

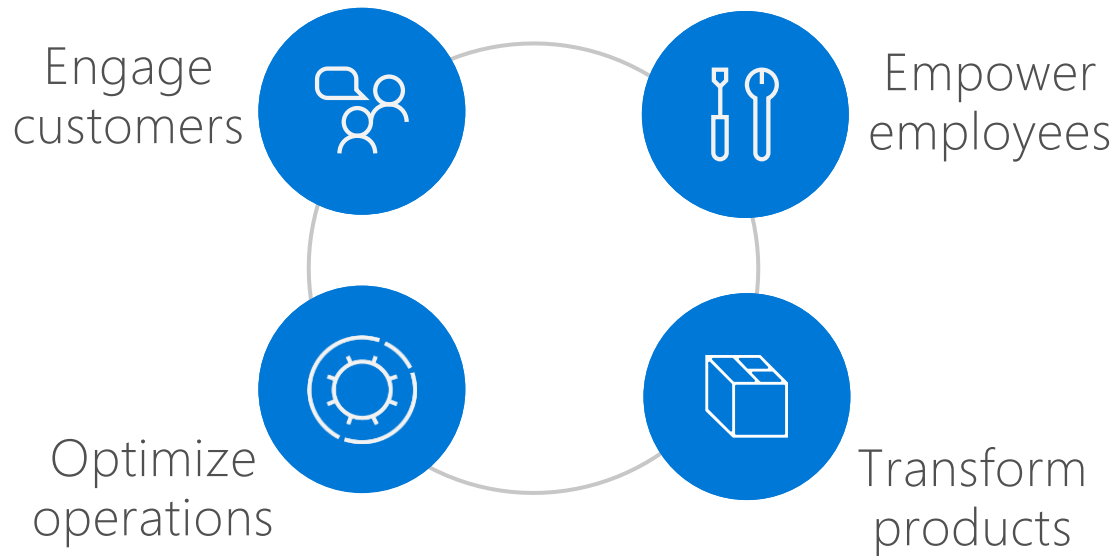


# SAP-as-a-Service on Azure with SUSE and Ocean9

Jointly presented by Microsoft, SUSE and Ocean9

May 2017

# Digital transformation



Drive digital transformation by running SAP on Azure

# 38

Azure regions

100+ datacenters | One of the top 3 networks in the world (coverage, speed, connections) | \*New



# Your SAP HANA options on Azure

## ON-DEMAND INFRASTRUCTURE



G-series VMs for  
Dev/Test & PoC

Up to 0.5 TB RAM  
Globally available

M-series VMs  
for most  
implementations

1.7 TB to 3.5 TB RAM  
Launching soon in US, EU

## PURPOSE-BUILT INFRASTRUCTURE

SAP HANA Large  
Instances for  
extreme scale  
& performance

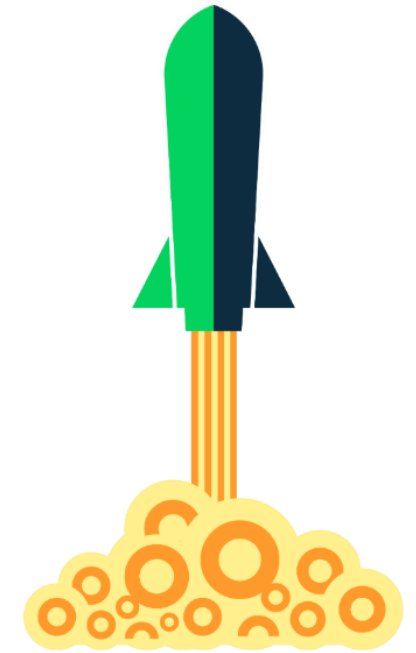
Largest scale (0.768 TB to 20 TB RAM)  
Available in US, EU, AUS

# SUSE

**Released the first comprehensive Linux distribution in 1992.**

Available on every major platform from x86 to the Mainframe.

*A decade of collaboration with Microsoft  
supporting interoperability and joint innovation.*



## Our Strategy

With partners and communities, we innovate, adapt and deliver secure open source technologies to create solutions for mixed enterprise IT environments.

# SAP and SUSE

Over 17 Years Of Technology and Engineering Collaboration

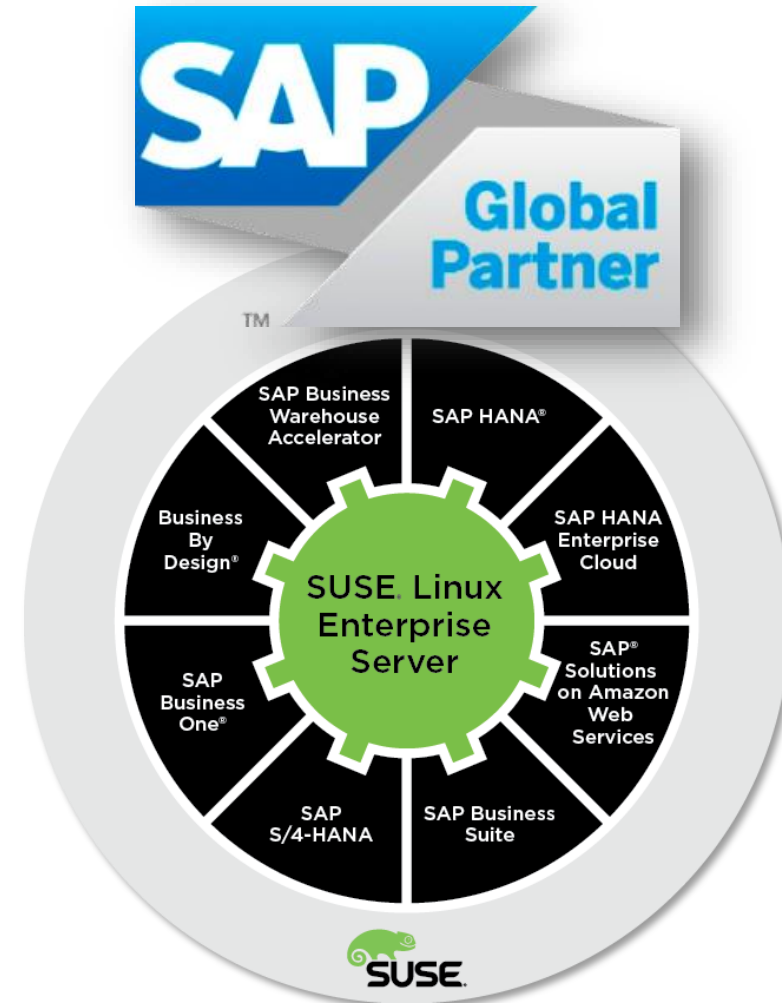
## Front Runner Technologies

- 1<sup>st</sup> OS for SAP on Public Cloud
- 1<sup>st</sup> validated open source HA
- 1<sup>st</sup> validated virtualization

## Strategic OS For:

- SAP HANA
- SAP Business Warehouse
- SAP Business ByDesign

## Integrated Enterprise Support





# Making Business Truly Agile

## A Silver Bullet for Enterprise Workloads



**FASHION & RETAIL**  
**Smart stores**



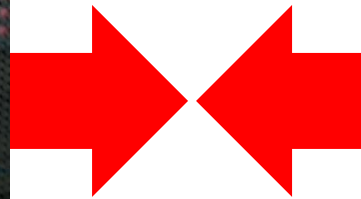
**LOGISTICS**  
**Self-driving vehicles**



**FINANCE**  
**Virtual close**

# The Problem

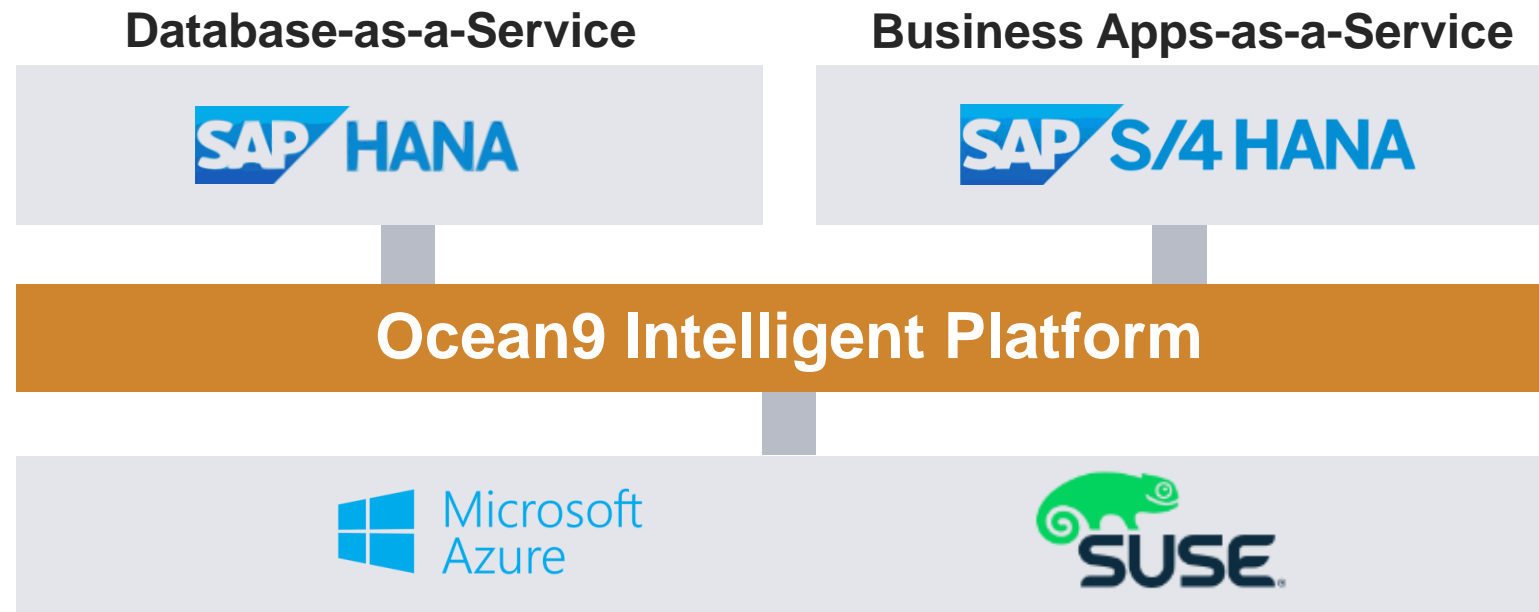
## Two Conflicting Paradigms in our Digital World





# The Ocean9 Solution

## Born in the Cloud SAP-as-a-Service



### Enterprise Class

- High performance
- High availability
- Strict security

### PLUS

- Cloud native capabilities
- Database containers

# Speed and Simplicity = Innovation

## The “Easy Button” solution for modernizing SAP



**30 – 60 min**

- 10,000s of optimized SAP infrastructure configurations
- Cost transparency across IaaS configurations
- Automatic deploy



**Scale-out: 5 min**  
**Scale-up: 60 min**

- Easily scale-up or scale-out your database tier
- Right size systems for data growth
- Increase compute power during usage peaks

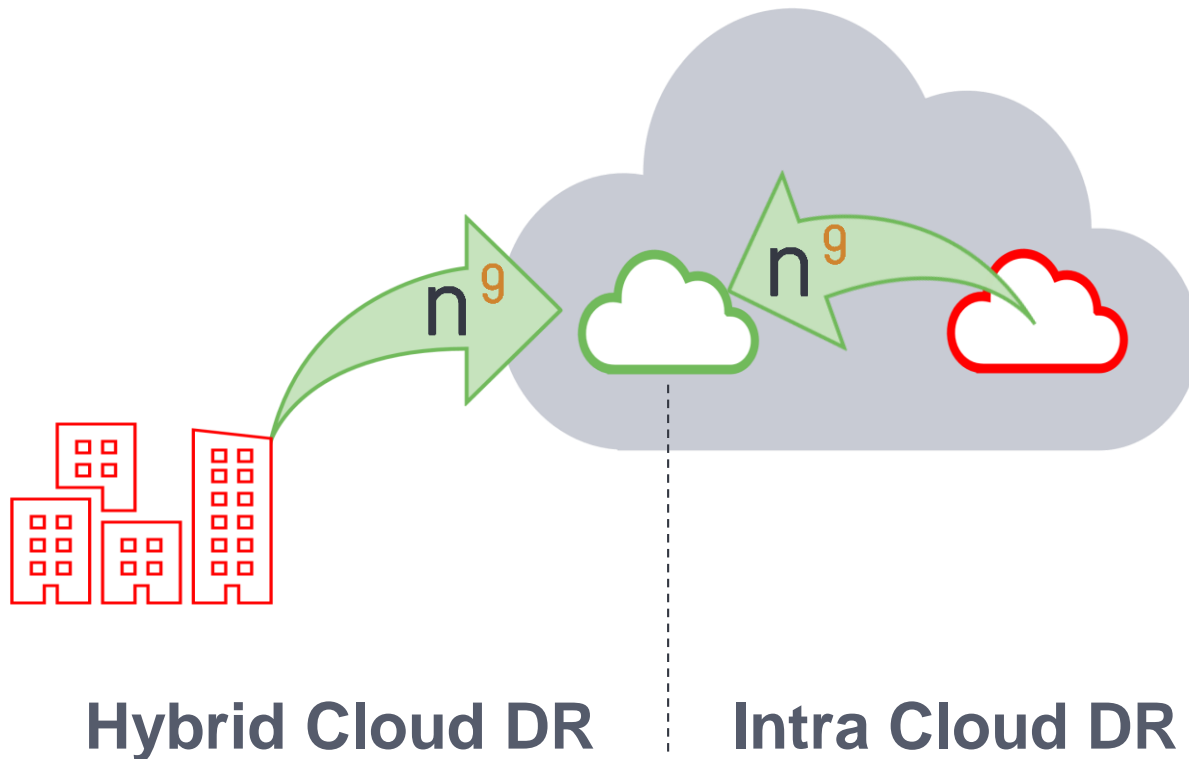


**40 – 60 min**

- Turn standalone systems into clusters
- Choose high availability from 99.5% (cost neutral) to 99.99%
- Adjust high availability setup following business seasons

# Increasing Uptime & Business Continuity

Critical App Failure Cost: \$500k-\$1m per hour\*



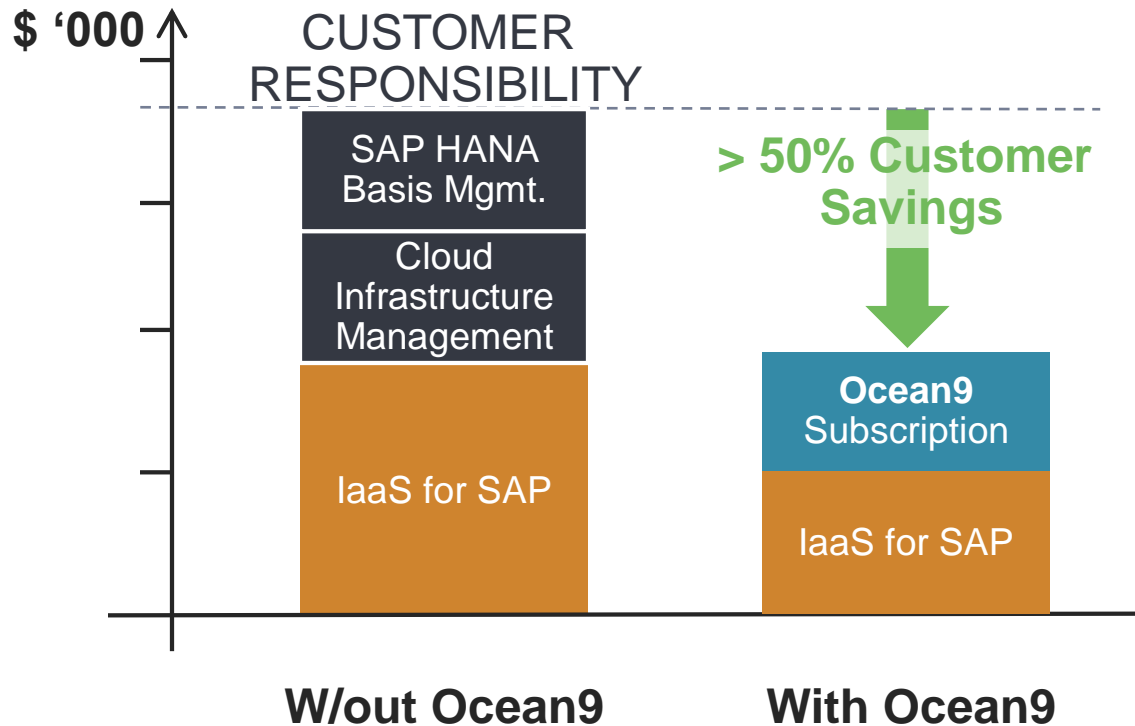
## Disaster Recovery-as-a-Service

- Protect on premise and cloud environments
- Fast and simple recovery
  - **15 min** Recovery Point Objective
  - **2 hour** Recovery Time Objective
- 95% cost savings compared to traditional solutions

\* Source: IDC Research

# Reducing Cost

## Enabling more Projects and Teams for Innovation



- **IaaS cost optimization**
  - Rightsized system
  - Cost optimal configuration
  - No more idling systems
- **Reduced system management effort**
- **Enable more projects**



# Unlimited flexibility for SAP HANA

## Microsoft Azure provides Headroom to Grow

### VIRTUAL MACHINES

	SAP Solution	vCPUs	Memory	Local Storage	Availability
GS5: Intel® Xeon® processor E5 v3	OLAP	32	448 GB	6.4 TB	GA
M64ms: Intel® Xeon® E7-8890 v3	OLTP and OLAP	64	1.75 TB	2 TB	Coming Soon
M128s: Intel® Xeon® E7-8890 v3	OLTP and OLAP	128	2 TB	4 TB	Coming Soon
M128ms: Intel® Xeon® E7-8890 v3	OLTP	128	3.5 TB	4 TB	Coming Soon

### SAP HANA LARGE INSTANCES

	SAP Solution	Threads	Memory	Persistent Storage	Availability
S72: 2 x Intel® Xeon® Processor E7-8890 v3	OLTP and OLAP	72	768 GB	3 TB	GA
S72m: 2 x Intel® Xeon® Processor E7-8890 v3	OLTP	72	1.5 TB	6 TB	GA
S192: 4 x Intel® Xeon® Processor E7-8890 v4	OLTP and OLAP	192	2 TB	8 TB	GA
S192m: 4 x Intel® Xeon® Processor E7-8890 v4	OLTP	192	4 TB	16 TB	GA
S384: 8 x Intel® Xeon® Processor E7-8890 v4	OLTP and OLAP	384	4 TB	16 TB	Coming Soon
S384m: 8 x Intel® Xeon® Processor E7-8890 v4	OLTP	384	6 TB	24 TB	Coming Soon
S384xm: 8 x Intel® Xeon® Processor E7-8890 v4	OLTP	384	8 TB	32 TB	Coming Soon
S576m: 12 x Intel® Xeon® Processor E7-8890 v4	OLTP	576	12 TB	48 TB	Coming Soon
S768m: 16 x Intel® Xeon® Processor E7-8890 v4	OLTP	768	16 TB	64 TB	Coming Soon
S920m: 20 x Intel® Xeon® Processor E7-8890 v4	OLTP	920	20 TB	80 TB	Coming Soon

# DEMO

- DRaaS Scenario
- On-prem to cloud
- Recovery in under 20min

The screenshot displays the Ocean9 console interface for configuring a new SAP HANA system. The page title is 'Restore Backup into new SAP HANA System' with a subtitle 'SAP HANA Backup: hana-216-1e\_2017.02.15\_19.40.51'. The left sidebar shows navigation options: Setup, Systems, HA Clusters, Backups, Admin, and AWS. The main content area is divided into four sections:

- 1. System Specification**: Fields for System Name (Disaster Recovery System), HANA Revision (121), Environment (30 minutes IDLE time), SAP SID (HDB), Backup Schedule (daily @ 0:00 in UTC -7.C), and Availability Zone (Any).
- 2. Select Use Case**: Buttons for Dev Ops Testing (Spot), Development and Test, and Production Grade (selected).
- 3. Choose High Availability Mode**: Buttons for Standalone, 1 Site - 99.50%, 2 Sites - 99.95% (selected), and 3 Sites - 99.99%.
- 4. Select an option**: A table listing various machine configurations with 'Launch' buttons.

	SAP HANA Hosts	Machine Type	GB RAM	GB RAM usable	TOTAL vCPUs	Compute Units	TOTAL Hourly Cost	Production Certified
▶ Launch	2 x 1	c4.8xlarge	60	45	36	132	\$ 3.468 (On Demand)	● true / ● true
▶ Launch	2 x 1	c3.8xlarge	60	45	32	108	\$ 3.646 (On Demand)	● true / ● true
▶ Launch	2 x 1	m4.10xlarge	160	145	40	124	\$ 4.7 (On Demand)	● true / ● true
▶ Launch	2 x 1	r3.8xlarge	244	229	32	104	\$ 5.782 (On Demand)	● true / ● true
▶ Launch	2 x 1	m4.16xlarge	256	241	64	188	\$ 7.376 (On Demand)	● true / ● true
▶ Launch	2 x 1	r4.16xlarge	488	473	64	195	\$ 9.193 (On Demand)	● true / ● true

# Ocean9 Cloud Services

## Complete Solutions without Customer Lock-In

Service Definition & Management  
powered by Ocean9



**“White Box” Execution**



System Configurations in  
Customer Cloud Account

Options	Hours	Instance Type	TOTAL CPU-SEC	Storage GB-SEC	CPUs	Effective Hourly Cost	Production Guide compare - average
1	1	1x-4large	36.5	15.5	4	\$ 5.454 (on Demand)	Value
1	1	1x-2large	32	17	8	\$ 5.511 (on Demand)	Value
1	1	1x-2large	61	48	8	\$ 5.786 (on Demand)	Value
2	2	1x-4large	61	41	8	\$ 5.529 (on Demand)	Value
1	1	1x-4large	38	16	48	\$ 5.589 (on Demand)	Value
1	1	1x-4large	38	16	16	\$ 5.571 (on Demand)	Value
1	1	1x-4large	64	49	16	\$ 1.889 (on Demand)	Value
2	2	1x-2large	64	44	16	\$ 1.221 (on Demand)	Value
3	3	1x-4large	91.5	66.5	12	\$ 1.393 (on Demand)	Value
1	1	1x-4large	122	98	16	\$ 1.852 (on Demand)	Value

Ocean9  
Software  
Development  
Kit  
(SDK + API)

Ocean9  
Command  
Line  
Interface  
(CLI)

**Ocean9 Intelligent Platform**



### Customer Azure Account

- SAP-as-a-Service in customer cloud account
- Full manageability through Ocean9
- Customer auditability and extensibility
- Full security with data isolation from Ocean9

# Enabling and Securing Digital Business

## Ocean9 Builds a Bridge to the Azure Cloud



### **DR-as-a-Service and Backup-as-a-Service**

- Simple installation and operation
- Highly cost effective and fully secure

### **Innovation-as-a-Service**

- Deploy innovation systems for development and test in minutes
- Pay as you go with hourly or monthly subscriptions

### **SAP-as-a-Service**

- Reap the full cloud benefit and grow your digital business
- Available through your preferred SAP consulting or hosting partner



# SAP on Azure customers



# Rockwell Automation runs SAP HANA on Azure to realize its vision for the connected enterprise and advanced data analytics

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"Azure provides us the scalability, security, and level of services needed to confidently run our most demanding SAP HANA and Big Data applications."

Sujeet Chand, Senior VP and CTO



"We realized that our future lay in the smart use of data, to create more intelligent manufacturing processes, to reduce manufacturing costs, and to provide more innovative ways to meet customer needs. By speeding up SAP, we've been able to speed up the whole business. When you can speed order processing from hours to minutes, you can accelerate ordering, increase plant productivity, and improve shipment times."

Richard Cammish, CIO

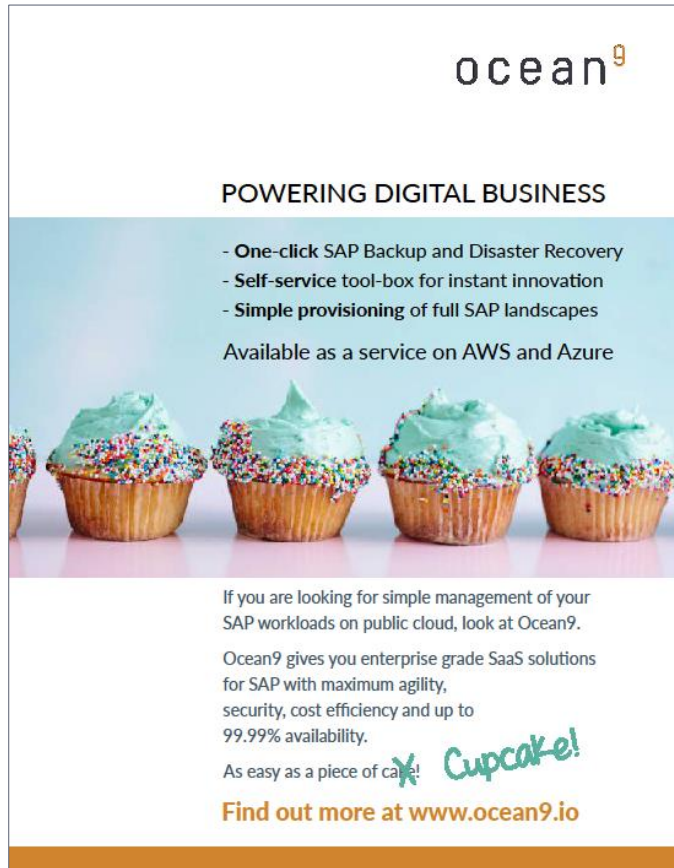




# Ocean9 Summary

Piece of cake

~~X~~ Cupcake!



ocean<sup>9</sup>

POWERING DIGITAL BUSINESS

- One-click SAP Backup and Disaster Recovery
- Self-service tool-box for instant innovation
- Simple provisioning of full SAP landscapes

Available as a service on AWS and Azure

If you are looking for simple management of your SAP workloads on public cloud, look at Ocean9.

Ocean9 gives you enterprise grade SaaS solutions for SAP with maximum agility, security, cost efficiency and up to 99.99% availability.

As easy as a piece of cake! ~~X~~ Cupcake!

Find out more at [www.ocean9.io](http://www.ocean9.io)

- The Enterprise Class “Easy Button” Solution
- Increased Performance and Uptime at Reduced Cost
- Making SAP and Business truly Agile



## High Value Pilot Offer



ocean<sup>9</sup>



In-person or  
Virtual  
Session

See if you qualify for  
one of three  
customized pilots

### Agenda:

- Architecture Design Session
- Analysis of Your SAP Landscape
- Best Practices for SAP on Azure
- SAP on Azure Systems Architecture
- Ocean9 DR-as-a-Service and SAP HANA as-a-Service trial subscription

# Please join next week's Webinar

## Thursday June 1, 10 AM Pacific

Modernize Existing Apps:  
Continue Your Legacy in the Cloud



# Meet Ocean9 at Cloud Expo in New York

June 6-8, 2017 – Free Ocean9 guest passes

1. Go to the special registration [page](#)
2. Fill out the Attendee Information form
3. Select the VIP Gold Pass Registration Option  
(located on page 3 - “Registration Plan”)
4. Enter the Discount Code: **FacultyGuest**
5. The price will re-set to **\$0**







# Thank you

**Swen Conrad**  
CEO  
swen@ocean9.io  
650 889 9876

**Darren Massel**  
Global Alliances  
darren.massel@microsoft.com  
289 305 9141

**Eamonn Coleman**  
Senior Marketing Manager  
azure@suse.com  
718 869 0494



# Slide download

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<https://www.ocean9.io/content-download/sap-as-a-service-microsoft-azure>

# Download the Slides

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- Download today's presentation slides
- Download Ocean9 whitepaper on Digital Transformation