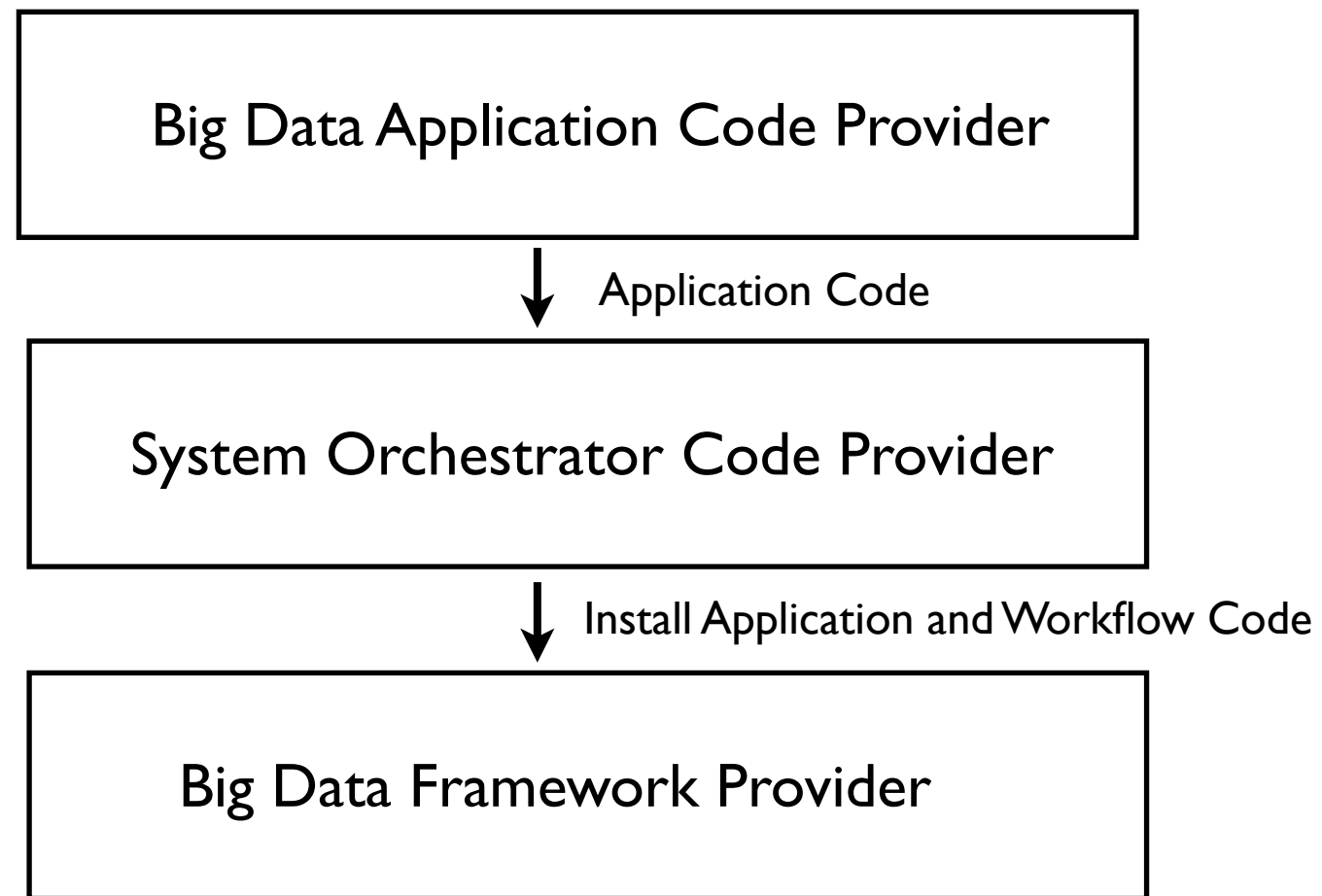


Three Alternate Execution Patterns

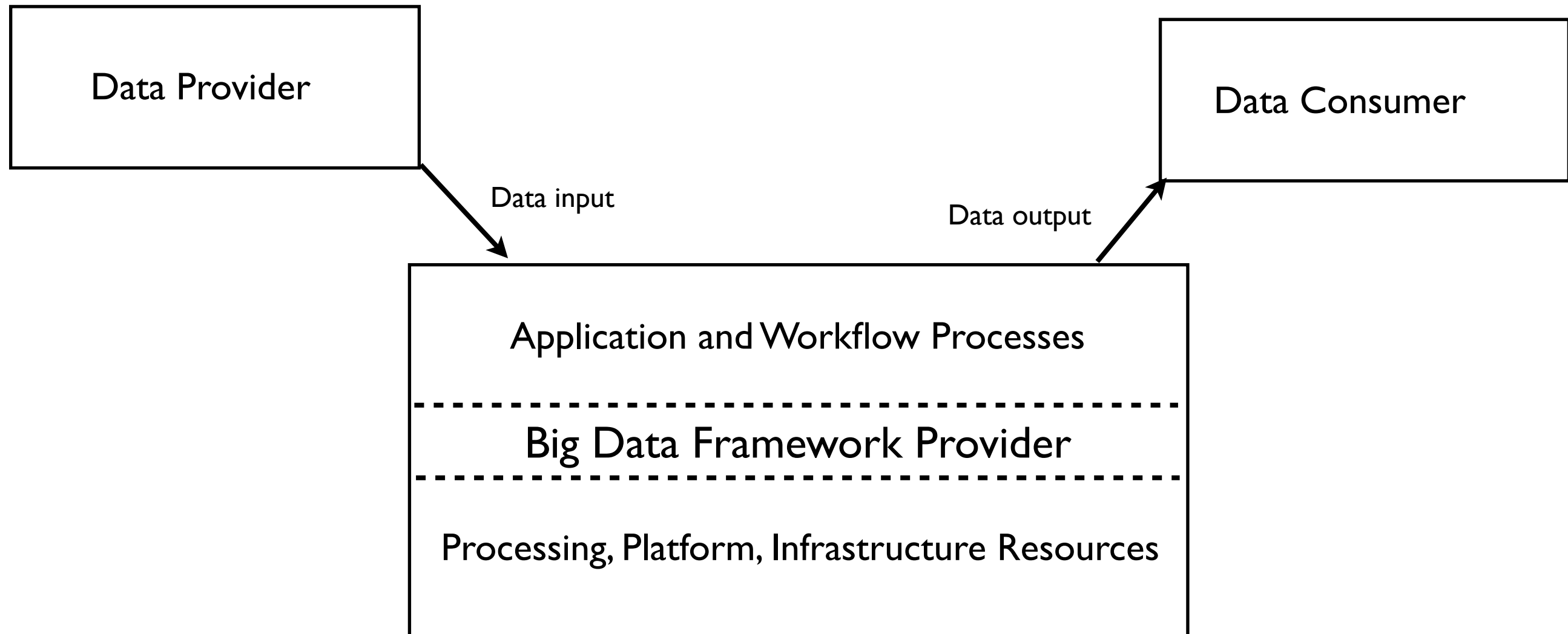
- Bringing application code to the data (at deploy time)
 - All code runs on Big Data Framework Provider e.g.
 - User defined functions in Hadoop's Map-Reduce interface to HDFS
 - Stored procedures in databases
- Bringing data to the application (at run time)
 - Applications run on Big Data Application Provider e.g.
 - Application queries to retrieve data from databases (e.g. NoSQL)
 - Loading external data into an embedded application database
- Combined Approach in NIST Reference Architecture

Bringing Applications to Data

Deploy Time

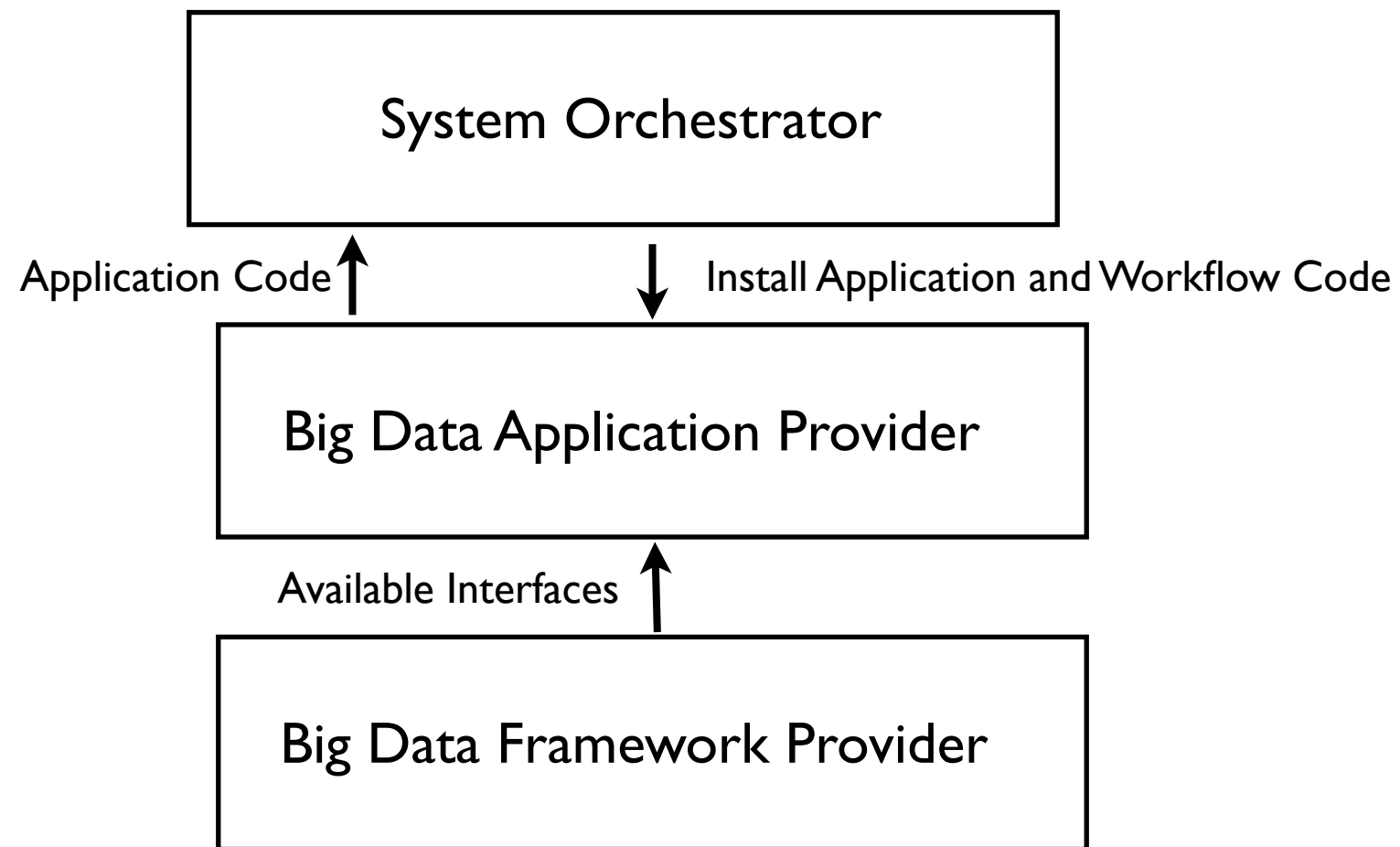


Run Time

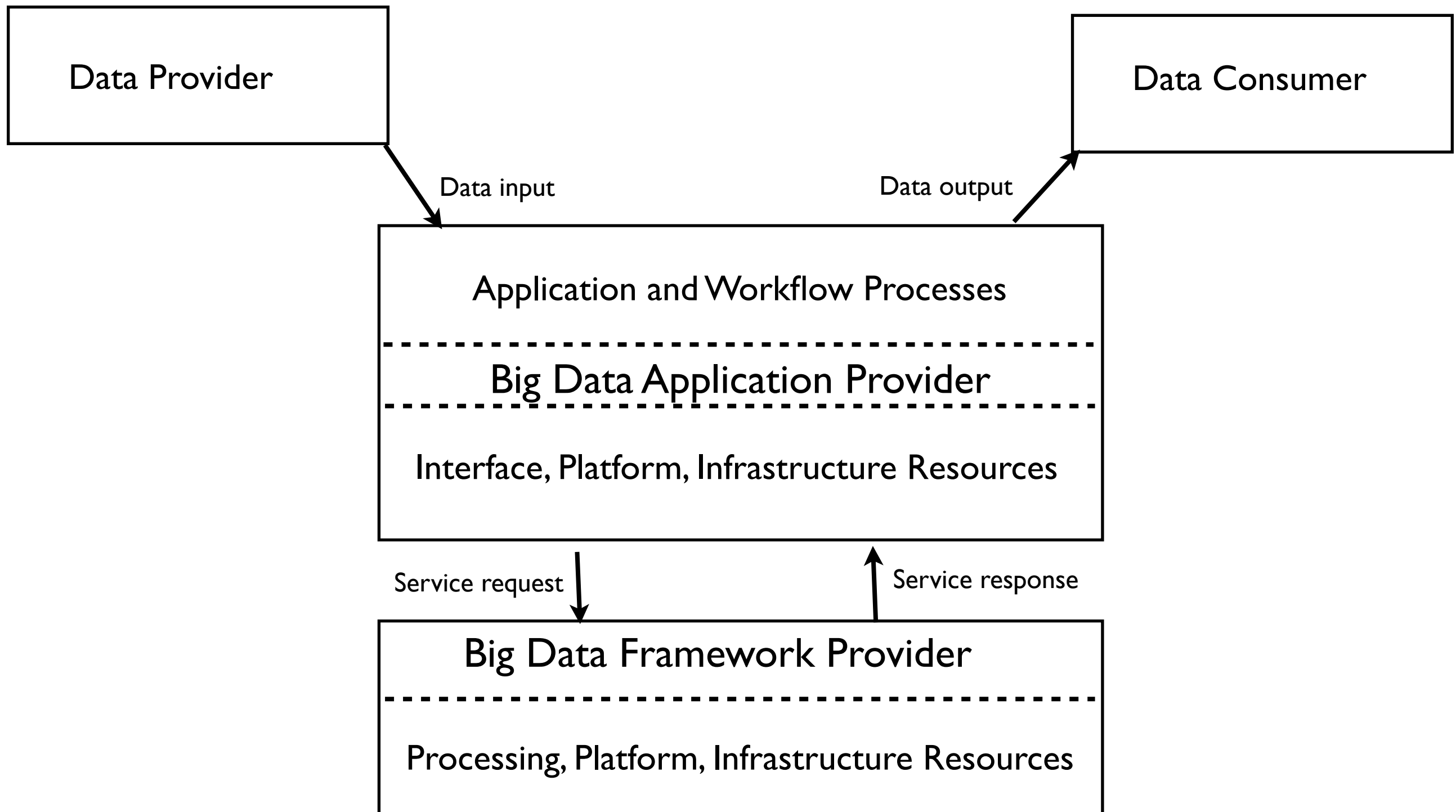


Bringing Data to Applications

Deploy Time

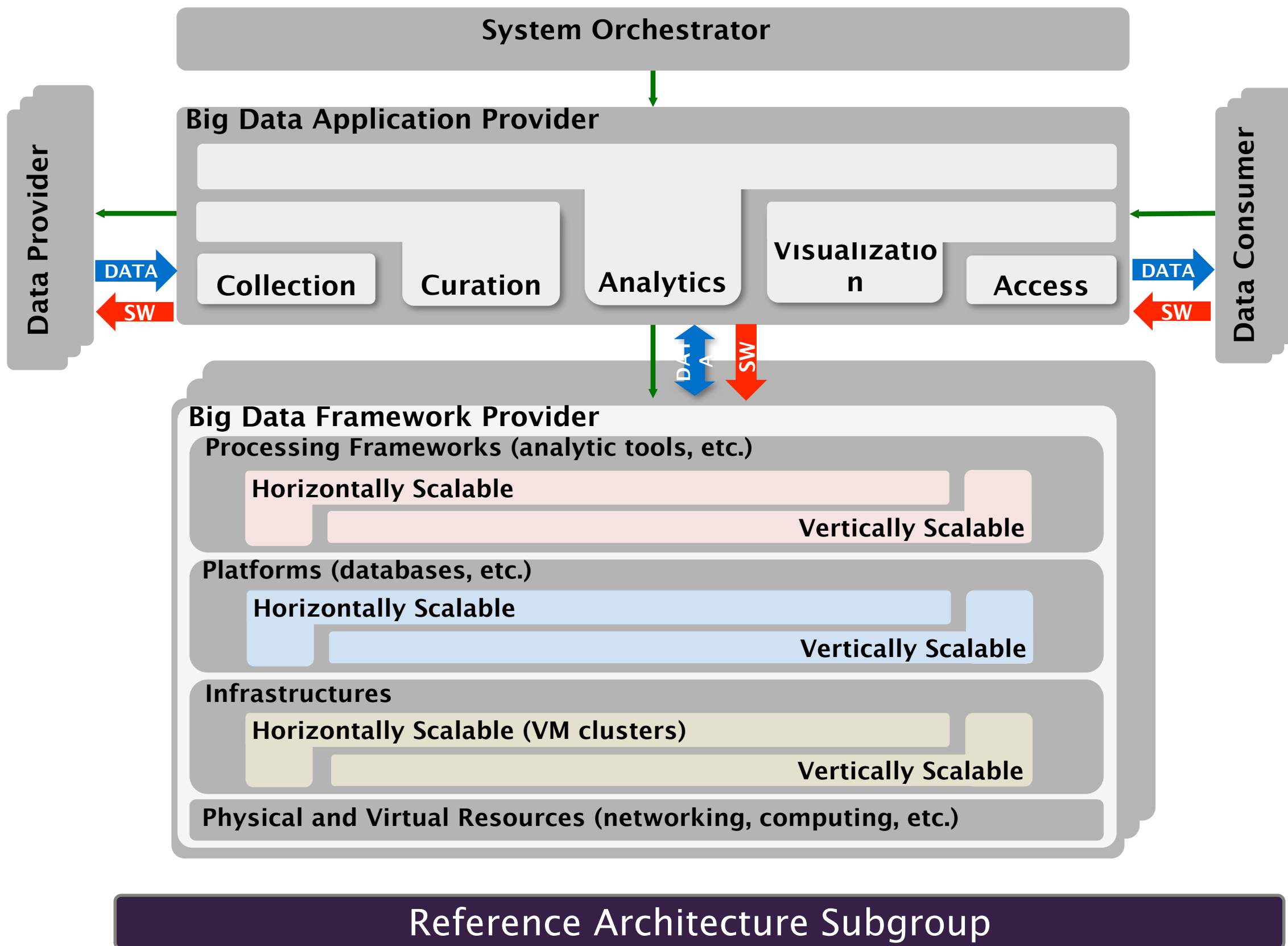


Run Time

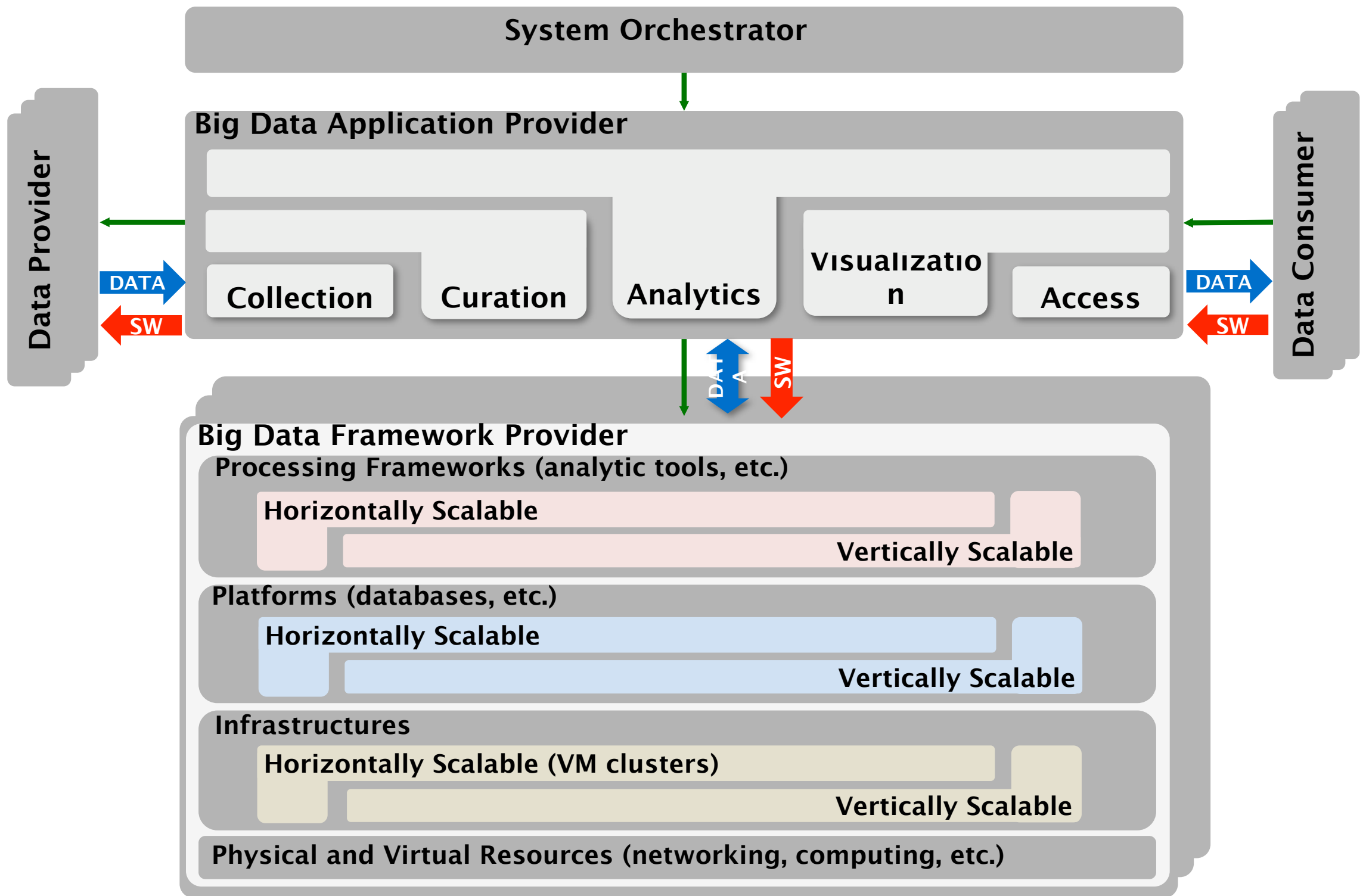


NIST Reference Architecture Combines Deploy and Execution Time

INFORMATION VALUE CHAIN



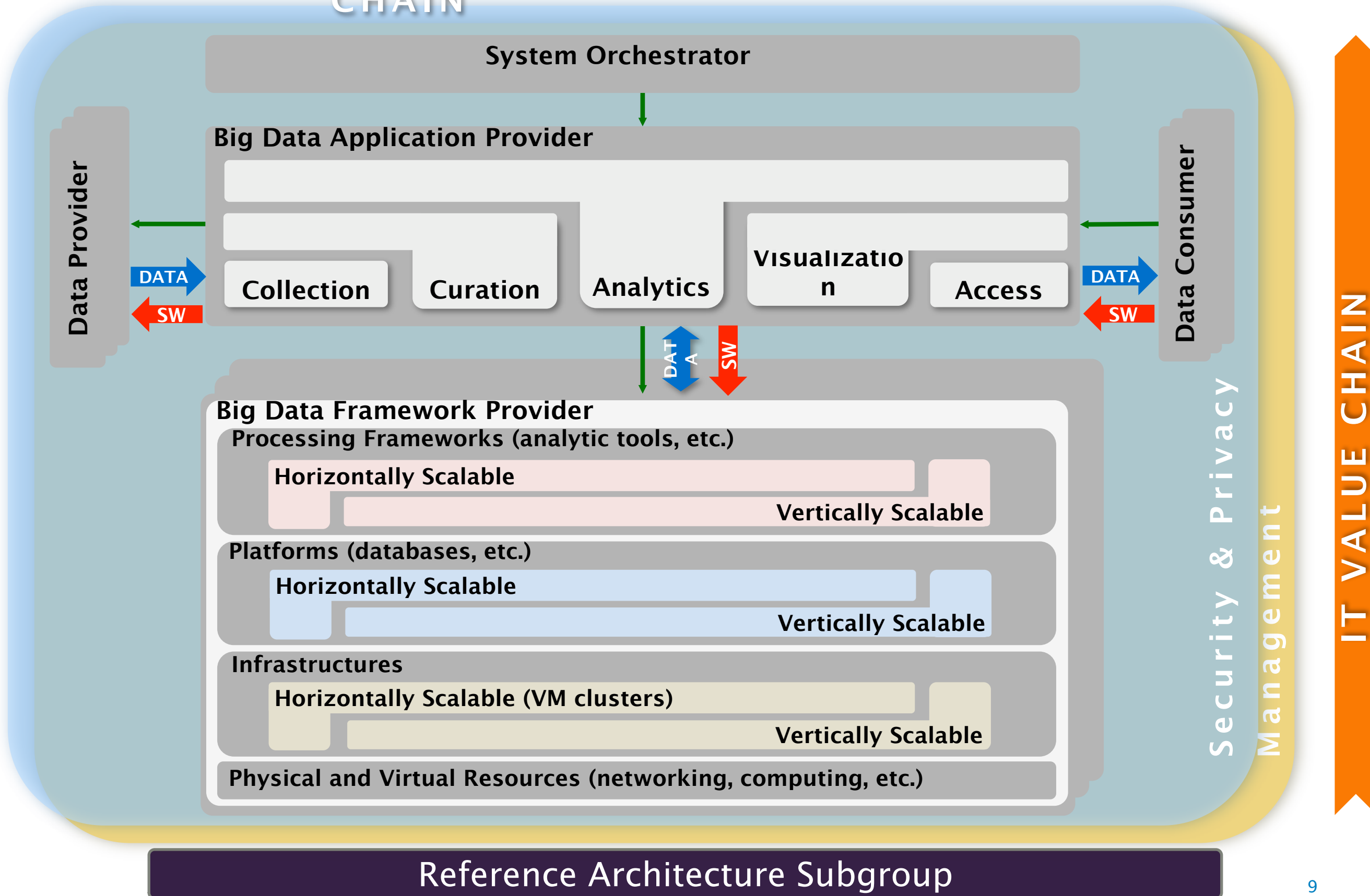
INFORMATION VALUE CHAIN



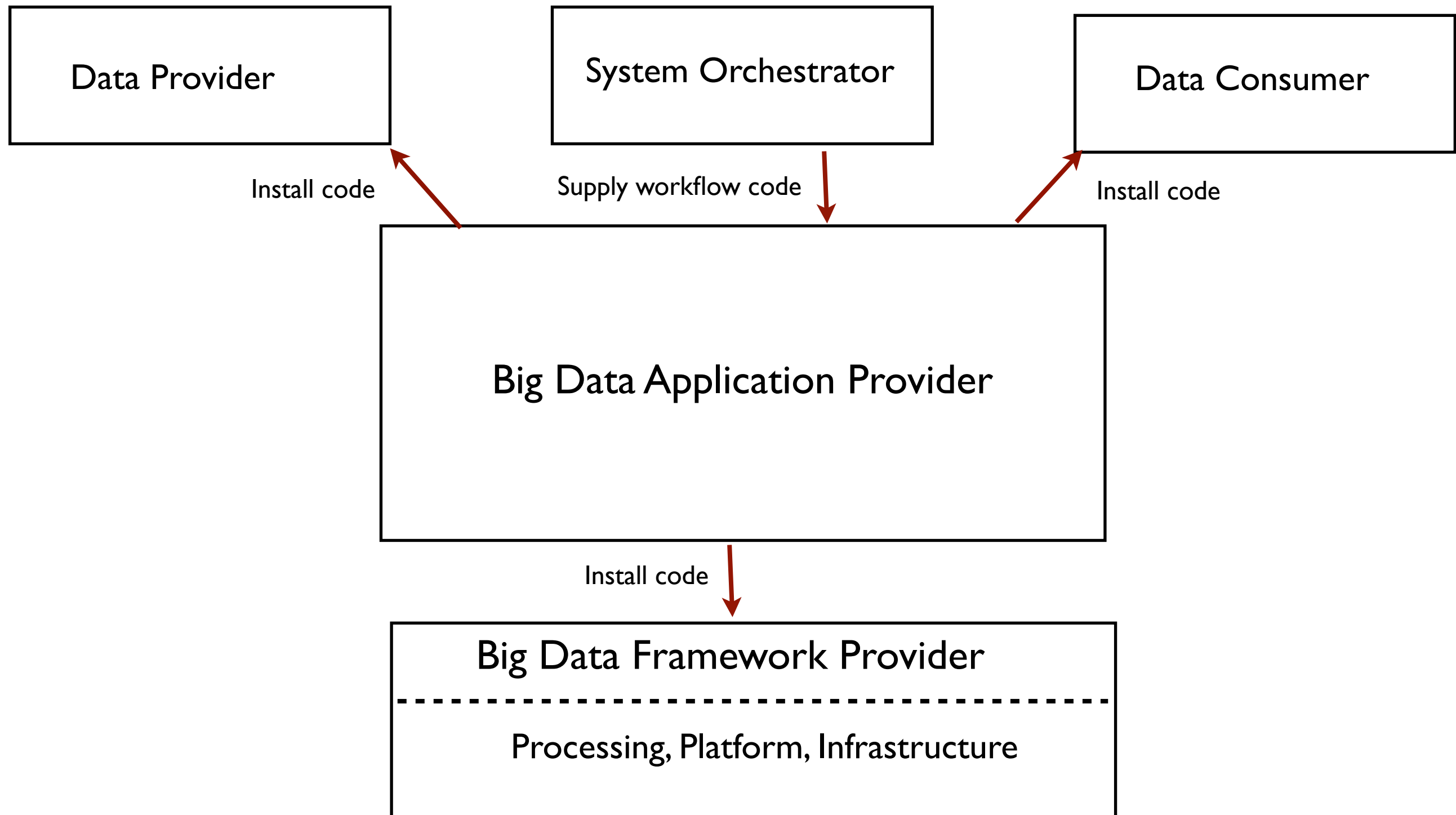
IT VALUE CHAIN

Reference Architecture Subgroup

INFORMATION VALUE CHAIN



Deploy Time



Run Time

