

5G Digital New Infrastructure, Serving the New Development of Smart Culture and Tourism

China Unicom Culture & Tourism Service Division

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The government attaches great importance to the development of smart cultural tourism



Important policies in the cultural tourism industry

旅游

- · 2020.12《深化"互联网+旅游"推动旅游业高质量发展的意见》
- 2021.03《加快培育新型消费实施方案》
- 2021.04 《关于开展旅游休闲街区有关工作的通知》
- 2021.04《"十四五" 文化和旅游发展规划》
- 2021.05《"十四五" 文化和旅游市场发展规划》 2021.10《加强金融支持乡村休闲旅游业发展》
- 2022.01《"十四五"旅游业发展规划》
- 2022.03《关于抓好促进旅游业恢复发展纾困扶持政策贯彻落实工作的通知》
- 2022.03 《国民旅游休闲发展纲要(2022—2030年)》
- 2022.07 《关于金融支持文化旅游行业恢复发展的通知》

文化

- 2020.11《关于推动数字文化产业高质量发展的意见》
- 2021.03《关于推动公共文化服务高质量发展的意见》
- 2021 04《文化保护传承利用工程实施方案》
- 2021.05《"十四五"文化产业发展规划》
- 2021.05《"十四五"非物质文化遗产保护规划》
- 2021.06《"十四五"艺术创作规划
- 2021.08《关于进一步加强非物质文化遗产保护工作的意见
- 2021.11《关于推动数字文化产业高质量发展的意见
- 2121.12《国家文化大数据标准体系》
- 2022.05《关于推进实施国家文化数字化战略的意见》
- 2022.05《巴蜀文化旅游走廊建设规划》
- 2022.05《杭黄世界级自然生态和文化旅游廊道建设方案》
- 2022.06《黄河文化保护传承弘扬规划

文物

- 2021.04《文化保护传承利用工程实施方案》
- 2021.05《关于推进博物馆改革发展的指导意见》
- 2021.11《大遗址保护利用"十四五"专项规划》
 2021.11 《"十四五" 文物保护和科技创新规划
- 2021.11 《"十四五" 文物保护和科技创新规划》
- 2021.12《"十四五"石窟寺保护利用专项规划》
- 2021.12《革命文物保护利用"十四五"专项规划》
- · 2022.01 《关于加强新时代革命文物工作的通知》 · 2022.04《关于推进新时代古籍工作的意见》
- 2022.07 《黄河文物保护利用规划》

- Culture and tourism are the needs of the people for a better life, the key engines for promoting national economic growth, and one of the most mass based industries in the subdivision of the digital economy.
- Smart cultural tourism has been proposed as one of the top ten digital application scenarios in the 14th Five Year Plan, undertaking a new mission in the digital economy era。



During the 14th Five Year Plan period, the cultural and tourism industry has become an important field for serving social livelihoods, promoting consumption improvement, and promoting cultural dissemination. Smart cultural and tourism undertakes the mission of supporting the high-quality development of cultural tourism

Two ministries jointly introduce 5G+smart tourism support policies (Section 2019)





On April 6, 2023, the Ministry of Industry and Information Technology and the Ministry of Culture and Tourism jointly issued the Notice on Strengthening the Collaborative Innovation and Development of 5G+Smart Tourism, which deployed the collaborative innovation work of 5G+smart tourism from the perspectives of strengthening 5G network construction, enriching 5G+smart tourism application scenarios, and forming a smart tourism industry ecological environment.

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E业和信息化部 文化和旅游部关于加强5G+智慧旅游协同创新发展的通知

各省、自治区、直辖市及计划单列市工业和信息化主管部门、通信管理局、文化和旅游厅(局)。新疆生产建设兵团工业和信息化主管部门、文化体育广电和旅游 局。各相关单位。

为深入贯彻需奖《中华人民共和国国民经济和社会发展第十四个五年规划和2035年送录目标构要》《"十四五"信息通信方业发展规划》("十四五"旅游业发展规划》(56应用"扬枫"行动计划(2021-2023年)》(关于深化"互联网·旅游"练动旅游业高质量发展的意见》,推动56在旅游业的创新应用,现就加强56-物类

Key Policy Points of the "5G+Smart Tourism Collaborative Innovation Development Notice"

Goals

Strengthening the construction of 5G networks

9 Tasks

- 5G network coverage in key tourist areas
- Open network construction resources for key units

The application scenarios becoming more diverse

- Innovative services experiences
- Exploring marketing models
- Improve management skills
- Strengthen product supply
- Building model villages

Preliminary formation of industrial ecological environment

- Enhance the innovation vitality of the main body
- Building demonstration benchmarks

4 Guarantees

China Unicom provides in-depth services for 5G+smart cultural and tourism construction



Empowering the digital transformation of the cultural and tourism industry with innovative technology, serving people 's better lives, and supporting the construction of a cultural power.





- National projects and demonstration projects
- Industry Standards
- Issued the "White Paper on China's 5G Smart Tourism" for 4 consecutive years
- The first 5G professional book in China's cultural tourism industry
- Technical Innovation
 Center of the Ministry of
 Culture and Tourism

Smart Management



Smart Services



Marketing & communication



Smart Scenic Area

5G智慧剧院解决方案

· 5G公共文化云解决方案



Smart Venue

• 考古遗址公园智慧化解决方案



Cultural Relics Protection



Cultural digitization



Management: Mount Huangshan Scenic Area Greeting Pine Palm Command and Dispatch Platform

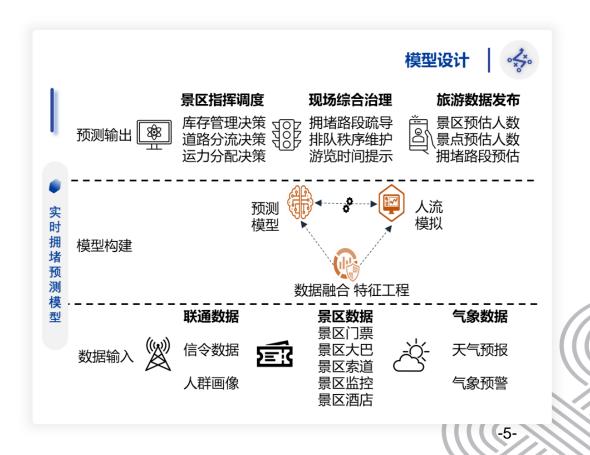


Integrated management and control platform: Support the "palm integrated command center", access 35 systems of Mount Huangshan Management Committee and subordinate units, and realize data sharing.

Zhiyou Big Data Platform: Accurately predict the status of each congestion point in Mount Huangshan Scenic Area one hour in advance, and the daily prediction accuracy rate will remain above 92% during the May Day holiday in 2023.







Services: Beijing Taoranting Park 5G Smart Cruise



■ By utilizing technologies such as 5G+Beidou+cloud computing, and adopting a combination of cloud queuing for tourists and refined management of cruise ships, we aim to improve the level of information technology in cruise ship service operation and management, continuously optimize the experience of tourist services, promote intelligent services and management in the park, and create a refined, humanized, and intelligent 5G smart park.











Services: The Longmen Grottoes 5G Smart Scenic Area



□ The Longmen Grottoes have built a "1+1+N" architecture, deployed a 5G hybrid private network, and built a comprehensive management platform that integrates management, monitoring, analysis, command, dispatch, and service. It is comprehensively applied to N 5G smart scenarios, helping scenic areas to manage, respond, and provide intelligent services.











The landing and operation of the Longmen Unicom autonomous vehicle has made Longmen Scenic Area the first scenic area in the country to achieve autonomous driving on roads with mixed traffic, and it has appeared on the CCTV screen for 13 consecutive times. And recently, Longmen Grottoes, as the only destination in China on the list, has been included in the recommended list of tourist destinations by National Geographic magazine in the United States

Communication: 5G+Metaverse of Beijing Road Pedestrian Street in Guangzhou

- 中国联通 China unicom
- > 5G Guangfu Temple Fair Metaverse, leading everyone to appreciate intangible cultural heritage, play games, taste food, visit exhibitions, and experience a cultural feast belonging to the people of Guangfu;
- > The 5G metaverse of intangible cultural heritage blocks tells new stories about old arcades through online intangible cultural heritage. To provide citizens with digital experiences such as online intangible cultural heritage exhibition areas, offline non heritage markets, and 5G unmanned retail, breaking geographical and spatial limitations and helping to promote Cantonese culture.











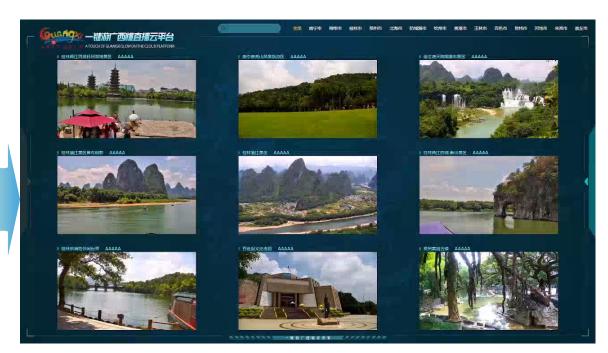
Communication: "One click tour of Guangxi" slow live broadcast 中国联通



□ As the core business of "One click Tour of Guangxi", the slow live streaming business of scenic spots is the information channel for transmitting images of more than 300 4A and 5A scenic spots in Guangxi. It is the foundation of information data and business applications for "One click Tour of Guangxi".



 Relying on 5G, cloud, network, big data, and China Unicom's independent research and development capabilities, we aim to build core business systems such as scenic area video collection, scenic area video access, and cloud video broadcasting platforms.



Based on the two types of solutions of 5G cultural and tourism dedicated network 2C, digital means are used to increase online exposure modes for scenic spots and enhance their visibility.

Public Service: The "5G Smart Library" Project of Jiangxi Provincial Library





Venue intelligence

☐ The museum has 5G coverage, including cloud computing, big data, the Internet of Things, AI robots, facial recognition, RFID, VR, etc., creating a smart, secure, and technological service experience everywhere.







Intelligent reading

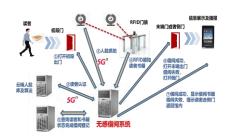
□ An independent intelligent reading space created based on the design concept of Smart Wojia products, with black technologies such as human-computer interaction, light and shadow, and VR, providing readers with a comfortable and future reading experience.





Borrowing without influence

■ Using RFID+facial authentication, readers can complete book borrowing and returning in 3 seconds, solving the pain points of high manual pressure during peak hours, and increasing borrowing and returning efficiency by more than 10 times.

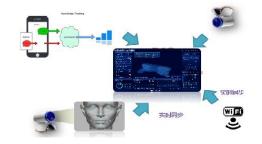






Data visualization

One stop library data center, realizing centralized sharing and processing of big data, visualizing analysis and display, providing decisionmaking basis for analysis and governance.





Public Service: 5G Message Public Culture Cloud



Under the cooperation and guidance of the National Public Culture Development Center of the Ministry of Culture and Tourism, China Unicom has created the industry's first 5G messaging application, allowing high-quality cultural resources, cultural activities, and cultural services to reach users with just one click, increasing the reach and click through rates of the masses by more than six times, and enhancing the sense of gain and participation of the people.

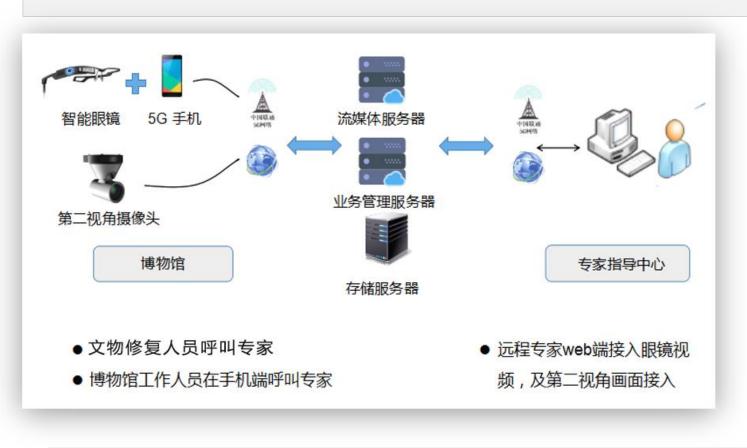


Users can access it with just one click, and services can be accessed with just one click

Cultural Relics Protection: China (Hainan) Nanhai Museum 5G Smart Museum



□ The project revolves around the construction content of "1+1+N", with digital protection as the core. By deploying a 5G integrated private network and building a museum intelligent protection management cloud platform, it supports the implementation of N 5G+intelligent application scenarios and creates a digital smart museum.



Restoration of Cultural Relics at China (Hainan) Nanhai Museum

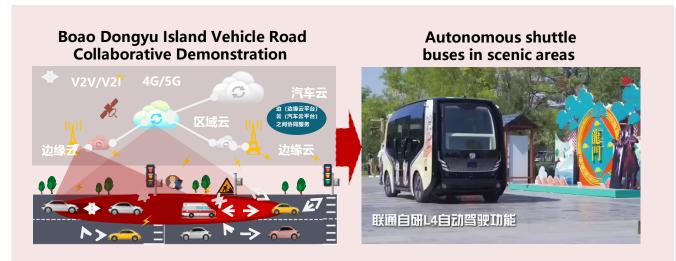




- Zero distance, non-contact, and same perspective cultural relic restoration between experts from different regions and local restoration workers
- Synchronized live streaming and recording of repair processes to assist in talent cultivation. Since 2020, more than 40 cases have been repaired

Make good use of new technologies, break away from cultural tourism and become a smart cultural tourism











Safety monitoring and tourist behavior monitoring in tourist attractions



Verification of tourist tickets



Operators represented by China Unicom will play a greater role in promoting the development of 5G+smart culture and tourism



■ As the builder and operator of 5G networks, China Unicom can provide customized services in terms of network coverage, network bandwidth, network latency, etc., effectively improving the coverage level of 5G networks in cultural and tourism venues; As the main builder of new digital infrastructure, China Unicom possesses the capabilities of 5G network+cloud computing, big data, artificial intelligence+applications, and can provide a package of services for the implementation of 5G smart cultural and tourism scenarios. As a comprehensive participant in the digital economy, China Unicom can integrate technology and scenarios serving other industries into the cultural and tourism industry, bringing more possibilities for the application of 5G smart cultural and tourism.

Digital New Infrastructure

Urban Educational others Transportation Media Governance **Smart City Brain** Vehicle Road Cloud Broadcasting 5G telemedicine **5G+Al Enforcement** Collaboration Cloud collection 5G remote Urban big data and editing Drone patrol maintenance governance Traffic video 5G+4K teaching AR shopping analysis quide

Cultural **Tourism**

Smart Town Brain

C&T big data AR Content Cloud Autonomous driving in scenic areas

Enhance management

- Big data assisted decision-making
- Real time command &scheduling

Improved Services

Personalized tourism services

Assist in dissemination

- **Customer source portrait**
- Online live streaming

Promoting consumption

- Rich consumer xperience
- Connect the

-14consumption process



5G Sailing Cultural and Tourism Journey