Case study
Badan Informasi Geospasial (BIG)

Badan Informasi Geospatial built a robust & integrated data center by implementing a Fujitsu end-to-end solution that connects Indonesia's government agencies, and provides public services with optimal availability

The customer

Country: Indonesia
Industry: Government
Founded: 1969
Employees: 600
Website: http://big.go.id/

BADAN INFORMASI GEOSPASIAL

The challenge

Badan Informasi Geospasial required a robust and integrated data center to connect to all government agencies throughout Indonesia, and to provide public services with high availability. The complexity of data traffic and real-time analysis meant there were challenges in building a network ecosystem and data center that could run at the necessary bandwidth. High performance and a reliable system was essential to ensuring data communication was optimized.

The solution

Fujitsu provided a complete solution including hardware, data center enhancement, middleware, GIS software, and training. Fujitsu's solution will enhance the existing BIG data center facilities, including data distribution and backup systems for all stakeholders involved in the project.

The customer

Badan Informasi Geospasial (BIG), an agency owned by the Indonesian government, has the authority to manage data and distribute geospatial information in Indonesia. BIG was established on October 17th 1969, and has two main roles; to provide efficient and effective cooperation, coordination, integration, and synchronization of geospatial information; and to leverage the use of geospatial information for government administration and various aspects of community life. In 2011, Fujitsu collaborated with BIG to build a data center as part of the National Geo-Spatial Data Infrastructure Development (NSDI) project.

The challenge

BIG, previously known as BAKOSURTANAL, in 2011 embarked on the National Geo-Spatial Data Infrastructure Development (NSDI) project. Soon after, Indonesia legislated that BIG would serve as the main source for all geospatial information in Indonesia. With its new responsibility, BIG needed to improve its existing data center facilities, including backup systems, and construct consolidated networks between its offices and the 12 participating ministries involved in NSDI. BIG intended to create an environment in which stakeholders cooperate and intersect with each other to better achieve their objectives at different political or administrative levels. The NSDI project will become the foundation of the future National Geo-Spatial Information Systems (NSIS). However, data was initially collected individually and each central agency had its own production system that didn't synchronize with other production systems. This highlighted a data traffic and data redundancy issue between the agencies.

The solution

Fujitsu provided BIG with an end-to-end solution that included high performance servers, a data center facility, middleware, GIS software, and training. This solution guarantees the success of the NSDI project and forms a basis for the NSIS to operate efficiently in the future. The high performance products and services provided by Fujitsu have a proven record in forming a seamless solution for effective data communication. Furthermore, with its high compatibility the solution can easily integrate with existing platforms (hardware and software), to accommodate any future business requirements or platform upgrades.

The benefit

- High performance computing provides faster & optimized data communication, allowing BIG to run a single data repository for all 12 ministries/10 central agencies.
- Single repository data center enables data redundancy to be reduced to a minimum level.
- Highly compatible Fujitsu solution and infrastructure easily integrates with existing 3rd party IT products, to ensure implementation and transition is completed within a tight time frame.

Products and services

- Fujitsu Mission Critical Server PRIMEQUEST 1800E Servers x4
- Fujitsu Server PRIMERGY BX920/BX924 Blade Servers x196
- Fujitsu Server PRIMERGY RX300 Rack Servers x2
- Fujitsu Storage ETERNUS DX8400 SAN Storage
- Fujitsu Storage ETERNUS DX440 SAN Storage
- Fujitsu Storage ETERNUS DX90 SAN Storages x10
- Fujitsu Storage ETERNUS LT60 Tape Library
- FUJITSU 5300 SAN Switches x2
- Fujitsu PRIMECENTER Racks x17
- Fujitsu Software ServerView Resource Orchestrator Cloud Edition x18
- Fujitsu Software ServerView Resource Orchestrator Virtual Edition x36

The benefit

Fujitsu recognized the high performance system was an essential part of BIG's NSDI project, as it needed to gather and deliver geospatial data to and from the data center. By implementing Fujitsu's proven end-to-end solution, BIG could gain the necessary reliability and power to manage the geospatial information effectively.

The launch of the Ina-Geoportal (Indonesia-Geospatial Portal http://tanahair.indonesia.go.id) on the 17th October 2011 was a key success factor for the NSDI project. By deploying the public portal to run on Fujitsu's PRIMEQUEST servers, BIG ensured the system delivers global 24/7 availability.

10 Fujitsu PRIMERGY Blade Chassis were then provided at 10 central agencies forming a network node to the main data center. Fujitsu's robust and reliable PRIMERGY servers were chosen because they could guarantee optimal data communication along the network and data center.

- The new system improves data communication in terms of speed and data volume.
- Minimizes potential data redundancy between the nodes.

Fujitsu provided BIG with PRIMECENTER Racks, ETERNUS storage, ETERNUS tape library, and ServerView management software. BIG's IT staff was also given training to equip them with the necessary knowledge regarding database, infrastructure, and IT governance. This would allow them to optimize system and employee productivity.

With the NSDI schedule firmly on-track, BIG is preparing for the next phase in which geospatial data will be published cross a broader range of channels and industries.

BIG is well aware of the value of geospatial data, and how important the sharing of this data will be for government administration, national economic growth, transportation, and many other areas of society. The progress of the project is underpinned by the foundations set by the Fujitsu solution, and is helping Indonesia to prosper and grow as a nation.

When selecting Fujitsu, BIG took into account the scale of the current NSDI project and the future of NSIS. BIG recognized that Fujitsu's end-to-end solution was tried and tested and offered the best fit for their current and future needs. Fujitsu's breadth of experience, coupled with a complete set of hardware, software and services, provided the capacity to lay a platform that can scale with the nations growth.

Conclusion

Fujitsu's high performance systems have ensured BIG can overcome any potential issues regarding data communication, e.g. delivery delays, data loss, or data redundancy. The successful progress of the project and alignment to the timeline has ensured BIG can confidently work towards the next phase.

Aware of the importance of geospatial data and the NSDI project, BIG is racing against time to deliver services to the government. Now running on Fujitsu's end-to-end solution, the process of gathering, managing and delivering geospatial data has been optimized and fully supports them in overcoming these time constraints.

Availability has always been one of the key success factors in delivering a high performance service to BIG, and was quickly achieved with the implementation of Fujitsu's PRIMERGY servers into BIG's data center.

BIG's NSDI project is a vital initiative for Indonesia's development as a nation. The processing of Geospatial data will benefit Indonesia in many ways, across many different industry sectors, e.g. economy, government, education, and entertainment. Completion of NSDI will mark a significant milestone for Indonesia as it takes positive steps towards the future.

About Fujitsu

PT. Fujitsu Indonesia was established in 1995 under the name of PT. Fujitsu Systems Indonesia. Headquartered in Jakarta with service centers in several cities (Surabaya, Medan, Makassar, and Denpasar) and more than 20 authorized service providers across Indonesia, Fujitsu Indonesia has a vision to become a provider of leading customer-focused IT, communications and business solutions. Certified ISO 9001:2008, PT. Fujitsu Indonesia implements a quality management system registered to international standards within the scope of IT solutions and services, and encourages the adoption of a process approach to improve customer satisfaction. For more information, please visit: http://www.fujitsu.com/id.