Cloud SaaS considerations for government

IBM **Services**

Contents

Cloud SaaS considerations for government

Why is cloud important?

Mainstream adoption of cloud ERP predicted in less than 5 years

Projected growth

Global cloud ERP market size is estimated to reach $30B by 2021

64% of SMBs
are already using cloud-based apps (average 3 apps)

78% will move to more than **7 apps** in next 2–3 years

$7.5B to $23.1B
(2015) (2020)
Compound Annual Growth Rate–25.1%

Cloud analytics market

22% to 45%
(2013) (2023)
SaaS-based manufacturing and distribution software

90%
of total mobile data traffic by 2019 will be due to cloud apps

Journey to the cloud for government

Core challenges

1. Grow in a low-growth, digitally disrupted world
2. Seek innovation and data leverage as a basis for new growth
3. Take out structural costs for competitiveness and to fund investment in growth
4. Win the war for talent to access intelligence and innovation
5. Transform enterprise processes and systems to enable growth and competitiveness

Cloud ERP benefits

Vanilla, good practice-driven, standardized processes

Improved business agility and pace of responding to change

Efficiency and productivity improvement of critical business use cases by exploiting the capabilities of new cloud innovations

Performance improvement and real-time, deeper insights through analytics

Quarterly innovation through feature enhancements

Lower TCO by removal of infrastructure and related support costs (such as DBA support)

Improved user experience through intuitive and mobile driven user interfaces

Introduction of collaboration tools to exploit enterprise talent

Pathway to landscape simplification, transformation and the introduction of enabling technologies including robotics and machine learning

Common questions about moving Oracle ERP on cloud

- What new functionalities exist in the cloud that I can exploit for my business?
- To what extent can the cloud remove my existing business and IT pain points?
- What gaps exist in the cloud as compared to my business processes delivered through EBS, PS and Hyperion?
- What is the impact on my current extensions and customizations in my current applications? Which can be retired, which must be replicated or delivered through alternate processes?
- What is the right transition approach for cloud based upon business benefit and business risk?
- Do I move to SaaS or IaaS, Big Bang staged or hybrid?
- What is the most appropriate implementation roadmap?
- What is the business case for moving to the cloud—both business and IT?
- What is the ROI for moving to the cloud?

IBM's Cloud Impact Assessment for Oracle helps answer these questions

Functional impact

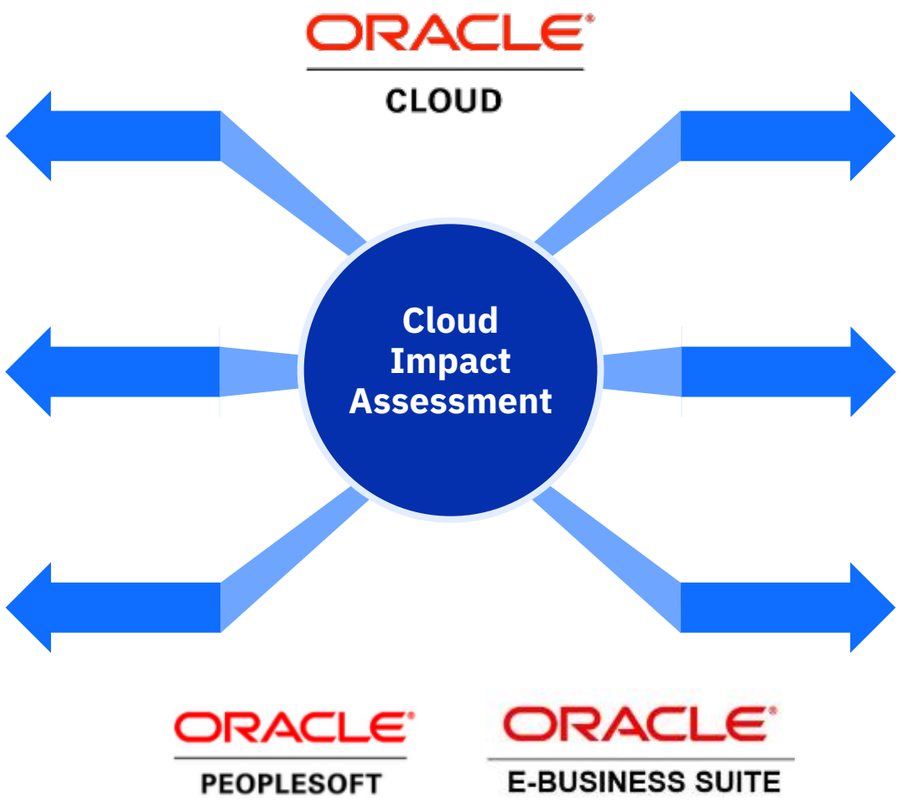
- New functionalities available in the cloud
- Gaps in cloud functionality based upon current eBusiness suite or PeopleSoft processes in your organization

Technical impact

- A view on which critical extensions and reports can be replaced by core cloud functionality
- A view on alternate approaches where an extension can't be retired

Roadmap

- Options and timeline available to transition to the cloud—based upon geo and business process and cloud platform (PaaS and IaaS)
- Definition of transition states



Business case

- Business benefits (both quantitative and qualitative) in moving to the cloud specific to you
- Mapping of your current business performance against industry benchmarks

ROI

- Estimated implementation costs (including software)
- Indicative ROI based upon the implementation costs and business case

Live Cloud Instance—additional cost

- Migration of your eBusiness suite platform (configuration and master data) to a live Oracle ERP Cloud instance
- Demonstration of Oracle HMC Cloud

Cloud impact assessment: More information

For more information about Oracle’s cloud impact assessment, please visit this link:
(Link to be provided here at later date)

Examples of how IBM helped clients unlock their cloud potential

The co-operative

The Co-op is on a journey to empower its colleagues to serve its members and customers better. Part of the transformation is to standardize and create easier HR processes based on Oracle HCM Cloud solutions, implemented by IBM® Global Business Services® (GBS).

Read the full story here.

ConnectOneBank
a better place to be

Consistently named one of the top community banks in the United States, Connect One Bank constantly strives to become “a better place to be” for its clients, primarily focusing on small and midsize business owners. Embarking on a transformation journey, the bank worked with IBM to automate and digitize its financial processes using a cloud-based Oracle solution.

Read the full story here.

KAISER PERMANENTE®
SOUTHERN CALIFORNIA PERMANENTE MEDICAL GROUP

The Southern California Permanente Medical Group (SCPMG) is a for-profit organization of more than 8,000 doctors who serve the 4.2 million members of Kaiser Permanente's Southern California regional health care network, offering general practice and specialist care services. In total, SCPMG employs 69,000 people, operates 14 hospitals and 217 medical offices, and has more than 60 years of experience in delivering high-quality and innovative care. After a boom in membership triggered a massive recruitment drive, SCPMG set out to ramp up the efficiency of its talent-acquisition efforts. SCPMG transformed its recruitment by replacing manual work with a robust Oracle Cloud solution deployed by IBM, helping recruiters and hiring leaders focus on finding the right person to fill each post.

Read the full story here.

Akamai

Providing content delivery services, Akamai helps to make the internet fast, reliable and secure. First incorporated in 1998, the company's 2015 revenue reached $2.2 billion. As Akamai grew, the volume of work soared. Akamai engaged IBM Global Business Services to help transform its Oracle environment. The solution enables faster, more-granular insight into sales, products, customers and markets across Akamai's global enterprise in a way—and at a pace—not possible before.

Read the full story here.

CANADA STEAMSHIP LINES

Employing more than 1,500 people (both shipboard and ashore) across three continents, Canada Steamship Lines is the world’s largest operator of self-unloading vessels. Canada Steamship Lines delivers more than 78 million tons of dry bulk cargo a year for their customers, yet embarking into the digital age still proved problematic. IBM Global Business Services helped deliver Oracle ERP Cloud in less than 20 weeks, resulting in a solid foundation for financial accounting and reporting which provides value through improved quality and timeliness of information in support of better decision-making and insight.

Read the full story here.

CooperVision®
Live Brightly.®

CooperVision is one of the world’s leading manufacturers of soft contact lenses and related products and services, with products sold in over 100 countries around the world from China to Europe and from Africa to the Americas. CooperVision partnered with IBM Global Business Services to implement a modernized and streamlined solution for its Human Resources function. Together, CooperVision and IBM transformed the HR function utilizing industry best practices enabled by Oracle HCM Cloud and Taleo.

Full story coming soon!

Lessons learned implementing SaaS

IBM's expertise in cloud implementations includes these lessons learned from previous projects:

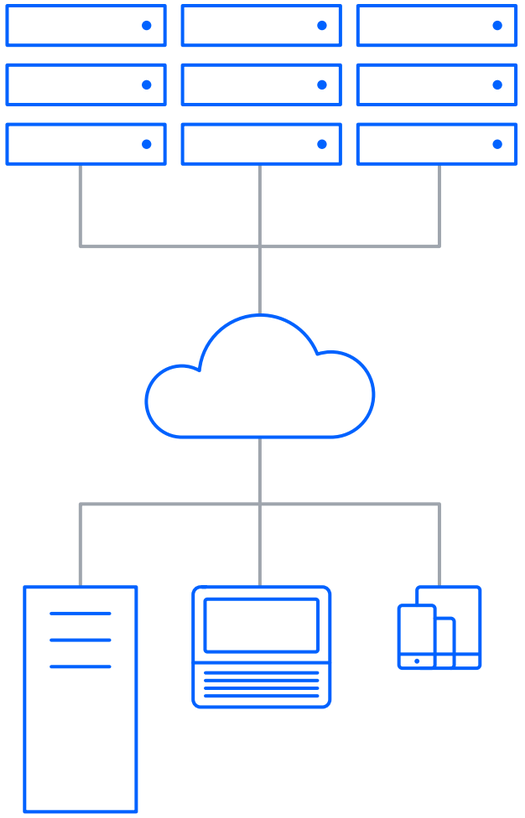
- Environment setup
- Training
- Reporting
- Data security
- Data integration
- Change management

IBM Cloud™ Secure Virtualization

Embrace the cloud with confidence

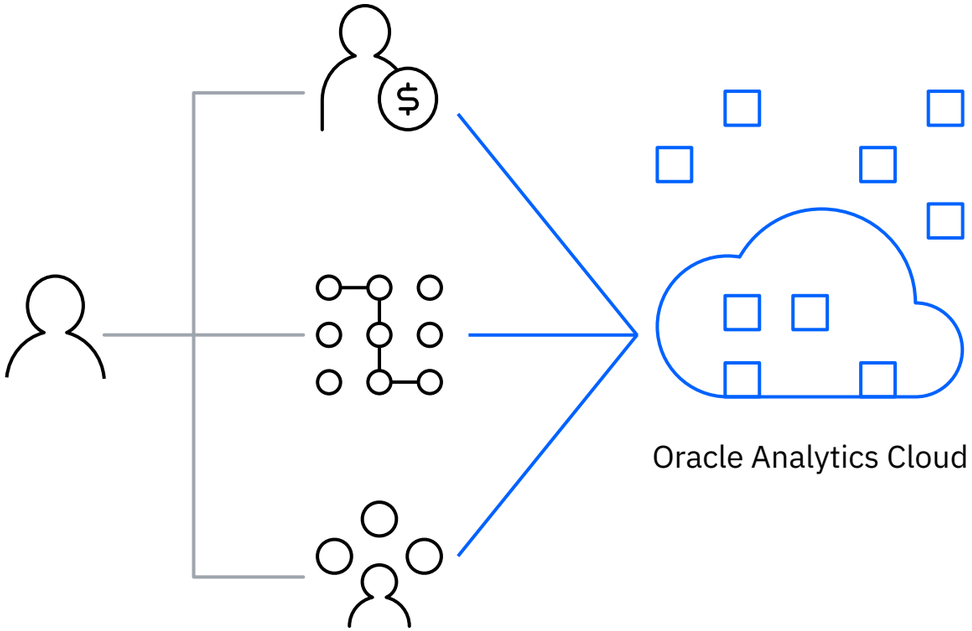
Cloud environment setup

- Allow for adequate time to define environment strategy and setting up of environments
- Clearly define number of environments and build in enough time for configuration and test
- Take into consideration lead time required to plan environment refreshes, especially for conversion cycles
- Access setup for the team



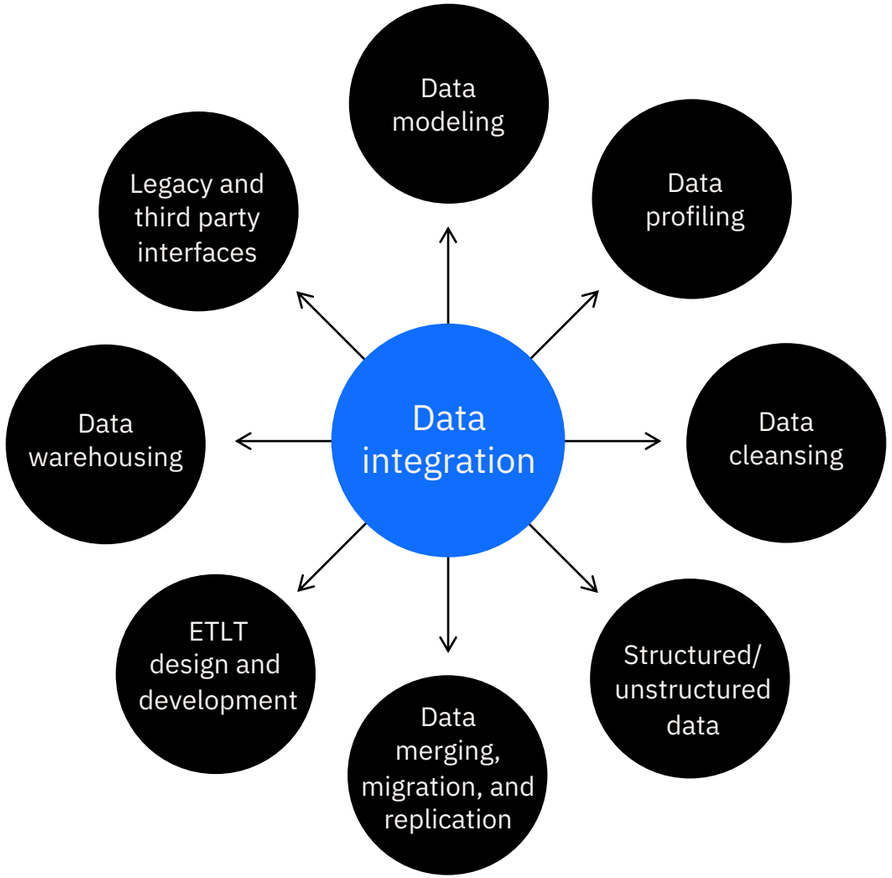
Implementation reporting

- Oracle provides a different perspective on reporting
- Need to consider a reporting strategy up front that would include considerations around budgeting and planning, consolidations and so on
- These reporting solutions and tools can provide business users friendly options for reporting, but for complex business intelligence and data warehouse, explore Oracle Analytics Cloud service



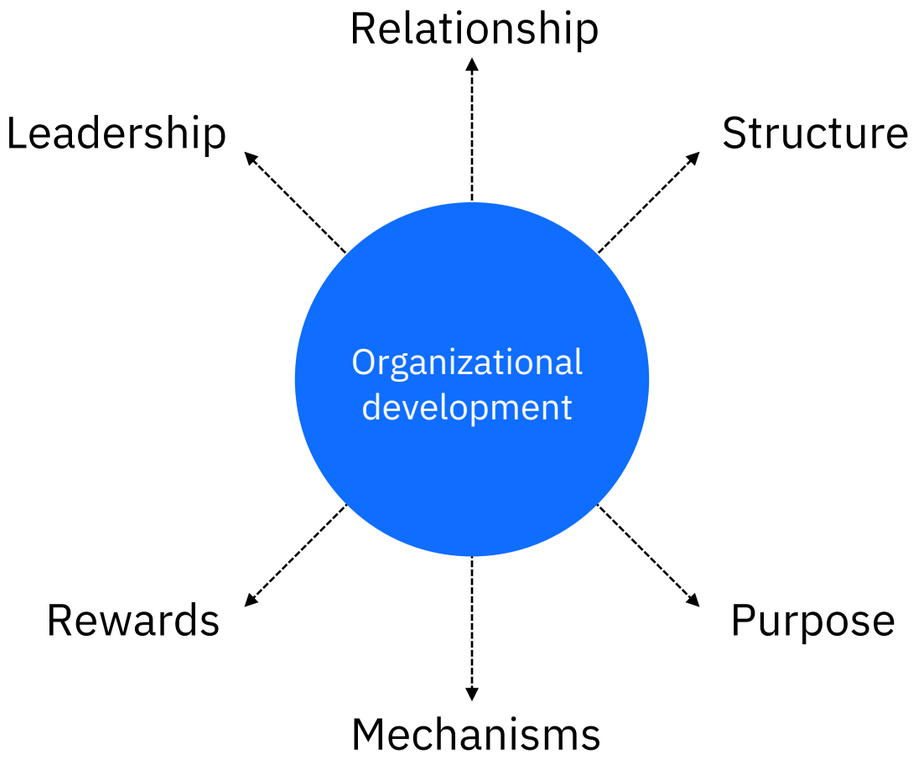
Data integration

- Plan to create standard routines to import data into ledger, standardize and plan ahead of time
- Define a scalable architecture that will minimize code redundancy and allow leveraging of the same
- Ensure third-party vendor engagement and commitment



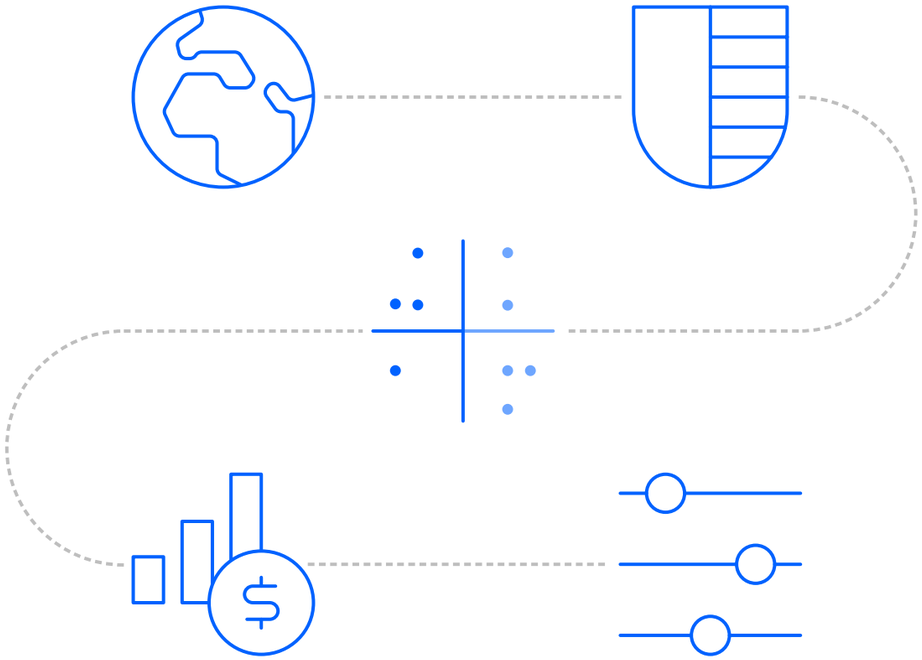
Organizational training

- Plan and execute Conference Room Pilots (CPRs)
  - CRP0 is essentially an IBM preconfigured Oracle application demo
  - CRP1 is a demo of BCBSM configured functionally
  - CRP2 and following CRPs will be client-driven demos, thereby demonstrating knowledge of the application and instilling confidence
- Systems administration training for IT organization



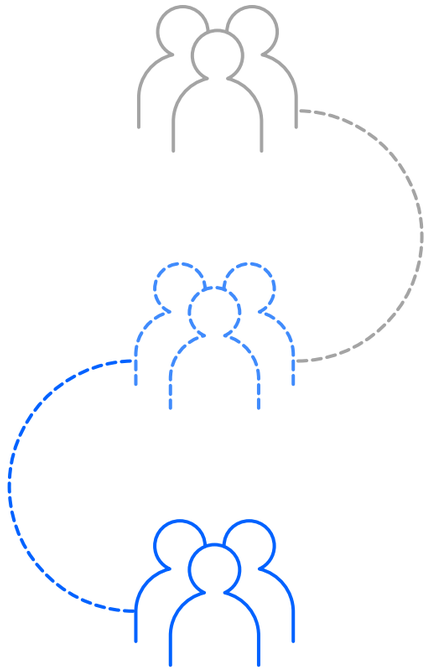
Data security

- Develop a plan early on, as data is shared and stored across entities and countries
- General Data Protection Regulation (GDPR) considerations
- Masking of sensitive data while copying instances is considered an additional offering from Oracle
- Cost needs to be taken into consideration
- Verify if Oracle role-based access controls will meet requirements



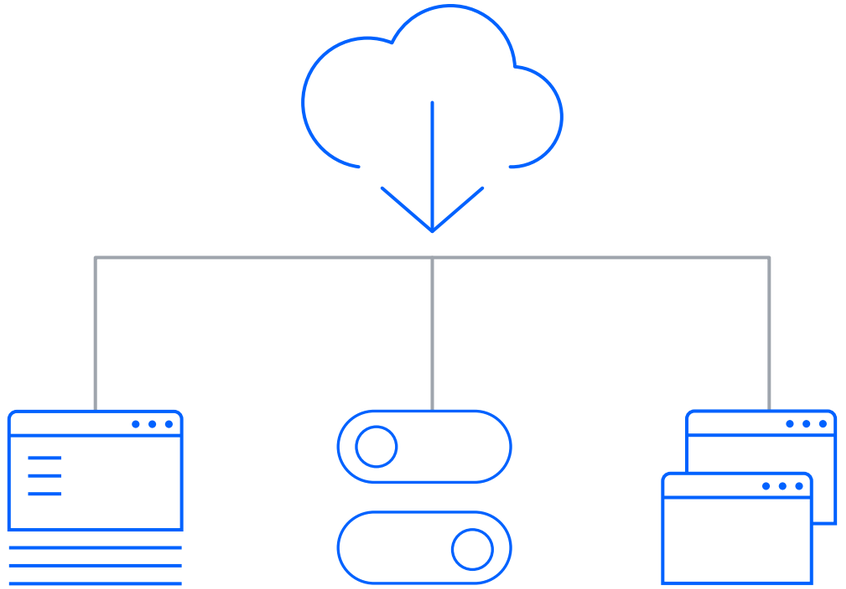
Change management

- Supporting applications on the cloud will require IT organizations to adapt to change and revise strategy for support and operating models
- Post-production support will require both business and IT to work cohesively



Buying SaaS versus traditional licensing

- Subscription-based rather than one-time license purchase
- Lower total cost of ownership (TCO)
- Client purchases full service, including the right to use the service
- SaaS offers on-demand scalability
- Receive ongoing maintenance through subscription-based model



Method overview
Ascend methodology for Oracle cloud

GBS method ascend methodology for Oracle cloud

Method development process

1. Oracle Corporation didn’t not provide an agile approach or guidance; company leaders believe existing Oracle Unified Methods (OUMs) already provide agility through their iterative nature

2. Used Oracle OUM for Cloud Method as the base and incorporated elements of:
   - EA Agile Framework (extension of GBS Agile Method Framework)
   - OPAL procedures, agile and IBM UMF practices
   - GBS Agile PM and WWPMM method

3. Incorporated elements from the EA: How Work Gets Done initiative:
   - “Shift-Left” thinking
   - Sprint planning and estimating workshop results
   - Shared project experiences with SAP and Microsoft

4. Convened global taskforce of cloud practitioners to finalize agile approach:
   - Identified variations between large cloud projects and fixed price offerings
   - Assessed suitability criteria for qualifying agile projects and assist in identifying appropriate agile approaches
   - Identified solutioning impacts to define agile estimating guidance

Scrum naming conventions that readily map to the Oracle terms

Scrum	Oracle unified method
Sprint	Iteration

A sprint consists of a 2- to 4-week time box with precise entry and closure points: The sprint planning meeting and the sprint review. The sprint is somewhat equivalent to a 2- to 4-week iteration. Both cover activities of analysis, design, construction, test and documentation. However, in a sprint, you are supposed to focus on finishing the sprint backlog. In case of iteration, the team may be working on analysis of a subset of use cases while they may also be working on testing another subset of use cases that were developed in the previous iteration. Therefore, in OUM, an iteration may be covered by several sprints.

Scrum	Oracle unified method
Sprint backlog	Musts and Shoulds from MoSCow

Sprint and iteration reviews both involve reviewing the product produced during the sprint or iteration and ensuring the product meets the quality standard and identifying items to be included in future sprints and iterations. Spring retrospectives and iteration reviews also include an examination of the project processes and making corrections to improve team efficiency and effectiveness.

Product backlog	MoSCoW list (must, should, could, or won’t have)

In scrum, there is a product backlog that is a prioritized list of requirements for the given project. This is equivalent to the MoSCoW List in OUM. Simply stated, the MoSCoW List registers the known business requirements. Each requirement is classified by the first letter of Must, Should, Could, or Won’t Have.

Sprint reviews and retrospectives	Iteration reviews

The sprint backlog consists of the items selected by the product owner to be addressed during the current sprint. The sprint backlog is created during the sprint planning meeting. This is equivalent to the top priority items in the MoSCoW List (the Musts and Shoulds) for a given iteration, along with the associated tasks to accomplish during the sprint.

Method fitment: Large cloud offerings

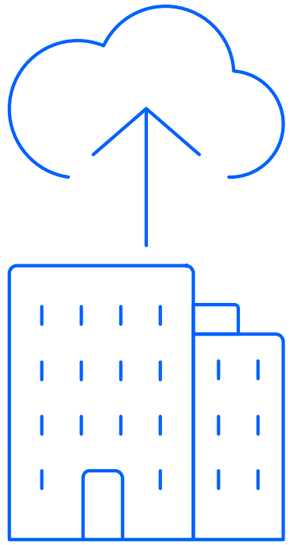
The IBM Oracle Agile Method assumes a hybrid adoption of a preassembled solution, which is updated with client organizational and master data.

Work is “shifted left.” Build and test work that was previously performed after approval of design in a waterfall approach now begins earlier.

A limited set of documentation is created after key users confirm that the solution works. Benefits from incorporating agile techniques include increased flexibility and efficiency and reduced risk.

How can Cloud Impact Assessment help?

Define the ROI and business case for moving your ERP or HCM systems to the cloud.



Method fitment: Large cloud offerings

Project startup

Deliverables

- Release plan
- Reviewed contract, scope, workplan and budget
- Project management schedule
- Project breakdown structure (PBS)
- Estimation checkpoint report
- Work product list and work breakdown structure (WBS)
- Project management plan and established project infrastructure
- Technical readiness assessment project plan
- Integration and conversation strategy
- Validation strategy and plan
- Instance strategy and pre-assembly questionnaires
- Benefits realization approach and KPI target
- Communication strategy and CM roadmap

Activities

- Executive alignment
- Project planning
- Technical readiness assessment
- Project strategies
- Cloud preassembly
- Benefits realization
- Change management
- Implementation checkpoint

Discovery

- Configured preassemble
- Functional scope / design
- User stories
- Product backlog
- DoD
- Sprint plan
- Integrated sprint plan
- Sprint backlog
- Social contact
- Security strategy and plan
- Design and build standards

- Cloud preassembly
- Discovery workshops
- Sprint O planning
- Technical tasks
- Implementation checkpoint
- Project management
- Benefits realization

Deliver

- Role-based security and controls
- User stories
- Future process model and data mapping
- Functional and technical specifications
- Product backlog
- Requirements traceability matrix
- Tested integrations and conversions
- Tested reports and extensions
- Burndown chart
- User and admin. guide
- Training preparations and trained trainers
- Cutover strategy and plan
- Production support infrastructure design
- Hypercare support strategy
- Technical readiness assessment recommendations
- IT transition plan

- Design/configuration Sprints
- Build test strips (iterative)
- Load and validate data, configure
- Sprint closing
- EPIC / integration sprints
- Prepare for hardening sprint
- Validate data load – validate
- Prepare for training
- Cutover planning
- Assess benefit realization

Transition

- Clean production environment
- Configured production environment
- Integrations and extensions in production
- Legacy system retirement plan
- Validated production environment
- Production support infrastructure
- Production-ready system
- Change readiness assessment

- Prepare for transition (iterative)
- Final validation
- Training
- Transition to production
- Review implementation checkpoint
- Review benefits realization

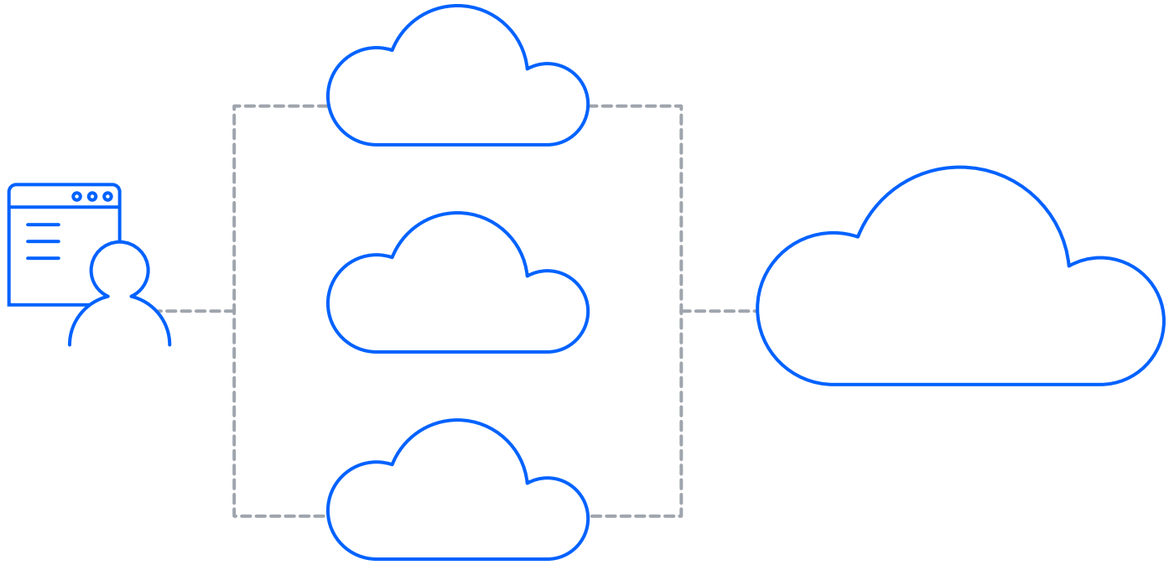
Realization

- Steady-state operations
- Post go-live support
- Client relationship manager hand-off
- Organizational effectiveness assessment
- Final acceptance certificate
- Closed processes and contract

- Stabilization
- Transition to client relationship manager
- Finalize benefits realization
- Change management
- Release closing
- Project closure

Method fitment: Fixed scope offerings

The fixed scope offering version of the cloud agile method is intended for projects with a limited RICE scope. It shifts some discovery tasks forward into project startup to accelerate the project. A single set of sprints is conducted, combining configuration prototyping with build and test activities.



Implementation phasing strategies for cloud

Project startup

Deliverables

- Project management plan
- Established project infrastructure
- Workshop schedule
- Integration strategy
- Validation strategy and plan
- Instance strategy
- Pre-assembly questionnaires

Activities

- Executive alignment
- Project planning
- Technical readiness assessment
- Project strategies
- Cloud preassembly
- Benefits realization
- Change management
- Implementation checkpoint

Discovery

Deliverables

- Configured preassemble
- Functional scope / design
- User stories
- Security strategy and plan
- Design and build standard

Activities

- Cloud preassembly
- Discovery workshops
- Sprint 0 planning
- Technical tasks
- Implementation checkpoint
- Project management
- Document benefits realization

Deliver

Deliverables

- Validated configuration
- Configured applications
- Role-based security and controls
- Data mapping
- Future process model
- Functional specifications
- Implemented security
- Technical specifications
- Tested integrations/conversions
- Tested reports and extensions
- User and admin. guide
- Cutover strategy and Plan
- Production support infrastructure design
- Hypercare support strategy

Activities

- Design/configuration Sprints
- Build test strips (iterative)
- Load and validate data, configure
- Sprint closing
- EPIC / integration sprints
- Prepare for hardening sprint
- Validate data load – validate
- Prepare for training
- Cutover planning
- Assess benefit realization

Transition

Deliverables

- Configured production environment
- Integrations and extensions in production
- Validated production environment
- Production support infrastructure
- Production ready system

Activities

- Prepare for installation
- Final validation
- Training
- Transition to production
- Review implementation checkpoint
- Review benefits realization

Realization

Deliverables

- Post go-live support
- Final acceptance certificate
- Closed processes and contract

Activities

- Stabilization
- Transition to client relationship manager
- Finalize benefits realization
- Change management
- Release closing
- Project closure

- Program and sprint management →
- Architecture and infrastructure →
- Data management →
- Change management and value realization →

Move, improve and manage Oracle cloud infrastructure managed by IBM

Move, improve and manage on OCI managed by IBM

- One single point of contact for implementing new cloud services (IaaS, PaaS, SaaS) and for support with existing cloud services
- DevOps, help desk, cloud monitoring, continuous updates, disaster recovery, hyper-availability, integrated security
- Move current applications to OCI
- Improve deployed applications via upgrades or via new Cloud Services (PaaS, SaaS)
- Manage deployed applications via monitoring and rapid deployment of changes.

- Same infrastructure as Oracle supported OCI, just managed by IBM
- Leverage benefits of Oracle Cloud infrastructure, which is optimized for Oracle applications (Oracle Databases, JDE, EBS and so on)
- Oracle offers the most complete cloud platform for Oracle
  - Optimized with IaaS
  - Extent with PaaS
  - Complement with SaaS
- Reduced risk with Oracle Cloud certification for Oracle applications

IBM leverages OCI as the foundation of Oracle's cloud strategy

ORACLE

Cloud applications

Cloud applications to accelerate your business

- ERP
- Modern HR
- Supply chain
- Data
- Analytics
- CX

ORACLE

Cloud platform

Tools and services to build, extend and deploy cloud applications

- Mobile
- Data mgmt.
- Custom apps
- Integration
- Business insight
- Collaboration

ORACLE

Cloud infrastructure

- Networking
- Compute
- Storage

Broad open ecosystem

Third-party apps, tools and services to complete solutions

ORACLE

Cloud at customer

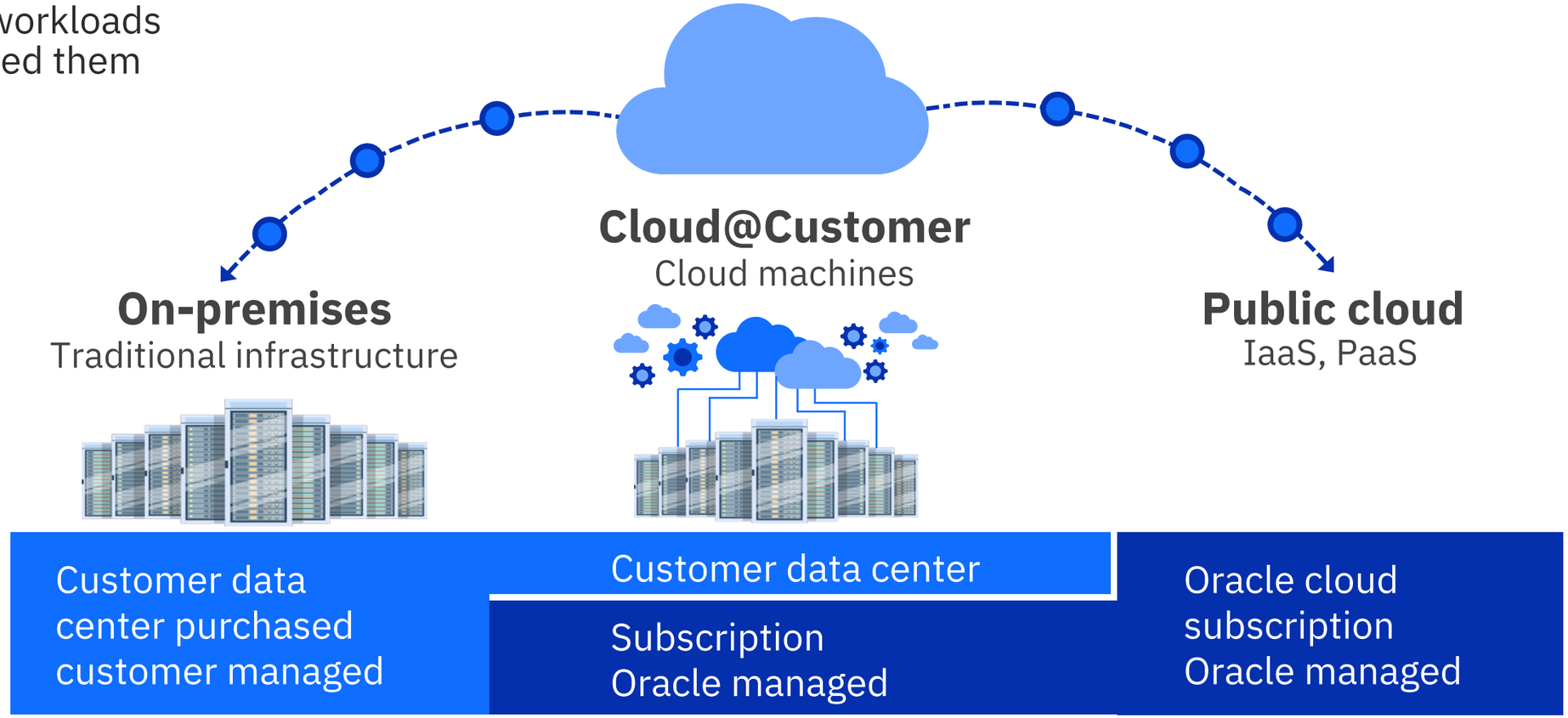
Cloud apps and tools, managed by Oracle, behind your firewall

Public cloud built for enterprises, optimized for Oracle apps and platform, integrated with open ecosystem

IBM

IBM can manage various levels of cloud deployment

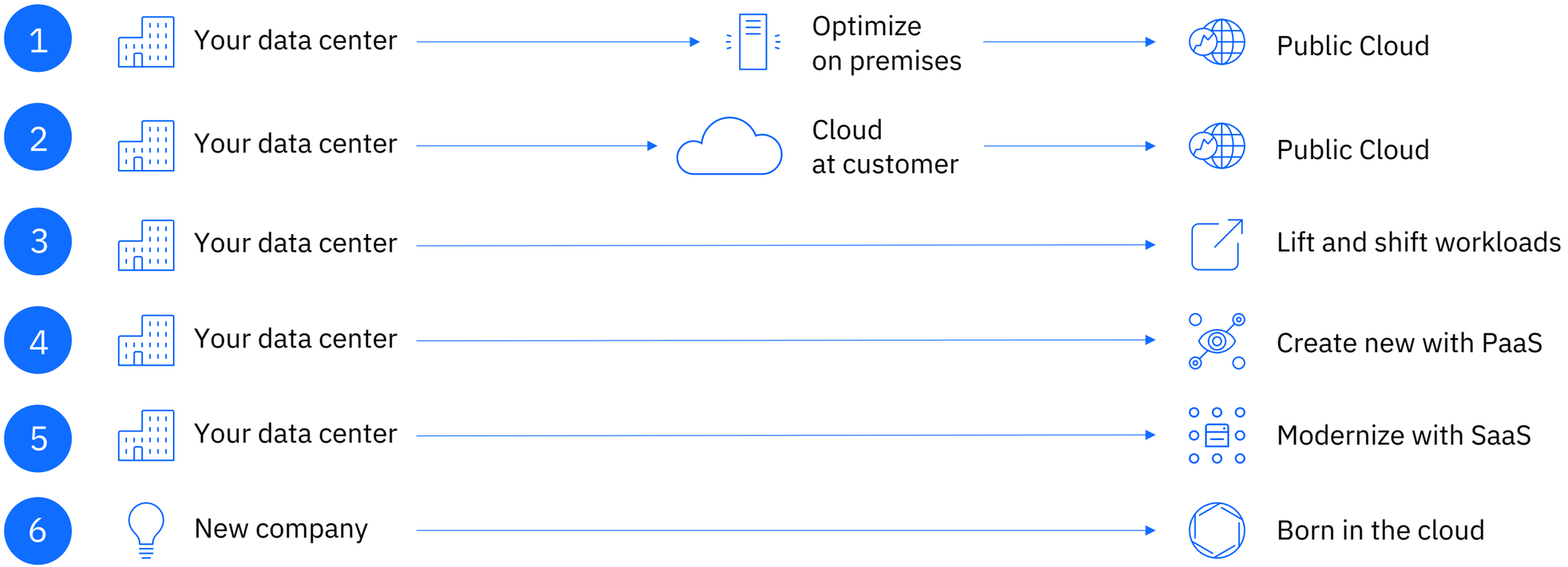
Deploy your workloads where you need them



IBM supports multiple migration strategies

Three deployment choices (on premises, cloud at customer, public cloud)

Six typical journeys to the cloud



Advantages of running Oracle applications on Oracle Cloud

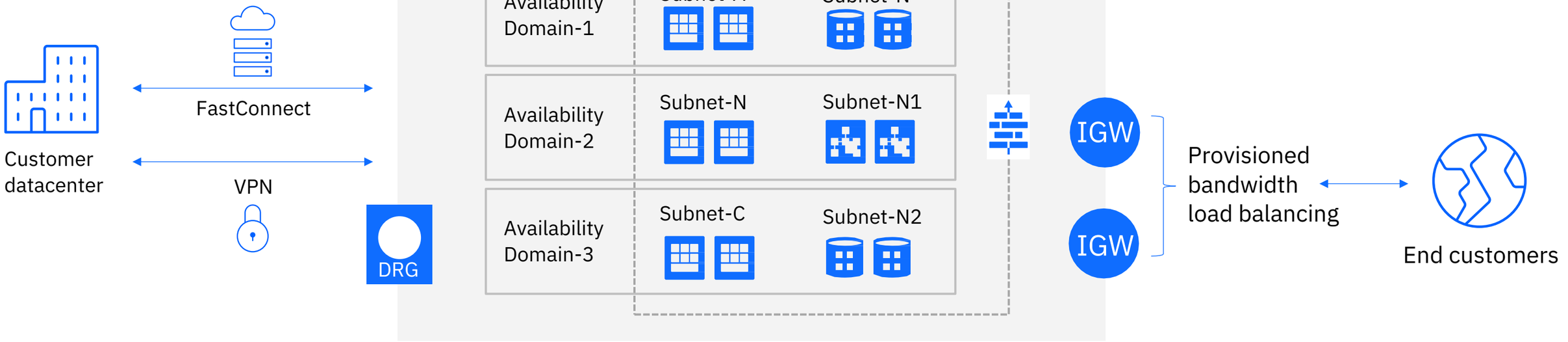
Oracle running on Oracle cloud infrastructure and managed by IBM

- Oracle offers the most complete cloud platform for Oracle applications (JDE, EBS and so on)
  - Optimized with IaaS
  - Extend with PaaS
  - Complement with SaaS
- Reduced risk with Oracle certification for Oracle applications
- Oracle Cloud optimized for Oracle applications including one-click provisioning for JDE, containerization, docker and integration with mobile cloud services chatbots
- Robust high availability and high performance within the region
- Robust security and platform services
- High availability and low-latency networking to support maximum database availability
- Built-in governance and security
- Choice of deployment models
- Better performance on Oracle Cloud
- Prebuilt integrations between Oracle Cloud Services
- Purpose-built for the needs of the enterprise

High level architecture for customer's Oracle application environment on OCI

Deep VCN control: Subnets, routing rules, IP address space, firewall rules

Secure, reliable connectivity: IPSec VPN, FastConnect



Same network fabric for all core services

Oracle OCI: Compute use case

Run heterogeneous, Oracle and non-Oracle workloads in the cloud

Apps Unlimited (EBS, PeopleSoft, JD Edwards, Siebel, ATG) on Cloud (Test/Dev, DR, Prod)

Migrate VMware KVM apps to cloud, with option to eliminate Vmware

Non-Oracle DB (SQL Server, Mongo, Cassandra), non-Oracle app servers (WebSphere, JBoss)

Apps written in C, C++, COBOL, C#, .NET, Scala, Erlang against non-Oracle databases

Non-Oracle stacks including open source

Benefits

1. Lower run and manage costs by 30% compared to other clouds
2. Simplify migration for large enterprise grade on-premises workloads
3. Dedicated compute with predictable performance, network isolation
4. Easy to adopt, transparent to applications and operational tools
5. Highly secure with unified management
6. Open, flexible: REST APIs, OpenStack SWIFT, Amazon S3 compatible

Implementation phasing strategies for Cloud Placeholder

Method fitment: Fixed scope offerings

Key activities by phase

Oracle responsibility

Shared responsibility

Customer responsibility

Project design	Configure	Validate	Transition	Realization
Plan project	Setup applications	Update settings	Migrate configuration to production	Manage transition to steady-state operations
Kickoff meeting	Validate configuration	Prepare validation scripts	Migrate integration and extensions to production	Post go-live support
Schedule workshops	Load and validate data	Load and validate data	Load, reconcile and validate data in production	Handoff to customer relationship manager
Functional design workshops	Build and validate integrations	Conduct end-to-end review	Conduct final validation review	Gain acceptance
Technical design workshops	Validate extensions and extensible items	Prepare for training	Verify production and operational readiness	Close project
Design review	Implement security	Conduct train-the-trainer workshops	Conduct implementation checkpoint	
Security and validation strategies	Prepare cover strategy	Conduct implementation checkpoint		
Implementation checkpoint	Conduct implementation checkpoint			

Project management

Implementation environments

Environment setup

- Allow for adequate time to define environment strategy and setting up of environments.
- Clearly define number of environments, build in enough time for configuration and test
- Take into consideration lead time required to plan environment refreshes, especially for conversion cycles
- Access setup for the team

Reporting

- Oracle provides out of the box reporting for ledger, for example, but there are limitations. You cannot change the dimensionality or add data to the models
- Need to consider a reporting strategy up front that would include considerations around budgeting and planning, consolidations, and more. Concept of a hub and spoke for data distribution.
- Out of the box reporting solutions/tools can provide business users friendly options for reporting, but for complex BI and DW, explore Oracle Analytics Cloud service

Data integration

- Plan to create standard routines to import data into ledger, standardize and plan ahead of time
- Define a scalable architecture that will minimize code redundancy and allow leveraging of the same for conversion, reconciliation and automated testing
- Ensure third party vendor engagement and commitment

Training

- Plan and execute Conference Room Pilots (CRPs), this allows for early interaction with user, familiarization of the application and design thinking
- CRP0 is essentially an IBM preconfigured Oracle application demo,CRP1 is a demo of BCBSM configure functionally, CRP2 and following will be client driven demos, thereby demonstrating knowledge of the application and installs confidence
- System administration training for IT organization; Maintenance and continued development in cloud is distinctly different from on-premise applications. IT organization needs to be trained ahead of time and should be embedded with the integration partner delivery team

Implementation environments (continued)

Data security

- Develop a plan early on especially for global implementation as data is shared and stored across entities and countries
- GDPR considerations need to be accounted for
- Having several affiliates increases complexity of defining application data security (ownership of data, accessibility, and audit requirements)
- Masking of sensitive data while copying instances is not an out of the box (OOB) feature and is considered an additional offering from Oracle
- Cost needs to be taken into consideration
- Verify if Oracle out of the box Role Based Access controls will meet requirements

Currency conversion

- Conversion of balances needs to account for currency conversion
- IBM COA Mapper; Architect and deploy ahead of time as it is a key component for conversion and integration

Oracle engagement challenges

- Review Oracle product roadmap and release plan and its dependencies on project timeline
- Assess if Oracle delivers required OOB localizations
- OOB integration adapters; evaluate if usable and available
- Establish an on-going governance and cadence so delivery planning is accurate

Change management

- Supporting applications on the cloud will require IT organizations adapt to change and revise strategy for support and operating models

Module specific limitations

- Optical Character Recognition (OCR) capabilities, define clear requirements, and understand Oracle limitations
- Keep in consideration that there is missing functionality for treasury module (e.g. FX hedging)

Additional implementation efforts to note

Review any specific complex business problems and if required, explore PaaS for SaaS solutions early in the project lifecycle, since “Cloud applications cannot be customized”

Publish and agree on extra data maps for Oracle in the discovery phase

Focus on developing an integration approach for all cloud-to-cloud or cloud-to-ground interfaces using an integration platform

Change management is pivotal for business process change—develop a comprehensive change management strategy early

Don’t wait to train the end users until the end—early user onboarding is critical

Extra reporting solutions and tools can provide business users friendly options for reporting, but for complex business intelligence and data warehouse, explore Oracle Analytics Cloud service

Develop an instance plan and sizing requirements in the initial phase (the number of environments, sizing, update plans)

Additional implementation efforts to note (continued)

Review Oracle product roadmap and release plan and its dependencies on project timeline

Develop effective collaboration with Oracle support—engage Oracle product “A” team early for complex issues

Execute early due diligence on role-based access control—verify if role-based access control will meet business requirements

Develop a plan for data security requirements for global implementation

Develop detailed localizations requirements for global implementations

Ideally, cloud projects should be run by the business with IT support—engage the business as early as possible, preferably on day one

Use a solution-driven approach instead of requirements-driven—start with a configured environment and a model “enterprise structure” based on industry best practices