# Infortrend assists in the Informatization of Peng'an People's Government of Sichuan

**Organization**
Peng'an People's Government

**Challenge**
- Rapid growth of data requires replacement of old storage device for a new one.
- Requires a running system with no down time.
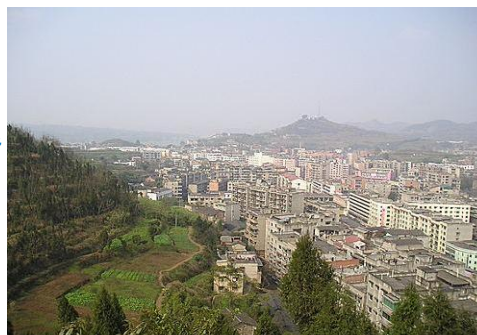- Non-confidential data needs to be deployed to the cloud as per government policies.

**Solution**
Infortrend EonStor GS 1016R Unified Storage:

- Modular design with high availability and redundant controllers supports non-stop services and is easy to maintain.
- Supports 16 drives, and up to 316 drives after expansion to meet the needs of future data growth.
- The VMware support system supports mainstream public and private cloud services while offering various integrations to easily synchronize data stored locally and on the cloud.

*"Infortrend storage products are trustworthy and reliable,"*

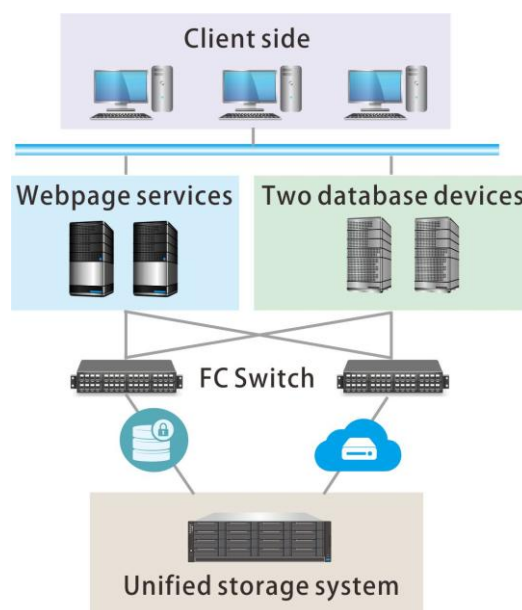*– Xi-Hai Zhao, Head of Data Management Center, Peng'an People's Government*

The amount of data has grown rapidly with the development of core businesses in the Peng'an People's Government. As the bridge between the government and people, the portal website has a very stringent requirement for system architectures. As its current storage system cannot meet performance, reliability, or expandability needs under its original architecture, its IT system requires a hardware upgrade to allow enterprise users and the public to have a better experience when handling matters on the web or during service inquiries. Furthermore, as per Chinese government system development policies, non-confidential data system needs to be synchronized with cloud before 2018 to realize seamless connection between all government departments.

1. Rapid growth of data requires replacement of old storage device for a new one.

2. Requires a running system with no down time.

3. Non-confidential data needs to be deployed to the cloud as per government policies.

### Solution: EonStor GS 1016R

The Data Management Center of Peng'an People's Government finally chose the EonStor GS 1016R as the device provider for core storage platforms. Back-end adopts multiple servers to run webpage services and database applications, while 8Gb FC and switches store the data to the EonStor GS 1016R. Furthermore, 16 900GB SAS drives provide sufficient capacity to realize central management of all data. The topology is as below:

## Reasons for choosing EonStor GS 1016R

1. Leading Performance
   GS 1016 displayed superior performance with 16 SAS drives in actual testing of database applications, maintaining a high performance and low latency during peak webpage hours, further improving the over all office efficiency of Peng'an County and public inquiry experiences.

2. Cloud Integration
   As a unified storage, the EonStor GS integrates SAN, NAS, and cloud into a singles system. It can realize cross platform file sharing with support for numerous mainstream protocols, while the integrated cloud data service engine supports most private clouds (such as OpenStack) and public clouds (such as Alibaba Cloud, Amazon S3, and Microsoft Azure). It also offers various flexible cloud integrations to easily realize data synchronization or cache between local storage and cloud.

3. High Availability with a No Single Point of Failure Design
   All key components of the system (controller, power supply, fans) feature a redundant design. Redundant dual controller design and automatic failover / restore features provide non-stop front-end services and support firmware upgrade with no down times to maintain 24/7 service, greatly enhancing user experience.

4. All-round Data Protection
   For hardware design, EonStor GS controllers come with flash memory supported with super capacitors. Memory data is mirrored between controllers to guarantee data safety even during power outages. Super capacitors have long life spans and require no maintenance, making them a convenient and affordable cache protection measure. For software design, support for intelligent drive recovery (IDR) can automati cally recover bad sectors to extend disk life and prevent rebuild due to disk failures.

5. Massive Storage Expandability
   Products should come with sufficient expandability to meet the challenges of future growth. EonStor GS 1016 provides high expandability with up to 316 hard drives (roughly 3 PB of storage capacity).

**About Peng'an People's Government Portal Website**
Peng'an is located in the north-eastern part of Sichuan. The county covers 1334km$^2$, governing 39 townships, 647 villages (communities), and a total population of 713,227. The government portal website provides various services such as inquiries and other governmental matters. For more information, please visit:
http://www.pengan.gov.cn/