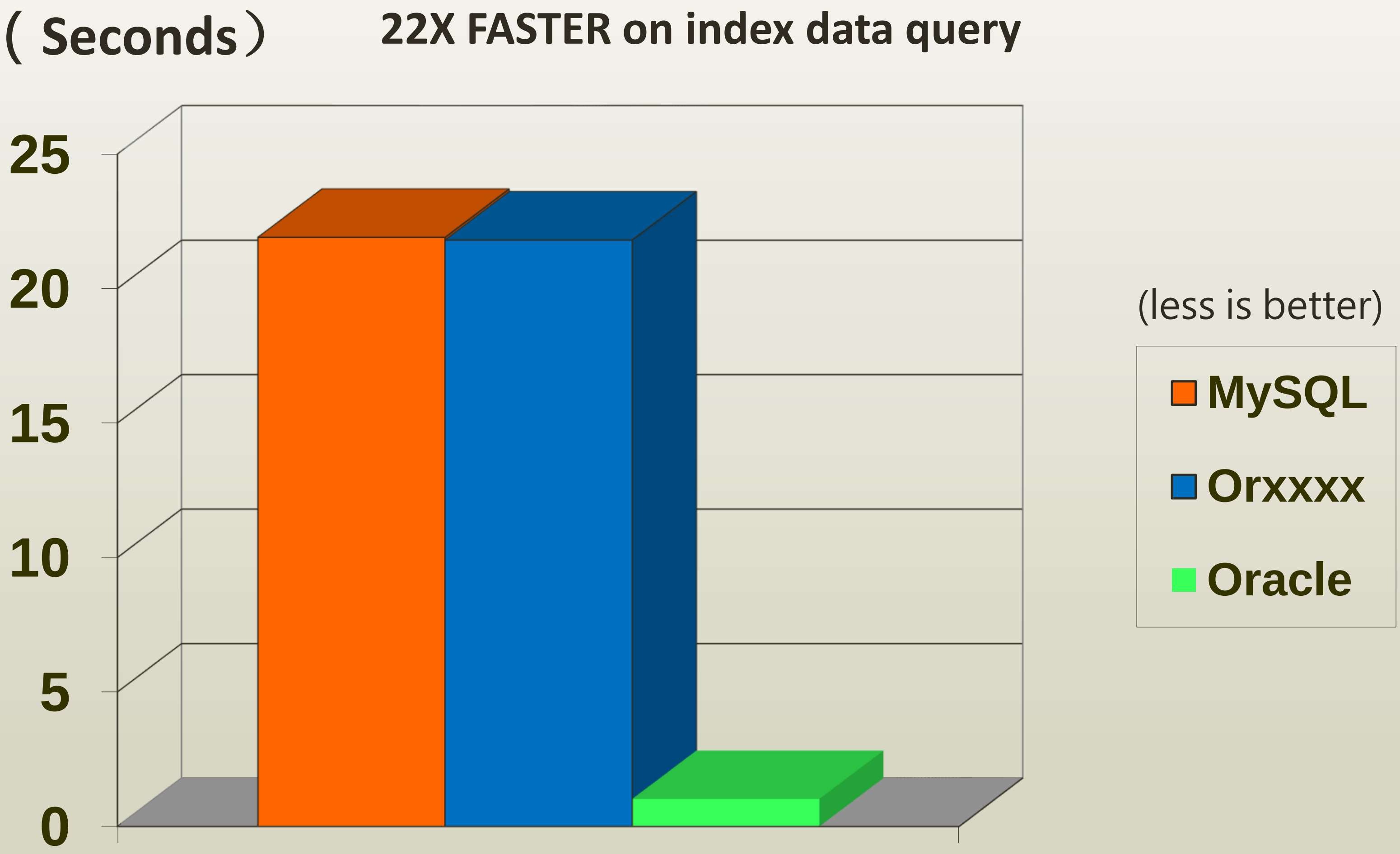
26X FASTER data write



(Less is better)

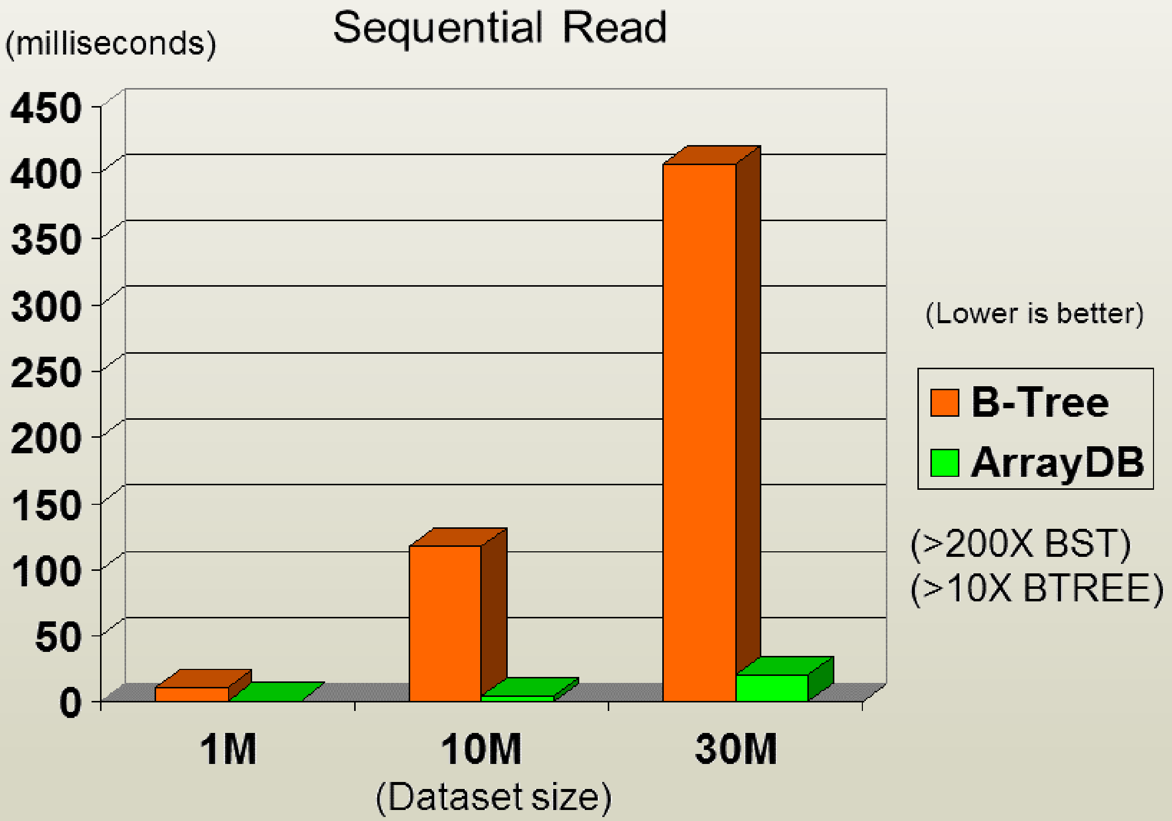
Test based on inserting 10 million records

② Better Performance - Data Query



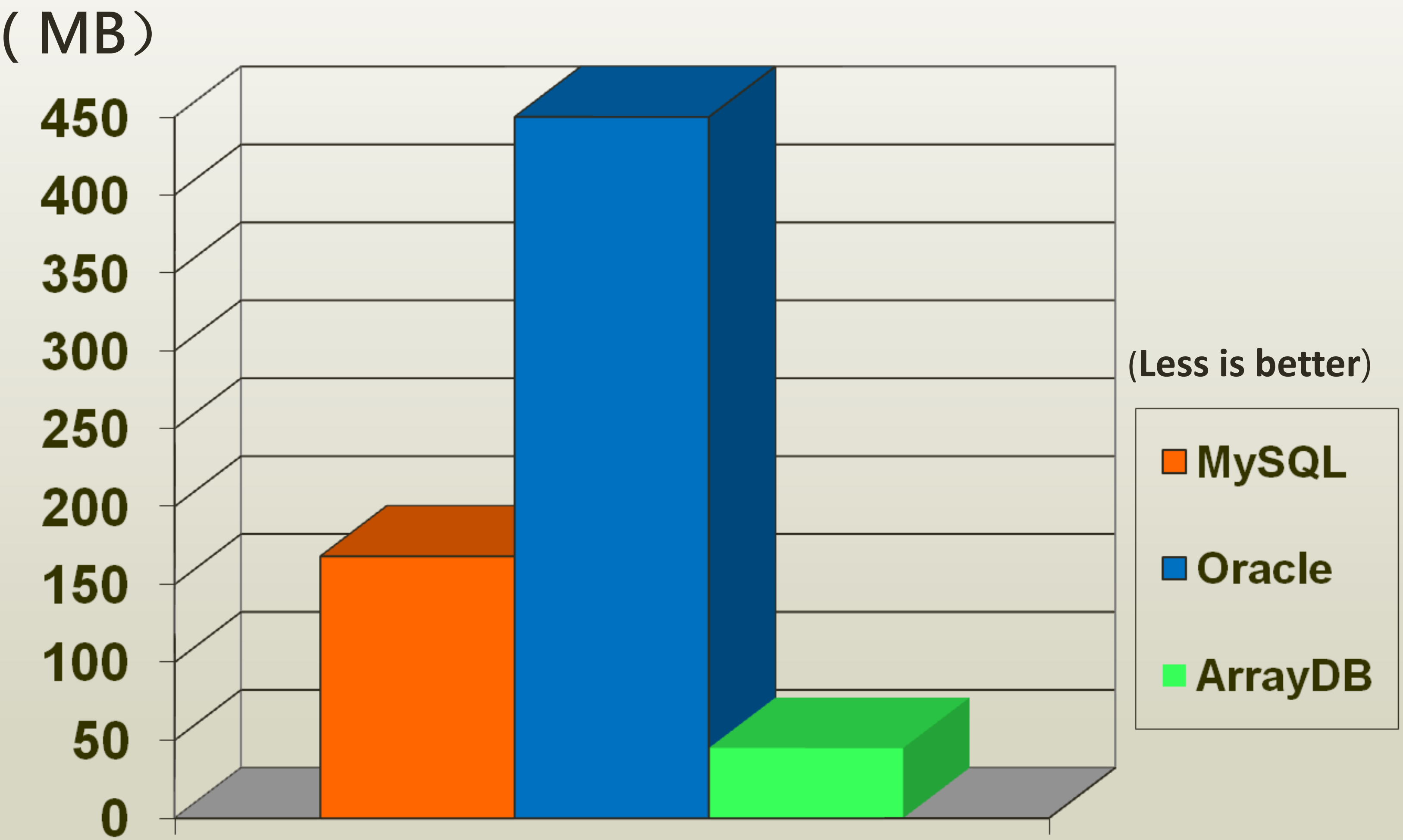
Test is based on table join of 10 million records.

③ Better Performance - Indexing



ArrayDB data index is 20X FASTER than B+Tree

④Less Memory Consumption



(Less is better)

Test is based on writing 2 million records.

ArrayDB Index Advanage

Traditional B+Tree Index

Operation	Complexity
Searching for an element	O(log n)
Inserting a new element	O(log n)
Incrementing/decrementing an iterator	Disk seeks
Removing a single element	O(log n)

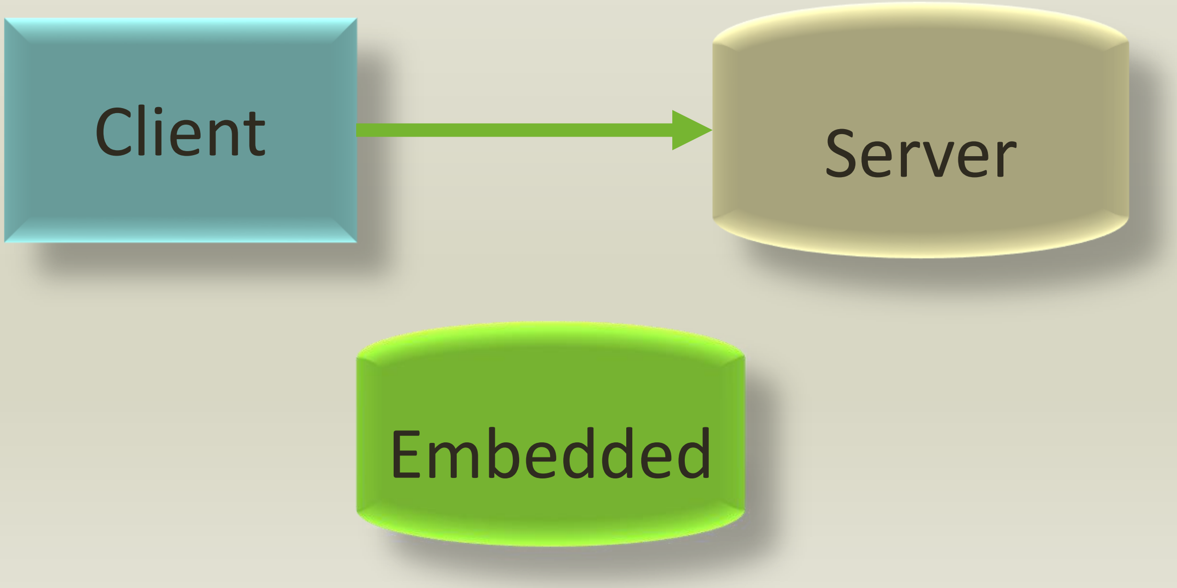
ArrayDB Index

Operation	Complexity
Searching for an element	O(1)
Inserting a new element	O(log n)
Incrementing/decrementing an iterator	No disk seeks
Removing a single element	O(1)

ArrayDB Products

EXERAY

- ✓ ArrayDB Server (Servicing requests)
- ✓ ArrayDB Client   (Making requests)
- ✓ ArrayDB Embedded (Standalone data storage)



ArrayDB Use Cases

- ✓Analytical applications which require high performant data storage and retrieval

- ✓High speed data cache server with low RAM requirement (e.g., in the cloud)

- ✓Client-Server analytical database server

SQL and NoSQL Support

❑ SQL Support

```
select  * from table1 where uid = 'niceguy';

select *  from  table1 use index ( idx_email )
where email ='niceguy@yahoo.com';
```

❑ NoSQL Support (No Schema)

Programmers can insert any data into non-key field

```
create table bigtable ( key: uid char(32),
                        value: buf char(1024) );
insert into bigtable ( [ uid = 'jaya' ],
                  [ fname='jay',  lname='adam' ] );
select uid, lname, fname from bigtable;
```

Q&A

www.exeray.com

www.arraydb.com

contact@exeray.com