

Smarter, Faster, Simpler Partnering with Fujitsu on S/4 HANA

SAP User Group Philippines (uSAP)
Manila, Philippines, April 2015



Alex Capovilla – Fujitsu Australia
Practice Leader – Basis and Security

Introduction – Alex Capovilla



Alex Capovilla

Practice Leader – SAP Basis and Security

Fujitsu Australia Limited (AUS)

alex.capovilla@au.fujitsu.com

16+ years experience with SAP with a focus on Basis
HANA experience – HANA, BWoH and BSoH.

Fujitsu's SAP Story



Fujitsu - Global IT Player with strong SAP Focus

■ Some achievements

- 40+ years of trustful cooperation and strategic partnership with SAP
- Global SAP Technology, Service, Hosting and HANA Enterprise Cloud Partner
- End-to-end SAP infrastructure, solution & service portfolio
- Fujitsu is driver of SAP innovations, e.g.
 - SAP Application Virtualization with FlexFrame
 - Tier 1 partner for In-memory Technology and SAP HANA
- 3,000+ experienced SAP application and IT consultants worldwide plus comprehensive partner network
- “SAP runs Fujitsu”: 5.000+ Fujitsu servers, CentricStor Backup virtualization, 300+ HANA systems, 20PB+ NetApp storage installed/maintained by Fujitsu, ...
- Joint initiatives for adoption of new SAP solutions, e.g. Proof of Concepts, Co-Innovation Labs etc.

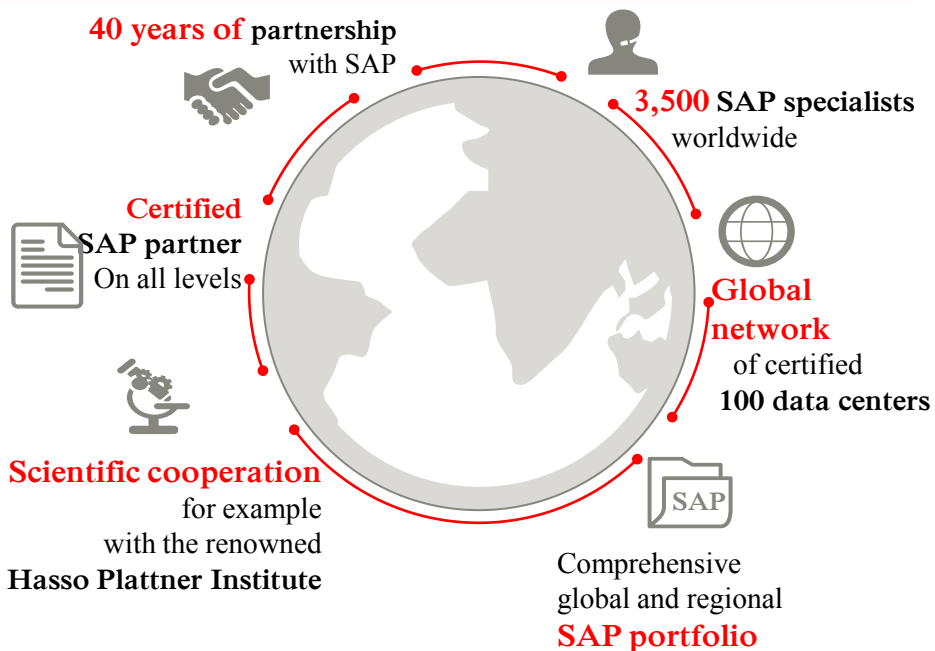


Technology Innovator
of the Year

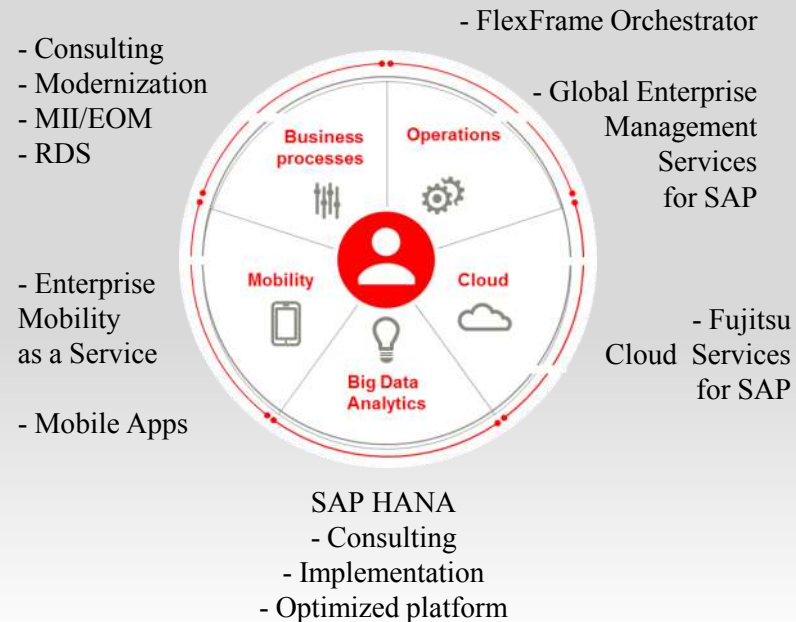
Make SAP Life and Work Easier - with Fujitsu



Great Heritage, Leading Technology, Strong Market Position



Global End-to-end Solution Partner for SAP



Global SAP Offering Strategy – Local Delivery



Fujitsu EMEA

SAP Partner – Services
SAP Partner – Hosting
SAP Partner - VAR (TDS and Finland)
SAP Partner – Software with Certified Integration

SAP Competency Center @ Walldorf



Fujitsu China

SAP Partner – Services
Channel Partner



Fujitsu Asia Pacific

SAP Partner – Services
SAP Partner – Hosting
SAP Business One – Independent
Sales and Service Provider

Fujitsu Limited

SAP Partner – Services
SAP Business One – Independent
Sales & Service Provider
Channel Partner

SAP Competency Center @Tokyo



Fujitsu Australia & NZ

SAP Partner – Services
SAP Partner – Hosting
Channel Partner



Fujitsu America

SAP Partner – Services
SAP Partner – Hosting
SAP Partner – AMS
Channel Partner

**SAP Competency Center
@Sunnyvale**

Global SAP:

> 3000 implementation consultants

SAP SI Practices in Australia, Canada, China, Finland, Germany, India, Italy, Japan,
New Zealand, Russia, Singapore, Sweden, UK&I, USA, and Brazil

➤ **+8000 SAP Customers**

Global Strategic Partnership with SAP on all levels (Technology, Services, Hosting, Cloud)

Fujitsu Philippines



Fujitsu Philippines, Inc. is a leading System Integrator of Information and Communications Technology solutions for Philippine enterprises with more than 500 full-time technology professionals.

Fujitsu Philippines, Inc. an unmatched track record in designing, building, implementing and maintaining ICT solutions.

Company Facts:

- **Date Established:** 1975
- **Line of Business:**
 - **Enterprise Services:** Re-sell, Implement and Support SAP Solutions
 - **Application Services:** Design builds and implements ICT solutions
 - **Infrastructure Services & Solutions:** Network Design, Hardware and Field Services
 - **Managed Services:** Remote Functional and Technical Support Services
- **Domestic Service Locations:** Manila (HQ), Cebu, Cagayan de Oro, Davao and Iloilo
- **Quality Certifications:** ISO9001, ISO27001, ISO20000

Enterprise Solutions BU (SAP)



SAP Reseller



- ❖ Largest and most mature SAP Consulting practice in Asia Pacific
- ❖ 15 years of existence in the Philippines
- ❖ Senior consultants have 10-14 years of SAP experience
- ❖ 160+ SAP Implementations, 200+ SAP Consultants, 50+ Large Customers
- ❖ Contact Person/s:
 - Antonio B. Javier – Regional Vice President, Enterprise Solutions BU
 - Raul Ramon Solomon M. Santiago III – President and CEO, Fujitsu Philippines
 - Anna Rosalia R. Tan – ES BU Head, Fujitsu Philippines

International Quality Standards
(ISO)

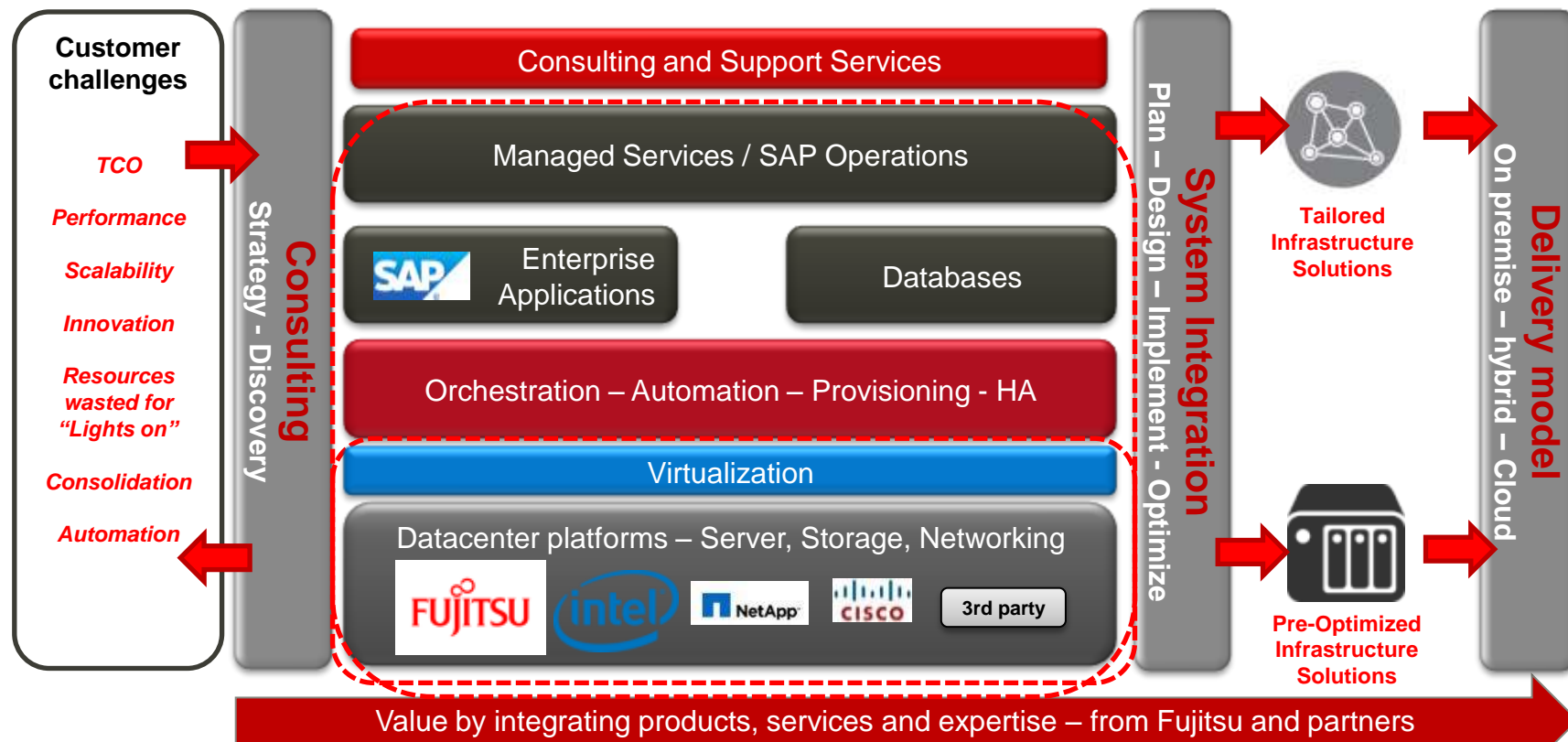
ISO 20000 Information Technology Service Management

ISO 27001 Information Security Management System

ISO 9001 Quality Management System

BS 25999 Business Continuity Management

Fujitsu – Your Trusted SAP Partner of Choice





...provide
customer value
with SAP Services
SystemInspection Service

Fujitsu SAP SystemInspection Service - Overview



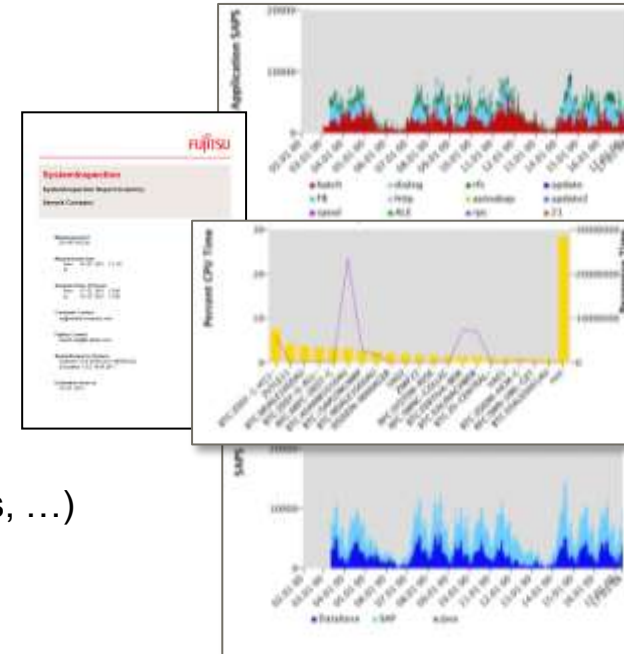
Is a tool based service that analyses the existing customer SAP system landscape

Customer Values

- Provides real-time load profile and performance parameters
- Provides information for cost-efficient sizing recommendations, e. g. for upgrades and migrations
- Finds existing and possible future bottlenecks
- Reveals trends and enhances planning reliability
- Provides a basis for strategic IT infrastructure decisions
- Delivers complementary information to SAP Early Watch
- Can measure all SAP platforms (AIX, HP-UX, Solaris, LINUX, Windows, ...)

How to run it

- Measurement, e.g. 2 - 4 weeks => Central report creation
=> Workshop to discuss results



Fujitsu SAP System Inspection Service - Customer Experiences



- Upgrade planning for ECC and BI needs to be reliable, regarding performance and IT budget. This happens once a year on a regular basis.

(Pharmaceutical customer, Czech Republic)

- Consolidation of one of the biggest SAP customers world-wide was based on a complete measurement with SystemInspection. More than 250 SAP systems all over EMEA were centralized to 4 main data centers afterwards.

(High-tech customer, Germany)

- “How can you know where my bottlenecks are, you have never been in my data center” – Feedback from a data center manager during a SystemInspection Service workshop in Walldorf .

(Utility customer, Sweden)

- Regular SystemInspection every 6 months and before/after upgrade and migrations. The results are basis for steering meetings and strategy planning.

(Telco customer, Finland)



Fujitsu SAP SystemInspection Service - Complementary to SAP Early Watch



	SAP SystemInspection Service (FJ)	Early Watch Alert (SAP)
Focus	Capacity planning, Performance analysis	Analysis of weak points in one SAP system.
Object of analysis	SAP system landscape with several SAP system IDs.	One SAP System IDs per Early Watch Alert.
Starting point	Concrete topics: upgrade, migration, consolidation, etc.	Can be called at any time if the Solution Manager is used.
Focus of analysis: system environment	<ul style="list-style-type: none"> • Inventory of the SAP system landscape • utilization of system resources in SAPS • graphical presentation 	Assessment of the servers according to peak CPU and main memory utilization during the measurement period (one-off peak value).
Focus of analysis: SAP application	<ul style="list-style-type: none"> • Evaluation of SAP transactions according to CPU usage and complexity. • Evaluation of their quality. • Mapping the system utilization with the used transactions. • Task types and response times 	SAP system performance, workload distribution, response times, system availability, posting errors, “short dumps”, database administration and performance, trend analysis.
Statement	Not self-explanatory Interpretation of the report and recommendations are part of the standard service Optional workshop for in-depth result discussion	Not self-explanatory but a rough classification is provided by the traffic lights feature.
Target	Develop a customer-specific concept for concrete requirements	SAP service offering. Red alerts are automatically forwarded to SAP.

Fujitsu's HANA Story



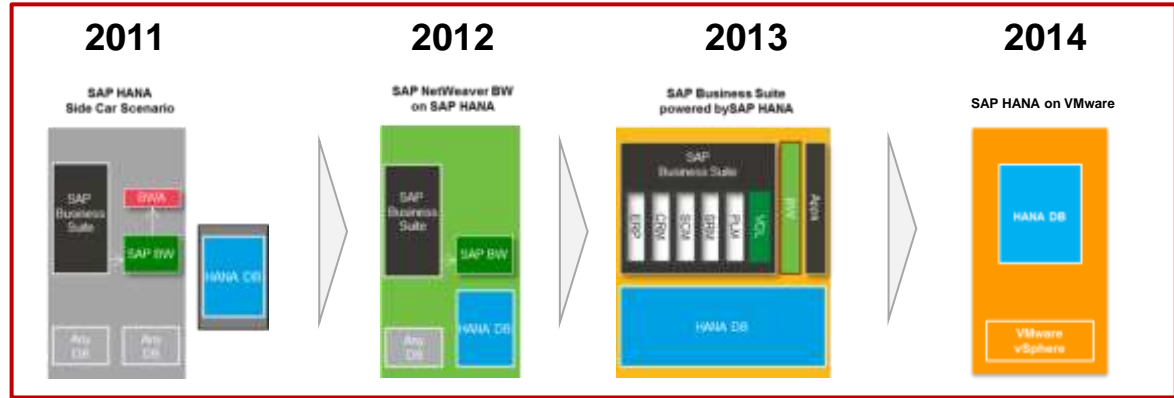
What Fujitsu stands for



Current Use Cases



In depth HANA expertise



- Pioneering SAP HANA partner
- SAP HANA experience right from the start
- Portfolio evolves with changing market conditions
- Long term roadmap for inclusion of new technologies
- Management of for “traditional” landscape and SAP HANA within one unified SAP operation solution => FlexFrame

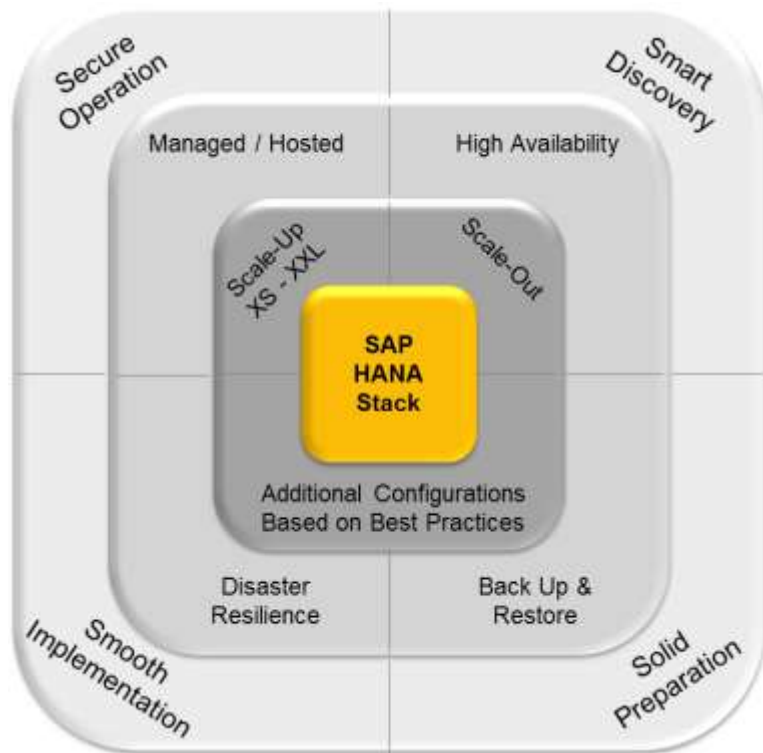
Fujitsu SAP HANA Achievements



- Innovation partner of the HPI (Hasso Plattner Institute) for development of SAP in-memory solutions
- 400+ HANA customer installations world-wide
- 16 TB multi node delivered to SAP customers in Japan
- Exclusive B1 HANA ramp-up partner
- Global SAP HANA Demo Center and Proof of Concepts
- Certified Rapid Deployment Solution (RDS) for BW migration to HANA
- Fast track delivery to customers with R&D, production and staging in Fujitsu factory in Augsburg / Germany
- Winner of the SAP Pinnacle Awards 2012
- Certification as SAP HANA Enterprise Cloud Provider
- First Business Suite on HANA platform certified for up to 6 TB single node on new Ivy Bridge systems



Comprehensive Fujitsu Portfolio for SAP HANA



- **Fujitsu Power Appliance for SAP HANA**
 - SAP-validated and pre-installed infrastructure
 - Configurations based on best practices
- **Datacenter integration and secure operation**
- **Ready and certified for “Tailored Data Center Integration” (TDI)**
- **Services for fast and professional use**
- **Attractive financing options**

Fujitsu SAP HANA Power Appliance - Overview



Single Node / Scale Up

**SAP HANA
Database**

SAP HANA Server
PRIMERGY RX4770/
PRIMEQUEST 2800B/E

PRIMEQUEST 2800
(Intel Ivy Bridge V2)
certified for HANA
up to 6 TB RAM

Internal Storage

- Single servers from 128 GB to 6 TB incl. internal storage
- Flexible portfolio for Proof of Concept, development, tests, productive side car scenarios etc.
- Highly scalable offer for SAP Business Suite on HANA

Multi Node / Scale Out

**SAP HANA
Database**

**SAP HANA
Server 1**

PRIMERGY RX4770
PRIMEQUEST B

**SAP HANA
Server 2**

PRIMERGY RX4770
PRIMEQUEST B

**SAP HANA
Server N**

PRIMERGY RX4770
PRIMEQUEST B

External Storage

- Multiple servers in one SAP HANA system
- Scale out by addition of compute nodes and storage (certification up to 16 nodes)
- High availability capabilities included
- Certified with ETERNUS and NetApp (based on SAP HANA TDI)



**Shared
NetApp FAS
Storage**



2 Server Types Certified as HANA Servers



■ PQ2800B/E (successor of RX900)

- Certified SAP HANA Server
- Glue-less 8-Way Rack Server

BW on HANA
2TB RAM

BS on HANA
6TB RAM

■ RX4770M1 (successor of RX600)

- Certified SAP HANA Server
- 4-Way Rack Server

BW on HANA
1TB RAM

BS on HANA
3TB RAM



- JX40 as part of the Appliance Offering for Direct Attached Storage in Single-node configurations

- Both server platforms are certified for SAP HANA Multi-Node and for TDI projects with NetApp or ETERNUS or other certified storage



Some customers with SAP HANA on Fujitsu platform



Frucor / Australia

- One of Australasia's largest beverage manufacturers and distributors
- Conversion BW and BPC into Fujitsu SAP HANA Cloud Services
- Faster decision making based on SAP BW on HANA
- Link to case study: [Youtube](#)



Gnarum / Spain

- Developer applied technology solutions to allow producers, operators and traders to optimize their energy management
- Predictive analysis based on SAP HANA powered by Fujitsu
- Link to case study: [Youtube](#)



Oxya / France

- One of the leading SAP Hosting providers in France, specialized on SAP HANA
- HANA offering out of their private Cloud for several prestigious international retail customers
- Strategic HANA partnership with Fujitsu



SAP HANA @ SAP AG – powered by Fujitsu



Customer Profile

- SAP is the market and technology leader in business management software



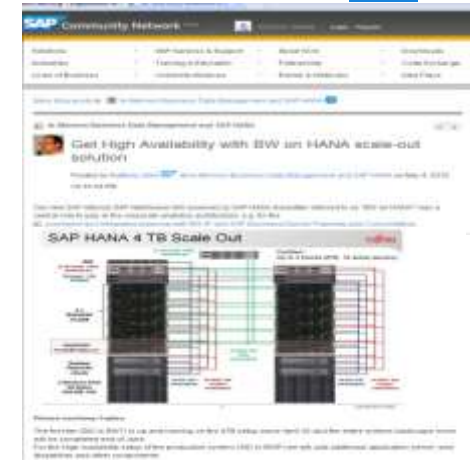
Solution

- SAP runs SAP HANA
- SAP runs Fujitsu
- 300+ Fujitsu HANA single and multi-node systems at SAP AG for various purposes / applications (prod., dev., test, training, projects)



Achievements

- BW on HANA productive since May 2012 with +4TB [Link](#)



Benefits of Choosing Fujitsu for SAP HANA



- Simplified and smooth transition to in-memory technology
 - SAP-certified and pre-installed infrastructures
=> **Fast Implementation**
 - Highly flexible, scalable and available architecture
=> **Mission critical readiness**
 - End-to-End infrastructure consulting and services
=> **Frictionless course of project**
- Simplified and smooth transition to real-time data access
 - Services to preview individual business value
=> **Solid decision base**
 - TCO calculations plus financial solutions
=> **Investment transparency**
 - Dedicated services for different use cases
=> **Fast track to business value**



Fujitsu SAP Competency Center (Global)



- Holistic SAP Pre- and Post-Sales
- Project support and delivery - hand in hand with the Fujitsu country organizations
- Customer care and consultancy / workshops
 - System Architecture
 - SAP Strategy Consulting
 - Implementation Support and Knowledge transfer
 - Migration and Upgrade
 - Performance Analysis
 - 3rd Level Support
 - Back Level Support SAP CSN (OSS)

Considerations of Migrating to HANA

Don't forget the SAP Application servers



Consideration

- SAP Primary application server runs on HANA appliance
- SAP Primary application server runs on separate host.

Pros / Cons

- Reduced infrastructure requirements
- May be more / less expensive depending on size of application servers
- Most common approach
- Pay attention to network requirements

In a BWoH and BSoH scenario, SAP HANA is the Database component

Customers are still required to have an SAP application server.

Availability Requirements

Server



Server.



Nodes



Nodes



Consideration

Pros / Cons

- | | |
|---|---|
| <ul style="list-style-type: none">▪ Fujitsu Primergy RX4770 | <ul style="list-style-type: none">▪ More cost effective▪ Scales to 1TB BW, 3TB BSoH |
| <ul style="list-style-type: none">▪ Fujitsu Primequest PQ2800 | <ul style="list-style-type: none">▪ Higher Availability▪ More inbuilt redundancy▪ Scales to 2TB BWoH, 6TB BSoH |
| <ul style="list-style-type: none">▪ System Replication | <ul style="list-style-type: none">▪ Secondary Node for system replication in primary DC▪ Could replicate to Non-Production node instance or Dedicated secondary node |
| <ul style="list-style-type: none">▪ Multi-Node (Scale Out) | <ul style="list-style-type: none">▪ Provision a standby node in a multi-node scenario. |

Availability may add to infrastructure requirements.

Disaster Recovery Requirements

Consideration

Pros / Cons

RTO



- Recovery Time Objective
- How quickly we want to recover
- Shorter Recovery Time may require higher investment

RPO



- Recovery Point Objective
- How much data can we lose
- Shorter Recovery Point may require higher investment

Nodes



- System Replication
- Secondary Node for system replication in secondary DC.
- Investment in additional HANA and application server nodes.

Storage



- Storage Replication
- Facilitated by NAS or SAN
- Replicate HANA storage to secondary DC.

**Disaster Recovery
may add to
infrastructure
requirements**

Backup Requirements



Consideration

- Backup to Disk
 - File Server (NFS share)
 - NAS
- Utilises operating system scripts

- Enterprise backup agent for HANA (certified)

- Backup and Log backup
- Frequency
- Retention

Pros / Cons

- Must schedule backup and clean-up jobs.
- Disk must be able to handle multiple backups
- SAP will not be maintaining scripts

- Scheduling and backups triggered from Enterprise backup server
- May be more robust than backup to disk.

- Higher frequency of backups will result in more storage requirements
- Higher retention periods will also result in more storage

Backups will add to infrastructure requirements

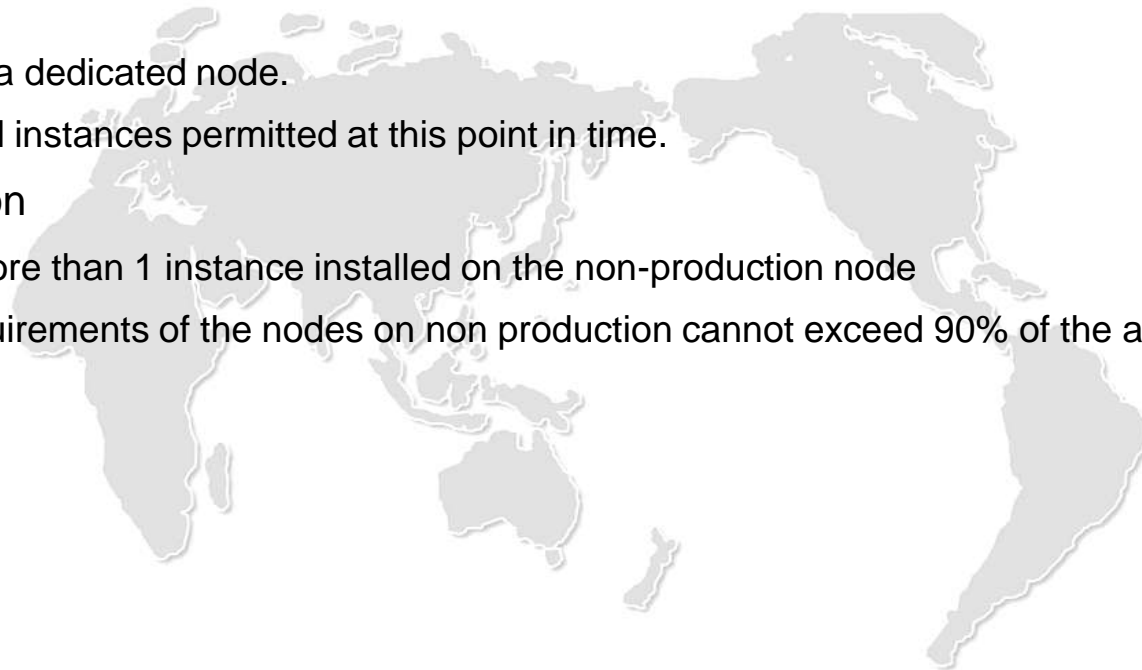
System Landscape Considerations

■ Production

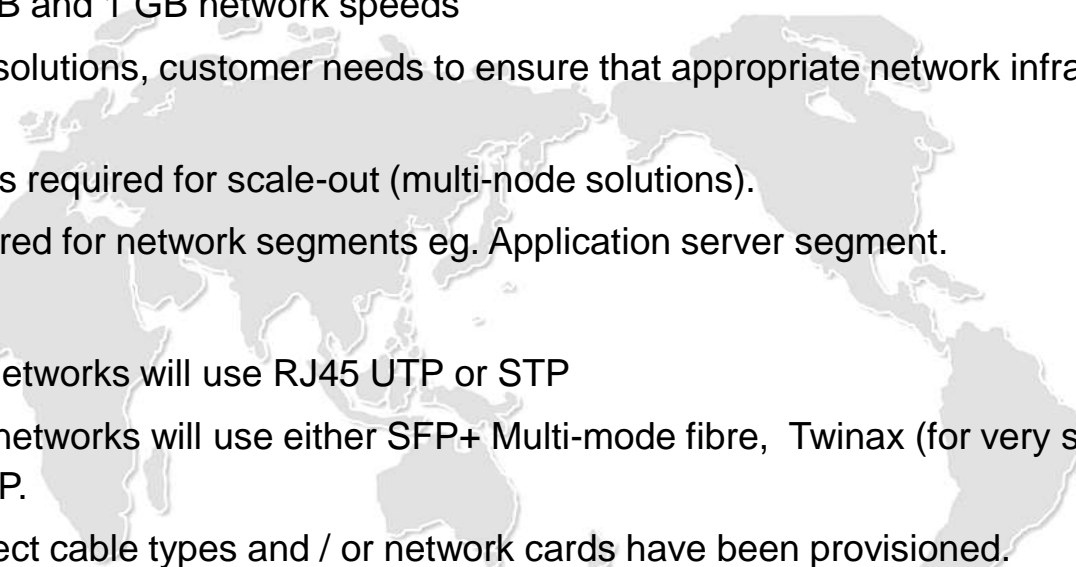
- Must run on a dedicated node.
- No additional instances permitted at this point in time.

■ Non-Production

- Can have more than 1 instance installed on the non-production node
- Memory requirements of the nodes on non production cannot exceed 90% of the available memory



Network Considerations

- 
- A faint, light gray world map is visible in the background of the slide, centered behind the text.
- HANA requires 10GB and 1 GB network speeds
 - For single node solutions, customer needs to ensure that appropriate network infrastructure is provisioned.
 - Certified switches required for scale-out (multi-node solutions).
 - 10GB links required for network segments eg. Application server segment.
 - Connection types
 - Typically, 1 GB networks will use RJ45 UTP or STP
 - Typically, 10GB networks will use either SFP+ Multi-mode fibre, Twinax (for very short distances). Or RJ45 UTP or STP.
 - Ensure that correct cable types and / or network cards have been provisioned.

- The HANA appliance building blocks:

- Server Hardware
- Operating System (SUSE Linux and more recently Red Hat)
- Firmware, Drivers and Agents
- Vendor Software
- SAP HANA Software

- Take care when patching

- Often there are dependencies between the above mentioned component versions
- Vendors have published support matrix

- HANA maintenance agreement recommended

- Fujitsu is here to help!

Thank-you



Queries:

Visit the Fujitsu booth at the event

Email:

Carmela.DelRosario@ph.fujitsu.com

Questions ?



Technology Innovator
of the Year