
AWS
re:Invent

DAT201

Optimize your Oracle licenses on Amazon Web Services

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Agenda

Oracle products and licensing

Running Oracle on AWS

Oracle contractual licensing principles

Optimizing Oracle licensing costs on AWS

Strategies for optimizing Oracle licenses on AWS

Risks and pitfalls with Oracle licensing

Oracle contractual licensing principles

Client-Focused Service Provider

- AWS and VMware partners
- Independent consulting services
- Oracle and SQL Server-based business critical systems
- Architecture services
- License consulting

The biggest challenge moving Oracle to the Cloud

"The one challenge which I think many of you will recognize if you have done **anything contractually around licensing going from on-prem to cloud**, that again is **our more significant challenge**. One that is true for the cloud industry."

Karine Semmer
Head of IT Hosting Transformation & Modernization Program at Medtronic
On stage at VMWorld 2017 opening general session

Standard Processor-Based Licensing

Q. License Definitions and Rules

Processor: shall be defined as all processors where the Oracle programs are installed and/or running. Programs licensed on a processor basis may be accessed by your internal users (including agents and contractors) and by your third party users. The number of required licenses shall be determined by multiplying the total number of cores of the processor by a core processor licensing factor specified on the Oracle Processor Core Factor Table which can be accessed at http://oracle.com/contracts.

Oracle Contract Artifacts

Oracle Document	Contractual?
Technical Support Policies	Yes
Processor Core Factor Table	Yes
Ordering Documents	Yes
Software Investment Guide	No
Licensing Data Recovery Guide	No
Technology Hosting	No
Partitioning Policy	No
Cloud Computing Environment Policy	No

Counting Cores for Processor-Based Oracle Licensing

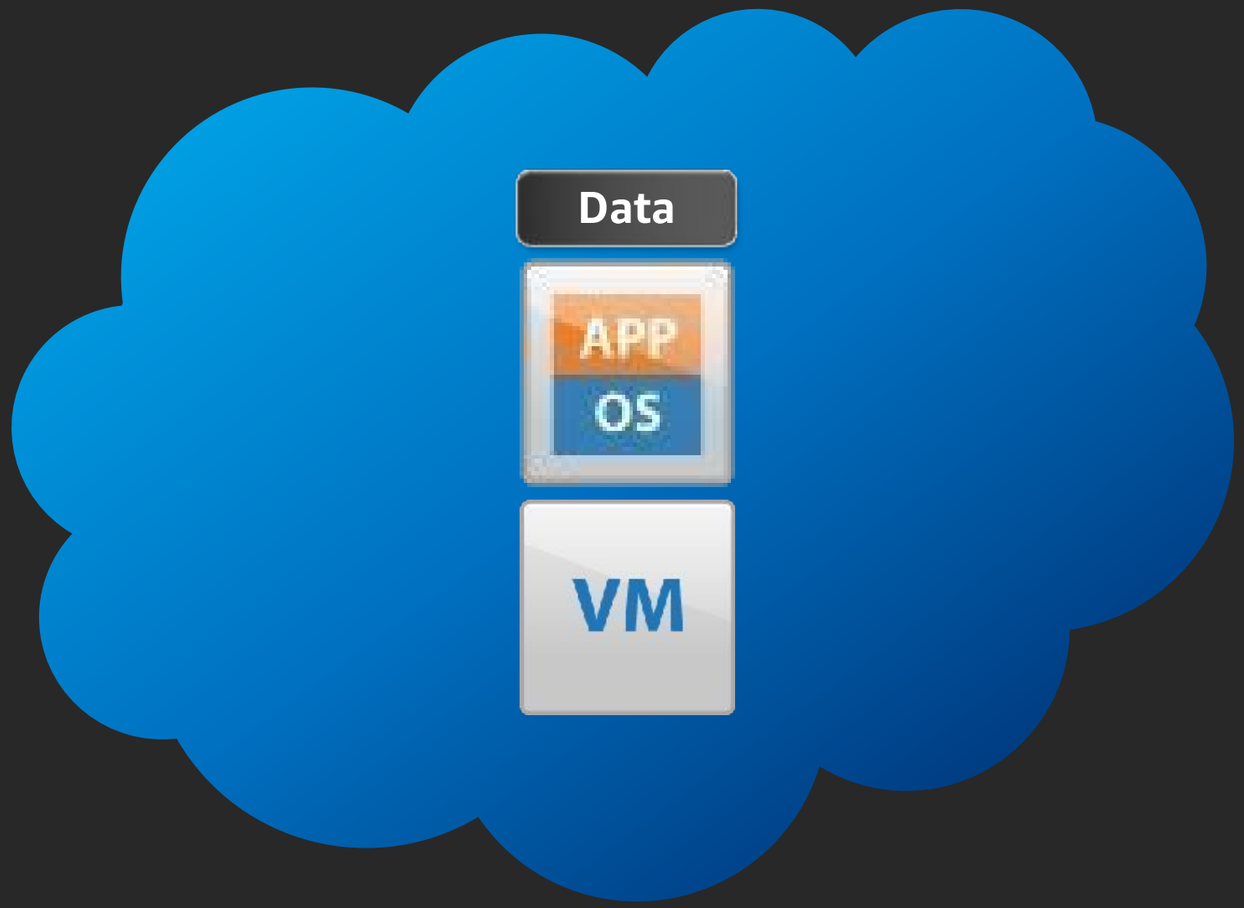
- Count all physical cores where Oracle is “installed and/or running”
- Apply core factor
- No contractual ability to license by vCPU

Understanding the Oracle Cloud Policy

"This policy applies to cloud computing environments from the following vendors: **Amazon Web Services – Amazon Elastic Compute Cloud (EC2), Amazon Relational Database Service (RDS)** and **Microsoft Azure Platform (collectively, the 'Authorized Cloud Environments')**."

www.oracle.com/us/corporate/pricing/cloud-licensing-070579.pdf

Counting vCPUs for Oracle Cloud Licensing



- Count vCPUs, not physical cores
- No Core Factor
- **Cannot run RAC with Cloud Policy**

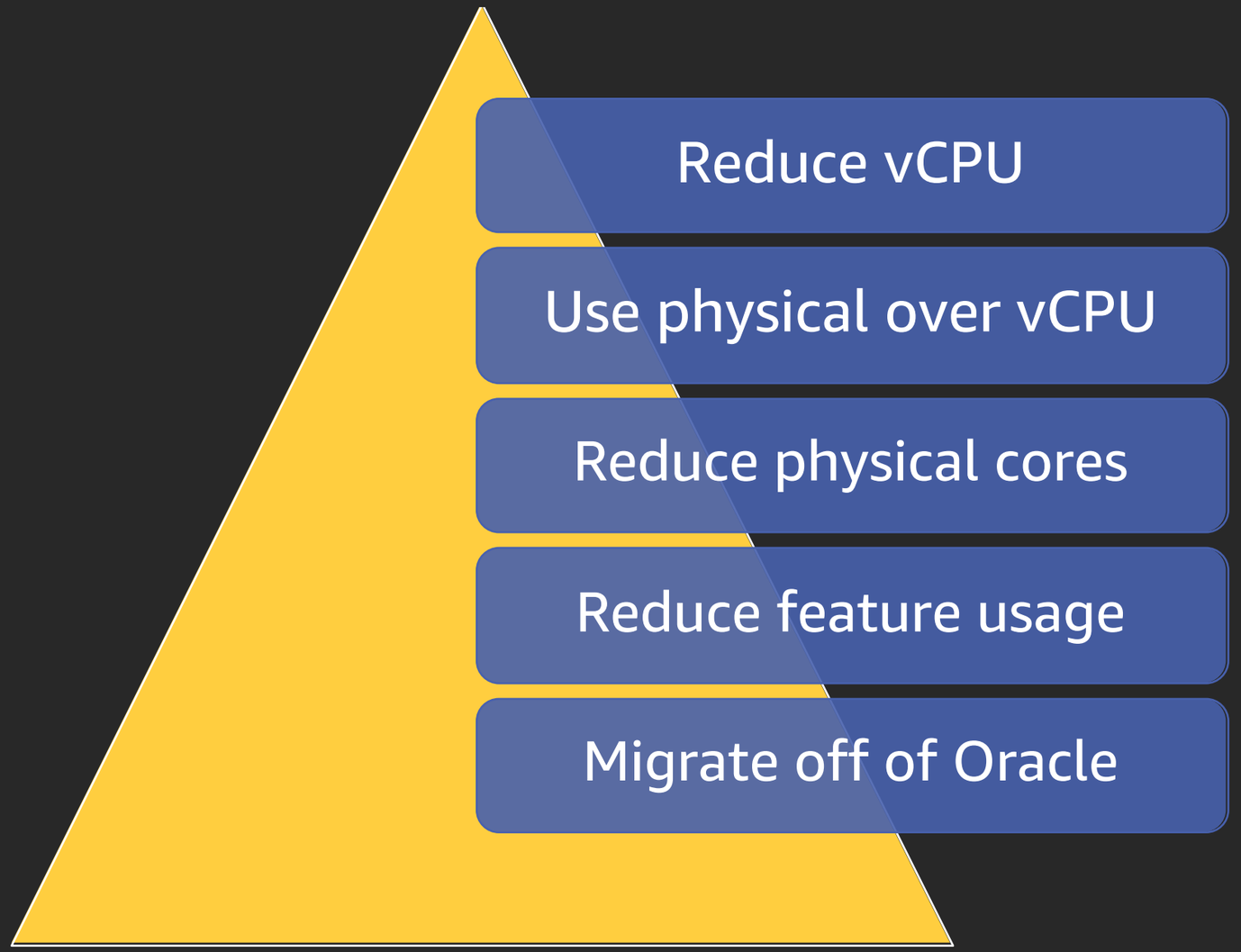
- With AWS Hyper-threading
  - 2 vCPU = 1 Processor license
- With NO AWS Hyper-threading
  - 1 vCPU = 1 Processor license

Oracle DB License Options in AWS

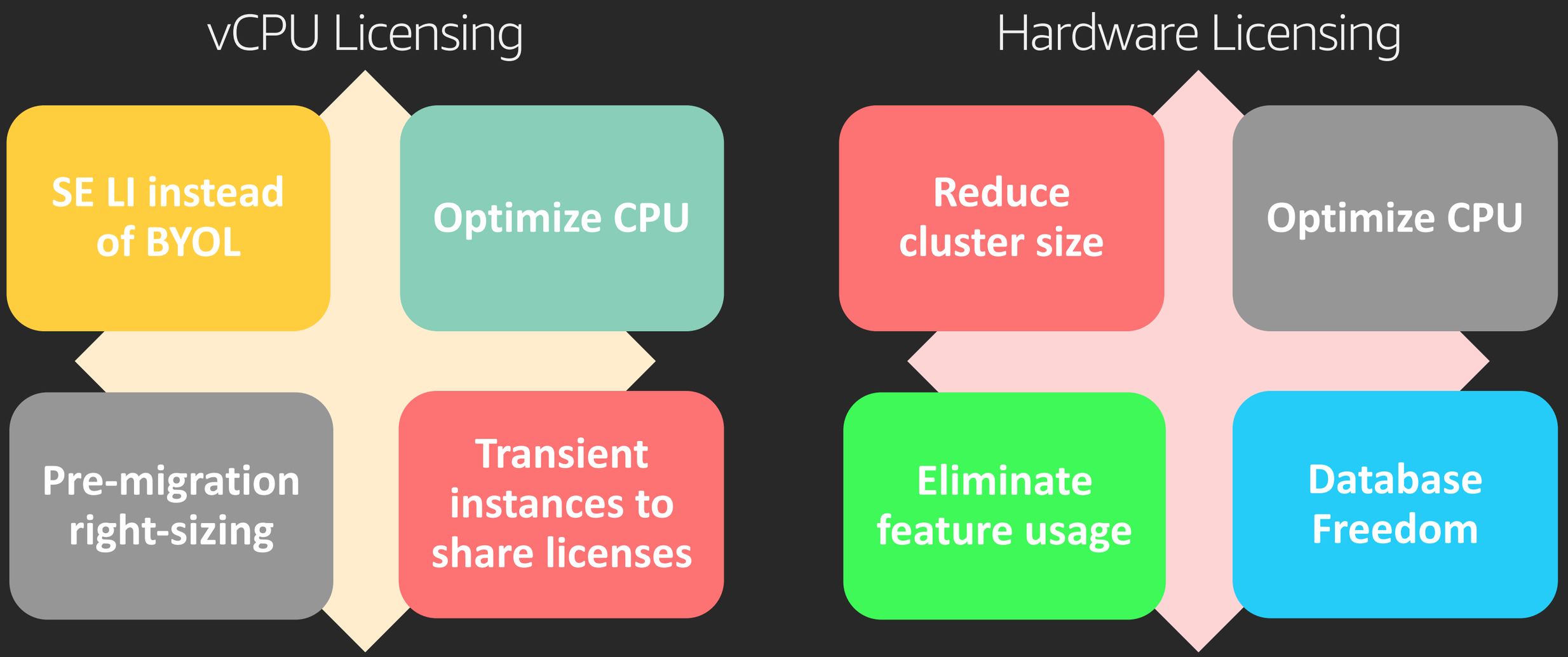
AWS Deployment Option	SE License Included	Oracle Cloud Policy	Core-Based License	Unlimited License Agreement
RDS	✓	✓	✗	✓
EC2 Compute	✗	✓	✗	✓
VMware Cloud on AWS	✗	✓	✓	✓
Dedicated Hosts on EC2	✗	✓	✓	✓
EC2 Bare Metal Instances	✗	✓	✓	✓

Strategies for optimizing Oracle licenses in AWS

Where to look for optimizing Oracle licenses



Focus Areas for Optimizing Oracle License Costs in AWS



Straight Talk on Optimize CPU to Limit Oracle License

Binding License Agreement

- Only installed and/or running
- Not possible to be installed and/or running on non-existent cores or vCPU

Proving the Concepts in an Audit

- We have defended hardware & virtual CPU disablement
- Have not yet defended AWS Optimize CPU

Non-Contractual Cloud Policy

- Cloud policy is non-contractual
- Subject to change
- If Oracle is serious about Optimize CPU, why haven't they updated the policy to say that?

Risks and Pitfalls with Oracle Licensing

Oracle License considerations on AWS

Unlimited License Agreement

- Cannot count AWS usage in certification (check your ULA)
- Installed AND running
- Be careful not to over-certify

Terminating Support

- Keeping a subset of licenses under support terminates the others

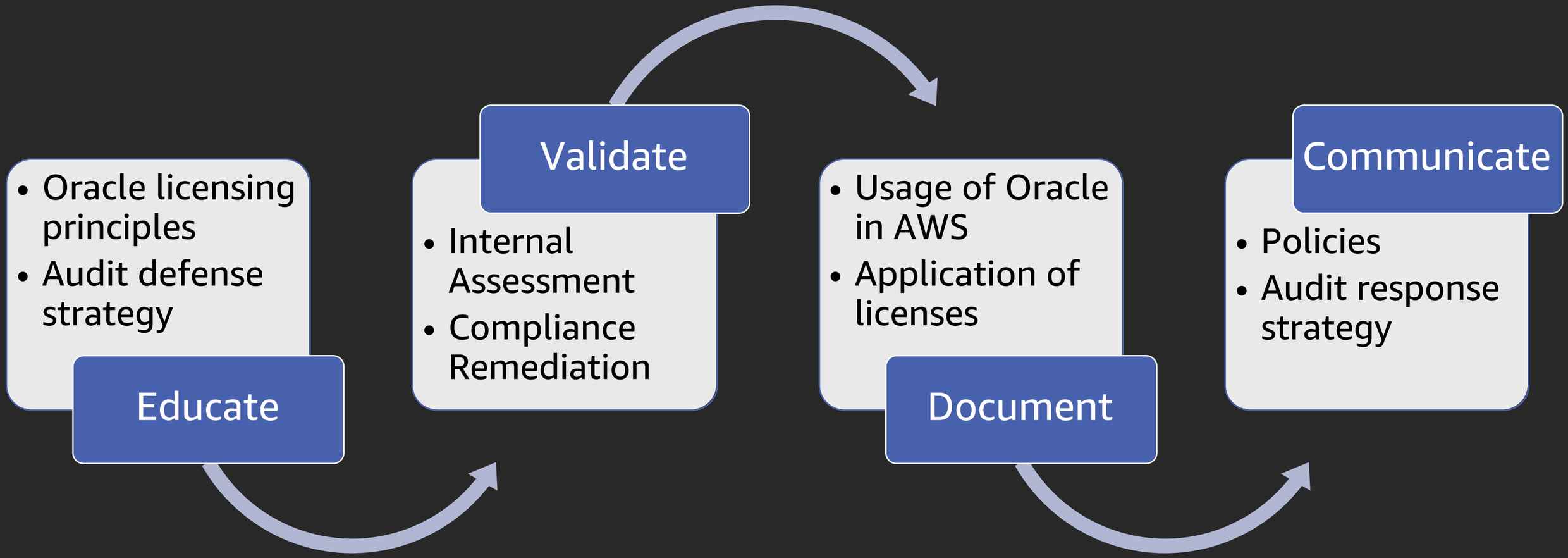
Non-Contractual Cloud Policy

- Cloud policy is non-contractual
- Subject to change
- Review with legal team which terms apply

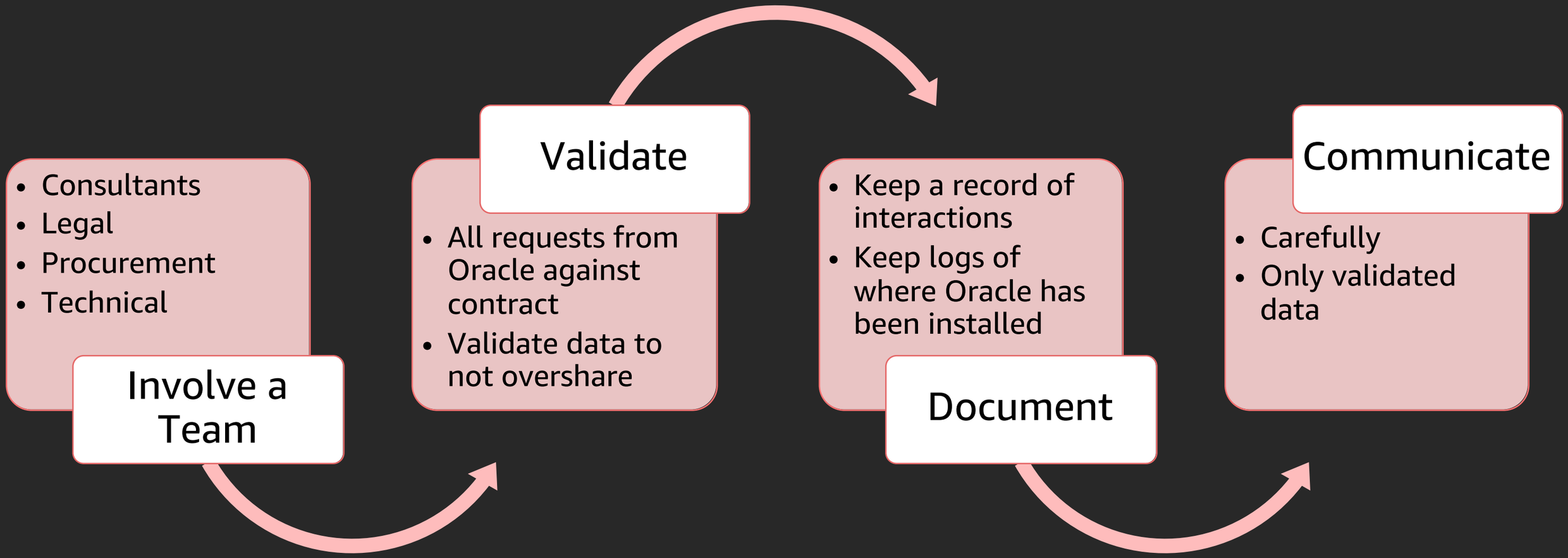
Unlicensed EE Feature Usage

- Oracle leaves features turned on by default
- Disable if possible
- Regular monitoring

Preparing for an Oracle Audit



Defending an Oracle Audit



Next steps and more Information

RAC on VMware Cloud

White Paper

Oracle on VMware Cloud on AWS TCO

White Paper

RDS Oracle and Oracle on EC2

Proof of Concept

Re:Invent, VMworld & IOUG

Sessions

Thank you!

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