Determine Where Your Apps Should Live in a Multi-cloud World
First...Align Investments with Business Goals

Invest in & prioritize the most relevant applications

“**It doesn’t meet my business needs**”

- Difficult to align investment with business priorities and urgent operational concerns
- Lack of business agility
- Performance / availability issues

“**It’s way too expensive**”

- Redundant applications drive overinvestment
- Expensive legacy platforms with high internal support and maintenance costs

- Overinvestment in traditional apps **impedes ability to innovate**
- **No clear path** to take advantage of better utility pricing models (e.g., cloud)
- **Redundancy increases** as business drifts away and starts building its own IT
Applications in Multi-cloud World: Challenges

Where are the ‘quick win’ opportunities to reduce cost and improve agility in our application portfolio?

What applications should we move to the Cloud? Is public, private or hybrid the best option?

What legacy applications should be rewritten for Cloud Native architectures and PaaS?

Which apps should we migrate to a DevOps operating model?

How do we best align our portfolio with bi-modal or other IT delivery models?
Application Transformation Framework

Increase agility and reduce cost

NEW APPS
Cloud Native

EXISTING APPS
Traditional

APPLICATION PROFILING ANALYSIS

BUILD NEW
MODERNIZE
MIGRATE
RETIRE
RETAIN

APPLICATION PLACEMENT FACTORY

CLOUD NATIVE FACTORY

PIVOTAL LABS
Pivotal Dojo
Architecture, Standards
Dev, Execution

MIGRATION FACTORY

MIGRATE

RETIREMENT FACTORY

PUBLIC CLOUD

TARGET PLATFORM

Pivotal
CLOUD FOUNDRY

ENTERPRISE & NATIVE HYBRID CLOUD

Architecture, Standards
Migration Execution

Retire & Decommission
# Application Profiling Methodology

## DISCOVERY
- **Business Classification**
  - Prioritize | Align | Rationalize
- **Custom Profiling**
  - Characteristic | Portfolio Segment

## ANALYSIS
- **Application Disposition**
  - Best Investment Path | Affinity Mapping
- **Cloud Suitability**
  - Transportability | Optimal Cloud Platform
- **Cloud Native Assessment**
  - Pivotal 12 Factor Readiness | Non-intrusive data collection
- **Financial Analysis**
  - TCO | Migration costs | ROI | Maintenance
- **Portfolio Discovery**
  - App to App interdependencies | Risks | Bundling | Optimization

## ROADMAP
- **Business Case**
  - Functional | Financial | Technology | Action

## PROGRAM MANAGEMENT
- **Project Charter**
- **Project Work Plan**
- **Quality Assurance**
- **Action Item/Risk/Issue Registers**
- **Project Status**
- **Change Control**
- **Communication Plan**
- **Steering Committee Dashboard**
Business Classification

Applications mapped to business activities in value chain

Applications mapped to business value chain
Custom Profiling

- Profile for any characteristic or portfolio segment
- Utilize Adaptivity and/or other tools for greatest efficiency
- Leverage our deep application, infrastructure and financial analytics understanding
- Rapid results based on tools and experience
**Application Disposition**

Portfolio characteristics tied to rules engine

- **Cheap to keep:** Leave alone if possible
  - Commodity, missing or weak business functionality, strategic technology platform

- **Eliminate if you can**
  - Commodity, missing or weak business functionality, weak technology platform

- **Maximize investments:**
  - High affinity to future plans, low risk
    - Strategic business functionality, strategic technology platform

- **Migrate from outdated technology or risky vendors**
  - Strategic business functionality, weak technology platform
## Cloud suitability: Which is the Best Model?

<table>
<thead>
<tr>
<th>Off Premises</th>
<th>On Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some tolerated</td>
<td>Extremely sensitive, real time</td>
</tr>
<tr>
<td>Moderate to low I/O</td>
<td>High &amp; sustained I/O rates</td>
</tr>
<tr>
<td>Up to 3, limited with non-cloud</td>
<td>Up to 6, integrates with non-cloud</td>
</tr>
<tr>
<td>Up to 4 hours RPO &amp; RTO</td>
<td>Zero data loss, &gt; 1 hour RTO</td>
</tr>
<tr>
<td>Vendor provided</td>
<td>Strict for workflow &amp; data</td>
</tr>
<tr>
<td>Acceptable practices</td>
<td>Strict workflow &amp; data confidentiality</td>
</tr>
<tr>
<td>OS &amp; Dev language compatibility</td>
<td>Dependent on specific HW &amp; OS</td>
</tr>
</tbody>
</table>

### Latency

### I/O

### Data sources

### Data loss

### Compliance

### Security

### Dependencies
Portfolio Perspective on Cloud Suitability

Summary of cloud suitability across portfolio

Business affinity by application

Cloud fit score ranked by application

Summary of recommended cloud models across portfolio

Business and technology criteria driving cloud fit score
Cloud-Native Assessment

- **Measure readiness** for cloud native modernization
- **Leverage 12 factors** developed by Pivotal for Pivotal Cloud Foundry deployment
- **Fully configurable** to meet customer specific standards
- **Non-intrusive** data collection

### Application Name

- ClientTrading.war
- marketintel.war
- archiveVID.war
- equity-research.war
- FASolution.war
- OnDemandRisk.jar
- SalesResearch.jar
- PropMgr.jar
- alg-trad-engine.war
- EOT ware
Financial Analysis

- **Repeatable process** utilizes robust financial model
- **Develops comprehensive TCO understanding**
- **Models ROI** based not only on current versus future state TCO, but includes estimates for cost of transformation, maintenance, long term refresh, etc.
- **Leverages cost models** for many known services
Application Portfolio Discovery

- **Reduces risk** associated with data center moves, app modernization, or migration
- **Understands** app to app & other critical interdependencies
- **Leverages data** from a variety of collectors

**Components considered:**
- Business risks and constraints
- Technology and operational challenges and constraints
- Determining what to move together
- Selecting best approach for the move

Grouping can be done by hosts or by applications
Business Case

- **Based on Dell EMC roots** in business and technology consulting
- **Reproducible** leveraging myriad artifacts
- **Includes business, functional, and financial components** for holistic understanding
- **Develops roadmap** in support of action
Key Benefits and Value

1. **Aligns investments** with business goals

2. **Unbiased and objective** review of your application environment

3. **Identifies opportunities** for cost savings in a customer's environment: Reduces server and database sprawl & automates and optimize application portfolio

4. **Defines optimal path** to the cloud for each application.

5. **Mitigates risk** identifying EOL platforms.

6. **Increases productivity** and improves user experience
Global Financial Services Firm
Rapid disposition analysis for over 5,000 applications

Challenge
• Large multinational banking and financial services company operating in 80 companies
• Driving large scale app modernization to reduce operating costs and increase IT/business alignment
• Needed rapid preliminary assessment of entire global portfolio

Solution
• Deployed Application Profiling Advisory (APA) automated analysis of enterprise application portfolio
• Evaluated ~80% of global portfolio based on systems of record with no manual interviews required

Results
• Provided analysis of over 5,000 applications in 6 weeks
• Client gained a preliminary understanding of application disposition as well as migration complexity for modernization
• Client directed modernization spend based on disposition recommendations

Scope of Applications Evaluated: 5,450

<table>
<thead>
<tr>
<th>Disposition</th>
<th>% of Portfolio</th>
<th>Complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retain</td>
<td>9%</td>
<td>Easy</td>
</tr>
<tr>
<td>Retire</td>
<td>7%</td>
<td>Easy</td>
</tr>
<tr>
<td>Modernize</td>
<td>53%</td>
<td>Easy (1,527) Med (1,014) Hard (348)</td>
</tr>
<tr>
<td>Migrate</td>
<td>31%</td>
<td>Lift &amp; Shift</td>
</tr>
<tr>
<td>Build New</td>
<td>+4%/yr</td>
<td></td>
</tr>
</tbody>
</table>
Leading Genetics Research Firm
Accelerated cloud analysis leads to state of the art PaaS transformation

Challenges
• Lack of agility & integration between development resulted in poor application availability

Solution
• Rapidly identify app that are suitable for cloud
• Outline next steps for migration to the appropriate cloud

Results
• 90% of core apps identified as strong cloud candidates
• Identified PaaS as an ideal cloud platform that would most appropriately address the client’s challenges. Client is currently deploying a large PaaS capability
Global Diversified Industrial Manufacturer
Automating application assessment for cloud suitability and placement

Challenge
• IT “App Factory” service needed to migrate app to cloud
• Discover & assess 6,000+ applications for cloud suitability & placement
• Unearth ‘tribal knowledge’

Solution
• Automated application discovery & analytics technology
• Designed, delivered, & applied pilot solution to a subset of ~25 business applications in < 6 weeks

Results
• Automated assessment of application cloud suitability & optimal cloud placement & migration path
• Time required for application assessment reduced by 50-70%
• Enforces 100% compliance with corporate risk, security & architectural standards & policies
• Can be easily scaled & configured to incorporate new standards & add new target cloud service platforms

Dell - Internal Use - Confidential
Start Now

DISCOVER
Perform application profiling analysis

ACT
Architect a solution
Use the right cloud platform for the right application

UNLOCK BUSINESS VALUE
Optimize Your apps
Maximize your return on investment
Effectively grow your business
Related resources


IDC video on app modernization – https://infocus.emc.com/community_manager/idc-presents-business-value-of-application-modernization/


Website - http://www.emc.com/en-us/services/professional-services/cloud2.htm
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