



# Cloud Integration:

## Finding Your Company's Center of Gravity

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[WWW.NEOOUG.ORG/GLOC](http://WWW.NEOOUG.ORG/GLOC)

# Agenda

- Intro / Background
- Premise: Your Center of Gravity
- Key Integration Concepts
- Key Considerations
- Key Components
- Case Study
- Wrap-up

# Intro / Background



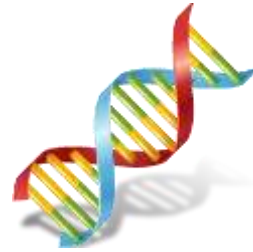
# Ross Emerton

- Certified Oracle Enterprise Architect, Oracle Cloud Architect, and an accredited Amazon Web Services Professional.
- Currently leads the Technology practice for Vigilant Technologies and consults with clients on Cloud Strategies, Integration Methods, and Applied Technology Usage on multiple platforms.
- Featured speaker at the Paperless Lab Academy 2017 on the Internet of Laboratory Things and at multiple Oracle events discussing integration and cloud strategy.





Oracle  
Microsoft



Guaranteed  
Services



Founded in  
1999



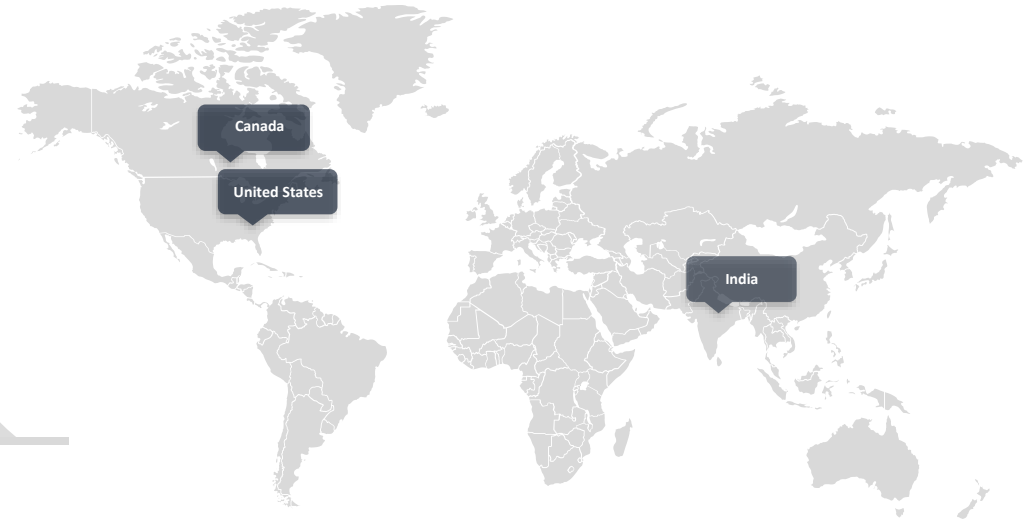
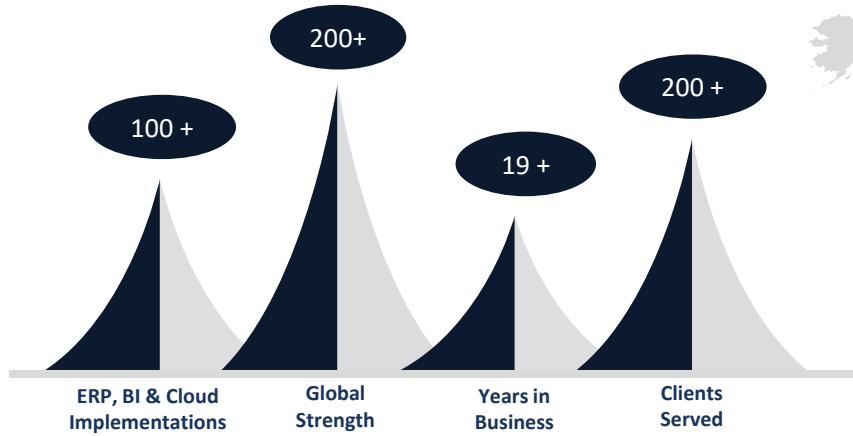
Our DNA  
Customer Focus, Innovation,  
Trust & Teamwork



Minority Certified Supplier  
USA & Canada

About **Vigilant**  
TECHNOLOGIES

## Global Capabilities



# Cloud Migration - Approach

As with a subway, there can be many routes to your cloud destination

## Top-down Approach:

- CxO directive to move to cloud
- Alignment of Business / Technology roadmaps
- Pain-point mitigation
- Aggressive timelines

## Typical Solutions:

- SaaS Solutions
- Lift & Shift to cloud
- Hybrid Integrations using PaaS for SaaS

## Bottom-up Approach:

- Technology exploration
- Solutions seeking business problems
- Pain-point mitigation
- Less aggressive timelines

## Typical Solutions:

- Backup to cloud
- Dev / Test in cloud

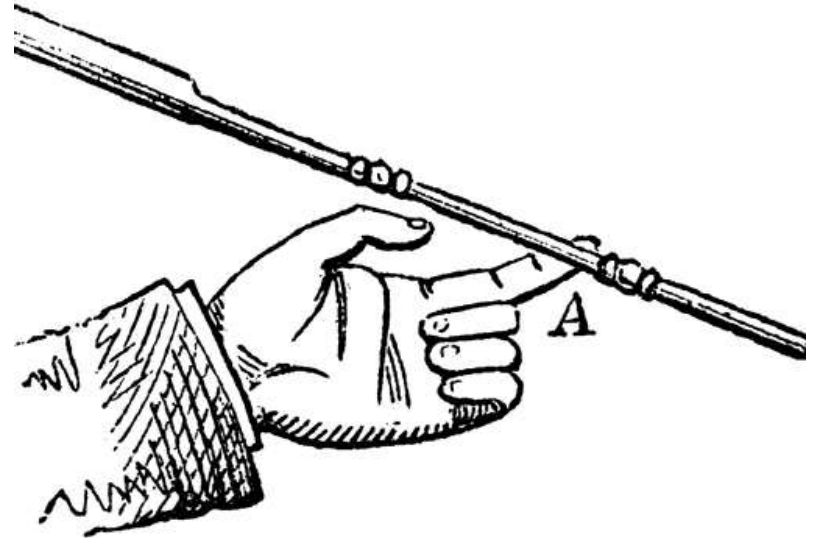




# Premise: Your Center of Gravity

## What is the Center of Gravity?

- All objects behave as though their mass (the stuff they're made from) is concentrated at a point called their center of gravity.
- A simple object like a ball has its center of gravity in a very obvious place: right at its center.
- In a more complex object, like your body, the center of gravity is slightly higher than your waist because there's more weight in the top half of your body than in the bottom half



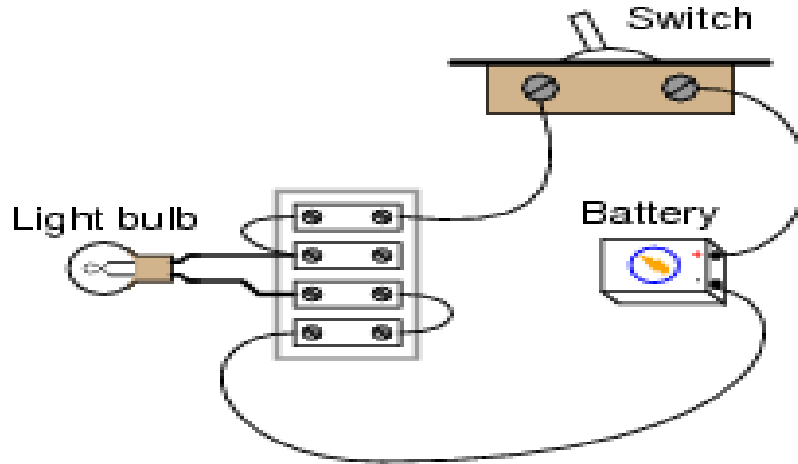


# Premise: Your Center of Gravity



**If you want to fly an aircraft safely,  
having a balanced load is important.**

# Premise: Your Center of Gravity

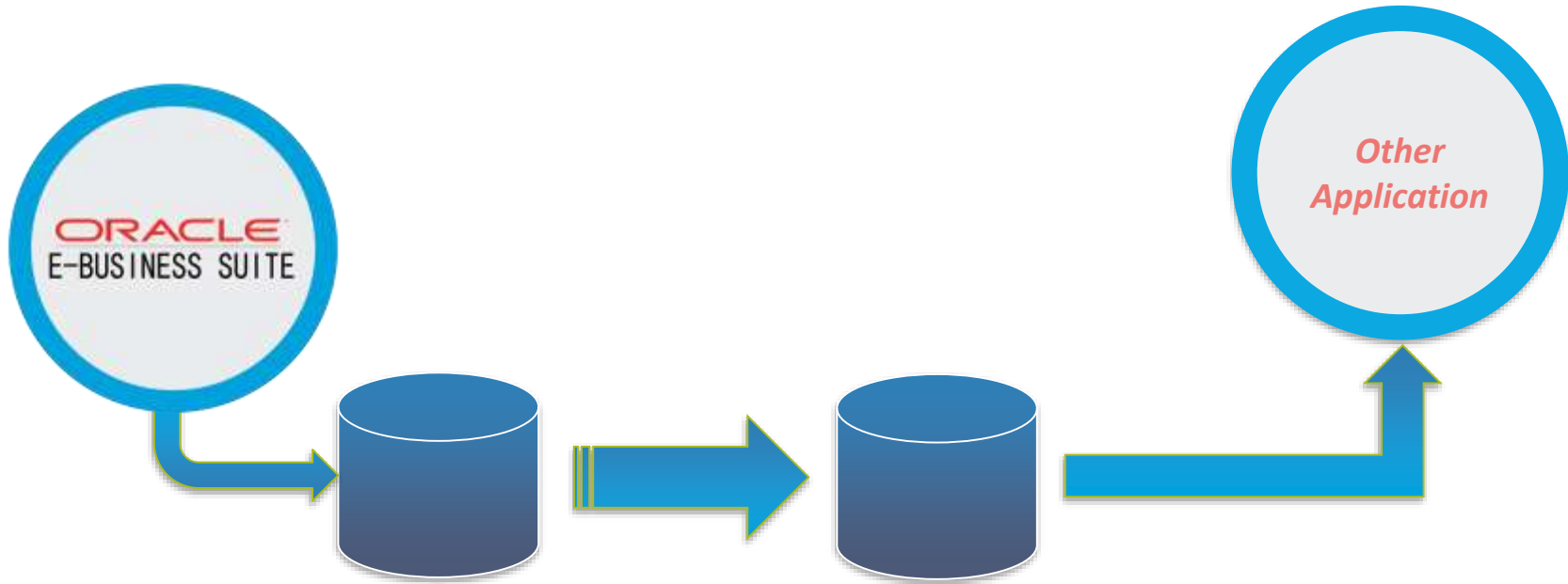


If you want your integrations to perform seamlessly, you need to place them appropriately.

# Key Integration Concepts



# Primary Methods of Integration



# Primary Methods of Integration



# Key Considerations





# On-Prem Considerations

- Flexibility
- Security
- Connectivity
- Reuse
- Governance of Processes
- Management



# Cloud Considerations

- Security!
- Performance!
- Connectivity
- Flexibility
- Reuse
- Governance of Processes
- Management



# Hybrid Considerations

- *Security!*
- *Connectivity – BANDWIDTH!*
- Flexibility
- Reuse
- Governance of Processes
- Management
- *Where do you place your integration tier?*



# Hybrid Considerations

Where do you place your integration tier?

Your Center of Gravity determines placement:

- Majority is Cloud → *Integration in Cloud*
- Majority is On-Prem → *Integration On-Prem*





# Hybrid Considerations

Why?

- 1) Network traffic – ***Bandwidth!***
- 2) Security of Transactions



# Key Components





# Componentry / Tools

## Cloud Exchanges:

- High-velocity Network
- Pre-defined Cloud Provider connections
- Better performance
- Allow easier multi-cloud integrations



# Componentry / Tools

## Integration Tools (On-Prem):

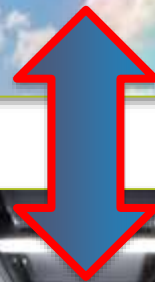
- Oracle SOA Suite
  - Ultimate flexibility
  - 300+ adapters
  - Built on industry standards
- Mulesoft
  - Less expensive
  - Less functionality
  - Good second choice



# Componentry / Tools

## Integration Tools (Cloud):

- Oracle Integration Cloud Service
  - Multiple options
    - » “Codeless” OICS
    - » SOA Cloud
  - Utilization Cost Model



# Case Study





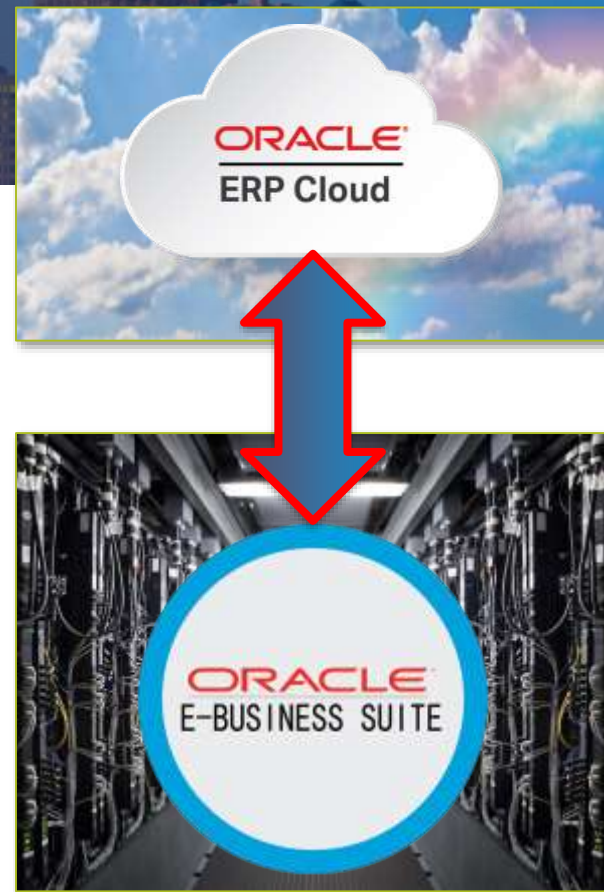
## Case Study – Customer Scenario

- Large Global Mining Operation
- Migrating from EBS to Oracle ERP Cloud
- Required Enterprise Asset Management
  - Not yet available in the cloud
- Needed POC to show integration



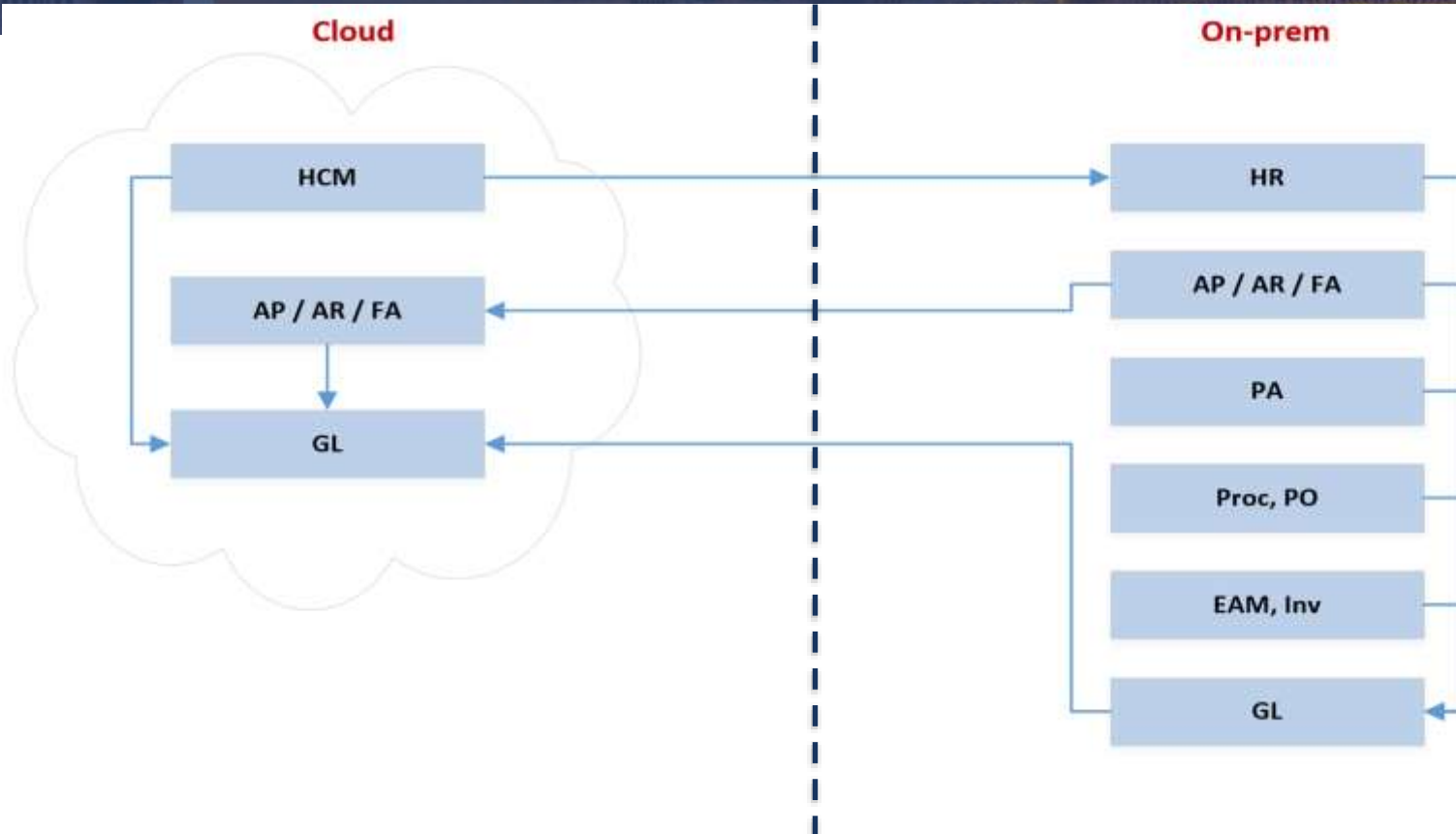
## Case Study – Solution Set

- Oracle ERP Cloud
- Oracle EBS (On-Prem)
- Oracle Integration Cloud Service
  - Connection to ERP Cloud
  - Connection to EAM Module On-Prem





# Case Study – Data Flow



# Case Study – Data Flow

Interface	Direction	Frequency
Employees	Cloud – On-prem	Immediate
Suppliers	On-prem - Cloud	Immediate
Payables Invoices (w/o PO and Project info), Payments	On-prem - Cloud	Periodic
Customers	On-prem - Cloud	Immediate
Receivables Transactions, Receipts	On-prem – Cloud	Periodic
Assets	On-prem - Cloud	Immediate
Assets, Transfer, Depreciation, Retirements	On-prem – Cloud	Periodic
GL Journals (Except HR, AP, AR, FA sources)	On-prem - Cloud	Periodic

# Case Study – Lessons Learned

Some areas were easier than others!

- There were no pre-defined workflows for Oracle products
- Connectors were simple to use

Network bandwidth was a HUGE issue!

- Address this early / Consider a Cloud Exchange



# Case Study – Lessons Learned

Typical SOA Integration issues still apply:

- Triggering events are still required!
  - There is no triggering event available for Supplier creation in EBS
  - Some logic in Cloud ERP lacks native ability to trigger
- Some work is required to enable product features!
  - Patches are required to enable Web Services in EBS / Make visible to OICS



# Case Study – Lessons Learned

- Not all services are available at a granular level
  - Had to enable the Events Catalog in Cloud ERP (via OAM Console)
  - Limitations on granular details provided through EBS APIs required creating custom APIs

Plan & Allow Time for the Unexpected





# Wrap-Up





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