



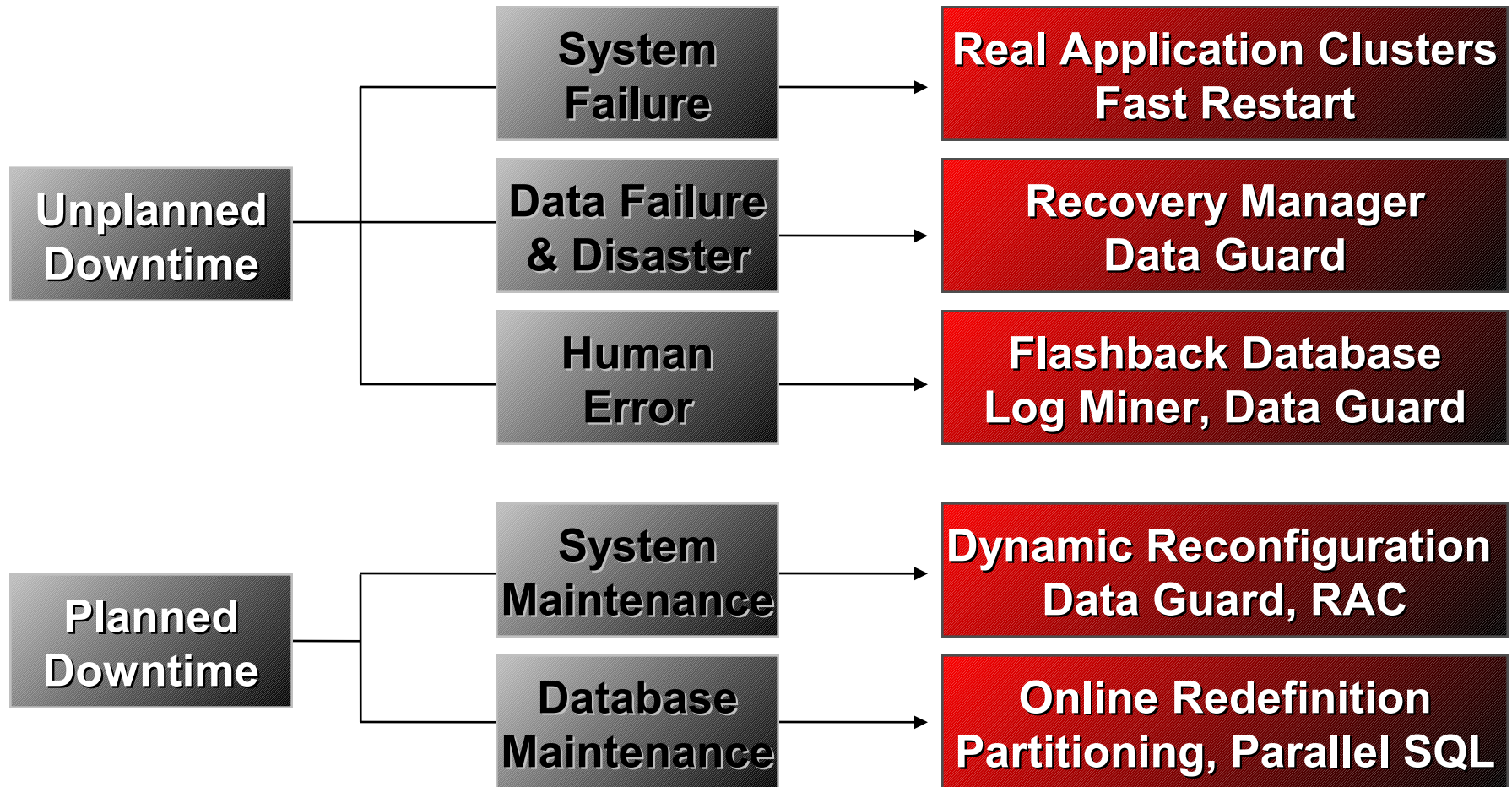
Maximum Availability Architecture

Oracle Grid Computing Concepts(10g, 11g)

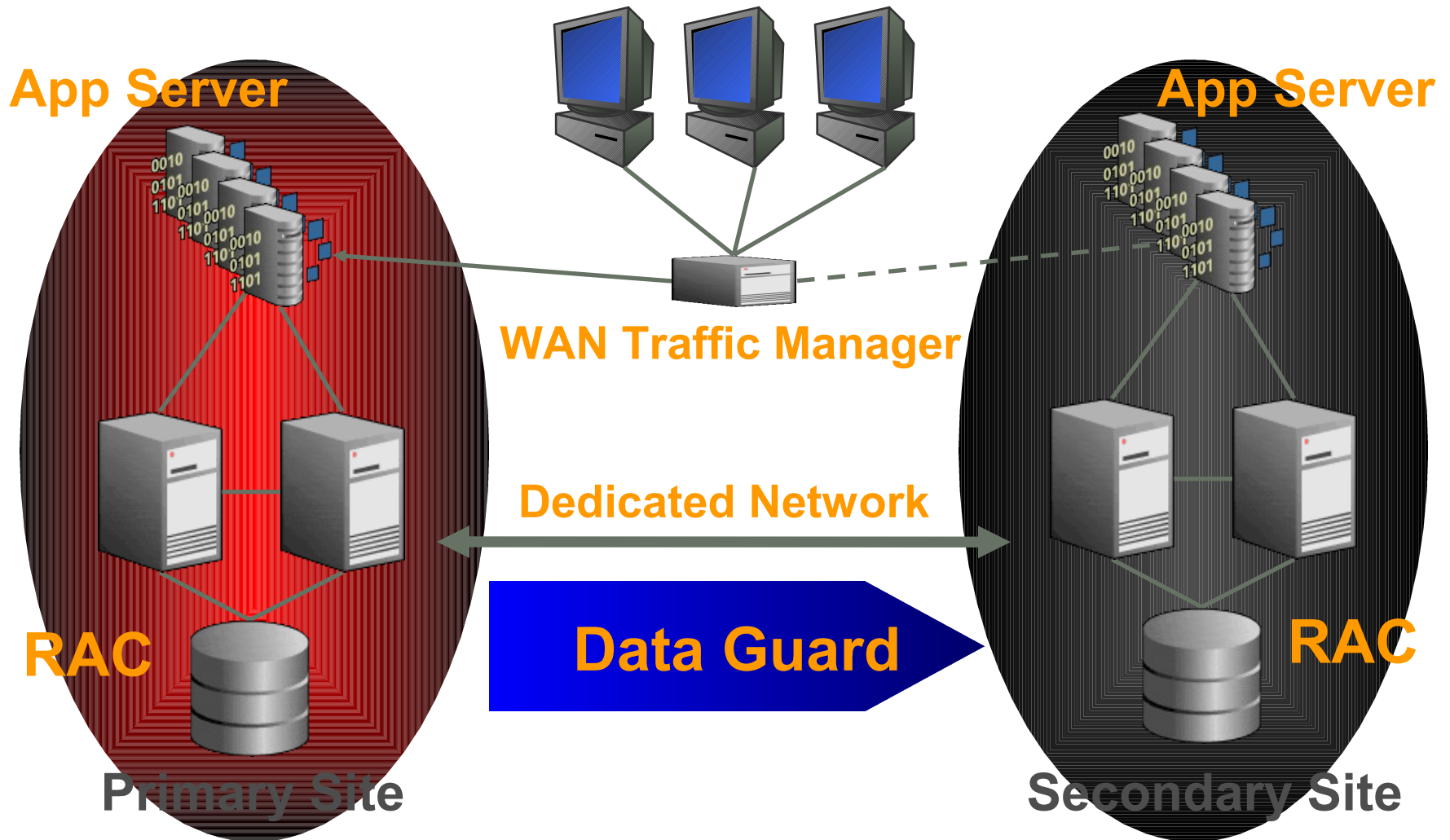
- **Implement one from many**
- **Managed many as one**
- High Availability
- Scalability
- Load balancing
- Resource management
- Disaster recovery

Causes of Database Downtime

Oracle Database Handles All the Causes!

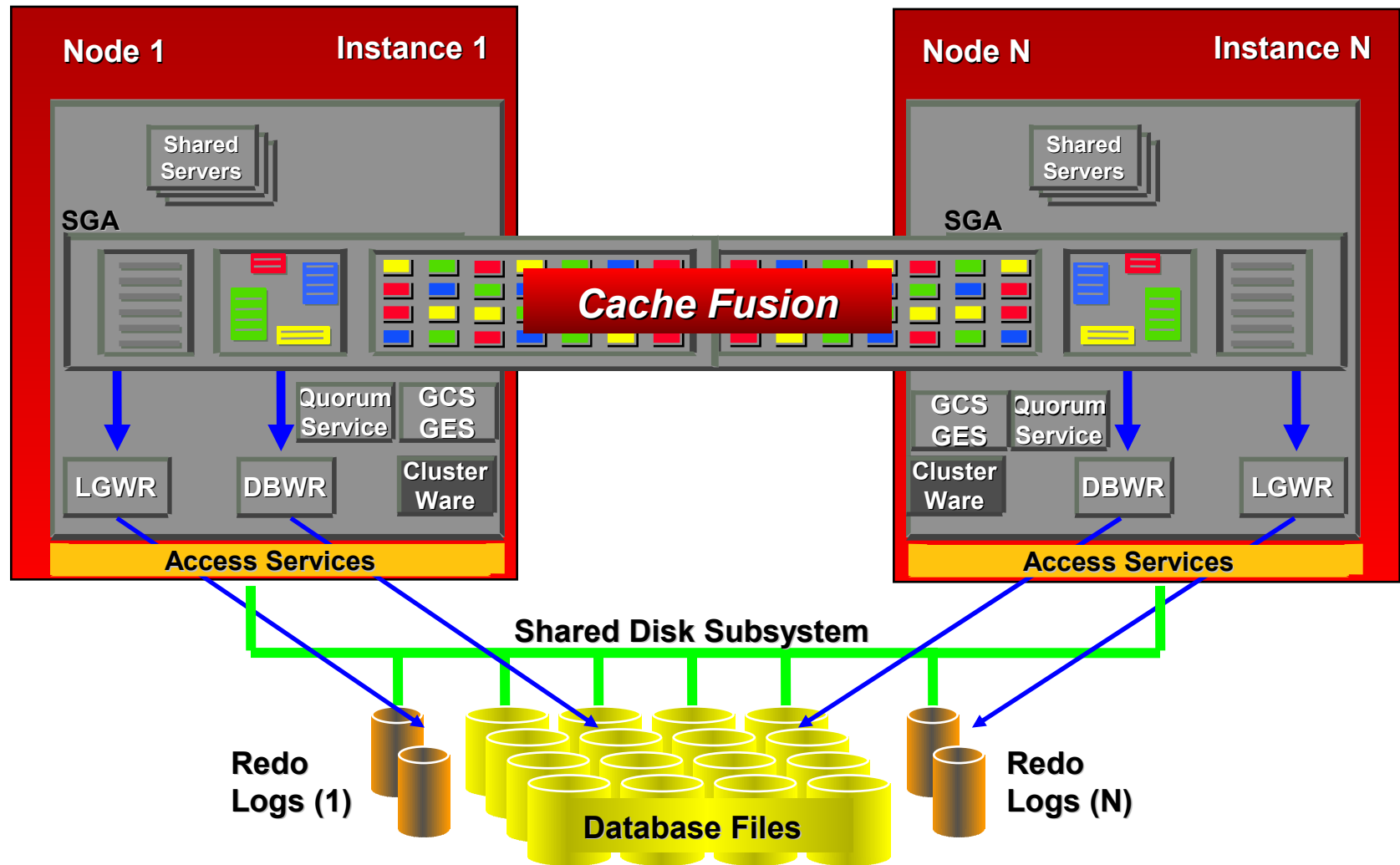


Oracle Maximum Availability Architecture (MAA)



Cause: System Failure

Solution: Real Application Clusters (RAC)

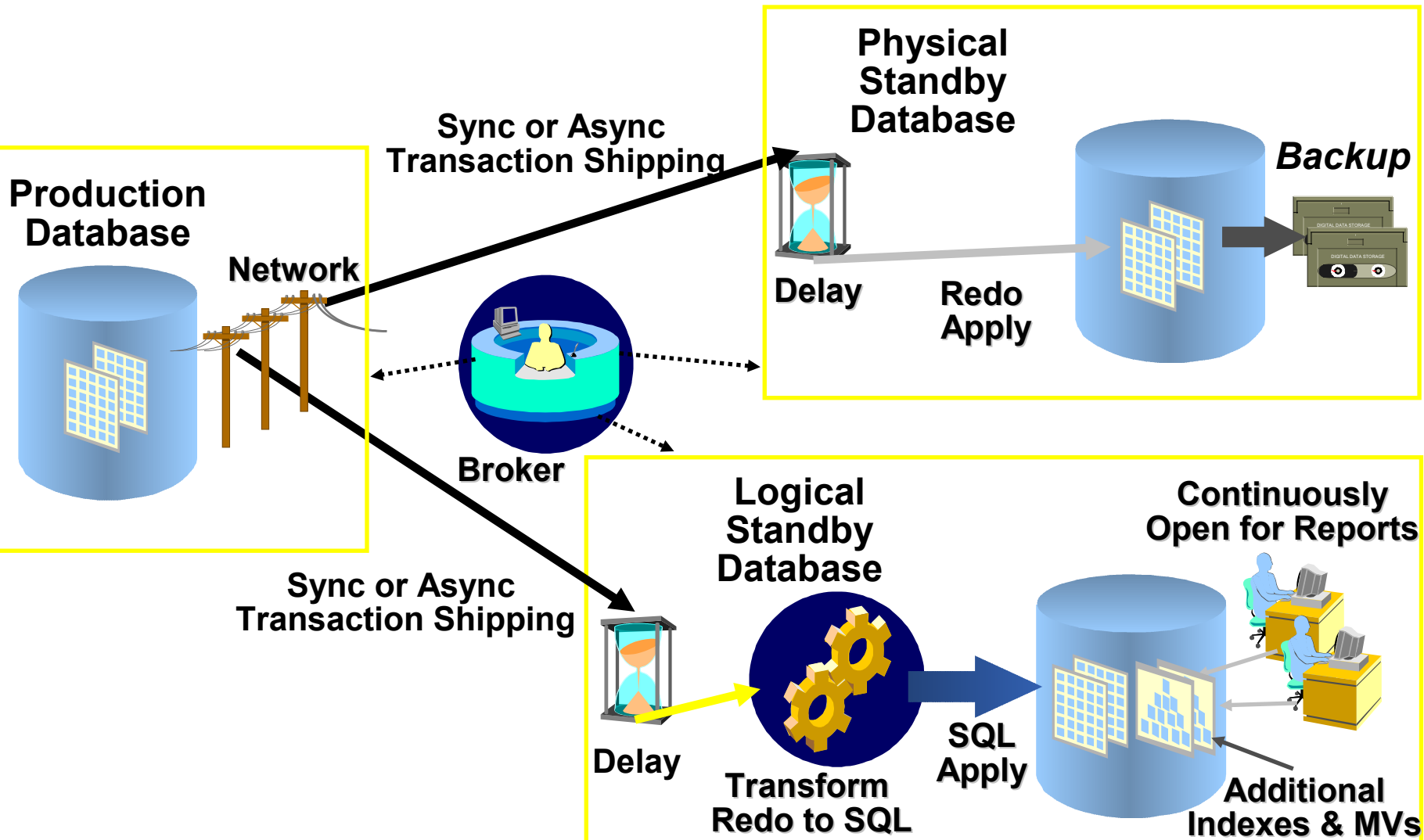


Oracle RAC Benefits

- Availability
 - Active-Active solution
 - Only fractional capacity lost when a node in the cluster fails
- Scalability
 - Add additional hardware as your business grows
- Performance
 - Query parallelization across nodes in the cluster
- Workload Distribution
 - Automatic servers-side load balancing
- Lower Cost of Ownership
 - Runs even on low cost commodity servers
- Proven Technology

Cause: Data Failure and Disaster

Solution 1: Data Guard



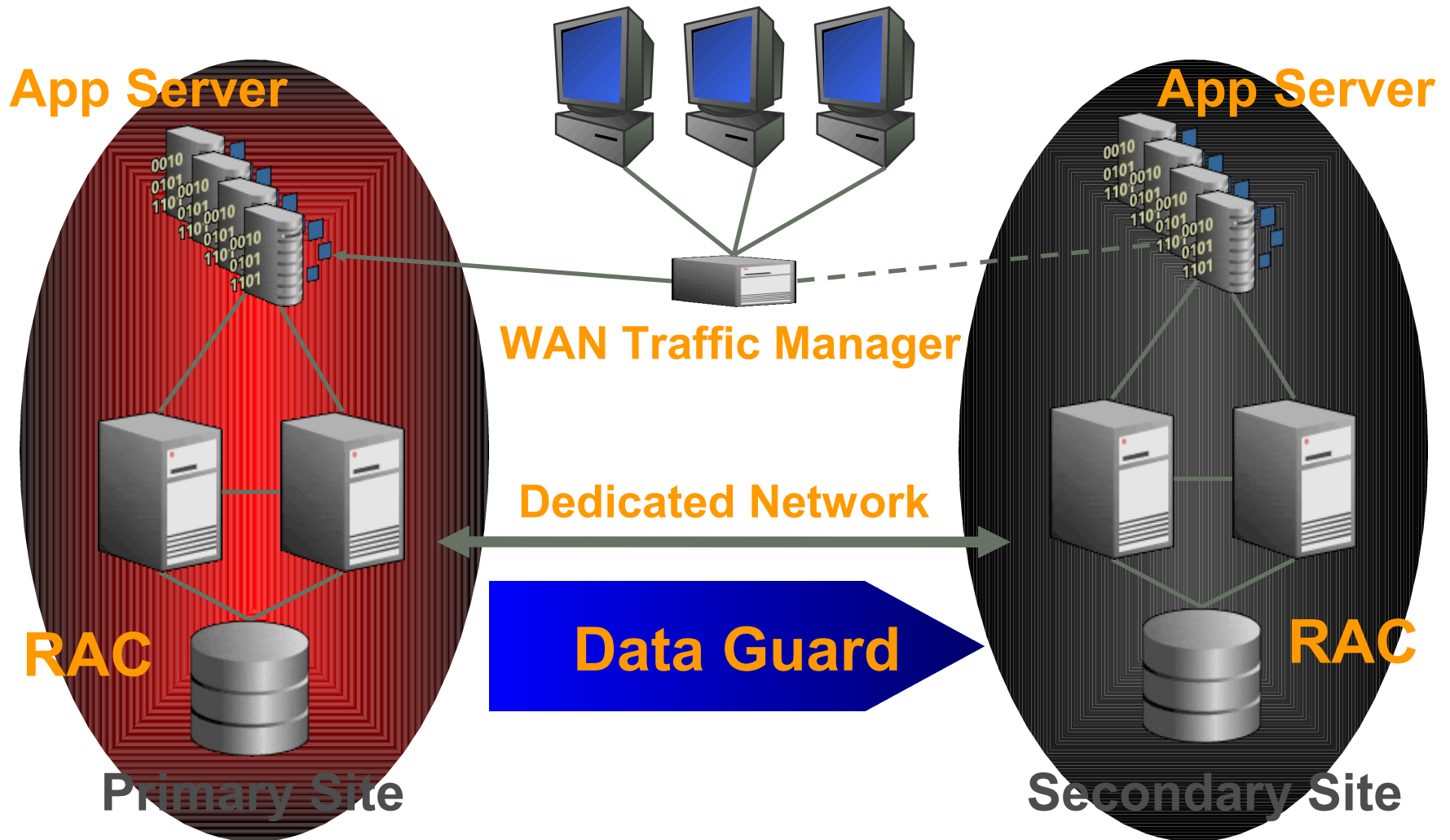
Data Guard role management

- Can be switched-over to for Primary site maintenance
 - O/S, Hardware Upgrade, etc.
- Can be failed-over to when Primary is lost because of any disaster, power-outage, etc.

Data Guard Benefits

- Can be used for Primary Database Backup
- Can be used to take care of corruptions
- Can be used for Business Intelligence Reporting
- Requires fractional network bandwidth compared to Storage Replication solution provided by hardware vendors
- Negligible overhead on Primary site

Oracle Maximum Availability Architecture (MAA)



11g Data Guard new features

- Compression of redo traffic over the network in a Data Guard configuration
- Use of physical standby database for rolling upgrades
- Heterogeneous Data Guard Configuration(Linux, Windows)
- Active Data Guard
- Snapshot standby

Customers references

- FHB
- T-Com
- T-Online
- Axial
- Cibleasing