

Digital Public Infrastructure Solutions: From the Perspective of China's Practices

Executive Summary

Digital public infrastructure has now become an important topic on the agenda of global digital development cooperation. The United Nations (UN) Summit of the Future in September 2024 adopted the Global Digital Compact, which considers "digital public goods and digital public infrastructure to be key drivers of inclusive digital transformation and innovation." All parties recognize that digital public infrastructure is still an evolving concept and there are multiple models of it, but the core goals are highly consistent: to develop secure, interoperable, open shared digital systems that can build fundamental, common, core digital capabilities underlying public and private digital services and enable inclusive digital transformation.

China is a pioneer in implementing digital public infrastructure and an important participant in the corresponding global agenda. For one thing, despite differences in terminology, models and other aspects, the "Digital China" initiative has been closely aligned with the concept of digital public infrastructure. Its top-level design and implementation practices supports the digital economy, digital government, digital culture, digital society and digital ecology based on developing digital infrastructure and data source systems. In this process, China has built up extensive experience, technologies and solutions and cultivated an array of competitive enterprises. For another, China has been deeply engaged in the UN, G20 and BRICS,

Safeguards	Applications	government services, healthcare, education, taxation, payment...
	Integrated APIs & Portals	- Integrated APIs - one-stop portals
	Common platforms & Technical capabilities	- Common applications - Supportive technologies
	Data sharing layer	- high-quality data sets - data circulation environment and capability
	Physical Infrastructure layer	Network, computing...

Digital public infrastructure framework

Organic integration of
hardware and software

Openness and
interoperability

Security
safeguards

Public-private
partnerships



Key characteristics of digital public infrastructure

positively contributing to the development of the digital public infrastructure concept, and fostering consensus around it.

From the perspective of China's practice, digital public infrastructure should include several components: physical infrastructure layer, data sharing layer; common platforms and technical capabilities; and integrated APIs and portals.

On top of that, digital public infrastructure exhibits the following key characteristics: it is an organic whole that closely combines hardware and software; it achieves openness and interoperability by diverse means, such as unified standards, open interfaces and open-source

software; it has full-lifecycle, well-designed security safeguards; it makes good use of the industry's advantages in technology, capital and innovation to shape sound public-private partnerships and a healthy competitive ecosystem.

In response to the Global Digital Compact, this report draws on China's practice in building a digital government, shares experiments and observations on digital public infrastructure, highlighting Chinese industry's digital solutions across key sectors, such as government services, education, healthcare and tax. It aims to contribute China's unique perspective and good practices to the global agenda on digital public infrastructure.

Contact Information

- qiuchenxi@caict.ac.cn
- pengningnan@caict.ac.cn

