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DESIGN AND REALIZATION OF PAYLOAD OPERATION AND APPLICATION GROUND SYSTEM  
OF CHINA'S SPACE STATION

**Abstract**

China's Space Station will be launched at year 2018, this space station is China's largest space science experiment and application platform until now. It will stay in space orbit more than a decade and have many complex scientific space experimental tasks to do step by step in the future. This would mean that we are facing many challenges for our Payload Operation and application system, including complex mission planning, high-speed mass data processing, health management, payload status monitoring, remote support for telescience and the ground system dynamically updates with the scientific mission changes all the time. This paper mainly introduces the composition of hardware architecture, design of the system architecture and the new technology we use to implement the payload operation and application ground system of China's Space Station.