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Oracle Energy and Water
Customer Edge
Conference

Enterprise SaaS

Cloud Tech Tips + How to Stay Current

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Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.



To build tools that make it *easy* for you
to migrate to Oracle Cloud Services,
allowing you to *stay current* with the
latest cloud releases and *benefit* fully
from *modern best practices* and *secure*
Cloud Services

Agenda

- Migration to Oracle Utilities Cloud Services
- How to stay current

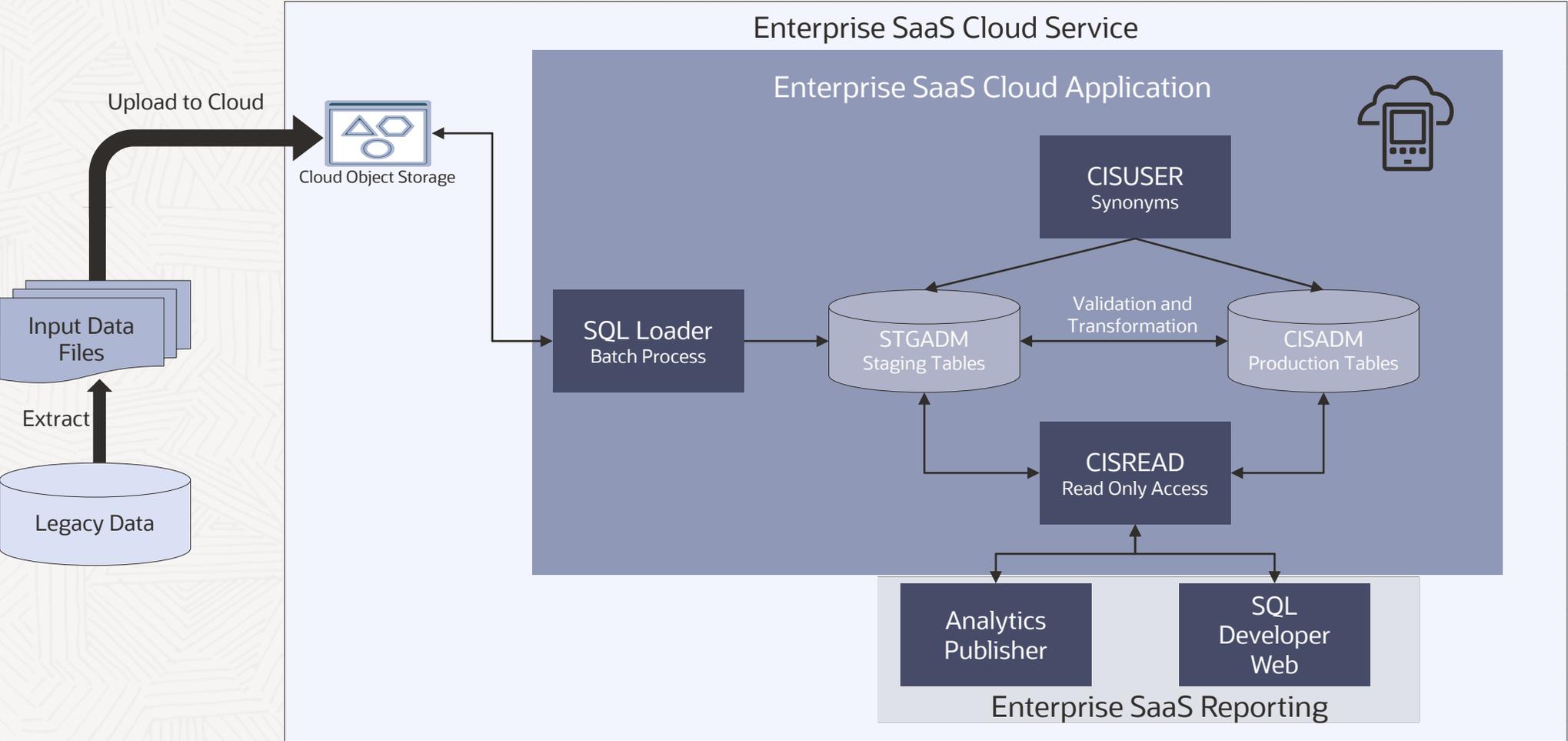
Migration to Oracle Utilities Cloud Services

Migration to Oracle Utilities Cloud Services

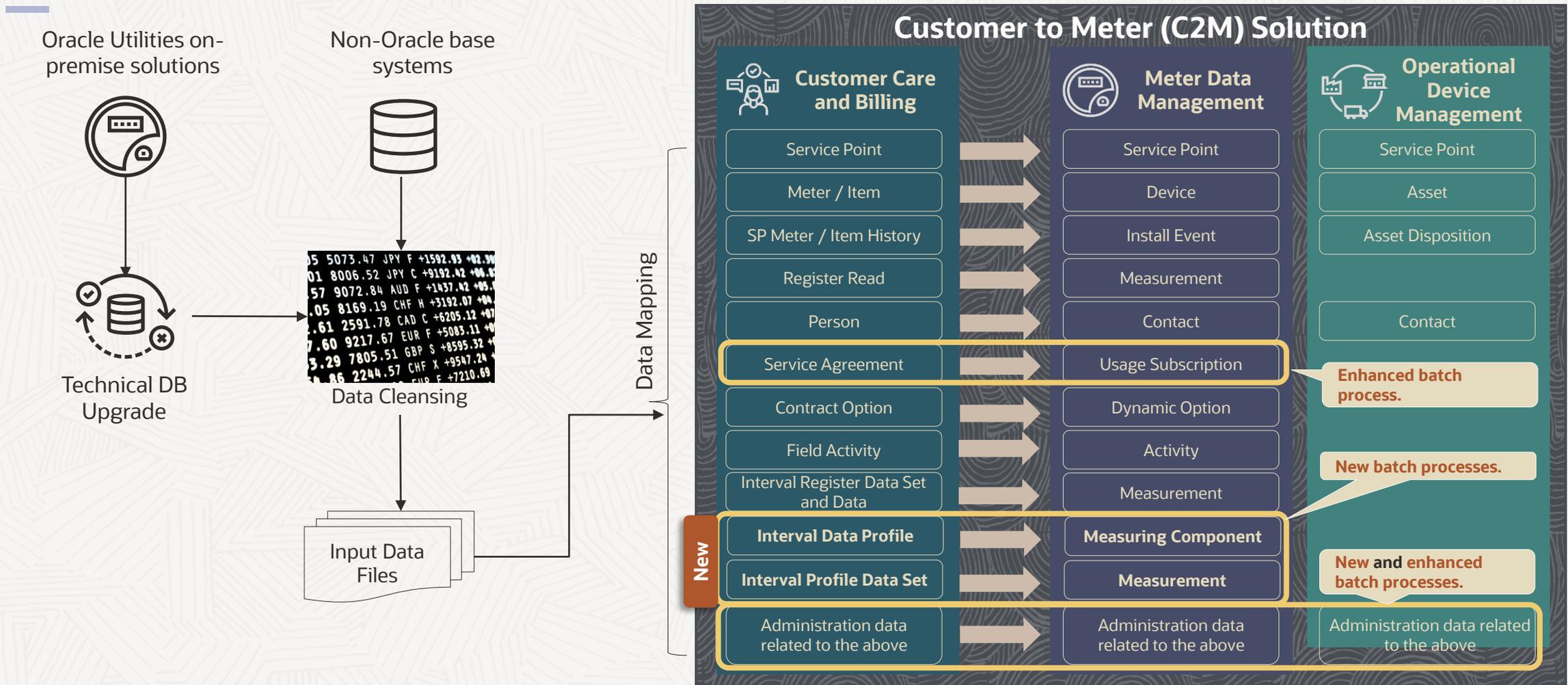


- Non-Oracle base systems to Oracle Utilities Cloud Services:
 - Legacy Customer Information Systems.
 - Legacy Meter Data Management Systems.
 - Legacy Asset Management Systems.
- Oracle Utilities on-premise solutions to Oracle Utilities Cloud Services:
 - Customer Care and Billing.
 - Meter Data Management.
 - Integrated Customer Care and Billing and Meter Data Management.
 - Work and Asset Management.

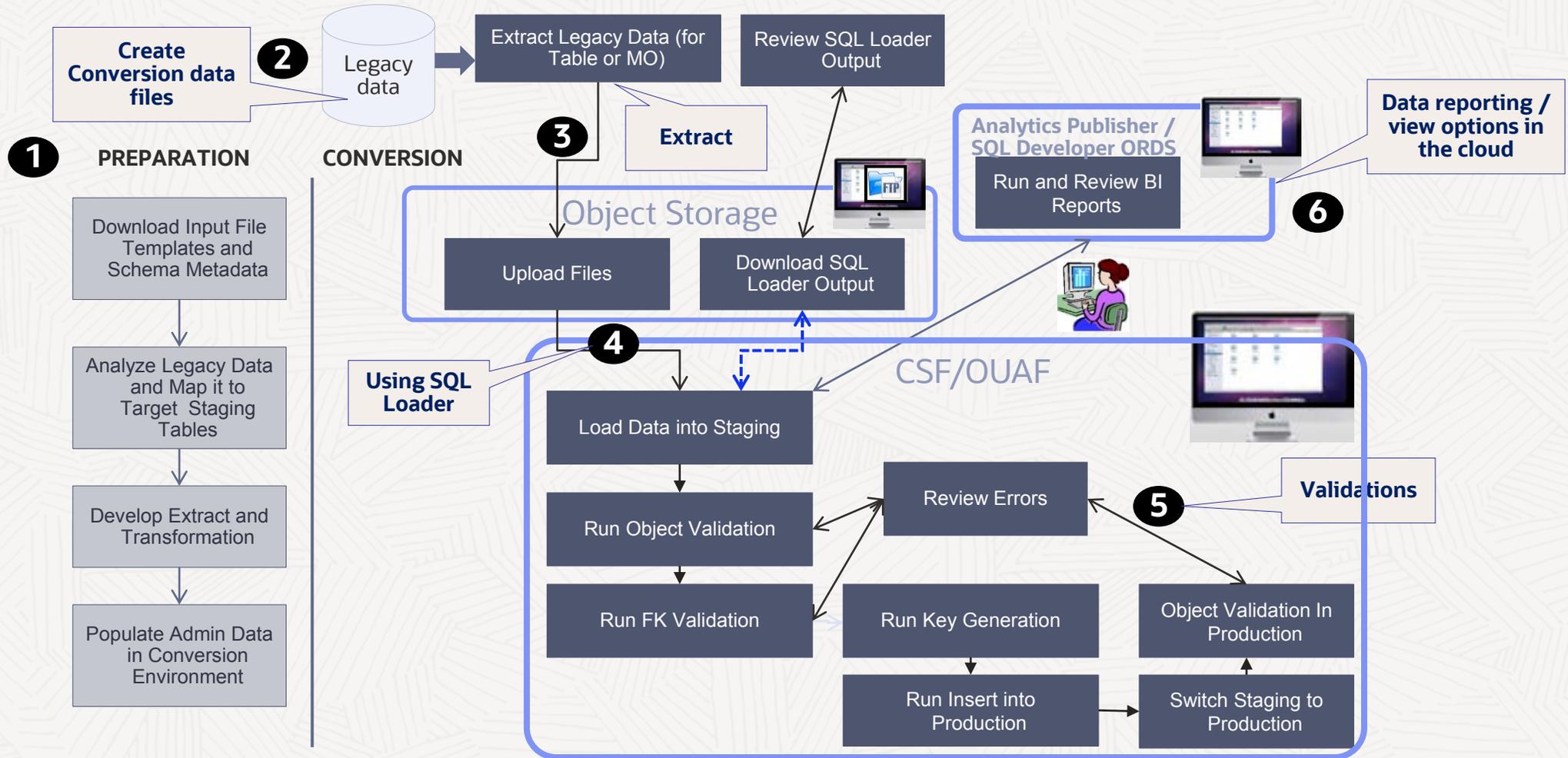
Cloud Data Migration – High level Process



Data Mapping for Utility Cloud Services



Cloud Data Migration – Detail Process



Available Cloud Service Foundation (CSF) Tools

- Switch Schema.
- Pre-built configurations.
- Conversion Artifact Generator.
- Batch Controls for DDL operations (truncate, statistics etc.)
- SQL Loader for high performance data upload.
- New conversion tools (generating MDM and ODM data from CCB).
- Dedicated / additional conversion batch thread pool (TPW).
- Data validations batch controls.
- SQL Developer WEB (ORDS) for ad-hoc queries.
- Analytics Publisher for data reconciliation reports.

[Oracle Energy and Water Learning Subscription](#)

[Oracle Energy and Water Documentation](#)

Using these tools, implementations can reduce a significant amount of conversion development time and cost.



Cloud Tech Tips and Migration Considerations



- Bring the data in as needed.
- Choose between ‘single big bang’ and ‘staggered’ data migration approach.
- Plan to maintain on-premise solution for historical reporting purposes.
- Use the new conversion tool to reduce the data conversion timeframe.
- Bring your custom Java and tables (for selected cloud services).
- Maintain data security via Bring Your Own Key (BYOK).
- Multiple mock runs with the target goal of zero data validation errors.
- Key to success is to have skilled resources on the project (trainings available on **Oracle Energy and Water Learning Subscription**)
- Leverage the online documentation.

How to Stay Current



Introduction to Oracle Utilities Cloud Architecture

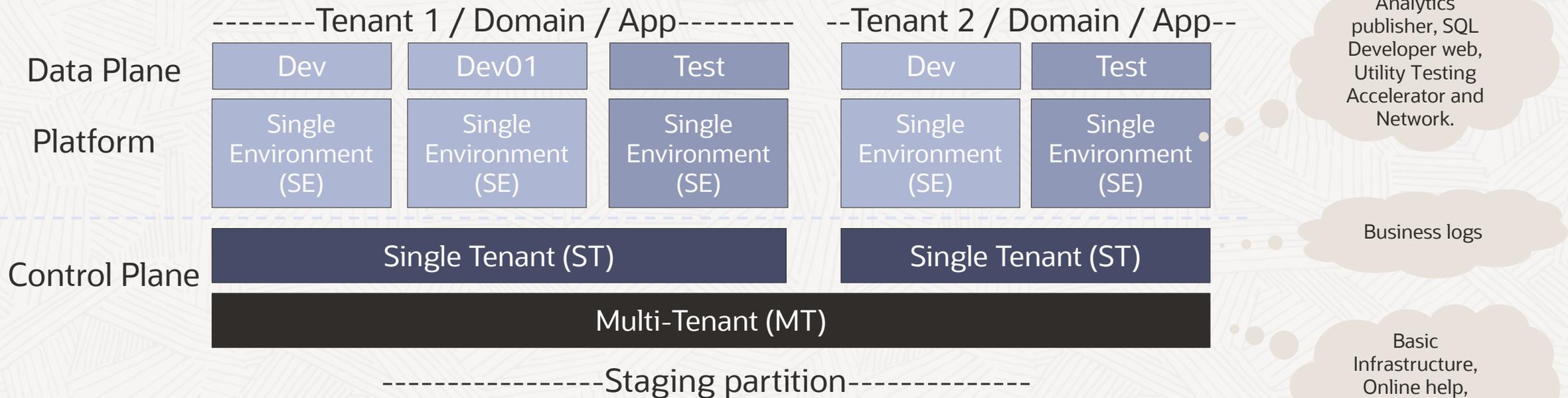


Cloud
Application
Release

Cloud Architecture includes:

- Oracle Generation 2 Cloud Infrastructure.
- Kubernetes managing containers and pods.
- 40+ Microservices.
- Three Pillars (Data, Platform and Control Plane).
- Target availability of 99.9%.

Foundational Components of Enterprise SaaS Architecture



Note: All non-production environments run together in 'staging' partition with 'stg' in url prefix – i.e., [https://stg.utilities-cloud.oracleindustry.com/....](https://stg.utilities-cloud.oracleindustry.com/...)



Cloud Release Management

		Customer Impact	
Data Plane	<ul style="list-style-type: none">• Three Release / Year• 6 Maintenance Packs / Release• Ad-hoc Hotfixes	Functional Testing required	Downtime required
Platform	<ul style="list-style-type: none">• Monthly Sched Version• Ad-hoc Hotfixes	May require testing	May require Downtime
Control Plane	<ul style="list-style-type: none">• Monthly Sched Version• Ad-hoc Hotfixes	No Functional Impact	No Downtime required



Published Oracle Utilities Release Schedule

Releases and Maintenance Packs Updates (Typically):

- Early Adopter: Every 1st Saturday of the month
- Full Adopter: Every 3rd Saturday of the month

Offcycle Hotfixes (if needed)

- Every 2nd, 4th and 5th Thursday of the month.

Further details available on the published [Oracle Utilities Documentation site](#).

Release 22C

Deadline to Upgrade to Release 22C: Saturday August 19, 2023

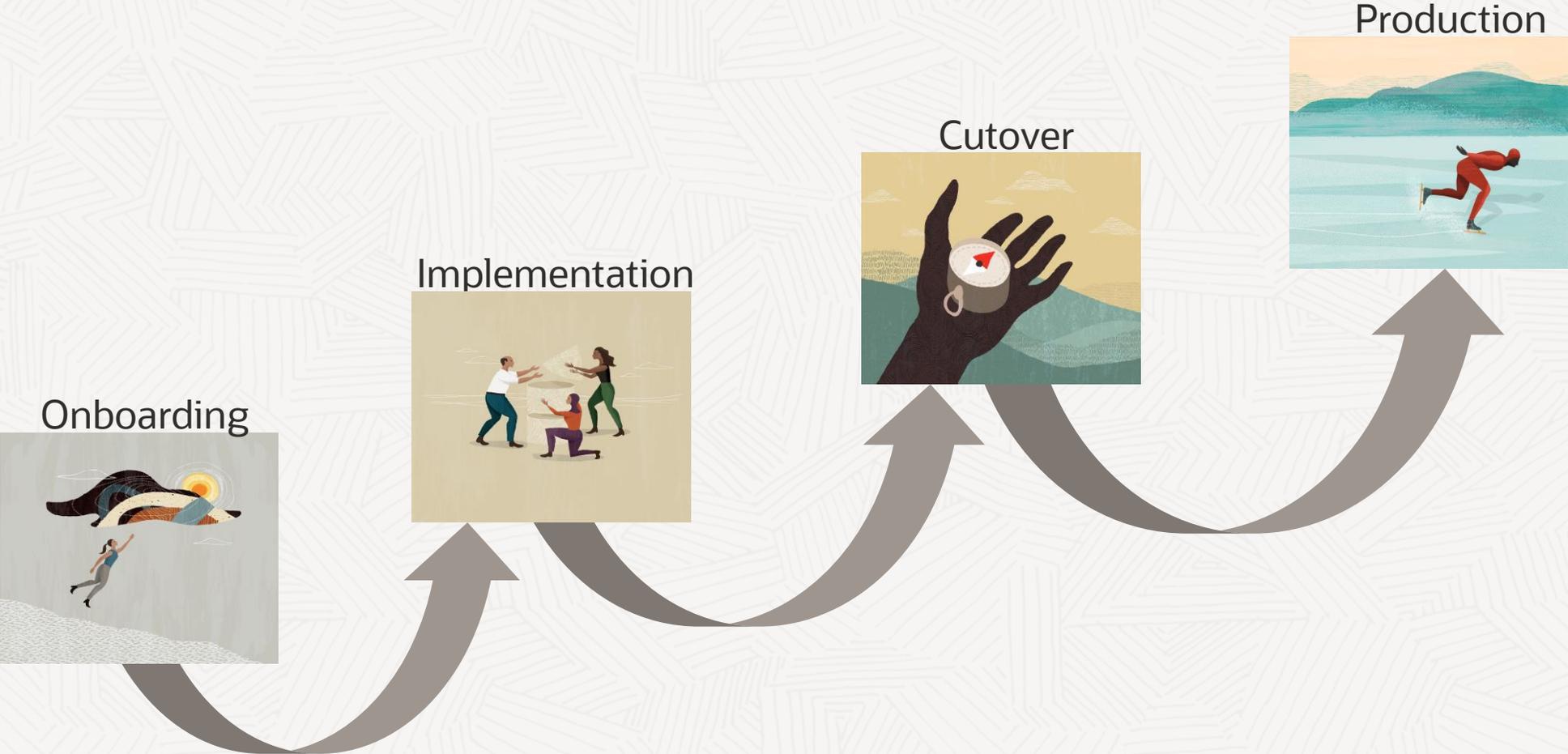
Release 22C End of Life (EOL): Saturday December 16, 2023

Release Version	Date
Release 22C – General Availability (Maintenance Pack 1)	<ul style="list-style-type: none">• Early Adoption: Saturday Dec 3, 2022• Full Adoption: Saturday, December 17, 2022
Release 22C – January Maintenance Pack (Maintenance Pack 2)	<ul style="list-style-type: none">• Early Adoption: Saturday, January 14, 2023• Full Adoption: Saturday, January 28, 2023
Release 22C – February Maintenance Pack (Maintenance Pack 3)	<ul style="list-style-type: none">• Early Adoption: Saturday, February 4, 2023• Full Adoption: Saturday, February 18, 2023
Release 22C – March Maintenance Pack (Maintenance Pack 4)	<ul style="list-style-type: none">• Early Adoption: Saturday, March 4, 2023• Full Adoption: Saturday, March 18, 2023
Release 22C – April Maintenance Pack (Maintenance Pack 5)	<ul style="list-style-type: none">• Early Adoption: Saturday, April 1, 2023• Full Adoption: Saturday, April 15, 2023
Release 22C – May Maintenance Pack (Maintenance Pack 6)	<ul style="list-style-type: none">• Early Adoption: Saturday, May 6, 2023• Full Adoption: Saturday, May 20, 2023• Full Adoption: Saturday, June 3, 2023• Full Adoption: Saturday, June 17, 2023• Full Adoption: Saturday, July 1, 2023• Full Adoption: Saturday, July 15, 2023• Full Adoption: Saturday, August 5, 2023• Full Adoption: Saturday, August 19, 2023

Note: If needed, additional monthly maintenance packs or hot fixes for 22C will be released until the end of life date.



Key Stages to your SaaS Lifecycle



Critical SaaS Phases and Recommendations

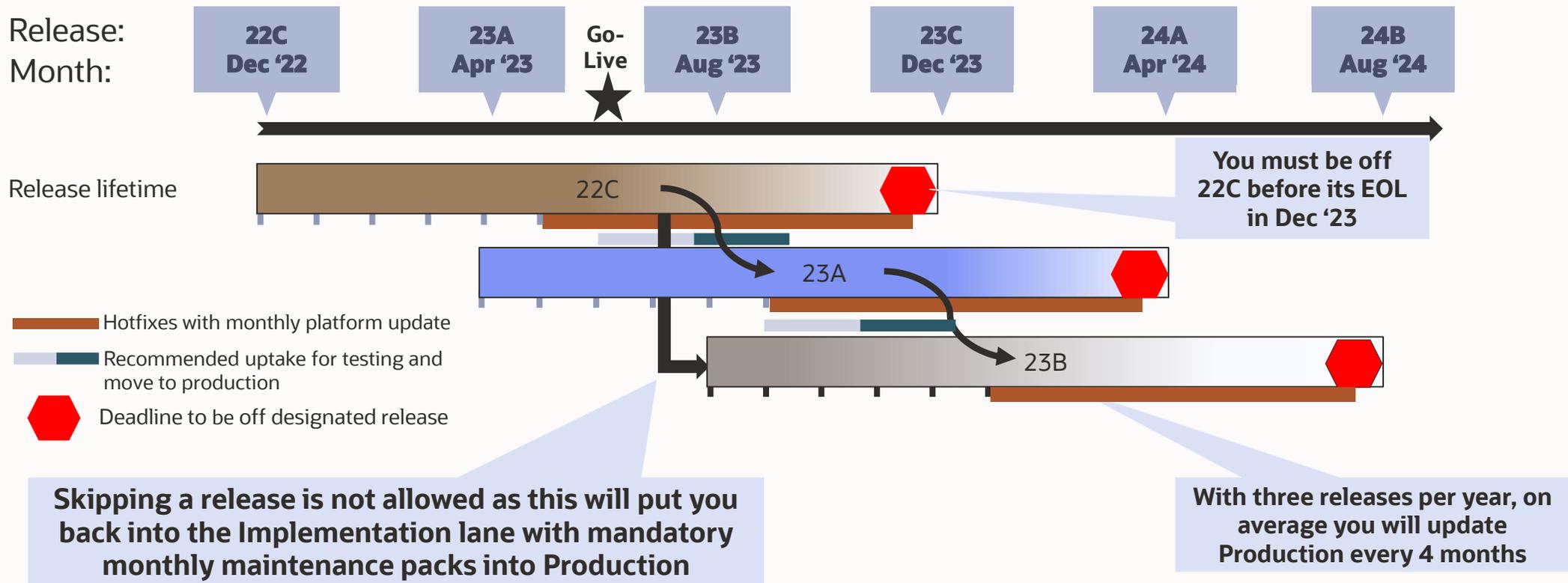


- Start with the latest release.
 - Latest release = latest features.
 - Opt for a solution driven approach.
 - Go-live timelines: review with your CSM.
 - Minimize custom code.
 - Prepare for automated regression testing
 - Take new release as available.
- Stay balanced.
 - Looking for stabilization.
 - Take hotfixes as needed.
 - Focus on key milestones.
 - Automated regression testing in place.
- Minimize change.
 - Keep an eye on your release EOL.
 - Take new releases in early adopter environments.
 - Execute automated regression testing regularly.
 - Stay in production lane.



'Production' Lane – Customers stay current with later adoption

Hypothetical Customer



The Importance of Staying Current

- New Features and fixes
- Choose when to enable 'opt-in' features
- New Self-Services tools
- Manageable Changes (don't accumulate into large, disruptive upgrades)
- Improved Resilience, Reliability and Strong Security posture
- Better support from Oracle



For further details, please review **Cloud Update Policy** on [Oracle Utilities](#) online documentation.



How to stay current on SaaS Releases

Planning

- 3 release upgrade / year.
- Only take ad-hoc hotfixes, if needed.
- Invest in dedicated resources.

Preparation

- Build / refine automated regression testing scripts.
- Review Cloud Readiness / What's New.
- Review new feature Videos.
- Review Extension Dashboard



Execution

- Execute automated regression testing scripts.
- Enable new Features.
- Perform change management.

Retrospective

- Review of upgrade results.
- Re-Plan for the next upgrade.

SaaS Roadmap Features

Roadmap Features

Blue/Green Deployment

- Zero downtime for functional and platform upgrades.
- Allow canary testing.
- Easy upgrade rollback with zero downtime.

What's New Portal

- Display what's changed in your environment.
- Link to the user documentation portal.
- Easier functional impact analysis.

Import on-premise DB to SaaS

- Automate cloud data migration process.
- Safely and efficiently transfer data.
- Minimize downtime on source database.

SaaS to on-premise Data replication via Golden Gate

- Allow replication of your SaaS database to PaaS hosted database.
- Robust, fast and automated mechanism.
- Easy to implement.



There are **cloud tech tools** that can help you simplify your Cloud migration and help you **stay current**

References

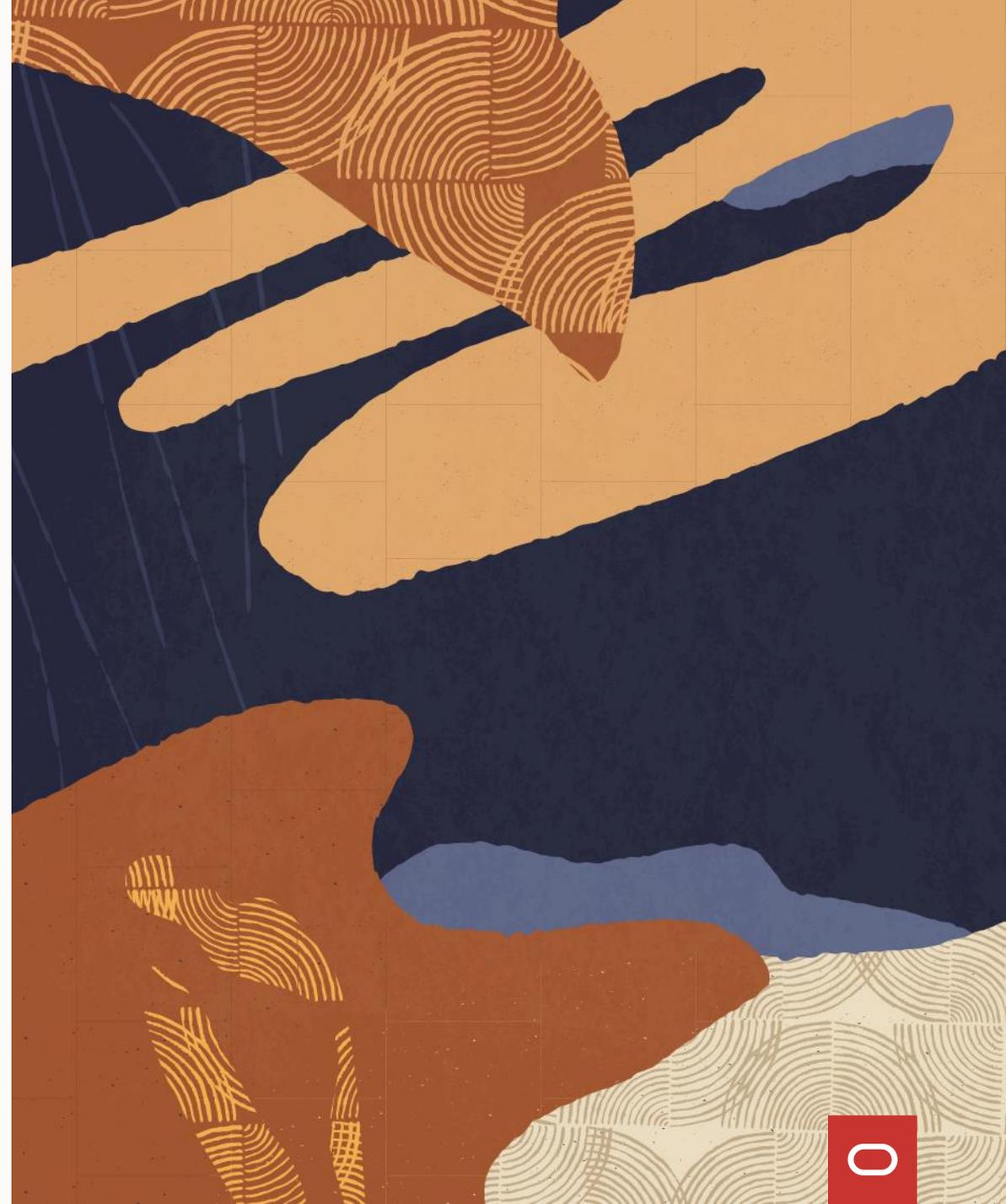
Refer to ***Data Conversion and Migration*** section in ***Oracle Cloud Services Implementation Guide*** on [Oracle Utilities Documentation](#)

Refer to ***Cloud Update Policy Guide*** on [Oracle Utilities Documentation](#)

Training on ***Oracle Utilities Cloud Service Foundation Architect*** and ***Oracle Utilities Enterprise SaaS Implementation Topics*** available on [Oracle Energy and Water Learning Subscription](#)

For all other documentation, please refer to [Oracle Energy and Water Documentation Portal](#).

Thank you



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