Relational OLAP servers are placed between relational back-end server and client front-end tools. To store and manage the warehouse data, the relational OLAP uses relational or extended-relational DBMS.

ROLAP includes the following:

- Implementation of aggregation navigation logic
- Optimization for each DBMS back-end
- Additional tools and services

**Points to Remember**

- ROLAP servers are highly scalable.
- ROLAP tools analyze large volumes of data across multiple dimensions.
- ROLAP tools store and analyze highly volatile and changeable data.

**Relational OLAP Architecture**

ROLAP includes the following components:

- Database server
- ROLAP server
- Front-end tool.

**Advantages**

- ROLAP servers can be easily used with existing RDBMS.
- Data can be stored efficiently, since no zero facts can be stored.
- ROLAP tools do not use pre-calculated data cubes.
- DSS server of micro-strategy adopts the ROLAP approach.

**Disadvantages**

- Poor query performance.
- Some limitations of scalability depending on the technology architecture that is utilized.