

Enterprise Cloud Adventure

- Enterprise Cloud의 현재와 미래

이의형 상무
한국 오라클, CEA

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제5회 **SAMSUNG ORACLE**
Insight Forum

Breakthrough to the Next Stage

Agenda

- **엔터프라이즈 클라우드의 시장동향**
- 성공적인 엔터프라이즈 클라우드를 위한 고려사항과 로드맵
- 오라클의 엔터프라이즈 클라우드 전략

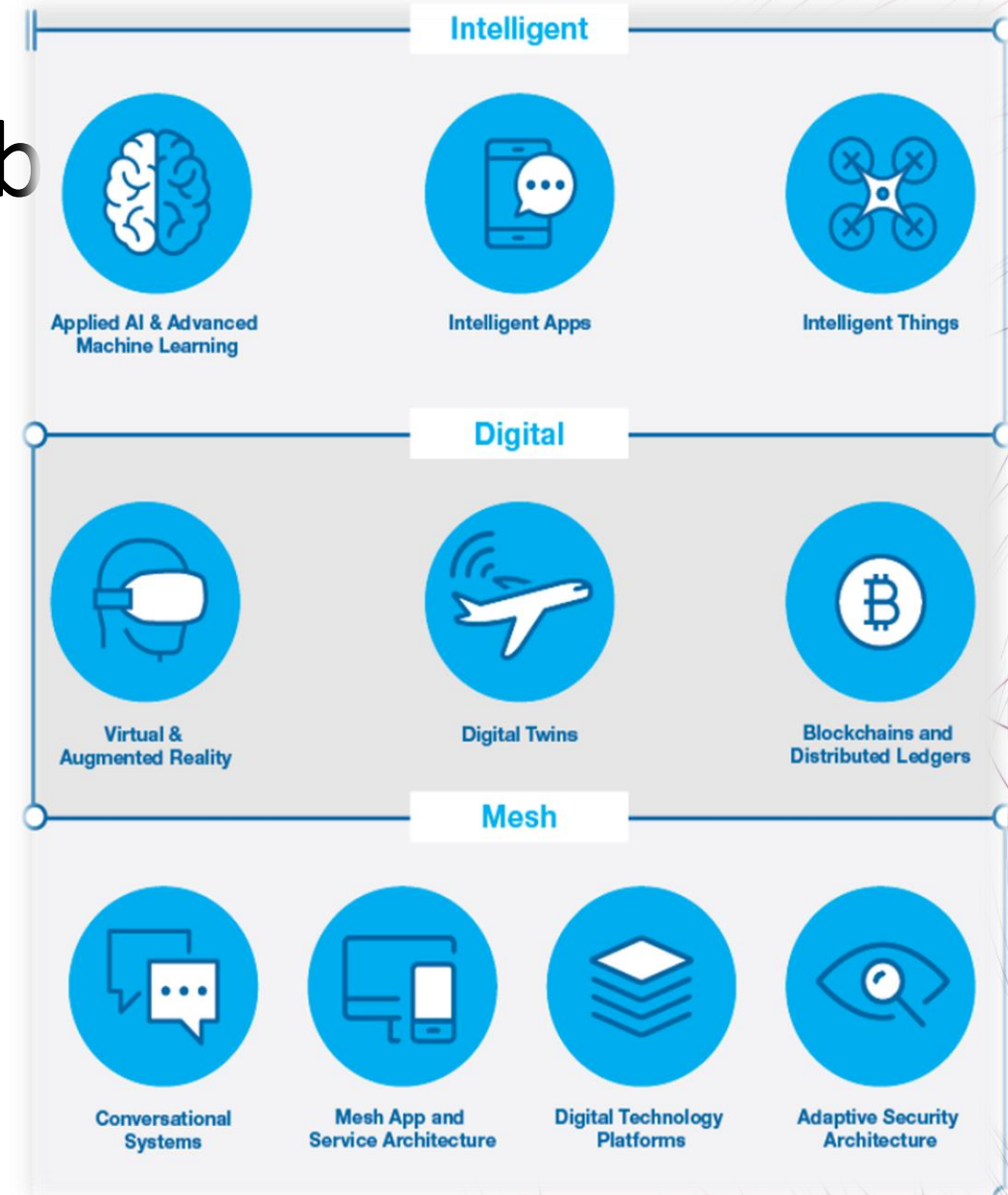
Gartner said, IT Top 10 Keyword

2012	2013	2014	2015	2016
Media Tablets and Beyond.	Mobile Device Battles	Mobile Device Diversity and Management	Computing everywhere (1st)	The Device Mesh
Mobile-Centric Applications and Interfaces.	Mobile Applications and HTML5	Mobile Apps and Applications	Internet of Things (4th)	Ambient User Experience
Contextual and Social User Experience.	Personal Cloud	The Internet of Everything	3D printing (2 nd)	3D-Printing Materials
Internet of Things.	Enterprise App Stores	Hybrid Cloud and IT as Service Broker	Advanced, pervasive, and invisible(1 st)	Information of Everything
App Stores and Marketplaces.	The Internet of Things	Cloud/Client	Context-rich systems (1 st)	Advanced Machine Learning
Next-Generation Analytics.	Hybrid IT and Cloud Computing	The Era of Personal Cloud	Smart machines (2 nd)	Autonomous Agents and Things
Big Data.	Strategic Big Data	Software-Defined Anything	Cloud/client computing (6th)	Adaptive Security Architecture
In-Memory Computing.	Actionable Analytics	Web-Scale IT	Software-defined applications and infrastructure (2 nd)	Advanced System Architecture
Extreme Low-Energy Servers.	In Memory Computing	Smart Machines	Web-scale IT (2 nd)	Mesh App and Service Architecture
Cloud Computing.	Integrated Ecosystems	3D Printing	Risk-based security and self-protection (1 st)	IoT Architecture & Platform

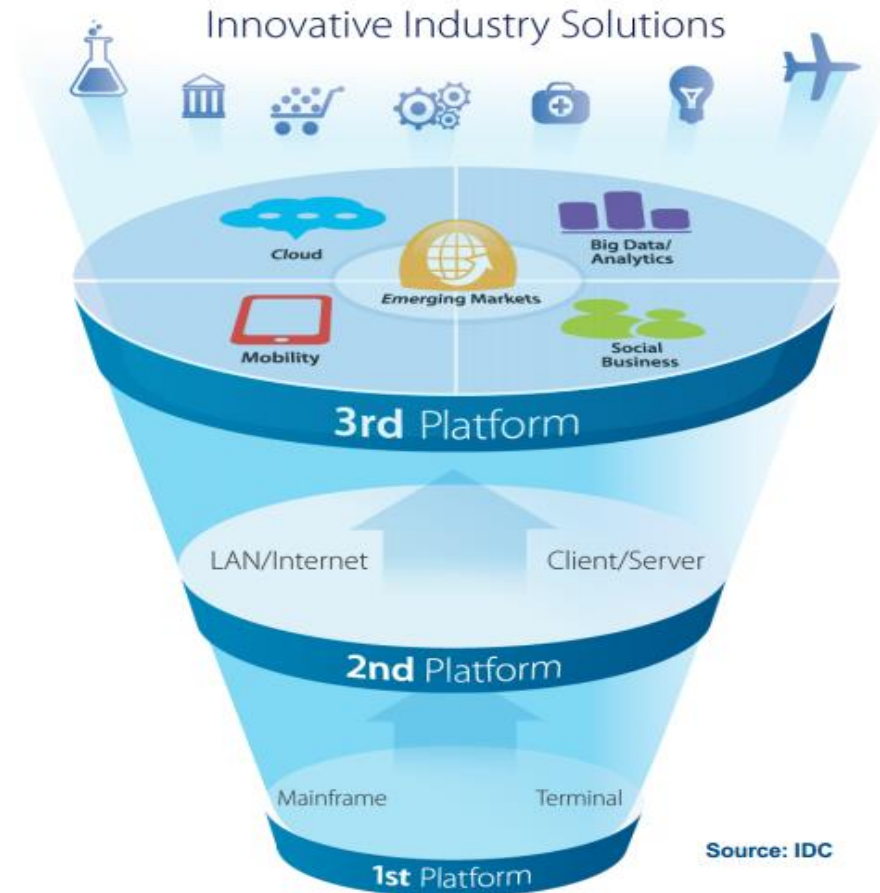
2017 IT Top 10 Key Words b

1. 인공 지능과 고급 머신 러닝
2. 지능형 앱(Intelligent App)
3. 지능형 사물(Intelligent Things)
4. 가상 현실 및 증강 현실
5. 디지털 트윈(Digital Twin)
6. 블록체인과 분산 장부(Distributed Ledgers)
7. 대화형 시스템(Conversational System)
8. 메시 앱 및 서비스 아키텍처(MASA)
9. 디지털 기술 플랫폼(Digital Technology Platform)
10. 능동형 보안 아키텍처(Adaptive Security Architecture)

Source : <http://www.ciokorea.com/news/31675#csidx57fc8280a609f5cb8eeaf8e18f3452c>

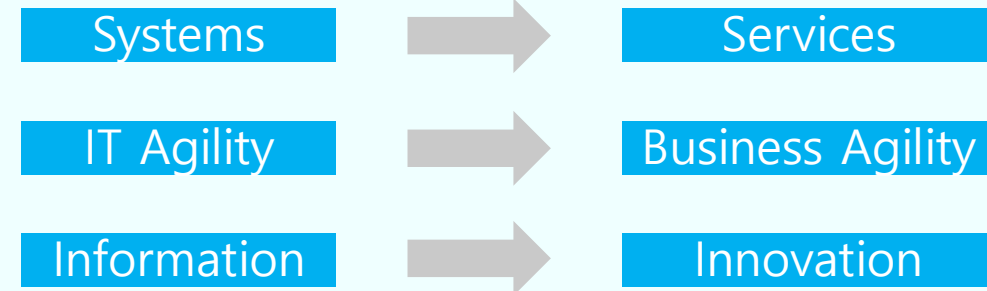


Paradigm Shift

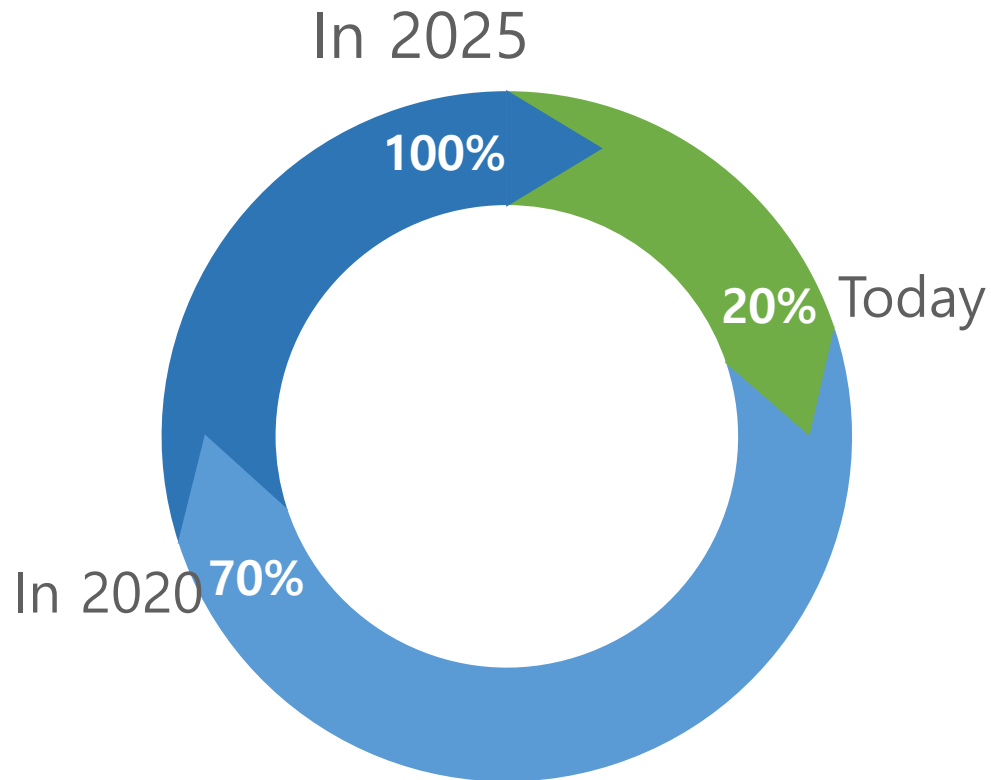


- Paradigm shift
- Every 20–25 years
- Impact on vendors and channel
- By 2020: 40% of revenue from 3rd Platform and reached USD\$1.7 Trillion.

3rd Platform Implications for CIOs

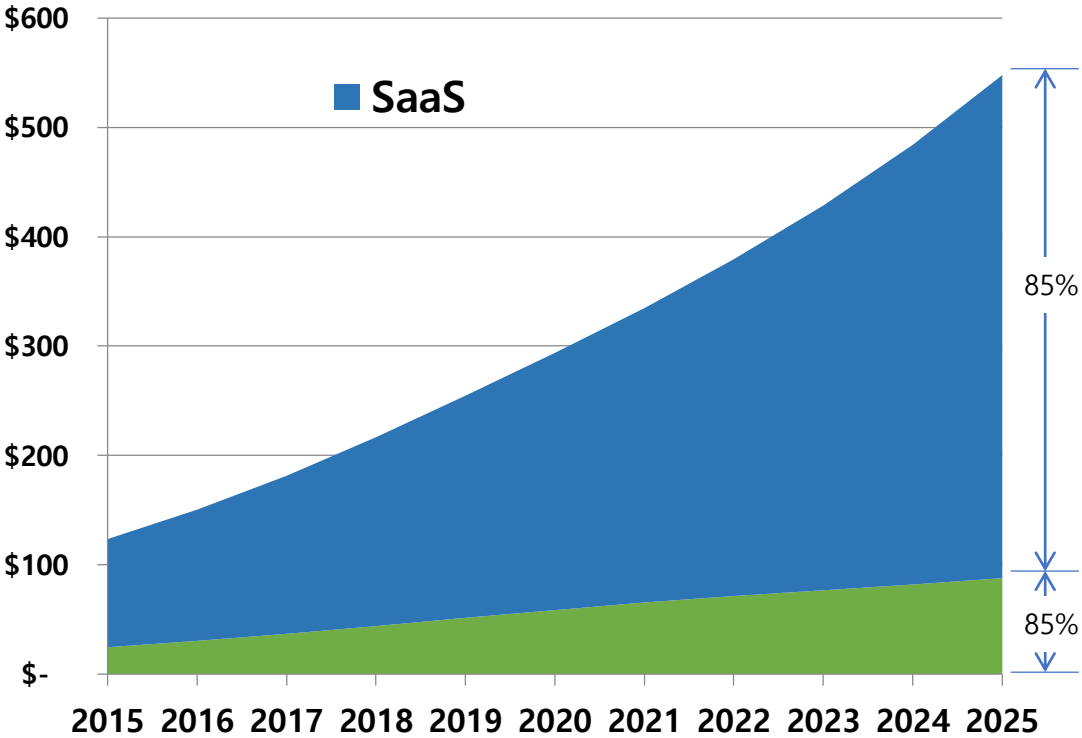


100% Of New Dev/Test Will Be Cloud In 2025



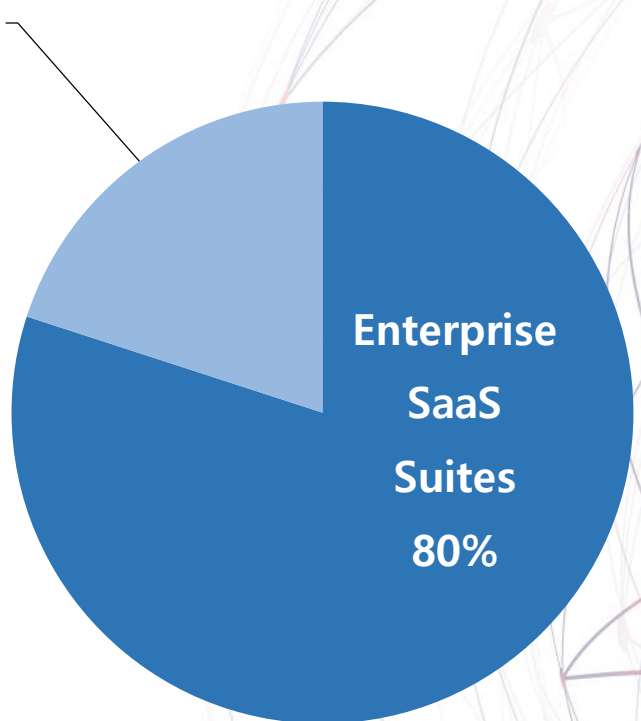
- One of the least managed and governed areas in IT
- Dev/Test suites offering rich standards-based frameworks and languages will dominate
- Dev/Test suites include:
 - Integrated development environment
 - Support popular languages
 - Mobile dev tools
 - SOA dev tools
 - Database dev tools
 - Integration dev tools
 - And much more
- 30% to 40% of IT spending is Dev/Test, making it an attractive Cloud workload for cost savings.

By 2025 80% of Production Apps Will Be in the Cloud



Total Public & Private Cloud Markets (US\$ billions)

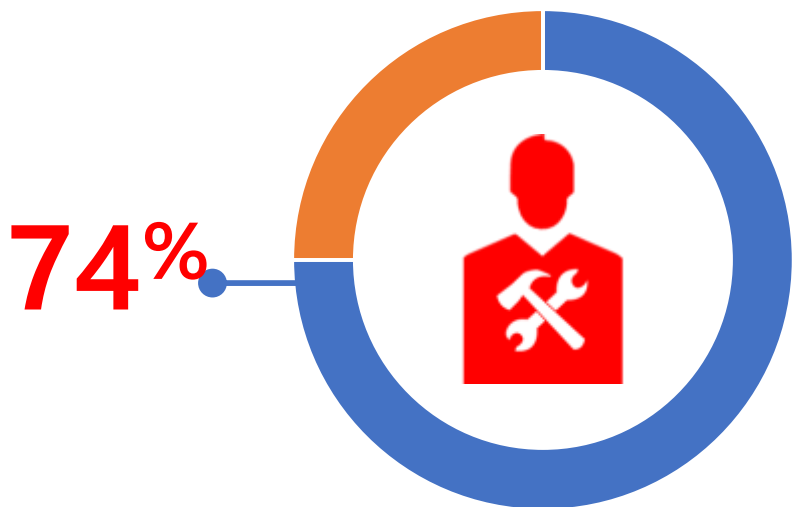
SaaS Market In 2025



Full Suite Requires 100's of Applications:

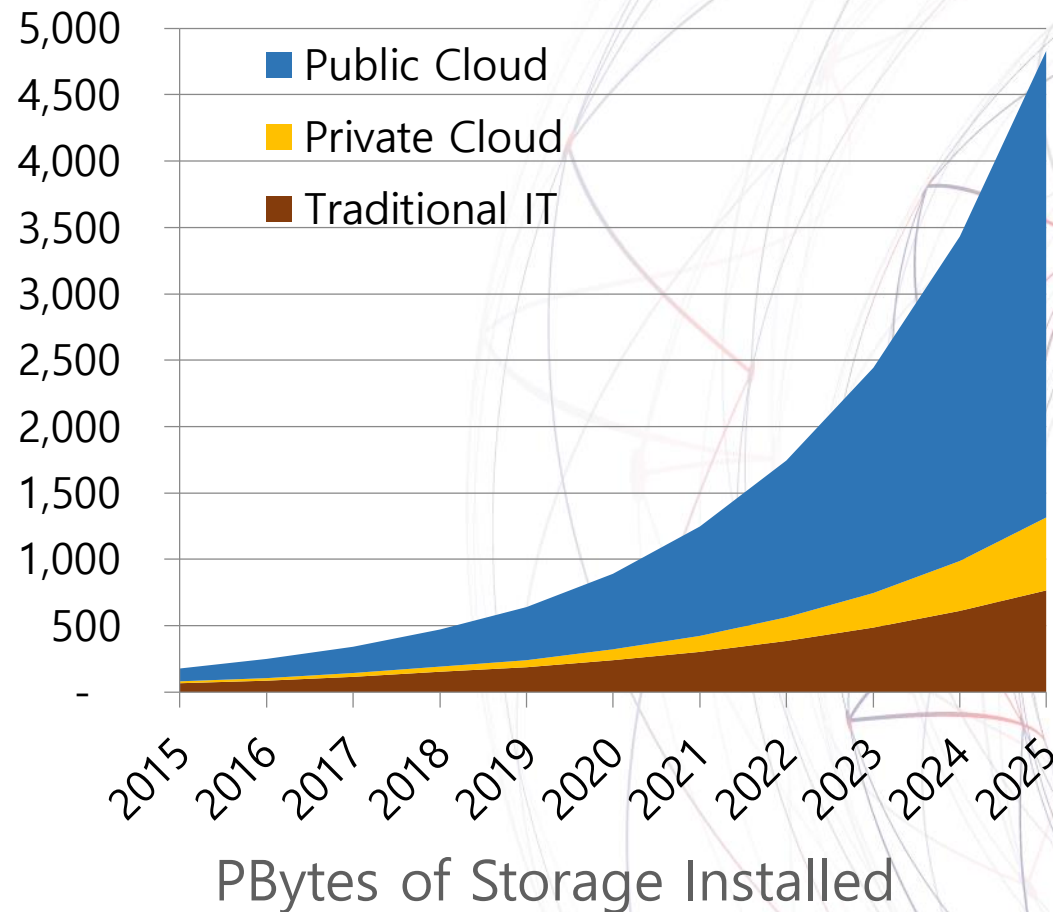
- CX, HCM
- ERP, EPM, SCM, Data

By 2025 Virtually All Enterprise Data Will Be Stored In Clouds



**OF ORGANIZATIONS TAKE
3 MONTHS+ TO PATCH**

- Oracle uses its full security IP to run its Cloud
- Full encryption by default
- Implement latest patches rapidly across entire infrastructure
- More secure than anyone



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Enterprise Workload Today

Public Cloud

On Premises



75%의 엔터프라이즈 업무는 여전히
On Premise에서 운영 중

More than 80% of Enterprise IT Organizations Will Commit to Hybrid Cloud Architectures by 2017, Vastly Driving the Rate and Pace of Change in IT Organizations

IDC FutureScape: Worldwide Cloud 2016 Predictions

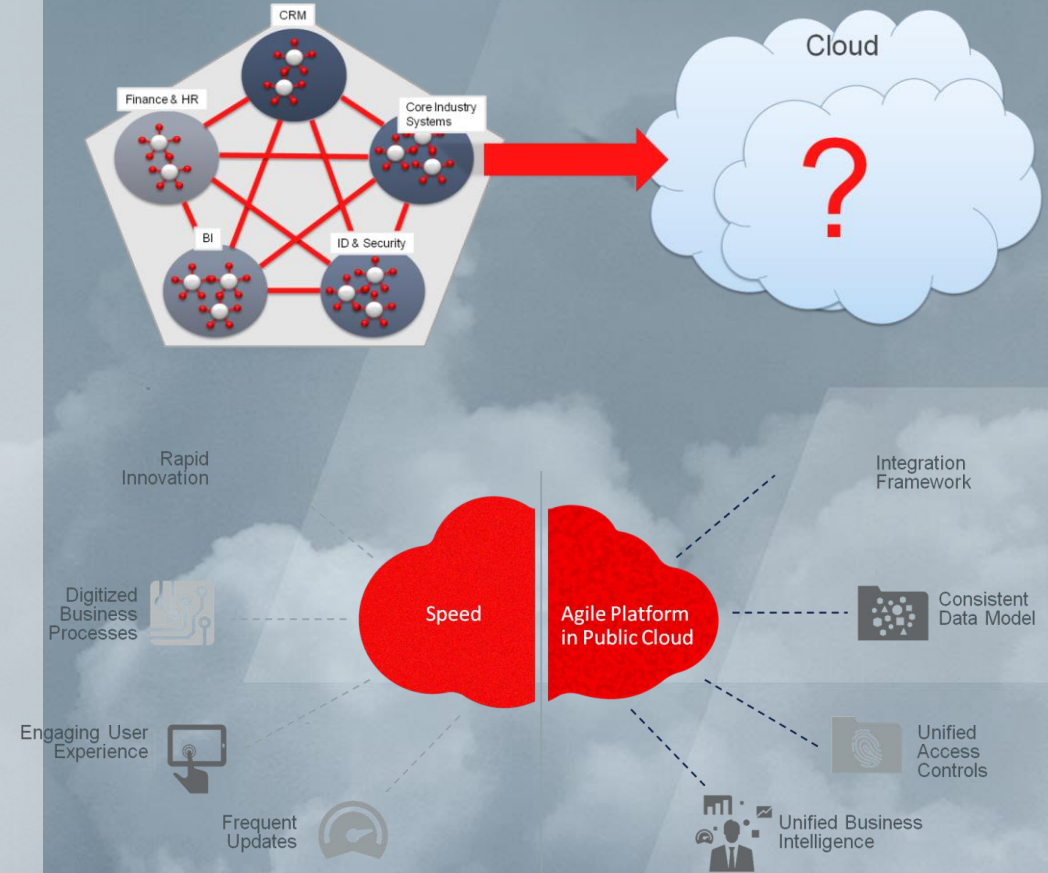
Agenda

- 엔터프라이즈 클라우드의 시장동향
- **성공적인 엔터프라이즈 클라우드를 위한 고려사항과 로드맵**
- 오라클의 엔터프라이즈 클라우드 전략

Cloud 서비스 도입의 의문점과 이슈들



- 어디서부터 어떻게 시작해야?
- SaaS, PaaS, IaaS, Hybrid 등 수 많은 선택 옵션들 중에 어떤 것을 선택해야?
- 시스템 복잡도를 줄이기 위해서는 무엇을 어떻게?
- 어떤 어플리케이션이 현재 상황에 가장 적합?
- 운영에 어떤 영향들이??
- 데이터 오너십을 유지하는 방법은?
- 거버넌스는 어떻게 체계화해야?

- 보안, 규정 및 규제 이슈들과 민감함 IP 보호는 어떻게 다루어야?
- Integration은 어떻게?
- MDM, Data Governance, Data Quality 에 대한 영향들은?
- 어떻게 관리하고 통제해야?
- Cloud Silo로 인한 데이터와 프로세스의 분산 문제는 어떻게 해결해야?
- Cloud 브로커 역량은 어떻게 배양해야?....



Cloud Transformation Strategy

- Consider three differentiating criteria
- This perspective drives your decisions

Business Drivers	Pure \$ savings	vs.	Business Agility
Project Control		vs.	
Business Model	IT as Support	vs.	IT as a Business

*Is your cloud project **'cutting costs'** or **'driving business'**?*

Cloud Transformation Strategy

Business Agility

- Digital Enabler
- Business Transformation
- Standardized Process
- Center of Business Ecosystem

1

**Selection
Architecture
Solution
Evaluation**

2

Architectural Simplicity

- End-to-end Cloud Capability
- Consolidated Integration
- Process Management
- Enterprise Security

Operation Efficiency

- Cost Reduction
- Silos to Services

3

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Case Study : "GE의 혁신 그리고 클라우드"

' Build or Buy'



GE CIO
Jim Fowler



- Buy 할 수 있으면 Build하지 않겠다.
- 그 대신 **IT 인력을 혁신 업무에 배치**한다.
- 가스터빈, 기관차등에서 나오는 **데이터 분석에 포커싱**한다.
- **차별화 포인트에 대한 매일 논의**

- GE의 130년 역사 중 가장 큰 변화: Core Industry 회사로 변모 중
 - ✓ 예) 금융매각
 - ✓ 2020년까지 **15B\$매출을 Digital Product/Digital Service**에서
- Operation Tech는 Digital Convergence 필요
 - ✓ Cloud as Enabler: **2020년까지 70% Application Load를 Cloud에 올릴 것**
 - ✓ Oil and Gas의 경우, Quotation에 소요 비용을 65,000\$에서 6,000\$로 절감
 - ✓ **App 변경에 20 일 ⇒ 하루 미만**
 - ✓ HCM 클라우드 덕분에 10M인원을 추가 소



Case Study : GE의 新선언... "톱 10 소프트웨어 기업이 될 것"



• 제프 이멜트 GE CEO. 2015.11.29
• @ 'Minds + Machine conference 콘퍼런스': SF

- GE는 전세계에서 10위권 소프트웨어 기업으로 발돋움할 것
- GE 소프트웨어 산업은 매년 20% 성장
- 2020년까지 SW사업으로 15B\$ 목표 (주: 2015 GE SW 매출액 6B\$)
- 지멘스, 캐터필러 같은 전통적인 경쟁자는 물론 소프트웨어 업체와도 경쟁

- 빅데이터를 활용한 공장 효율화에 승부
 - ✓ 지능형 송전망으로 전력 생산성을 높이는 'Digital Power Plant'
 - ✓ 공장 설비에 센서를 달아 기계 결함 등을 운영자에게 즉각 알려주는 'Brilliant Factories'
- 'Predix' 소프트웨어 개발 지원 플랫폼
 - ✓ 원격으로 공장 설비를 감독하고 빅데이터를 수집하며 기계간 서로 소통해 각종 문제를 해결하는 데 도움
 - ✓ 프레딕스의 개발자를 **현재 4000명에서 2016까지 2만명으로 확장** 예정
 - ✓ 2015 프레딕스 **매출 6B\$**

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"GM의 마켓 접근방식의 변화, 클라우드"



Social Command Center – VoC, 마케팅, 판매 ~ 서비스까지의 Social 상의 전 과정 모니터링

추진 배경 및 목표

- 3개의 주요 부서들 (마케팅, 광고,고객서비스) 간의 통합 Social 관리 및 모니터링 필요성.
- 마케팅 부서와 PR 부서간의 협업이 매우 중요해지고 있으나 별도로 움직여 왔음.
- 부서별 별개의 Agencies, 솔루션 (오라클, 래디안6 등)들을 통합할 필요성 (프로세스, 툴 등)

활용 사례



솔루션

- **Social Relationship Management**
 - Social 상의 고객의 Body Language 트래킹 및 VoC 분석.
 - Social 채널을 활용한 커뮤니케이션 및 Target 광고.

구축 후 결과

- **Marketing Support 반응률: 40%**
- **Customer Care 반응률: 50%**
- **Engagement 비율: 200% 향상.**
- **3시간 이내 대응률: 55%**
- **상담원 생산성: 시간당 6 포스팅**
- **상담원 Quality 점수: 95%**

The Current Social Structure | Marketing & PR | U.S.

6 Brands

4 Agencies

63 Owned Social Channels

2 Blogs



LinkedIn Wins Gartner Customer Service Excellence Award:

2015.9월 시상



- 97% 셀프 서비스 비율(기존 Knowledge 정비)
- Instead 10,000 staffs, maintain 800 staffs, while 40% rev y-o-y grow.
- +23% in customer satisfaction !!

Congratulations!

Announcing the 2015 Gartner & 1to1 Media CX Excellence Award Winners

[View the Winners](#)



Gartner Customer 360 Summit

9 - 11 September 2015 | San Diego, CA

By Tuula Fai on Jun 22, 2015 https://blogs.oracle.com/cx/entry/linkedin_wins_gartner_1to1_media

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•기타: 트래픽의 50%: 모바일



고객 VoC: 비즈니스 효익: 10,000명 대신 800명 근무



"Help your customers help themselves"

1. *LinkedIn expected to employ 5,000- 10,000 service representatives.*
2. *Instead of 5,000-10,000 reps, LinkedIn maintain 750- 800 agents, while growing 40% rev y-o-y*
3. *With **Oracle Service Cloud**, LinkedIn achieve a **97% self-service rate***
4. *LinkedIn 50% of its web traffic came through mobile*
5. *21% of users accessing its knowledge center were not there to solve a specific issue, but instead to **learn about the product and develop their career.***
6. *LinkedIn placed emphasis on creating **knowledge base** articles and a mobile Help Center .*
7. *Eg: Members placed high value on rapid response time. **With the help of Oracle Service Cloud, LinkedIn achieved an 85% decrease in average initial response time, a 68% decrease in resolution time, and a 23% increase in customer satisfaction!***

By Tuula Fai on Jun 22, 2015 https://blogs.oracle.com/cx/entry/linkedin_wins_gartner_1to1_media

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Optimised Cloud Strategy

Application First

- If appropriate, move to a cloud service at the first opportunity
- Co-ordinate move with a business transformation or major application upgrade

If not then ...

Platform Second

- Move differentiating, critical and strategic applications to PaaS
- Co-ordinate move with technology standardisation or version update
- Use PaaS to fill SaaS functional whitespace

If not then ...

Infrastructure Third

- For niche, novel, non-critical or legacy applications, IaaS is a good option
- These are low-level building blocks of typically 'compute' or 'storage'

If not then ...

Do Nothing

- Some applications make no sense to move, or a move can't be cost-justified
... so don't

Profile Services & Workloads

First Inventory Your Business Applications

Suitable for cloud now

- ✓ Time based
- ✓ Very parallel (i.e. batch)
- ✓ Spiky traffic
- ✓ Capital intensive (especially startup)
- ✓ Proof of Concept
- ✓ Low utilization
- ✓ Less deployment costs
- ✓ High bandwidth costs / high real estate

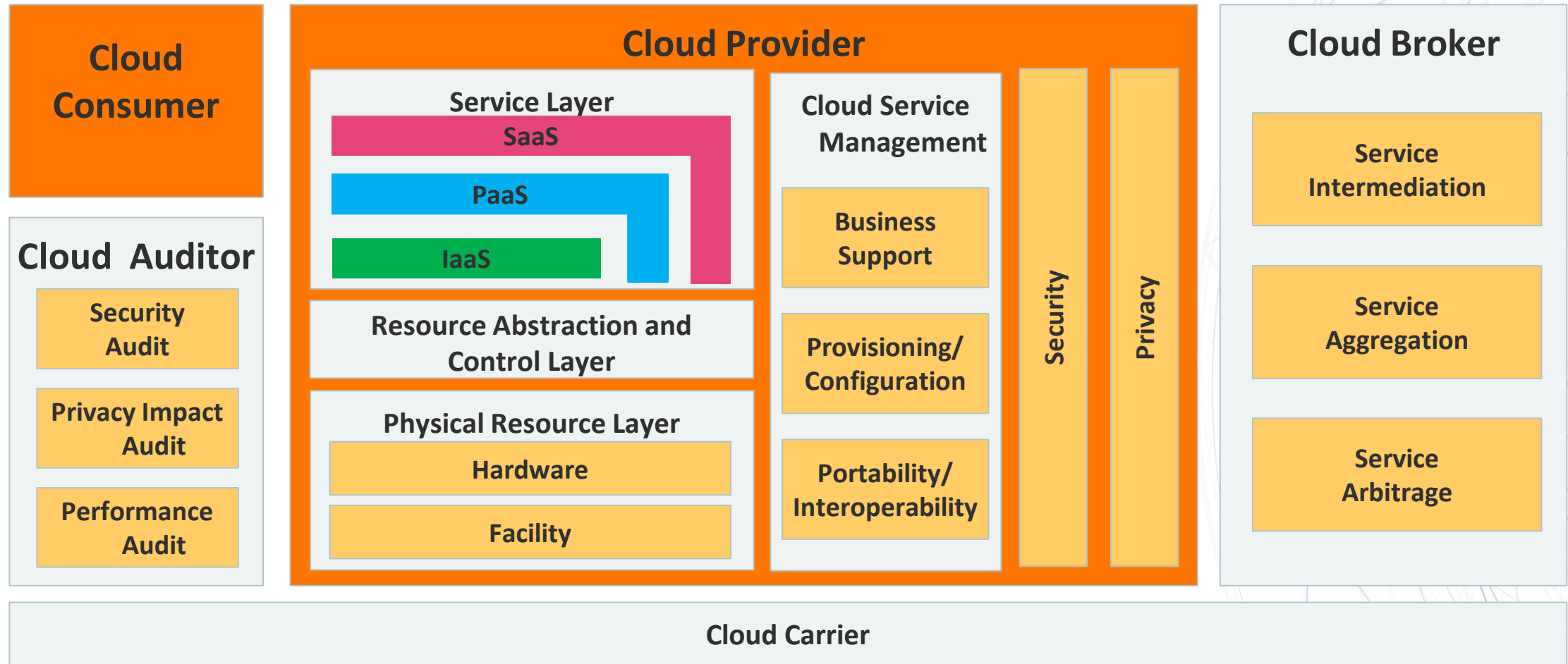
Not as suitable for cloud

- ✓ Vertically scaled applications
- ✓ Consistent load levels
- ✓ Latency sensitive applications
- ✓ Insecure applications
- ✓ Hardware device dependent (e.g. fax server, SNA gateway)
- ✓ ISV unsupported
- ✓ Per CPU licensed applications

Step by Step, Deploy to the Cloud



Deploy to the Cloud - Who/where I am,



Deploy to the Cloud - Collaboration Approach

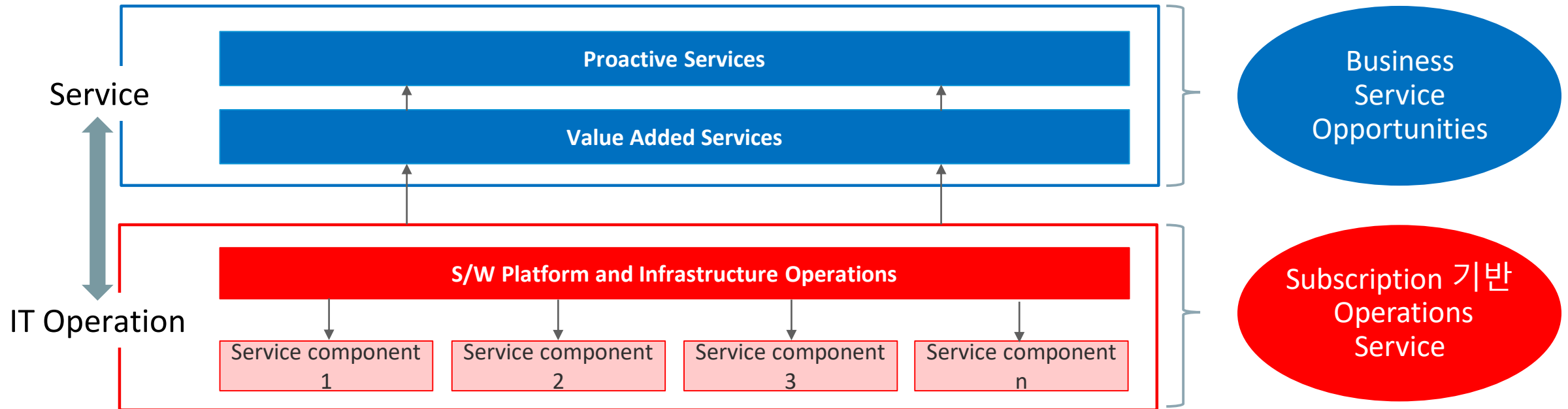
Business Agility \Rightarrow Architectural Simplicity \Rightarrow Operation Efficiency

ISV Service Provide based on SaaS Usage

- Revenue is generated from end consumers by the consumption of the *Business Services* (*Value Added -> Proactive*)

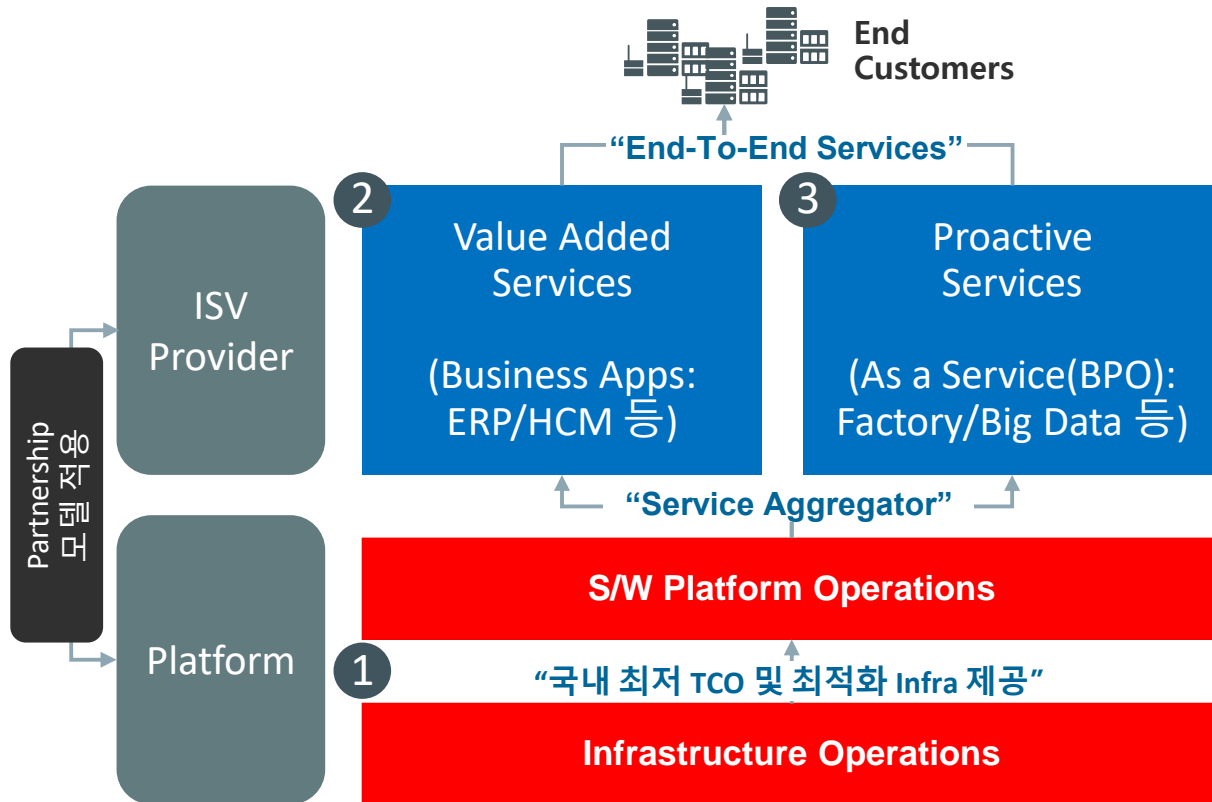
Platform provider based on PaaS/IaaS Usage

- Revenue is generated from Partner by exposing Platform and Infra services and offering maintenance/hosting services



Deploy to the Cloud - Collaboration Approach

Business Agility => Architectural Simplicity => Operation Efficiency

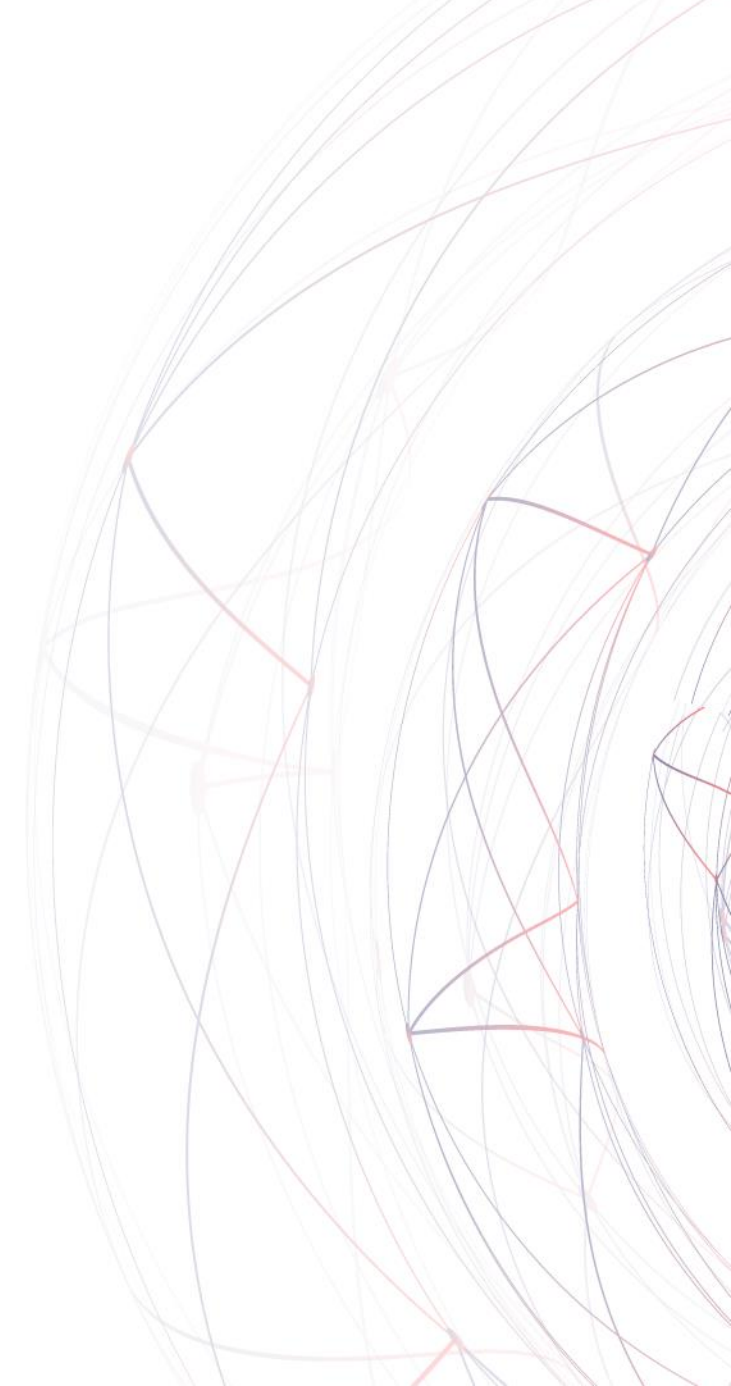


Strategic Approach

- 1 Cloud like Machine 기반 Operation 환경 마련 (Cloud 시장 진입을 위한 기반 Infra 확보 및 Captive 고객 대상 서비스 주력)
- 2 타 Cloud Service 사업자와 파트너십 혹은 기존 서비스 전환
Re-selling 통한 Cloud Service 시장 간접참여로 Cloud insight 확보
- 3 Proactive Service 역량 확보 및 확장 (ISV Partnership 고려)
 - 기존 고객 Insight 기반 시장 확보 시 기회 개발/확장

Agenda

- ICT Today
- Cloud Transformation Strategy
- Oracle Cloud Strategy for Enterprise



A large bridge structure, possibly a suspension bridge, is shown from a low angle, looking down a road that leads towards the bridge. The bridge's steel truss structure is prominent, and the sun is shining from the end of the road, creating a lens flare effect. A large red overlay covers the middle of the image, containing the text.

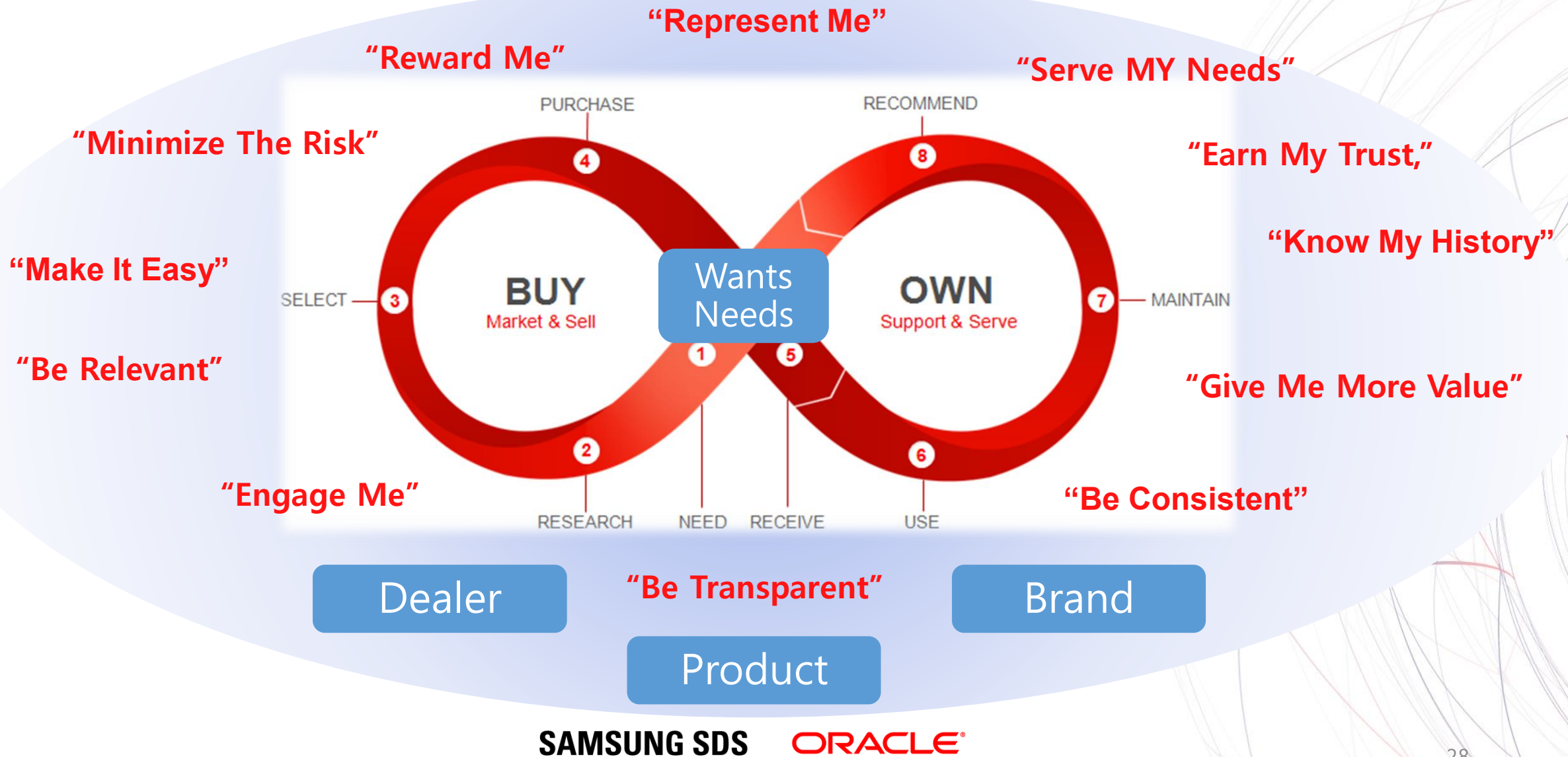
Oracle Provides Service Platforms and Paths



Oracle Builds

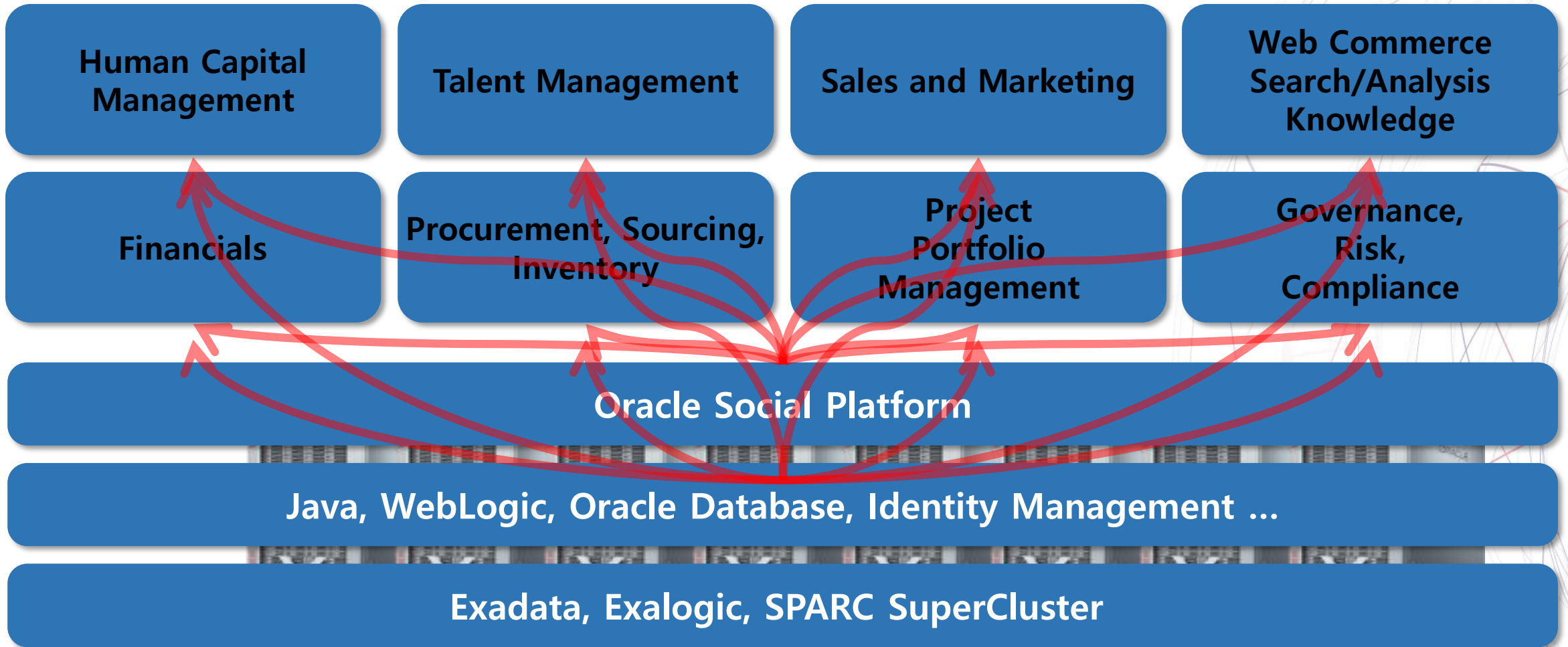
A **complete, open, and secure** platform that spans **all layers** of the cloud, and provides **choice** and **access** to intelligence

End-to-End Customer Journey



Built on Best-in-Class Cloud Services

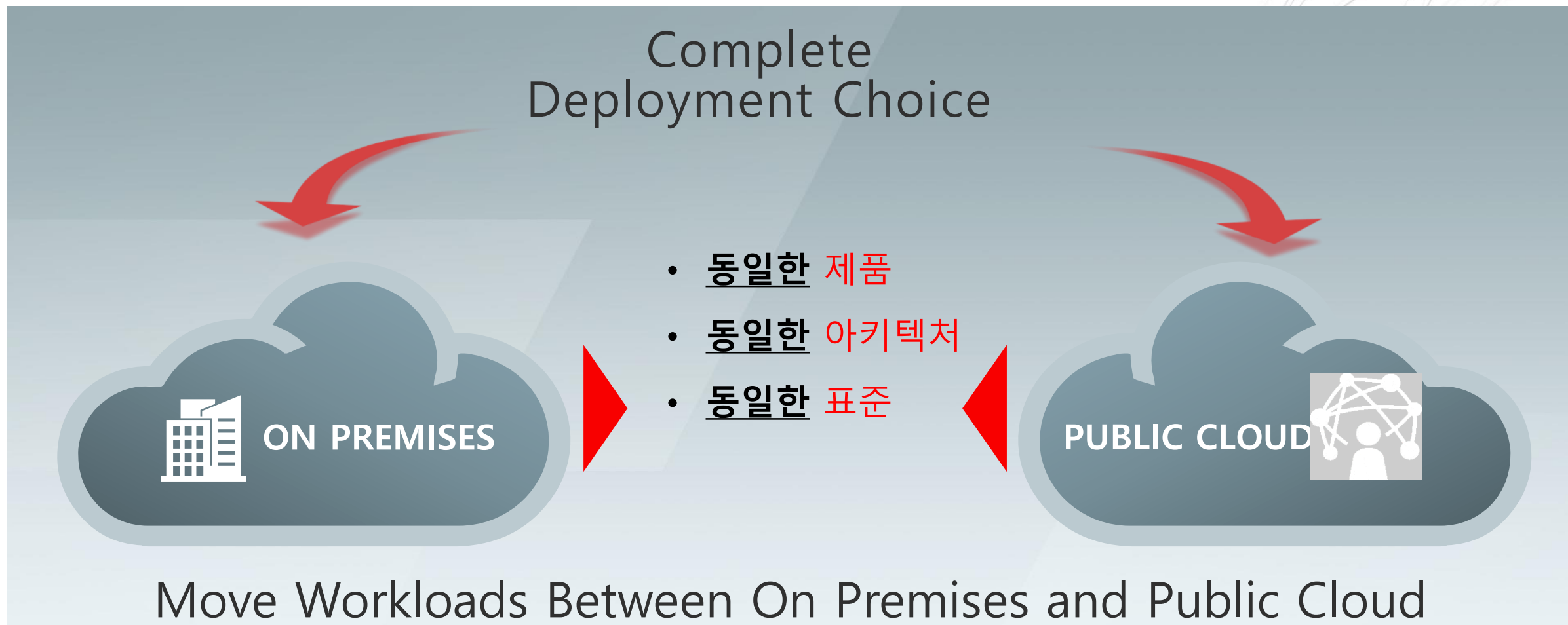
Combination of Innovation and Strategic Acquisitions



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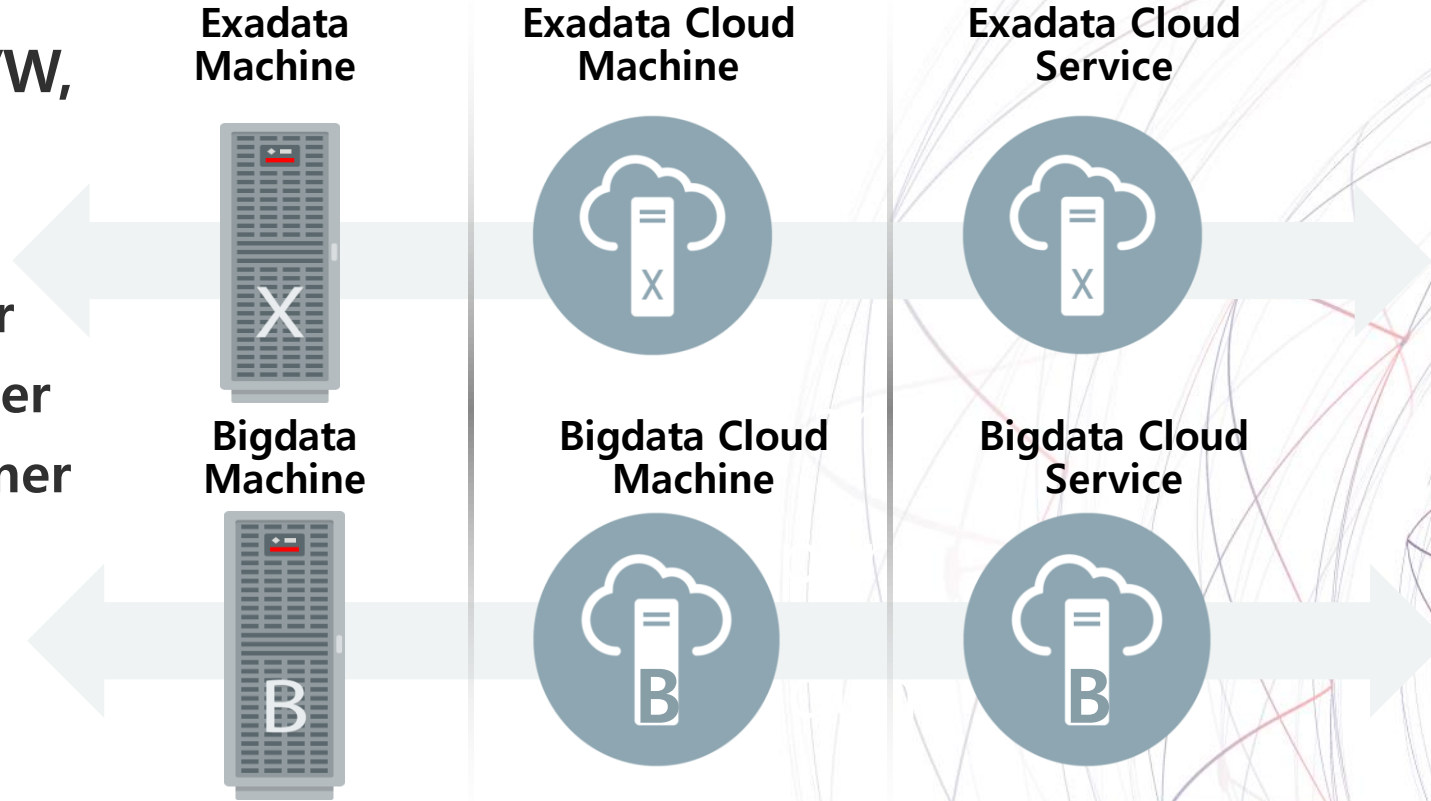
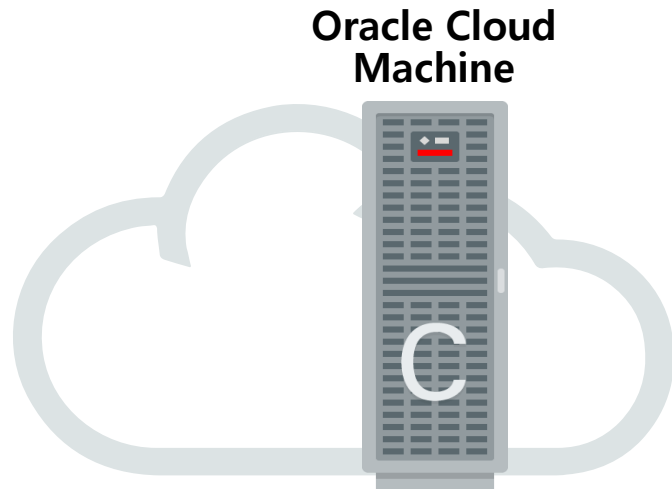
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Compatible and Coexistent Hybrid Cloud



Oracle Cloud@Customer Services

- 고객사에서 이미 검증된 동일한 H/W, S/W로 구성된 Cloud Machine
- 새로운 서비스 소개
 - Oracle Cloud Machine@Customer
 - Exadata Cloud Machine@Customer
 - Big Data Cloud Machine@Customer



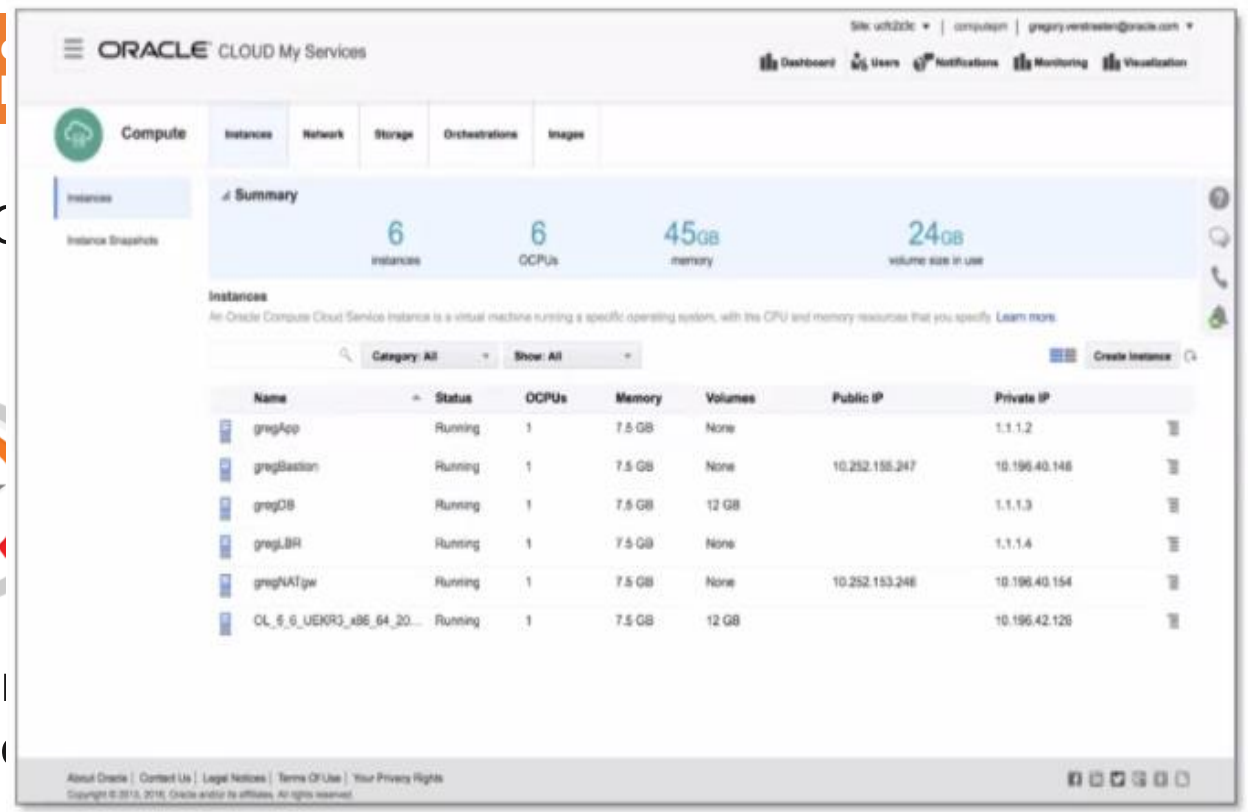
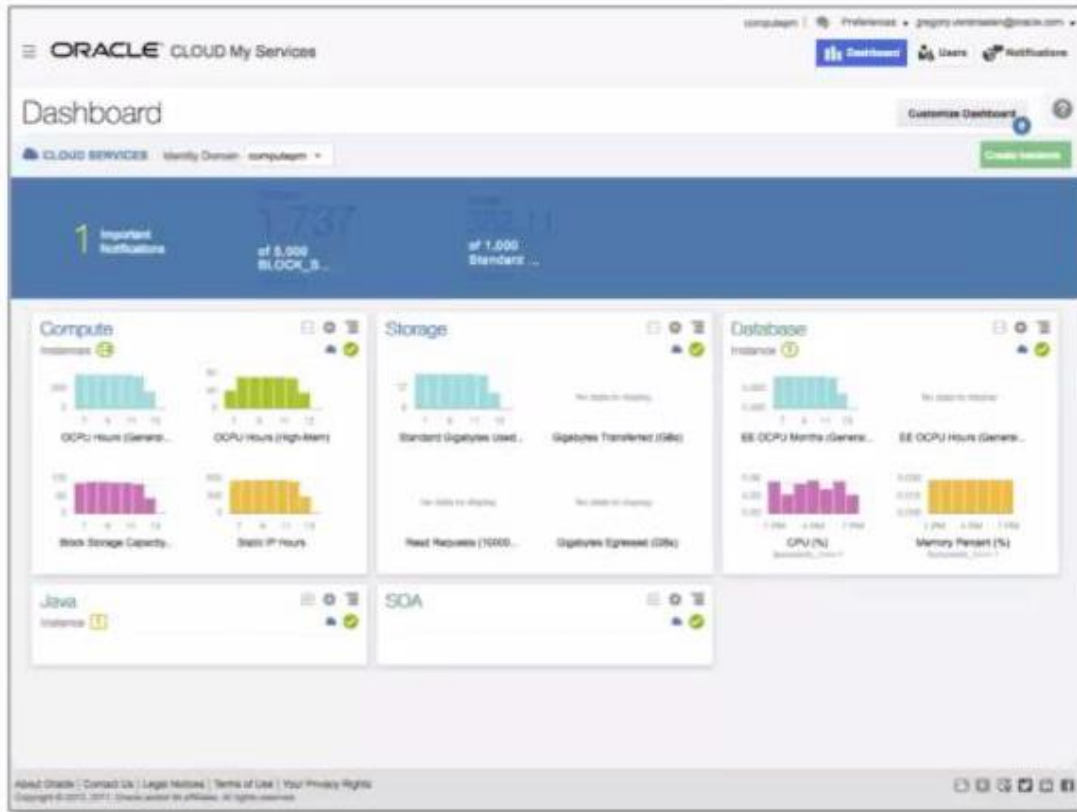
- 고객 데이터 센터
- License 모델
- 고객 관리 책임

- 고객 데이터 센터
- Subscription 모델
- |오라클 관리 책임

- Oracle Cloud
- Subscription 모델
- 오라클 관리 책임

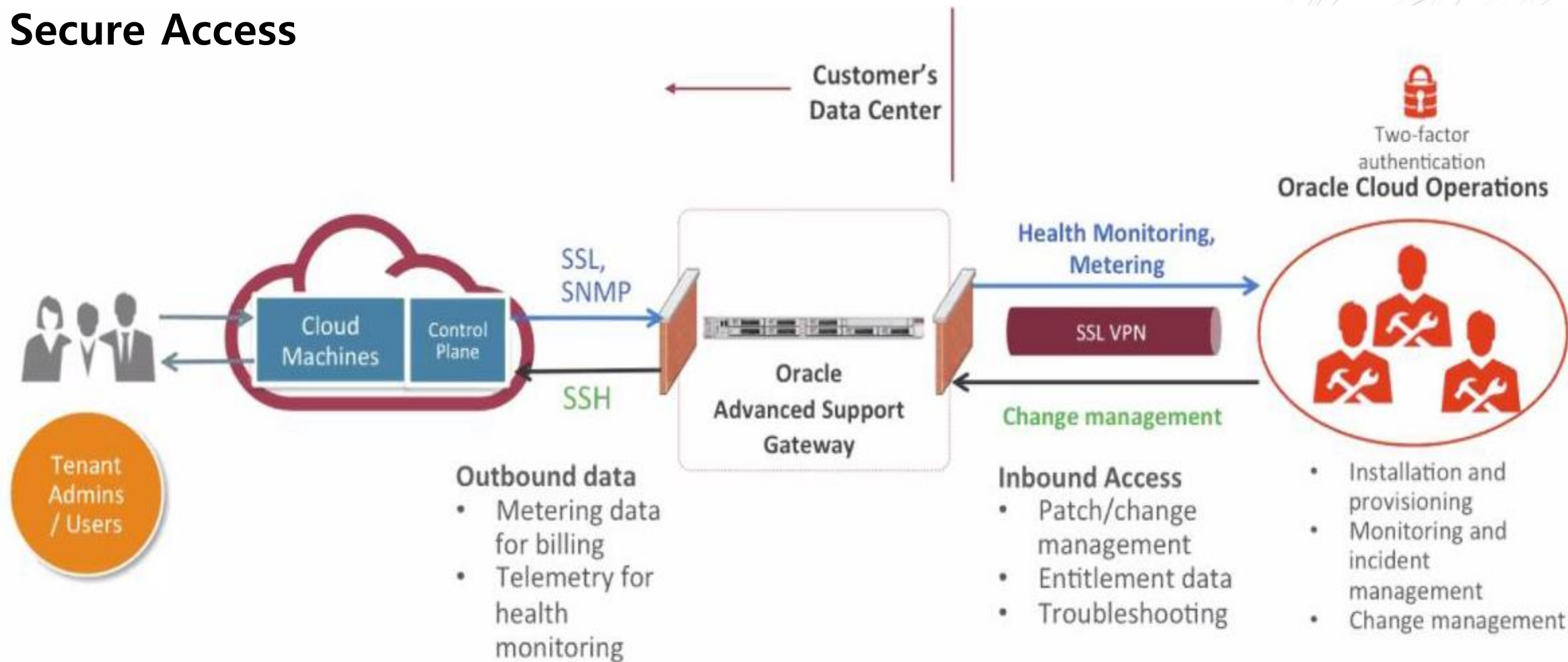
Oracle Cloud Service with Oracle Cloud Machine

Automated and cloud tooling



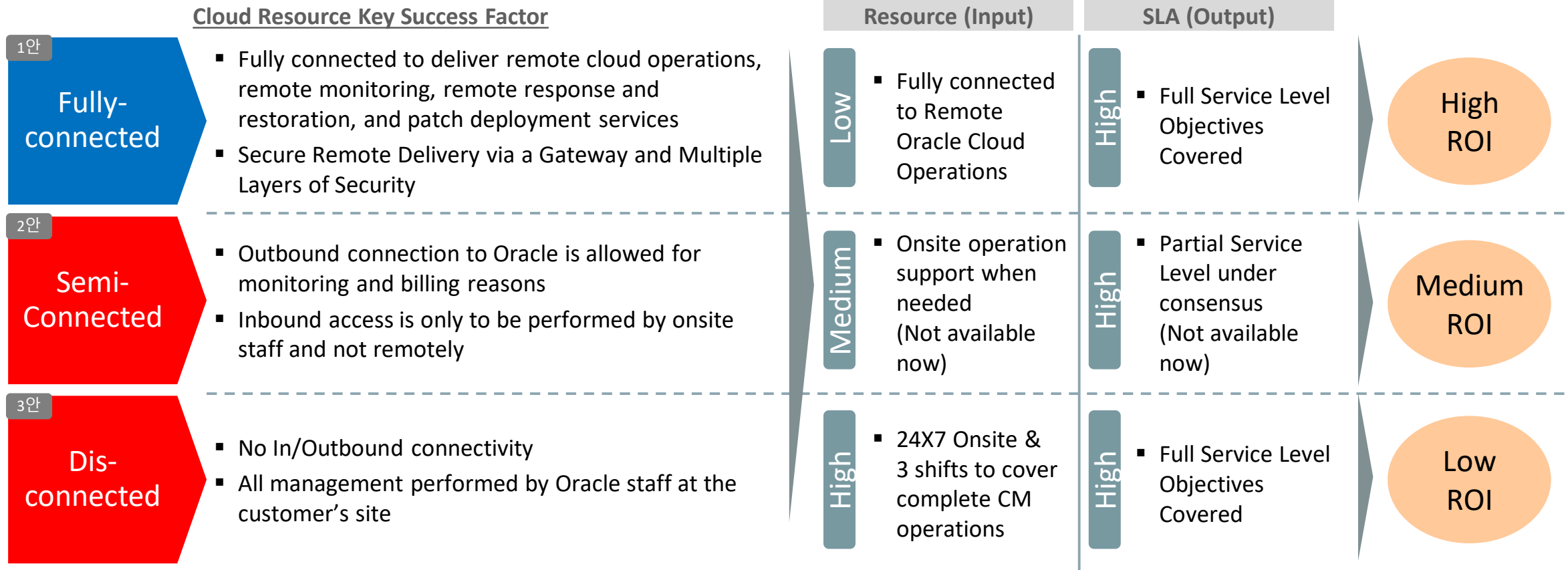
Cloud Service with Oracle Cloud Machine

Secure Access

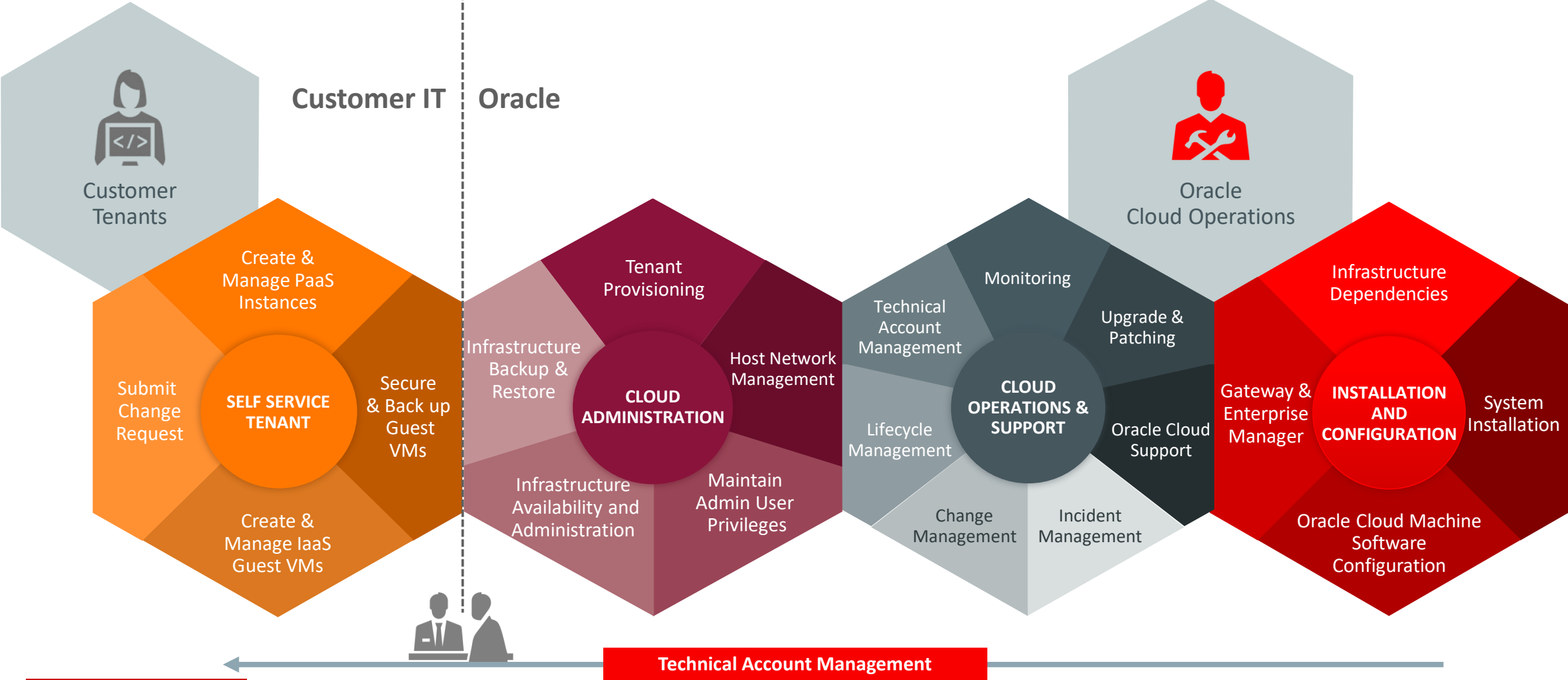


Oracle Cloud@Customer Services - Deployment

Cloud Machine 적용을 위한 3가지 안을 제공하며, 고객에 적합한 모델 적용 필요



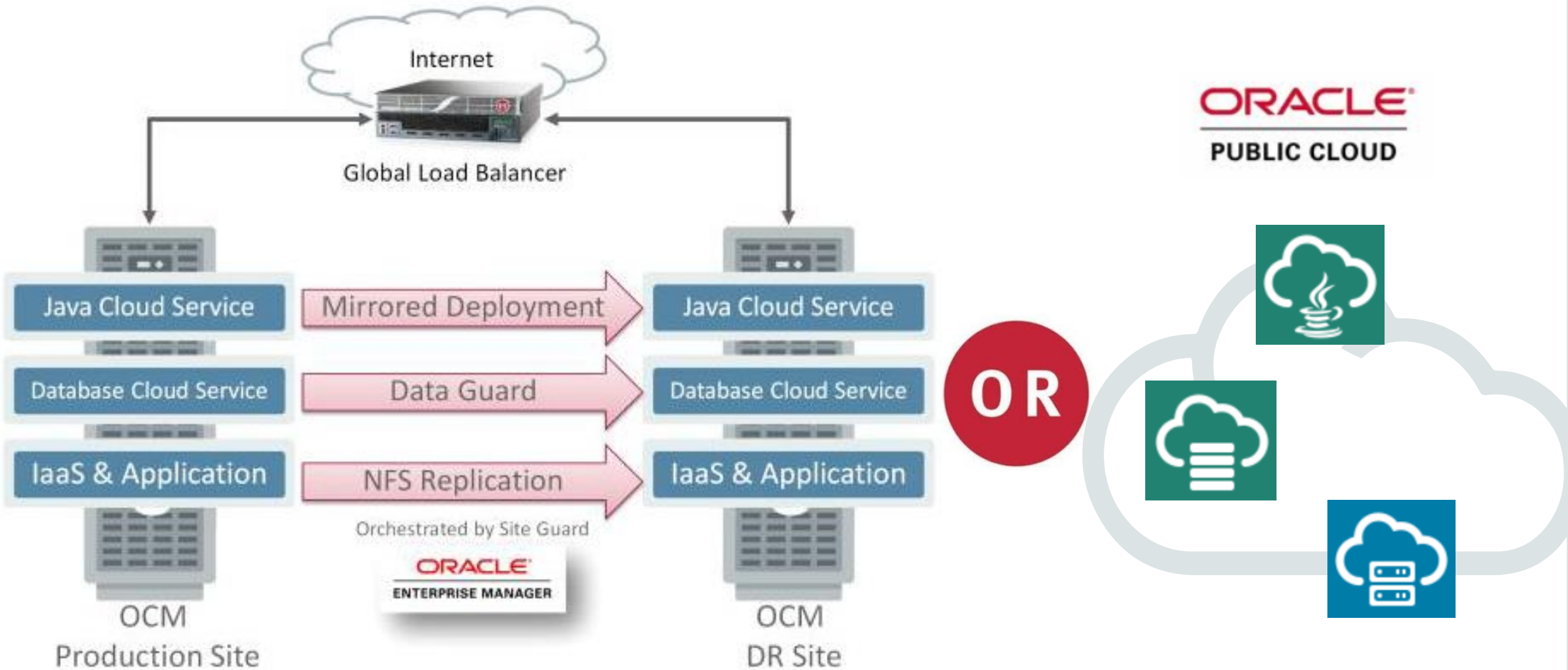
Oracle Cloud@Customer Services – Operation Model



Oracle Cloud@Customer Services – Operation Model

	Customer	Oracle
Application	개발, 구축, 운영	N/A
WEB/WAS	JCS 기반 App 개발, 운영	JCS 서비스 배포, 운영
DB	DB설계, 개발, 운영, 튜닝	DBCS 서비스 배포, 운영
O/S	O/S 설정 변경, 성능 튜닝	IaaS 서비스 배포, 운영
H/W	물리적 환경 관리	Technical H/W Support(현장지원 포함)
N/W	백본 연결망 관리	장비내 N/W 관리, 서비스 G/W 관리
Cloud Service 관리	대쉬보드를 통한 모니터링	대쉬보드 데이터 제공, 서비스별 가용성 관리

Oracle Cloud@Customer Services – Disaster Recovery



ORACLE
PUBLIC CLOUD



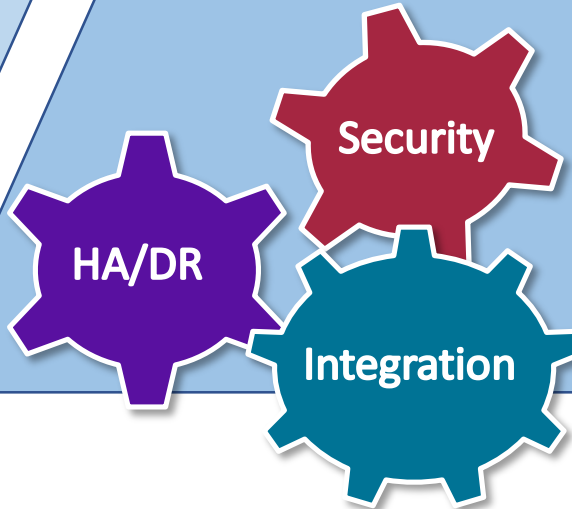
Cloud Transformation with Oracle

Enhance Legacy Infra
Enterprise Workload
on Cloud like
Scalable architecture



Be Same

- Same Product
- Same Architecture
- No Migration Risk



Choose/Move

- Public or Private
- Hybrid
- Cloud@Customer



Questions?



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