



Achieving Real-Time Business Operation — Huawei Solutions for SAP HANA

MAKE IT SIMPLE, MAKE BUSINESS AGILE
精简IT, 敏捷商道

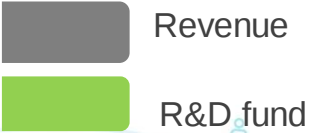
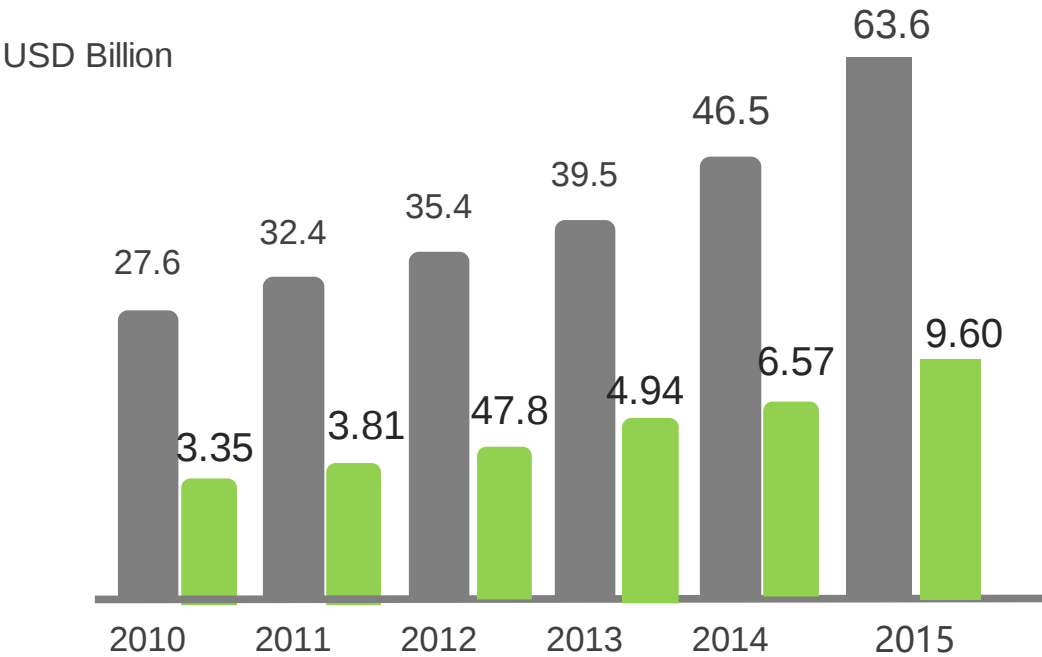


Huawei Group and its Server Business Steady Growth

Steady growth partner and huge investment in R&D

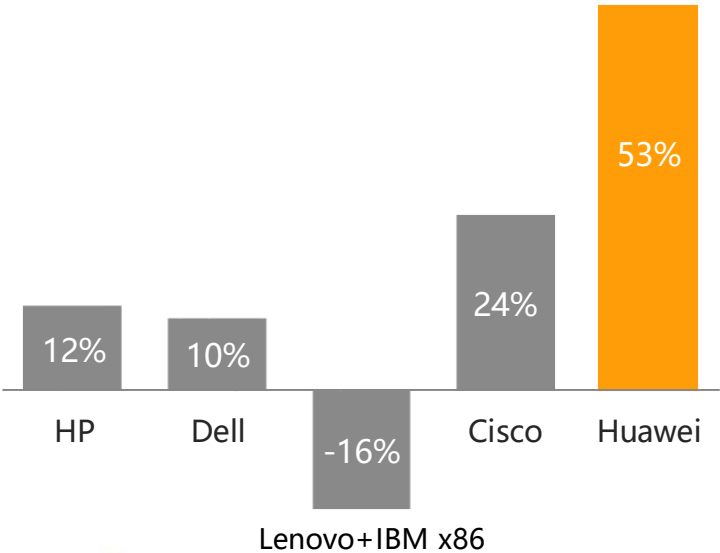


USD Billion



No.1
Increase

2015Q1-Q3 major server vender shipments compared with 2014 (Gartner source)



Huawei and SAP Build a Joint Innovation Center for Competitive Solutions



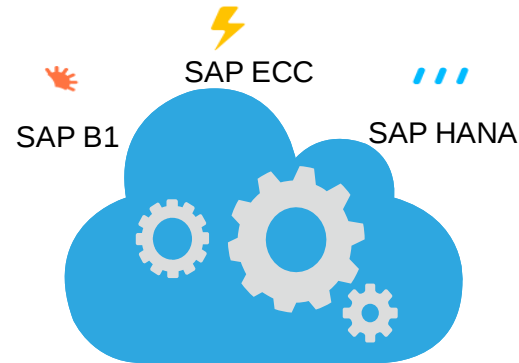
Joint Innovation for Enterprise Transformation

IT Infrastructure Innovation



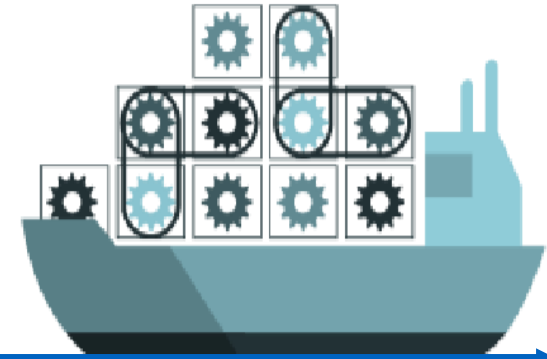
SAP HANA E2E infrastructure
Real-time service decision-making
Innovative and open IT architecture

SAP critical business on Cloud



Cloudified SAP apps and SAP HANA
Less CAPEX for enterprises
Simplified IT O&M

IoT Intelligent Interconnect



Industrial intelligent manufacturing and
interconnection solution
E2E IoT implementation

Huawei & SAP cooperation to jointly win-win!



RH5885 V2



FusionCube



RH5885H V3



RH8100 V3



OceanStor



KunLun

2011

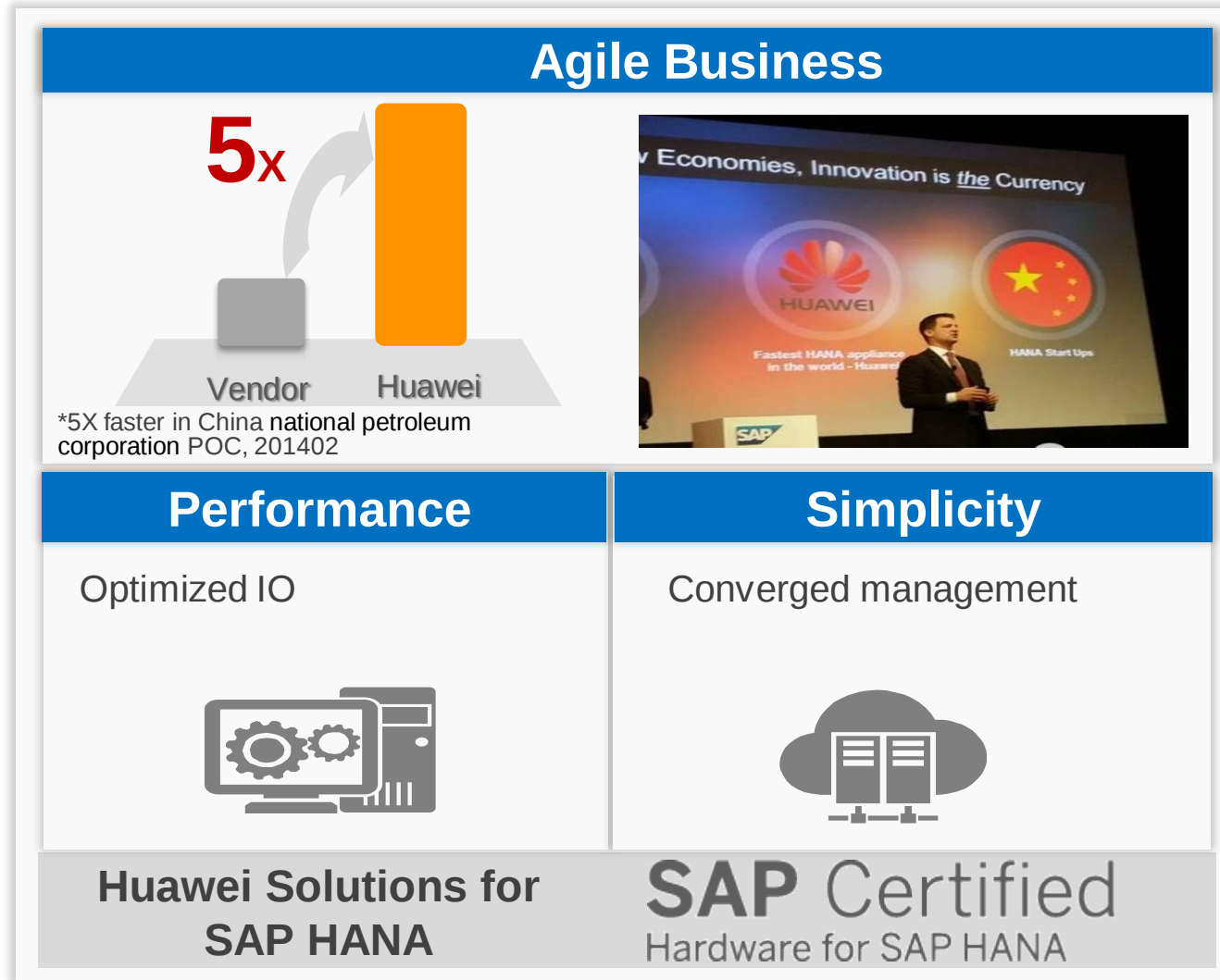
2012

2013

2014

2015

Optimized SAP HANA infrastructure

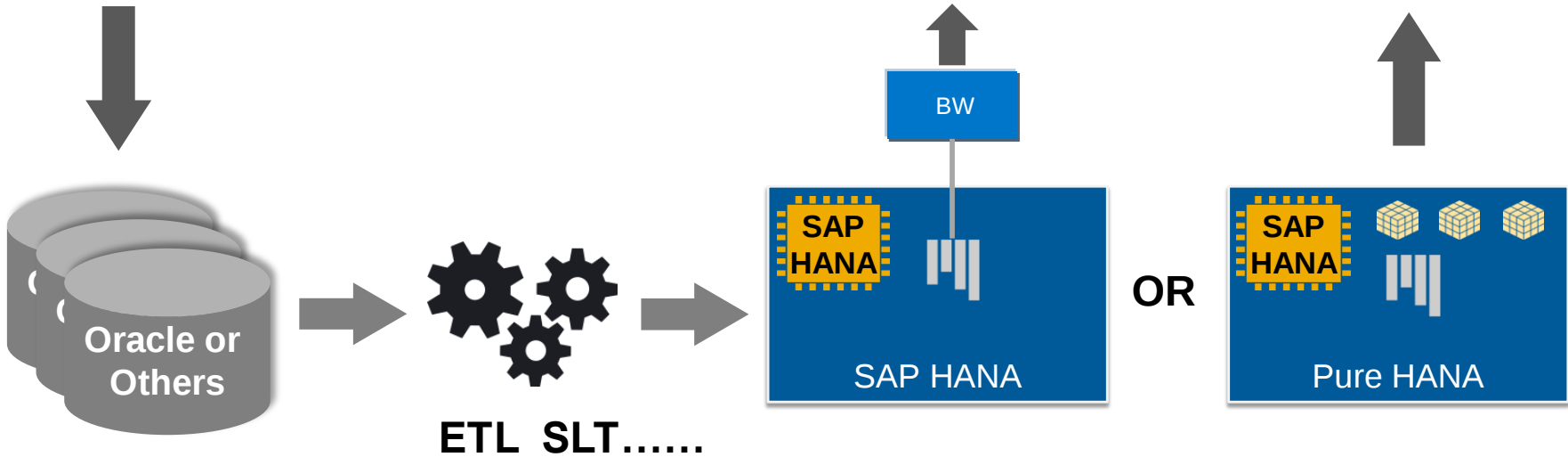
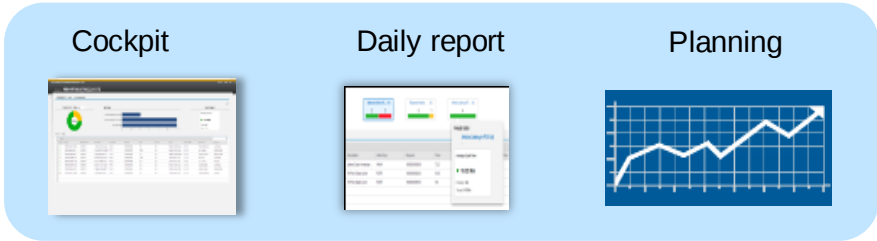


SAP HANA Scenario: Data Warehouse

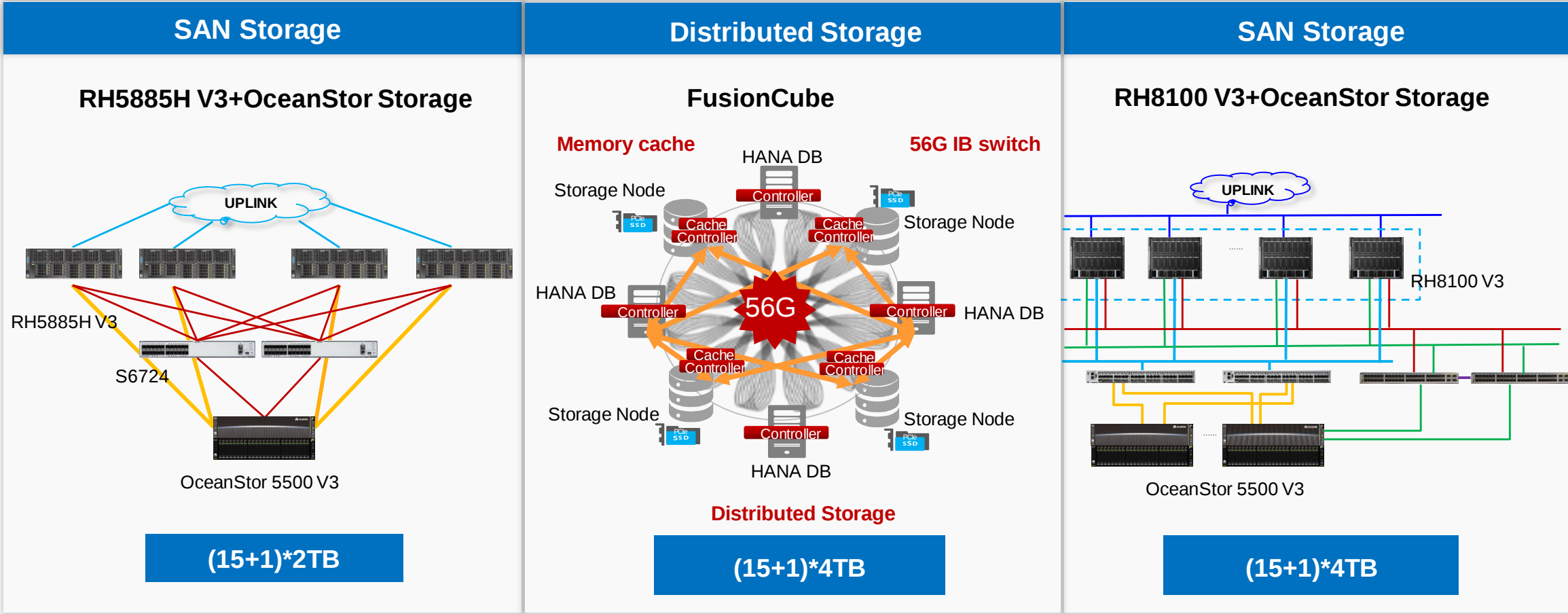
Business System



Analysis System



Scale Out Solutions

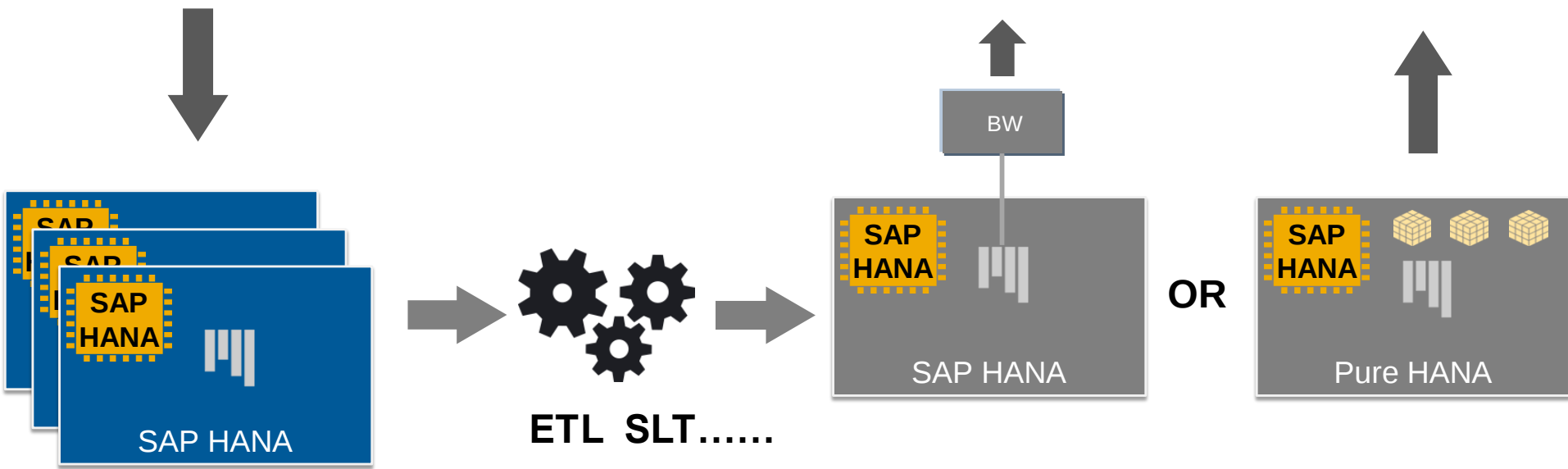
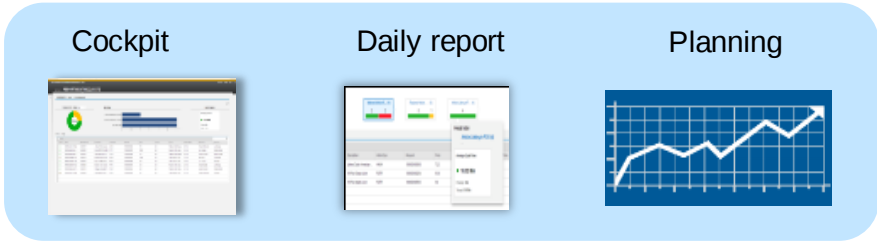


SAP HANA Scenario: Critical business

Business System



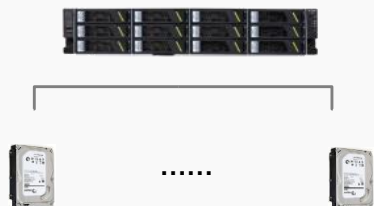
Analysis System



Single-Node Solutions

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

RH2288H V3



HDD or SSD
Data volume

64 GB–512 GB

For SAP business suite business system

RH5885H V3

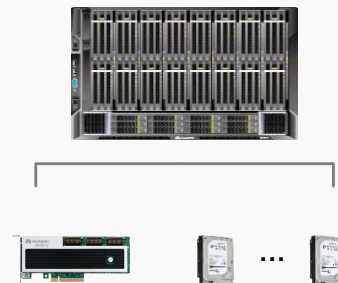


PCIe SSD
Log volume

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

KunLun



PCIe SSD
Log volume

HDD
Data volume

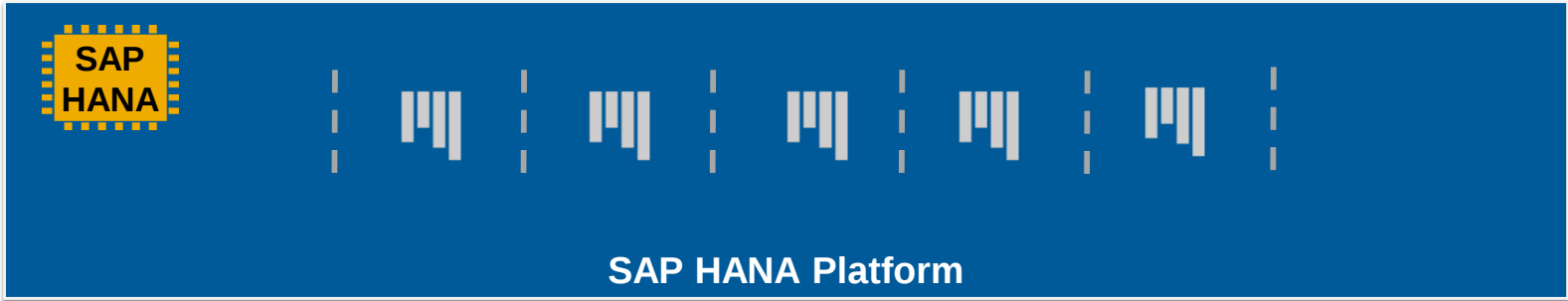
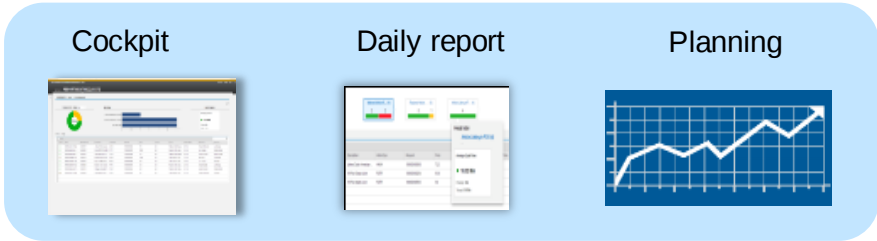
6 TB–24 TB

SAP HANA Scenario: Integration and Simplify Business S/4 HANA

Business System



Analysis System



Simple , Sharing , Real-time

Huawei integration solution for single data platform



➤ Simplicity

- reduce 80% sets of server

➤ Flexibility

- Resources on demand

➤ High Reliability

- RAS 2.0

➤ High Performance

- 1152 threads and 24TB memory in one server

Product system



System replication



Standby System



PCIe SSD
Log volume



OceanStor
Data volume

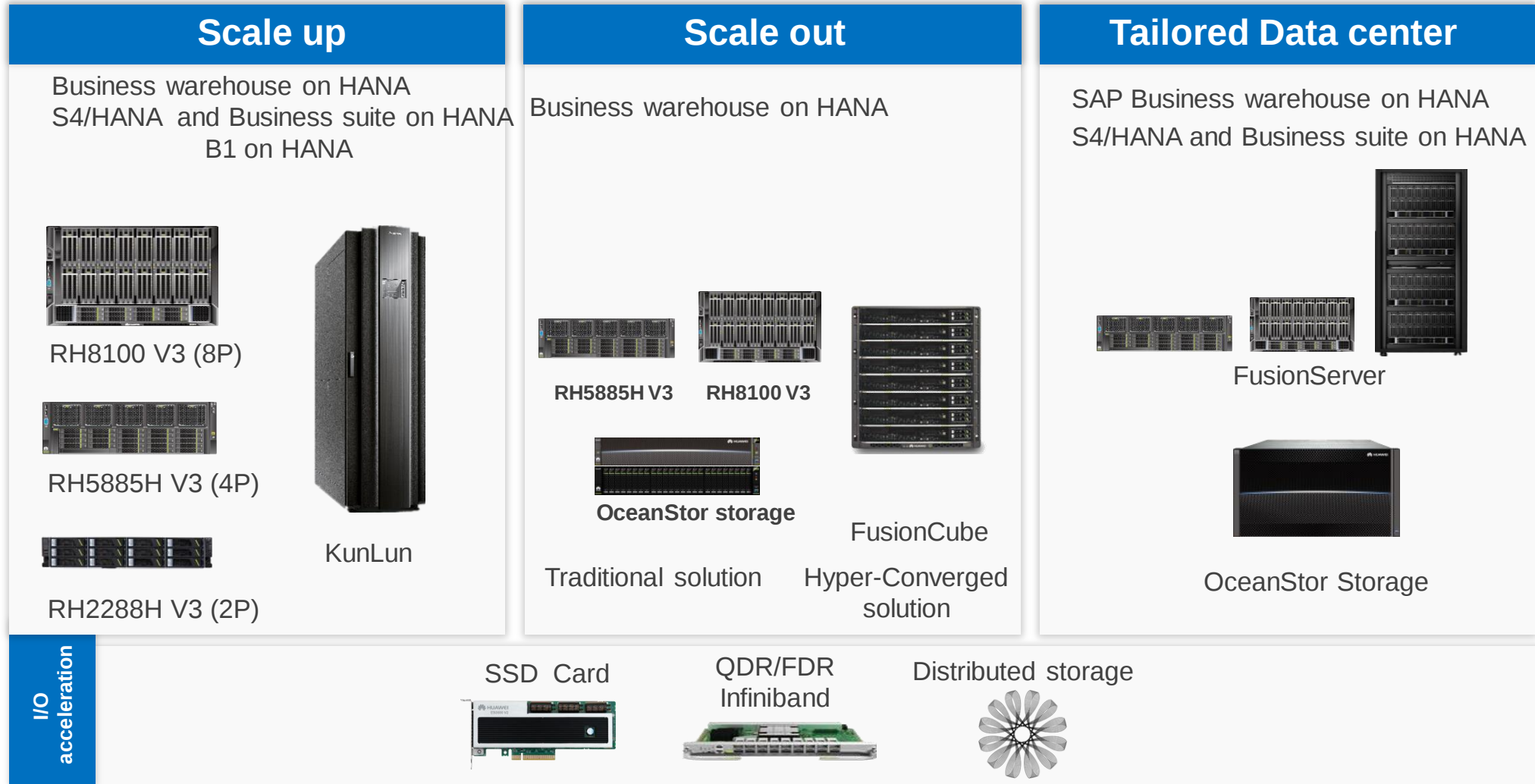


PCIe SSD
Log volume



OceanStor
Data volume

Solution Infrastructure Overview



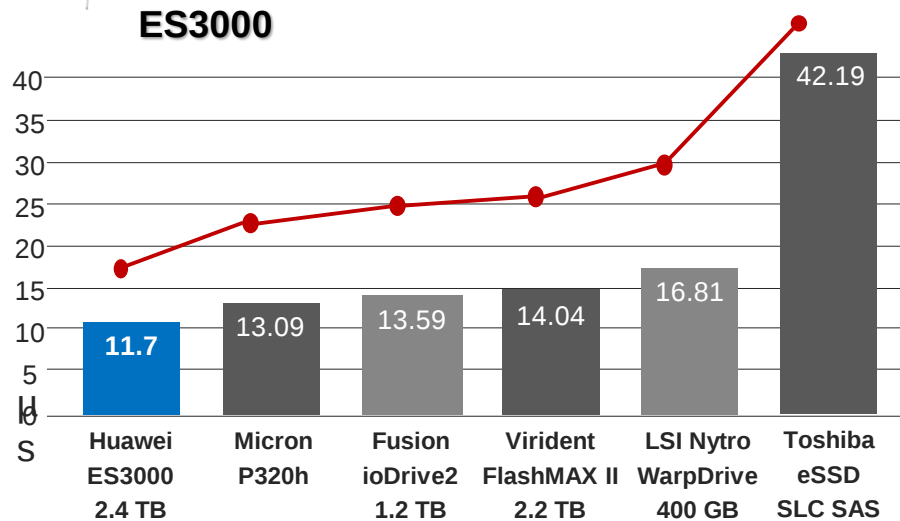
Performance Acceleration Innovation: Optimal Performance Experience

PCIe SSD for HANA DB write performance acceleration

2–3x improvement in HANA write performance

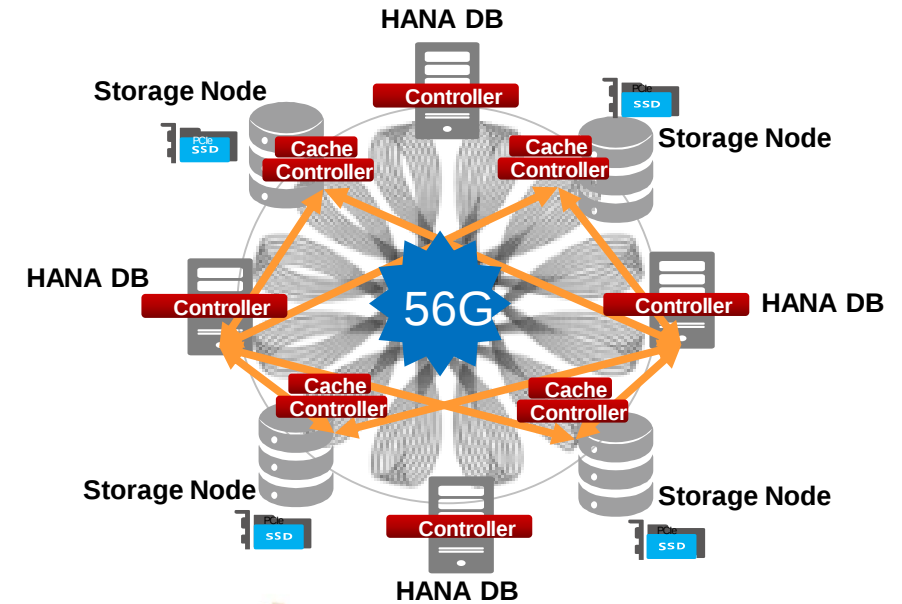


PCIe SSDs with industry-leading performance



Distributed storage + 56Gbps InfiniBand high-speed network

7x improvement in network performance,
3–5x improvement in concurrent I/O performance



Less Equipment Footprint

50%–75% footprint saved

Single-node system solution

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



RH8100 V3

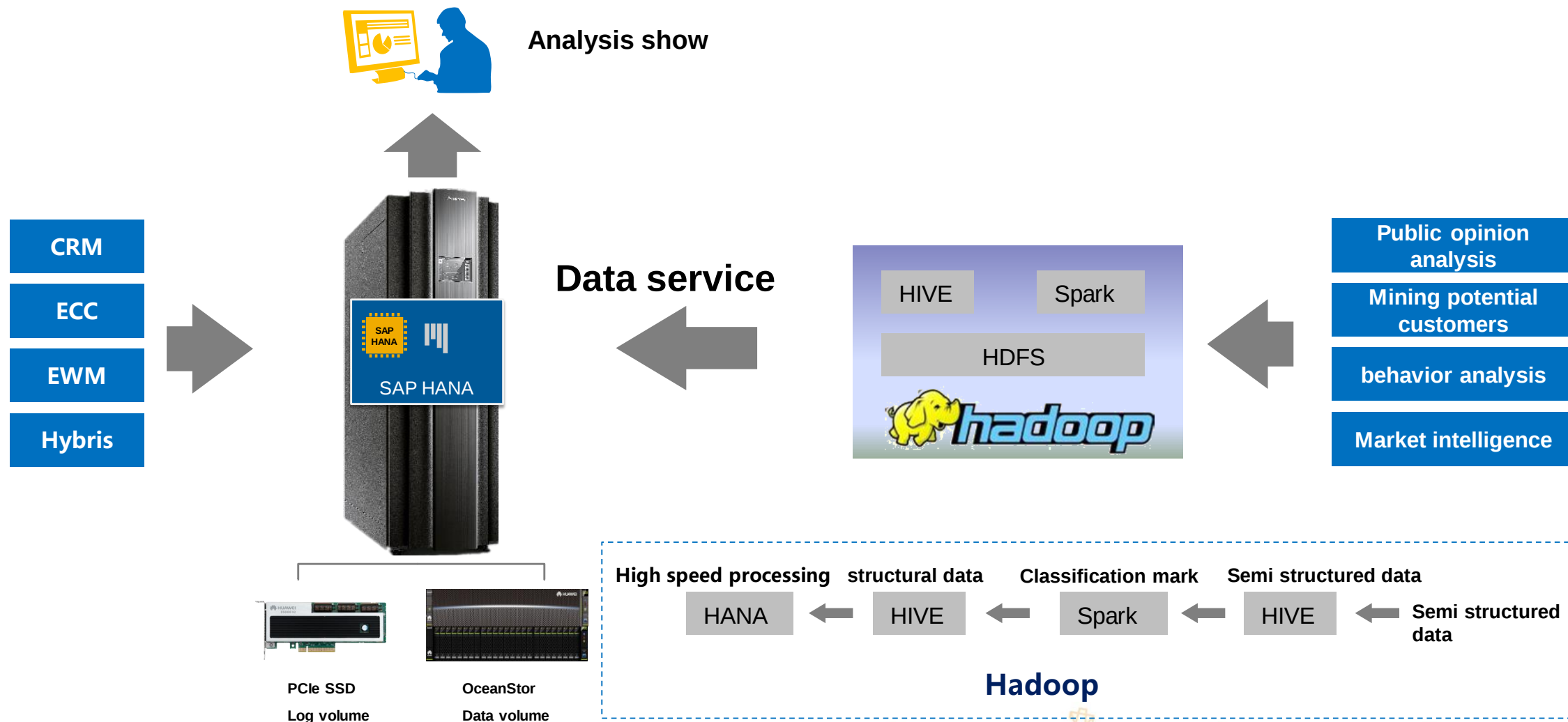
Scale out solution

SAP HANA cluster solution with the world's highest integration

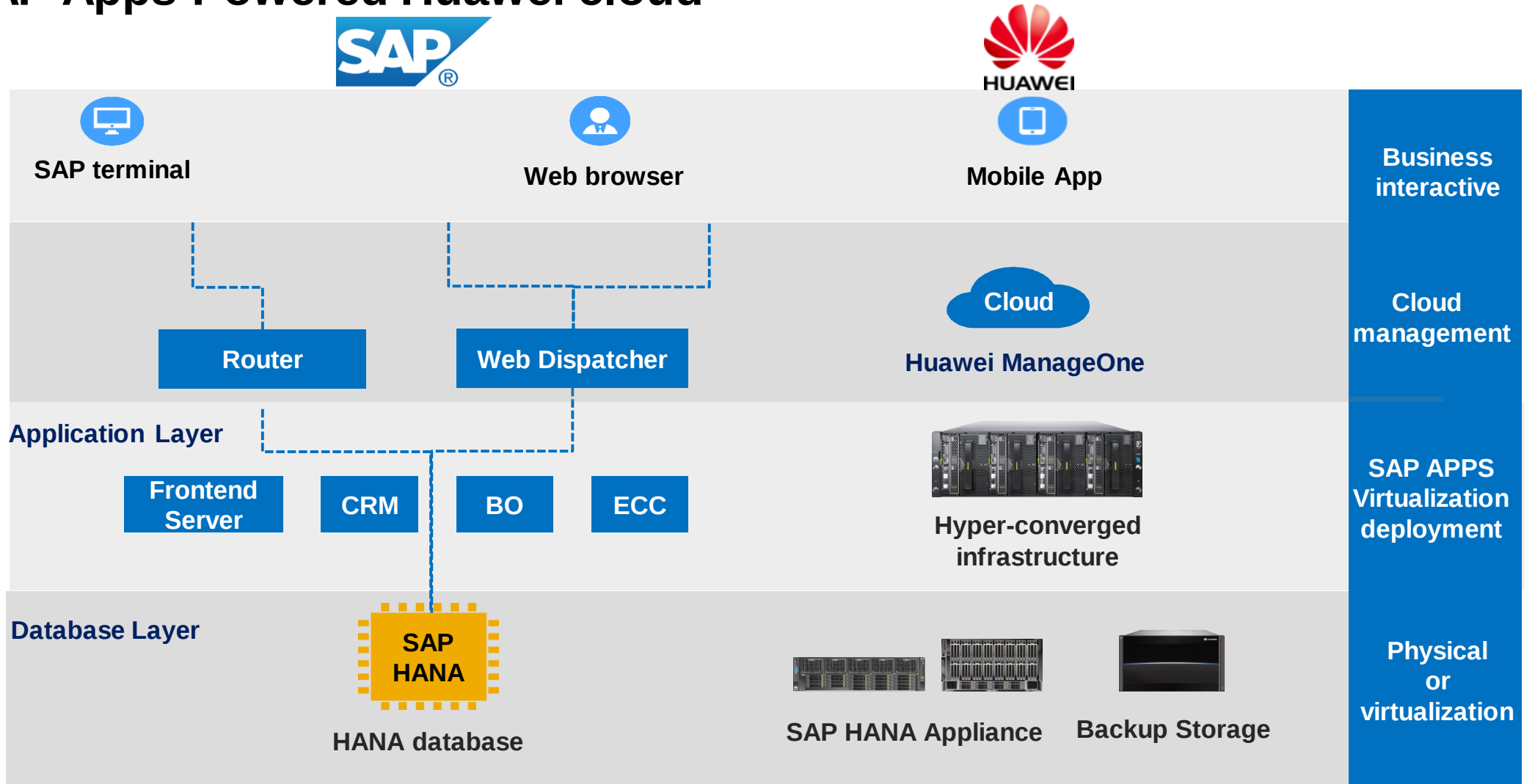


FusionCube

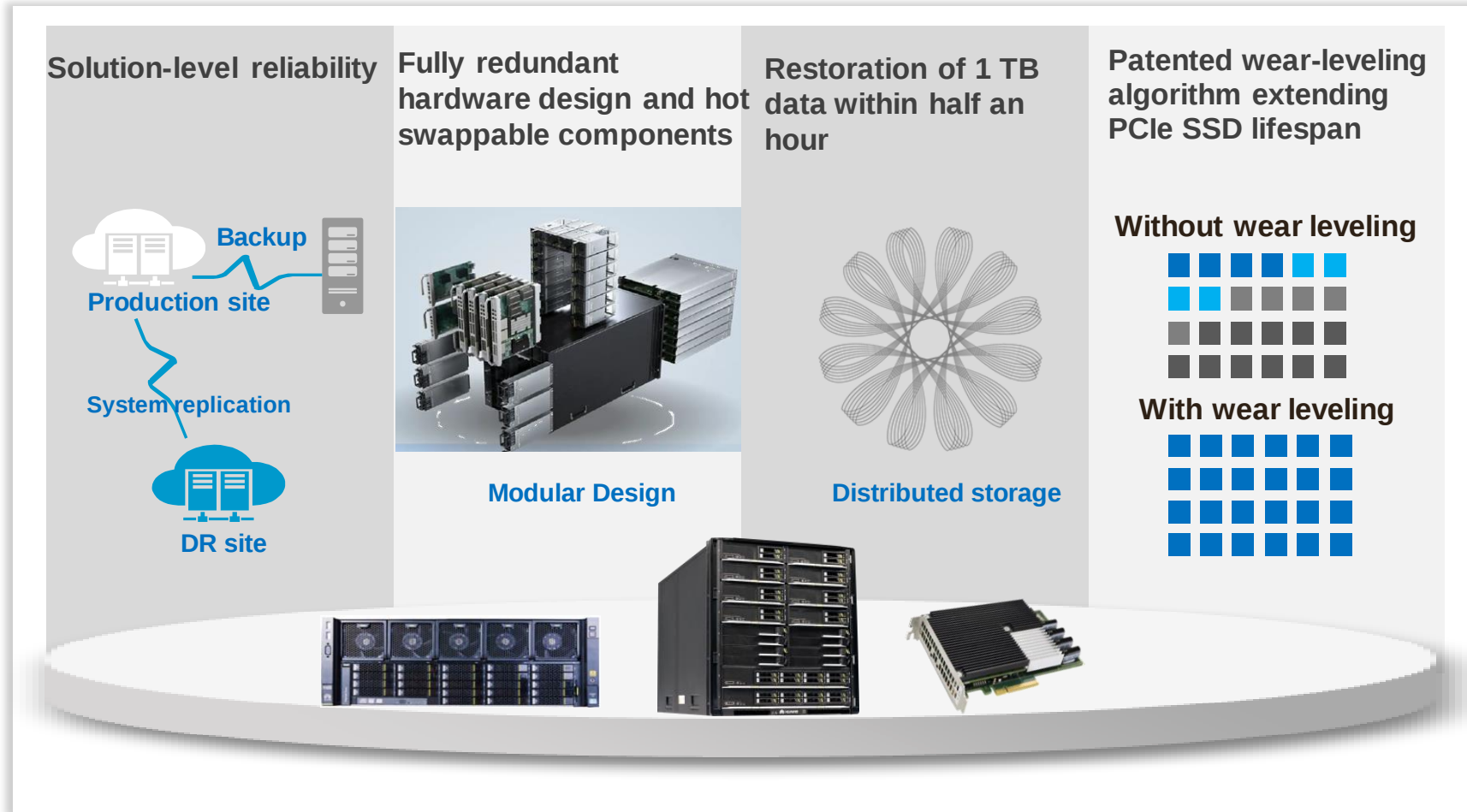
Big data Solution: Tiered storage with Hadoop, Huawei FusionInsight



SAP Apps Powered Huawei cloud



Enterprise-level reliability



Business Continuity Solution: Single-Node HA



✓ Automatic takeover, less manual misoperations



✓ Quasi-real-time service takeover, greatly improving the reliability

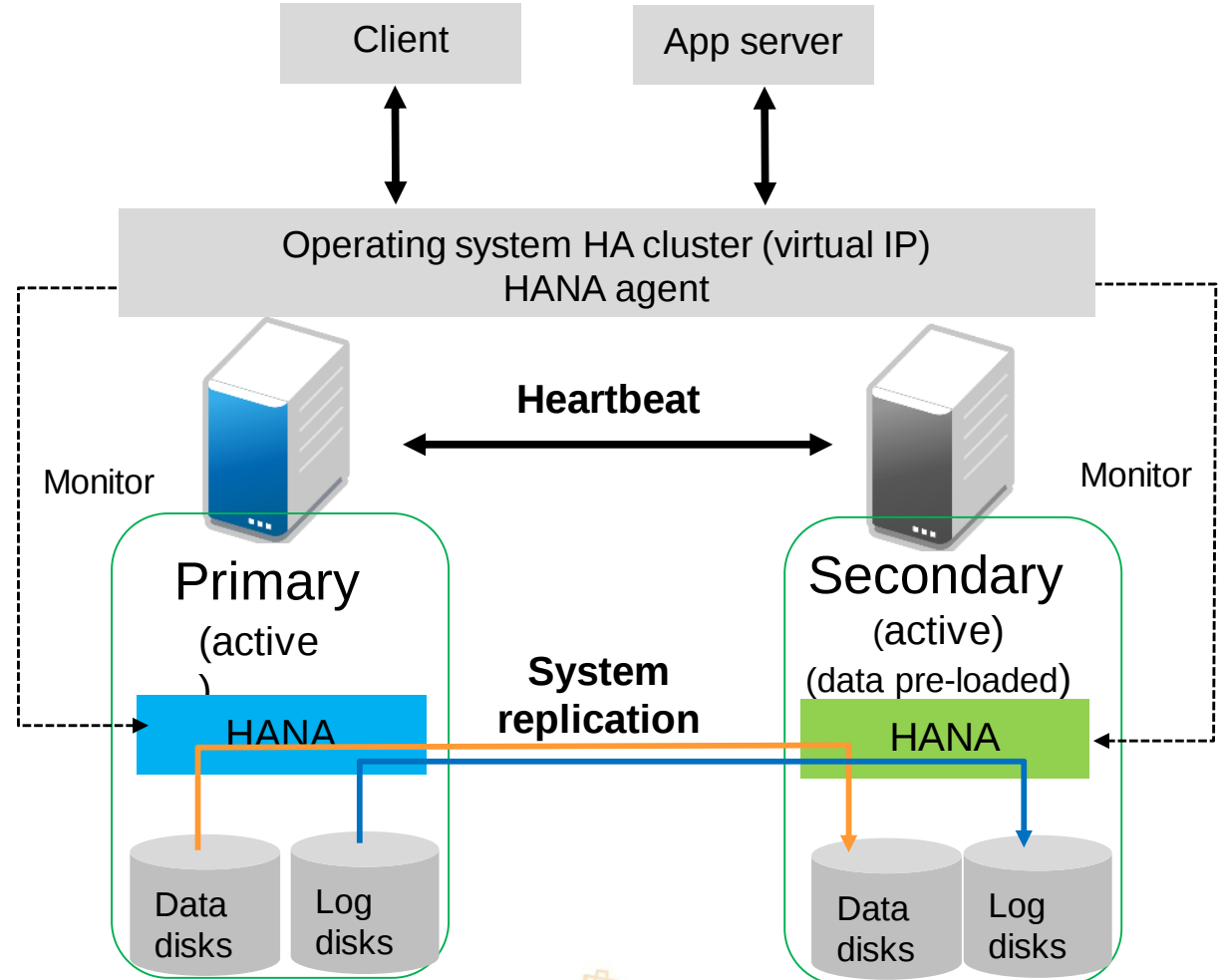


✓ Best TCO, no need for third-party HA software



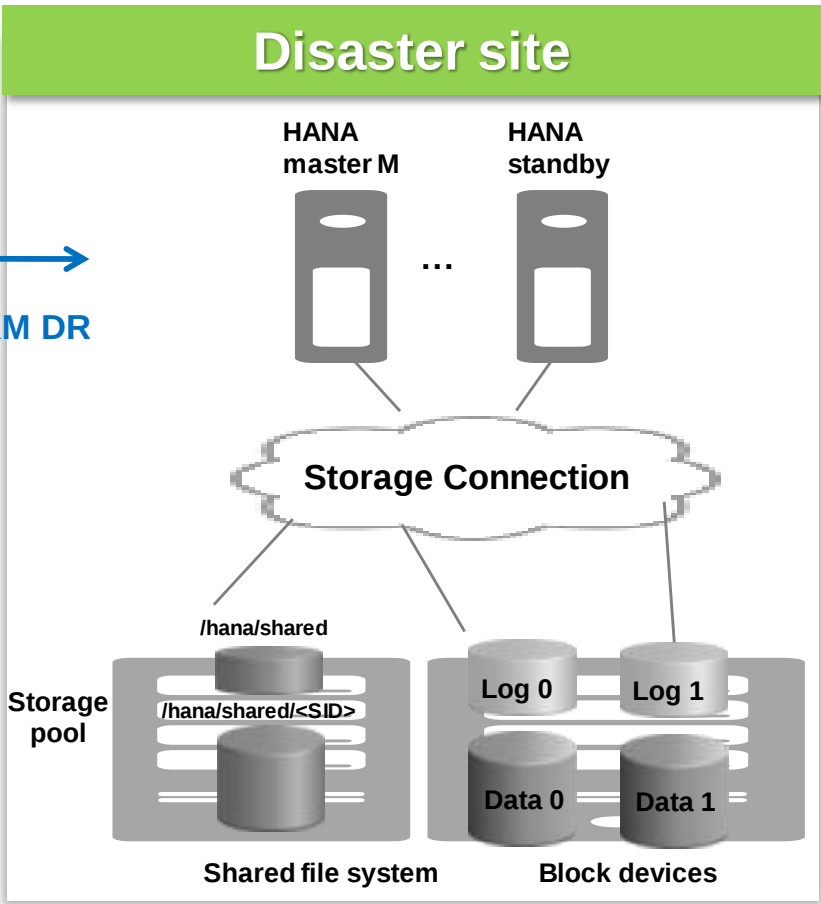
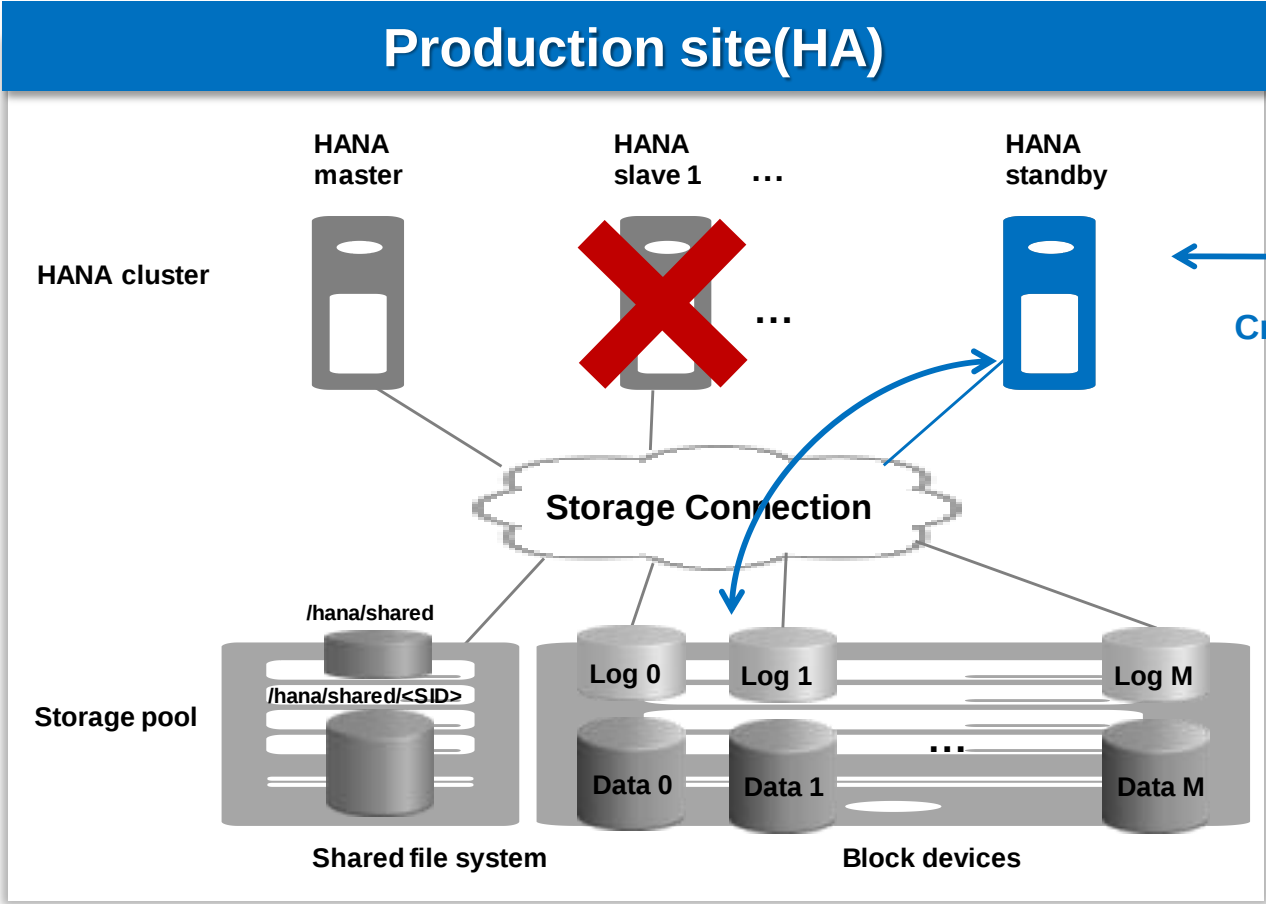
✓ Simplified deployment, and professional HA implementation service is available

- The system replication function of SAP HANA implements synchronous or asynchronous database data replication.
- The OS layer provides built-in dedicated HA software to monitor and switch over the running status of the active and standby nodes.

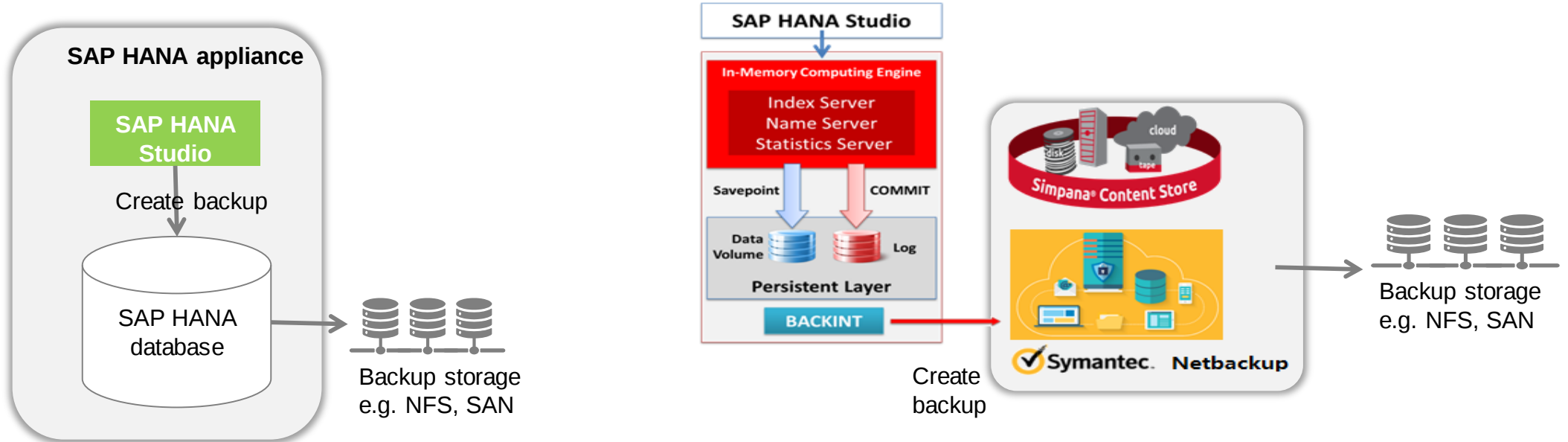


Business Continuity Solution: Disaster recovery

Local HA Business continuity DR



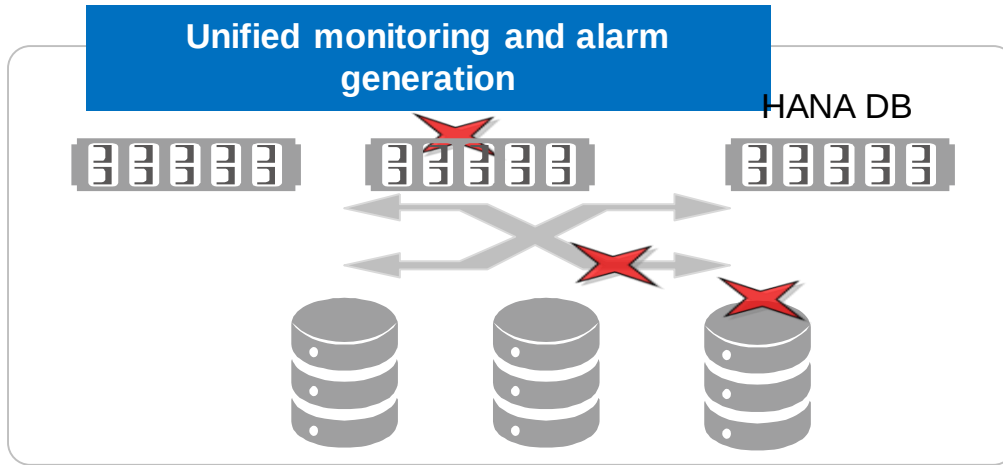
Enterprise-Level Backup Solution



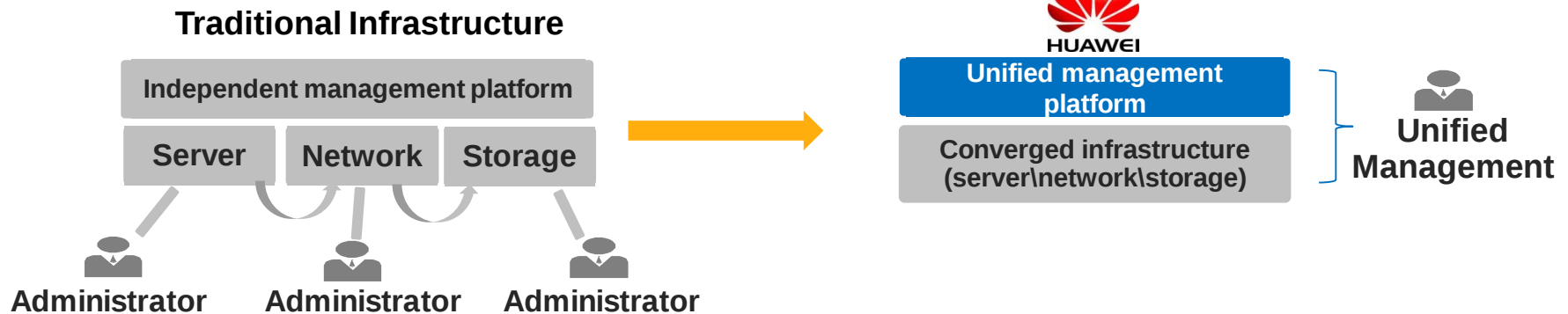
- Solution 1 (recommended): **Best TCO**; uses the backup function provided by SAP HANA Studio, no **need to purchase** third-party backup software.
 - ✓ Mounts volumes to SAP HANA servers.
 - ✓ Configures backup policies in SAP HANA Studio.
 - ✓ The backup server can be a SAN, NAS, or unified storage, which can be an legacy or newly purchased storage.

- Solution 2: Uses the backup software certified by SAP for backup.
 - ✓ "Backint for SAP HANA" API can be implemented by a 3rd party backup agent (certification required)
 - ✓ Provides functions for backup, recovery, query, delete
 - ✓ Data backups to Backint can be triggered/scheduled using SAP HANA studio, SQL commands, or DBA Cockpit

Simplified Management

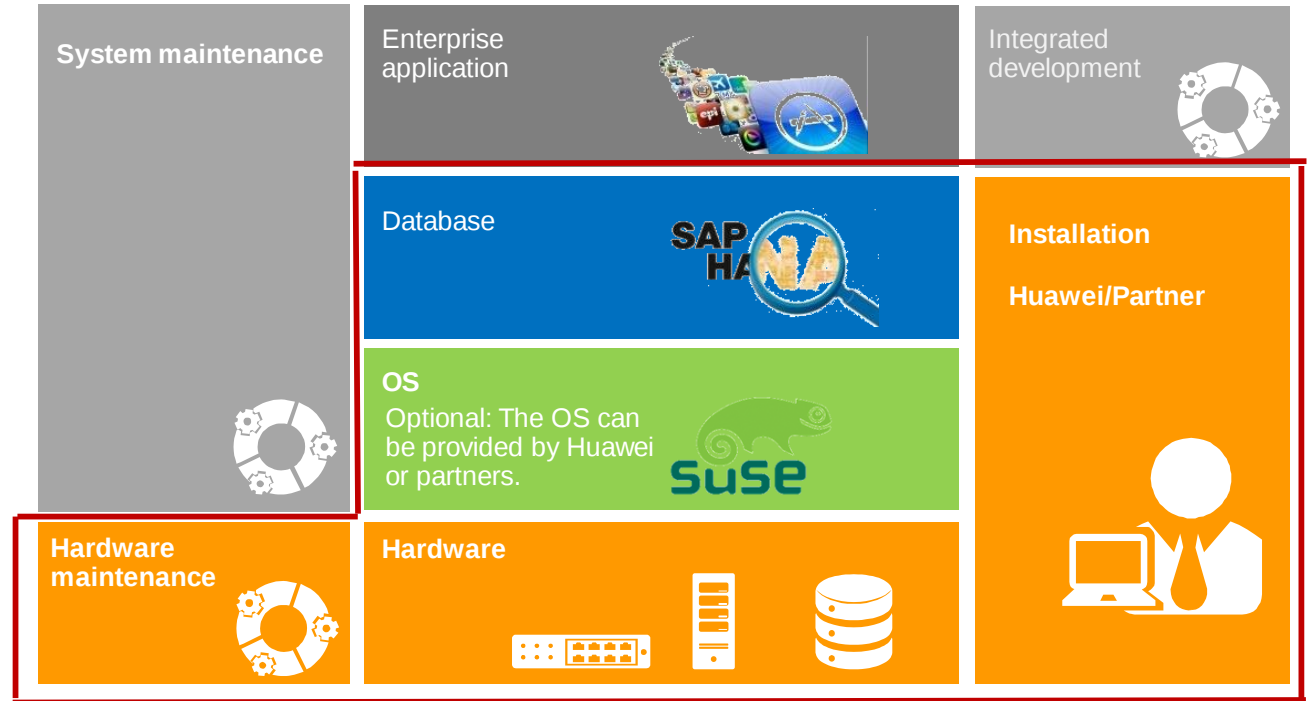


- ❑ Hardware is provided only by Huawei, facilitating hardware management.
- ❑ Centralized management of hardware and software, including servers, storage, IP switches, InfiniBand switches, storage software, and virtualization software
- ❑ Centralized alarm generation and real-time monitoring for hardware, software, and HANA databases

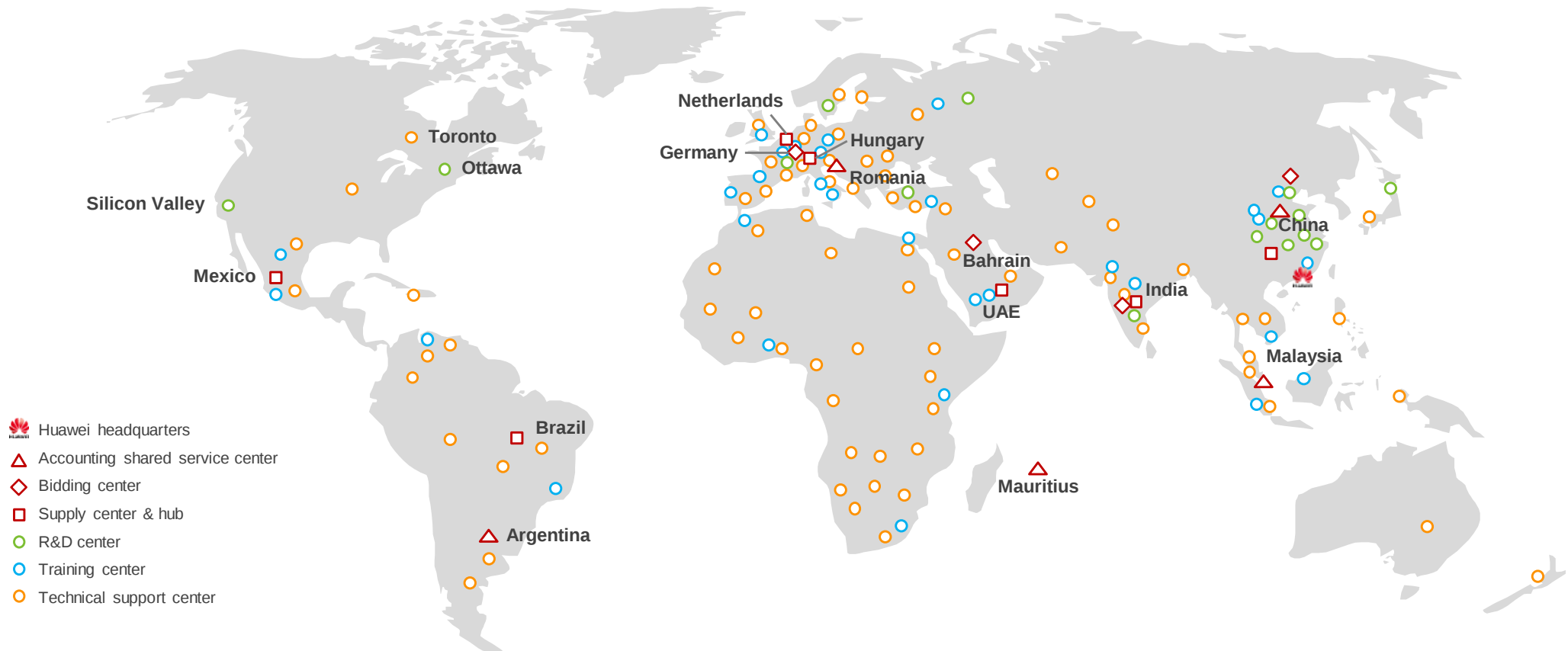


What Does Huawei Provide?

1. What we sell is highlighted in Orange, including hardware, software, installation, and maintenance.
2. Software includes the SUSE OS (including three-year warranty)
3. Installation services: hardware, OS, and database installation
4. Installation is performed on site.
5. Provide HANA DB HA implementation services.
6. Huawei provides one-stop maintenance for **all hardware**.



Globalized Resource Deployment and Localized Business Operations



- Operations in **170+** countries; **170,000+** employees comprised of **160+** nationalities worldwide; **75%** localization rate.
- Huawei's global value chain allows smooth capability transfer across the globe, develops and retains talent in local countries, and creates jobs and economic opportunities.

Global Reference Cases





SINOPEC Improves Business Warehouse Performance with Huawei FusionCube

84 TB HANA DB + 600,000 IOPS + hyper-converged infrastructure,
easy adaption to 100x performance acceleration business



Newcastle university migrate ECC system to business suite on HANA with Huawei HANA solution

10 sets of 2 TB HANA DB + 60 RAS features + cover SAP ERP, BW, CRM, SRM, IDM systems

Improve system performance by 300 times



Telefonica Builds the HANA Enterprise Cloud with Huawei SAP HANA Solution in Chile

Telefonica cooperates with a local consulting service partner, in providing one-stop SAP application services with Huawei 6 x 3 TB SAP HANA appliances for enterprise customers.



A modern, multi-story office building with large glass windows and a flat roof. The SAP logo is visible on the roof. In the foreground, there is a circular fountain with water spraying upwards. To the left, a large blue SAP logo is mounted on a grey stone wall. Several people are walking on the paved area in front of the building. The sky is clear and blue.

SAP

■ SAP Labs in China

■ SAP HANA cluster (**15 nodes, 30 TB**)

■ High-tech Industry

■ Effectively supported R&D innovation at SAP Labs in China



■ Huawei

■ Using Huawei FusionCube for SAP HANA (2*16-Node)

■ Manufacturing industry

■ Improved SCM and E-finance system performance

■ Reduced complex query time

■ **from 2 hours to 5 seconds**

THANK YOU

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