



# **Back to basics: building a baseline understanding of a complex IT Landscape**

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INFORMATION TECHNOLOGY  
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# EA at UBC

|                            | Enterprise IT Architecting   | Enterprise Integrating  | Enterprise Ecology   |
|----------------------------|--|---|--|
| Motto                      | “EA is the glue between business and IT”   | “EA is the link between strategy and execution”   | “EA as the means for organizational innovation and sustainability”   |
| Objectives and Concerns    | <ul style="list-style-type: none"> <li>• Effective enterprise strategy execution and operations</li> <li>• IT Planning and cost reduction</li> <li>• Business Enablement</li> </ul>  | <ul style="list-style-type: none"> <li>• Effective enterprise strategy implementation</li> <li>• Organizational coherence</li> </ul>  | <ul style="list-style-type: none"> <li>• Innovation and adaptation</li> <li>• Organizational coherence</li> <li>• System-in-environment coevolution</li> </ul>   |
| Principles and Assumptions | <ul style="list-style-type: none"> <li>• Reductionism</li> <li>• Business strategies and objectives provided by the business are correct</li> <li>• Independent design of organizational dimensions</li> <li>• Disinterest in non-IT dimensions</li> </ul> | <ul style="list-style-type: none"> <li>• Holism</li> <li>• Environment as something to manage</li> <li>• Business strategies and objectives provided by the business are correct</li> <li>• Joint design of all dimensions</li> </ul> | <ul style="list-style-type: none"> <li>• Holism</li> <li>• System-in-environment coevolution</li> <li>• Environment can be changed</li> <li>• Joint design of all dimensions</li> </ul>                                      |
| EA Skills                  | <ul style="list-style-type: none"> <li>• Technical competence</li> <li>• Engineering knowledge</li> </ul>  | <ul style="list-style-type: none"> <li>• Small group facilitation</li> <li>• Systems thinking</li> </ul>  | <ul style="list-style-type: none"> <li>• Dialogue fostering</li> <li>• System and System-in-environment thinking</li> <li>• Large group facilitation</li> </ul> <p><a href="http://goo.gl/R9w5P">http://goo.gl/R9w5P</a></p> |

|                      | Enterprise IT Architecting   | Enterprise Integrating   | Enterprise Ecology  |
|----------------------|--|--|---|
| Perceived Challenges | <ul style="list-style-type: none"> <li>Organizational understanding and acceptance of designed plans</li> </ul>  | <ul style="list-style-type: none"> <li>Understanding organizational system dynamics</li> <li>Organizational collaboration</li> <li>Systems thinking paradigm shift</li> </ul>                                  | <ul style="list-style-type: none"> <li>Fostering sense-making</li> <li>System-in-environment paradigm shift</li> </ul>  |
| Insights             | <ul style="list-style-type: none"> <li>Permits the design of robust and complex technological solutions</li> <li>Fosters the creation of high quality models and planning scenarios</li> </ul>   | <ul style="list-style-type: none"> <li>Permits the design of comprehensive solutions</li> <li>Enables significant organizational efficiency by eliminating unnecessary contradictions and paradoxes</li> </ul> | <ul style="list-style-type: none"> <li>Fosters enterprise-in-environment coevolution and enterprise coherency</li> <li>Fosters organizational innovation and sustainability</li> </ul>  |
| Limitations          | <ul style="list-style-type: none"> <li>Susceptible to producing inadequate or unfeasible solutions for the larger organizational context</li> <li>Susceptible to considerable solution acceptance and implementation barriers</li> <li>Susceptible to “perfect” designs for unsustainable strategies syndrome</li> </ul> | <ul style="list-style-type: none"> <li>Susceptible to “perfect” designs for unsustainable strategies syndrome</li> <li>Requires a paradigm shift from reductionism to holism</li> </ul>                        | <ul style="list-style-type: none"> <li>Requires many organizational pre-conditions with regards to management and strategy creation</li> <li>Requires environments that may be influenced</li> </ul> <p><a href="http://goo.gl/R9w5P">http://goo.gl/R9w5P</a></p> |

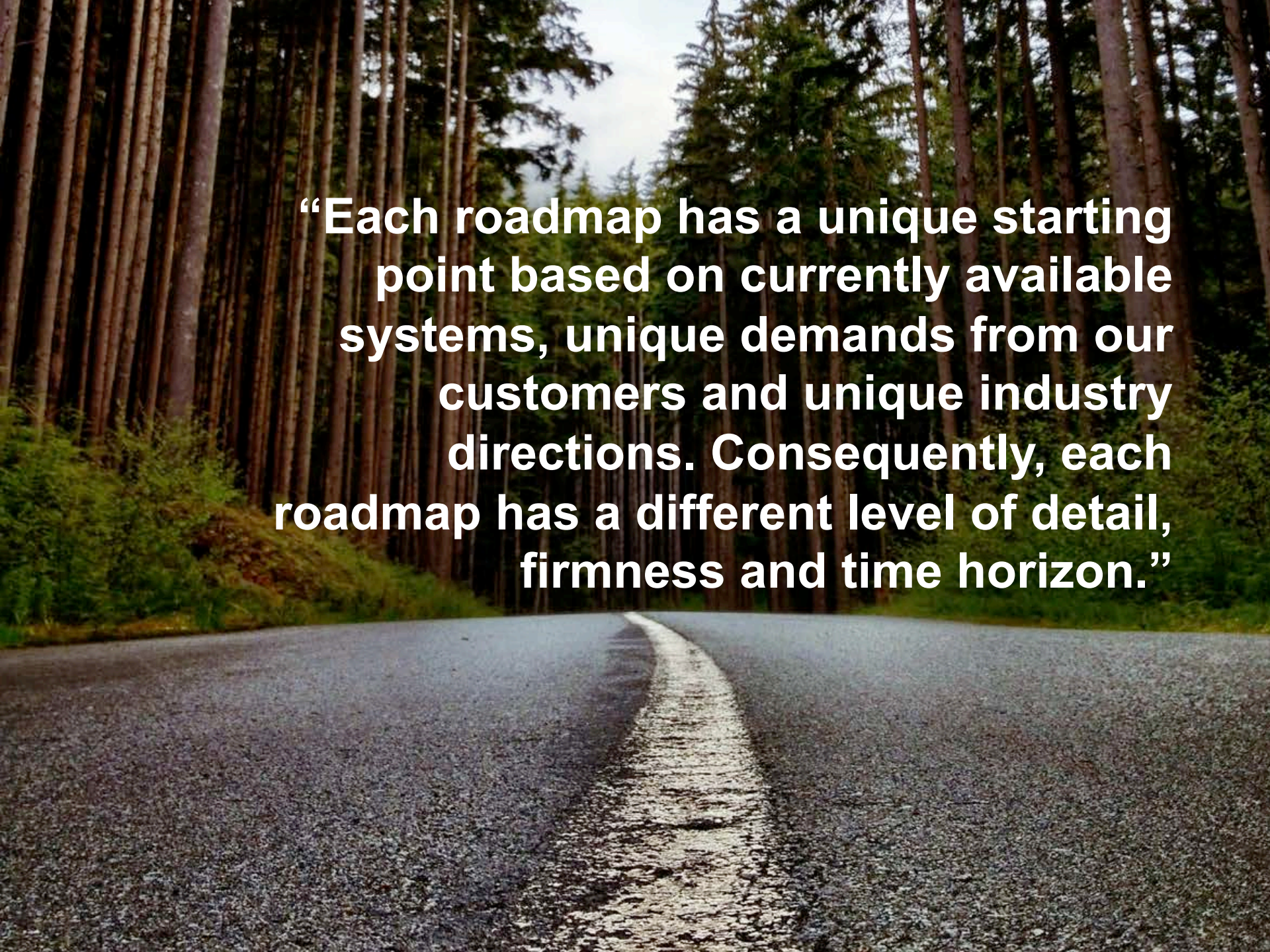


# Roadmaps: Where we started


A paved road with a white dashed center line curves through a dense forest of tall, thin trees. The road is in the foreground, leading the eye into the distance. The trees are mostly evergreens, and the ground is covered in green undergrowth.

## **Roadmaps at UBC: Our commitments**

**“UBC IT has defined a set of Technology Roadmaps that lay out the expected direction of our product and service offerings for ... three to five years”**

A paved road with a white dashed center line curves through a dense forest of tall, thin trees. The road is wet, reflecting the light. The trees are mostly evergreens, and the ground is covered in green undergrowth.

**“Each roadmap has a unique starting point based on currently available systems, unique demands from our customers and unique industry directions. Consequently, each roadmap has a different level of detail, firmness and time horizon.”**

A paved road with a white dashed center line curves through a dense forest of tall, thin trees. The road surface is dark asphalt, and the surrounding forest is lush green. The text is overlaid in the center of the image.

***Roadmaps will be reviewed regularly and formally assessed annually, in line with the annual review of the strategic plan.***

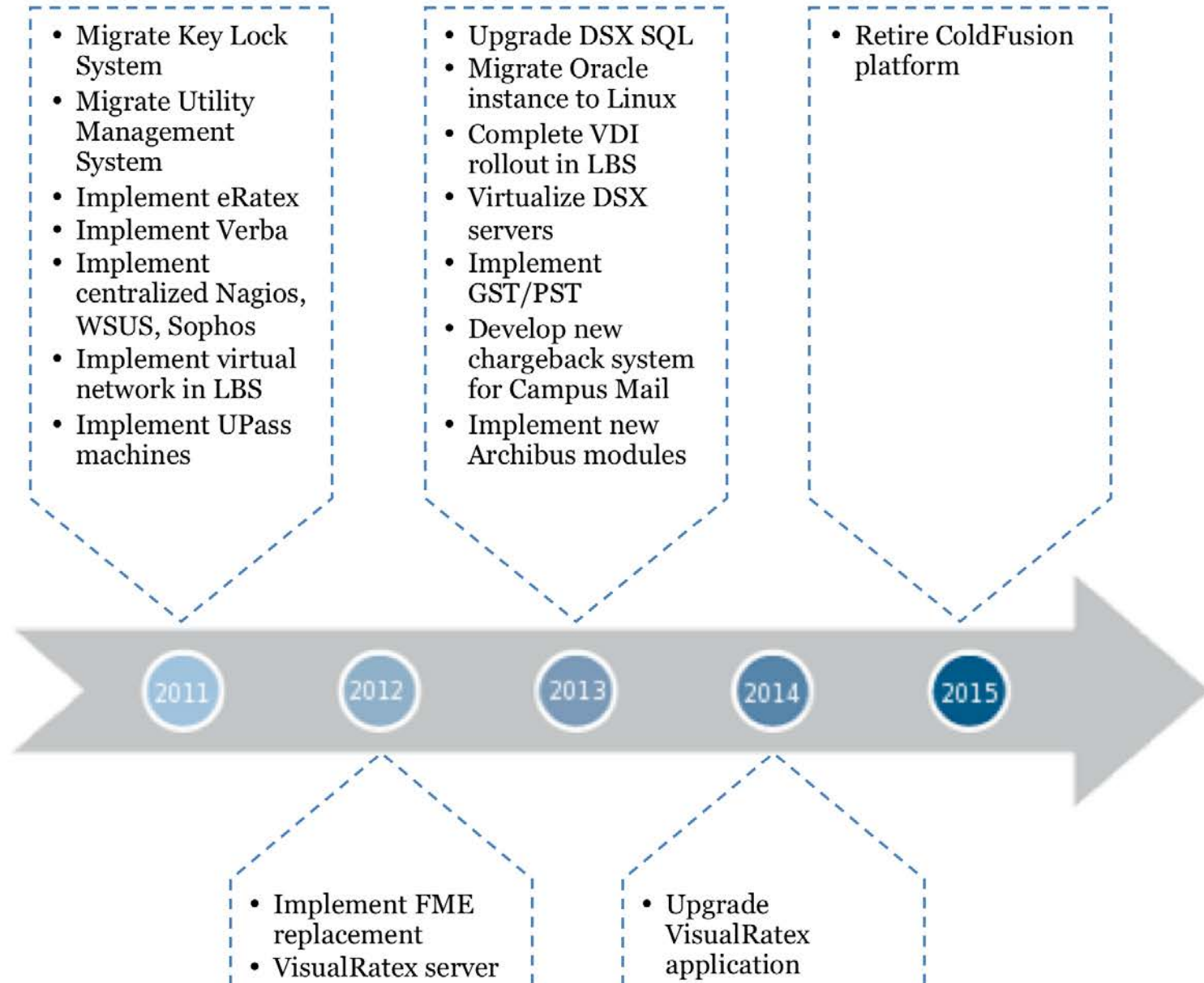


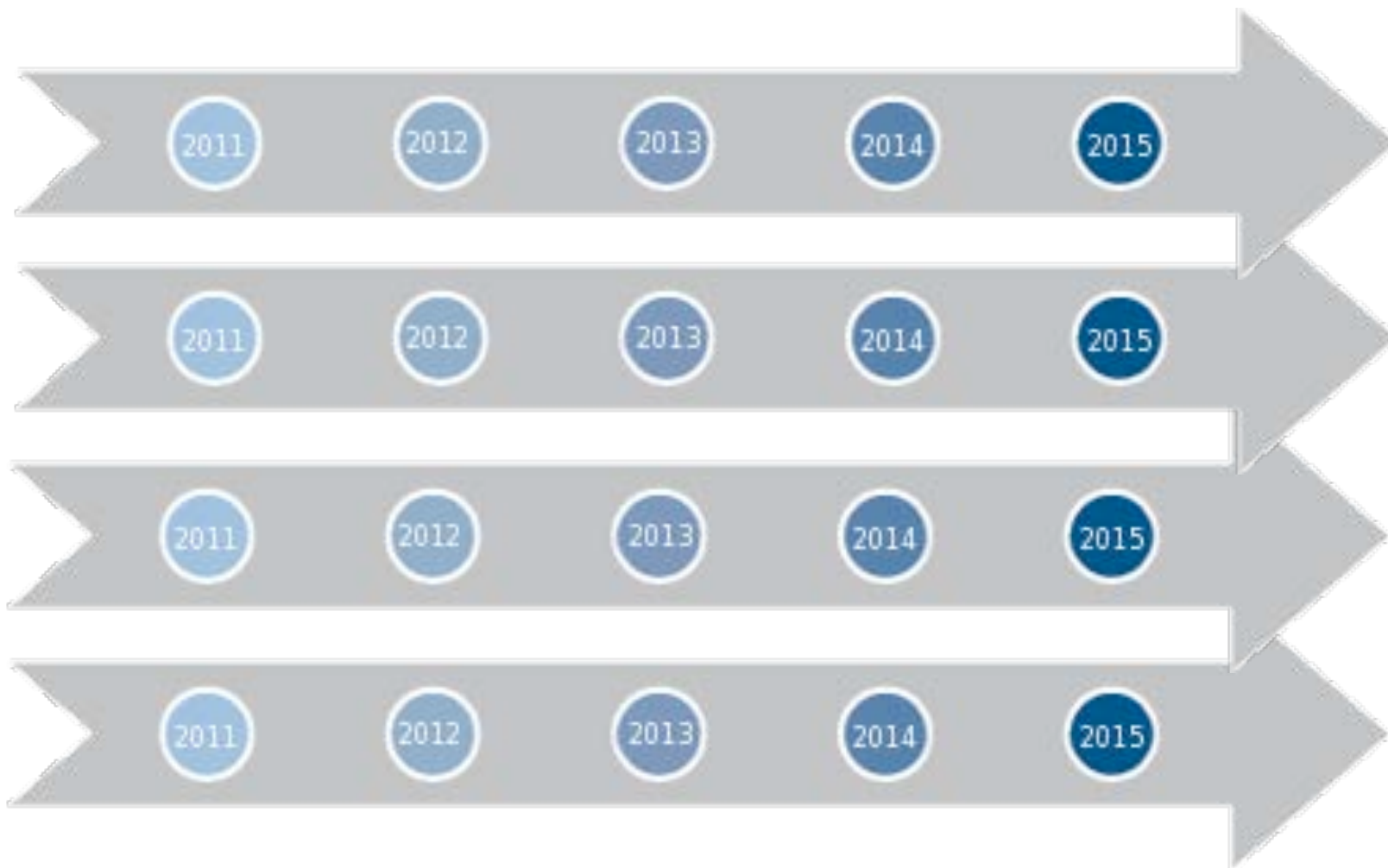


CAUTION  
STEEP TRAIL



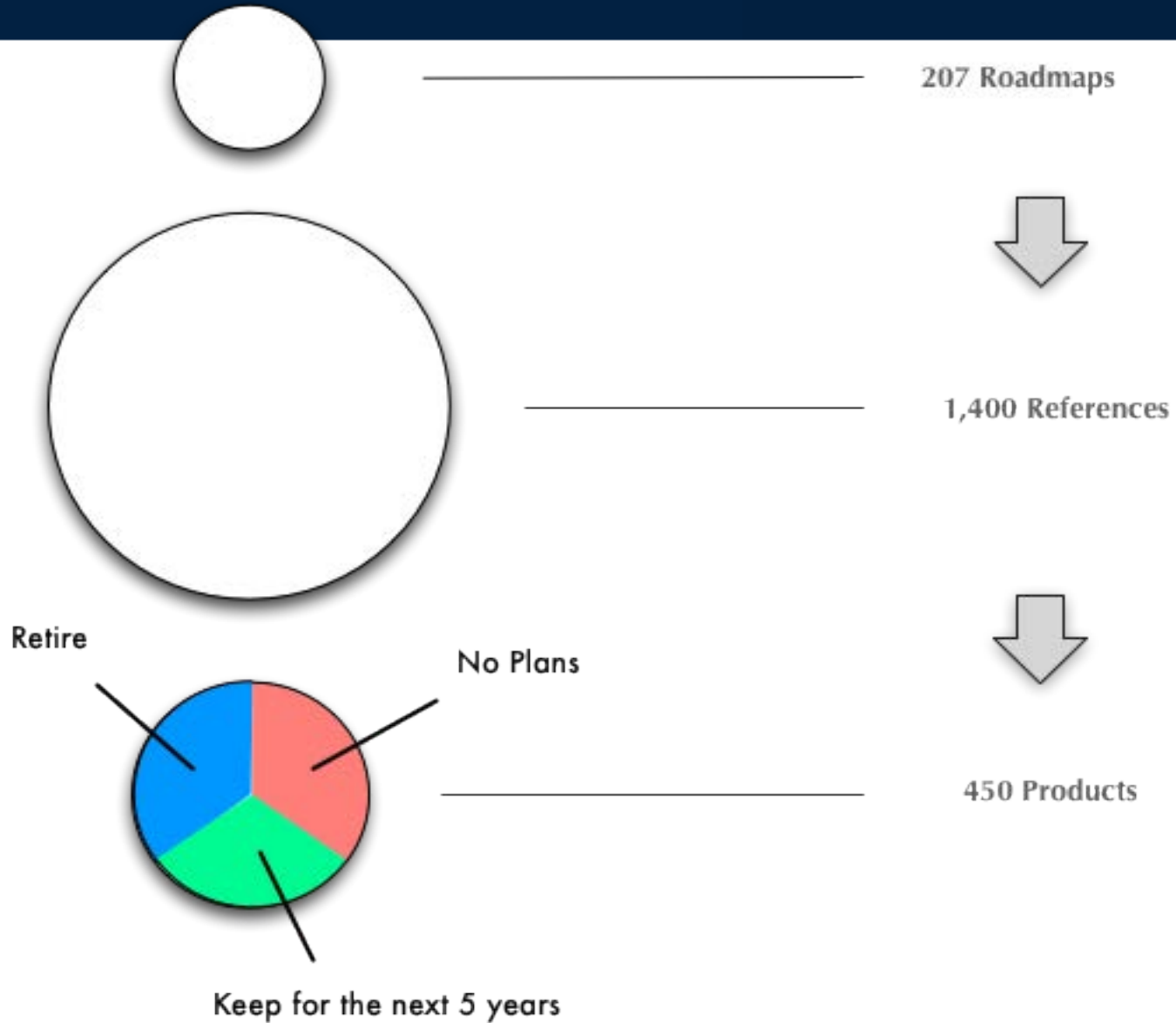
**Initial Results were limited in scope**





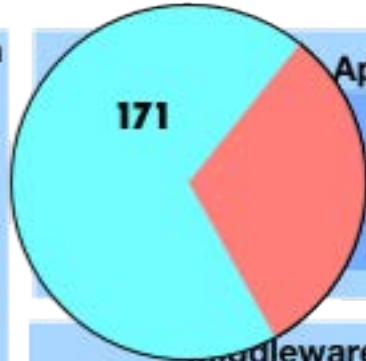


**OK, but isn't there more to it?**



### Implementation

Languages



### Applications

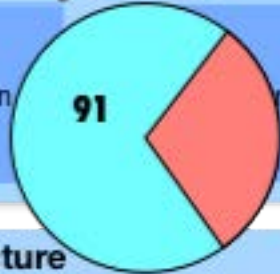
Business Applications

Internal Business Applications

### Middleware and Integration

Data

Integration



### Infrastructure

Client

Computing

Storage

Security



### Systems Management & Monitoring

Monitoring



Facilities Management

Service Desk



# The UBC IT landscape: applications classified by areas of concern

## IT Infrastructure

## IAM

## Student

## Learning

## Research

## Finance

## HR

### Business layer

#### Business owners

UBC IT

UBC IT

UBC IT  
Admin depts  
Faculties  
Academic depts

ES  
SD&S  
FoGS  
Faculties  
Housing

Faculties  
CTLT

ORS  
Faculties  
Departments

Finance  
Budget office  
Treasury  
Admin depts  
Academic depts

HR  
Admin depts  
Academic depts

#### Business processes

Manage  
collaboration  
platforms

Manage  
infrastructure

Manage roles  
Provision  
Deprovision  
Maintain privacy

Recruitment  
Admission  
Assessment  
Promotion  
Graduation

Curriculum dev  
Course dev  
Teaching  
Grading  
Learning resources

Grant applications  
Grant admin  
Research  
Publication

Payables  
Receivables  
Year end  
Budgets

Recruitment  
Hiring  
HR policy  
Salary admin  
Benefits admin

### Collaboration Services

FASMail  
Zimbra  
SharePoint  
Confluence  
UBC wiki  
Drupal sites  
Joomla  
Sitecore  
WordPress  
Sonic foundry

### IT Business Process Management Services

ServiceNow  
OTRS  
Nagios  
Pinnacle

SIS:MSC  
SIS:Person  
HR:Person  
UBC directory  
UBC card  
Upass  
ACMS

CWL  
EAD  
AD  
LDAP  
CAS  
Crowd  
Shibboleth  
Sailpoint

SIS:BBA  
SIS:registration  
SIS:financials  
SIS:curriculum  
SIS:assessment  
SIS:awards  
OAMS  
Degree Nav  
Sauder:Exec ed  
Cont. Ed  
Synapps  
Admit-M  
Top apply  
Zapsolutions  
Nursing E. Port  
Simplicity CSM  
Simplicity  
Advocate  
Clockwork  
ImageNow

### Learning Infrastructure Management

AdAstra (Scientia)  
Course Eval  
SEoT  
Vista  
Connect  
CTC2  
CTC3  
Ratex  
Voyager ILS

### Learning Tools

iClicker  
iPeer  
Kaltura  
Maple  
Mathematica  
Matlab  
OLI Chem  
Lab  
One45  
PEP  
Respondus  
SAS  
SPSS  
UBC wiki  
Vimeo  
WebWork

### Research Admin

Rise  
Animal care  
My CV

Domain specific Applications:  
Research

### Finance

FMS  
-GL  
-AR  
-AP  
Hyperion

Domain specific Applications: Administration

eRecruit  
Base benefits  
HR  
Payroll  
ePAF  
ISIS  
Pension

### Enterprise Data Warehouse

BI apps  
Crystal  
nQuery  
SIS reports  
PAIR  
SQR

Middleware (domain agnostic) services

Domain specific applications: Learning

### Technology layer

Integration layer (bus): HornetQ, SQR, ftp, PL/SQL, web services, Talend, JMS, Pentaho

Data management layer: MS Access, FoxPro, MySQL, Oracle 4, 8, 9i, 10g, 11g, Sybase, SQL Server

Application servers: Tomcat, Jboss (AS 6, EAP 6), IIS, Oracle IAS



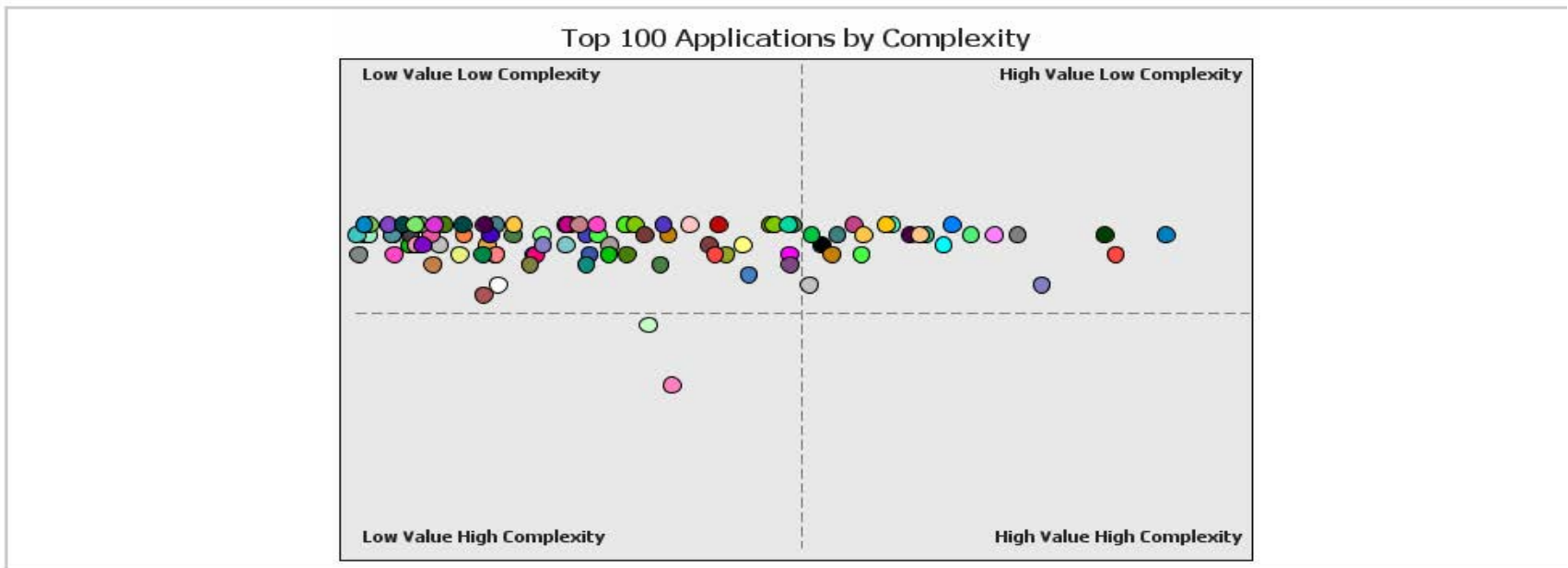


# **Future Management of the portfolio**

## Portfolio Complexity



This report displays application portfolio complexity against value.



[View technology portfolio overview report.](#)

## Portfolio Complexity

## Application Rationalization Analysis

The Application Rationalization Analysis report displays a score based on the following weightings:

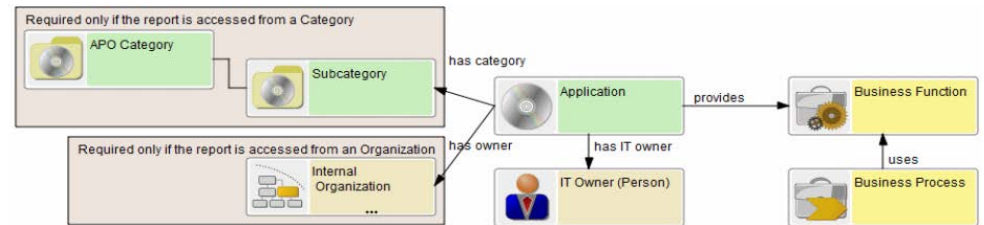
|                           |    |
|---------------------------|----|
| Days Since Last Activity: | 20 |
| Number of Users:          | 20 |
| Criticality:              | 30 |
| High BIA Score:           | 30 |

### Applications

| Name   | IT Owner       | Target Retire Date | Recurring Cost | Days Since Last Activity | Num Users | Max Criticality | Max BIA Score | Rationalization Score |
|--|----------------|--------------------|----------------|--------------------------|-----------|-----------------|---------------|-----------------------|
| <a href="#">Accept and validate sales orders system</a>                      | Nohemi Mcclary | 20-Sep-2013        | 88,465.00      |                          | 390       | 339             | 339           | 500                   |
| <a href="#">Account for taxes system</a>                                     | Laila Rabe     | 31-Mar-2013        | 134,894.00     |                          |           |                 |               |                       |
| <a href="#">Acquire workspace and assets system</a>                          | Laila Rabe     | 13-Dec-2011        | 62,413.00      |                          |           |                 |               |                       |
| <a href="#">Acquire/develop changed IT service/solution component system</a> | Rex Eisenhower | 3-Jul-2013         | 96,103.00      |                          |           |                 |               |                       |
| <a href="#">Acquire/Develop IT service/solution components system</a>        | Rex Eisenhower | 21-Jun-2013        | 41,898.00      |                          |           |                 |               |                       |
| <a href="#">Act as clearinghouse for IT research and innovation system</a>   | Kevin Song     | 11-Feb-2015        | 190,240.00     |                          | 1         |                 |               |                       |
| <a href="#">Address tax inquiries system</a>                                 | Laila Rabe     | 13-Apr-2013        | 56,664.00      |                          |           |                 |               |                       |
| <a href="#">Adjust accounting records system</a>                             | Ardath Deberry | 24-Mar-2016        | 262,073.00     |                          | 1         |                 |               |                       |

### Report Dependencies

To execute this report the following objects and properties must be completed:



For details, see the table below:

| Component             | Component Property   | Relationship<br>(Component 1 [Relationship] Component 2)   |
|-----------------------|--|--|
| Application           | <ul style="list-style-type: none"> <li>Name</li> <li>Stop Date</li> <li>Recurring Cost</li> <li>Login Date</li> <li>Accounts</li> </ul>                      | <ul style="list-style-type: none"> <li>Application [Application Component has IT owner Person]</li> <li>Person</li> <li>Application [Application provides Function] Business Function</li> </ul>                     |
| Business Function     | <ul style="list-style-type: none"> <li>Name</li> </ul>   |  |
| Business Process      | <ul style="list-style-type: none"> <li>Name</li> <li>Business Impact Analysis Score</li> </ul>   | <ul style="list-style-type: none"> <li>Business Process [Business Process uses Function] Business Function               <ul style="list-style-type: none"> <li>with Criticality property</li> </ul> </li> </ul>     |
| Person                | <ul style="list-style-type: none"> <li>Name</li> </ul>   |  |
| APO Category          | <ul style="list-style-type: none"> <li>Name</li> </ul> <p><b>Note:</b> Required only if you want to filter Applications by APO Category.</p>                 | <ul style="list-style-type: none"> <li>APO Category has subcomponent APO Category</li> <li>APO Category [APO Category is category for Application] Application</li> </ul>  |
| Internal Organization | <ul style="list-style-type: none"> <li>Name</li> </ul> <p><b>Note:</b> Required only if you want to filter returned Applications by owning Organization.</p> | <ul style="list-style-type: none"> <li>Internal Organization [Organization Component is owner of Application Component] Application</li> <li>Internal Organization has subcomponent Internal Organization</li> </ul> |

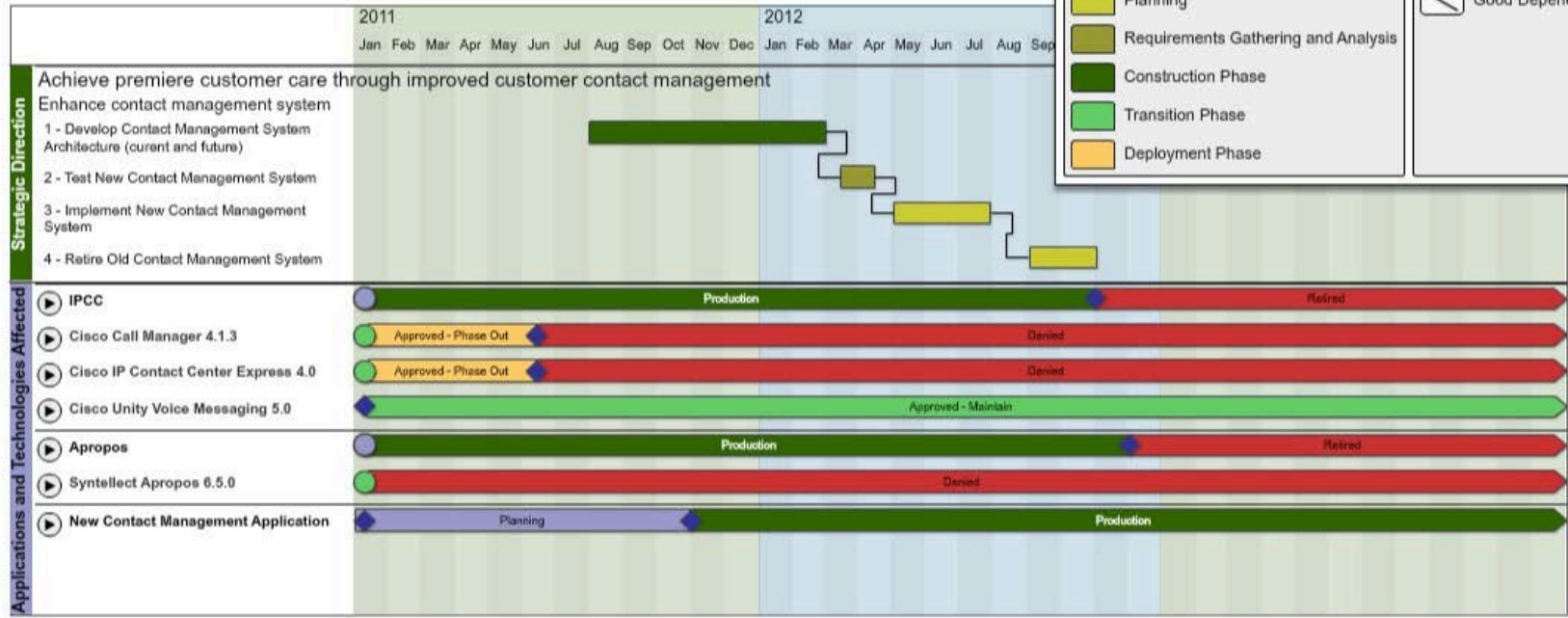
### Strategy Roadmap with Application and Software Lifecycles

This roadmap shows projects, applications, and software associated with the selected strategy.

Timeline: 2011 | 3 Years | Months | [0 50 100 150 200]

#### Legend

| Project Phase |                                     | Line Color |                   |
|---------------|-------------------------------------|------------|-------------------|
|               | Undefined                           |            | Broken Dependency |
|               | Planning                            |            | Good Dependency   |
|               | Requirements Gathering and Analysis |            |                   |
|               | Construction Phase                  |            |                   |
|               | Transition Phase                    |            |                   |
|               | Deployment Phase                    |            |                   |



### Application Steward



- Owns Applications and Lifecycles

### Establish & Publish Application Inventory



- Document Applications
- Relate Org Units, Processes
- Document costs

### Ensure Accuracy & Currency of Information



- Analyze data quality
- Analyze data gaps
- Synchronise with current environment

### Manage Application Lifecycles



- Manage deployment lifecycles
- Manage usage lifecycles (Products, sunset, retired)

### Troux EA Repository Supports:

- Centralized enterprise viewpoint
- Data accuracy, currency and completeness
- Change governance
- Integrated application lifecycle management

### Office of CIO



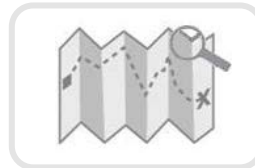
- Analyzes the application portfolio for optimization opportunities

### Rationalise Portfolios & Demands



- Application Value Analysis
- Application Rationalization
- Standards Fit
- Business Priority Alignment

### Analyse Transition Roadmaps



- Consume deployment roadmaps
- Consume usage roadmaps

### Enable Transition Planning



- Perform impact analysis
- Support business case

- Analyze applications across multiple dimensions
- View application transition roadmaps
- Proactively understand the impact of change across the enterprise

### The University



- Responsible for enacting projects

### Propose Demands



- Business case for new investments
- Existing portfolio impacts, risks and investment scope

### Benefits Measured



- Increased value and productivity
- Improve Profit margins

- Easily involve business stakeholders
- Business impacts readily traceable
- Support large and diverse user populations with robust permissions management.





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