

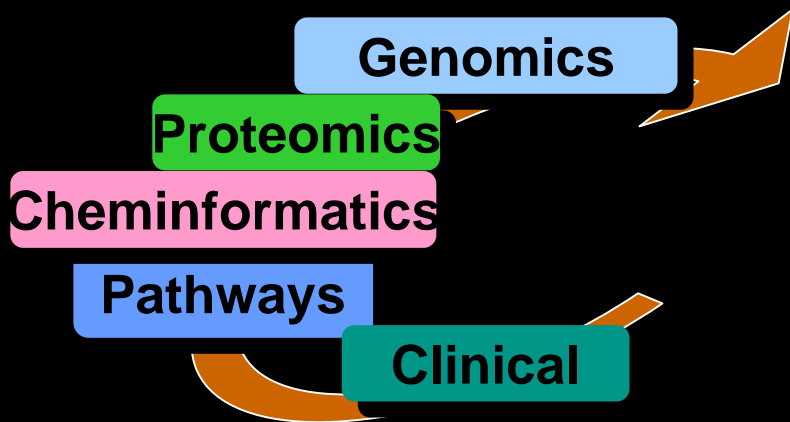
# The Oracle Technology Behind the SRS Gateway for Oracle

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# Outline

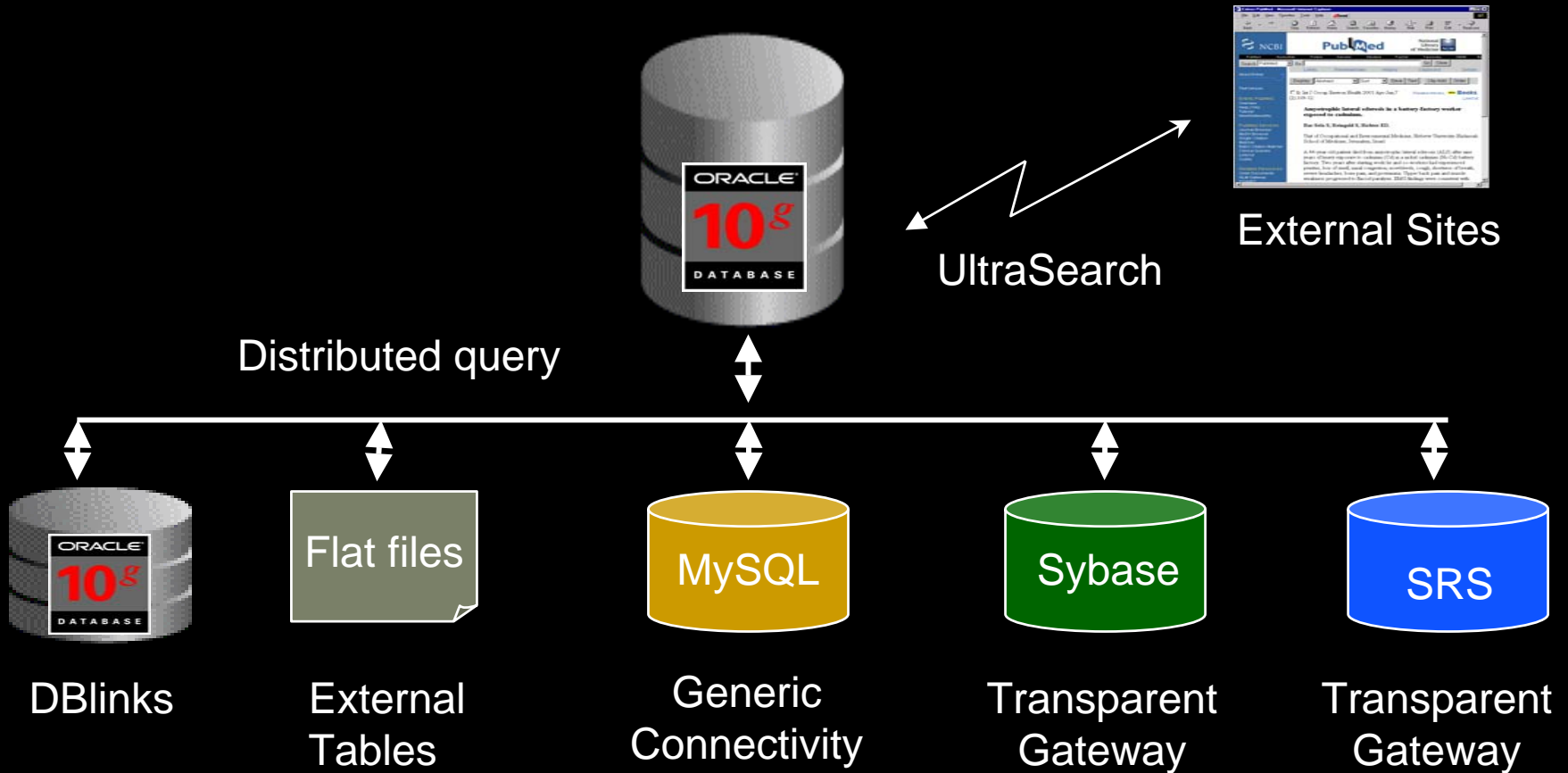
- Oracle's Life Sciences Platform
- Transparent Gateway Technology
- SRS Gateway for Oracle
- Summary

# Oracle's Platform for Life Sciences



1. Access distributed data
2. Integrate a variety of data types
3. Manage vast quantities of data
4. Enhance secure collaboration
5. Find patterns and insights

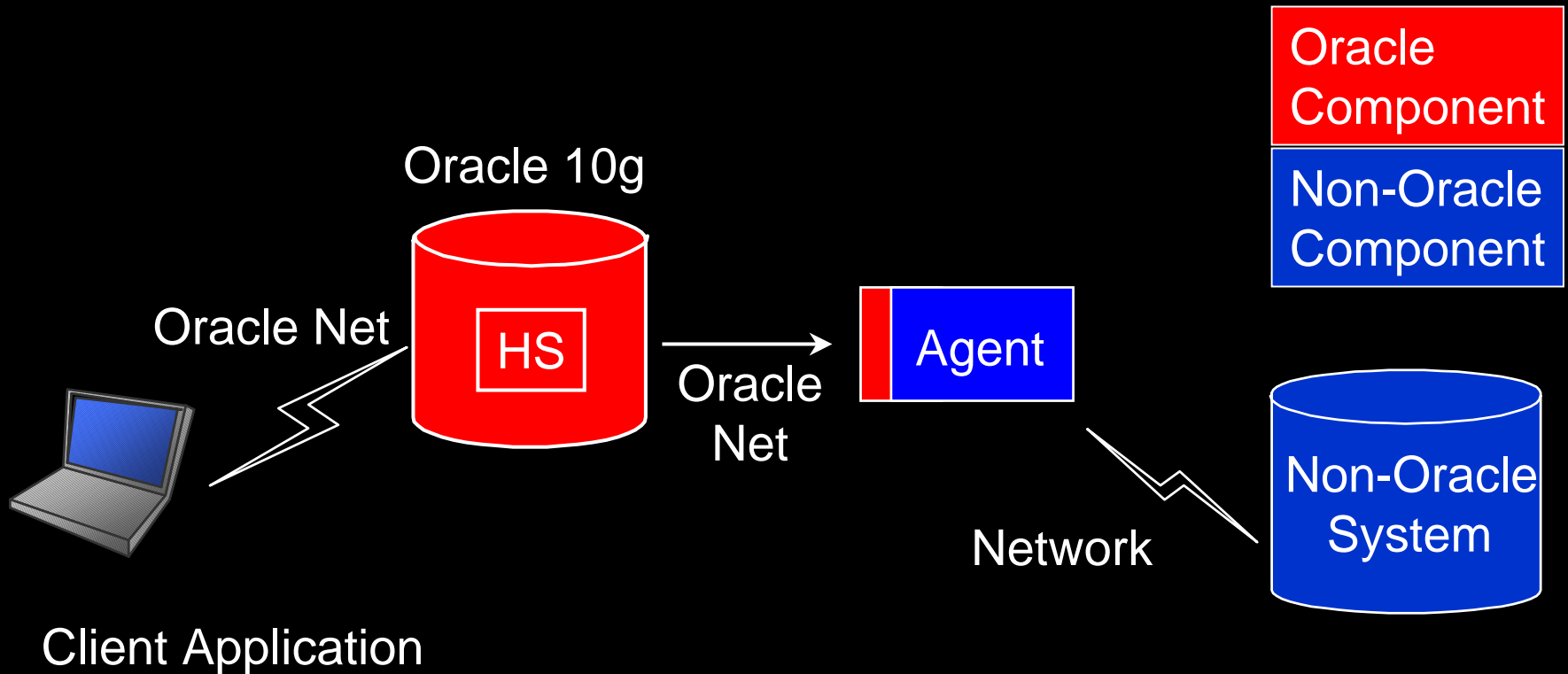
# Access Distributed Data



# Transparent Gateway Technology

- Consists of 2 parts:
  - Heterogeneous Services
  - Agent

# Transparent Gateway Architecture



# Heterogeneous Services

- Integrated component of the database
- Processing power of Transparent Gateways
- Takes advantage of the capabilities of the Oracle server
- Provides the generic technology to connect to a non-Oracle data store
- Requires a complementary agent to access non-oracle system
- Provides Transaction Service, Procedural Service, Pass-Through SQL and SQL Service

# HS: SQL Translations

Oracle environment:

```
SELECT TO_UPPER(ename) FROM emp;
```

Non-Oracle environment

```
SELECT UPPERCASE(ename) FROM emp;
```

# HS: Data Dictionary Translations

Oracle environment:

```
SELECT * FROM sys.dba_objects  
WHERE object_type = 'TABLE';
```

Non-Oracle environment

```
SELECT * FROM catalog_objects  
WHERE object_name LIKE '%EP%'  
AND object_type = 'TABLE';
```

# Distributed Query Optimisation


```
SELECT 1.a, 1.b, r1.c, r1.d, r1.e, r2.b, r2.c  
FROM remote r1, remote r2, local 1  
WHERE r1.c = r2.c AND r1.e > 300 AND r1.c = 1.c
```

```
SELECT r1.c, r1.d, r1.e, r2.b, r2.c  
FROM remote r1, remote r2  
WHERE r1.c = r2.c AND r1.e > 300
```

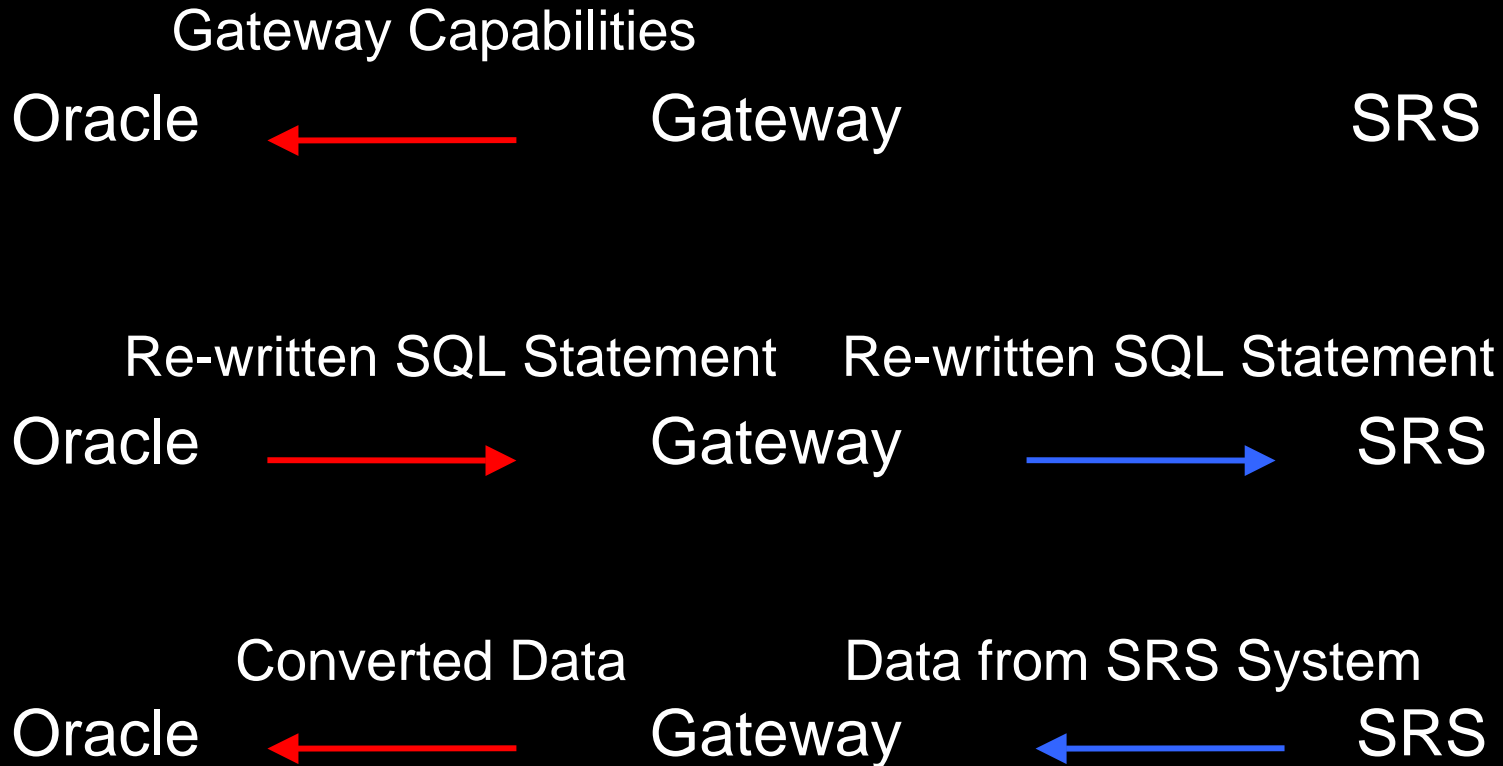
# Transparent Gateway Agents

- Accesses non-Oracle system on behalf of Oracle server
- Contains capabilities, SQL mappings, datatype conversions and interface to non-Oracle system

# Agent: Datatype Translations

**PACKED DECIMAL**  **NUMBER**

# 'SRS Gateway for Oracle' Query



# Why Build a 'SRS Gateway for Oracle'?

- Combines the two leading life sciences data integration platforms
- Enables Oracle users and Oracle based applications to access SRS indexed data
- Enriches data stored in Oracle, e.g. LIMS data, by providing a link to flat file databanks
- Flat file data set can be retrieved from SRS and analysed in Oracle

# Summary

- The 'SRS Gateway for Oracle' strengthens Oracle's ability to query flat file databanks
- The 'SRS Gateway for Oracle' is an implementation of the Oracle Transparent Gateway Technology
- The 'SRS Gateway for Oracle' enables Oracle users and Oracle based application to query data indexed by SRS