

SAP HANA Digital Transformation — Make it easy & fast with Huawei



Milano, October 29th – SAP FORUM

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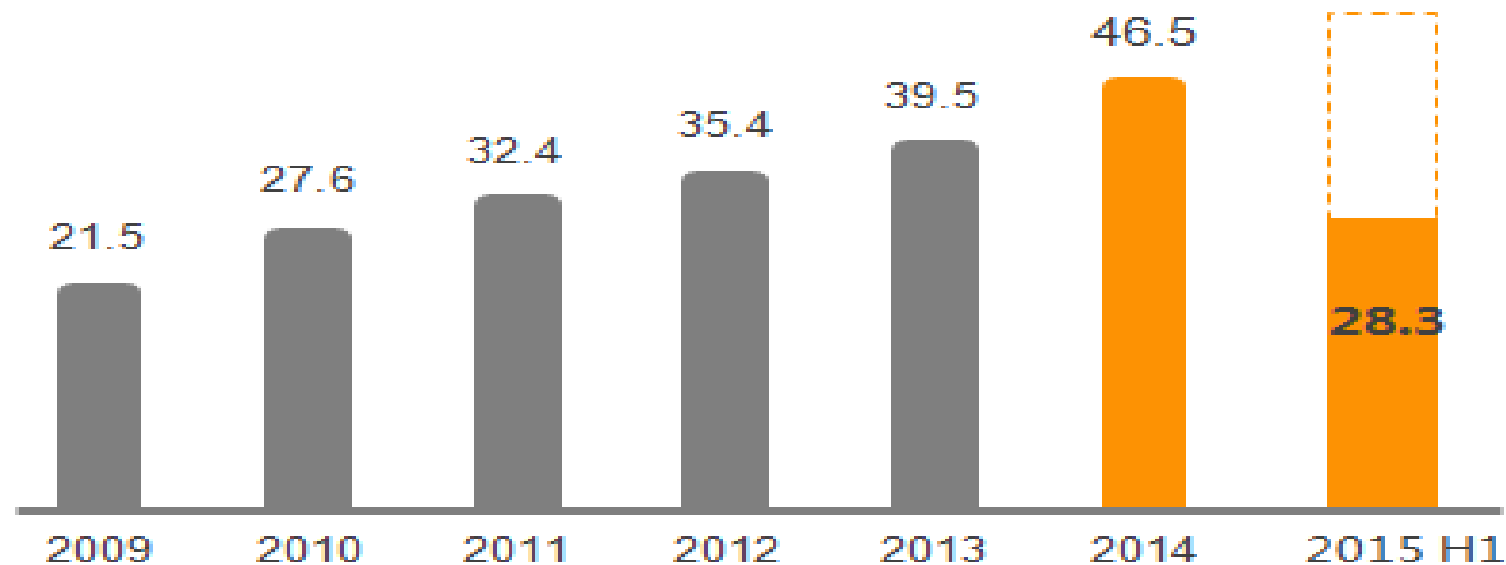


Huawei: A Global Innovator

- ✓ 16 R&D centers
- ✓ 170000 employees
- ✓ 50% R&D

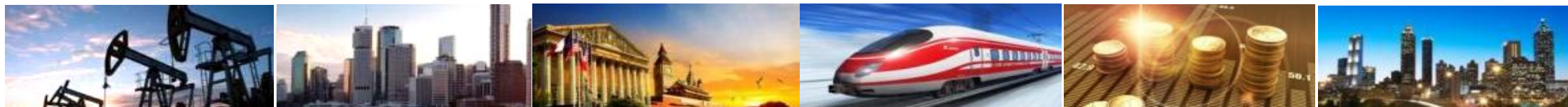
Sales Revenue

USD Billion



- Huawei headquarter
- Accounting share
- Bidding center
- Supply center &
- R&D center
- Training center
- Technical support
- Operations
- Huawei's global opportunities

Innovative ICT Products&Solutions Portfolio



Bring Your Own Device



Software Defined Network



Cloud Data Center

Unified Management

UC&C



Telepresence



UC



Conferencing



IVS



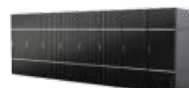
Contact Center

eSight

Data Center Infrastructure



Server



Storage



Cloud Computing



Networking Power

Security

Enterprise Network & Enterprise Wireless



DC Network



Agile Network



GSM-R/LTE



OTN/Microwave



Huawei“1+2+1” IoT Solution fill a plattform for I4.0 Structure





Datacenter SD-DC2
Service, Driven, Distributed ,Cloud Data Center



Big Data Analysis
Big Data platform



Cloud Data Center
Storage | Flexible | Edge

Agile Controller (Controller- iRadar +Security View)

Security Concept Device Management Operation

1 Platform

2 Accesses



eLTE / LTE-M / 5G



IoT Router

1 Interface Lite OS (open source, lower consumption of energy)



Communication
Module (M2M Module)

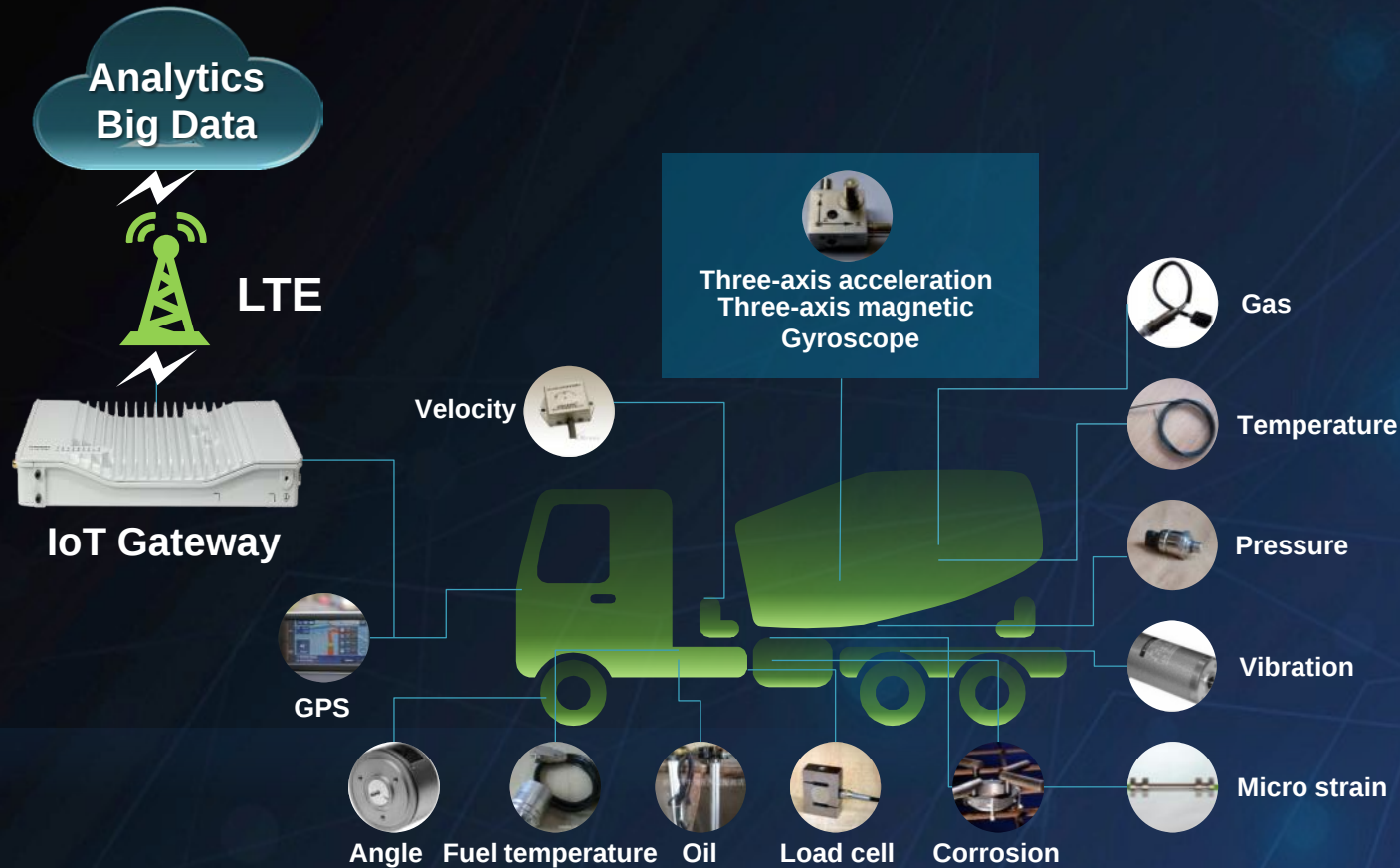


Chip Set



Smart
Device

Enabling Predictive Maintenance



120

before

30

Now

MMT Min. per
Month

MMT: Mean malfunction time

Huawei and SAP building on strengths



- A leading global ICT provider
- Possesses the most excellent R&D teams and most powerful R&D capabilities.

Real-Time Infrastructure Meets
Real-Time Information



- Market leader in enterprise application software
- BI application software provider



■ 2012

■ Leif Zheng (president ,Huawei IT product line) met Alex Atzberger (SAP SVP) and established global partner relationship in 2012 Q2.

■ 2013

■ Jim Snabe (SAP co-CEO) visited Huawei's HQ. Mr. Ren (Huawei Founder) and Eric Xu (Huawei Rotating CEO) met him and confirmed the development direction and targets with him in 2012 Q4.

Mr. Ren Zhipeng (Huawei IT product line VP) met SAP CTO Bernd Leukert in Huawei HQ in 2013 Q4.

■ 2014

Huawei Chief Strategy Marketing Officer William Xu met SAP co-CEO Jim Snabe. Huawei and SAP announced a new partnership at CeBIT in 2014.

■ ...

Huawei and SAP Build a Joint Innovation Center for Competitive Solutions

HANA
Appliance

IoT

Industry 4.0

Big Data

Cloud
Datacenter

- PCIe SSD Log algorithm optimization
- FusionInsight for big data
- 16- or 32-socket HANA appliance
- HANA cloud service



Waldorf

Shenzhen



+



+



Fundamental innovation

Allied innovation

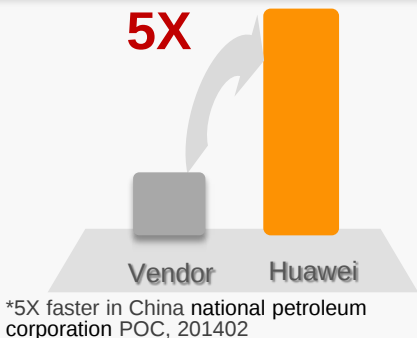
Ecosystem-based innovation



Top Performance and Largest choice of SAP HANA appliances

279 CERTIFIED APPLIANCES !

Agile Business



Performance

Optimized IO



**Huawei Solutions for
SAP HANA**

Simplicity

Converged
management



SAP Certified
Hardware for SAP HANA



CERTIFIED SAP HANA® HARDWARE
DIRECTORY

Feedback

Find Certified Appliances Easily

Overview

Certified Appliances

Certified Enterprise Storage

Supported Entry Level Systems

as of 2015-10-19

Search Appliance or Keyword

Page 1 of 279 appliances.

View: 25 | 50 | 100

1 2 3 4 5 6 7 8 9 ...

Current selection: Huawei Technologies Co., Ltd clear
selection

Compare Appliances Export as Pdf

FILTER APPLIANCES BY

Vendor

- ☐ Bull SAS (35)
- ☐ Cisco Systems, Inc. (100)
- ☐ Dell (102)
- ☐ Fujitsu Technology Sol... (242)
- ☐ Hewlett-Packard Comp... (209)
- ☐ Hitachi (97)
- ☒ Huawei Technologies C... (279)
- ☐ Lenovo (191)
- ☐ NEC Corporation (22)

Vendor	Model	RAM	Appliance Type	Tested CPU Configuration Other CPU models are supported
✓ Huawei Technolog...	RH8100 V3	6 TB	SoH	8 x Intel Haswell EX E7 8880v3
✓ Huawei Technolog...	RH8100 V3	6 TB	SoH	8 x Intel Haswell EX E7 8880v3
✓ Huawei Technolog...	RH8100 V3	6 TB	SoH	8 x Intel Ivy Bridge EX E7 8880v2
✓ Huawei Technolog...	RH8100 V3	6 TB	SoH	8 x Intel Haswell EX E7 8880v3
✓ Huawei Technolog...	RH8100 V3	6 TB	SoH	8 x Intel Haswell EX E7 8880v3

Huawei Solutions for SAP HANA Market Presence and Grow

300%↑

Estimated year-on-year increase of
SAP HANA hardware shipment in 2015

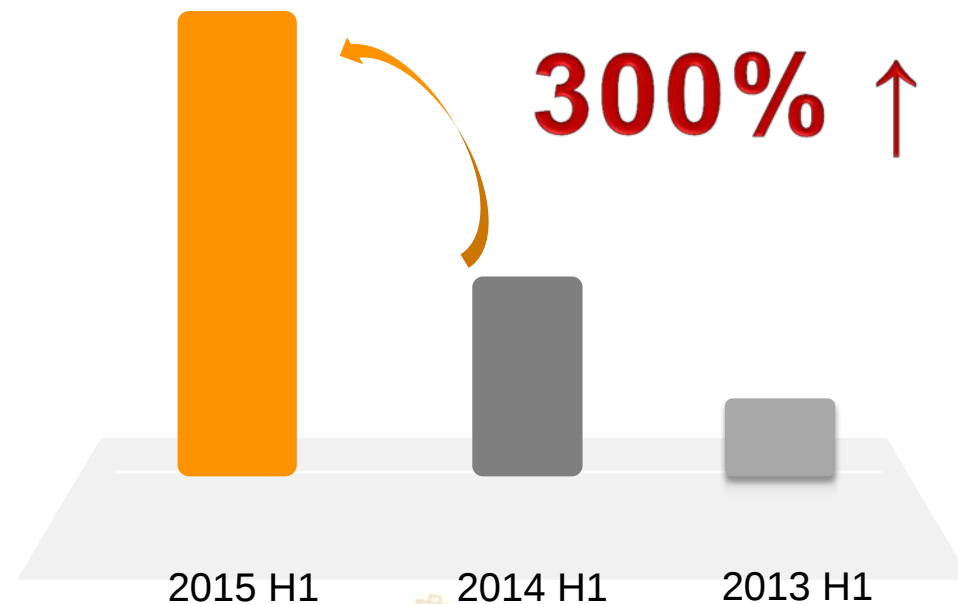
World's biggest HANA
system with 63 TB capacity



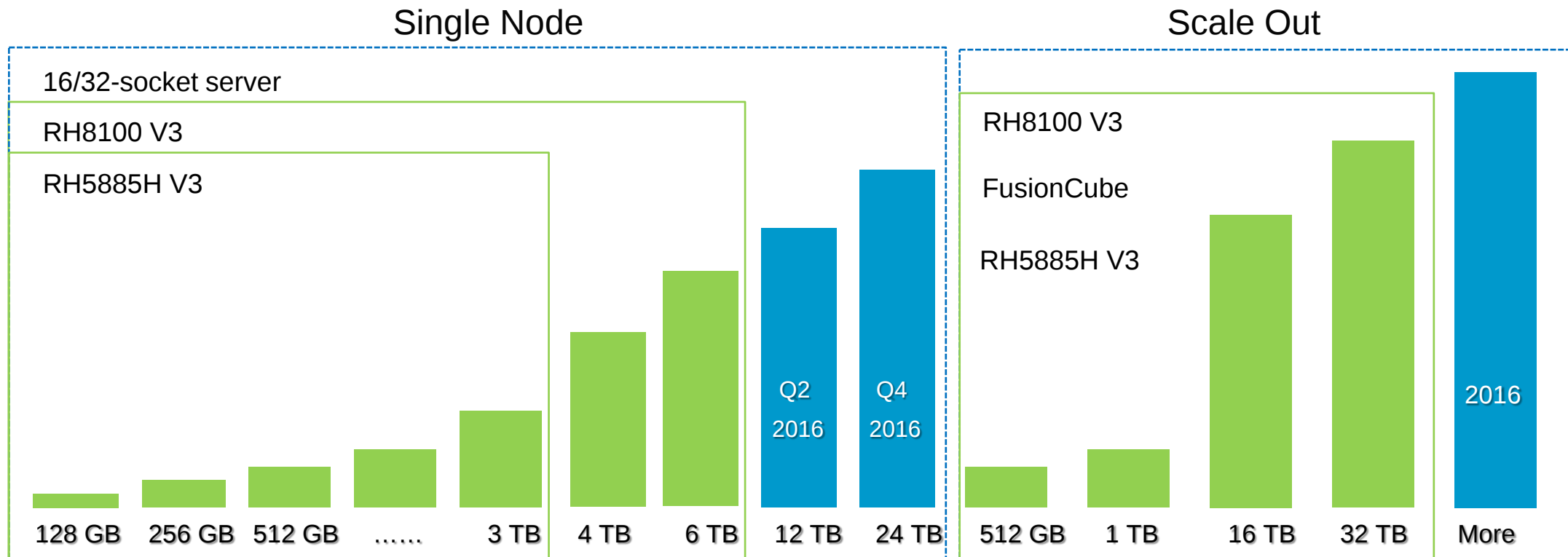
The First HANA Enterprise
Cloud case in Spain



2013 H1–2015 H1
SAP HANA hardware shipment



Complete Huawei SAP HANA platform offering



Huawei SAP Hana Solution Infrastructure Overview

Scale up

Business warehouse on HANA
Business suite on HANA
B1 on HANA



RH8100 V3 (8P)



RH5885H V3 (4P)



RH2288H V2 (2P)



16P/32P server

Scale out

Business warehouse on HANA



RH5885H V3 RH8100 V3



OceanStor Storage

Traditional solution



FusionCube

Converged solution

Tailored Data center

SAP Business warehouse on HANA
SAP Business suite on HANA



FusionServer



OceanStor Storage

I/O
acceleration

SSD Card



QDR/FDR
Infiniband



Distributed storage



Single-Node Solutions

For small- and medium-sized enterprises (SAP B1)

RH2288H V2



HDD or SSD
Data volume

64 GB–256 GB

For SAP business suite business system

RH5885H V3



PCIe SSD Log volume
HDD Data volume

128 GB–3 TB

RH8100 V3



PCIe SSD Log volume
HDD Data volume

128 GB–6 TB

For SAP large core mission-critical business system

9016/9032



PCIe SSD Log volume
HDD Data volume

6 TB–24 TB

➤ **Big TCO saving: no need to change the server when upgrading memory**

RH5885H V3 server performance

No.1 in the **SPECint** and **SPECfp** tests

Mission-Critical Performance
20 NEW WORLD RECORDS



Data Center Virtualization
2-Socket



Technical Computing
4-Socket



Enterprise Computing
4-Socket

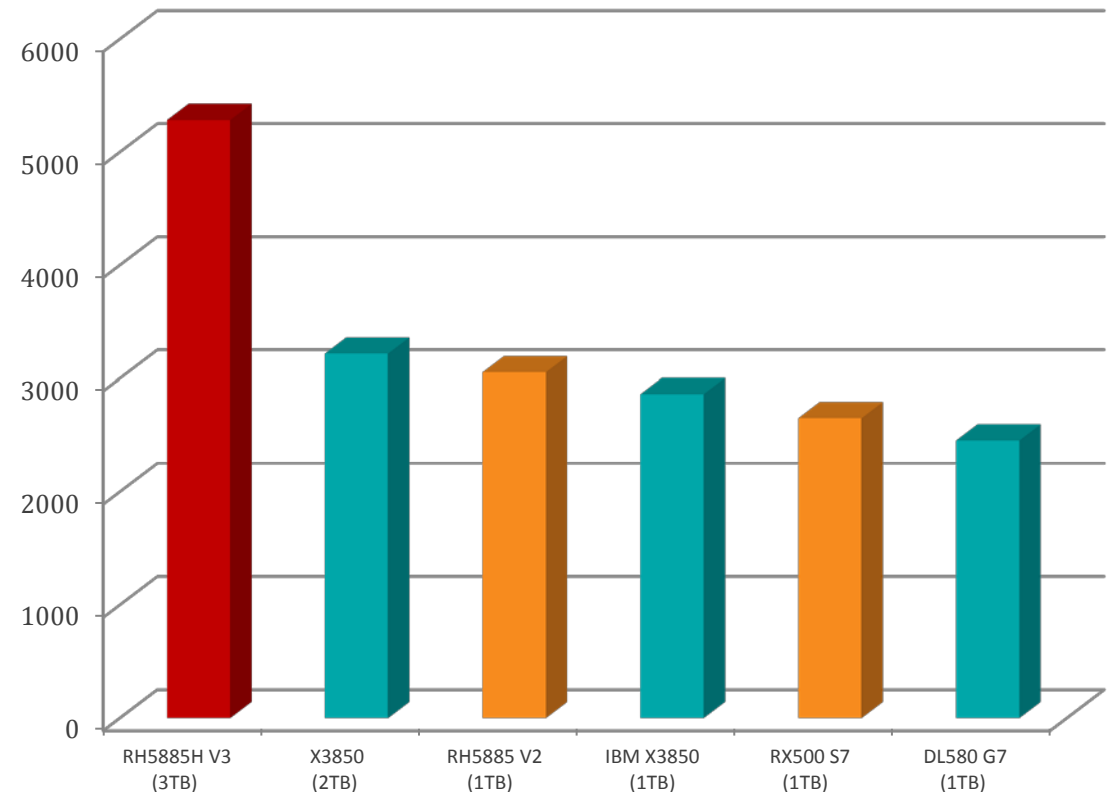


Brokerage Database OLTP
4-Socket

Segment - Benchmark	Partner/Platform	Absolute Result	Relative Improvement	Importance
Technical computing SPECfp_rate_base2006	4-socket Huawei RH5885H V3 using Intel Xeon processor E7-4890 v2 (37.5 MB cache, 2.8 GHz)	1730 baseline result	2.3x performance over Intel Xeon processor E7-4870	World Record 4-socket result
Enterprise computing SPECint_rate_base2006	4-socket Huawei RH5885H V3 using Intel Xeon processor E7-4890 v2 (37.5 MB cache, 2.8 GHz)	2320 baseline score	2.1x performance over Intel Xeon processor E7-4870	World Record 4-socket result (Tie)

RH5885H V3 improves floating-point computing performance by more than 64% compared with IBM P750.

Improved by **64%** for TPC-E

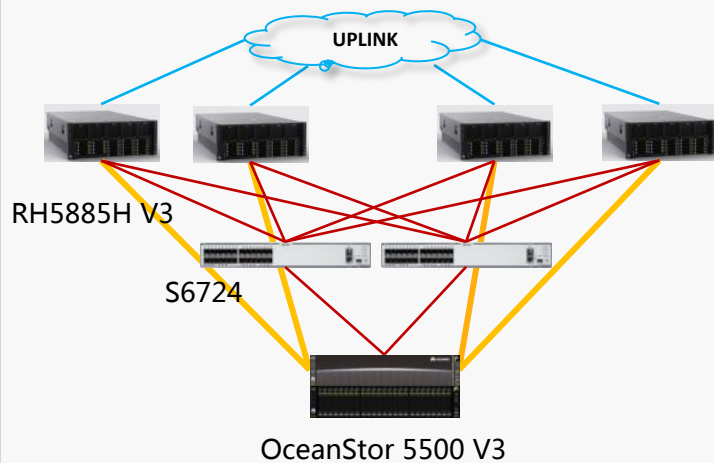


Source: Intel Official Website

Scale Out Solutions

SAN Storage (3+1TB)

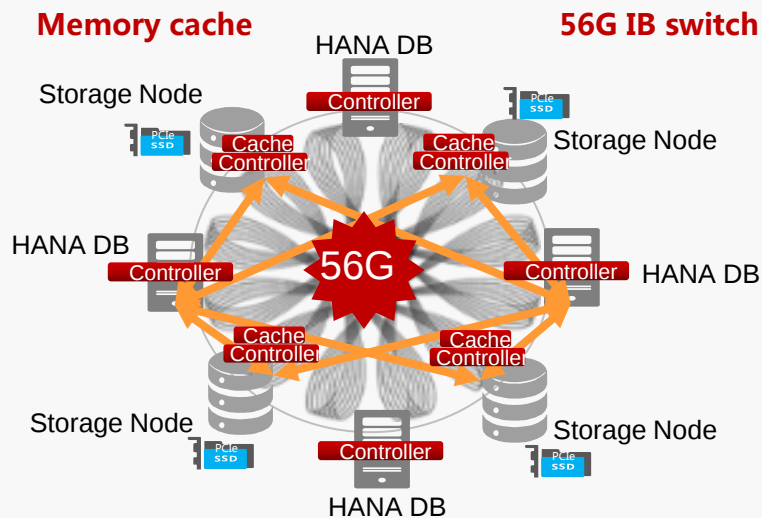
RH5885H V3+OceanStor Storage



512G~4T(4 nodes)

Distributed Storage (15+1TB)

FusionCube

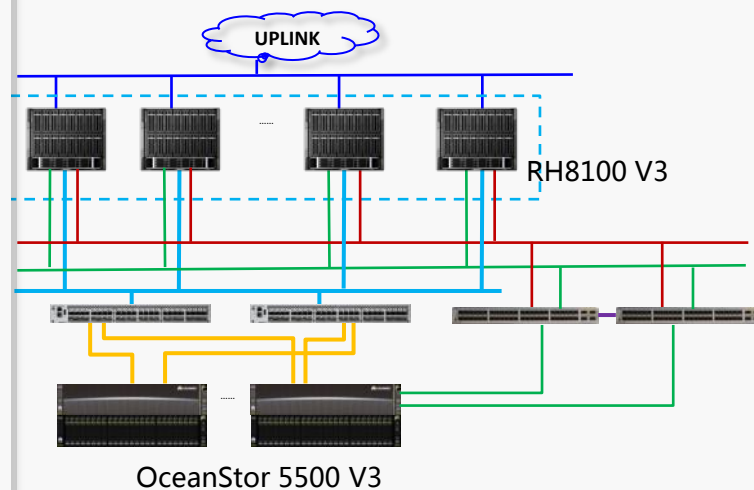


Distributed Storage

512G~16T(16 nodes)

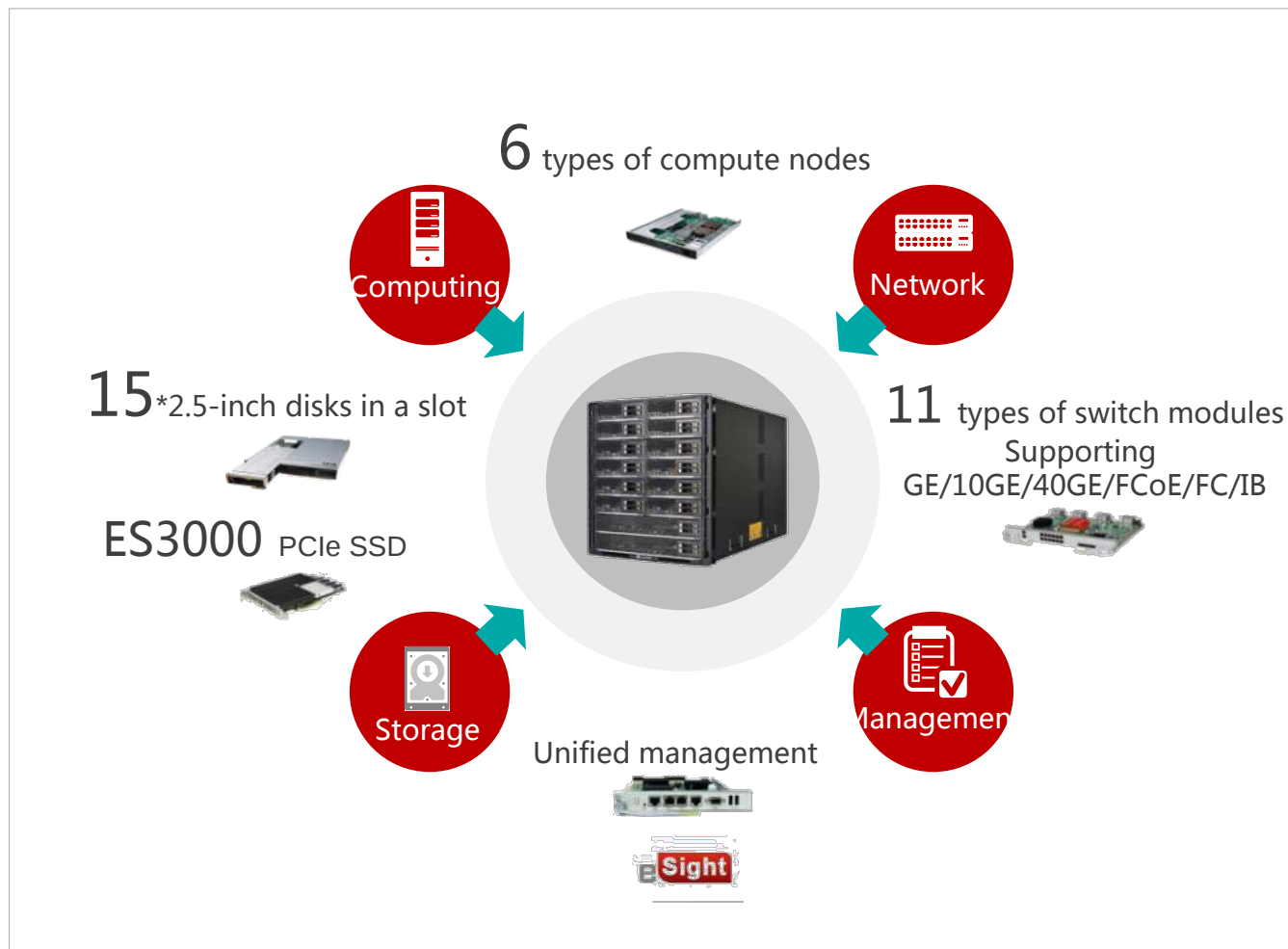
SAN Storage (30+2TB)

RH8100 V3+OceanStor Storage



512G~32T (16 nodes)

E9000 Converged Blade Server Meeting Various Workload Demands



Private cloud and hybrid cloud

Unified resource management and flexible expansion



Enterprise key services

Converged IT infrastructure



Acceleration appliance

PCIe SSDs and distributed storage eliminate the disk I/O bottleneck



In-memory computing

SAP HANA cluster based on E9000 FusionCube



HPC

up to 16.5T flops per chassis and speedy interconnection.

Huawei Solution: Do more with less

50%–75% hw footprint saved

Single-node system solution

World's only one single-chassis server that passes SAP HANA 6T certification



RH8100 V3

Scale out solution

SAP HANA cluster solution with the world's highest integration



FusionCube

TDI for SAP HANA Solution

Business warehouse or Business suite on HANA (OLTP/OLAP)

512 GB -> -> 6 TB



FusionServer

Optimal reliability and HANA computing density, easy to maintain

- Up to 60 RAS features to deliver reliability comparable to midrange computers
- Superb performance and expansion capability
- Modular design, easy to maintain, and smooth upgrade



1 TB -> 2 TB -> 32 TB

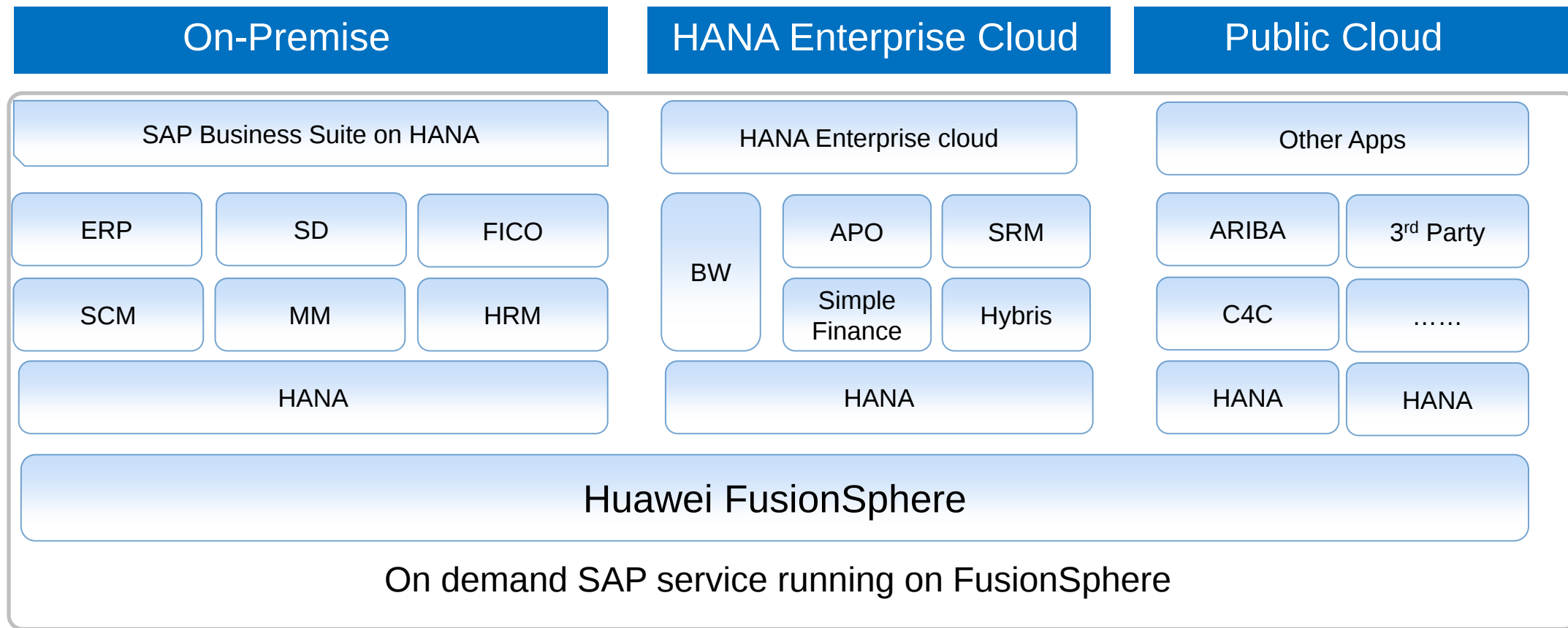


OceanStor Storage

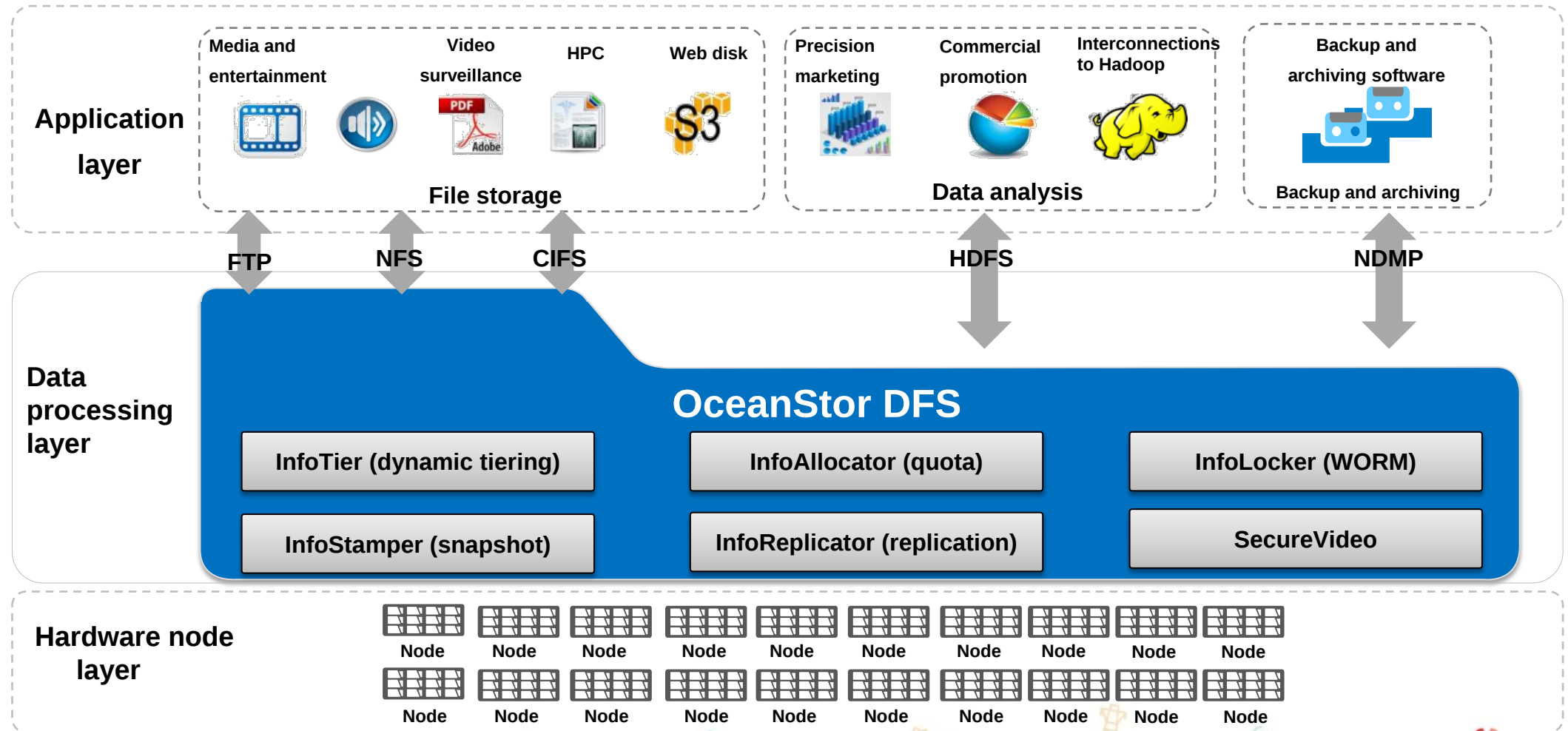
Optimal I/O performance, I/O latency, and reliability

- Huawei SSDs as log volumes, offering shortest I/O latency and optimal performance
- Large-capacity memory cache in the storage controller, delivering optimal I/O performance
- Comprehensive reliability design, ensuring up to 99.999% reliability

Huawei SAP Portfolio On FusionSphere



The architecture of big data storage OceanStor 9000



Huawei-Capgemini Partnership

Capgemini is Gold *Valued Added Reseller* (VAR) for Huawei products on the whole Enterprise Market, focused on IT area.



- **Huawei** is a leading global E2E ICT provider of Cloud Computing, Networking, Storage Solutions
- Possesses the most excellent R&D teams and most powerful R&D capabilities.

Strategic Long Term Alliance



- **Capgemini** as one of the world's foremost providers of consulting, applications and outsourcing services,
- Able to create and deliver business and technology solutions that fit its clients' needs and drive innovations and changes.



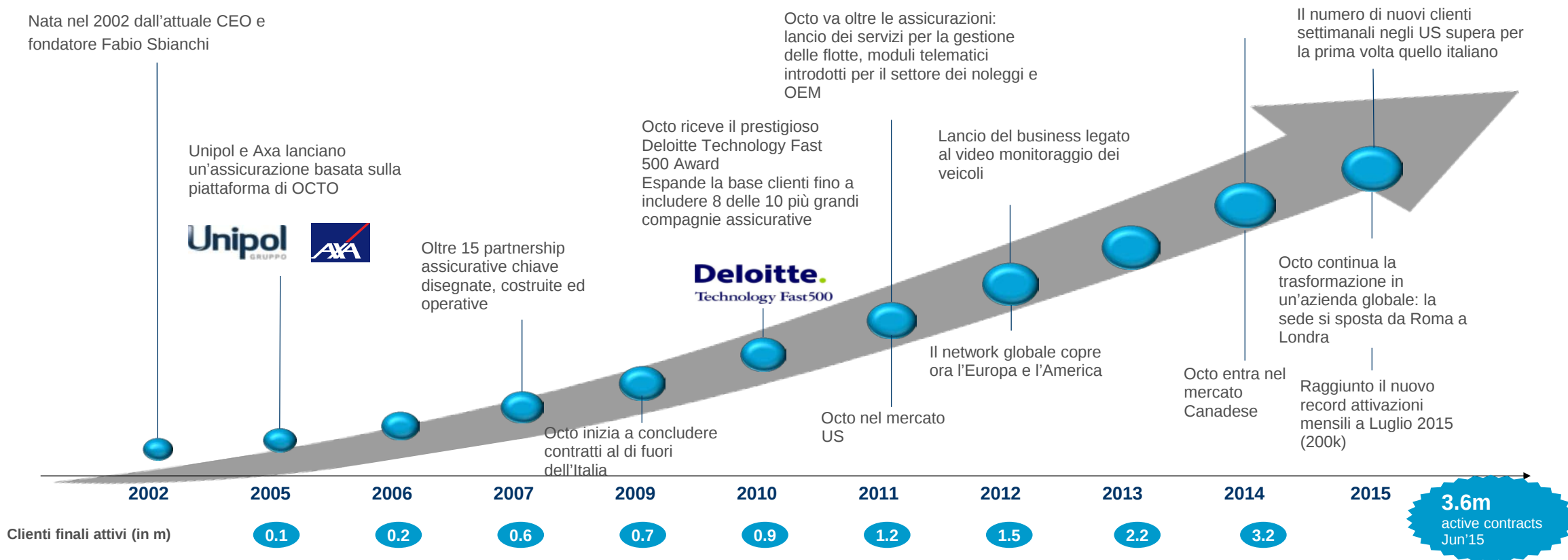
Reliable, Strategic and Long-Term
Partnership Alliance = **Value for**
Customers

IL CASO DI SUCCESSO



Chi è OCTO

Nata nel 2002 dall'attuale CEO e fondatore Fabio Sbianchi



- Ha la più grande e crescente base installata, con **3.6 milioni di clienti finali (+150mila ogni mese)** raggiunta grazie alla collaborazione con più di 151 partners nel mondo
- **Leader Globale** nel settore della **telematica assicurativa** in Italia, US e UK, i 3 principali mercati assicurativi telematici al mondo

Chi è OCTO in numeri

I numeri di OCTO



191 Miliardi di dati
raccolti nel più grande database telematico al mondo



3.6 Milioni di clienti
connessi, con un tasso di crescita di oltre 150.000 nuove attivazioni ogni mese



228.000 dati registrati, processati e immagazzinati ogni minuto e
400.000 crash ricostruiti

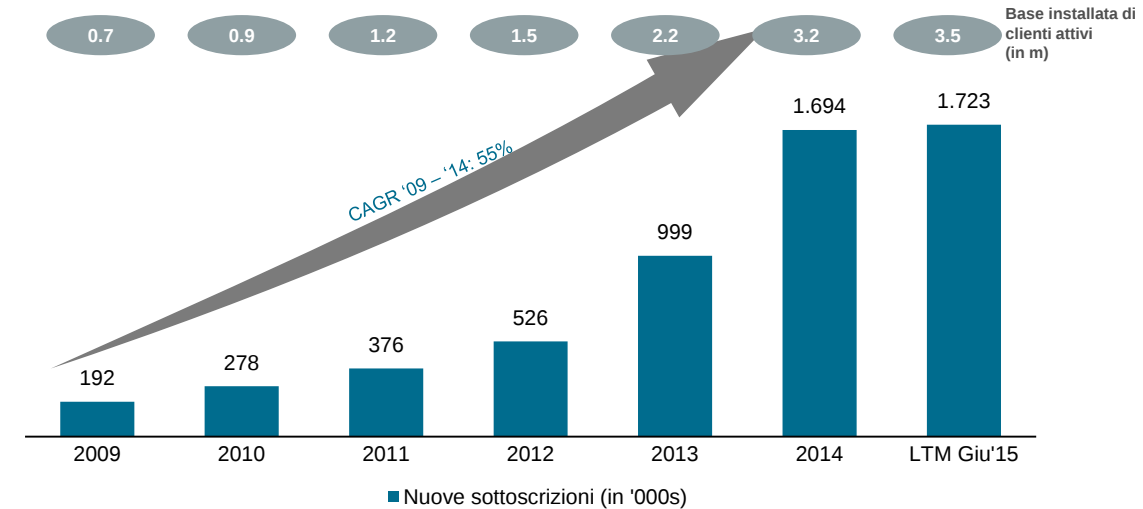


13 anni di esperienza
nei mercati insurance, automotive, renting e fleet



151
B2B partners nel mondo

Rapida crescita dei clienti attivi

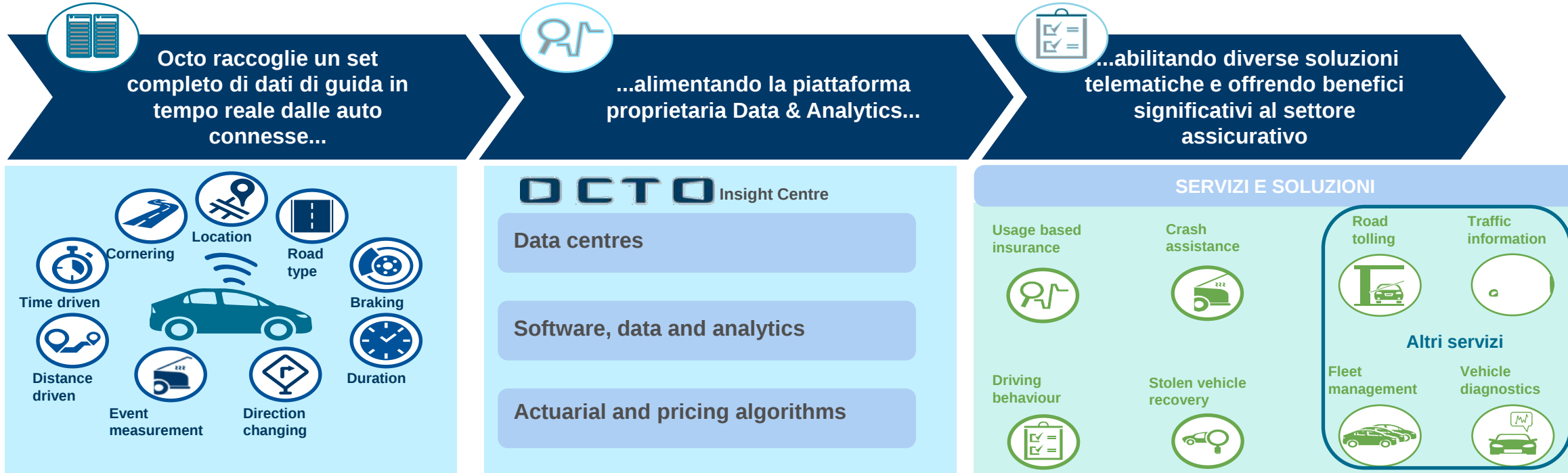


Diversificazione del mercato

- Compagnie assicuratrici
- Aziende per la gestione delle flotte
- Case automobilistiche
- Autorità pubbliche



Il modello di business di OCTO



BENEFICI PER IL SETTORE ASSICURATIVO

ASSICURATORI

- Risk pricing più accurato
- Riduzione dei costi
- Rafforzamento del marchio, fedeltà e retention
- Arricchimento dell'offerta

ASSICURATI

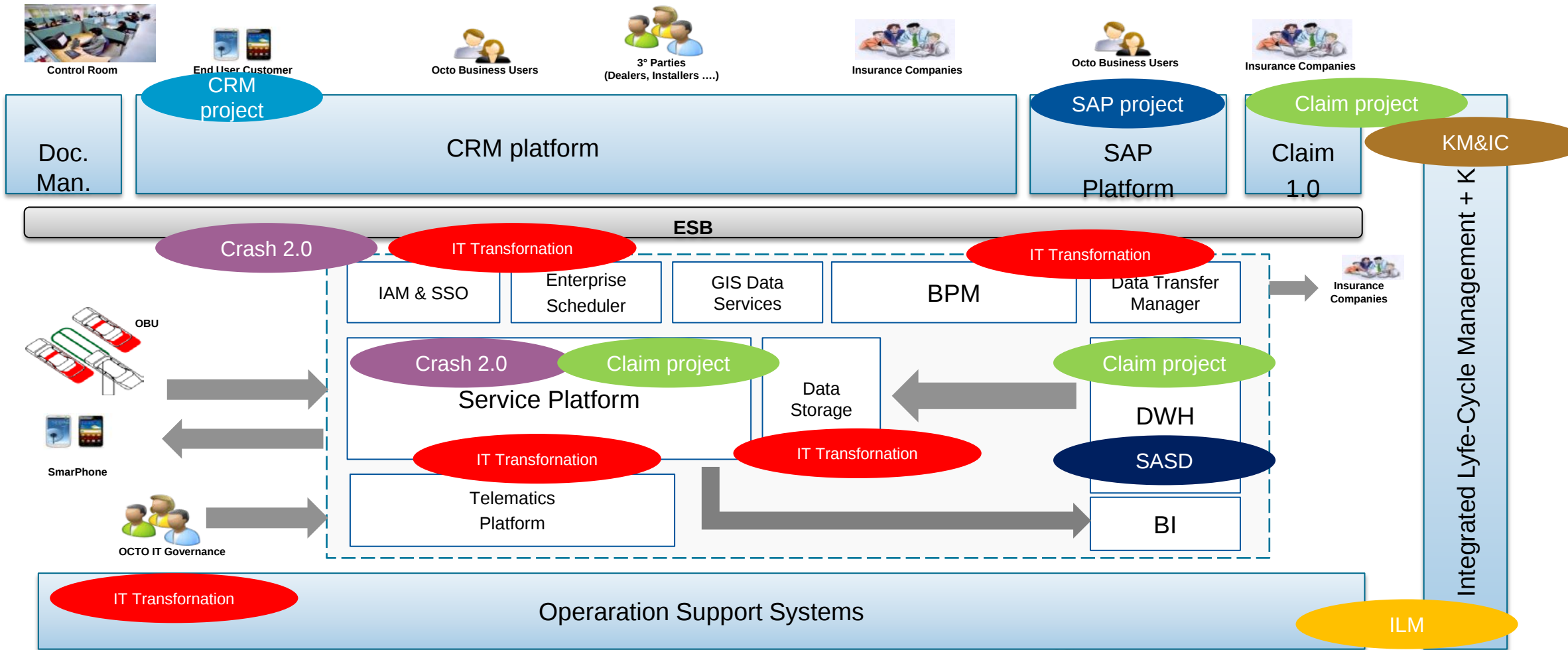
- Premi assicurativi più equi
- Miglioramento della sicurezza
- Gestione sinistri più efficiente
- Miglioramento dell'esperienza di guida

Le Aree di Trasformazione

Iniziativa	Obiettivi di Alto Livello
SASD	Monetizzazione dei dati - implementazione di nuovi servizi attuariali e miglioramento dell'attuale modello di calcolo del driving behaviour e dello scoring
CRM	Introduzione dei processi per la pianificazione del business - migliorare la customer experience - abilitare nuovi business model
SAP	Aderenza al nuovo modello di accounting & control - allineamento del modello della supply chain al nuovo business model - revisione dei processi di fatturazione e di revenue – aprire nuove tecnologie ad elevate prestazioni
IT Transformation	Abilitare un'architettura orientata ai servizi – sviluppare una piattaforma telematica dei big-data – aumentare la flessibilità per la consegna dei servizi
ILM	Migliorare lo sviluppo e la governance del ciclo di vita di un progetto
Crash 2.0	Migliorare gli algoritmi dei sinistri
Crash 1.0	Implementazione del processo del sinistro integrato
KM&IC	Implementazione dei processi e degli strumenti per la condivisione della Conoscenza all'interno di OCTO e verso i clienti



E l'impatto sui sistemi informativi



L'iniziativa ERP con Capgemini, SAP e Huawei



Riduzione dei tempi delle **chiusure** contabili mensili, trimestrali e annuali

Automatizzare i processi manuali

Abilitare **analisi sui dati**

Supportare la **crescita dei volumi** di business

Semplificare e **rinnovare** il parco applicativo

Rendere più efficaci i processi di **audit interno** ed aumentare la **tracciabilità** dei dati sui report contabili

Compliance US GAAP, IAS



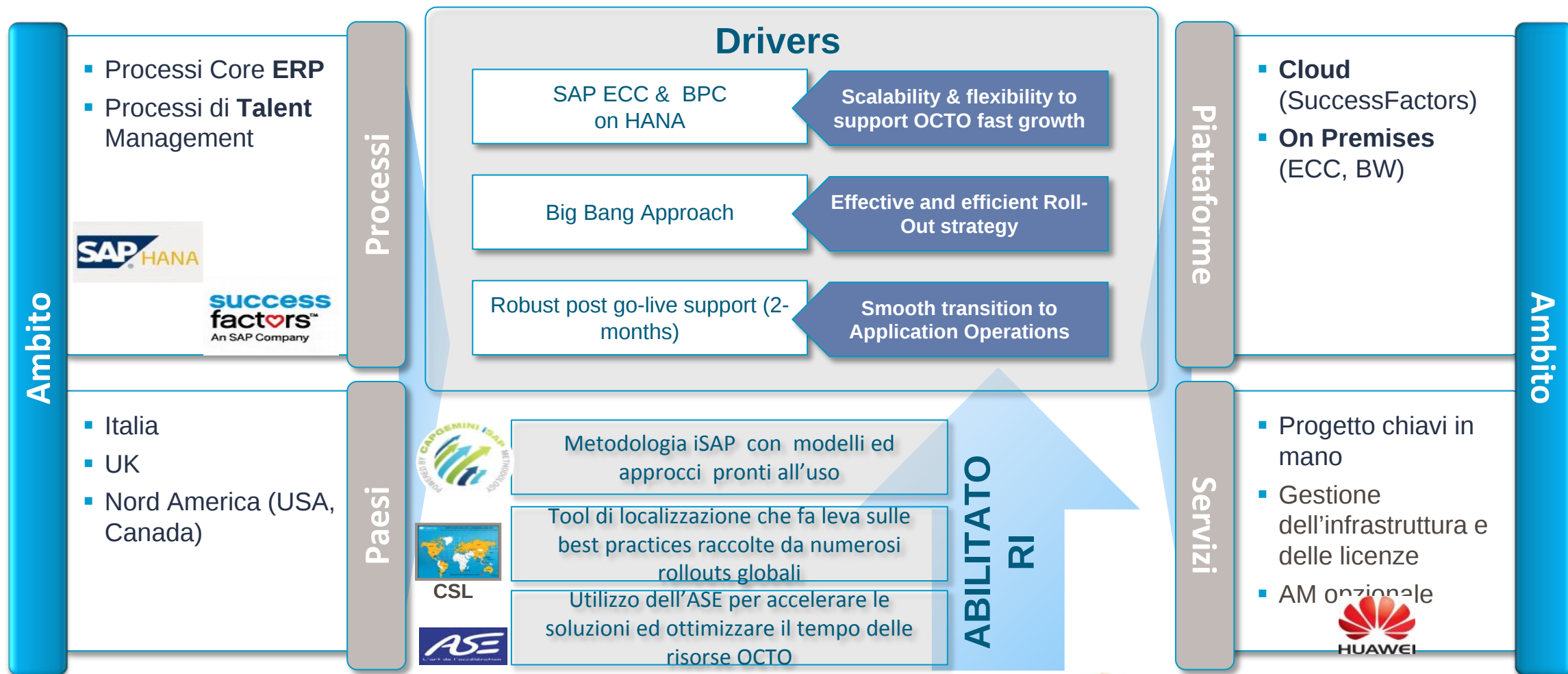
- ✓ **Gruppo globale** con presenza in 40 paesi
- ✓ **Practice SAP globale** (15.900 consulenti)
- ✓ Uno dei 4 **partner strategici di SAP**
- ✓ Certificazione **SAP Gold VAR**
- ✓ Offerta innovativa **HANA** e **SuccessFactors**
- ✓ Provata capacità di guidare **programmi di trasformazione**
- ✓ **Provata** metodologia **iSAP** che industrializza l'approccio in ottica LEAN e mette a disposizione best practice per i rollout internazionali
- ✓ **Prossimità** con gli uffici OCTO e possibilità di mettere a disposizione **l'infrastruttura di progetto**



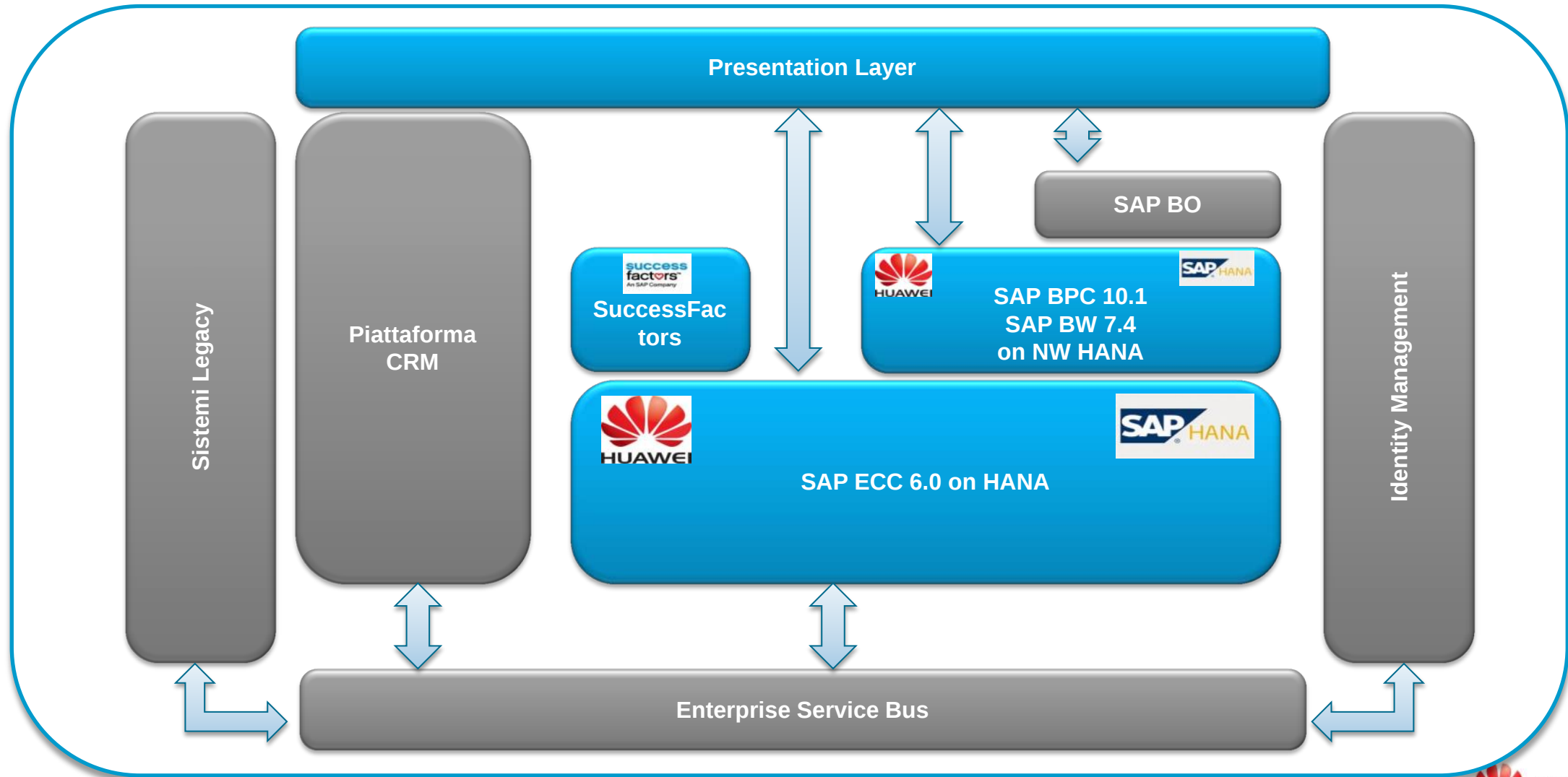
- ✓ **Gruppo globale** leader nel settore **carrier** con portafoglio di prodotti altamente innovativo
- ✓ **Focus** strategico su **HANA**
- ✓ **Certificazione SAP** per le macchine HANA
- ✓ **Partnership** con Capgemini
- ✓ Ottimo bilanciamento **costo/prestazioni**



L'Ambito del Progetto



L'Architettura della Soluzione



Perché HANA



- Un **contesto IoT** caratterizzato da Big Data: L'ERP su HANA abilita **elaborazioni complesse** dei dati
- **Tempi di risposta** alle Query e tempi di caricamento dati per BW non confrontabili con le architetture tradizionali
- Possibilità di **reporting real time** tramite HANA Live direttamente su ECC.
- **Semplificazione** dell'architettura **BW** (le aggregazioni dati per motivi di performance non sono più necessarie)
- Possibilità di **simulazione veloce** di scenari di pianificazioni su **BPC on Hana**
- **Chiusura veloce** dei processi sia finanziari che logistici (MRP)
- In linea con la **strategia SAP** di prodotto





Thank you!

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