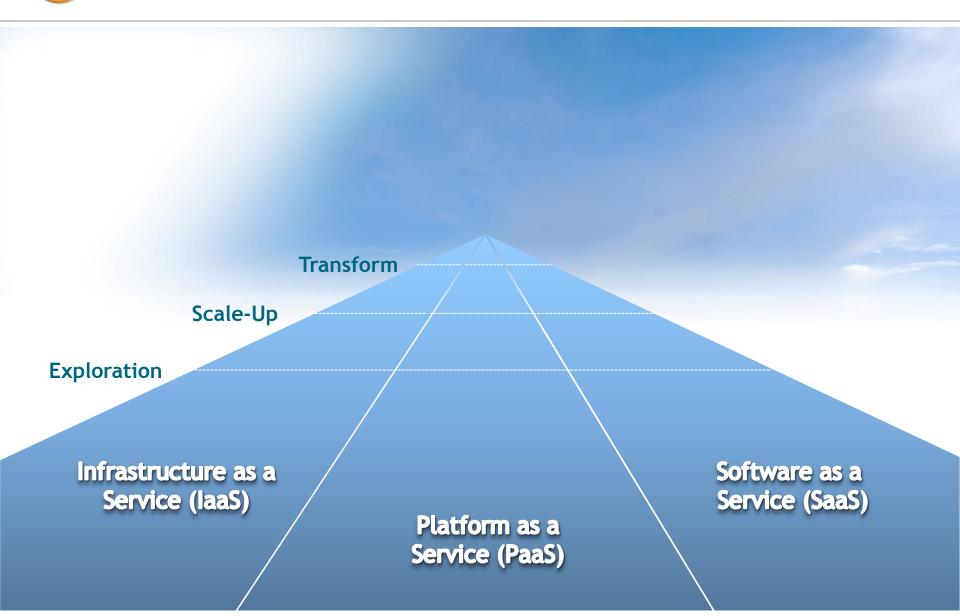


May 14, 2011





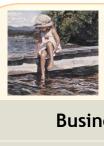




## L&T Infotech The laaS Journey

#### Requirements Management 5. Opportunity & 7. Implementation 1. Architecture Vision 3. IS Architecture Selection Governance **Preliminary** 4. Technology 8. Architecture Change Phase 2. Business Architecture 6. Migration Planning Architecture Mgmt.





Getting the feet wet

**Business Drivers** 

**Architecture Principles** 

Stakeholder Viewpoints

**Architecture Decisions** 





**Enterprise Scale** 

**Business Drivers** 

**Architecture Principles** 

**Stakeholder Viewpoints** 

**Architecture Decisions** 





**Business Transformation** 

**Business Drivers** 

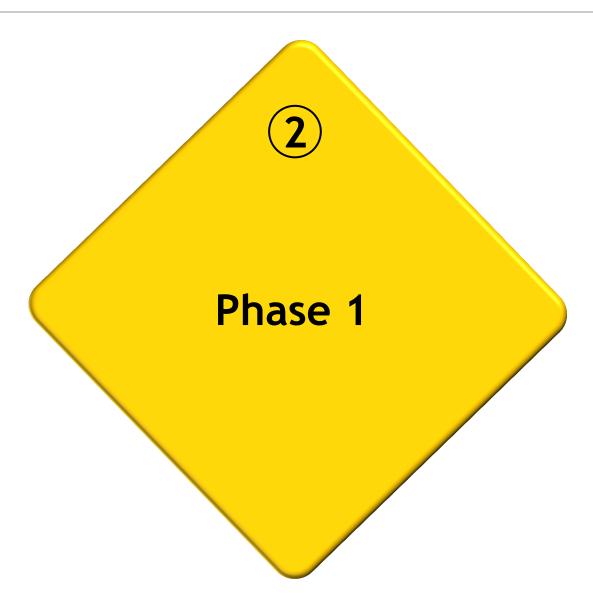
**Architecture Principles** 

**Stakeholder Viewpoints** 

**Architecture Decisions** 









# Phase 1 Getting the feet wet - Business Drivers

- Increasing need for computing (HW/SW) resources on temporary basis
- Time taken for provisioning of new HW/SW is not keeping pace with business demand
- Redundant effort in software installation and tuning multiple copies of the same software
- Need greater discipline to regulate usage of resources e.g.
   License management, access to compute power



# **L&T Infotech** Transition Architecture 1

Presentation
Layer

Operations
enablement
Services

ElasticFox

Monitoring
Metering
Administration
Others...

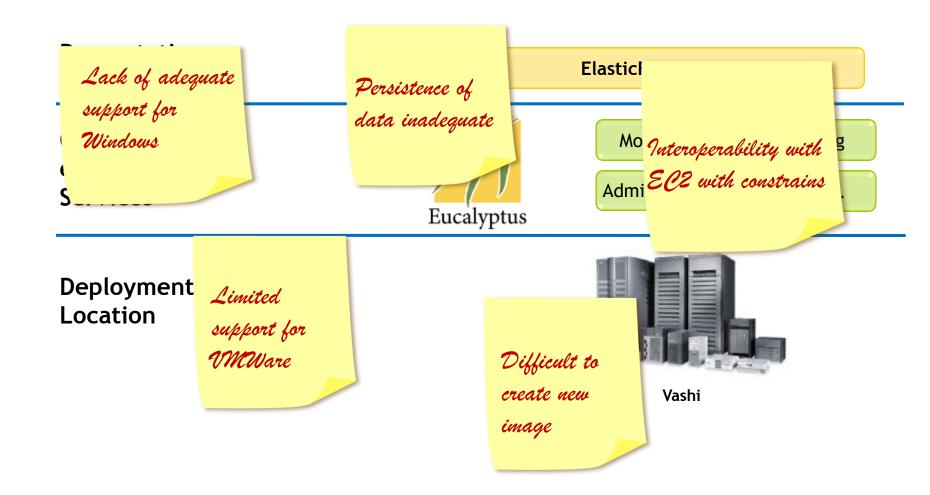
Deployment Location



Vashi

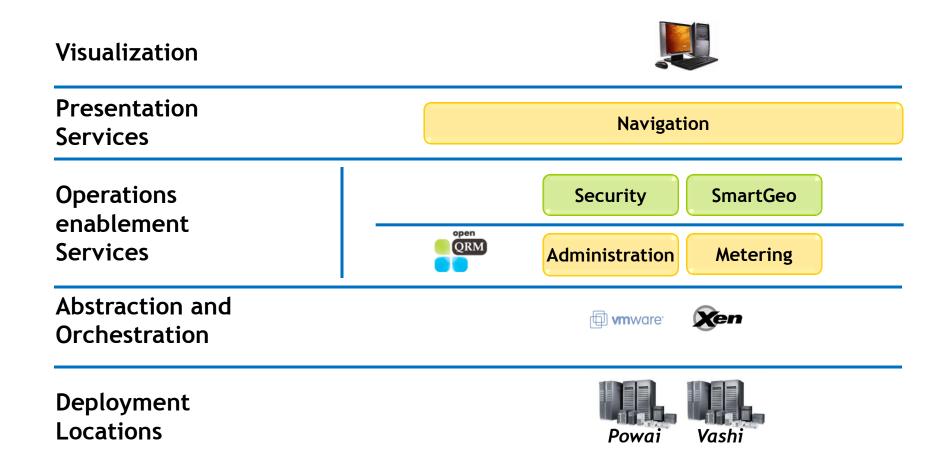


#### **L&T Infotech** Transition Architecture 1



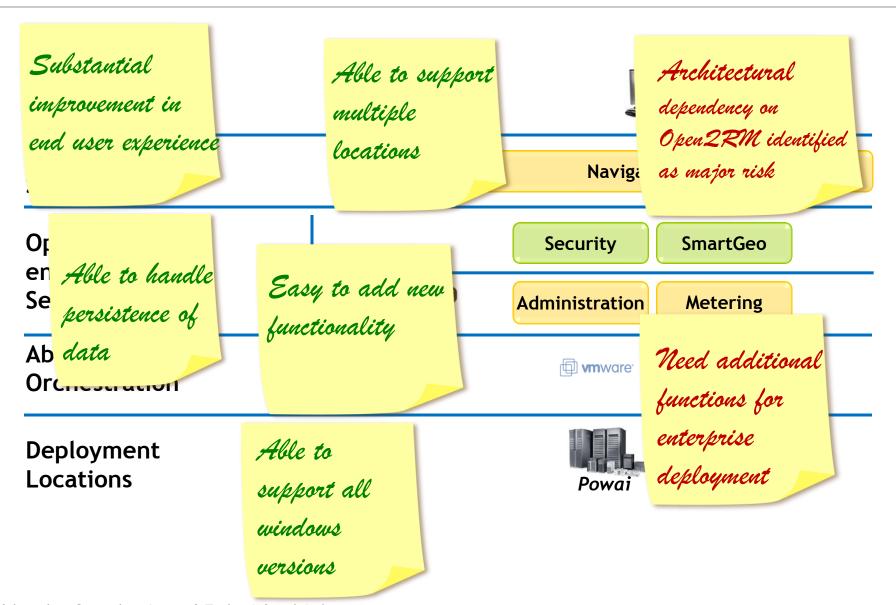


# L&T Infotech Transition Architecture Final

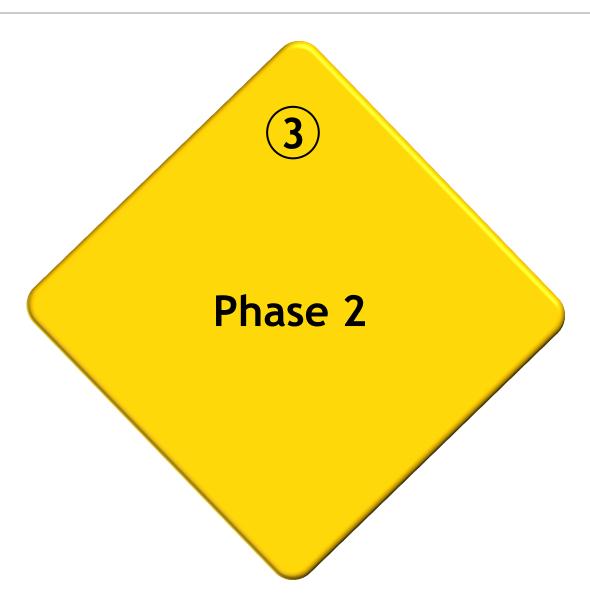




#### **L&T Infotech** Transition Architecture Final









# **L&T Infotech** Phase 2 Enterprise Scale- Business Drivers

- Increasing need for computing (HW/SW) resources on temporary basis
- Time taken for provisioning of new HW/SW is not keeping pace with business demand
- Redundant effort in software installation and tuning multiple copies of the same software
- Need greater discipline to regulate usage of resources e.g.
   License management, access to compute power
- Optimize Investment in Production Infrastructure
- Build Reference Implementation to support client specific cloud infrastructure requirements



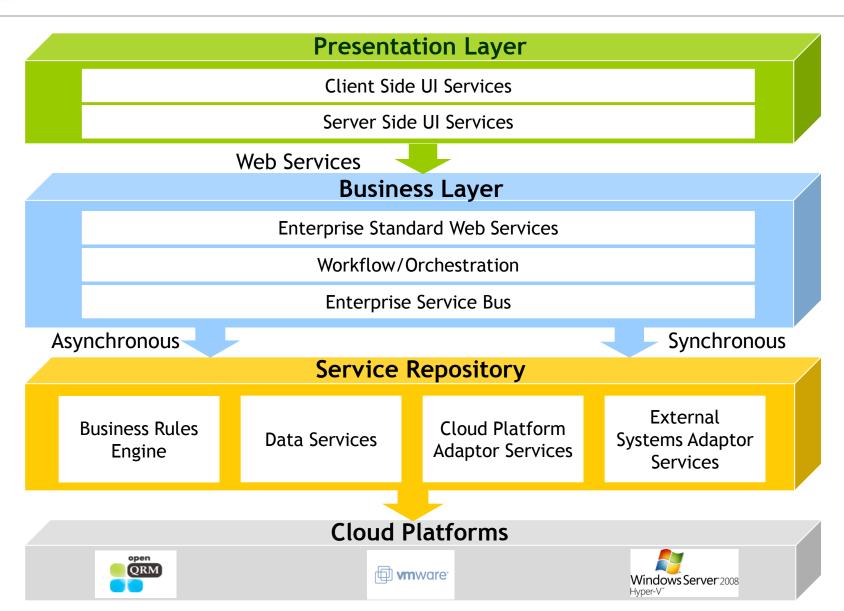


# Phase 2 Enterprise Scale - Architecture Iterations

Visualization	
Presentation Services	Navigation Personalization Others
Operations enablement Services	Workflow Security Metering License Mgmt  Monitoring Administration SmartGeo Others
Abstraction and Orchestration	open QRM Windows Server 2008 Hyper-V"
Deployment Locations	Powai Vashi Pune

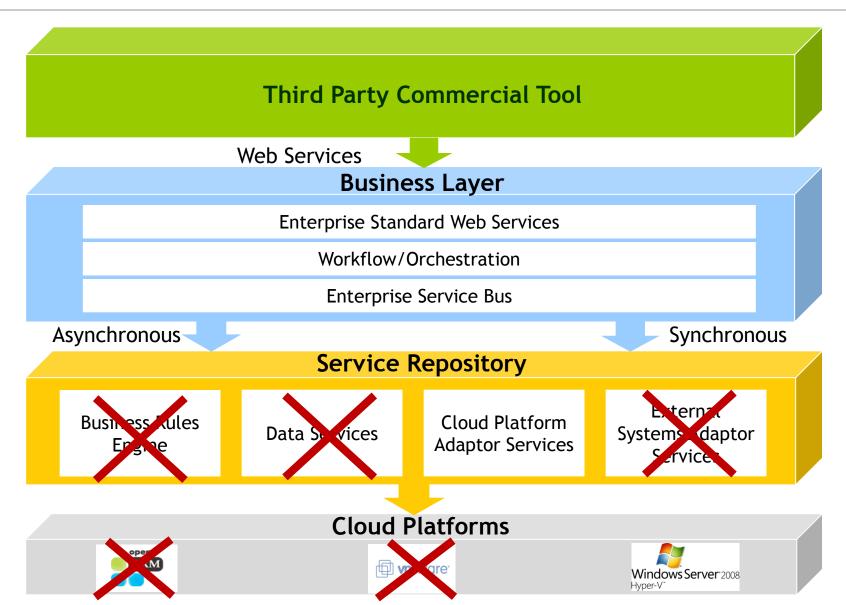


# Phase 2 Enterprise Scale - Architecture Details



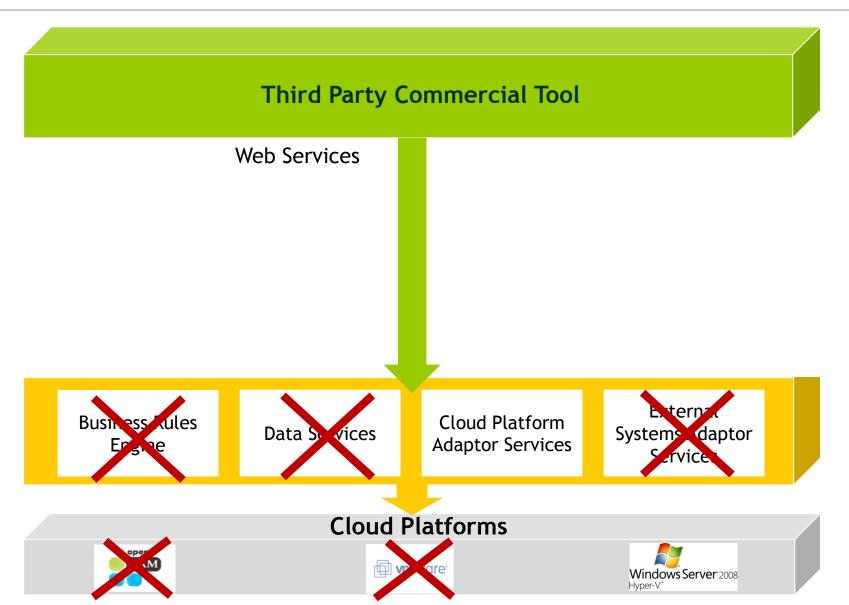


## **L&T Infotech** Phase 2 Enterprise Scale - Reuse Possibilities





# **L&T Infotech** Phase 2 Enterprise Scale - Reuse Possibilities





# **L&T Infotech** The Current Architecture

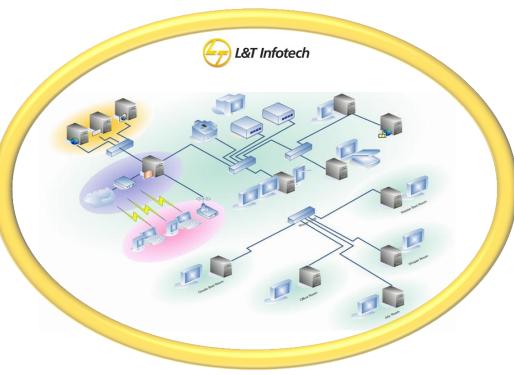


Visualization	
Presentation Services	Navigation Personalization Others
Operations enablement Services	Workflow Security Metering License Mgmt  Monitoring Administration SmartGeo Others
Abstraction and Orchestration	Windows Server 2008 Hyper-V*  Windows Server 2008  Eucalyptus  Eucalyptus
Deployment Locations	Powai Vashi Pune External



# **L&T Infotech** CloudX<sup>™</sup> deployment infrastructure

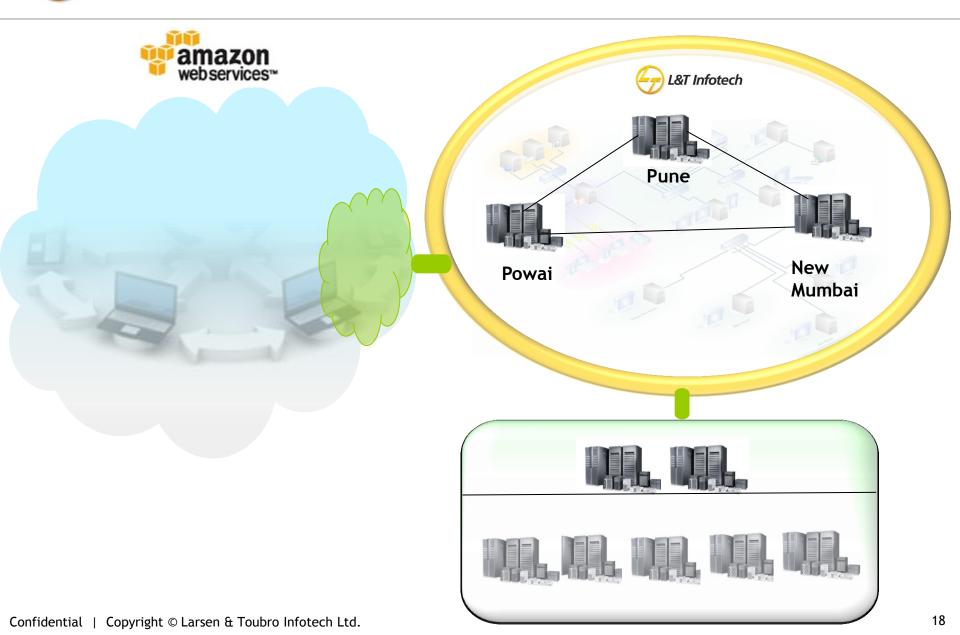






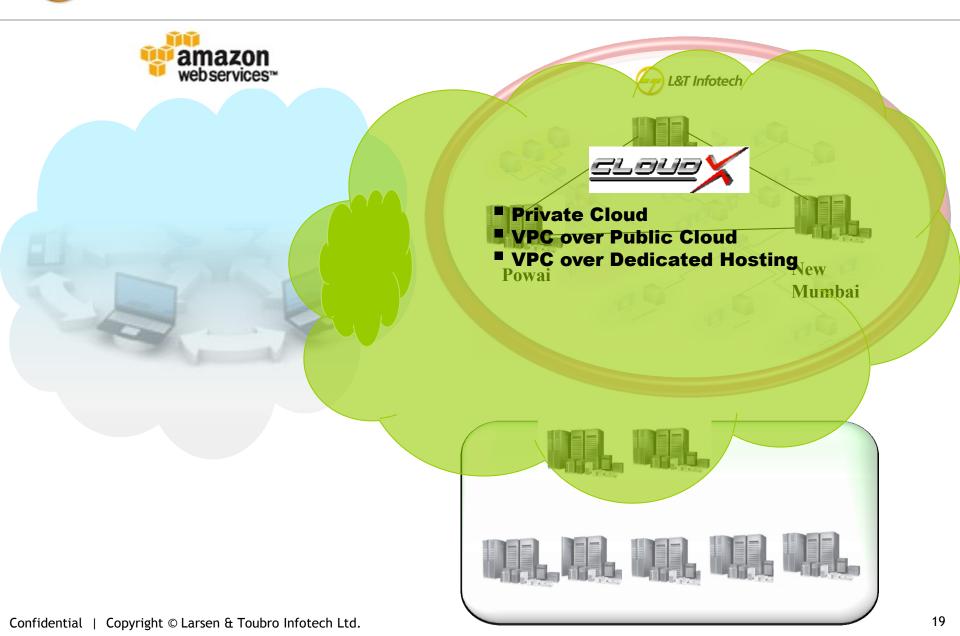


# **L&T Infotech** Cloud $X^{TM}$ deployment infrastructure





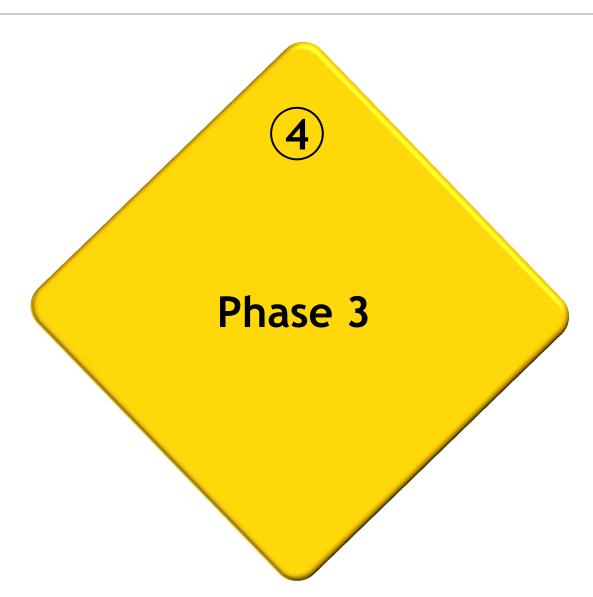
# **L&T Infotech** Cloud $X^{TM}$ deployment infrastructure



- Cloud governance policies implemented through catalog of standard images, defined workflows, timely expiration of provisioned resources
- Ability to delegate the administration of set of licenses to individual unit/location
- Intelligently provisioning of computing resources depending on location, unit, position within the organization
- Ability of end user to create new images based on standard images and submit to addition in standard catalog through formal approval process

- Ability to delegate administration of fixed amount of computing units
- Ability to delegate administration of licensing units
- End user portal for accessing standard catalog for self provision and de-provision
- Ability to reuse and monitor the running usage of provisioned units (ability to meter)
- Ability to reuse and monitor use of licenses for the provisioned resources







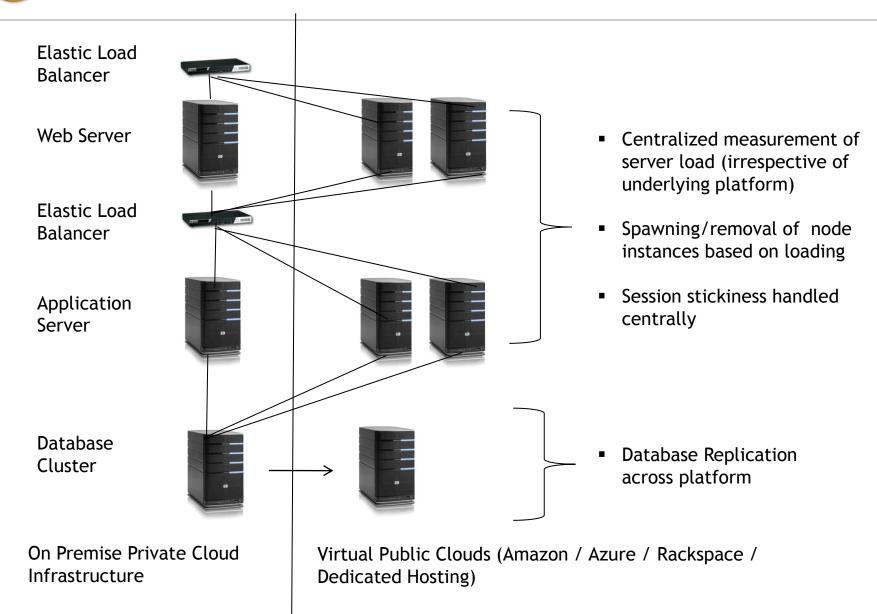
### Phase 3 Business Transformation-Business Drivers

- Increasing need for computing (HW/SW) resources on temporary basis
- Time taken for provisioning of new HW/SW is not keeping pace with business demand
- Redundant effort in software installation and tuning multiple copies of the same software
- Need greater discipline to regulate usage of resources e.g. License management, access to compute power
- Optimize Investment in Production Infrastructure
- Build Reference Implementation to support client specific cloud infrastructure requirements
- Ability to provision for deployment environment
- Ability to provide consistent, simple and seamless view and services across multiple cloud platforms (all types)





## **L&T Infotech** Deployment Architecture







# **L&T Infotech** PaaS - Business Drivers & Challenges

#### **Business Drivers**

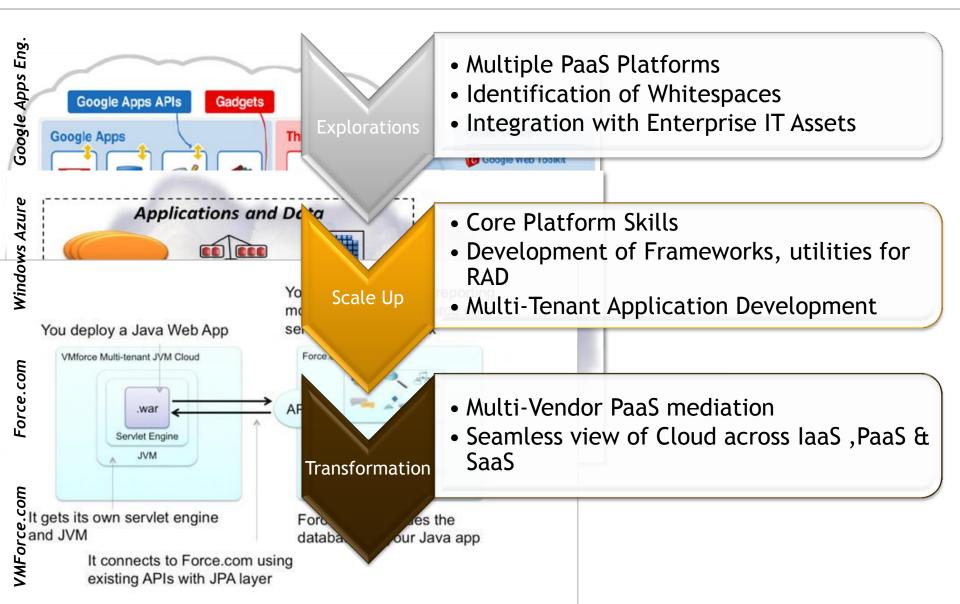
- De-focusing from Non-Functional IT Requirements
- Commoditize IT Assets
- Abstracting Multi-Tenancy

#### Challenges

 Rapid application Development, Processes & Frameworks not mature enough



#### L&T Infotech Our PaaS Journey







# **L&T Infotech** SaaS - Business Drivers & Challenges

#### **Business Drivers**

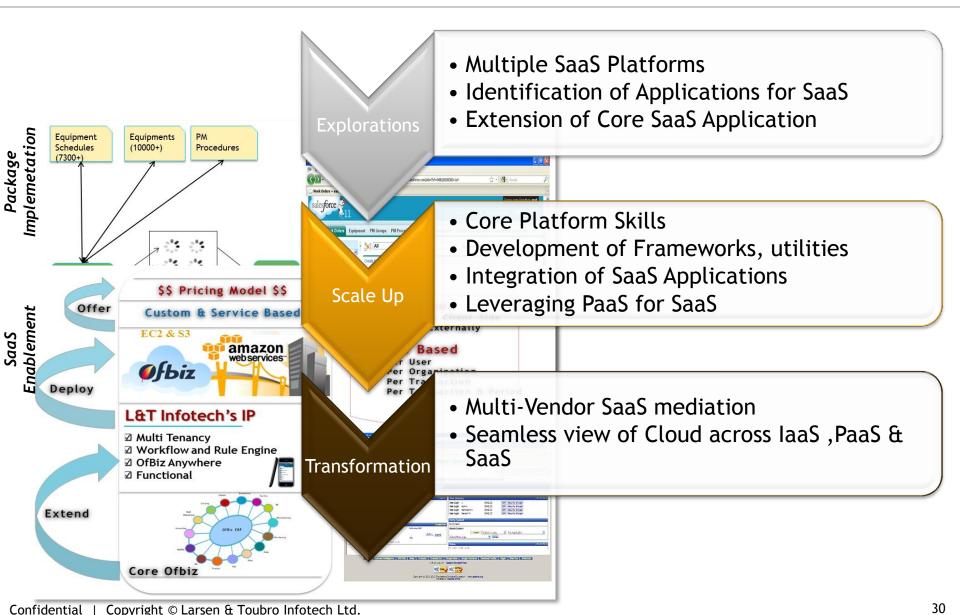
- Reduced Investments in IT Assets
- Quick Access Zero Capital Investment
- Commoditization of non-differentiating IT Assets

#### Challenges

- Identification of Services / Platforms
- Readiness to Adopt
- Return of Investment

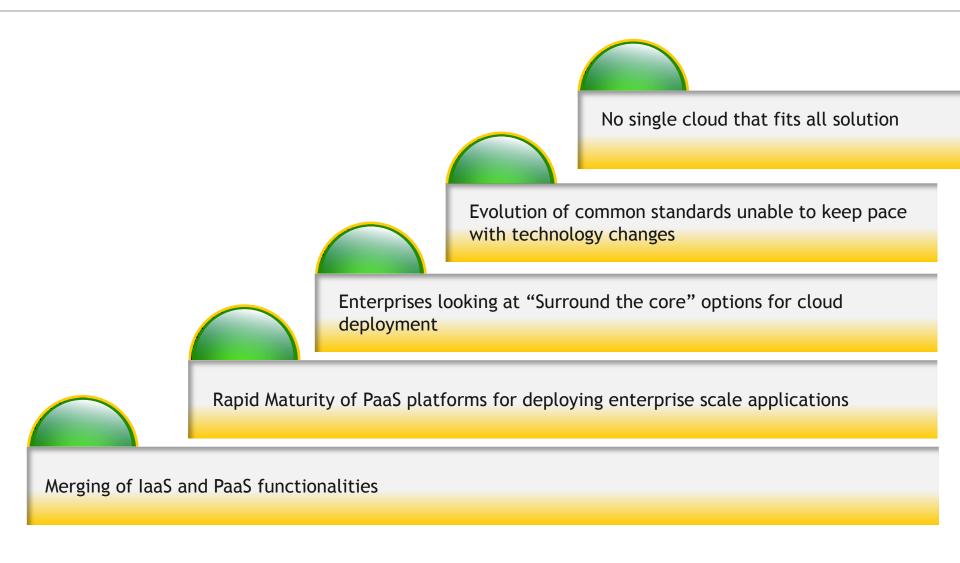


### L&T Infotech Our SaaS Journey





# L&T Infotech Discernible Trends





## **L&T Infotech** Cloud Mediation Platform





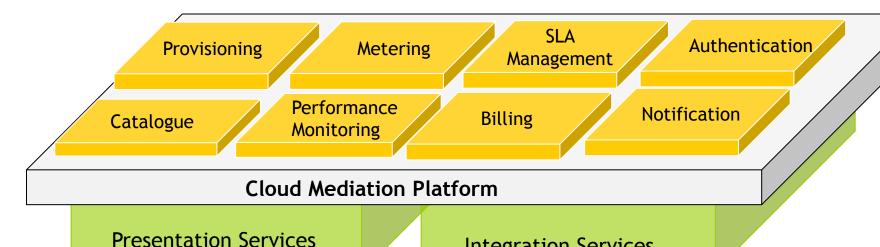










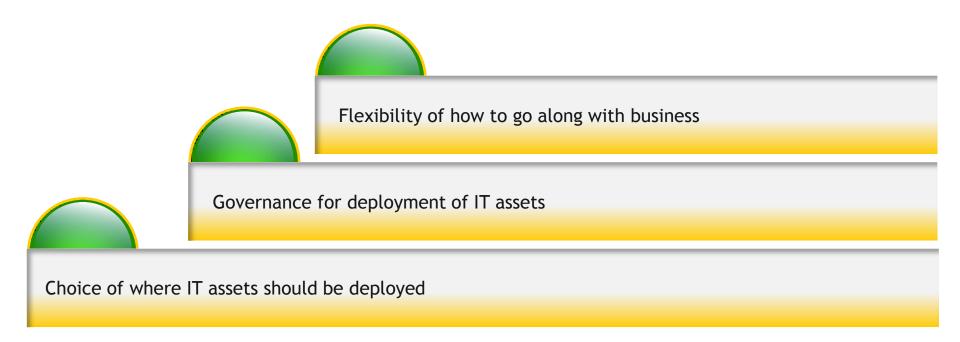


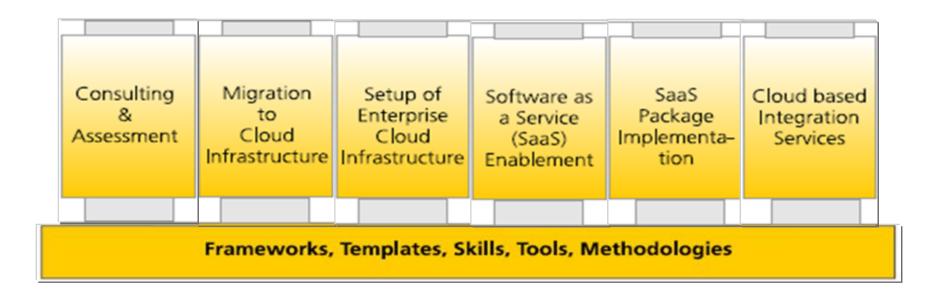
**End Users** 



**Integration Services** 

Existing Infrastructure





#### Thank You



Our Business Knowledge, Your Winning Edge.