Software Lifecycle Management in the Consumption-Based Model

Dipesh Biswas,
PricewaterhouseCoopers

Director, Technology Practice

SoftSummit™

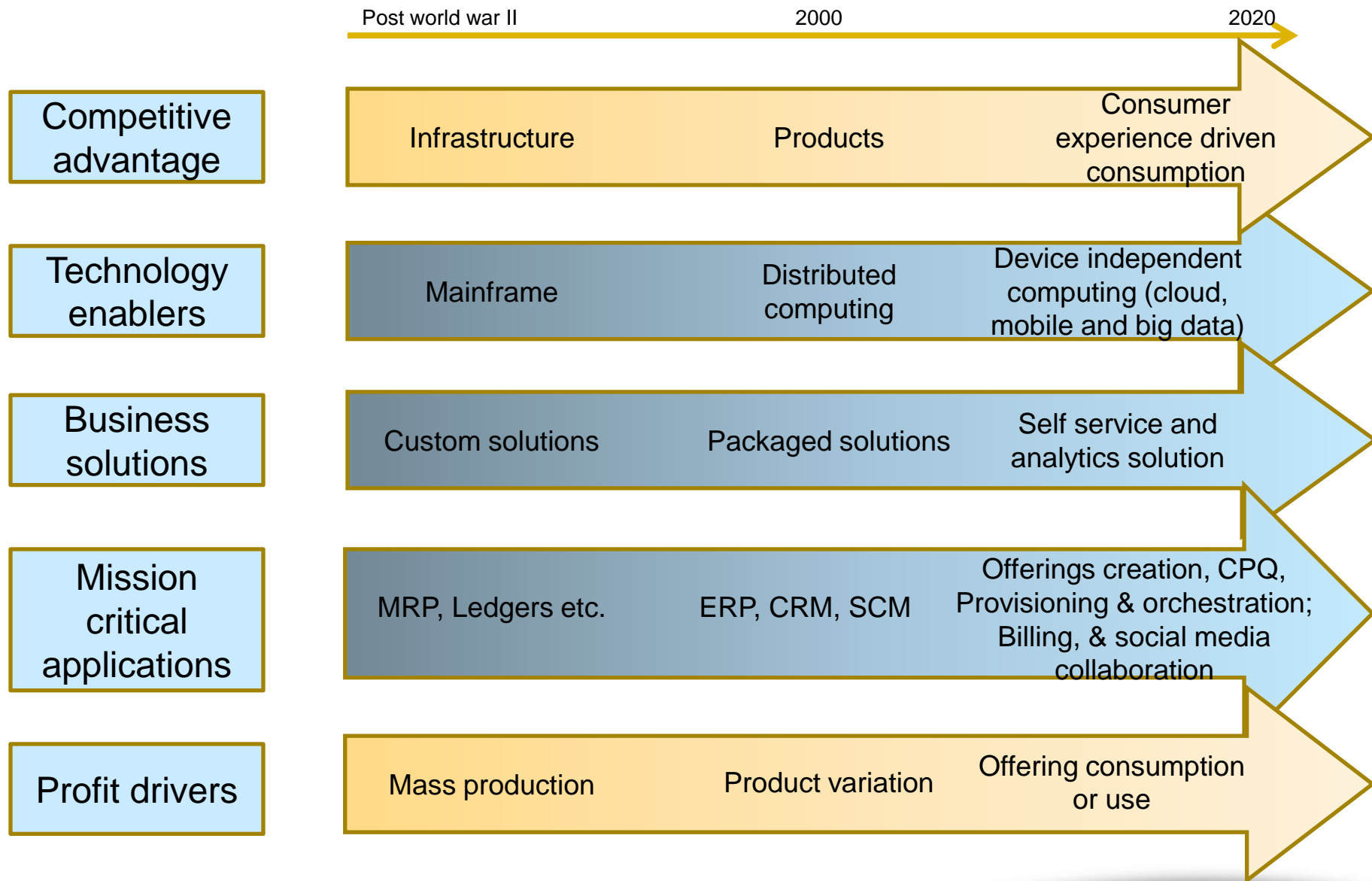SAN JOSE

October 16, 2013

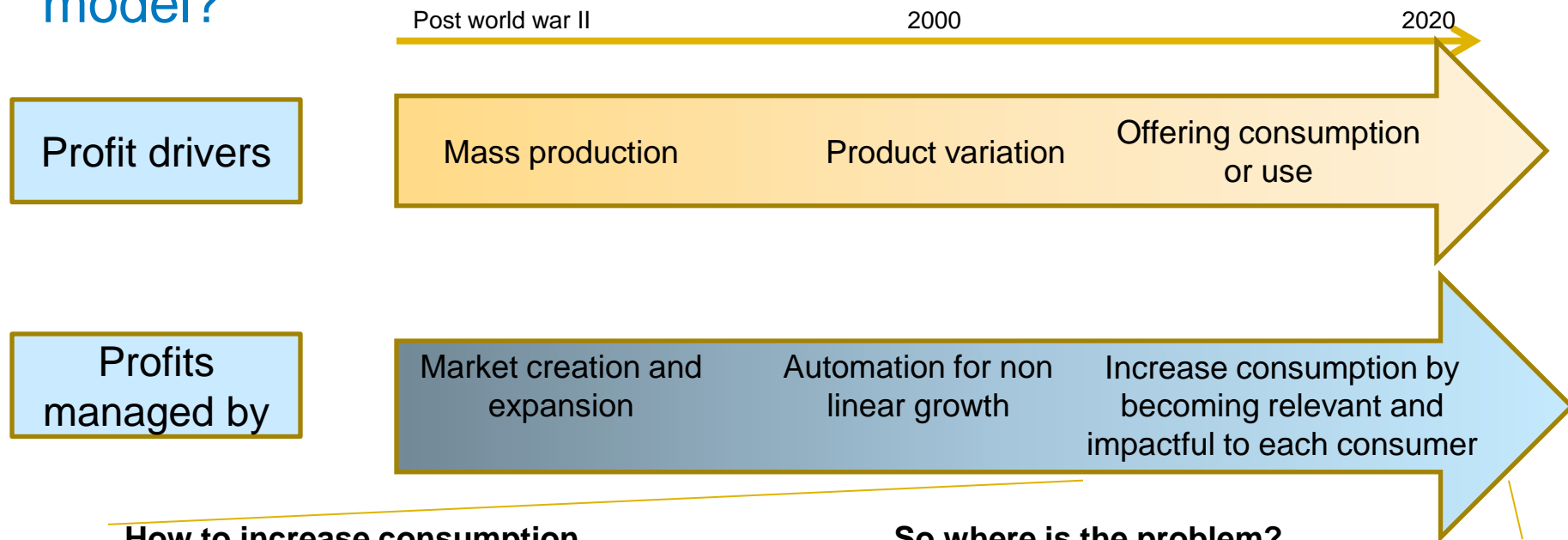INSIGHT DRIVING INNOVATION

Agenda

- Evolution of the market
  - Defining the opportunity & problem of the consumption business model
  - Consumption lifecycle

- Software sector: Leading the growth of the consumption model
  - Evolution of licensing and entitlement management
  - Software lifecycle management in the consumption model
  - The digital supply chain
  - Capabilities for the digital supply chain

- State of the industry: XaaS
  - Innovation cycle
  - Evolving business
  - Growing the consumption business

INSIGHT DRIVING INNOVATION

SoftSummit™

Evolution of the market :The business opportunity

	Post world war II	2000	2020
Competitive advantage	Infrastructure	Products	Consumer experience driven consumption
Technology enablers	Mainframe	Distributed computing	Device independent computing (cloud, mobile and big data)
Business solutions	Custom solutions	Packaged solutions	Self service and analytics solution
Mission critical applications	MRP, Ledgers etc.	ERP, CRM, SCM	Offerings creation, CPQ, Provisioning & orchestration; Billing, & social media collaboration
Profit drivers	Mass production	Product variation	Offering consumption or use

SoftSummit™

The business problem: How to succeed in the consumption model?

| | Post world war II | 2000 | 2020 |

Profit drivers → Mass production | Product variation | Offering consumption or use

Profits managed by → Market creation and expansion | Automation for non linear growth | Increase consumption by becoming relevant and impactful to each consumer
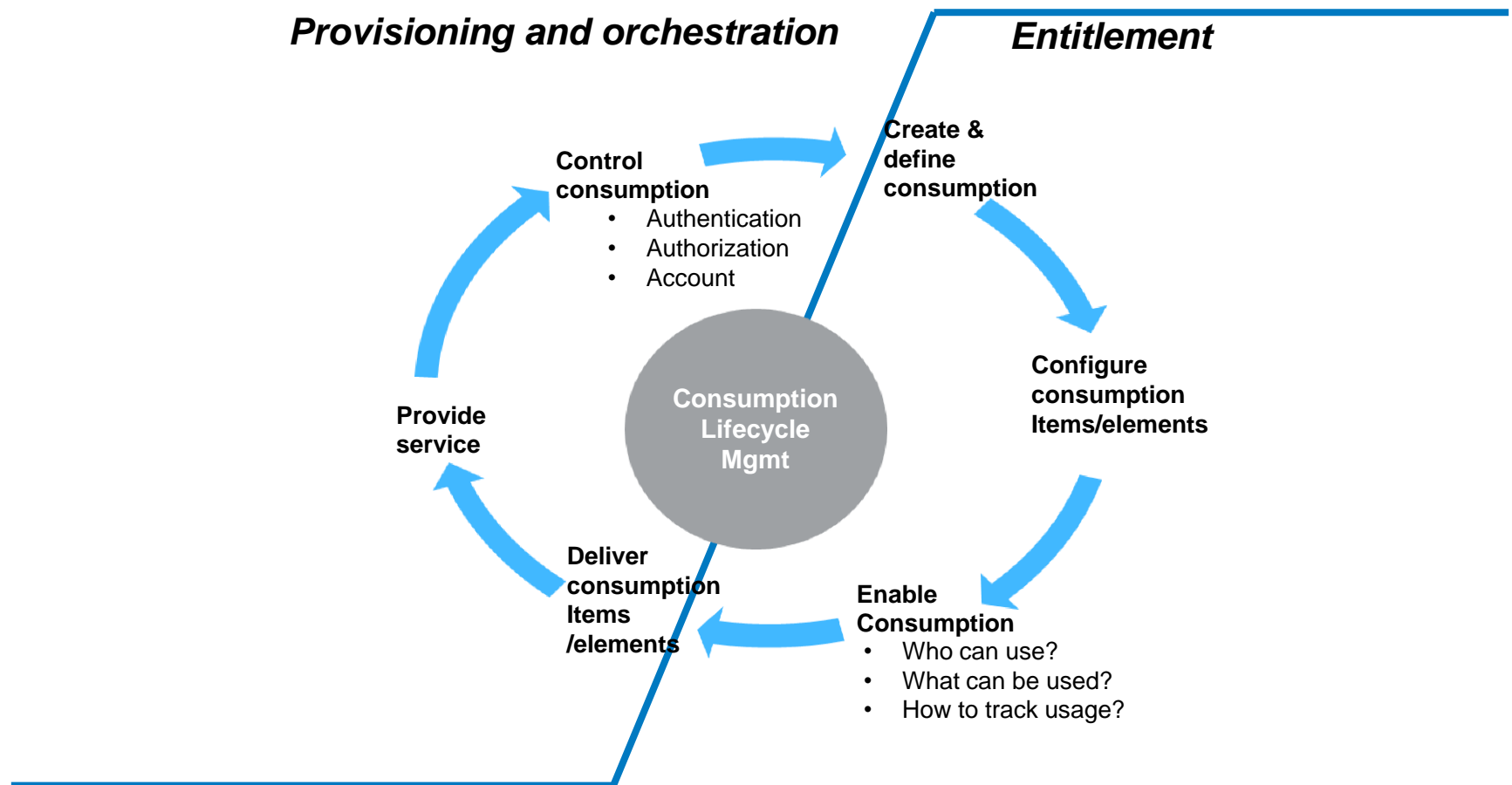
How to increase consumption beyond a good offering?

- Ability to offer, price every consumption point desired by users
- Measuring, rating & billing for the consumption
- Capturing and providing the consumption status for each consumer and enabling in-service consumption variations
- Leveraging trends, collaboration and consumption patterns to create new options for consumption

So where is the problem?

- There is no off the shelf solution that can record, manage, offer consumption information and make it actionable for fulfillment
- There is no rules management capabilities for consumption embedded in the solution that can be managed outside of ERP, CRM, SCM applications creating integration complexity
- There is no integration and no recommendation logic for leveraging social or personal data to recommend, suggest , create new consumption points

Serent
INSIGHT DRIVING INNOVATION

SoftSummit™

Lifecycle view of managing consumption

Provisioning and orchestration   **Entitlement**

Control consumption
- Authentication
- Authorization
- Account

Create & define consumption

Provide service

Consumption Lifecycle Mgmt

Configure consumption Items/elements

Deliver consumption Items /elements

Enable Consumption
- Who can use?
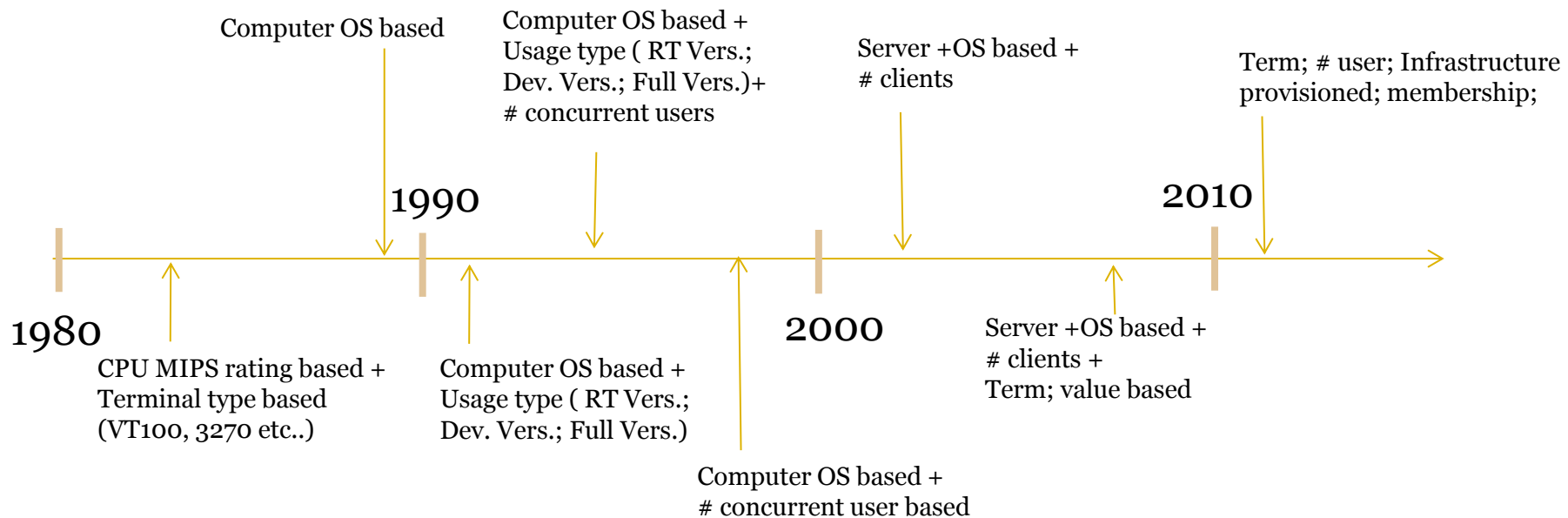- What can be used?
- How to track usage?

Consumption lifecycle is very similar to software licensing lifecycle
In software licensing, you create a license, entitle the licensee/buyer and then control the rights of use of the software by enforcing the licensing policy.

SoftSummit™

SOFTWARE SECTOR: LEADING THE GROWTH OF THE CONSUMPTION BUSINESS MODEL

SoftSummit™

Evolution of software market (1980's to now): Offering and related pricing & terms variations

Computer OS based

Computer OS based + Usage type (RT Vers.; Dev. Vers.; Full Vers.)+ # concurrent users

Server +OS based + # clients

Term; # user; Infrastructure provisioned; membership;

1990

2010

1980

2000

CPU MIPS rating based + Terminal type based (VT100, 3270 etc..)

Computer OS based + Usage type (RT Vers.; Dev. Vers.; Full Vers.)

Server +OS based + # clients + Term; value based

Computer OS based + # concurrent user based

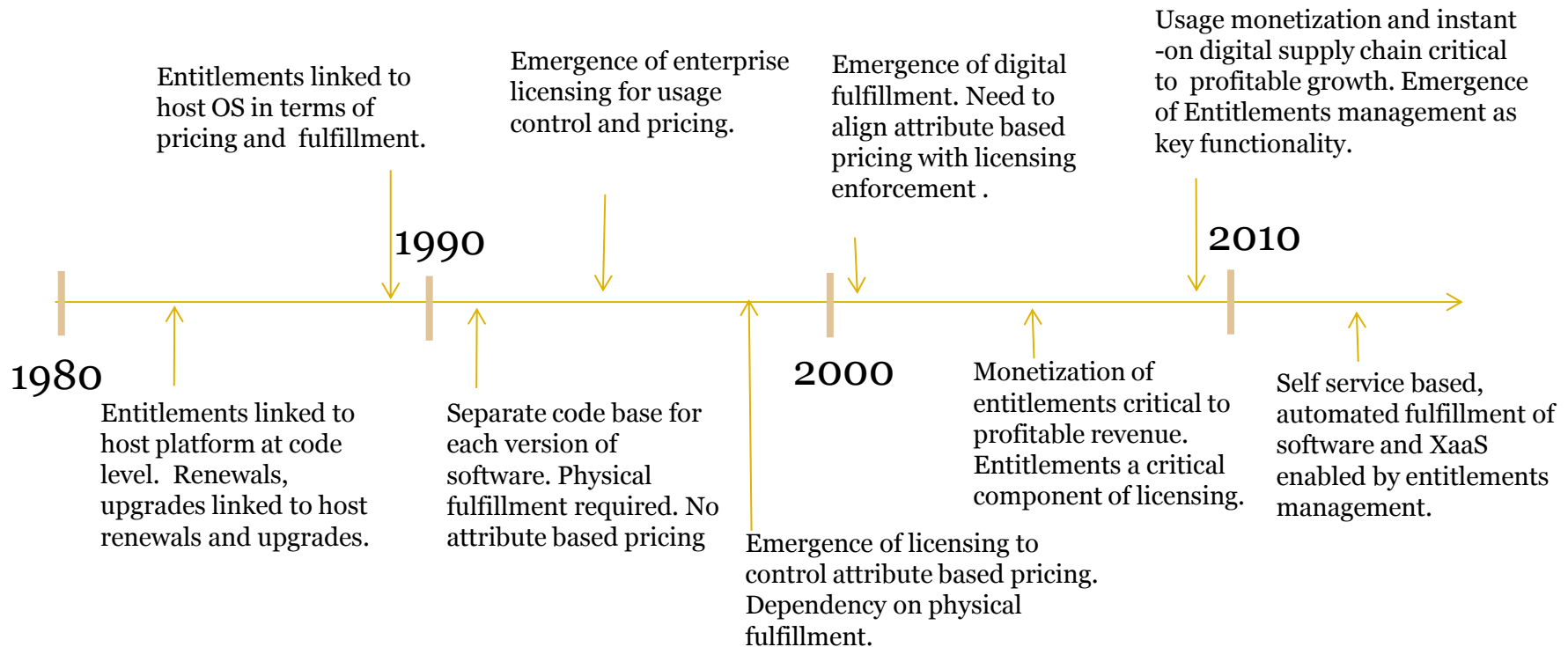SoftSummit™

Evolution of licensing models
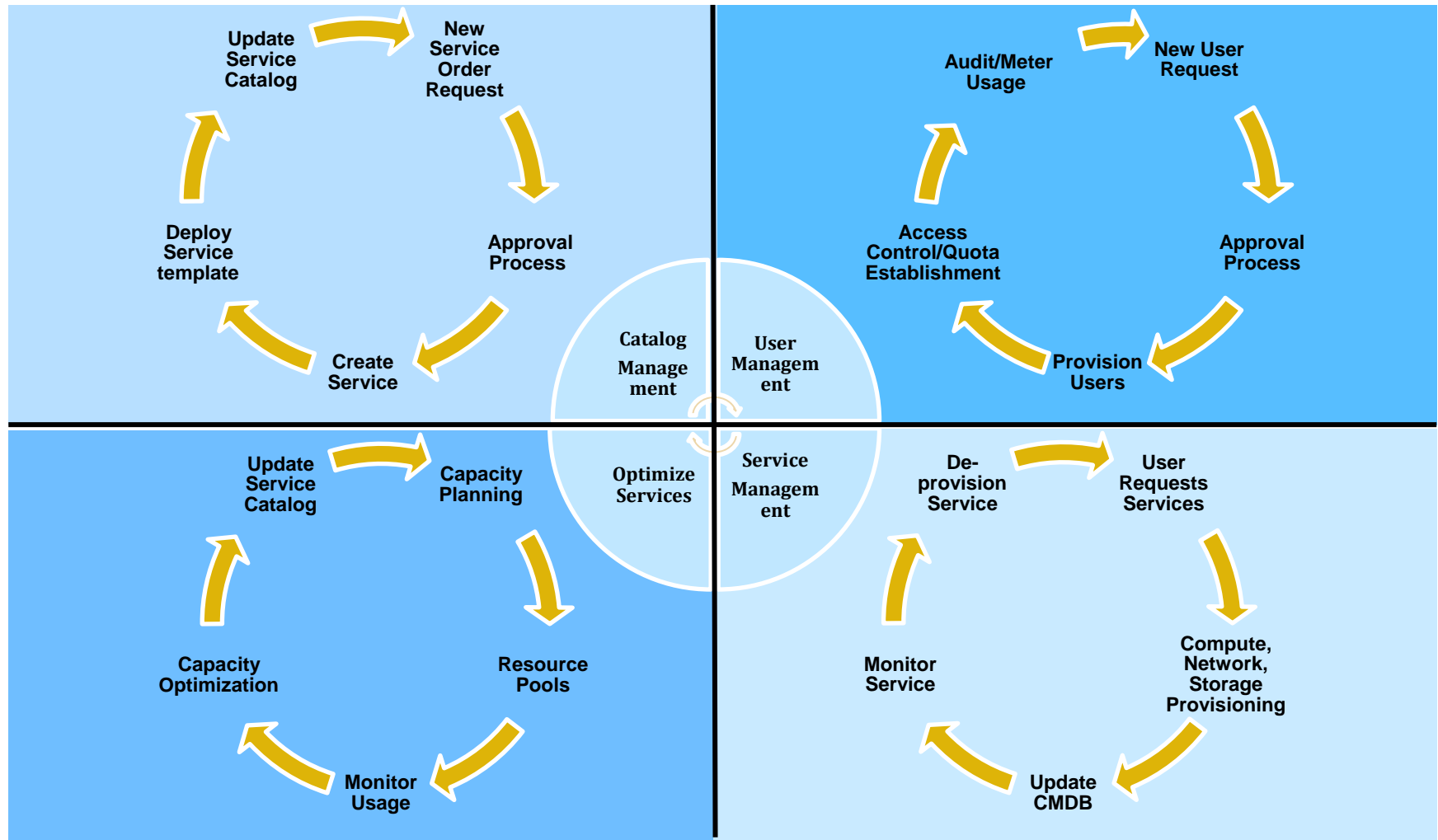
Licensing models / Dimensions	Perpetual Licensing	Term Licensing	Subscription	Consumption or Usage	Value-Based	Open Source	Hybrid	Ecosystem	Marketplaces
Ownership Rights	Perpetuity	Time Limited	Time & Service Limited	Usage Limited	Any	Public	Time & usage limited	Time Limited	Time and membership limited
Typical Delivery	Event Driven Transaction	Event Driven Transaction	Both	Both	Both	Real Time Usage	Both	Subscription	Subscription
Revenue Model	Up-Front	Up-Front or Allocated	Periodic	Variable	Indirect	Support fees	Periodic and variable	Up-Front or Allocated	Upfront and allocated; trade related metrics
Payment Pattern	One time and periodic	Periodic	Periodic	Usage Based/Pay per Use	Royalty/ benefit	None/ periodic for support	Up-Front or Custom	Upfront and Periodic: virtual currency options	Upfront and Periodic
Unit Measure	Per License or Per Seat	Per License or Per Seat	Per Subscriber	Per Technical Metric/ Transaction	Per Business Metric/ Per Feature	Per Transaction or Usage	Per subscriber and technical metrics	Per subscriber	Per Subscriber

SoftSummit™

Evolution of entitlements management

Entitlements linked to host OS in terms of pricing and fulfillment.

Emergence of enterprise licensing for usage control and pricing.

Emergence of digital fulfillment. Need to align attribute based pricing with licensing enforcement .

Usage monetization and instant-on digital supply chain critical to profitable growth. Emergence of Entitlements management as key functionality.

1990

2010

1980

Entitlements linked to host platform at code level. Renewals, upgrades linked to host renewals and upgrades.

Separate code base for each version of software. Physical fulfillment required. No attribute based pricing

2000

Monetization of entitlements critical to profitable revenue. Entitlements a critical component of licensing.

Self service based, automated fulfillment of software and XaaS enabled by entitlements management.

Emergence of licensing to control attribute based pricing. Dependency on physical fulfillment.

SoftSummit™

Software lifecycle management in the consumption model

Catalog Management

- Update Service Catalog → New Service Order Request
- New Service Order Request → Approval Process
- Approval Process → Create Service
- Create Service → Deploy Service template
- Deploy Service template → Update Service Catalog

User Management

- Audit/Meter Usage → New User Request
- New User Request → Approval Process
- Approval Process → Provision Users
- Provision Users → Access Control/Quota Establishment
- Access Control/Quota Establishment → Audit/Meter Usage

Optimize Services

- Update Service Catalog → Capacity Planning
- Capacity Planning → Resource Pools
- Resource Pools → Monitor Usage
- Monitor Usage → Capacity Optimization
- Capacity Optimization → Update Service Catalog

Service Management

- De-provision Service → User Requests Services
- User Requests Services → Compute, Network, Storage Provisioning
- Compute, Network, Storage Provisioning → Update CMDB
- Update CMDB → Monitor Service
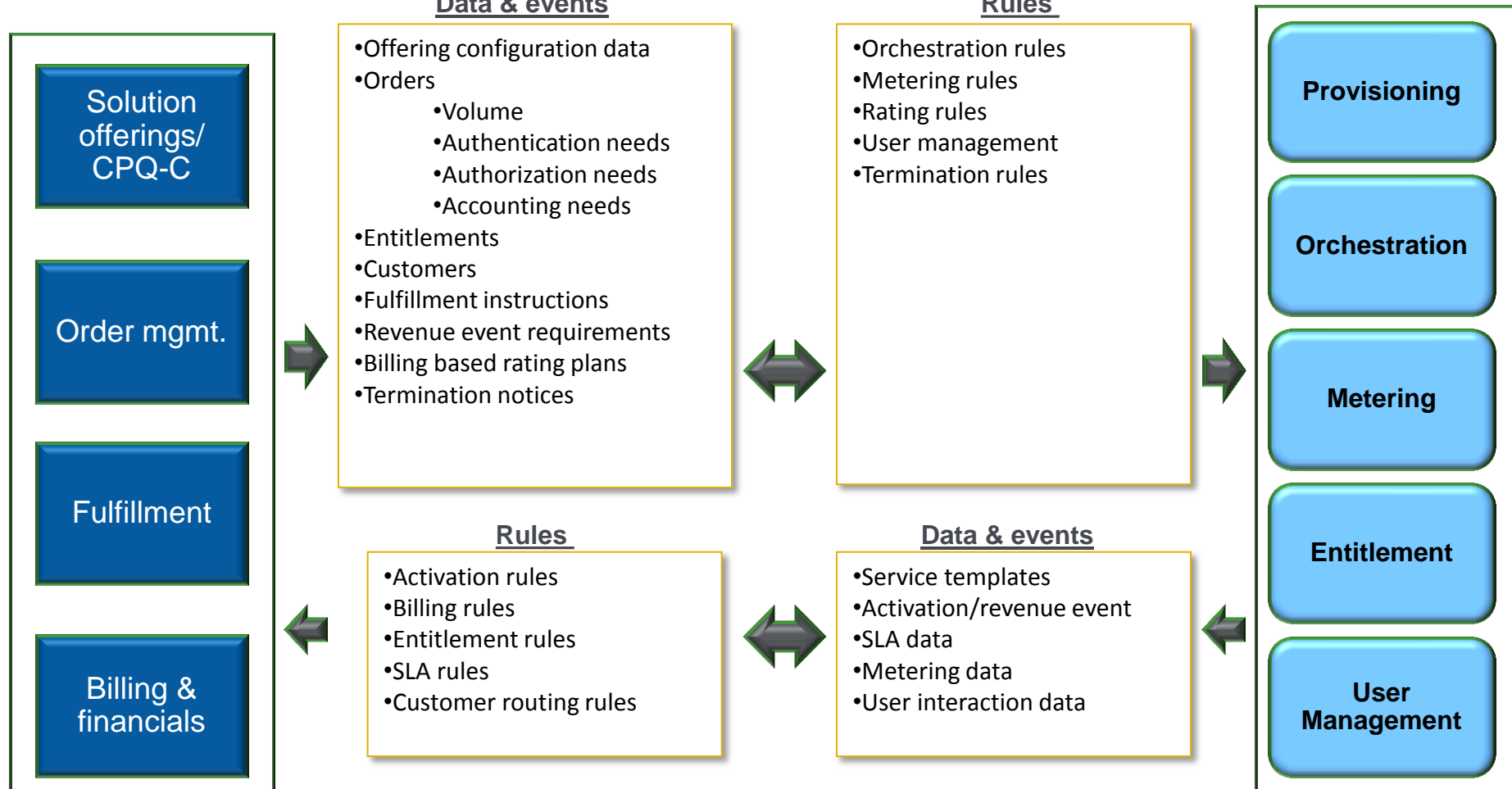- Monitor Service → De-provision Service

The digital supply chain for delivering software in the consumption based model

Q2C platform

Interface(s) between Q2C and digital supply chain for consumption model

Digital Supply Chain

Q2C platform		Digital Supply Chain

Data & events
- Offering configuration data
- Orders
  - Volume
  - Authentication needs
  - Authorization needs
  - Accounting needs
- Entitlements
- Customers
- Fulfillment instructions
- Revenue event requirements
- Billing based rating plans
- Termination notices

Rules
- Orchestration rules
- Metering rules
- Rating rules
- User management
- Termination rules

Rules
- Activation rules
- Billing rules
- Entitlement rules
- SLA rules
- Customer routing rules

Data & events
- Service templates
- Activation/revenue event
- SLA data
- Metering data
- User interaction data

Q2C platform boxes:
- Solution offerings/ CPQ-C
- Order mgmt.
- Fulfillment
- Billing & financials

Digital Supply Chain boxes:
- Provisioning
- Orchestration
- Metering
- Entitlement
- User Management

Critical capabilities for digital supply chain for software..._{cont'd}

Processes	Standard XaaS Capabilities	Sample detailed capabilities
Solution offering / CPQ -C	Customized offerings: configuration options	Time based
		User based
		Consumption based (any 'meterbale' entity)
	Attribute driven pricing	Pricing based on every attribute value for all configuration options
		Price tiering & optimization based on pricing levers (highest value, total value etc..)
Order Management	Rating and rate plan management	Tiered rates based on volume commitment
		Differential rates based on actual service usage/user
	Co-term, renewal, service termination	Freeware conversion (try/buy order types)
		cross –sell / entitlement expansion (more users/usage etc.)
		Upgrade anytime
Financials	Recurring billing	Per contract (without orders or provisioning event based)
		Per 'order' or provisioning event based
		Per billing cycle (consolidated with itemized transactions)
	Ratable rev rec with / w/o VSOE	Provisioning event based revenue recognition
		Time based
		Actual consumption based
	Co-term, True-up	Upgrade/Up-sell (based on usage and/or promotions)
		Cross-sell based (based on promotions and/or bundling)
		Multiple entitlement (for same set of services) based

SoftSummit™
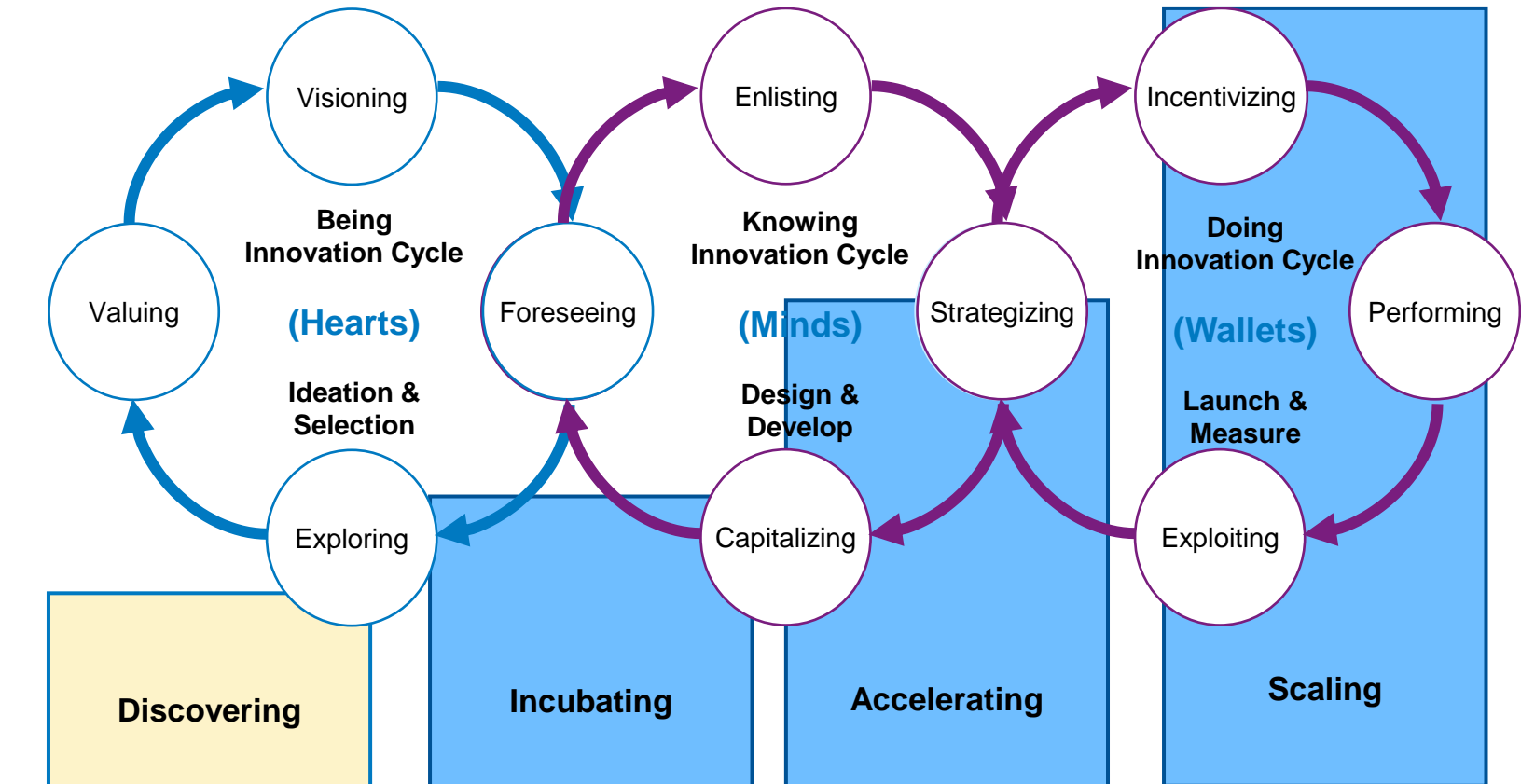
Critical capabilities for digital supply chain for software

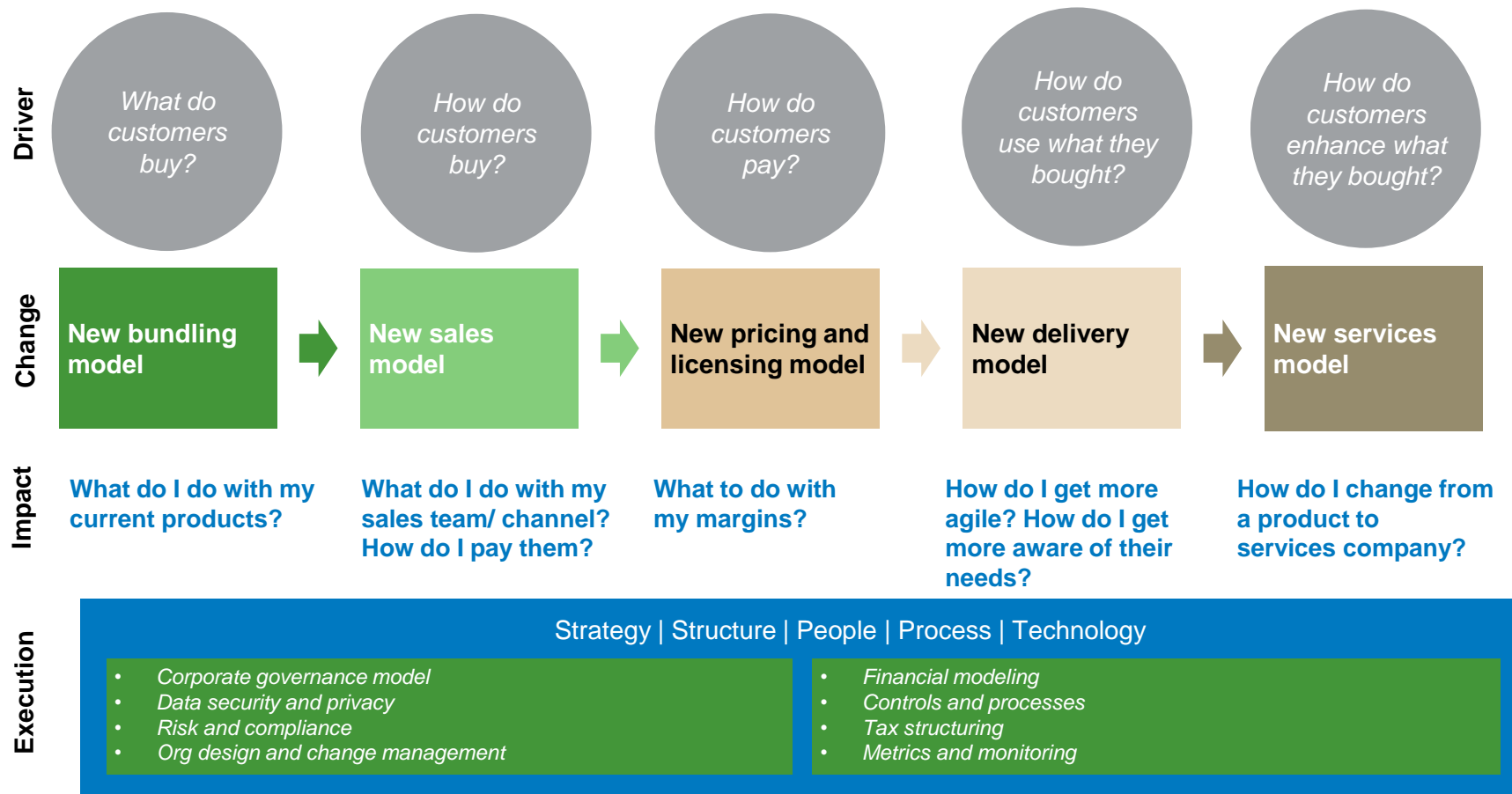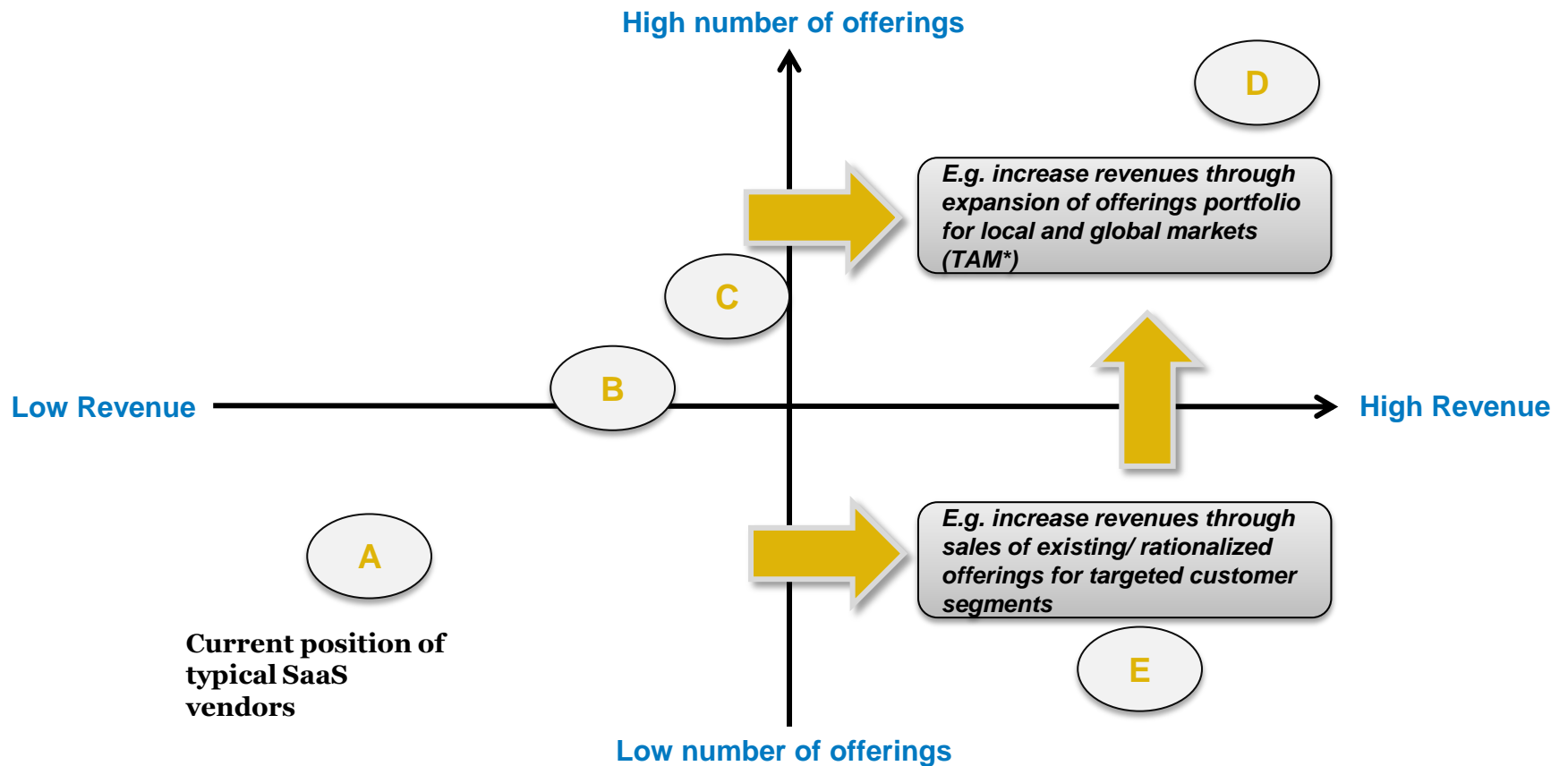| Processes	Standard XaaS Capabilities	Sample detailed capabilities
Provisioning*	Service activation	Per contract
		Per order
		In – line of service
	Infra. management for service delivery	Automated/manual service orchestration
		SLA tracking per service
		SLA tracking with billing adjustments
Entitlement*	Authorization, authentication and accounting	Track & measure consumption by user
		Track & monitor user by level/permissions
		Track service use
	Usage recording & user management	Log based; provider based administration
		Consumer based administration including feature set management
		Dynamic allocation of usage across users per contracts(s)
Service delivery*	Usage, performance reporting	Tracking reports with consolidation by customers, service
		Actionable intelligence to trigger billing intelligence, provisioning changes, dynamic promotions etc..
	Metering	By time and user with/without deactivation capability
		By usage, SLA commitments with overage rules enablement
	Monitoring , SLA management	Log based; off line reporting
		Real-time with rules based resolution and reporting for billing etc..

INSIGHT DRIVING INNOVATION

SoftSummit™

STATE OF THE INDUSTRY

SoftSummit™

State of the industry: Innovation cycle

SoftSummit™

State of the industry: Evolving business

Driver	*What do customers buy?*	*How do customers buy?*	*How do customers pay?*	*How do customers use what they bought?*	*How do customers enhance what they bought?*
Change	**New bundling model**	**New sales model**	**New pricing and licensing model**	**New delivery model**	**New services model**
Impact	**What do I do with my current products?**	**What do I do with my sales team/ channel? How do I pay them?**	**What to do with my margins?**	**How do I get more agile? How do I get more aware of their needs?**	**How do I change from a product to services company?**

Execution

Strategy | Structure | People | Process | Technology

- *Corporate governance model*
- *Data security and privacy*
- *Risk and compliance*
- *Org design and change management*

- *Financial modeling*
- *Controls and processes*
- *Tax structuring*
- *Metrics and monitoring*

SoftSummit™

State of the industry: Growing the consumption business

High number of offerings

D

E.g. increase revenues through expansion of offerings portfolio for local and global markets (TAM*)

C

Low Revenue — B — **High Revenue**

A

Current position of typical SaaS vendors

E.g. increase revenues through sales of existing/ rationalized offerings for targeted customer segments

E

Low number of offerings

TAM refers to Total Addressable Market

SoftSummit™

THANK YOU

Dipesh Biswas   dipeshbiswas@gmail.com

SoftSummit™