Network Innovation and Development Alliance
Annual Report 2025

Network Innovation and Development Alliance
全球固定网络创新联盟（NIDA）

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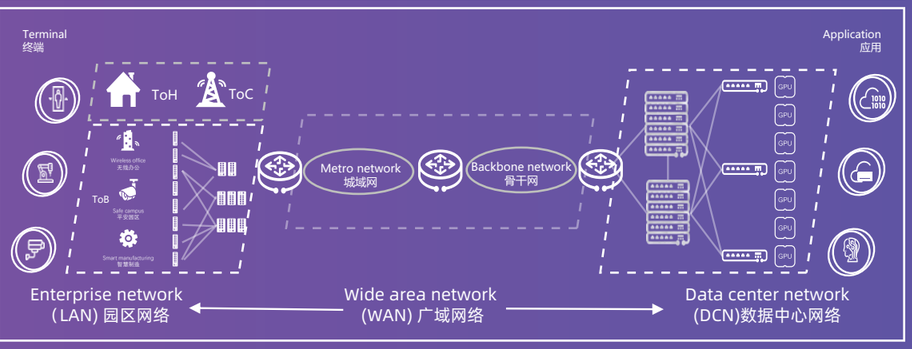
关于联盟

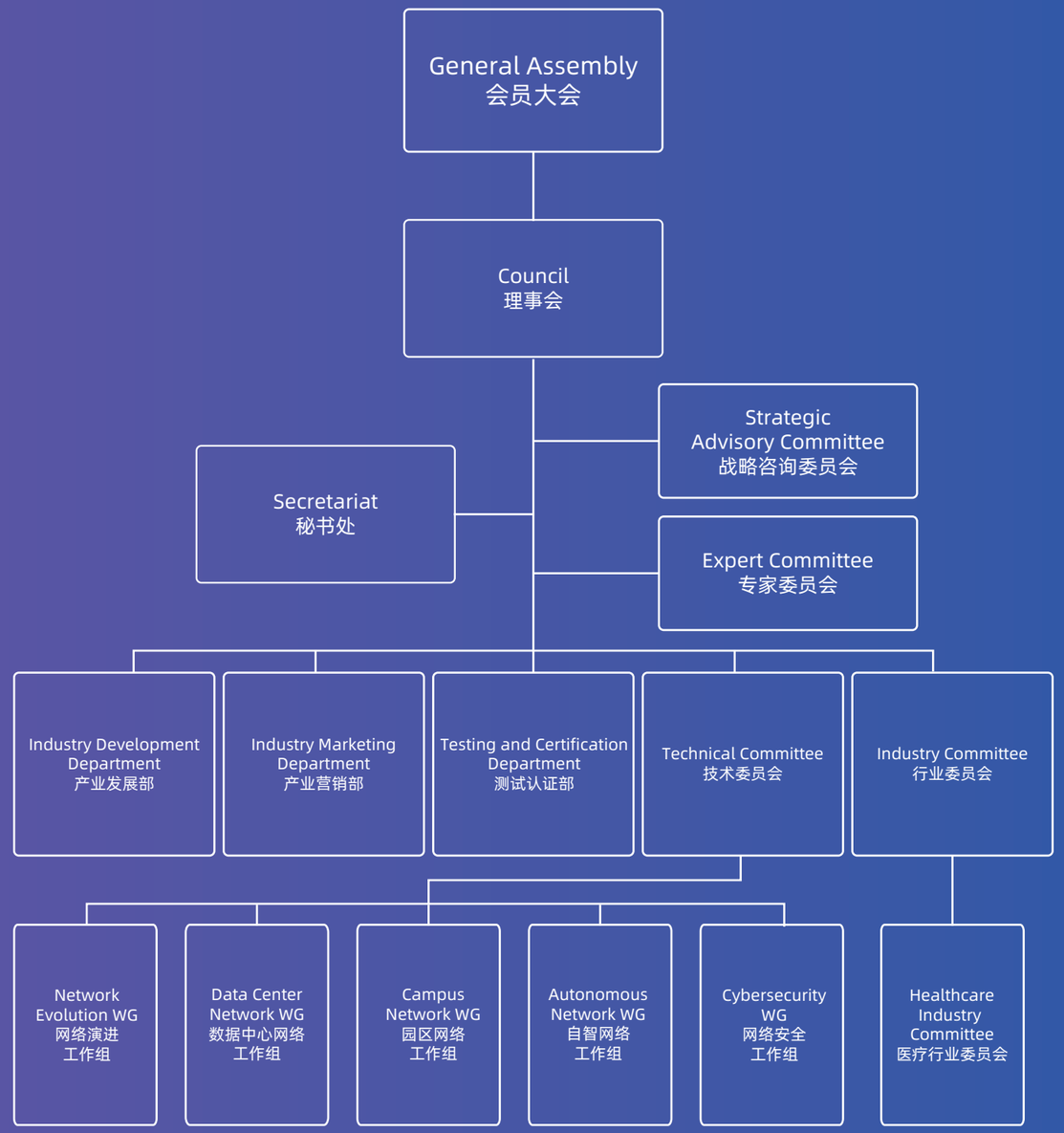
Introduction to NIDA
联盟简介

The Network Innovation and Development Alliance (NIDA) is an international, industry-based, non-profit social group formed voluntarily by industry organizations, universities, research institutes, companies, and enterprises from all over the world, focusing on promoting fixed network technology innovation and industrial upgrades.

全球固定网络创新联盟（Network Innovation and Development Alliance，简称为NIDA）是由世界各国的行业机构、高校、科研院所、公司企业等自愿组成的，专注于推动固定网络技术创新和产业升级的国际性、行业性、非营利性社会团体。

	Network Innovation and Development Alliance 全球固定网络创新联盟
Vision 愿景	Fueling an Intelligent Society with Network Innovation 网络创新赋能数智社会
Mission 使命	Define the Evolution Path and Network Construction Standards of Global Internet Infrastructure, and Drive the Upgrade of the Data Communication Industry. 定义全球互联网基础设施的演进路径、建网标准，牵引产业升级
Service scope 业务范围	Evolution path 演进路径 / Architecture innovation Network construction standard 架构创新 & 建网标准 / Industry promotion 产业推广
Standards domain 标准领域	

Organizational Structure
组织架构



NIDA Members
联盟会员

Council Member
理事会员单位

02

NEW YEAR GREETINGS

新年寄语

Greetings from the Chairman
理事长寄语

Jing Tao
Chairman

荆涛
理事长

As seasons change and time turns the page, we usher in a new chapter. Looking back on the past year, with the concerted efforts and unwavering dedication of all its members, NIDA has marched forward with resolute strides and achieved fruitful results: the "Three Horizontal and Four Vertical" network standardization system has taken root, the concept of the Next-Gen Network has been widely disseminated, the "Pioneer City Initiative" has advanced steadily, alliance membership has doubled, and global influence has continued to rise. These hard-won achievements are inseparable from the deep commitment and perseverance of every partner. Standing at the new starting point of 2026, NIDA will foster closer cooperation and implement more practical measures to continue building consensus on network evolution, expand global standard collaboration, launch project certification, and inject strong momentum into the optimization and upgrading of global internet infrastructure. In the new year, may we continue to set innovation as our sail and navigate with collaboration, working together to chart a new blueprint for the high-quality development of the global fixed network industry! We sincerely wish everyone a joyful New Year, progress in your endeavors, and happiness and well-being.

岁序更替，华章日新。回望过去一年，NIDA 在各位成员的同心协力与不懈努力下，步履铿锵、硕果盈枝：“三横四纵”建网标准体系落地生根，新质互联网理念广泛传播，“先锋城市计划”稳步推进，联盟会员数量实现翻倍，全球影响力持续跃升。这份来之不易的成绩，离不开每一位伙伴的深耕与坚守。站在 2026 年的新起点，NIDA 将以更紧密的合作、更务实的举措，持续凝聚网络演进共识，拓展全球标准合作，启动项目认证，为全球互联网基础设施的优化升级注入强劲动力。新的一年，愿我们继续以创新为帆、以合作领航，共绘全球固定网络产业高质量发展新蓝图！衷心祝愿大家新年快乐，事业精进，幸福安康！

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

As the bells of 2026 are about to ring, we extend our most sincere greetings and best wishes to colleagues worldwide dedicated to the innovation and development of networking technology during this time of hope and transformation.

Reflecting on the past year, we have collectively witnessed a pivotal inflection point in the evolution of information technology. Artificial Intelligence has transcended algorithmic innovation to achieve systemic application across society. With AI Agents emerging across every sector, an internet era centered on 'Agents' as the new primary entities is rapidly arriving. The networks of the future will no longer be mere conduits for data transmission; they will evolve into intensive platforms supporting the coordination, learning, and collaboration of hundreds of billions of intelligent agents. Future AI applications will be as flexible as 'ordering a set meal'—users will be able to freely combine functions from an 'Agent Supermarket' to complete diverse tasks. This vision is driving us to redefine the very essence and boundaries of the Internet.

Currently, we stand at the historic crossroads of digital transformation and the AI era. This presents challenges for the development of IPv6, yet it also opens vast new horizons. The next generation of networking is not just a continuation of technology, but a reconstruction of philosophy—moving from 'connecting everything' to 'understanding everything.' To this end, the global Internet community must build consensus, deepen integration, and strengthen cooperation.

The evolution of networking in the AI era is more than a technical challenge; it is a systemic engineering feat. While perspectives on future networks may vary across countries and industries, we firmly believe that open synergy, standards-first, and win-win cooperation represent our greatest common denominators. We must break down industrial silos, promote the deep integration of networking with all sectors, and let standardization serve as the accelerator for innovation.

In 2026, we look forward to NIDA continuing its role as a global platform for industry convergence, actively promoting international cooperation and building a networking ecosystem for the era of AI Agents. Let us continue to gather wisdom with an open mind, break boundaries through collaboration, and light up the future with the brilliance of technology!

Wu Hequan
邬贺铨

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

2026 年的钟声即将敲响，在这充满希望与变革的时刻，向全球致力于网络创新与发展的同行们，致以最诚挚的问候与祝福！

回顾过去一年，我们共同见证了信息技术演进的关键拐点。人工智能从算法创新走向全社会的系统性应用，AI 智能体在千行百业中涌现，一个以“智能体”为新型主体的互联网时代正在加速到来。未来的网络将不再仅仅是数据传输的通道，而将演进为承载千亿级智能体协同、学习与协作的集约化平台。未来的 AI 应用将如同“点外卖套餐”一样灵活——用户可从“智能体超市”中自由组合功能，完成多样任务。这一愿景，正推动我们重新定义互联网的内涵与边界。

当前，我们正处在数字化转型与 AI 时代的历史交汇点。这既为 IPv6 发展带来挑战，也开辟了广阔空间。下一代网络不仅是技术的延续，更是理念的重构——从“连接一切”走向“理解一切”。为此，全球互联网需要凝聚共识、深化融合、加强合作。

AI 时代的网络演进不仅是技术课题，更是体系工程。各国、各产业对未来网络的见解或有差异，但我们坚信，开放协同、标准先行、合作共赢是最大的公约数。我们需打破行业边界，推动网络与千行百业深度融合，让标准化成为创新的加速器。

2026 年，希望 NIDA 继续发挥全球产业力量汇聚的平台作用，积极推动国际合作，构建智能体时代的网络生态。让我们继续以开放之心凝聚智慧，以协作之力突破边界，以科技之光点亮未来！

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

Liu Yunjie
刘韵洁

At this turning point of the year as technological waves surge forward, I am honored to share with you a vision of the future.

Over the past year, we have collectively witnessed an unprecedented convergence of artificial intelligence and networking technologies, heralding the full arrival of an "Intelligent Internet" era driven by both data and intelligence. Looking ahead, I firmly believe that only by upholding open cooperation, sustaining innovation, and jointly building next-generation network infrastructure that meets the needs of global industrial development can we seize opportunities and lead the transformation.

We now stand at a critical historical juncture. The rapid advancement of artificial intelligence, particularly large-scale models, has placed revolutionary demands on the underlying networks. Computing power requirements have surged nearly a hundredfold over the past five years. From industrial internet and spatial computing to intelligent agents and embodied intelligence, the intelligent transformation across all industries demands networks to be not only "high-speed" but also endowed with "high-quality" and "high-efficiency" deterministic capabilities. I summarize this as the core development requirement of "Three Highs and Three Lows": future networks must achieve high speed, high quality, and high efficiency, while simultaneously attaining low cost, low energy consumption, and low barriers to entry. This necessitates moving beyond the traditional internet designed on a "best-effort" principle, advancing networks from "ordinary roads" to punctual, reliable, and customizable "network high-speed railways."

The China Environment for Network Innovations (CENI) is China's first major national scientific and technological infrastructure in the field of communications and information. It has systematically tackled key technologies such as large-scale network operating systems, photoelectric fusion deterministic networks, and integrated data-computing-network scheduling. Having now passed national acceptance, it is capable of meeting the higher quality demands placed on networks by the rapid development of AI, supporting China in forging its own AI development path characterized by "empowering computing through networking." It can serve as the foundational platform for a new national data infrastructure, empowering all industries and fostering an open, collaborative, and mutually beneficial ecosystem for the digital economy.

Achieving this goal first requires building an integrated computing power network infrastructure. Computing power should not be scattered islands but, like electricity, become a fundamental social resource accessible conveniently anytime, anywhere. Accelerating the improvement of integrated computing power scheduling infrastructure is a prerequisite for enabling the large-scale application of AI technologies. An even more exciting prospect lies in the intelligence of the network itself. Networks will no longer merely serve as "delivery pipelines" for AI; they will themselves become intelligent agents driven and defined by AI. Networks will

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

transform from passive tools into intelligent partners capable of proactively understanding needs and providing guarantees.

The road ahead is long and challenging, but sustained endeavor will lead us to our destination. The integration of deterministic networks and artificial intelligence is laying an information high-speed railway toward an intelligent world. I believe that with the global wisdom and collective strength convened by NIDA, we will undoubtedly overcome the challenges ahead and jointly create a new future of global connectivity that is high-speed, efficient, intelligent, and inclusive.

在技术浪潮奔涌向前的岁末年初，我很荣幸能与大家一同展望未来图景。

过去的一年， 我们共同见证了人工智能与网络技术前所未有的深度融合， 一个由数据和智能双向驱动的“智能互联网”时代已全面来临。面向未来， 我坚信， 唯有坚持开放合作、 持续创新， 共同构建满足全球产业发展需求的下一代网络基础设施， 方能抓住机遇，引领变革。

当下， 我们正站在一个关键的历史节点上。 人工智能， 特别是大模型的飞速发展， 对底层网络提出了革命性的要求。算力需求在过去五年激增了近百倍， 从工业互联网、 空间计算到智能体、 具身智能， 千行百业的智能化转型不仅要求网络“高速”， 更要求其具备 “高质” 与 “高效” 的确定性能力。我将其概括为 “三高三低” 的核心发展要求：未来的网络必须满足高速、 高质、 高效， 同时达成低成本、 低能耗、 低门槛。这要求我们改进以“尽力而为”为设计理念的传统互联网， 推动网络从“普通马路”向准时、 可靠、可定制的 “网络高铁” 演进。

未来网络试验设施（CENI）是我国通信与信息领域的首个国家重大科技基础设施， 系统性攻克了大网操作系统、 光电融合确定性网络、 数算网融合调度等关键技术， 目前已经通过国家验收， 可满足人工智能高速发展对网络提出的更高质量的要求， 助力我国走出一条 “以网强算” 的中国 AI 发展道路。可作为国家新型数据基础设施底座赋能千行百业，形成机制开放、合作共赢的数字经济良性发展生态。

实现这一目标， 首先需要构建一体化的算力网络基础设施。算力不应是散落各处的孤岛， 而应像电力一样， 成为可随时随地便捷取用的社会基础资源， 加快完善算力一体化调度基础设施， 是推动 AI 技术大规模落地应用的先决条件。更激动人心的前景在于网络自身的智能化。 网络将不仅是 AI 的 “输送管道”， 其本身也将成为由 AI 驱动和定义的智能体。网络将从一种被动的工具，转变为能主动理解需求、提供保障的智能伙伴。

道阻且长， 行则将至。确定性网络与人工智能的结合， 正在为我们铺设一条通往智能世界的信息高铁。我相信，凭借 NIDA 汇聚的全球智慧与合力，我们必将能够克服前路上的挑战，共同开创一个高速、高效、智能、包容的全球互联新未来。

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

I am delighted to witness NIDA's exceptional leadership over the past year in defining next-generation network standards and fostering industrial synergy.

Today, China stands as a global benchmark for network modernization with 75% IPv6 penetration with over 870 Million IPv6 users, successfully proving the superiority of IPv6-Only through networks like CERNET2. This success not only modernizes China's internet but provides a blueprint for nations striving for digital transformation.

NIDA plays a pivotal role in this vision. By converting "pioneer" experiences into global standards, NIDA ensures that global infrastructure can support the digital dreams of the future, including AI and 6G. Let us remain passionate in driving the transition to IPv6-Only. This is not just a technical upgrade, but a total reshaping of the digital social fabric.

In 2026, let us continue to move forward together. Happy New Year to all!

Latif Ladid

我非常欣慰地看到，NIDA在过去一年中，在定义下一代网络标准和促进产业协同方面展现了卓越的领导力。

如今，中国以75%的IPv6普及率及超过8.7亿的IPv6用户，成为全球网络现代化的典范，并已通过CERNET2等网络成功验证了IPv6-Only（纯IPv6）的优越性。这一成就不仅实现了中国互联网的现代化，更为那些渴望实现数字化转型的国家提供了可借鉴的蓝图。

NIDA在这一愿景中扮演着核心角色。通过将“先行者”的经验转化为全球标准，NIDA确保了全球基础设施能够支撑起包括人工智能（AI）和6G在内的未来数字化梦想。让我们保持热情，坚定不移地推动向IPv6-Only的转型。这不仅是一次技术升级，更是对数字社会架构的全面重塑。

2026年，让我们继续并肩前行。祝大家新年快乐，万事如意！

Greetings from the Strategy Advisory Committee
战略咨询委员会寄语

Cui Shuguang
崔曙光

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Looking back at 2025, NIDA has gone all out to drive global network innovation and facilitate the integration of frontier technologies into next-generation network standards.

Currently, AI is advancing at a breakneck pace, with Large Language Model (LLM) applications evolving by the day and Network Large Models already emerging on the scene. Looking ahead to 2026, we will deepen the bidirectional integration of AI and networking, riding the wave of technological progress to benefit human society!

回顾2025年，NIDA全力推动全球网络创新发展，助力前沿技术融入下一代网络标准。当前，AI技术迅猛发展，大模型技术的应用日新月异，网络大模型技术已经涌现。展望2026年，我们将深耕AI与网络技术的双向融合，逐技术发展的浪潮，造福人类社会！

"

Dirk Kutscher
Chair of the
Expert Committee
德克·库彻
专家委员会主席

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It is with a unique perspective on both the foundational research and the industrial imperative of networking that I address you at the dawn of 2026. We stand at an inflection point, not merely of incremental progress, but of a profound architectural paradigm shift driven by one force: Artificial Intelligence.

The collision of AI and networking is redefining the very purpose of our infrastructure. The legacy Internet, built on a "best-effort" philosophy, is fundamentally challenged by the insatiable and qualitatively new demands of pervasive AI. This is not a simple question of more bandwidth. It is a triple challenge that strikes at the core of network architecture: 1st is the Challenge of Determinism in a Stochastic World， 2nd is the Challenge of Dynamic Scale and Complexity, and 3rd is the Challenge of Sustainable Co-Design.

Therefore, the mission of NIDA has never been more critical. Our focus must be on pioneering the Intelligent Deterministic Network (IDN) as the new foundational paradigm. This entails moving beyond incremental upgrades to champion architectures where determinism is programmable, intelligence is embedded, and resources from compute to connectivity are natively integrated and globally schedulable.

Greetings from the Expert Committee
专家委员会寄语

My call to this distinguished community in 2026 is to embrace this paradigm shift with intellectual courage and collaborative spirit. Let us:

Advocate for and Standardize the open interfaces that will allow deterministic and AI-native network capabilities to become globally interoperable services.

Foster Deep Cross-Disciplinary Fusion between networking experts, AI researchers, and application architects to co-design the next-generation stack.

Demonstrate Unambiguous Value by building reference implementations that solve tangible, large-scale problems in science and industry.

The task before us is to build the intelligent, dependable, and sustainable circulatory system for the digital intelligence age. This is our generational challenge. Through the focused, collaborative engine of NIDA, I am confident we will rise to meet it.

Let us build not just for today's needs, but for the foundational needs of a future we are only beginning to imagine.

值此 2026 年开端， 我愿以对网络基础研究与产业发展的双重洞察， 与诸位分享我的思考。我们正站在一个拐点上——这并非渐进式改良的节点，而是由人工智能驱动的网络架构范式根本性变革的起点。

AI 与网络的碰撞正在重新定义基础设施的本质使命。基于 " 尽力而为 " 理念构建的传统互联网，正面临无处不在的 AI 所带来的全新质变需求的根本性挑战。这不仅是带宽扩容的简单命题，更是直指网络架构核心的三重挑战： 一是随机世界中确定性保障的挑战，二是动态规模与复杂性的挑战，三是可持续协同设计的挑战。

正因如此， 全球固定网络创新联盟（NIDA）的使命非常关键。我们必须聚焦开创智能确定性网络这一新基础范式。这意味着超越渐进式改进，倡导确定性可编程、智能内嵌、算网资源原生一体与全局可调度的架构体系。

面向 2026 年，我呼吁在座卓越的共同体以思想勇气与合作精神拥抱这场范式变革：

• 倡导并标准化开放接口，使确定性及 AI 原生网络能力成为全球可互通的公共服务；

• 促进网络专家、AI 研究者与应用架构师的深度跨学科融合，共同设计下一代技术栈；

• 通过构建参考实践彰显明确价值，切实解决科学与产业中的大规模现实难题。

我们的使命是为数字智能时代构建智能、 可靠、 可持续的循环系统。这是时代赋予我们的挑战。凭借 NIDA 这一专注协同的引擎，我坚信我们将共同迎接这一挑战。

让我们不仅为当下之需而建设，更为我们刚刚开始想象的未来奠基。

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Greetings from the Secretaries General
秘书长寄语

Deng Yiou
Secretary-General
邓一鸥
秘书长

Today, NIDA is one and a half years old.

As our founding year, 2025 was a period of exploration where we established our standard framework and completed the development of 11 standards from scratch. We continuously expanded the ecosystem for the Next-generation Network concept, gaining broader industry consensus. By extending our Pioneer City program to ten cities across nine countries, we broadened the horizon for international standards and industrial cooperation. Throughout this journey, our team has grown, our organization has stabilized, and our operational processes have matured.

NIDA has reached a new level.

Consequently, we enter 2026 from a higher starting point with expectations for even more fruitful results. We will focus on core business areas—such as wireless intelligent sensing and network automation—to build high-quality network architecture standards. We aim to promote innovative network architectures and applications in key sectors like education and healthcare. Furthermore, we will expand our industrial cooperation in regions such as the Asia-Pacific and the Middle East, working alongside local organizations to drive the implementation of NIDA standards. We will also establish close partnerships with global network standards organizations to jointly accelerate network evolution and industrial progress.

We are deeply grateful to all our partners and member units for your unwavering support and investment, which has enabled NIDA to officially embark on its path of standard-setting and industrial development. Looking ahead, I am confident that through our collective efforts, NIDA will take another solid step in 2026, contributing significantly to industrial innovation and prosperity!

今天，NIDA 一岁半了。

刚刚过去的 2025 年是 NIDA 创始之年，我们在艰难摸索发展之路：从无到有，建立起了标准体系框架，完成了 11 个标准的开发；不断扩大新质互联网理念的朋友圈，获得了更广泛的共识；将先锋城市计划拓展到九国十城，开拓了国际标准和产业合作空间……我们的团队壮大了，组织稳定了，流程逐渐跑通了。

NIDA 上了一个台阶。

因此，2026 年我们有了更高的起点，也必然会期待更丰盛的成果。我们要围绕核心业务，比如无线智能感知、网络自动化，构建高质量的网络架构标准；要在教育、医疗等行业推进创新网络架构和应用；在亚太、中东等区域扩展产业合作范围，与当地产业组织一起推进 NIDA 标准的应用落地；要与全球网络标准组织建立密切合作关系，共同推动网络演进进程和产业发展。

感谢各方伙伴、联盟会员单位的支持和投入，帮助 NIDA 正式走上了标准制定和产业发展之路。面向未来，相信在我们共同努力之下，NIDA 一定能在 2026 年继续走出坚实的一步，为产业的创新和蓬勃发展做出贡献！

As we welcome the Year of the Fire Horse in 2026, I extend my most sincere greetings to our global partners and experts on behalf of NIDA.

Reflecting on 2025, NIDA has reached significant milestones in driving network innovation. As of December 31, we have successfully released 11 standards, 11 whitepapers, and 1 bluebook. With approximately 169 technical proposals produced , our work now comprehensively covers key scenarios including AI-powered data centers, remote medical consultation, smart hospitals, and campus networks. Notably, we certified our first product, the Xinghe AI high-efficiency data center network solution, marking a breakthrough in industrial application.

Our ecosystem continues to flourish, with our membership growing to 94 global entities. This year, we deepened international cooperation by signing strategic MOUs with TM Forum, Indonesia’ s ASIOTI and MASTEL, and the China Institute of Communications (CIC). Furthermore, the launch of the 400G per lane MSA working group has set a solid foundation for the next generation of high-speed network infrastructure.

Looking ahead to 2026, we will continue to explore the frontiers of L4 Autonomous Networking, Agentic-based intelligence, and computing-network integration. Let us harness the spirit of innovation to bridge boundaries and build the future of the intelligent world together.

Wish you a prosperous and innovative 2026!

Zhu Keyi
Vice Secretary-General
朱科义
副秘书长

值此 2026 赤马之年，我谨代表 NIDA 向全球产业伙伴致以诚挚祝福。

回望 2025，我们以标准创新书写数通产业新篇章：截至 12 月底，联盟累计发布标准 11 项、白皮书 11 项及蓝皮书 1 项，标准成果已深度覆盖智算中心、远程诊疗及智慧园区等核心场景。我们见证了首款 AI 高算效数据中心网络产品通过认证，更在自智网络向 L4 级演进中迈出关键一步 。

这一年，NIDA 生态日益繁茂，全球会员规模已达 94 家。我们深化国际合作，成功与 TM Forum、印尼 ASIOTI 及 MASTEL 等组织签署战略备忘录；同时开启首个 400G per lane MSA 研究，开启超高速率标准新纪元 。

展望 2026，我们将聚焦智能体互联网、通算一体等前沿领域，持续释放创新动能。愿我们以标准为缰，共赴智能世界的星辰大海！

祝愿各位：一马当先展宏图，标准引领谱新篇！

Greetings from the Partners
合作伙伴寄语

Zhang Yanchuan
Vice President
and Secretary-General
China Institute of
Communications

张延川
中国通信学会
副理事长兼秘书长

Over the past year, we are delighted to witness the breakthrough progress in the collaboration between the China Institute of Communications (CIC) and NIDA in the field of standardization. The official signing of our Memorandum of Understanding (MoU) on standard cooperation has injected strong momentum into building an open, compatible, and innovative standards ecosystem through pragmatic initiatives such as mutual recognition of standards.

Looking ahead to 2026 and beyond, we look forward to further expanding the breadth and depth of our cooperation with NIDA on this solid foundation, working together to promote global connectivity and digital inclusion.

I sincerely wish NIDA a prosperous development in the coming year. My best wishes to all colleagues for a Happy New Year, good health, and happiness for your families!

2025 过去一年， 我们欣喜地看到， 中国通信学会与 NIDA 在标准领域的合作取得了突破性进展。双方正式签署的标准合作备忘录， 通过标准互认等务实合作， 共同为构建开放、兼容、创新的标准体系注入了强劲动力。

展望 2026 年及更远的未来，我们期待与 NIDA 在现有基础上，进一步拓展合作的广度和深度，携手促进全球互联互通与数字包容。

衷心祝愿 NIDA 在新的一年里蓬勃发展，祝愿各位同仁新年快乐、阖家安康！

Greetings from the Partners
合作伙伴寄语

W. George Glass
Chief Technology Officer
of the TM Forum

In November 2025 the TM Forum, the global telecoms industry association, signed a collaboration agreement with NIDA to jointly promote and assess Autonomous Networks, with a particular focus on networks that support ecosystem-based solutions.

Users' expectation of modern-day networks is increasing, whilst the technology required to deliver and operate such networks is becoming more complex and expensive. The TM Forum's Autonomous Network programme was formed to enable telecom service providers to deliver highly Autonomous Networks characterized by zero-trouble and zero-wait from the users' perspective plus self-healing and self-optimizing from the operator' s point of view.

The TM Forum Autonomous Networks levels evaluation methodology will be utilized, and further developed, to drive the assessment, implementation and delivery of highly autonomous network services. Building on the TM Forum's core telecoms capabilities the partnership will look to develop broader ecosystem services in various sectors such as finance, healthcare and education initially.

As we move into 2026, we are looking forward to strengthening our partnership to promote the standardization of highly autonomous networking solutions to enable them to be enjoyed by a much broader set of industries.

2025 年 11 月，全球电信行业协会 TM Forum 与 NIDA 签署了合作协议，旨在共同推广和评估自智网络，并特别关注支持生态化解决方案的网络。

用户对现代网络的期望日益增长， 而交付和运营此类网络所需的技术正变得愈发复杂且昂贵。TM Forum 发起自智网络项目的初衷， 是助力电信服务提供商交付高度自动化的网络——从用户角度实现“零故障、 零等待”， 从运营商角度实现“自愈合、自优化”。

双方将利用并进一步完善 TM Forum 的自智网络等级评估方法论， 以推动高度自智网络服务的评估、部署与交付。基于 TM Forum 核心电信领域的能力，双方合作伙伴关系将寻求开发更广泛的生态服务，初期将重点覆盖金融、医疗和教育等领域。

迈入 2026 年， 我们期待进一步加强合作伙伴关系， 推动高度自智网络解决方案的标准化，使更多行业能够共享这一技术红利。

Greetings from the Partners
合作伙伴寄语

Shavkat Sabirov
President, Internet Association of Kazakhstan

沈恺达
哈萨克斯坦互联网协会主席

"

The year 2025 has truly been an innovative and developing one for us. Collaboration with NIDA has opened a new chapter in our association's work. This chapter has opened up partnerships, the exchange of expertise and knowledge, and a willingness to seek balanced solutions in matters of regulatory policy, technical requirements, and standards in the areas of digital infrastructure, artificial intelligence, future networks, and computing.

With your help, complex technologies are becoming more understandable, reliable, and useful for society, business, and the government. Through constant contact with Chinese partners, companies, experts, and NIDA, we look to the future and identify real market needs, technological trends, and the challenges facing market participants.

Furthermore, NIDA's presence in the Central Asian region strengthens the position of Chinese companies through real-world contacts, projects, and collaboration. At the Central Asian Peering and Interconnect Forum in Almaty, Kazakhstan, NIDA presented its Evolution from IPv6 to Next-Gen Network development program to the technical community. NIDA is expanding, finding new friends and partners in the region, and building long-term and mutually beneficial collaborations.

We are honored to work and be part of NIDA, a professional space that shapes the rules, approaches, and standards for digital infrastructure, artificial intelligence, future networks, and computing.

We wish you simple and clear solutions, powerful ideas, lively discussions, and projects that change reality for the better! May your work be filled with inspiration, your partnerships filled with understanding, and your lives filled with balance and joy!

2025 年对我们而言， 确实是充满创新与发展的一年。与全球固定网络创新联盟（NIDA） 的合作， 为我们协会的工作开启了新的篇章。这一篇章不仅开启了伙伴关系、 专业经验与知识的交流， 更展现了我们在数字基础设施、 人工智能、 未来网络及算力领域，针对监管政策、技术要求和标准规范寻求平衡解决方案的意愿。

在 NIDA 的帮助下， 复杂的数字技术正变得更加易懂、 可靠， 并为社会、 企业及政府创造价值。通过与中国合作伙伴、 企业、 专家及 NIDA 的持续接触， 我们放眼未来，精准识别市场真实需求、技术趋势以及市场参与者面临的挑战。

此外，NIDA 在中亚地区的布局，通过实地接触、项目开展与协同合作，进一步加强了中国企业的地位。在哈萨克斯坦阿拉木图举行的中亚对等互联论坛 （CAPIF） 上，NIDA 向技术界展示了其“从 IPv6 演进至下一代网络”的发展计划。NIDA 正在该地区不断扩张，结识新的伙伴，并建立长期互利的合作关系。

我们很荣幸能与 NIDA 并肩同行， 成为这个专业领域的一员。正是这个平台， 塑造了数字基础设施、人工智能、未来网络和算力领域的规则、方法与标准。

我们衷心祝愿 NIDA 拥有简明清晰的解决方案、 强有力的创意、 活跃的学术讨论， 以及能让现实变得更美好的项目！愿你们的工作充满灵感， 伙伴关系充满理解， 生活充满平衡与喜悦！

"

03

NIDA MAJOR EVENTS

联盟大事记

April 23, 2025
2025年4月23日

Official Launch of the NIDA Healthcare Industry Committee (In Preparation)
NIDA 医疗行业委员会（筹）正式启动

June 27, 2025
2025年6月27日

The 3rd Meeting of the 1st NIDA Council
NIDA 第一届理事会第三次会议

September 26, 2025
2025年9月26日

The 2nd Plenary Session of the NIDA Technical Committee Convened
NIDA 召开技术委员会第二次全体会议

November 7, 2025
2025年11月7日

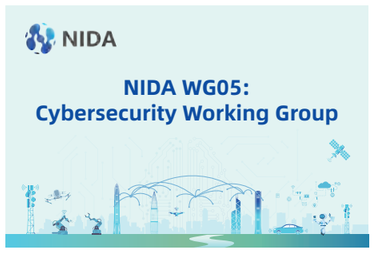
The 2nd NIDA General Meeting
NIDA第二次会员大会

April 28, 2025
2025年4月28日

Launch of the BRICS Next Generation Network Pioneer Cities Development Initiative
“金砖国家新质互联网先锋城市建设计划”启动

September 26, 2025
2025年9月26日

Official Establishment of the NIDA Cybersecurity Working Group
NIDA 网络安全工作组正式成立



November 6-8, 2025
2025年11月6日-8日

The Inaugural Consumer Electronics Innova0 tion Congress (CEIC 2025)
首届消费电子创新大会（CEIC 2025）

November 8, 2025
2025年11月8日

Network Innovation and Development Summit
第三届网络创新发展大会

04

COOPERATION AND EVENTS

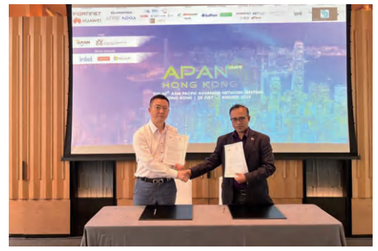
合作与交流

Industrial cooperation / 产业合作

Industrial Cooperation
产业合作

April 2025 2025年4月

NIDA Reached Strategic Cooperation with the Internet Association of Kazakhstan
NIDA与哈萨克斯坦互联网协会
达成战略合作



July 2025 2025年7月

NIDA Signed MoU with the Asia-Pacific Advanced Network (APAN)
NIDA与亚太先进网络协会(APAN)
签署合作备忘录

October 2025 2025年10月
NIDA Signed Strategic Cooperation Agreement with Multimedia University (MMU), Malaysia
NIDA与马来西亚多媒体大学MMU
签署战略合作协议

November 2025 2024年11月
NIDA Signed Strategic Memorandum of Understanding (MoU) with TM Forum
NIDA与TM Forum签署战略合作备忘录

November 2025 2025年11月

NIDA Signed a Tripartite MoU with ASIOTI and MASTEL
NIDA与ASIOTI及印尼信息通信协会MASTEL
联合签署三方合作备忘录（MOU）

December 2025 2025年11月

NIDA Signed MoU with the China Institute of Communications (CIC)
NIDA与中国通信协会签署合作备忘录

05

INDUSTRIAL LEADERSHIP

产业领导力

Next-generation Network / 新质互联网

Pioneer Program / 先锋计划

NIDA

Next-generation Network
新质互联网

1 Computing connection
DCA/DCI/DCN

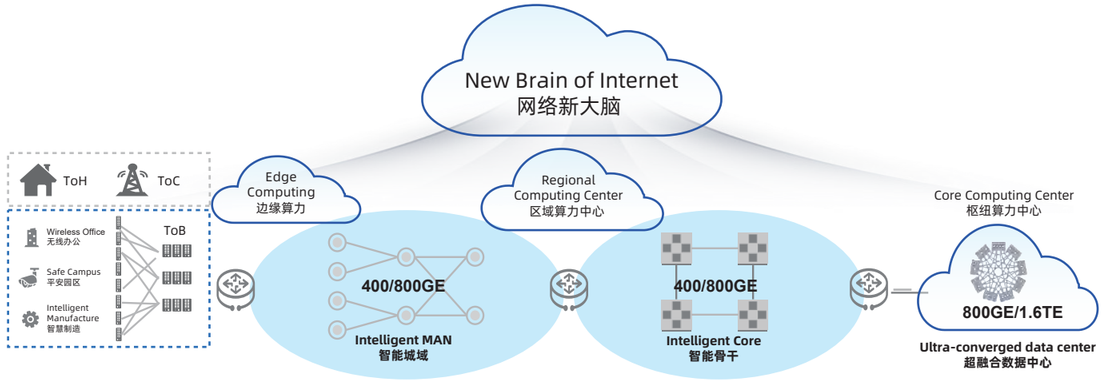
联算 入算/算间/算内

Distributed collaboration on fragmented computing, ultra-long-distance training, 1M GPU cluster
碎片化算力分布式协同, 超长距拉远训练, 百万卡集群

4 Airspace Connection
Satellite Internet

联空 空中互联网/卫星互联网

Satellite interconnection, air ground integration，eVTOL
卫星互联，空地一体，eVTOL低空经济



2 Intelligence connection
AI+ Person/Family/Enterprise/Car

联智 AI+人/家/企/车

Virtual digital humans, embodied intelligent robots, office metaverse, intelligent travelling
虚拟数字人，具身智能机器人，办公元宇宙，智慧出行

3 Data Connection
Data Circulation Supervision

联数 数据流通监管

Trusted data circulation, high-speed data network
可信数据流通，高速数据网

Four New Sets
四联四新

Ultra-broadband connections
超宽新联接

Campus Network 园区网络	WAN Network 广域网络	Data Center Network DCN网络
100Gbps air interface 100Gbps空口	800GE	800GE/1.6TE
+	+	+
Hyper-converged short-range wireless 超融合短距无线	Elastic and non-destructive 弹性无损	New Ethernet 新型以太网

IPv6 based new functionalities
IPv6 新扩展

Computing connection 联算	Intelligence connection 联智
IPv6 0 loss IPv6 无损	IPv6 APN application identity IPv6 APN应用标识
Data Connection 联数	**Airspace Connection 联空**
IPv6 APN data identity IPv6 APN数据标识	IPv6 Time Variant Routing IPv6 时变路由

Autonomous driving network
网络新智能

New intelligence of the devices 设备新智能	New brain of the network 网络新大脑
AI Main control boards AI主控	Multi-dimensional and high-precision network digital twin 多维高精网络数字孪生
AI-Enabled line cards AI线卡	Synergy on different size Network model 网络大小模型协同
AI Service Cards AI算力卡	

Integrated security protection
安全新机制

Intrinsic security of the devices
设备内生安全

Device self-protection and service resilience protection
设备自保护，业务韧性防护

The whole trusted network
网络全程可信

Post-quantum cryptography, quantum-secure networks
后量子密码，量子安全网络

Cloud-network-edge-end integrated security
云网边端一体化安全

Security agents，Next-gen SASE、EDR
安全智能体，下一代SASE、EDR

Trusted data flow
数据可信流转

Identifiable data, visible data is, and manageable data
数据可识，数据可视，数据可管

Work Progress
工作进展

November 2024
2024年11月

Launch of the “Global Pioneering Program for Next Generation Internet - Net5.5G Phase"
新质互联网-Net5.5G阶段 全球先锋计划启动

April 2025
2025年4月

Launch of the BRICS Next Generation Network Pioneer Cities Development Initiative
金砖国家共同启动新质互联网先锋城市建设

August 2025
2025年8月

Launch of the CENI-NIDA Innovation Ecosystem for Next Generation Internet
CENI-NIDA面向新质互联网的创新生态启动

November 2025
2025年11月

Academician Forum: Global Experts Exploring Next-Generation Network Trends in the AI Era
院士论道：海内外院士共同探讨AI时代下一代网络趋势

Pioneer Program
先锋计划

Introduction
项目介绍

During the World Internet Conference in November 2024, representatives from multiple industry or0 ganizations, including the Internet Engineering Task Force (IETF), the International Telecommunica0 tion Union Telecommunication Standardization Sector (ITU-T), the World Broadband Association (WBBA), the IPv6 Forum, the China Communications Standards Association (CCSA), the China Acade0 my of Information and Communications Technology (CAICT), and the Network Innovation and Devel0 opment Alliance (NIDA), jointly launched the "Next-Generation Network-Net5.5G Phase Global Pio0 neer Program."The Pioneer Initiative proposes the industrial objective of developing a hundred thought pioneers, a hundred city pioneers, and a hundred commercial pioneers worldwide.

2024 年 11 月世界互联网大会期间， 来自互联网工程任务组（IETF）、 国际电信联盟电信标准化部门（ITU - T）、 全球云网宽带产业协会（WBBA）、 全球 IPv6 论坛（IPv6 Forum）、 中国通信标准化协会（CCSA）、 中国信通院和全球固定网络创新联盟 （NIDA） 等 多个产业组织的代表共同发起 “新质互联网全球先锋计划”。先锋计划提出在全球范围内发展百大思想先锋、百大城市先锋及百大商业先锋的产业目标。

Target
项目目标

Thought pioneers: bring together global industry leaders to explore the direction of the next-gener0 ation network. Through the exchange of ideas among these leaders, they collectively shape a consen0 sus on the future trajectory of the next-generation network.
思想先锋：汇聚全球产业领袖共同探讨下一代互联网的产业方向，通过领袖的思想碰撞，共同探索新质互联网的产业方向共识；

City pioneers: focus on this consensus, leveraging policy to attract talent and capital, achieving breakthroughs in key technologies and standards, and expanding the industrial landscape.
城市先锋：围绕产业共识，通过政策牵引人才和资金，实现关键技术和标准突破，做大产业空间；

Commercial pioneers: build on these key technologies and standards by piloting their early applica0 tion, driving progress through the dual engines of scenario implementation and technological advancement, and ultimately realizing closed-loop commercial value.
商业先锋：基于关键技术和标准先试先用，通过场景和技术的双轮驱动，实现商业价值的闭环。

Work Progress
工作进展

On April 27, 2025, the Shenzhen Municipal Bureau of Industry and Information Technology issued the "2025 Action Plan for the Ul0 tra-Fast Broadband Pioneer City", which defines the development goals for building a Next Generation Network with Shenzhen's distinctive characteristics.
2025 年 4 月 27 日， 深圳市工业和信息化局印发 《极速宽带先锋城市 2025 年行动计划》，明确建设具有深圳特色的新质互联网的发展目标。

On April 28, 2025, the Network Innovation and Development Alli0 ance (NIDA) launched the "BRICS Next-generation Network Pio0 neer City Development Initiative " during the Sixth BRICS Future Network Innovation Forum in Shenzhen. Representatives from organizations in countries including China, Brazil, Saudi Arabia, Malaysia, and Kazakhstan attended the launch ceremony.
2025 年 4 月 28 日，在第六届金砖国家未来网络创新论坛上，全球固定网络创新联盟发起 “金砖国家新质互联网先锋城市建设计划” 启动仪式，中国、西班牙、印度尼西亚、哈萨克斯坦、乌兹别克、埃及等代表国家组织代表出席发布仪式。

On May 23, 2025, at the Kazakhstan Profit Telecom Day Forum, the Network Innovation and Development Alliance (NIDA) pre0 sented its vision for Next Generation Network standards and its Pioneer Initiative actions, calling on relevant industrial organiza0 tions to join the effort.
2025 年 5 月 23 日，全球固定网络创新联盟在哈萨克斯坦 profit 电信日论坛发表下一代互联网标准理念及先锋计划行动， 呼吁相关产业组织共同加入。

On November 8, 2025, at the 3rd Network Innovation and Devel0 opment Conference, representatives from China, Spain, Indone0 sia, Kazakhstan, Uzbekistan, Egypt, and other countries jointly launched the "2026 New Chapter for the Next-Generation Net0 work Pioneer City" initiative.
2025 年 11 月 8 日，第三届网络创新发展大会，中国，西班牙，印度尼西亚， 哈萨克斯坦， 乌兹别克斯坦， 埃及等代表共同启动“新质互联网先锋城市 2026 新篇章”。

Main Achievements
主要成果

On September 25-26, 2025, at the Central Asian Peering and Interconnection Forum (CAPIF), NIDA’s standard "Metropolitan Area Network for the AI Era" was adopted by the Kazakhstan Internet Associ0ation. Subsequently, "Technical Requirements for Finance Data Center Network Construction" and the "NIDA Next Generation Network for 5.5G Era (NET5.5G) Deployment Guideline" were also adopted. Both parties will work together to promote the implementation of NIDA standards within Kazakh0stan's industry.
2025 年 9 月 25 日至 26 日，中亚 CAPIF（Central Asian Peering and Interconnection Forum）大会上，全球固定网络创新联盟《Metropolitan Area Network for the AI Era》被哈萨克斯坦互联网协会采信，《Technical requirements for finance data center network construction》，《NIDA Next Generation Network for 5.5G Era (NET5.5G) Deployment Guideline》随后被采信，双方共同推进 NIDA 标准在哈萨克斯坦的产业落地。
发布地址： https://iak.kz/publications-reseach-ict-kazakhstan/

On November 8, 2025, at the Third Network Innovation and Development Conference, the Network Innovation and Development Alliance presented certificates to nine outstanding practical cases from around the world.
2025 年11月8日，第三届网络创新发展大会，全球固定网络创新联盟为全球9项优秀实践案例颁发证书。

06

STANDARDS WORK

标准工作

Technical Committee / 技术委员会

Working Group / 工作组

Healthcare Industry Committee / 医疗行业委员会

400G MSA

Technical Committee
技术委员会

The Technical Committee (TC) is a voluntary industry standards development committee authorized to collaborate with other global standards organizations, as well as to formulate, issue, and promote global and regional network technology standards, and to drive their widespread adoption.
The TC is managed by the TC Chair with support from the Secretariat. The TC Chair reports to the NIDA Council. As a two-tier standards-development structure, it establishes working groups and task groups.
The TC serves as a communication platform for all experts. It is responsible for voting on and ap0 proving new task groups and new working groups, voting on and approving the release of draft documents, reviewing and approving meeting minutes of working groups, and coordinating cross-working group technical issues. Technical details are not discussed in TC meetings.

技术委员会（TC）是自愿性的行业标准制定委员会， 授权与全球其他标准组织合作， 并制定、 发布和宣传全球及区域网络技术标准，并推动标准被广泛采纳。
TC 由 TC 主席负责管理， 秘书处提供协助。TC 主席向 NIDA 理事会汇报。作为两个层级的标准制定团队， 下设工作组和任务组。
TC 是所有专家进行沟通的平台。负责新任务组和新工作组的投票与批准、 草案文件发布的投票与批准、 审阅并批准工作组会议纪要、协调跨工作组技术问题。TC 会议不讨论具体技术细节。

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成员列表

In alphabetical order by name
按姓名拼音顺序

Title 职务	Name 姓名	Organization 单位
Vice chair 副主席	Zhang Liang 张亮	Huawei Technology Co. Ltd 华为技术有限公司
Vice chair & part-time secretary 副主席（兼秘书）	Chen Shuanglong 陈双龙	Huawei Technology Co. Ltd 华为技术有限公司
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Number List
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Message from the Chair
主席寄语

Zhang Liang
TC Vice Chair

张亮
TC副主席

As we look back on 2025, NIDA has achieved remarkable successes in standard development and driving industry innovation: we have successfully established the "1+5+X" next-generation network con0 struction standard framework. This system encompasses 1 genera0 tional definition, 5 key technology domains, and X sets of indus0 try-specific construction standards. Furthermore, the newly formed Cybersecurity and 400G MSA Working Groups have strengthened our scope. These accomplishments solidify NIDA's position as a compre0 hensive and highly influential fixed network innovation alliance, and they are a direct result of the collective wisdom and dedication of every member.
Looking ahead to 2026, we will continue to deepen our commitment to technological innovation. Our focus will be on defining even high0 er-quality network construction standards, leading the development direction for fixed network technologies, and guiding the industry's upgrade. Let us continue to work hand in hand to achieve new heights in this era of AI and digital transformation.
Wishing everyone a joyful New Year and all the best for the future!

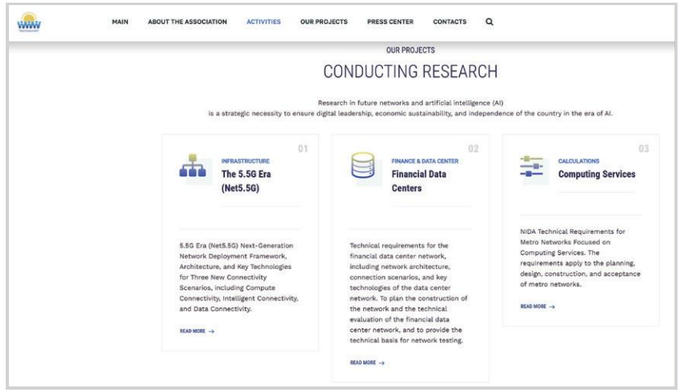
回顾2025年，NIDA在标准建设及推进产业创新方面取得辉煌成就：成功构建了1+5+X的下一代网络建网标准体系，包括1个代际、5个技术领域、X个行业的建网标准。同时新组建网络安全及400G MSA工作组，NIDA成为覆盖领域全，影响力大的固定网络创新联盟组织，这些成果源于每一位成员的智慧和奉献。
展望2026年，我们将继续深耕技术创新，定义更高质量的的建网标准，引领固定网络技术发展方向，牵引产业升级。愿我们继续携手共进，在AI时代及数字化转型的浪潮中再筑辉煌。 祝大家新年快乐，万事如意！

Updates
动态

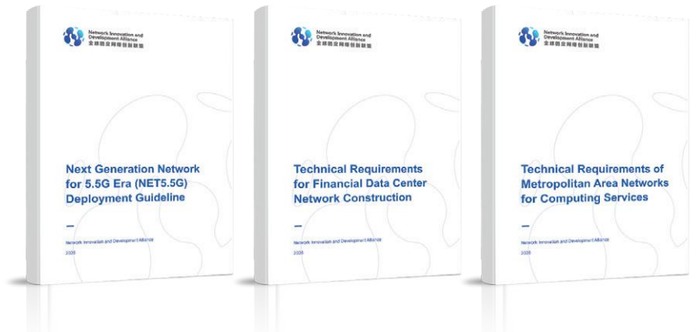
Second Plenary Meeting of the TC, Beijing, September 2025
2025年9月，北京，TC第二次全体会议

On September 26, 2025, the second plenary meeting of the NIDA Technical Committee was success0 fully held in Beijing. More than 30 experts and representatives attended the meeting from organiza0 tions including the China Academy of Information and Communications Technology, China Telecom Research Institute, China Mobile Communications Group Co., Ltd., China Unicom Research Institute, Jiangsu Future Networks Innovation Institute, Huawei Technologies Co., Ltd., and ZTE Corporation. The meeting featured six major agenda items and twenty-three topics, achieving several important outcomes: 1. Official establishment of the Cybersecurity Working Group; 2. Approval of six standard proposals; 3. Review and release of six standards; 4. Joint discussion on the standard planning roadmap for the next 1-3 years of the Technical Committee.

2025 年 9 月 26 日， NIDA 技术委员会第二次全体会议在北京成功举办。来自中国信息通信研究院、 中国电子技术标准化研究院、 中国电信股份有限公司北京研究院、 中国移动通信集团有限公司、 中国联合网络通信有限公司研究院、江苏省未来网络创新研究院、华为技术有限公司、中兴通讯股份有限公司等 30 余位专家、代表参加了会议。本次会议设置了六大议程、 二十三项议题， 取得了多项重要成果： 1. 正式成立网络安全工作组； 2. 通过六项标准立项； 3. 审议并发布六项标准； 4. 共同研讨了技术委员会未来 1 ~ 3 年的标准规划蓝图。



In 2025, the Kazakhstan Internet Association and NIDA deepened their collaboration and jointly released standards.
2025年哈萨克斯坦互联网协会与NIDA深度合作，联合发布标准



In 2025, NIDA actively expanded its international presence in standard adoption. In the Central Asian region, it signed a strategic cooperation agreement with the Kazakhstan Internet Association, en0 gaging in in-depth collaboration on standards for next-generation network construction. Together, they released three network construction standards within Kazakhstan, including the NET5.5G archi0 tecture standard titled "Next Generation Network for 5.5G Era (NET5.5G) Deployment Guideline," the financial data center standard "Technical Requirements for Financial Data Center Network Construc0 tion," Computing Power Services-Oriented Metropolitan Area Network Standard "Technical Require0 ments of Metropolitan Area Networks for Computing Services." This marks a significant milestone for the international adoption of NIDA's network construction standards by international organizations.

2025年，NIDA在标准采信上积极布局国际领域，在中亚区域，与哈萨克斯坦互联网协会签署了战略合作协议，双方在下一代网络建网标准上深入合作。在哈萨克斯坦国内联合发布了三项建网标准，包括NET5.5G架构标准《Next Generation Network for 5.5G Era (NET5.5G) Deployment Guideline》、金融数据中心标准《Tech0 nical Requirements for Financial Data Center Network Construction》，基于算力业务的城域网标准《Technical Requirements of Metropolitan Area Networks for Computing Services》，这是NIDA建网标准在国际组织被采信的重要里程碑。

Network Evolution Working Group
网络演进工作组

The Network Evolution Working Group is dedicated to exploring, driving and defining the network generations, application scenarios and architectures for the intelligent era, addressing the key chal0 lenges confronting networks in this era, and promoting the development and evolution of the net0 work industry. By developing technical specifications, white papers and other documents for next-generation networks, it provides forward-looking standard guidance for the development of data communication networks.

网络演进工作组聚焦于探索、牵引和定义智能时代的网络代际、场景、架构，解决智能时代下网络面临的关键挑战，推动网络产业健康发展和演进。通过开发下一代网络的技术规范、白皮书等文稿，为数据通信网络建设提供面向未来的标准指引。

Message from the Chair
主席寄语

In 2025, the Network Evolution Working Group focused on the net0 work evolution requirements of the intelligent world, and continued to conduct in-depth discussions on the overall evolution goals and roadmap of future networks. It successfully issued the metropolitan area network architecture standard for the artificial intelligence era and the research report on AI Agent communication gateways, laying a solid foundation for network development in the AI era.
In 2026, we will further deepen our work on generational and archi0 tectural network evolution, address the challenges brought by the hundreds of billions of IoT connections, drive the in-depth integra0 tion of computing and networking, and work together to promote high-quality industrial development and build a robust network foundation for the intelligent world.
As we ring out the old year and ring in the new, I would like to, on behalf of the Network Evolution Working Group, express our sincere gratitude to all colleagues for your joint efforts and dedication.

2025 年网络演进工作组锚定智能世界网络演进需求，持续探讨未来网络总体演进目标及演进路线，成功发布面向人工智能时代的城域网络架构标准、AI Agent 通信网关研究报告，夯实 AI 时代网络发展根基。
2026 年，我们将持续深耕网络代际与架构演进，破解千亿物联挑战，牵引算网深度融合，携手推动产业高质量发展，共筑智能世界坚实网络底座！
辞旧迎新，谨代表网络演进工作组致谢各位同仁并肩奋进！

Gao Wei
WG Chair

高巍
工作组主席

Management Team
管理团队

Title 职务	Name 姓名
Chair 主席	Gao Wei 高巍
Vice Chair 副主席	Cao Chang 曹畅
Vice Chair 副主席	Chen Shuanglong 陈双龙
Vice Chair 副主席	Wei Liang 魏亮
Secretary 秘书	Chen Shuanglong 陈双龙

Participating Organizations
参与单位

Listed by the order of accession
按照加入顺序

China Academy of Information and Communications Technology
中国信息通信研究院

China Unicom Research Institute
中国联合网络通信有限公司研究院

Jiangsu Future Networks Innovation Institute (FNII)
江苏省未来网络创新研究院

Huawei Technologies Co., Ltd.
华为技术有限公司

Suzhou Centec Communications Co., Ltd.
苏州盛科通信股份有限公司

ZTE Corporation
中兴通讯股份有限公司

Shenzhen Here Data Technology Co.,Ltd.
深圳花儿数据技术有限公司

China Telecom Research Institute
中国电信股份有限公司北京研究院

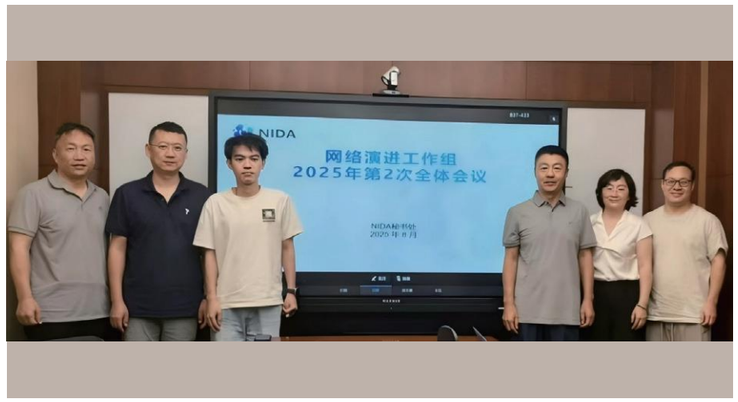
Zhongguancun Super Internet. New Infrastructure Industry Innovation Alliance
中关村超互联新基建产业创新联盟

China Mobile Communications Group Co., Ltd.
中国移动通信集团有限公司

Peng Cheng Laboratory
鹏城实验室

Working Group Updates
工作组动态

In July 2025, the first technical white paper on metropolitan area networks for the artificial intelligence era was officially released.
2025年7月，首个面向人工智能时代的城域网络技术白皮书正式发布

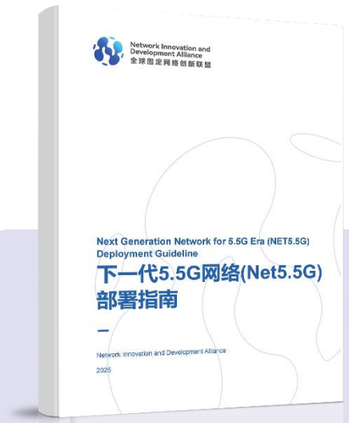


In August 2025, the second annual meeting of the Network Evolution Working Group (2025) was successfully concluded in Beijing.
2025年8月，网络演进工作组2025年度第二次会议在京圆满召开

Working Group Meetings
工作组会议

序号	会议名称	会议时间
1	Network Evolution Working Group, the 2nd Meeting on Next-Generation Network (Net5.5G) 网　议	January 7, 2025 2025年1月7日
2	Network Evolution Working Group, the 1st Annual Plenary Meeting 网络演进工作组年度第1次全体会议	January 17, 2025 2025年1月17日
3	Network Evolution Working Group, Review Meeting on Metropolitan Area Networks for the Artificial Intelligence Era 网络演进工作组《面向人工智能时代的城域网络》评审会	April 14, 2025 2025年4月14日
4	Network Evolution Working Group, the 2nd Annual Plenary Meeting 网络演进工作组年度第2次全体会议	August 8, 2025 2025年8月8日
5	Network Evolution Working Group, Review Meeting on the Revised Draft of Technical Research Report on AI Agent Communication Gateway Technology 网络演进工作组《AI agent通信网关技术研究报告》修订稿评审会	August 13, 2025 2025年8月13日
6	Network Evolution Working Group, Review Meeting on Construction Requirements for Metropolitan Area Networks Oriented to Computing Power Services 网络演进工作组《面向算力业务的城域网络建设要求》评审会	September 11, 2025 2025年9月11日
7	Network Evolution Working Group, the 3rd Annual Plenary Meeting 网络演进工作组年度第3次全体会议	September 15, 2025 2025年9月15日

Working Group Achievement 1
工作组成果 1



Next Generation Network for 5.5G Era (NET5.5G) Deployment Guideline
下一代5.5G网络（Net5.5G）部署指南

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Brief Introduction / 简介

This Recommendation describes general principles of next generation network for 5.5G era (Net5.5G) deployment, then specifies the architecture and key technologies for overall new three connection scenarios, including computing connections, intelligence connections, and data connections. This Recommendation provides key technologies for support of various applications in Net5.5G. Following the network deployment guideline with architecture and key technologies for the three scenarios are provided.

本建议书阐述了 5.5G 时代下一代网络（Net5.5G）部署的通用原则，明确了算力连接、智能连接、数据连接三大全新连接场景的整体架构及关键技术要求。本建议书给出了支撑 5.5G 时代下一代网络各类业务应用的关键技术，同时依据网络部署原则，提出了适配三大连接场景的网络架构及关键技术实施指引。

Primary Drafting Organizations / 主要起草单位

China Unicom Research Institute, China Academy of Information and Communications Technology, China Telecom Research Institute, Internet Association of Kazakhstan, Huawei Technologies Co., Ltd.
中国联合网络通信有限公司研究院、中国信息通信研究院、中国电信股份有限公司北京研究院、哈萨克斯坦互联网协会、华为技术有限公司

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Working Group Achievement 2
工作组成果 2

Technical Requirements of Metropolitan Area Networks for Computing Services
面向算力业务的城域网络建设技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for the construction of metropolitan area networks oriented to computing power services within the Network Innovation and Development Alliance (NIDA). This document is applicable to the construction of metropolitan area networks oriented to computing power services, and is mainly used to guide the planning, design and acceptance of met0 ropolitan area networks.

本文件规定了全球固定网络创新联盟中面向算力业务的城域网络建设技术要求。本文件适用于面向算力业务的城域网络建设，主要应用于指导城域网络规划、设计和验收。

Primary Drafting Organizations / 主要起草单位

China Telecom Research Institute, Zhongguancun Super Internet. New Infrastructure Industry Innova0 tion Alliance, Internet Association of Kazakhstan, Huawei Technologies Co., Ltd., ZTE Corporation.
中国电信股份有限公司研究院、中关村超互联新基建产业创新联盟、哈萨克斯坦互联网协会、华为技术有限公司、中兴通讯股份有限公司

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朱永庆、袁博、胡泽华、Shavkat Sabirov、董杰、朱海东、吉晓威

Working Group Achievement 3
工作组成果 3

Technical Requirements of the Distributed Training-Inference WAN for Telemedicine Based on AI Large-Scale Models
基于AI大模型的远程诊疗分布式训推广域网技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for distributed training and promotion metropoli0 tan area networks oriented to telemedicine within the Network Innovation and Development Alliance (NIDA), including the scenarios, architecture and deployment requirements, as well as key technical capability requirements for distributed training and promotion metropolitan area networks oriented to telemedicine. This document is applicable to distributed training and promotion metropolitan area networks oriented to telemedicine, and is mainly used to guide the planning, design and acceptance of such metropolitan area networks.

本文件规定了全球固定网络创新联盟中面向远程诊疗分布式训推广域网技术要求，包括面向远程诊疗分布式训推广域网场景、架构与部署要求、关键技术能力要求。本文件适用于面向远程诊疗分布式训推广域网，主要应用于指导面向远程诊疗分布式训推广域网规划、设计和验收。

Primary Drafting Organizations / 主要起草单位

Xiangya Hospital of Central South University, “Mobile Health” Ministry of Education - China Mobile Joint Laboratory, China Unicom Research Institute, China Telecom Research Institute, China Mobile (Chengdu) Information & Communication Technology Co., Ltd., Phytium Technology Co., Ltd., Peking Union Medical College Hospital, Guizhou Provincial People's Hospital, The First Affiliated Hospital of Xi'an Jiaotong University, Jiangsu Provincial Hospital, The First Hospital of Lanzhou University, Shan0 dong Provincial Hospital, Pingshan District People's Hospital of Shenzhen, The First Affiliated Hospital of Nanchang University, Huawei Technologies Co., Ltd.

中南大学湘雅医院“移动医疗”教育部-中国移动联合实验室、中国联合网络通信有限公司研究院、中国电信股份有限公司研究院、中移（成都）信息通信科技有限公司、飞腾信息技术有限公司、北京协和医院、贵州省人民医院、西安交通大学第一附属医院、江苏省人民医院、兰州大学第一医院、山东省立医院、深圳市坪山区人民医院、南昌大学第一附属医院、华为技术有限公司

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黄伟红、庞冉、曹畅、朱永庆、胡泽华、种璟、范金鹏、朱雯、贺松、卫荣、王忠民、郗群、包国峰、王逸欣、曹磊、彭书萍

Working Group Achievement 4
工作组成果 4

Metropolitan Area Network for the AI Era
面向人工智能时代的城域网络

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Brief Introduction / 简介

This white paper first analyzes the development landscape of artificial intelligence from the per0 spectives of industry advancement and macro policies. Subsequently, it conducts an in-depth analy0 sis of AI application requirements to define the essential network capabilities that metropolitan area networks must possess. This white paper then examines the design objectives, elaborating on the overall architecture and key technologies of metropolitan area networks for the AI era. Finally, it pro0 vides technical solutions tailored for typical scenarios

本白皮书首先从产业发展与宏观政策层面， 分析了人工智能的发展格局。随后深入剖析人工智能的应用需求，明确了城域网络面向人工智能应用所必备的核心网络能力。本白皮书继而梳理了面向人工智能时代城域网络的设计目标，并阐述了其整体架构与关键技术体系，最后针对典型应用场景给出了针对性技术解决方案。

Primary Drafting Organizations / 主要起草单位

ChinaTelecom Research Institute, Zhongguancun Ultra Cross Connection New Infrastructure Industry Innovation Alliance, HuaweiTechnologies Co. Ltd., ZTE Corporation

中国电信研究院、中国电信股份有限公司北京研究院、中关村超互联新基建产业创新联盟、华为技术有限公司、中兴通讯股份有限公司

Primary Drafting Personnel / 主要起草人

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朱永庆、胡泽华、龚霞、袁世章、袁博、赵浩宾、董杰、张力、陶文强、朱海东、吉晓威

Autonomous Network Working Group
自智网络工作组

The Autonomous Network Working Group focuses on building industrial consensus, exploring and defining the overall evolution goals and roadmap for network intelligence, and addressing the chal0 lenges faced by networks in the intelligent era. By formulating intelligent network connection stan0 dards that cover multiple dimensions including network generations, application scenarios and ar0 chitectures, the working group drives network evolution and promotes the sound and sustainable development of the industry.

自智网络工作组聚焦于凝聚产业共识，探索和定义网络智能化总体演进目标及演进路线，解决智能时代网络面临的挑战。通过定义覆盖网络代际、场景、架构等各个维度和方向的网络智慧联接标准，牵引网络演进，推动产业健康、可持续发展。

Message from the Chair
主席寄语

As time moves on and a new chapter unfolds, NIDA has achieved milestone breakthroughs in key standard development in 2025. Its global ecosystem has continued to grow, injecting strong impetus into the intelligent evolution of networks. Every achievement em0 bodies the wisdom and dedication of every one of you, and we would like to extend our sincere gratitude to you all.

Looking ahead to 2026, we stand at a new starting point. The future blueprint of autonomous networks awaits our definition with inno0 vative technologies and higher standards. Let us continue to join hands, drive industrial upgrading with cutting-edge connectivity technologies, and jointly define the evolutionary path of network in0 telligence. May we forge ahead with one heart and write a new chapter of brilliance together!

We wish you a happy New Year, continuous progress in your career and all the best.

岁序更迭，华章日新。2025 年，NIDA 在关键标准制定上取得里程碑跨越，全球生态圈持续壮大， 为网络智能演进注入强大动力。每项成就都凝结着各位的智慧与汗水，谨致诚挚谢意！

展望 2026， 我们站在新起点。自智网络的未来蓝图， 亟待我们以创新技术和更高标准来定义。让我们继续携手，以领先联接技术牵引产业升级，共同定义网络智能化演进路径。 愿我们同心致远，共谱辉煌！

祝大家新年快乐，事业精进，万事顺遂！

Ma Junfeng
WG Chair

马军锋
工作组主席

Management Team
管理团队

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中国信息通信研究院

China Unicom Research Institute
中国联合网络通信有限公司研究院

Jiangsu Future Networks Innovation Institute (FNII)
江苏省未来网络创新研究院

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Shenzhen Smartcity Communication co.ltd.
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China Mobile Communications Group Co., Ltd.
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中国电信股份有限公司北京研究院

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ShanghaiTech University
上海科技大学

Lanzhou University
兰州大学

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中国矿业大学

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Peng Cheng Laboratory
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浙江财经大学

Shenzhen Polytechnic University
深圳职业技术大学

Working Group Updates
工作组动态

In May 2025，Organized NIDA and EANTC, an internationally renowned testing organization, to establish a cooperation mechanism for enterprise AN evaluation.
2025年5月，NIDA与国际知名测试机构EANTC建联，孵化企业AN测评合作机制

In June 2025, the 5th Meeting of the NIDA Autonomous Network Working Group was successfully held, focusing on AI empower0 ment and deepening engagement in the education and enterprise operation and maintenance fields.
2025年6月，NIDA自智网络工作组第5次会议成功举行：聚焦AI赋能，深耕教育、企业运维领域

In July 2025, the launching ceremony of the "Agent Accelerates AN L4, Pioneer Initiative for Enterprise Digital and Intelligent Innovation" was held.
2025年7月，“智能体加速AN L4，企业数智化创新先锋行动”启动仪式

In July 2025, the NIDA Autonomous Network Working Group released the White Paper on Enterprise Operation and Maintenance in the Agentic AI Era, empowering the leap-forward of enterprises' digital and intelligent productivity.
2025年7月，NIDA自智网络工作组发布Agentic AI时代的企业运维白皮书，赋能企业数智生产力跃升

In July 2025, the NIDA Autonomous Network Working Group released the first L4 network construction standard for the education industry.
2025年7月，NIDA自智网络工作组发布首个教育行业L4建网标准

In November 2025, we jointly launched the "100 Pioneers Initiative for the Autonomous Network Industry" with industrial partners.
2025年11月，联合产业伙伴共同启动“自智网络行业100先锋计划”

Working Group Updates
工作组动态

In November 2025, the Industry Pioneer Innovation Center for Autonomous Networks was officially inaugurated.
2025年11月，自智网络行业先锋创新中心正式揭牌

NIDA and TMF signed a MoU to jointly promote the AN industry consensus in the enterprise vertical industry.
2025年11月NIDA与TMF签署MoU，共同推进企业行业AN产业共识

In December 2025, "The Industry Autono0 mous Network Ushered in the L4 New Era - Road to Industry AN L4 Forum" was successfully held.
2025年12月，行业自智网络迈向L4新纪元 --Road to Industry AN L4 Forum 成功举办

Working Group Meetings
工作组会议

序号	会议名称	会议时间
1	Autonomous Network Working Group June Meeting 自智网络工作组6月会议	June 10, 2025 2025年6月10日
2	Autonomous Network Working Group July Meeting 自智网络工作组7月会议	July 1, 2025 2025年7月1日
3	Autonomous Network Working Group 2nd July Meeting 自智网络工作组7月第2次会议	July 24, 2025 2025年7月24日
4	Autonomous Network Working Group August Meeting 自智网络工作组8月会议	August 25, 2025 2025年8月25日
5	Autonomous Network Working Group October Meeting 自智网络工作组10月会议	October 16, 2025 2025年10月16日
6	Autonomous Network Working Group 2nd October Meeting 自智网络工作组10月第2次会议	October 29, 2025 2025年10月29日

Working Group Achievement 1
工作组成果 1

Technical Requirements for Campus Network L4 Operation and Maintenance based on AI Agent
基于智能体的校园网L4运维技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for agent-based campus network L4 operation and maintenance, as well as the technical requirements for related agents. Focusing on two high-val0 ue scenarios of campus network WiFi optimization and monitoring & troubleshooting, this document realizes campus network L4 operation and maintenance by introducing agents and large model services into the network management and control system. This document is applicable to the con0 struction and testing of agent-based campus network operation and maintenance systems.
本文件规定了基于智能体的校园网L4运维技术要求及相关智能体的技术要求。本文件主要针对校园网WiFi网络优化和监控排障两个高价值场景，通过在网络管控系统中引入智能体和大模型服务来实现校园网L4运维。本文件适用于基于智能体的校园网运维系统的建设与测试。

Primary Drafting Organizations / 主要起草单位

China Academy of Information and Communications Technology, Jiangsu Future Networks Innovation Institute (FNII), Huawei Technologies Co., Ltd., China Unicom Research Institute, China Telecom Research Institute, Harbin Institute of Technology, Nanjing University, Xi'an Jiaotong University, South0 east University, Shandong University, ShanghaiTech University, China University of Geosciences, Huazhong Agricultural University, China University of Mining and Technology, Beijing Jiaotong Univer0 sity, Xiamen University, Lanzhou University, Hunan University, Westlake University, Wenzhou Medical University, Ningbo University, Zhejiang University of Finance & Economics, Shenzhen Polytechnic.
中国信息通信研究院、江苏省未来网络创新研究院、华为技术有限公司、中国联合网络通信有限公司研究院、中国电信股份有限公司北京研究院、哈尔滨工业大学、南京大学、西安交通大学、东南大学、山东大学、上海科技大学、中国地质大学（武汉）、华中农业大学、中国矿业大学、北京交通大学、厦门大学、兰州大学、湖南大学、西湖大学、温州医科大学、宁波大学、浙江财经大学、深圳职业技术大学

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马军锋，刘芷若，王春生，张广兴，田利荣，靳明双，吴波，季平，邓小军，王晨阳，袁新星，韦乃文，吴哲文，杨媛元，李业兴，韩赛，马小婷，于游，蒋冠翔，徐友清，张哲，赵立业，胡轶宁，唐洁，郭晓东，王彬，史德伟，宋焘，叶颖泽，孙磊，陈越，杨阳，郜帅，陈晓筹，李林，宋继冉，罗明，王朝杰，应一凡，董其军，孔琳俊，陈锴，王隆杰

Working Group Achievement 2
工作组成果 2

Enterprise Operation and Maintenance in the Agentic Era - A Blueprint for O&M of New ICT Infrastructure
Agentic时代的企业运维
——新型ICT基础设施O&M蓝图

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Primary Drafting Organizations / 主要起草单位
China Academy of Information and Communications Technology (CAICT), Huawei Technologies Co., Ltd., Tsinghua University, Shanghai Jiao Tong University, Iflytek Co., Ltd., China Unicom Research Institute, Shenzhen Smart City Communications Co., Ltd., Dongfeng Motor Group Co., Ltd.
中国信息通信研究院、华为技术有限公司、清华大学、上海交通大学、科大讯飞股份有限公司、中国联合网络通信有限公司研究院、深圳市智慧城市通信有限公司、东风汽车集团有限公司

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Working Group Achievement 3
工作组成果 3

Campus Autonomous Network Technical Whitepaper
基于智能体的校园自智网络技术白皮书

中文版 >>

English >>

Primary Drafting Organizations / 主要起草单位
Tsinghua University, Shanghai Jiao Tong University, Harbin Institute of Technology, Nanjing University, Xi'an Jiaotong University, Southeast University, ShanghaiTech University, China University of Geosci0ences, Shandong University
清华大学、上海交通大学、哈尔滨工业大学、南京大学、西安交通大学、东南大学、上海科技大学、中国地质大学、山东大学

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潘丽、马云龙、刘乃嘉、赵淼、许旻、陈向泽、周曜、谢锐、于游、金代亮、赵旭、刘长龙、何湘东、蒋冠翔、徐友清、李虎群、张哲、张心、赵立业、胡轶宁、唐洁、史德伟、林杰、宋焘、张锐、赵云翔、郭晓东、王彬、王辉、殷玉楼、韦乃文、范建桃、季平、包德伟

Data Center Network Working Group
数据中心网络工作组

The Data Center Network Working Group conducts relevant technical research and standard devel0 opment focusing on the evolution of data center network architectures and protocol interoperability. It addresses key challenges related to communication efficiency and latency in high-profile scenarios such as intelligent computing and HPC, as well as practical issues including reliability, security and availability encountered in network construction and maintenance.

数据中心网络工作组围绕数据中心网络架构演进、协议互联互通，开展相关技术研究和标准制定，解决智能计算、HPC 等热点场景下网络所面临的通信效率、通信时延等关键挑战，解决网络建设和维护中存在的可靠性、安全性、可用性等实际问题。

Message from the Chair
主席寄语

In 2025, the Working Group has continued to deepen its efforts and made remarkable progress in the innovation of data center network architectures and technologies. It has successfully issued data center network standards for multiple sectors including general computing, intelligent computing and finance. We hereby sincerely thank all member organizations and experts for your enthusiastic participa0 tion and selfless dedication.
Looking ahead to 2026, the wave of artificial intelligence and intelli0 gentization continues to surge forward, and the value of communi0 cations infrastructure has become increasingly prominent. The Working Group will keep exploring technological innovations in data center networks, actively promote the implementation and large-scale application of innovative achievements, drive and accel0 erate industrial upgrading, and provide solid support for the full ar0 rival of the intelligent computing era.
We wish you a happy New Year and all the best!

2025年，工作组在数据中心网络架构与技术创新领域持续深耕并取得了长足进展，成功发布通算、智算、金融等领域数据中心网络标准。在此，衷心感谢各成员单位与专家的热情参与和无私奉献。
展望2026年，人工智能与智能化浪潮奔涌向前，通信基础设施的价值愈发凸显。工作组将持续探索数据中心网络技术创新，积极推动创新成果落地和规模应用，牵引并加速产业升级，为智算时代的全面到来保驾护航。
祝大家新年快乐，万事如意！

Guo Liang
WG Chair

郭亮
工作组主席

Management Team
管理团队

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Chair 主席	Guo Liang 郭亮
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Secretary 秘书	Zhao Kexue 赵科学

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参与单位

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China Academy of Information and Communications Technology
中国信息通信研究院

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中兴通讯股份有限公司

Huawei Technologies Co., Ltd.
华为技术有限公司

China Mobile Communications Group Co., Ltd.
中国移动通信集团有限公司

China Unicom Research Institute
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Iflytek Co., Ltd.
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Peng Cheng Laboratory
鹏城实验室

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中国科学院计算机网络信息中心

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北京信而泰科技股份有限公司

Jiangsu Future Networks Innovation Institute
江苏省未来网络创新研究院

FNii-Shenzhen
深圳未来智联网络研究院

Institute of High Energy Physics, Chinese Academy of Sciences
中国科学院高能物理研究所

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Xiongan Intelligent City Innovation Federation
雄安新区智能城市创新联合会

Computing Center of Peking University
北京大学计算中心

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Purple Mountain Laboratories
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深圳市智慧城市通信有限公司

Inspur Network Technology (Shandong) Co., Ltd.
浪潮网络科技（山东）有限公司

Southwest Jiaotong University
西南交通大学

Working Group Meetings
工作组会议

序号	会议名称	会议时间
1	Data Center Network Working Group Meeting (Project Initiation of Planning & Intelligent Computing Center Network Testing Specifi0 cations) 数据中心网络工作组会议（规划&智算中心网络测试规范立项）	February 27, 2025 2025年2月27日
2	Data Center Network Working Group April Meeting 数据中心网络工作组4月会议	April 16, 2025 2025年4月16日
3	Data Center Network Working Group May Meeting 数据中心网络工作组5月会议	May 16, 2025 2025年5月16日
4	Data Center Network Working Group 2nd May Meeting 数据中心网络工作组5月第2次会议	May 26, 2025 2025年5月26日
5	Data Center Network Working Group September Meeting 数据中心网络工作组9月会议	September 22, 2025 2025年9月22日

Working Group Achievement 1
工作组成果 1

Technical Requirements for Financial Data Center Network Construction
金融数据中心网络建设技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for financial data center network, including the network architecture, networking scenarios, and key technologies of the data center network. This document is applicable to the network construction planning and technical evaluation of the financial data center network, and provides technical basis for the network test.

本文件规定了金融数据中心网络的技术要求，包括金融数据中心网络的网络架构、组网场景及关键技术内容。本文件适用于金融数据中心的网络建设规划与技术评估工作，同时为金融数据中心网络测试提供技术依据。

Primary Drafting Organizations / 主要起草单位

Huawei Technologies Co., Ltd, Industrial and Commercial Bank of China, Ping An Technology (Shen0 zhen) Co., Ltd, Internet Association of Kazakhstan

华为技术有限公司、中国工商银行、平安科技（深圳）有限公司、哈萨克斯坦互联网协会

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张力、李久勇、余学山、蒙祖瑞、沙夫卡特·萨比罗夫

Working Group Achievement 2
工作组成果 2

Test Method of Key Capability of Intelligent Computing Data Center Network
智能计算数据中心网络关键能力测试方法

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Brief Introduction / 简介

This document specifies the evaluation items for the key capabilities of intelligent computing networks, including: network deployment and initialization capability, network performance indica0 tors of single training tasks, multi-training tasks and inference tasks supporting Ascend and NVIDIA computing power, proactive fault prevention capability, high availability capability, in-depth opera0 tion and maintenance capability for network and service quality, as well as computing and network synergy capability. This document is applicable to the maturity evaluation of current commercial intel0 ligent computing network products, and can also be used as a reference for product selection by com0 puting power center constructors.

本文件规定了智算网络关键能力的测评项，包括：建网开局能力、配套昇腾和英伟达算力的单训练任务、多训练任务及推理网络性能指标、故障主动预防能力、高可用能力、网络及业务质量深度运维能力、算网协同能力。本文件适用于当前商用智算网络产品的成熟度评测，也可以供算力中心建设方作为产品选型参考。

Primary Drafting Organizations / 主要起草单位

Cloud Computing & Big Data Research Institute, China Academy of Information and Communications Technology, Huawei Technologies Co., Ltd.

中国信息通信研究院云计算与大数据研究所、华为技术有限公司

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郭亮、王少鹏、张力、侯延祥、潘洋、顾咸勇

Working Group Achievement 3
工作组成果 3

Technology Requirements for Network Construction of General Computing Data Center Network
通算数据中心网络技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for the network construction of general computing data centers, including the network architecture, networking scenarios and key technologies of general computing data center networks. This document is applicable to the network construction planning and technical evaluation of general computing data center networks, and provides a technical basis for network testing.

本文件规定了通算数据中心网络建设的技术要求，内容涵盖通算数据中心网络架构，组网场景及关键技术。本文件适用于通算数据中心网络的建网规划和技术评估，并对网络测试提供技术依据。

Primary Drafting Organizations / 主要起草单位

Cloud Computing & Big Data Research Institute, China Academy of Information and Communications Technology, Data Center of Industrial and Commercial Bank of China, Huawei Technologies Co., Ltd., Ping An Technology (Shenzhen) Co., Ltd.

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郭亮、王少鹏、余学山、张力、李久勇、李晨飞、蒙祖瑞

Campus Network Working Group
园区网络工作组

The Campus Network Working Group focuses on exploring the evolution and upgrade of campus networks in the intelligent era, building core capabilities across multiple dimensions including quality improvement, user experience, reliability and security, and helping enterprises advance from digitalization to intelligent transformation. By pooling resources from all partners across the industrial ecosystem, the working group will jointly define the direction of generational network evolution, as well as set priorities for technical research and formulate technical standards.

园区网络工作组聚焦于探索智能时代园区网络的品质升级，在质量提升、使用体验、可靠性、安全等多维度上构筑关键能力，助力企业从数字化迈向智能化。通过携手产业生态各方资源，共同定义网络代际演进方向、制定技术研究方向和技术标准。

Message from the Chair
主席寄语

Guo Xiaoyan
WG Chair

郭晓岩
工作组主席

Over the past year, NIDA has made remarkable progress in global network innovation, achieved new breakthroughs in the formulation of key standards, and further expanded its scope for international cooperation, effectively driving the construction of Internet infrastructure. We sincerely appreciate the diligent efforts and strong support of every member.

Looking ahead to 2026, we will continue to deepen our work in scientific and technological innovation, promote the implementation and application of high-quality networks, and lead industrial upgrading and technological advancement with cutting-edge connectivity technologies. May we move forward hand in hand, and compose an even more brilliant chapter amid the rapid development and application of emerging technologies.

We wish you a happy New Year and all the best!

过去一年，NIDA在全球网络创新领域取得了长足的进步，在关键标准制定上实现了新的突破，进一步拓宽了国际合作空间，有力带动了互联网基础设施建设。衷心感谢每一位成员的辛勤的付出与大力的支持！

展望2026年，我们将继续深耕科技创新，推动高品质网络的落地应用，以领先的联接技术引领产业升级和技术进步。愿我们携手共进，在新兴技术快速发展与应用的大潮中共同谱写更加辉煌的篇章。

祝愿大家新年快乐、万事如意！

Management Team
管理团队

Title 职务	Name 姓名
Chair 主席	Guo Xiaoyan 郭晓岩
Vice Chair 副主席	Chen Jie 陈洁
Vice Chair 副主席	Lu Xi 卢希
Vice Chair 副主席	Yuan Liquan 袁立权
Vice Chair 副主席	Zhang Zhen 张蓁
Secretary 秘书	Zhang Ting 张婷

Participating Organizations
参与单位 Listed by the order of accession 按照加入顺序

China Northeast Architectural Design & Research Institute Co., Ltd.
中国建筑东北设计研究院有限公司

The Intelligent Branch of China Engineering and Consulting Association
中国勘察协会智能分会

China Academy of Information and Communications Technology
中国信息通信研究院

Huawei Technologies Co., Ltd.
华为技术有限公司

ZTE Corporation
中兴通讯股份有限公司

Suzhou Centec Communications Co., Ltd.
苏州盛科通信股份有限公司

China Information Technology Designing&Consulting Institute Co.,Ltd.
中讯邮电咨询设计院有限公司

Xiangya Hospital of Central South University
中南大学湘雅医院

Peking Union Medical College Hospital (PUMCH)
北京协和医院

European Advanced Networking Test Center (EANTC)
欧洲高级网络测试中心

Computing Center of Peking University
北京大学计算中心

People's hospital of LiJiang
丽江市人民医院

TravelSky Mobile Technology Co., Ltd.
中航信移动科技股份有限公司

China Unicom Research Institute
中国联合网络通信有限公司研究院

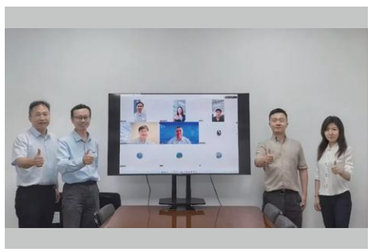
Jiangsu Future Networks Innovation Institute (FNII)
江苏省未来网络创新研究院

Beijing Normal University
北京师范大学

Xi'an Jiaotong University
西安交通大学

Working Group Updates
工作组动态

In March 2025, NIDA, in collaboration with multiple international institutions, jointly launched "Joint Initiative to Enhance the Global WLAN Performance and Experience" and "Joint Initiative to User Experience-Cen0 tric Campus Network Technical and Standard White Paper".
2025年3月，NIDA联合多家国际机构，共同发布“加强WLAN网络性能和体验”和“以用户体验为中心的园区网络技术与标准白皮书”的倡议



In June 2025, the Mid-year Meeting (2025 H1) of the NIDA Campus Network Working Group was successfully convened.
2025年6月，NIDA园区网络工作组2025H1年中会议成功召开

In July 2025, NIDA, in collaboration with multiple global standards organizations, released the Technical White Paper on High-Quality 10G AI Campus Network Construction.
2025年7月，NIDA联合全球多家标准组织发布《高品质万兆AI园区建网技术白皮书》

In November 2025, NIDA, together with Huawei and the Hotel Industry Association and other organizations, jointly released the Blue Book on 10G AI Smart Hotel, setting a new benchmark for hotel digitalization.
2025年11月，NIDA与华为、酒店行业协会等组织联合发布万兆AI安心酒店蓝皮书，打造酒店数字化新标杆

In November 2025, NIDA, together with ecological partners, jointly launched "Wireless Intelligent Sense Industry Ecosystem Construction Initiative".
2025年11月，NIDA联合生态伙伴倡议共建“无线智能感知”产业生态

In November 2025, a new network standard for the education and healthcare industries was released, and the Smart Classroom of Xi'an Jiaotong University was awarded authoritative certification.
2025年11月，发布教育医疗行业网络新标准，西安交通大学智慧教室荣获权威认证

Working Group Meetings
工作组会议

序号	会议名称	会议时间
1	Campus Network Working Group Meeting 园区网络工作组会议	26 June 2025 2025年6月26日
2	Campus Network Working Group, the 2nd Review Meeting on "Technical White Paper on High-Quality 10G AI Campus Networks" 园区网络工作组《高品质万兆AI园区网络技术白皮书》第2次评审会	14 July 2025 2025年7月14日
3	Campus Network Working Group, the 3rd Review Meeting on "Technical White Paper on High-Quality 10G AI Campus Networks" 园区网络工作组《高品质万兆AI园区网络技术白皮书》第3次评审会	15 July 2025 2025年7月15日

Working Group Meetings
工作组会议

序号	会议名称	会议时间
4	Campus Network Working Group, Project Initiation Seminar on "Campus Network Construction Evaluation Standards for Universi0 ties" 园区网络工作组《高校校园网建网评测标准》立项研讨会	August 12, 2025 2025年8月12日
5	Campus Network Working Group, Project Initiation Seminar on "Campus Network Construction Evaluation Standards for Universi0 ties" 园区网络工作组《高校校园网建网评测标准》立项研讨会	August 25, 2025 2025年8月25日
6	Campus Network Compilation Group, the 1st Review Meeting on "Evaluation Indicators and Testing Methods for University Campus Networks" 园区网络编制组《高校园区网络评估指标及测试方法》第1次评审会	August 28, 2025 2025年8月28日
7	Campus Network Compilation Group, the 2nd Review Meeting on "Evaluation Indicators and Testing Methods for University Campus Networks" 园区网络编制组《高校园区网络评估指标及测试方法》第2次评审会	September 1, 2025 2025年9月1日
8	Campus Network Compilation Group, the 3rd Review Meeting on "Evaluation Indicators and Testing Methods for University Campus Networks" 园区网络编制组《高校园区网络评估指标及测试方法》第3次评审会	September 9, 2025 2025年9月9日
9	Campus Network Compilation Group, the 1st Review Meeting on "Technical Requirements for Smart Hospital Campus Networks" 园区网络编制组《智慧医院园区网络技术要求》第1次评审会	September 22, 2025 2025年9月22日
10	Campus Network Compilation Group, the 2nd Review Meeting on "Technical Requirements for Smart Hospital Campus Networks" 园区网络编制组《智慧医院园区网络技术要求》第2次评审会	September 25, 2025 2025年9月25日
11	Campus Network Working Group Meeting 园区网络工作组会议	October 13, 2025 2025年10月13日
12	Campus Network Working Group Meeting 园区网络工作组会议	November 18, 2025 2025年11月18日
13	Campus Network Working Group Meeting 园区网络工作组会议	December 17, 2025 2025年12月17日

Working Group Achievements
工作组成果 1

Technical Requirements for Smart Hospital Campus Networks
智慧医院园区网络技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for smart hospital campus networks, including hospital network scenarios, network architecture and network technical requirements. This docu0ment is applicable to the design, construction and operation and maintenance of internal and exter0nal networks of smart hospital campuses.

本文件规定了智慧医院园区网络技术要求， 包括医院网络场景、 网络架构及网络技术要求。 本文件适用于智慧医院园区内部网络和外部网络的设计、建设与运维。

Primary Drafting Organizations / 主要起草单位

Xiangya Hospital of Central South University, “Mobile Health” Ministry of Education - China Mobile Joint Laboratory, Huawei Technologies Co., Ltd., China Unicom Research Institute, China Academy of Information and Communications Technology, China Northeast Architectural Design & Research Insti0tute Co., Ltd., Jiangsu Future Networks Innovation Institute, Institute of Computing Technology, Chi0nese Academy of Sciences, People's hospital of LiJiang, Peking Union Medical College Hospital, China Mobile (Chengdu) Information and Communication Technology Co., Ltd., Guizhou Provincial People's Hospital, The First Affiliated Hospital of Xi'an Jiaotong University, Jiangsu Province Hospital, The First Hospital of Lanzhou University, Shandong Provincial Hospital, Pingshan District People's Hospital of Shenzhen, The First Affiliated Hospital of Nanchang University, The Sixth People's Hospi0tal of Xinjiang Uygur Autonomous Region, The First Affiliated Hospital of Xinjiang Medical University, The Seventh Affiliated Hospital of Xinjiang Medical University, Xiamen Hospital of T.C.M, The Affiliated Hospital of Southwest Medical University, Chongqing Liang jiang New Area Traditional Chinese Medi0cine Hospital, Northwest Women's and Children's Hospital.

中南大学湘雅医院、 “移动医疗”教育部 - 中国移动联合实验室、 华为技术有限公司、 中国联合网络通信有限公司研究院、 中国信息通信研究院、 中国建筑东北设计研究院有限公司、 江苏省未来网络创新研究院、 中国科学院计算技术研究所、 丽江市人民医院、 北京协和医院、 中移（成都）信息通信科技有限公司、 贵州省人民医院、 西安交通大学第一附属医院、 江苏省人民医院、 兰州大学第一医院、 山东省立医院、 深圳市坪山区人民医院、 南昌大学第一附属医院、 新疆维吾尔自治区第六人民医院、 新疆医科大学第一附属医院、 新疆医科大学第七附属医院、 厦门市中医院、 西南医科大学附属医院、 重庆两江新区中医院、 西北妇女儿童医院

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Working Group Achievement 2
工作组成果 2

Evaluation Indicators and Testing Methods for University Campus Networks
高校园区网络评估指标及测试方法

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Brief Introduction / 简介

This document specifies the evaluation indicators and testing methods for university campus networks, including those for the basic network, network applications, network security, network operation and maintenance, and network energy conservation. This document is applicable to the construction and evaluation of campus networks by university users, the design and construction enti0ties of university campus networks, as well as the entities conducting network experience and perfor0mance evaluation.

本文件给出了高校园区网络评估指标及测试方法，包括基础网络、网络应用、网络安全、网络运维和网络节能的评估指标及测试方法。本文件适用于高校用户、高校园区网络设计建设方及网络体验和性能评价方对网络的建设和评价。

Primary Drafting Organizations / 主要起草单位

Huawei Technologies Co., Ltd., China Unicom Research Institute, China Academy of Information and Communications Technology (CAICT), Jiangsu Future Networks Innovation Institute (FNII), Xi'an Jiaotong University, Beijing Normal University, Peking University, ZTE Corporation, Xiamen University, Henan University of Science and Technology, North China University of Water Resources and Electric Power, Henan Polytechnic University, Henan Normal University, Zhongyuan University of Technology, Hebei University of Economics and Business, Xinjiang Agricultural University, Xinjiang University of Finance and Economics, Changji University, Shandong Polytechnic College, Linyi Vocational College of Science and Technology, Henan Open University.

华为技术有限公司、中国联合网络通信有限公司研究院、中国信息通信研究院、江苏未来网络创新研究院、西安交通大学、北京师范大学、北京大学、中兴通讯股份有限公司、厦门大学、河南科技大学、华北水利水电大学、河南理工大学、河南师范大学、中原工学院、河北经贸大学、新疆农业大学、新疆财经大学、昌吉学院 、山东理工职业学院、临沂科技职业学院、河南开放大学

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Working Group Achievement 3
工作组成果 3

High-Quality 10G AI-Enabled Secure Hotel Network Construction Technical White Paper
高品质万兆AI安心酒店建网技术蓝皮书

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Brief Introduction / 简介

This white paper is rooted in the core demands of the hotel industry in operational management, customer experience, and green energy conservation. It systematically sorts out the industry's devel0 opment status and technical challenges. By integrating advanced networking technologies, intelli0 gent operation and maintenance (O&M) systems, and multi-level security mechanisms, it proposes a construction framework centered on 10G wireless connectivity, all-optical Ethernet networking, full-domain security, guaranteed experience, green energy conservation, and intelligence. Combined with typical scenarios, it provides implementation paths and practical references. Intended to offer both forward-looking and actionable network construction guidelines for hotel investors, O&M man0 agers, and technology service providers, this white paper helps the industry break through traditional network bottlenecks, accelerate the transition to an intelligent experience-centric future, and build a secure and reliable smart operation space.

本蓝皮书立足于酒店行业在运营管理、客户体验与绿色节能等方面的核心诉求，系统梳理行业发展现状与技术挑战。通过融合先进组网技术、智能运维体系及多层次安全机制，提出以万兆无线、以太全光组网、全域安全、体验可保障、绿色节能及智能为核心的建设框架，并结合典型场景提供实施路径与实践参考。 本蓝皮书旨在为酒店投资者、运维管理者及技术服务商提供兼具前瞻性与实操性的建网指引，助力行业突破传统网络瓶颈，加速迈向以智能体验为中心的未来，打造安心、可靠的智慧化运营空间。

Primary Drafting Organizations / 主要起草单位

China Hospitality Association Hotel Digital Committee, Network Innovation and Development Alliance, Huawei Technologies Co., Ltd., Qingdao Shinezone Digital Intelligence Technology Group Co., Ltd., Zhejiang Huiyi Network Technology Co., Ltd., Shandong Bit Intelligent Technology Co., Ltd., Linkbroad Technology (Beijing) Co., Ltd.

中国饭店协会酒店数字化专业委员会、全球固定网络创新联盟、华为技术有限公司、青岛尚美数智科技集团有限公司、浙江辉驿网络科技有限公司、山东比特智能科技股份有限公司、岭博科技（北京）有限公司

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张兴国、邓一鸥、王一、朱科义、陈志伟、赵少奇、殷玉楼、马博、喻伟、王波、单海洋、郭洪福、吴键铭、博扬、王肖飞、李大鲲、张婷、姜文川、花静怡、王伟光、韦晓仪、漆培松、侯方明

Working Group Achievement 4
工作组成果 4

Technical White Paper on High-Quality 10G AI Campus Network Construction
高品质万兆AI园区建网技术白皮书

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Brief Introduction / 简介

This paper defines the application architecture, technical architecture and physical architecture of high-quality 10G AI campuses, and proposes that high-quality 10G AI campuses should possess six core characteristics: self-intelligent network, 10G ultra-broadband, ubiquitous access, deterministic experience, green energy conservation, and full-domain security. It also elaborates on the networking architecture and industry applications of high-quality 10G AI campus construction in industries such as education, government, finance, and healthcare. It is intended to provide useful references for practitioners in relevant departments, construction and operation enterprises, research institutions and other entities involved in campus digital transformation and campus network infrastructure con0 struction, and to offer insights and inspirations for enterprises' digital transformation.

定义了高品质万兆AI园区的应用架构、技术架构与物理架构，提出高品质万兆AI园区应该具备自智网络、万兆超宽、泛在接入、确定体验、绿色节能、全域安全六大特征；并从教育、政府、金融、医疗等行业阐述了高品质万兆AI园区建设的组网架构及行业应用。以期对参与园区数字化转型、园区网络基础设施建设的相关部门、建设运营企业、研究机构等从业人员提供有益参考，对各企业数字化转型有所借鉴和启发

Primary Drafting Organizations / 主要起草单位

The Intelligent Branch of China Engineering and Consulting Association, World WLAN Application Alliance,, China Northeast Architectural Design & Research Institute Co., Ltd., China Electronics Engi0 neering Design Institute Co., Ltd., Huawei Technologies Co., Ltd., ZTE Corporation, China Information Technology Designing & Consulting Institute Co., Ltd., Suzhou Centec Communications Co., Ltd., Peking Union Medical College Hospital, Xiangya Hospital of Central South University, Guizhou Provincial Peo0 ple's Hospital, Lijiang People's Hospital of Yunnan Province.

中国勘察设计协会智能分会、世界无线局域网应用发展联盟、中国建筑东北设计研究院有限公司、中国电子工程设计院股份有限公司、华为技术有限公司、中兴通讯股份有限公司、中讯邮电咨询设计院有限公司、苏州盛科通信股份有限公司、北京协和医院、中南大学湘雅医院、贵州省人民医院、云南省丽江市人民医院

Primary Drafting Personnel / 主要起草人

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李洪鹏、郭晓岩、苗甫、袁立权、卢希、侯方明、杨涛、杨鹤、赵能钰、刘泽华、张岳、胡海良、王俊杰、朱雯、黄伟红、贺松、李林骏、赵少奇、邱月峰、何霁、刘嵩、曹克猛、张蓁、路程、刘建伟、朱航、姚康、周华、袁新星、谢乐权、王海蛟、孙胜柏、刘耀耀、罗文晋、季晨荷、姜林、李大鲲、沈杰、翁财忍、韦乃文、王肖飞、张印熙、张婷

Cybersecurity Working Group
网络安全工作组

The Cybersecurity Working Group focuses on exploring the security defense system for next-genera0 tion network infrastructure, and helps endow next-generation network with key capabilities such as intrinsic security and network-security convergence. The working group will develop internationally consensus-driven standards covering technology, management, evaluation, construction and other dimensions, carry out capability indicator assessment and technological innovation, and promote industrial implementation.

网络安全工作组聚焦于探索下一代互联网基础设施安全防御体系，助力下一代互联网具备内生安全、网安融合等关键能力。工作组将制定具备国际共识的技术、管理、测评、建设等维度的标准，并开展相关能力指标测评、技术创新，促进产业落地。

Message from the Chair
主席寄语

As time moves on and a new journey begins, NIDA's Cybersecurity Working Group was established in response to trends in 2025. It has focused on core topics concerning fixed network security, built con0 sensus among multiple stakeholders, and laid a solid foundation for cooperation.
The road ahead is long and arduous, yet progress will come with action; with persistent efforts, the future holds great promise. In 2026, taking innovation as the core and collaboration as the path, we will strive to promote the coordination and mutual recognition of fixed network security standards, and build a trustworthy foundation for industrial innovation. Cybersecurity knows no borders. Let us stand side by side, with firmer determination and more practical ac0 tions, to jointly build a defense system, establish a governance plat0 form, and draw a blueprint for standards together.
We wish you a happy New Year and all the best!

时序更替，新程启幕。2025年，NIDA安全工作组应势成立，锚定固定网络安全核心议题，凝聚多方共识，筑牢合作根基。
道阻且长，行则将至；行而不辍，未来可期。2026年，我们将以创新为核、协同为径，努力推动固定网络安全标准的协同与互认，为产业创新筑牢可信根基。网络安全无国界，让我们携手并肩，以更坚定的决心，更务实的行动，共筑防御体系，共建治理平台，共绘标准蓝图。
祝愿大家新年快乐、万事如意！

Xu Yuna
WG Chair

许玉娜
工作组主席

Management Team
管理团队

Title 职务	Name 姓名
Chair 主席	Xu Yuna 许玉娜
Vice Chair 副主席	Sureswaran Ramadass
Vice Chair 副主席	Zhang Xiaomei 张小梅
Secretary 秘书	Liu Chunchi 刘春池
Secretary 秘书	Wang Bingzheng 王秉政

Participating Organizations
参与单位

Listed by the order of accession
按照加入顺序

China Electronics Standardization Institute
中国电子技术标准化研究院

APAC IPv6 Council
亚太地区 IPv6 协会

China Unicom Research Institute
中国联合网络通信有限公司研究院

Huawei Technologies Co., Ltd.
华为技术有限公司

China Academy of Information and Communications Technology
中国信息通信研究院

Nanjing Cyberpeace Information Technology Co., Ltd.
南京赛宁信息技术有限公司

Participating Organizations
参与单位

Listed by the order of accession
按照加入顺序

WebRAY Tech(BeiJing)Co., Ltd.
远江盛邦安全科技集团股份有限公司

Multimedia University, Malaysia
马来西亚多媒体大学

IPv6 Forum
IPv6 论坛

Cybersecurity Research Centre (CYRES) Universiti Sains Malaysia
马来西亚自然科学大学网络安全研究中心（CYRES）

China University of Mining and Technology
中国矿业大学

Peng Cheng Laboratory
鹏城实验室

Beijing Topsec Network Security Technology Co., Ltd.
北京天融信网络安全技术有限公司

Working Group Updates
工作组动态

In September 2025, the Cybersecurity Working Group of NIDA was Officially Established
2025年9月，全球固定网络创新联盟网络安全工作组正式成立

Healthcare Industry Committee
医疗行业委员会

The Healthcare Industry Committee is a non-independent legal entity branch established by the Network Innovation and Development Alliance in accordance with its charter and the "Alliance Branch Operation Management Measures". It focuses on the digital transformation needs of the healthcare industry, researching the application scenarios, challenges, and evolution directions of fixed network technologies in the health and medical field. The committee promotes exchanges and collaboration among alliance members regarding healthcare network technologies, solutions, and standards.
Primarily composed of leading experts from the healthcare sector, the main responsibilities of the Healthcare Industry Committee are:

1. To develop planning for healthcare industry network construction standards, producing white papers and technical architecture reports based on industry scenarios, pain points, and requirements.
2. To introduce the formulated healthcare industry standard plans into various working groups, which will then output high-quality formal standards.
3. To promote the standards and reports produced by the working groups to healthcare industry associations and organizations, driving their adoption, implementation, and application within the industry.

医疗行业委员会是全球固定网络创新联盟依据其章程和 《联盟分支机构运作管理办法》 设立的非独立法人分支机构。聚焦医疗行业的数字化转型需求，研究固定网络技术在医疗健康领域的应用场景、挑战与演进方向； 推动联盟会员在医疗网络技术、方案及标准方面的交流与合作。
医疗行业委员会由医疗行业大咖为主要成员，主要职责是：

1. 制定医疗行业建网标准规划，根据医疗行业场景、痛点、需求，形成白皮书、技术架构报告，
2. 将医疗行业标准规划导入各工作组，各工作组输出高质量的标准，
3. 将各工作组输出的标准、报告推广到医疗行业协会、组织，推动医疗行业采信落地和标准应用。

Number List
成员列表

Title 职务	Name 姓名	Organization 单位
Chair 主席	Huang Weihong 黄伟红	Mobile Health Joint Laboratory of the Ministry of Education and China Mobile “移动医疗”教育部 - 中国移动联合实验室
Executive Secretary 执行秘书	Zhang Zhen 张蓁	Huawei Technology Co. Ltd 华为技术有限公司
Number 委员	Zhu Wen 朱雯	Peking union medical college hospital 北京协和医院
Number 委员	Bao Guofeng 包国峰	Shandong Provincial Hospital 山东省立医院
Number 委员	Chai Guoli 柴国丽	The Second Hospital of Shanxi Medical University 山西医科大学第二医院

Number List
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Number 委员	He Song 贺松	Guizhou Provincial People's Hospital 贵州省人民医院
Number 委员	Huang Bin 黄斌	Iflytek Co., Ltd. 科大讯飞股份有限公司
Number 委员	Li Linjun 李林骏	People’s hospital of LiJiang 丽江市人民医院
Number 委员	Ou Chengchuan 欧成川	Hunan Cancer Hospital 湖南省肿瘤医院
Number 委员	Ruby	RCSl& UCD Malaysia Campus (RUMC)
Number 委员	Tu Zhiwei 涂志炜	The First Affiliated Hospital Of Nanchang University 南昌大学第一附属医院
Number 委员	Wang Yixin 王逸欣	Pingshan District People's Hospital of Shenzhen 深圳市坪山区人民医院
Number 委员	Wang Zhongmin 王忠民	Jiangsu Province Hospital 江苏省人民医院
Number 委员	Wei Rong 卫荣	The First Affiliated Hospital of Xi’an Jiaotong University 西安交通大学第一附属医院
Number 委员	Xi Qun 郗群	The First Hospital of Lanzhou University 兰州大学第一医院
Number 委员	Xiong Jie 熊杰	ZTE Corporation 中兴通讯股份有限公司
Number 委员	Yuan Fang 袁芳	The First People's Hospital of Yinchuan 银川市第一人民医院
Number 委员	Zhu Lihua 朱丽花	RUIJIE NETWORKS CO.,Ltd. 锐捷网络股份有限公司

Message from the Chairman
主席寄语

Huang Weihong
Healthcare Industry Committee

黄伟红
医疗行业委员会主席

On the occasion of the New Year, I would like to extend sincere greet0 ings to all our peers and partners on behalf of the NIDA Healthcare In0 dustry Committee!
Looking back on 2025, we began our journey in April and officially launched in June. After rounds of preparation, planning, and close col0 laboration, the Committee efficiently released two significant standards within the year: the "Technical Requirements for Smart Hospital Campus Networks" and the "Technical Requirements for Distributed Training and Inference Networks of AI Large Model-Based Remote Di0 agnosis and Treatment." These solid achievements owe much to the valuable insights and dedicated efforts of every member, to whom we express our heartfelt gratitude!
Looking ahead to 2026, we have a profound mission ahead. The Com0 mittee will continue to anchor itself in the needs of the healthcare in0 dustry, focusing on advancing the development of next-generation healthcare networks and deepening the application of standards and ecological collaboration. We look forward to working hand in hand with all colleagues to jointly lead the integrated innovation and indus0 trial upgrading of smart healthcare, shaping a more efficient and intel0 ligent future for health.
Wishing everyone progress and prosperity in the New Year!

值此新年，我谨代表NIDA医疗行业委员会，向所有同行伙伴致以诚挚问候！
回顾2025，我们自四月肇始，于六月正式启航。历经筹备、规划与紧密协作，委员会在年内高效发布了《智慧医院园区网络技术要求》与《基于AI大模型的远程诊疗分布式训推网络技术要求》两项重要标准。这份扎实的成果，离不开每一位成员的真知灼见与倾力奉献，谨此致以衷心感谢！
展望2026，我们任重道远。委员会将继续立足医疗行业需求，着力推动以新质医疗网络建设，深化标准应用与生态协同。期待与各位同仁携手，共同引领智慧医疗的融合创新与产业升级，擘画更高效、更智能的健康未来。
恭祝新年进步，事业昌隆！

Updates
动态

April 2025: Preparatory Meeting for the Healthcare Industry Committee
2025年4月医疗行业委员会筹备会

August 2025: The 2nd Working Meeting of 2025, Healthcare Industry Committee
2025年8月医疗行业委员会2025年第2次工作会议

June 2025: The Healthcare Industry Committee was officially established
2025 年 6 月NIDA理事会上，医疗行业委员会正式成立

November 2025: Two healthcare standards were released by the Healthcare Industry Committee at the NIDA Summit
2025年11月NIDA峰会上，医疗行业委员会发布两项医疗标准

Meetings
会议

NUM	Subject 会议名称	Date 会议时间
1	Preparatory Meeting for the Healthcare Industry Committee 医疗行业委员会筹备会	2025.4.23
2	Official Establishment of the Healthcare Industry Committee (The 3rd Meeting of the 1st Council) 医疗行业委员会正式成立（第一届理事会第三次会议）	2025.6.27
3	The 1st Working Meeting of 2025, Healthcare Industry Committee 医疗行业委员会 2025 年第 1 次工作会议	2025.7.5
4	The 2rd Working Meeting of 2025, Healthcare Industry Committee 医疗行业委员会 2025 年第 2 次工作会议	2025.8.22

Working Group Achievement 1
工作组成果 1

Technical Requirements for the Campus Network of a Smart Hospital
智慧医院园区网络技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for the smart hospital campus network, including hospital network scenarios, network architecture, and technical specifications.
This document is applicable to the design , construction, and operation and maintenance of both internal and external networks within smart hospital campuses.
本文件规定了智慧医院园区网络技术要求，包括医院网络场景、网络架构及网络技术要求。
本文件适用于智慧医院园区内部网络和外部网络的设计、建设与运维。

Primary Drafting Organizations / 主要起草单位

The drafting units of this document include: Xiangya Hospital of Central South University, the Joint Laboratory of “Mobile Healthcare” of the Ministry of Education and China Mobile, Huawei Technolo0 gies Co., Ltd., China Unicom Research Institute, China Academy of Information and Communications Technology, China Northeast Architectural Design & Research Institute Co., Ltd., Jiangsu Future Networks Innovation Institute (FNII), Institute of Computing Technology, Chinese Academy of Sciences, People’s hospital of LiJiang, Peking Union Medical College Hospital, China Mobile (Chengdu) Informa0 tion and Communication Technology Co., Ltd., Guizhou Provincial People’s Hospital, The First Affiliated Hospital of Xi‘an Jiaotong University, Jiangsu Provincial Hospital, The First Hospital of Lanzhou Univer0 sity, Shandong Provincial Hospital, Pingshan District People’s Hospital of Shenzhen, The First Affiliated Hospital Of Nanchang University, The Sixth People‘s Hospital of Xinjiang Uygur Autonomous Region, The First Teaching Hospital of Xinjiang Medical University, The Seventh Affiliated Hospital of Xinjiang Medical University, Xiamen Hospital of T.C.M, The Affiliated Hospital of Southwest Medical University, Chongqing Liang jiang New Area Traditional Chinese Medicine Hospital, Northwest Women's and Chil0 dren's Hospital.
中南大学湘雅医院、“移动医疗”教育部-中国移动联合实验室、华为技术有限公司、中国联合网络通信有限公司研究院、中国信息通信研究院、中国建筑东北设计研究院有限公司、江苏省未来网络创新研究院、中国科学院计算技术研究所、丽江市人民医院、北京协和医院、中移（成都）信息通信科技有限公司、贵州省人民医

院、西安交通大学第一附属医院、江苏省人民医院、兰州大学第一医院、山东省立医院、深圳市坪山区人民医院、南昌大学第一附属医院、新疆维吾尔自治区第六人民医院、新疆医科大学第一附属医院、新疆医科大学第七附属医院、厦门市中医院、西南医科大学附属医院、重庆两江新区中医院、西北妇女儿童医院。

Primary Drafting Personnel / 主要起草人

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黄伟红、郭晓岩、姜文川、贾雪琴、马军锋、刘芷若、路程、张婷、李林骏、王春生、张广兴、魏亮、田利荣、檀朝红、朱雯、郑红霞、陆宏霞、种璟、李大鲲、高洪明、贺松、卫荣、王忠民、郗群、包国峰、王逸欣、曹磊、于游、韩雷、任强、林进护、刘坤尧、王刚、李润平。

Working Group Achievement 2
工作组成果 2

Technology Requirements of Distributed Training-Reasoning WAN for Telemedicine based on AI Large-Scale Models
基于AI大模型的远程诊疗分布式训推广域网技术要求

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Brief Introduction / 简介

This document specifies the technical requirements for the wide area network for distributed training and promotion in remote diagnosis and treatment under the Network Innovation and Development Alliance. It includes scenarios, architecture and deployment requirements, and key technical capabili0 ty requirements for the wide area network for distributed training and promotion in remote diagnosis and treatment.

This document is applicable to the wide area network for distributed training and promotion in remote diagnosis and treatment, primarily intended to guide its planning, design, and acceptance.

本文件规定了全球固定网络创新联盟中面向远程诊疗分布式训推广域网技术要求， 包括面向远程诊疗分布式训推广域网场景、架构与部署要求、关键技术能力要求。

本文件适用于面向远程诊疗分布式训推广域网， 主要应用于指导面向远程诊疗分布式训推广域网规划、 设计和验收。

Primary Drafting Organizations / 主要起草单位

Xiangya Hospital of Central South University "Mobile Healthcare" Joint Laboratory of the Ministry of Education and China Mobile, China Unicom Research Institute, China Telecom Research Institute, China Mobile (Chengdu) Information & Communication Technology Co., Ltd., Phytium Technology Co., Ltd., Peking Union Medical College Hospital, Guizhou Provincial People’ s Hospital, The First Affiliated Hospital of Xi ‘an Jiaotong University, Jiangsu Provincial Hospital, The First Hospital of Lanzhou Uni0 versity, Shandong Provincial Hospital, Pingshan District People's Hospital of Shenzhen, The First Affil0 iated Hospital Of Nanchang University, Huawei Technologies

中南大学湘雅医院“移动医疗”教育部 - 中国移动联合实验室、 中国联合网络通信有限公司研究院、 中国电信股份有限公司北京研究院、 中移（成都）信息通信科技有限公司、 飞腾信息技术有限公司、 北京协和医院、 贵州省人民医院、 西安交通大学第一附属医院、 江苏省人民医院、 兰州大学第一医院、 山东省立医院、 深圳市坪山区人民医院、 南昌大学第一附属医院、 华为技术有限公司

Primary Drafting Personnel / 主要起草人

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黄伟红、庞冉、曹畅、朱永庆、胡泽华、种璟、范金鹏、朱雯、贺松、卫荣、王忠民、郗群、包国峰、王逸欣、曹磊、彭书萍

400G MSA

Initiated by China Mobile Communications Group Co., Ltd., the 400G-per-lane MSA brings together core ecosystem partners across the Ethernet industry chain—including Alibaba, Tencent, and Marvell. It is dedicated to addressing bandwidth bottlenecks in the AI data center sector, jointly driving the development and large-scale deployment of next-generation ultra-wideband Ethernet technologies.

Guided by the principle of collaborative success, the initiative aims to unite global leaders in chip design, materials science, and system architecture to establish open and unified interface standards, building a new ecosystem for next-generation data center interconnects.

400G Per Lane MSA 由中国移动通信集团有限公司发起,汇聚阿里巴巴、腾讯、Marvel 等以太网产业链的核心生态合作伙伴,致力于 AI 数据中心领域颇具带宽平静,共同推动下一代超宽以太网留技术的发展与规模化应用;以协作共赢为宗旨,致力于汇聚全球在芯片设计、材料科学及系统架构领域的顶尖力量,指定开放统一的接口标准,构建下一代数据中心互联新生态。

Message from the Chair
主席寄语

We are entering a new era of 400G/Lane intelligent computing networks. The establishment of the NIDA '400G-per-lane MSA' is dedi0 cated to building industry consensus and promoting open, high-effi0 ciency Ethernet interconnect standards, fueling the upgrade of global computing infrastructure.
We extend our sincere gratitude to all member organizations for their outstanding contributions. Let us join forces to define the future with open technology and drive industry-wide success through collabora0 tive innovation.

我们正迈入400G/Lane智算中心网络新时代。NIDA“单通道400G MSA”的成立，旨在凝聚产业共识，推动开放、高效的以太网互联标准，助力全球算力基础设施的升级。
感谢各成员单位的卓越贡献。让我们携手，以开放技术定义未来，以协同创新驱动产业共赢。

Chen Weiqiang
400G MSA Chair

程伟强
400G MSA主席

Message from the Chair
主席寄语

Jannik Hammel Nielsen
400G MSA Vice Chair

The establishment of the 400G per-lane Working Group marks an important step in aligning the industry around the next generation of high-speed connectivity. Over the past few months, the WG has brought together stakeholders across system vendors, component suppliers, and network operators to initiate constructive technical discussions and build a shared understanding of the challenges and opportunities ahead.
Looking toward 2026, the focus of the 400G per-lane MSA will be to translate this early alignment into a technical framework, enabling interoperable and scalable solutions for future networks. I look for0 ward to continued engagement across the industry as we collective0 ly shape the foundations for the next wave of ultra-high-speed net0 working. Wishing all members a successful New Year.

400G per-lane 工作组的成立，标志着行业在下一代高速连接标准协同方面迈出了重要一步。在过去的几个月里，工作组汇聚了系统厂商、组件供应商及网络运营商等各方利益相关者，启动了富有建设性的技术讨论，并针对未来的挑战与机遇达成了共识。
展望 2026 年，单通道 400G MSA 的核心任务是将早期的协同成果转化为具体的技术框架，为未来网络提供具备互操作性和可扩展性的解决方案。我期待行业各界的持续参与，共同为下一波超高速网络浪潮奠定坚实基础。祝愿所有成员单位新年快乐，事业顺遂。

Updates
动态

On October 31, 2025, 400G MSA was established
2025年10月31日 400G MSA 成立

On November 8, 2025, the 400G MSA held a global launch ceremony
2025 年 11 月 8 日 400G MSA 成立全球发布

Number List
成员列表

Title 职务	Name 姓名
Chair 主席	Cheng Weiqiang 程伟强
Vice Chair 副主席	Jannik Hammel Nielsen
Secretary 秘书	Zhang Li 张力
Secretary秘书	Hu Runlong 胡润龙

Member Organizations
成员单位 in alphabetical order 按字母顺序

Advanced Fiber Resources 珠海光库科技股份有限公司	Luxshare Precision Industry Co., Ltd. 立讯精密工业股份有限公司
Accelink Technologies Co., Ltd. 武汉光迅科技股份有限公司	Marvell Technology, Inc. 美满科技
Alphawave Semi	New H3C Technologies Co.,Ltd. 新华三技术有限公司
Alibaba (China) Co., Ltd. 阿里巴巴（中国）有限公司	PhotonicX AI Pte. Ltd. 苏州奇点光子智能科技有限公司
China Academy of Information and Communications Technology 中国信息通信研究院	Source Photonics (Chengdu) Co., Ltd. 索尔思光电 (成都) 有限公司
China Mobile Communications Group Co., Ltd. 中国移动通信集团有限公司	Suzhou Centec Communications Co., Ltd. 苏州盛科通信股份有限公司
Credo Technology Group Holding Ltd 默升科技（上海）有限公司	Suzhou TFC Optical Communication Co., Ltd. 苏州天孚光通信股份有限公司
Huagong Tech Company Limited 华工科技产业股份有限公司	Testing longsight Technology Co., Ltd. 深圳市万里眼技术有限公司
Huawei Technologies Co., Ltd. 华为技术有限公司	Tencent Technology(Beijing)Co.,Ltd. 腾讯科技（北京）有限公司
Joywell Semiconductor (Shanghai) Co., Ltd. 集益威半导体（上海）股份有限公司	Viavi Solutions (Shenzhen) Co., Ltd 唯亚威通讯技术（深圳）有限公司
Keysight Technologies (China) Co., Ltd. 是德科技(中国)有限公司	ZTE Corporation 中兴通讯股份有限公司

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2026 EVENTS CALENDAR

2026 年活动日历

NIDA 2026 Marketing Calendar
NIDA 2026 年度营销活动日历

Date 日期	Type 参会类型	Event Name 活动名称	Location 地点
March 2-5 3月2日-5日	Attend 参会	MWC 世界移动通信大会	Barcelona 巴塞罗那
March 14-20 3月14日-20日	Host 主办	IETF125 第125次互联网工程任务组会议	Shenzhen 深圳
April (TBD) 4月（待定）	Co-organizer 协办	National Smart Healthcare Innovation Competition 全国智慧医疗创新大赛	TBD 待定
April 13-16 4月13日-16日	Attend 参会	LEAP 2026 LEAP全球科技大会	Saudi Arabia 沙特阿拉伯
June (TBD) 6月（待定）	Co-organizer 协办	BRICS Forum on Future Networks Innovation 金砖国家未来网络创新论坛	Shenzhen 深圳
June (TBD) 6月（待定）	Attend 参会	Heads of ICT Development 信息通信技术发展部门负责人会议	Karamay 克拉玛依
June 23-25 6月23日-25日	Attend 参会	DTW 数字化转型世界大会	Copenhagen 哥本哈根
July (TBD) 7月（待定）	Host 主办	Asia-Pacific Network Innovation Forum 亚太网络创新论坛	Asia-Pacific (TBD) 亚太地区（待定）
August (TBD) 8月（待定）	Co-organizer 协办	Future Network Development Conference CENI Forum 未来网络发展大会-CENI论坛	Nanjing 南京
August (TBD) 8月（待定）	Co-organizer 协办	Workshop-Accelerate Asia TM Forum	Haikou 海口
August (TBD) 8月（待定）	Attend 参会	WIOTC 全球物联网大会	Shenzhen 深圳
September (TBD) 9月（待定）	Attend 参会	China-LAC Think Tank Forum 中拉高级别学术论坛	Chongqing 重庆
November (TBD) 11月（待定）	Attend 参会	CERNET Annual Conference 中国教育和科研计算机网学术年会	TBD 待定
November 18-19 11月18日-19日	Host 主办	Trusted Data-Internet Innovation Summit 可信数联网创新高峰论坛	Shenzhen 深圳
November (TBD) 11月（待定）	Host 主办	CEIC2026 消费电子创新大会	Shenzhen 深圳
November (TBD) 11月（待定）	Host 主办	The 4th Network Innovation and Development Summit 第四届网络创新发展大会	Shenzhen 深圳

具体时间以实际为准。All dates and times are subject to change.

NIDA 2026 Operations Calendar
NIDA 2026 年度运营活动日历

Type 会议类型	Meeting Name 会议名称	Date 会议时间
General Meeting 会员大会	The 3rd NIDA General Meeting NIDA第三次会员大会	November 11月

Type 会议类型	Meeting Name 会议名称	Date 会议时间
Council Meeting 理事会会议	The 4th Meeting of the 1st NIDA Council NIDA NIDA第一届理事会第四次会议	June 6月
	The 5th Meeting of the 1st NIDA Council NIDA NIDA第一届理事会第五次会议	November 11月

Type 会议类型	Meeting Name 会议名称	Date 会议时间
工作组会议 Working Group Meeting	NetworkEvolution WG Meeting 网络演进工作组会议	每季度一次 Once a quarter
	Data CenterNetwork WG Meeting 数据中心网络工作组会议	每季度一次 Once a quarter
	Campus Network WG Meeting 园区网络工作组会议	每季度一次 Once a quarter
	Autonomous Network WG Meeting 自智网络工作组会议	每季度一次 Once a quarter
	Cybersecurity WG Meeting 网络安全工作组会议	每季度一次 Once a quarter

Type 会议类型	Meeting Name 会议名称	Date 会议时间
Committee Meeting 委员会会议	Launch Meeting: Education Industry Committee (Provisional) 教育行业委员会（筹）成立会议	April 4月
	The 3rd MeetingTechnical Committee 技术委员会第三次会议	April 4月
	Healthcare Industry Committee Meeting 医疗行业委员会会议	每季度一次 Once a quarter

具体时间以实际为准。All dates and times are subject to change.

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ACKNOWLEDGMENTS

致谢

NIDA

To Our Esteemed Members, Partners, and Industry Colleagues,

The year 2025 has been a journey of breakthroughs and achievements for the Network Innovation and Development Alliance (NIDA), walked hand-in-hand with each of you. It has been our great honor to stand alongside like-minded partners worldwide, taking solid and significant strides on the path of driving innovation for next-generation networks.

Looking back on this year, our consensus has strengthened, our collaboration deepened, and our accomplishments have been more fruitful than ever:

1. **Broadening Consensus:** The vision for the next-generation Internet has gained wider recognition globally, charting a common direction for network evolution.
2. **Laying the Standard Foundation:** Together, we released a future-oriented network construction standard system, initially establishing an industry network standard framework of "Three Horizontals" (Campus, WAN, Data Center Networks) and "Four Verticals" (General&Operator, Healthcare, Education, Finance). This provides robust support for building innovative infrastructure for the industry.
3. **Expanding Collaborative Frontiers:** The "Pioneer City Program" continues to advance, now reaching 10 cities across 9 countries. We have established in-depth cooperative relationships with standard industrial organizations in multiple nations and launched several landmark standard collaboration projects, allowing innovation to take root in broader soil.
4. **Strengthening the Organization:** The Alliance's own structure is becoming increasingly refined. The newly established Healthcare Industry Committee, Expert Committee, and Cybersecurity Network Working Group will focus on industry enablement, technological foresight, and security transformation respectively, providing more professional and systematic support for our shared cause.
5. **Thriving Ecosystem:** Even more encouraging is the continued vigorous growth of NIDA's global ecosystem. Our membership has grown from 50 last year to 100, with international members now comprising 30%. A truly open, collaborative, and international innovation community is taking shape.

Behind every achievement lies the intellectual contribution of each member and the steadfast support of every partner and industry colleague. Here, we extend our highest respect and most sincere gratitude to all who have trusted, accompanied, and dedicated themselves to the NIDA vision!

Looking ahead to 2026, we will continue to cultivate with diligence: refining the standard system, deepening global collaboration, piloting certification programs, and fully supporting the industry's digital transformation and intelligent upgrade.

The road ahead remains demanding, but the future is immensely vast. We firmly believe that by continuing to unite our hearts, embrace openness, and innovate together, we will collectively usher in a new global network era that is more intelligent, converged, and secure!

Once again, thank you for journeying with NIDA and co-creating the future!

Network Innovation and Development Alliance (NIDA)

December 2025

尊敬的各位会员、合作伙伴与业界同仁：

2025年，全球固定网络创新联盟（NIDA）与各位携手并肩，共同走过了一段充满突破与收获的征程。我们深感荣幸能与全球志同道合的伙伴们一道，在推动下一代网络创新发展的道路上，迈出了坚实而有力的步伐。

回顾这一年，我们的共识更为凝聚，合作更为深入，成果也更为丰硕：

共识广聚：下一代互联网的理念在全球范围内获得了更广泛的认同，为网络演进指明了共同方向。

标准筑基：我们共同发布了面向未来的建网标准体系，初步构建起“三横”（园区、广域、数据中心网络）“四纵”（通用&运营商、医疗、教育、金融）的行业网络标准框架，为产业打造创新基础设施提供了坚实支撑。

合作拓界：“先锋城市计划”持续推进，足迹已遍布9国10城。我们与多国标准产业组织建立了深度合作关系，并启动了多个标志性的标准合作项目，让创新在更广阔的土壤中生根发芽。

组织壮大：联盟自身建设日臻完善。新成立的医疗行业委员会、专家委员会及网络安全工作组，将分别聚焦行业使能、技术前瞻与安全变革，为我们的共同事业提供更专业、更系统的支撑。

生态繁荣：更令我们鼓舞的是，NIDA的全球生态持续蓬勃发展。会员数量由去年的50家已增长到100家，国际会员占比达30%，一个真正开放、协作、国际化的创新共同体正在形成。

每一项成就的背后，都铭刻着会员的智慧贡献、合作伙伴和业界同仁的鼎力支持。在此，我们谨向所有信任、陪伴并投身于NIDA蓝图的同仁们，致以最崇高的敬意与最衷心的感谢！

展望2026年，我们将继续深耕细作：完善标准体系，深化全球协作，试点测试认证，全力支撑产业的数字化转型与智能化升级。

前路虽任重道远，但未来无比广阔。我们坚信，只要继续携手同心、开放创新，必将共同开创一个更加智能、融合、安全的全球网络新纪元！

再次感谢您与NIDA同行，共绘未来！

全球固定网络创新联盟（NIDA）

2025年12月