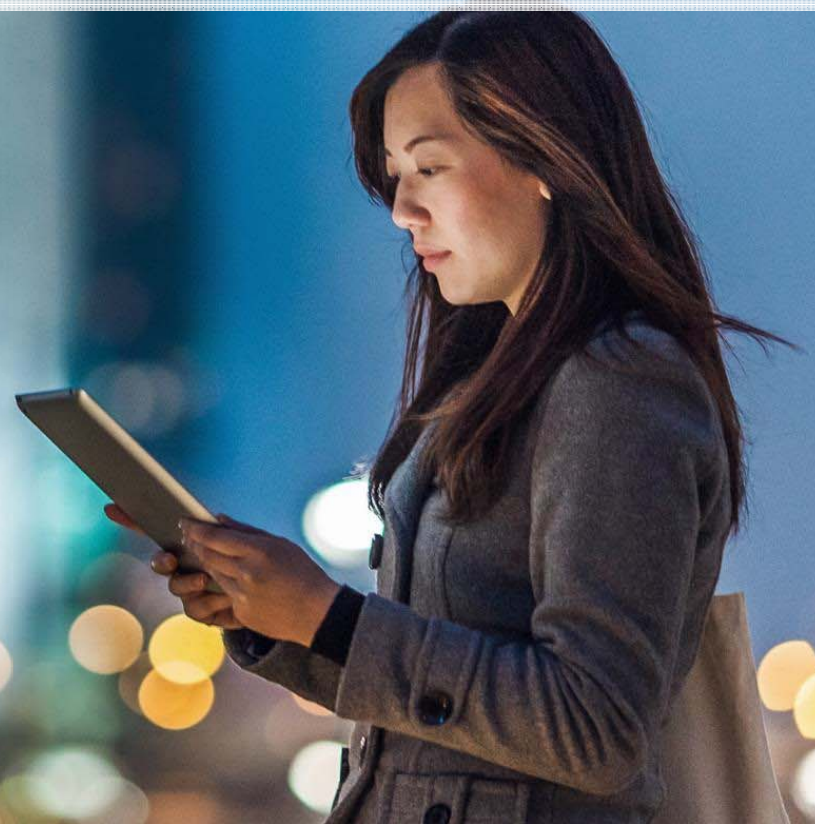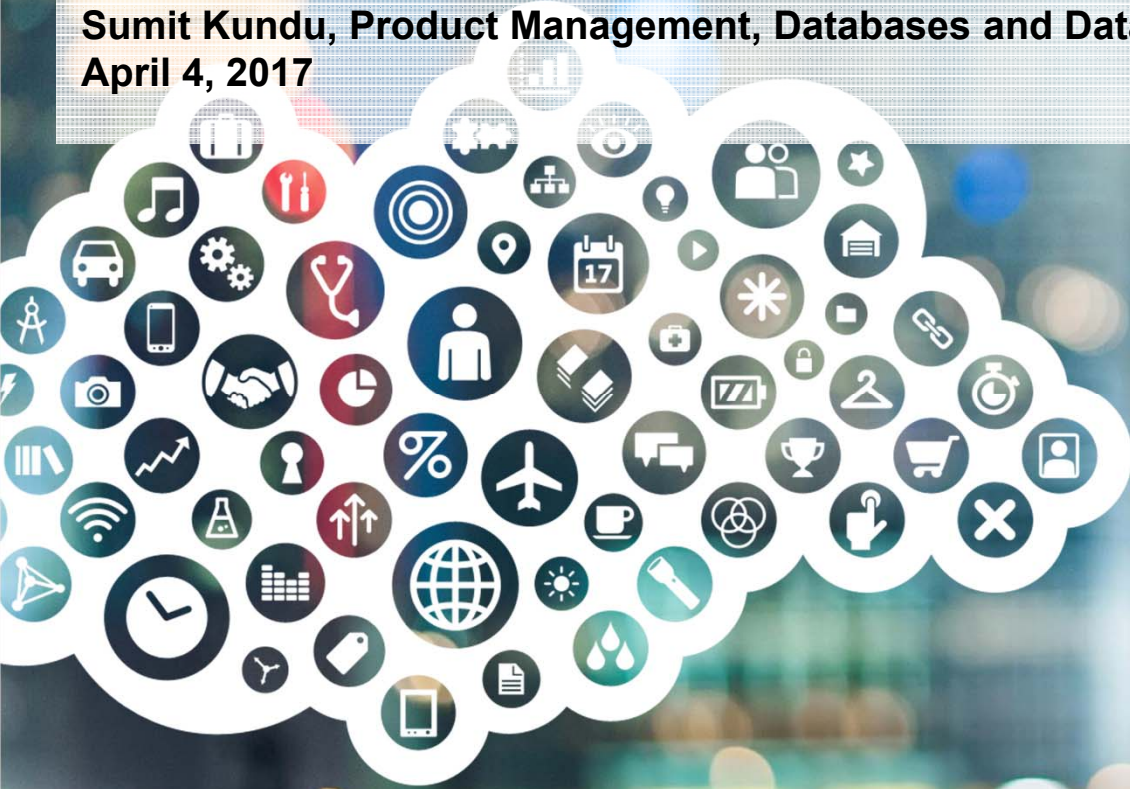# Cloud Strategy for SAP ASE

Sumit Kundu, Product Management, Databases and Data Management, April 4, 2017

SAP

2016 Cloud Adoption Trends

Private Cloud adoption increased from 63% to 77%

- Customer owns and fully manages

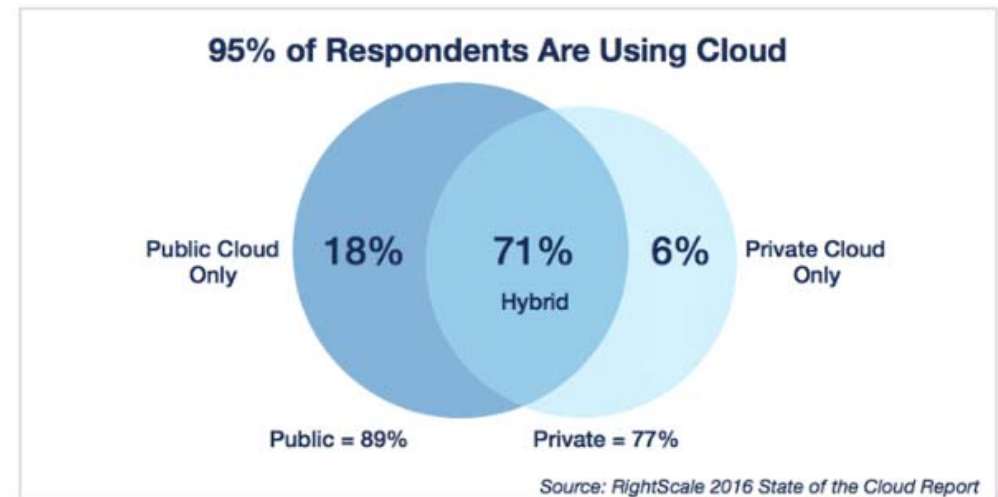**Hybrid Cloud adoption increased from 58% to 71% y-o-y**

- 17% of enterprises have more than 1,000 VMs in public cloud
- Security concerns about cloud are dropping
- Resources and Expertise for cloud is the top concern

DevOps adoption rose from 66% to 74%

- Docker adoption rose to 27% v. 13% y-o-y

AWS is used by 57% and Azure 17%

- Lower costs, no remote data center to maintain
- Higher reliability and availability
- Cloud provider fully manages

95% of Respondents Are Using Cloud

Public Cloud Only — 18%

71% Hybrid

6% — Private Cloud Only

Public = 89%   Private = 77%

Source: RightScale 2016 State of the Cloud Report
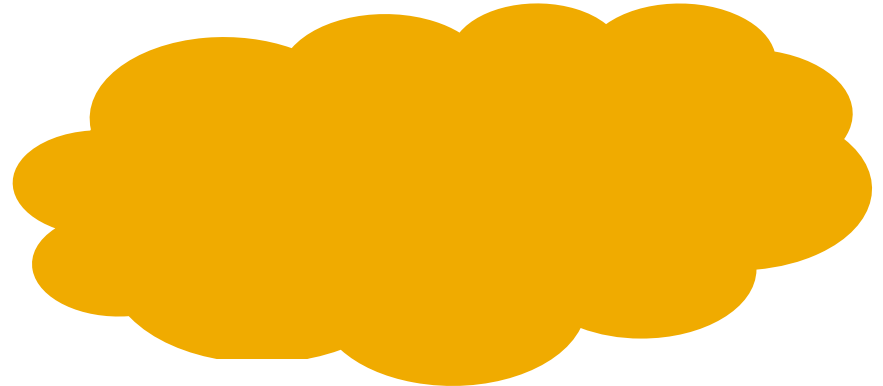
Value of SAP ASE in Cloud

Lower Cost of Ownership
- Only pay for what you're using
- No dedicated hardware sitting idle and taking space

Lower barrier to entry for enterprise level services
- Lower startup and maintenance costs
- Less expert staff needed
- Gives smaller organizations all of the capabilities of large enterprises

Faster time to deployment
- Setup in hours and days instead of weeks and months
- Dynamically expand / contract resources

SAP ASE on Cloud Today

Vendor	Product Edition	Key Capabilities
Amazon	Enterprise Edition on Linux and Windows	• IaaS with BYOL (Bring Your Own License) • Customers can run options
Amazon	Runtime Edition (for SAP Business Suite) on all platforms	• IaaS with BYOL (Bring Your Own License) • Runtime Edition itself contains options
Docker	Developer, Express and Enterprise Edition	• Certification
SAP Managed Services Cloud	Enterprise Edition	• Hosted services • Fully managed environment
SAP Cloud Platform	Adaptive Server Platform Edition (ASP)	• Subscription • Fully managed DbaaS • Not all options that are part of the ASP enabled

ASE Roadmap – Strategic Thrusts

Innovation and Leadership

Virtualization and Cloud Support

- •
- •
- •
- •
- •
- •
- DB-as-a-Service on SAP Cloud Platform and BYOL on AWS
- Docker support
- •
- •

- Cloud services on AWS and other cloud providers for hybrid deployments
- Cloud Foundry, SCP support for app dev

Today   **Future**

Database Solutions in the Cloud

Database in Cloud

- **Database runs on cloud/IaaS provided infrastructure**

- **Suitable for**

  - **Applications that run periodically or have a short life span**

  - **Applications with unpredictable workloads**
    - Dynamically expand / contract resources

  - **Applications that are not business critical or for dev/test**

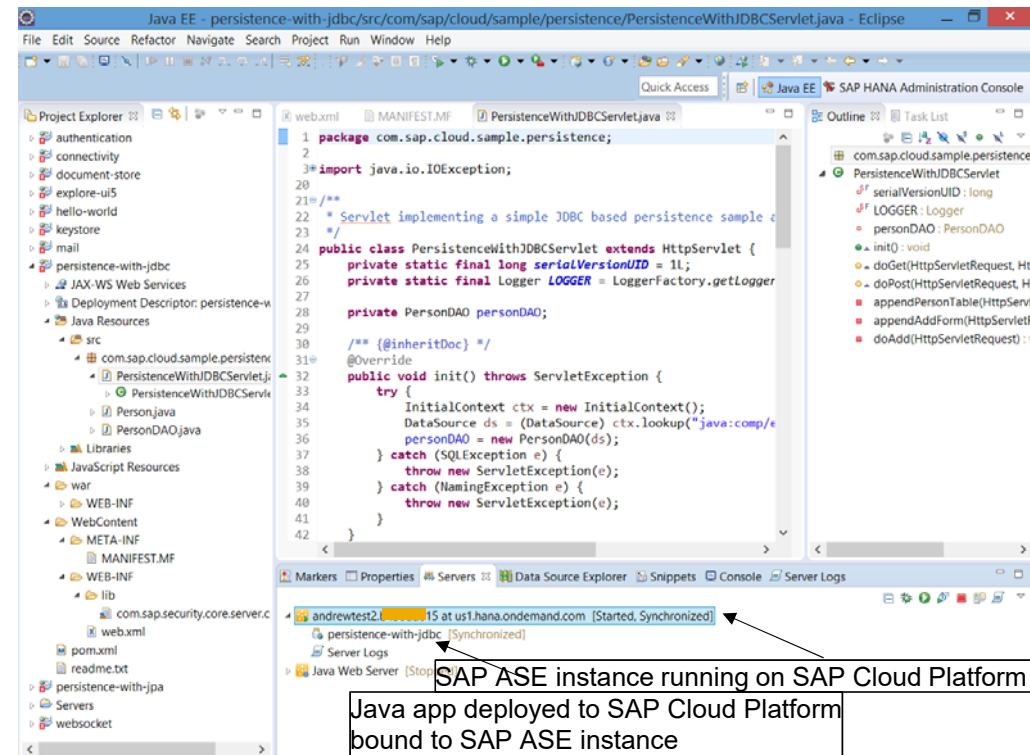## On-premise database supported by Cloud

- **On-premise database solutions that is enhanced or extended by cloud infrastructure and services**

Database in Cloud
SAP ASE on SAP Cloud Platform – Persistence (DB) as a Service

Quick Deployment

- Quick set up and no maintenance worries with full cloud management
- SAP Cloud Platform manages data replication, backup and recovery, monitoring and alerting, balancing and scaling, configuration
- Provides high availability and disaster recovery for continuous operations
- Supported sizes (HDD): 32 GB, 80 GB,160 GB, 320 GB, 640 GB

SAP ASE instance running on SAP Cloud Platform

Java app deployed to SAP Cloud Platform bound to SAP ASE instance

Eclipse IDE with SAP Cloud Platform plug-ins and SDKs

Database on Cloud
SAP ASE SAP Cloud Platform – Persistence (DB) as a Service

Build

Eclipse

- Use of the popular open-source Eclipse IDE on the local computer

- Full fledged Integrated Development Environment with the ability to add your favorite plugins and profit from the huge ecosystem

SAP Web IDE

- Enable developers to build new business applications in the cloud with zero footprint

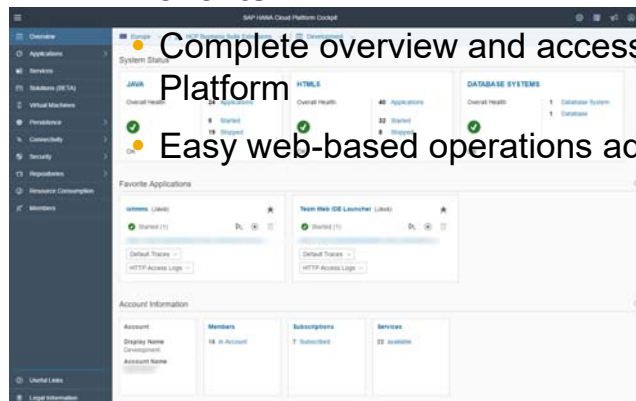- Simplify SAP Fiori and SAP UI5 development and support end-to-end application lifecycle with one tool

Manage and Monitor

Key capabilities

- Entry point to the SAP Cloud Platform on the web

- SAP Cloud Platform and application configuration

- Monitoring of resources, databases and applications

- Connect JDBC apps from on-premise to cloud through secure database tunnel
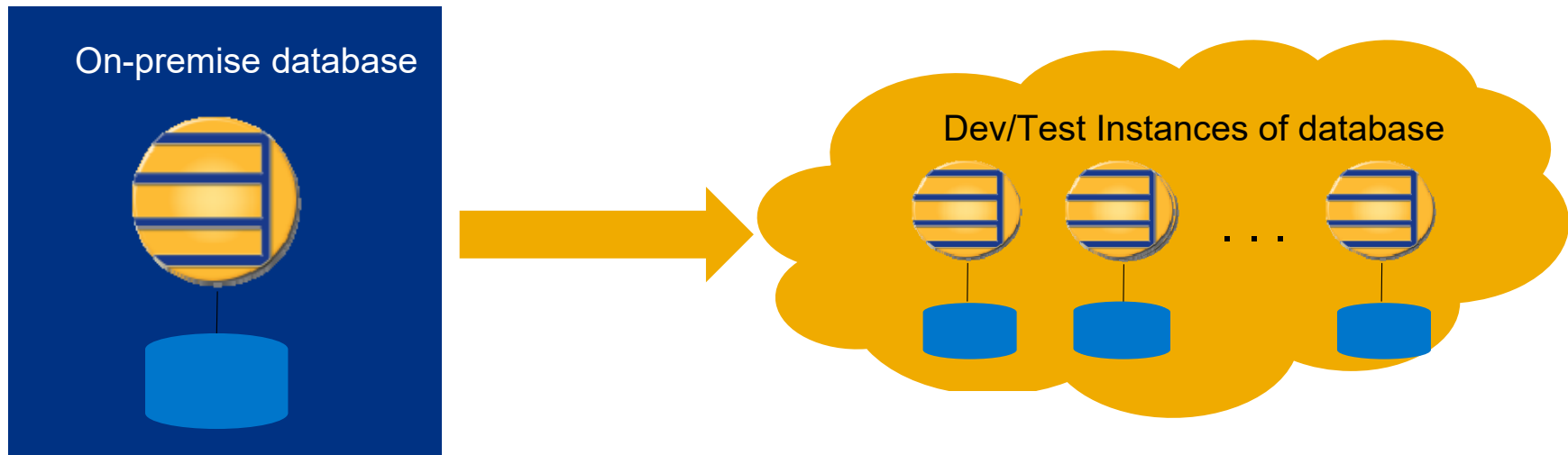
- Secure access through web interfaces

Benefits

- Complete overview and access point of the SAP Cloud Platform

- Easy web-based operations administration

Database in Cloud
Dev and Test Environments

On-premise database

Dev/Test Instances of database

Features:

- Creates and instantiates an instance in the cloud
- On-premise tool to choose databases and tables to securely move to cloud instance (materialization)
- Provides a mechanism to refresh/sync data on demand
- Allows data masking and subsetting
- Ensures security and encryption of data at rest and in transit

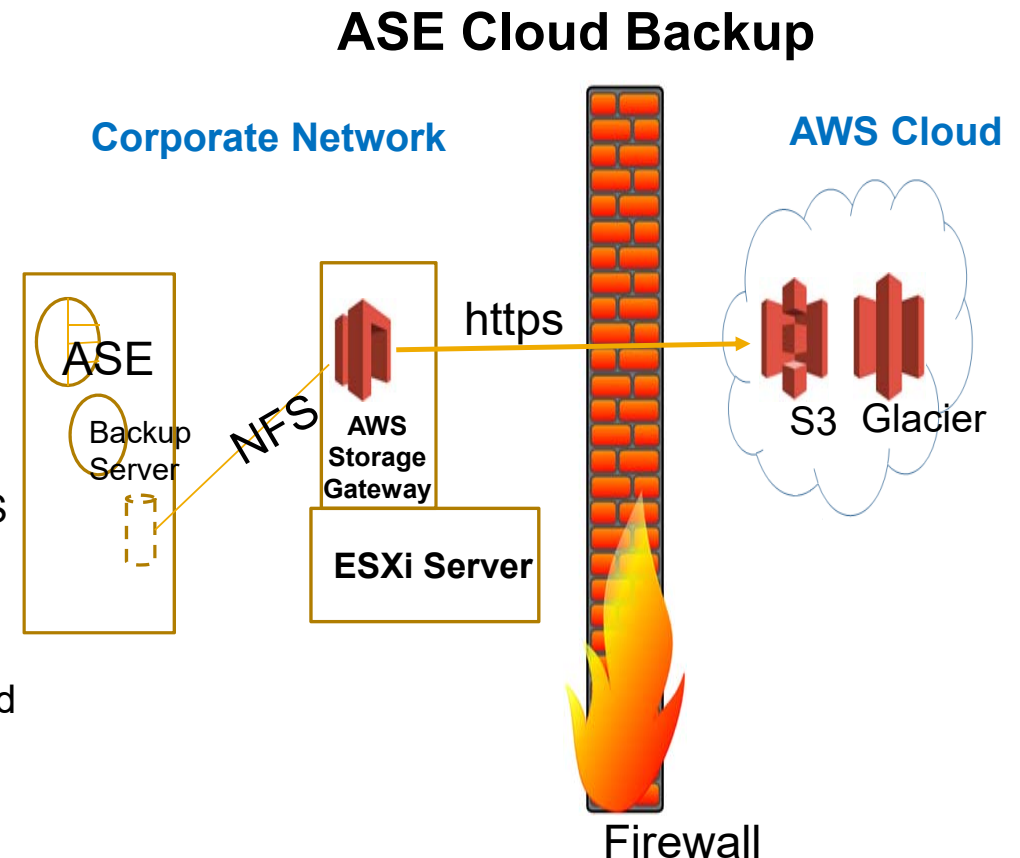# Database On-Premise with Cloud Support
SAP ASE Cloud Backup to AWS S3

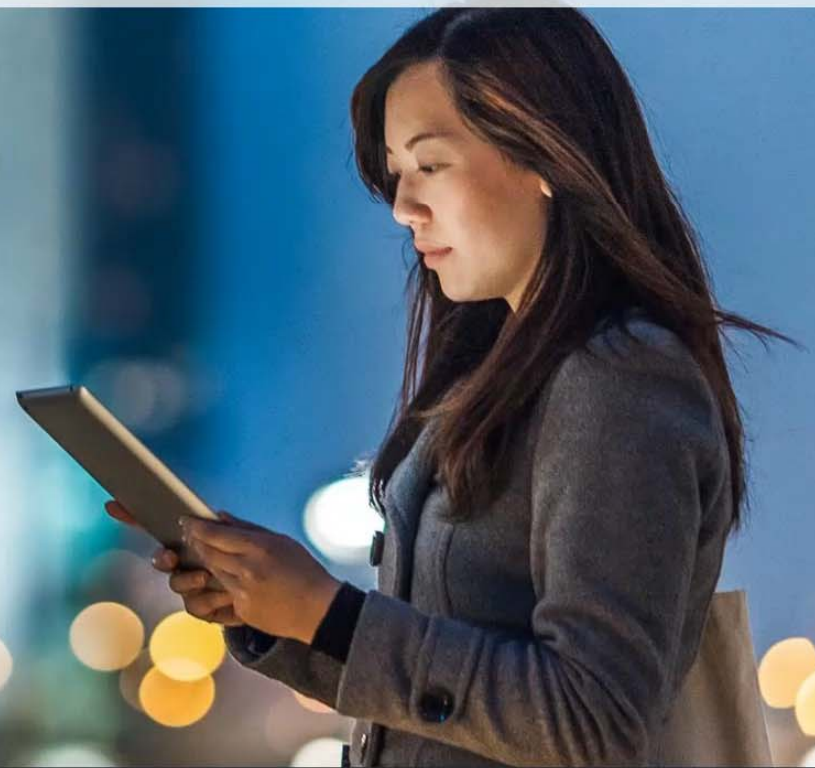*Solution will be certified in 2017*

Advantages

- Gives elastic and geographically remote storage
- Only pay for what you use
- Data is secure and encrypted at rest and in transit
- Meets compliance retention requirements
- No changes required to existing backup scripts or schedules except for backup location

How it works

- AWS Storage Gateway is installed on premise
- AWS S3 storage is mounted on premise as an NFS file system directory managed by Gateway
- SAP ASE saves backup files to NFS file system directory
- AWS Storage Gateway manages data transfers and retrievals between on premise and AWS S3

ASE Cloud Backup

Corporate Network

AWS Cloud

ASE

Backup Server

NFS

AWS Storage Gateway

ESXi Server

https

S3   Glacier

Firewall

SAP ASE Cloud Backup

Database On-Premise with Cloud Support
Additional Support Planned

- **DR as a service**

- **Workload Analyzer as a service**

- **Extending database into cloud and others**

SAP Cloud Platform Resources

SAP Public Web

SAP Community Network

SAP.com

SAP Cloud Platform persistence service (SAP ASE)

Introduction to SAP Cloud Platform online course

SAP Cloud Platform Developer Center

SAP Cloud Platform Documentation

SAP Adaptive Server Enterprise Documentation