Summary plan (high level)

1. **Back up everything** (DB2 full backup + application config + file stores + LDAP settings).
2. **Stand up target Oracle DB** (create schema(s), users, tablespaces) with compatible character sets and required sizing.
3. **Generate BAW Oracle DDL** (use IBM tooling that ships with BAW to create the Oracle DDL scaffolding).
4. **Export data from Db2** (schema + data) and convert to Oracle types / sequences / identity mapping. Use a migration tool (Oracle SQL Developer Migration or other ETL) to convert schema and data.
5. **Load data into Oracle** and validate constraints / LOBs / sequences.
6. **Switch BAW to use Oracle** (update JDBC drivers/datasources, modify config, run IBM DB upgrade/migration utilities if required).
7. **Smoke test thoroughly** (workflows, case instances, task lists, reports).
8. **Cutover and monitor**, with rollback plan ready.

I'll now expand each step with concrete actions, checks, and references.

Detailed step-by-step procedure

0) Prepare & discover (do this first)

- Inventory BAW databases and components (Workflow server DB, PDW, BPM repository, content DB if external). Note exact Db2 version, schemas, tablespaces, owners. IBM
- Snapshot config: export IBM BAW configuration (`BPMConfig`/config tools) and save WebSphere / application server config. IBM
- Ensure you have a full offline backup of Db2 and any file stores (attachments, content).
- Pick an Oracle target version supported by BAW v24 (check IBM docs for supported Oracle versions in your exact v24 fix pack). Create tablespaces sized for data + indexes + LOBs. IBM

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1) Stand up target Oracle environment

- Install Oracle (e.g., 19c or supported version per IBM doc) and create schema(s) and users with required privileges. Confirm character set & NLS settings match expectations. Oracle should be reachable from BAW app servers. Oracle docs provide migration tooling to help. Oracle Documentation+1

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2) Generate IBM BAW Oracle DDL / configuration

- Use the BAW configuration utilities to **generate SQL scripts** for Oracle. The BAW installer/configuration utilities generate DB create/upgrade scripts for supported databases — use those to create empty Oracle schema objects (tables, indexes, constraints) in the target schema. This ensures schema structure matches what BAW expects. IBM+1

Why: IBM's generated SQL accounts for BAW-specific DDL differences (datatype choices, indexes). Don't hand-craft the full schema unless you must.

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3) Export schema + data from Db2

Two options:

A. **Use an ETL / migration tool** (recommended)

- Tools: **Oracle SQL Developer Migration** (supports Db2 → Oracle), commercial ETL tools (Informatica, Talend), or other DB migration utilities. These tools convert Db2 schema to Oracle equivalents, migrate data, handle LOBs, and can produce mapping reports. See Oracle's SQL Developer migration docs. Oracle Documentation+1

B. **Manual export/import**

- Export Db2 schema + data to files (unload utilities, CSV, or DB2 export), then load into Oracle using SQL*Loader or external tables. You must map types (e.g., Db2 `BIGINT`/`DECIMAL` → Oracle `NUMBER`, Db2 `BLOB`→ Oracle `BLOB`/`CLOB`), and handle identity/sequence differences. This is more error-prone for large, complex schemas.

Notes:

- Pay special attention to **LOB/BLOB columns** (attachments, document store). IBM BAW uses BLOBs for content — migration tools must handle streaming these correctly. IBM
- Preserve primary key / foreign key relationships and constraints. Load in a staging area and apply FKs after data load.

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4) Convert Db2 database semantics to Oracle

- Map Db2 sequences/identity columns to Oracle sequences + triggers (or use Oracle identity columns if supported).
- Recreate indexes, unique constraints, and materialized views if any.
- Recreate stored procedures / DB logic if BAW uses any DB procedures (normally BAW uses application code but check for custom DB procedures).
- Confirm date/time and timezone handling; Oracle and Db2 can differ. Verify data correctness for date fields.

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5) Load data into Oracle & reconcile

- Use the output from migration tool to load data into the Oracle schema created by IBM's generated DDL.
- Validate row counts per table, check sums/hashes on high-volume tables to ensure parity.
- Rebuild indexes, gather statistics (Oracle `DBMS_STATS`) for performance.
- For LOBs/BLOBs verify content (checksum or sample retrieval). Oracle Documentation+1

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6) Prepare BAW application to point to Oracle

- Stop BAW application servers (Workflow servers, Process Engine).
- Deploy correct Oracle **JDBC driver** (ojdbc8/ojdbc11 per JVM) to the app server / WebSphere. IBM Chef/automation docs note the JDBC jar requirements. GitHub
- Update the application server datasource definitions to point to the new Oracle schema (JDBC URL, user, password). Ensure connection pool settings are suitable.
- Update BAW configuration properties (either via config editor or BPMConfig generated files) so BAW uses the Oracle database names/URLs. The configuration step may generate appropriate DDL or alter scripts. IBM

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7) Run IBM DB upgrade / migration utilities (if required)

- IBM provides utilities under `install_root/util/dbUpgrade` and similar that are used for data migration or schema upgrade tasks. If you are migrating *within the same BAW version* but changing RDBMS, you may need to run the IBM DB upgrade/migration tool to reconcile metadata and BLOB handling. Follow `dbUpgrade` guidance for properties like `database.batch.size`, `worker.thread.size`, and Java heap settings to handle large migrations. IBM

Important: Some IBM docs note *moving inflight case instances* and certain case migration tools require Db2 in the source or special handling — check IBM notes if you plan to move in-flight cases/case instances between deployments. IBM+1

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8) Start BAW and perform verification

- Start application servers. Check logs for DB connectivity errors.
- Run comprehensive verification:
  - Confirm engine startup without DB errors.
  - Validate sample process instances (start, progress, complete).

    - Check existing historic data and case instances — open several to ensure attachments display.
    - Validate report/analytics that rely on PDW or external DBs.
- Run searches and prioritize tasks to ensure indices and queries behave acceptably. IBM

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9) Cutover & post-migration tasks

- When validated in test, schedule final cutover (downtime window), repeat migration for delta (final incremental copy), then switch connections and go live.
- Monitor performance and tune Oracle (indexes, stats, PGA/SGA) as needed.
- Keep the old Db2 instance read-only for a rollback window.

Key gotchas & tips

- **Inflight cases**: IBM docs highlight that moving inflight case instances to Cloud Pak or other flows may require specific DB configurations and sometimes Db2. Validate IBM notes relevant to your exact scenario. IBM+1
- **LOB/BLOB handling**: BLOBs may be stored differently; ensure the migration tool supports streaming LOBs reliably. Test with several real attachments. IBM
- **Generated DDL**: Always use IBM's generated DDL for the Oracle target when possible so that BAW internals match expected structures. IBM
- **Character sets / encoding**: mismatched character sets cause data corruption. Match NLS_CHARACTERSET/DBCHARSET.
- **Sequences & identity columns**: map properly so generated keys remain unique and don't clash.
- **Testing**: perform full functional and load tests. Run DB explain plans for heavy queries and tune Oracle accordingly.
- **Rollback plan**: have a tested rollback plan (point app back to Db2) before cutover.

Useful references (read/practice these)

- IBM BAW planning your database configuration (v24). IBM
- IBM BAW configuration / SQL script generation (creating DBs). IBM
- IBM dbUpgrade troubleshooting for large data/BLOB migration. IBM
- Community threads / migration stories (experience migrating BAW from Db2 → Oracle). IBM TechXchange Community+1
- Oracle SQL Developer migration documentation (Db2 → Oracle toolchain). Oracle Documentation+1

Checklist you can copy & run

- [ ] Take full Db2 backup + app config export.
- [ ] Provision Oracle DB & create schema(s) with right charsets.
- [ ] Use BAW generated DDL for Oracle (create empty schema).
- [ ] Run migration tool (Oracle SQL Developer Migration) to convert schema + load data, or export/import carefully with LOB handling.
- [ ] Verify row counts, LOBs, constraints.
- [ ] Install Oracle JDBC driver on app server; update datasources.
- [ ] Run any IBM dbUpgrade utilities needed, tune `upgrade.properties`.
- [ ] Start BAW, run functional tests, validate tasks/cases.
- [ ] Run final delta migration and cutover.