

2019 DOA技术应用论坛

筑牢基础设施 发展数字经济

会议手册

Conference Proceedings

2019/10/17-10/18 北京

DOA Forum



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前言



互联网和数字经济，日新月异，深刻重塑了世界经济和人类社会面貌。纵观世界，互联网正由上半场“以服务器为主体”向下半场“以服务器为主体+以信息为主体”发生根本性转变。如何安全、稳定、可靠、可信地解决信息互通问题，同时建立公平、公正、合理的国际治理体系，是当今互联网亟需解决的关键。“互联网之父”、图灵奖获得者罗伯特.卡恩博士发明的数字对象体系架构（DOA）和Handle系统，是国际社会广泛接受的解决信息互通的架构技术，被视为互联网的神经系统和数字空间的关键基础设施。

DONA是注册在瑞士日内瓦的非政府间、非盈利性国际组织，主要负责管理、维护Handle系统全球注册的稳定运营以及授权、协调和管理全球根节点（MPA）事务。由国家工业信息安全发展研究中心（CIC）、北京中数创新科技股份有限公司（CDI）、北京西恩多纳信息技术有限公司（CHC）共同组成的“MPA中国联合体”，已与DONA正式签署协议，运营部署在中国的全球根节点，是东亚、东南亚、大洋洲地区的唯一全球根节点。

我国大力推动实施工业互联网创新发展战略，标识解析体系建设是重中之重。相比域名解析体系（DNS），数字对象体系架构(DOA)和Handle解析系统，具备为各类物理实体与数字对象提供全球唯一标识、解析服务、信息管理和安全控制等功能，是解决异主、异构、异地系统之间数据按需交换、共享和开放的关键技术,可有效支撑工业互联网、物联网、大数据、智慧城市等领域的产业融合发展。

中国工业互联网标识解析体系采用的是融合型方案，包括Handle、OID、Ecode、GS1、DNS等技术方案。工业互联网标识解析体系，由国际根节点——国家顶级节点——二级节点——企业节点以及递归节点等构成。这一战略设计将进一步加快数字对象体系架构（DOA）和Handle解析体系的产业化步伐。

DOA技术应用论坛，于2017年和2018年成功举办了两届，受到DONA、ITU、各MPA以及相关机构的高度和广泛认可，逐步成为数字对象体系架构（DOA）和Handle系统开发应用与推广交流的全球盛会，产业价值与增值效应开始显现。

今年DOA技术应用论坛的主题是“筑牢基础设施，发展数字经济”，将分享在跨境平台、工业互联网、智慧城市、物联网应用、大数据等领域的创新应用案例，讨论交流DOA/Handle应用标准、应用技术以及开发生态的最新进展，进而推出具有鲜明特色的新型数字经济发展模式。

Preface



With each passing day the Internet and the digital economy profoundly reshape the face of the world economy and human society. Throughout the world the Internet is changing fundamentally from "server based" to "information based". How do we solve the problem of exchanging information safely, stably, reliably and credibly, and concurrently establish a fair, just and reasonable international governance system? This is the key problem that the Internet needs to urgently solve.

The Digital Object Architecture (DOA) and Handle System, invented by the "Father of the Internet" and the Turing Award winner Dr. Robert Kahn, are widely accepted architecture technologies for information exchange. They are key infrastructures for the new Internet's nervous system and within the digital space.

DONA is a private, non-profit international organization registered in Geneva, Switzerland, primarily responsible for maintaining the stable operation of the Global Handle Register and authorizing, coordinating and managing Multi-Primary Administrators (MPA). The "Coalition of Handle Services- China" composed of the China Industrial Control Systems Cyber Emergency Response Team (CIC), Beijing Content Innovation Technology Co., Ltd. (CDI) and Beijing CNdona Information Technology Co., Ltd. (CHC) have officially signed agreements with the DONA foundation to be administrators for China and within East Asia, Southeast Asia and Oceania.

The Chinese Government vigorously promotes the implementation of a industrial Internet innovation and development strategy centered around the construction of an ID resolution system. In comparison to the Domain Name Resolution System (DNS) Digital Object Architecture (DOA) and the Handle Resolution System have the ability to provide globally unique identifiers, a resolution service, information management and security controls for various physical entities and digital objects. It is a key technology in the solution to homogenous data exchange across heterogeneous systems, and can effectively support industrial integration and development in fields such as the industrial Internet, Internet of Things, big data and within smart cities.

Industrial Internet identifier resolution systems in China utilize converged schemes, for exasmples Handle, OID, Ecode, GS1, DNS and others. The industrial Internet identifier resolution system is composed of an international root node, a national level node, secondary nodes, enterprise nodes as well as recursive nodes. This strategic design will further accelerate the industrialization of the Digital Object Architecture (DOA) and Handle Resolution System.

The DOA Technology Application Forum, which successfully held two sessions in 2017 and 2018, is highly valued by the DONA foundation, ITU and MPA's as a global event for the sharing of knowledge in regards to the global applications of DOA and the handle System. Over the years we are starting to see the emergence of many commercially viable applications of DOA and Handle technology emerge through the forum.

This year the DOA Technology Application Forum is focusing on the theme of "Building Infrastructure, Developing the Digital Economy". It aims to provide a means to share innovative use cases, promote cross-border platforms and promote use within the industrial Internet, smart cities, Internet of Things, and big data. The forum hosts the latest developments in DOA / Handle application standards, application technologies, and development ecology as well as introducing a new distinctive digital economic development model.

The increasingly widespread adoption of the Digital Object Architecture and its application in China has been quite remarkable in its scope and diversity. Some of the attendees are from around the world. I look forward to learning of more recent advances, hearing the presentations and learning from the participants. On behalf of the DONA Foundation, I extend my best wishes for a successful DOA Forum.



Robert E. Kahn

Chair of the DONA Foundation

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组织架构
EVENT HOSTS

1 指导单位
Guidance Organizations

数字对象体系架构应用技术与标准促进组织（ATSD）
DOA Application Technology & Standardization Development Organization

DONA基金会（DONA）
DONA Foundation

2 主办单位
Host Organization

国家工业信息安全发展研究中心
China Industrial Control Systems Cyber Emergency Response Team

3 联合主办
Joint Organizers

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

北京中数创新科技股份有限公司
Content Digital Innovation Technology Co.,Ltd

北京西恩多纳信息技术有限公司
Corporation for Handle Services in China

中国电信股份有限公司
China Telecom Co., Ltd.

4 承办单位
Supporting Organizations

北京时代计世资讯有限公司
CCW Research

5 协办单位
Assisting Organizations

雏菊机构
Daisy Financial

深圳奥联信息安全技术有限公司
Shenzhen Olym Information Security Technology Co.,Ltd

时间地点
TIME & VENUE

时间：2019年10月17日（周四）9:00–17:00
2019年10月18日（周五）9:00–17:00

地点：北京国际饭店（国际厅）

Time: October 17, 2019 (Thursday) 9: 00-17: 00,
October 18, 2019 (Friday) 9: 00-17: 00

Venue: Beijing International Hotel (International Hall)

开幕式：DOA技术应用论坛

Opening Ceremony: DOA Technology Application Forum

时间：10月17日9:00-12:00

Time: 9: 00-12: 00 on October 17

时间Time	内容Content	嘉宾Guest
09:00-09:30	领导致辞 Speech by Leader	工信部领导 北京市通信管理局领导 北京市经济和信息化局领导 Leader of Ministry of Industry and Information Technology Leader of Beijing Communications Administration Bureau Leader of Beijing Municipal Bureau of Economy and Information Technology
09:30-09:50	主旨演讲 Keynote Speech	Robert E. Kahn 图灵奖获得者、TCP/IP协议联合发明人、DONA主席 Robert E. Kahn Turing Award Winner, Co-inventor of TCP / IP, Chairman of the DONA Foundation
09:50-10:10	主旨演讲 Keynote Speech	尹丽波 国家工业信息安全发展研究中心 主任 Libo Yin Director of China Industrial Control Systems Cyber Emergency Response Team
10:10-10:20	1、Handle联合实验室签约仪式 2、工业互联网标识解析节点对接仪式 【国际根节点-国家顶级节点-二级节点（Handle）-企业节点（Handle）】 1. Handle Joint Laboratory Signing Ceremony 2. Ceremony for the Integration of International and Chinese Industrial Internet Identification Resolution Centers	

时间Time	内容Content	嘉宾Guest
10:20-10:40	主旨演讲 Keynote Speech	Alex Ntoko 国际电信联盟（ITU）电信标准化局运营与规划处 首席执行官 Alex Ntoko Chief Executive Officer, Operations and Planning Division, Telecommunications Standardization Bureau, International Telecommunication Union (ITU)
10:40-11:00	主旨演讲 Keynote Speech	高新民 DONA理事、ATSD理事会主席 Xinmin Gao DONA Director, Chairman of ATSD Board
11:00-11:20	工业互联网标识解析和DOA Identification Resolution and DOA in the Industrial Internet	续合元 中国信息通信研究院 副总工程师 Heyuan Xu Deputy Chief Engineer of China Academy of Information and Communications Technology
11:20-11:40	工业互联网标识解析技术在泛在电力物联网中的应用 The application of identification and resolution technology of Industrial Internet in ubiquitous power Internet of things	赵丙镇 国网电子商务有限公司 副总经理 Bingzhen Zhao State Grid E-commerce Company Deputy General Manager
11:40-12:00	主旨演讲 Keynote Speech	Sam X. Sun DONA主席助理、CNRI技术总监，ATSD执委会主席 Sam X. Sun Assistant Chairman of the DONA Foundation, CNRI Technical Director, Chairman of ATSD Steering Committee

主题论坛：DOA/Handle应用全球分享

Forum Topic: Global Sharing of DOA / Handle Applications

时间：10月17日14:00-17:00

Time: 14: 00-17: 00 on October 17

时间 Time	内容 Content	嘉宾 Guest
14:00-14:20	工业互联网标识体系建设，赋能数字经济发展 Construction of An Industrial Internet Marking System and Enabling the Development of the Digital Economy	范济安 中国联通大数据首席科学家 Ji'an Fan Chief Data Scientist of China Unicom
14:20-14:40	数据管理的分散式服务计算范例 Decentralized service computing, An example for data management	刘饒哲 博士，北京大学信息科学技术学院 教授 博士生导师 Dr.Xuanzhe Liu Professor, School of Information Science and Technology, Peking University, Doctorate Supervisor
14:40-15:00	基于DOA/Handle的应用开发生态 Application Development Ecology Based on DOA / Handles	镇锡惠 MPA中国联合体 联席主席兼首席专家 北京中数创新科技股份有限公司 董事长 Xihui Zhen Co-Chairman of The Coalition of Handle Services -China and Chairman of Content Digital Innovation Technology Co.,Ltd
15:00-15:20	Handle系统支撑的跨境社区建设和管理 Cross-border Community Building and Management by a Handle System Empowered IaaS	萧晓晖 香港优赛百意有限公司 (ELITE CYBER CONCEPTS CO., LTD) 和 香港HANDLE SERVICE CENTER创始人 执行董事 ATSD理事 Michael Siu Founder and Executive Director of Elite Cyber Concepts Co., Ltd, and Handle Service Center (Hong Kong) ATSD Director

时间 Time	内容 Content	嘉宾 Guest
15:20-15:40	应用案例分享与思考 Application Case Sharing and Thinking	周骏 中国电信5G+工业互联网产业基地执行副总经理 Jun Zhou Executive Deputy General Manager of China Telecom's 5G+Industrial Internet Industry Base
15:40-16:00	应用案例分享与思考 Application Case Sharing and Thinking	沙特MPA代表 Representative of the CITC(22.)
16:00-16:20	应用案例分享与思考 Application Case Sharing and Thinking	卢旺达MPA代表 Representative of the RURA(25.)
16:20-16:40	应用案例分享与思考 Application Case Sharing and Thinking	德国MPA代表 Representative of the GWDG(21.)
16:40-17:00	应用案例分享与思考 Application Case Sharing and Thinking	巴西代表 Guest Brazilian Academic

主题论坛：DOA/Handle的创新发展

Forum Topic: The Innovation and Development of DOA / Handle

时间：10月18日9:00-12:00

Time: 9: 00-12: 00 on October 18

时间Time	内容Content	嘉宾Guest
09:00-09:20	工业互联网标识解析安全防护体系建设 Industrial Internet Identity Resolution Security Protection System Construction	陈雪鸿 高级工程师，国家工业信息安全发展研究中心保障技术所副所长 Xuehong Chen Senior Engineer, is the Deputy Director of Department of Security Technology
09:20-09:40	基于密码技术的工业互联网标识解析安全 Security of Industrial Internet Identity Resolution with Cryptographic Algorithms	蔡先勇 深圳奥联信息安全技术有限公司 副总经理 Xianyong Cai Deputy General Manager of Shenzhen Aulian Information Security Technology Co., Ltd
09:40-10:00	数字经济发展新机遇 New Opportunities for Digital Economy Development	高振刚 MPA中国联合体 联席主席 北京西恩多纳信息技术有限公司 董事长 雏菊机构专家委员会 主席 Zhengang Gao Co-Chairman of The Coalition of Handle Services - China Chairman of the Daisy Financial's Expert's Committee, Chairman of Corporation for Handle Services in China(CHC)
10:00-11:00	高端对话 Free Form Open Dialogue	主持人：Alex Ntoko 嘉宾：各国MPA代表 Host: Alex Ntoko Participants:MPA representatives from various countries

时间Time	内容Content	嘉宾Guest
11:00-11:20	全球数字经济安全与影子科技Handle应用案例 Global Digital Economy Security and Yingzi Handle Use Case	李雨航 联合国世界丝路论坛数字经济研究院 副院长 影子科技 联合创始人&首席安全官 Yale Li Vice President, Institute of Digital Economics, United Nations World Silk Road Forum, Co-founder of Shadow Technology & Chief Security
11:20-11:40	创新应用思考与分享 Thinking and the Sharing of Innovation and Applications	王金合 淘金集团创始人 云品荟电子商务股份有限公司董事长 Jinhe Wang Founder of Taojin Group and Chairman of Yun Pin Hui E-commerce Company
11:40-12:00	Handle综合公共服务平台建设及应用推广 Construction and Application Promotion of Handle Integrated Public Service Platform	吕涛 四川智数宝科技有限公司 总裁兼执行董事长 Tao Lu President and Executive Chairman of Sichuan Zhishubao Technology Co., Ltd

主题论坛：DOA/Handle的技术发展

Forum Topic: DOA / Handle Technology Development

时间：10月18日下午14:00–17:00

Time: 14: 00 – 17: 00 on October 18

时间Time	内容Contant	嘉宾Guest
14:00–14:20	DOA/Handle技术介绍 Introduction to DOA / Handle Technology	Sam X. Sun DONA主席助理、CNRI技术总监， ATSD执委会主席 Sam X. Sun Assistant Chairman of the DONA Foundation, CNRI Technical Director, Chairman of ATSD Steering Committee
14:20–14:40	Handle技术架构发展思考 The Development of Handle Technical Architecture	黄伟 国家工业信息安全发展研究中心 副处长 Wei Huang China Industrial Control Systems Cyber Emergency Response Team Deputy Director General
14:40–15:00	Handle技术与区块链 Handle Technology and Block Chain	Vicknesh Suppramaniam ITU顾问 Vicknesh Suppramaniam ITU Consultant
15:00–15:20	基于Handle应用开发工具和接口 Handle Application Development Interface and Toolkit	高澜 北京中数创新科技股份有限公司 基础平台部经理 Lan Gao Content Digital Innovation Technology Co.,Ltd Primary Platform Manager

时间Time	内容Content	嘉宾Guest
15:20–15:40	DOIP协议发展 The Development of DOIP Protocol	Christophe Blanchi DONA基金会执行理事 DONA Foundation Executive Director
15:40–16:00	Handle与DOIP在物联网的应用 The Application of Handles and DOIP in Internet of Things	王晓龙 北京中数创新科技股份有限公司 高级项目经理 Xiaolong Wang Content Digital Innovation Technology Co.,Ltd Senior Project Manager
16:00–16:20	主旨演讲 Keynote Speech	德国MPA代表 Representative of the GWDG(21.)
16:20–16:40	主旨演讲 Keynote Speech	俄罗斯MPA代表 Representative of the ROSTELECOM(77.)
16:40–16:50	总结发言 Concluding Remarks	高新民 DONA理事、ATSD理事会主席 Xinmin Gao DONA Governor, Chairman of ATSD Board

演讲嘉宾
GUEST

排名不分先后



罗伯特·卡恩 Robert E. Kahn

DONA Foundation DONA主席
Chair, DONA Foundation

罗伯特·卡恩先生是TCP/IP协议的共同发明者，负责了美国国防高技术研发中心互联网计划的发起，被称为“互联网之父”。在美国国防高技术研发中心主管信息技术部门期间，卡恩先生发起了十亿美元计算机网络技术的研发，这是有史以来美国政府支持的最大的技术开发项目。这期间，卡恩先生致力于公开网络(open network)平台的研究与开发，并定义了国家信息基础设施(National Information Infrastructure)(NII)，也就是后来大家都知道的信息高速公路(Information Super Highway)。

1986年，罗伯特·卡恩先生创立了美国国家研究和促进机构(CNRI)，并一直担任总裁和主席。CNRI是一家非赢利性质的研究机构，主要致力于信息系统基础构架方面的研究和开发。

基于对互联网发展的杰出贡献，在1997年，美国总统克林顿给罗伯特·卡恩先生和他的同事温特·瑟夫先生颁发了美国国家技术勋章；在2004年，罗伯特·卡恩先生被授予“阿兰·图灵奖”，该奖项也被称作计算机行业的诺贝尔奖；在2005年，美国总统布什为他颁发了美国总统奖。

近些年来，罗伯特·卡恩先生一直致力于数字对象体系架构(Digital Object Architecture，简称DOA)理念的研究和开发。Handle System 是其中重要的组成部分。DOA体系架构为不同的信息系统互操作性提供了框架。卡恩博士也是Knowbot程序的共同发明者，Knowbot程序是网络环境中的移动软件代理。

卡恩先生还担任DONA基金董事会主席职务。DONA基金是在瑞士注册的非营利性机构。其主要职责之一就是Global Handle Registry(GHR)的注册和管理。GHR是DOA的一个重要组成部分。

Dr. Robert Kahn is the co-inventor of the TCP/IP protocols and was responsible for originating DARPA's Internet program, and is known as one of the "Fathers of the Internet". While serving as the Director of Information Processing Techniques Office (IPTO) at DARPA, he initiated the United States government's billion-dollar Strategic Computing Program, the largest computer research and development program ever undertaken by the federal government. Dr. Kahn conceived the idea of open-architecture networking and coined the term National Information Infrastructure (NII) in the mid 1980s, which later became more widely known as the Information Super Highway.

In 1986 Kahn founded the Corporation for National Research Initiatives (CNRI), where he is CEO, and President. CNRI is a not-for-profit organization that provides technical leadership and funds research and development of emerging information infrastructure components.

In December 1997, President Bill Clinton presented the U.S. National Medal of Technology to Kahn and his colleague, Vinton Cerf, for founding and developing the Internet. In 2004, Kahn was the recipient of the ACM Alan M. Turing award (sometimes called the "Nobel Prize of Computer Science") and in 2005 he was given the Presidential Medal of Freedom by President George Bush.

In his recent work, Dr. Kahn has been developing the concept of a Digital Object Architecture (DO Architecture), with the Handle System as a key component. The DO Architecture provides a framework for interoperability of heterogeneous information systems. Dr. Kahn is also a co-inventor of Knowbot programs, mobile software agents in the network environment.

Dr. Kahn also chairs the Board of Directors of the DONA Foundation, a non-profit organization registered in Switzerland to evolve the DO Architecture and provide overall administration of the Global Handle Registry (GHR), a key-component of the Digital Object Architecture.



尹丽波 Libo Yin

国家工业信息安全发展研究中心主任
享受国务院特殊津贴

Director of China Industrial Control Systems Cyber
Emergency Response Team, Enjoys a Special Allowance
under the State Council.

长期跟踪研究工业信息化和工业信息安全技术和产业发展情况，在工业互联网、工业化和信息化融合以及网络安全等方面发表多篇文章，主持编著多部相关书籍。国家信息化和工业化融合管理技术标准委员会副主任委员。主持研究成果曾获部级一、二、三等奖。

Long-term follow-up of industrial information and industrial information security technology and industrial development, in the industrial Internet, industrialization and information integration, network security and other aspects of a number of articles, presided over the compilation of a number of related books. Vice Chairman of the National Technical Standards Committee for the Integration of Informatization and industrialization. The host research results have won the first, second and third prize at the ministerial level.



李新社 Xinshe Li

国家工业信息安全发展研究中心 副主任

Deputy Director, China Industrial Control,
Systems Cyber Emergency Response Team

长期致力于人工智能、智慧城市、物联网、信息化、信息产业与技术方面的研究与探索，主持完成中央网信办、发改委、工信部、人社部等多个部委委托的国家级重点项目，主持编写多项公开出版物，主持承担相关领域研究课题，组织开展相关实验室建设，多次主持承办行业会议和论坛。



Alexander Ntoko

国际电信联盟（ITU）运营与规划处首席执行官
Chief of Operations and Planning, ITU

Alexander Ntoko是国际电联运营和规划处首席执行官，他在制定和执行国际电联电信标准化部门（ITU-T）的战略行动方面发挥了关键作用。他指导基于物联网技术、大数据、人工智能技术和其他新兴技术IT解决方案的策略和实现。他协调国际电联关于数字对象体系架构（DOA）的所有活动，并在ICANN的政府咨询委员会（GAC）中担任国际电联代表。在现职之前，他是国际电联公司战略主管，他的职责包括确保组织支持国际电联战略计划的制定、执行和评估。他协助国际电联总秘书处制定政策和战略、为其提供咨询，并负责协调国际电联在互联网和网络安全等多领域的活动。在许多国际活动中，他组织并发表了关于全球信息和通信技术、政策和战略的演讲，并撰写了关于因特网、信息和通信技术和网络安全技术战略的论文。作为国际电联官员，他已经访问了大约100个国家，对信息和通信技术政策和战略有广泛的认知。他在ITU引入互联网和网络安全方面发挥了关键作用。他负责发展中国家关于实施因特网、信息和通信技术应用（例如，电子医疗、电子政务、电子农业、电子教育、电子支付和电子商务）和网络安全方面的项目，包括使用先进的安全技术（生物认证和公钥基础设施）进行开发。他在纽约州立大学获得计算机科学学士学位和硕士学位。

Alexander Ntoko is the Chief of the Operations and Planning Department in ITU where he plays a critical role in crafting and executing the strategic movements of ITU's Telecommunication Standardization Sector (ITU-T). He directs the strategy and implementation of IT solutions based on IoT technologies, big data, AI techniques and other emerging technologies. He coordinates all ITU activities on the Digital Object Architecture (DOA) and represents ITU in ICANN's Governmental Advisory Committee (GAC). Prior to taking up his current position, he was Head of ITU Corporate Strategy where his responsibilities included ensuring organization-wide consensus and support for the development, implementation and evaluation of the ITU Strategic Plan. He assisted and advised the ITU Secretary-General in policies and strategies and was responsible for the coordination of ITU activities in many areas including Internet and cybersecurity. He has organized and spoken at many international events on a wide range of global ICT-related technologies, policy and strategies and has written papers on technology strategies for Internet, ICTs and cybersecurity. As an ITU official, he has travelled to about 100 countries and has developed a broad perspective of ICT policies and strategies. He played key role in the introduction of Internet and Cybersecurity to ITU. He has managed the implementation of projects on Internet, ICT applications (e.g., e-health, e-government, e-agriculture, e-education, e-payment and e-business) and cyber security including the use of advanced security technologies (biometric authentication and Public Key Infrastructure) in developing countries from all regions of the world. He obtained Bachelors (BSc) and Master of Science (MSc) degrees in Computer Science from the State University of New York.

Xinmin Gao completed his undergraduate at Shanghai Jiaotong University and then furthered his studies in the Soviet Union. He graduated with a Master's degree in Electrical Engineering from the Kaliningrad Institute of the then Leningrad, now Saint Petersburg. After graduation, he was employed at the China Electric Power Research Institute where he worked on the application and development of computer technology on the national power grid. He then served as the Director for the National Information Technology Center. After attending the State Department's National Economic and Information Joint Conference in 1993, XinMin became one of the original members of the State Council of Leading Experts in Information Technology.



续合元 Heyuan Xu

中国信息通信研究院 副总工程师
Deputy Chief Engineer of China Academy of Information and Communications Technology

中国信息通信研究院副总工程师，教授级高级工程师。国际电信联盟-电信部门（ITU-T）第13研究组（SG13）的副主席、中国通信标准化协会（CCSA）物联网技术委员会（TC10）主席；享受国务院政府特殊津贴；曾任ITU-T 物联网全球标准化行动的技术策略协调人、ITU-T M2M焦点组主席。过去主要从事电信网络与交换方面的研究和标准制定工作，对于信令和网络协议有深入的研究。目前主要致力于未来网络、泛在/物联网、车联网、工业互联网、人工智能、区块链、智慧城市、智慧医疗健康等信息和通信融合领域的研究。

Deputy chief engineer of China Academy of Information and Communications, Professor-level senior engineer. Vice Chairman of the 13th Research Group (SG13) of the International Telecommunications Union-Telecommunications Department (ITU-T), Chairman of the China Communications Standardization Association (CCSA) Internet of things Technical Committee (TC10); receiving a special subsidy from the Government of the State Council; former technical strategy coordinator of the ITU-T Global Standardization Initiative on the Internet of things and Chairman of the ITU-T M2M focus Group. In the past, mainly engaged in the research and standard setting of telecom network and switching, and studied signaling and network protocol deeply. At present, mainly committed to the future of the network, pan- Research in the fields of information and communication integration, such as Internet of things, car networking, industrial Internet, artificial intelligence, blockchain, intelligent city, intelligent medical health and so on.



高新民 Xinmin Gao
DONA理事、ATSD理事会主席
DONA Director, ATSD Board Chair,

高新民，DONA创始理事，数字对象体系架构应用技术与标准促进组织（ATSD）理事会主席，国家信息化专家咨询委员会委员。曾在上海交通大学就读，后留苏学习，毕业于原苏联列宁格勒加里宁工学院电机系，获硕士学位。曾在电力工业部科研单位工作，从事计算机技术在电网中的应用的研究开发工作。后任国家信息中心主任。1993年国务院国民经济信息化联席会议成立后，曾是该会议成员，也是原国务院信息化领导小组专家组成员。



赵丙镇 Bingzhen Zhao

国网电子商务有限公司副总经理
State Grid Electronic Commerce Co.,Ltd.
Deputy General Manager

赵丙镇，教授级高工，享受国务院政府津贴的专家。长期从事电力系统信息通信领域的技术研发、市场推广、运行维护和专业管理等工作。国家电网公司“十一五”科技工作先进个人，2010年度智能电网工作先进个人。2011年获得中国电机工程学会颁发的首届中国电机工程杰出青年工程师奖，2015年获得国家电网公司十大专业领军人才称号。获国家科技进步二等奖1项，国家能源科技进步二等奖1项、中国电力科学技术一等奖1项、北京市科学技术二等奖2项等省部级奖励共20项。参编智能电网书籍4部、译著1部。共申请专利77项，其中发明专利50项，已获授权20项。参与国家标准1项、电力行业标准11项、国家电网公司企业标准15项，目前是2个电力行业标委会委员，2个国家标委会委员。

Bingzhen Zhao, a senior engineer of Professor-level, who enjoy the special allowance of the State Council. He had a deep working-experience in electric power system information and communication, including technology research, marketing development, operation and professional management etc. He won The Advanced individual in science and technology of both State Grid 11th five-year plan and smart grid work of 2010. In 2011, he was awarded The first China Electrical Engineering Outstanding Young Engineer by CSEE and was named the top ten leading professional talents of State Grid Company in 2015. He won lots of prizes such as Second prize of National Science and Technology Progress award, Second prize of National Energy Science and Technology Progress award, First prize of China Electric Power Science and Technology, Second prize of Beijing Science and Technology. In publication of books, he participated in the compilation of 4 books of smart grid and translated one. He applied 70 patents, in which 50 are invention patents and 20 had been authorized. Meanwhile, he participated in 1 national standard, 11 national electric power industry standards, and 15 enterprise standards of State Grid Company. Currently, he is the member of 2 electric power industry standards committee and 2 national standards committee.



Sam X. Sun

DONA主席助理、ATSD执委会主席
CNRI技术总监
Assistant Chairman of the DONA Foundation,
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Chairman of ATSD Steering Committee

Sam X. Sun 毕业于北京大学计算机系。现任美国国家研究发展联合会（Corporation for National Research Initiatives CNRI）技术总监(Director, Standards & Technology Development)，同时兼任DONA Foundation的技术总监（Director, Standards & Technology Development），并在ATSD担任执委会主席。在此之前，他作为Handle系统的总构架师，主持了Handle系统协议的制定和开发，并在IETF主持撰写了Handle系统的标准协议RFC3560, RFC3561, 和 RFC3562. Sam X. Sun 有多年从事信息系统安全与管理的研究与应用的经验，并参与过许多关于网络信息安全、数字对象权限管理、网格计算等标准的研究，以及各种基于Digital Object Architecture（DOA）理念及Handle技术的应用开发。

Sam X. Sun is the Director of Standards & Technology Development at the Corporation for National Research Initiatives (CNRI). He is also the director of Standards & Technology Development at the DONA Foundation, and was elected as the Chair of ATSD Steering Committee of ATSD in 2017. Prior to that, Mr. Sun was senior research fellow and handle system architect at CNRI, and lead the design of handle system protocol. He has participated in many standard activities in Internet security, digital rights management, and GRID computing, and is the lead author of the handle system protocol specification in IETF RFC3650, RFC3651, and RFC3652. Mr. Sun has led many international research collaborations in applying the Digital Object Architecture and the handle technology for digital library development, healthcare informatics, and Internet identify management. In recent years, Mr. Sun has been assisting Dr. Kahn in establishing the DONA Foundation, a non-profit organization registered in Switzerland to coordinate the Global Handle Registry (GHR), a key-component of the Digital Object Architecture.



范济安 Ji'an Fan

中国联通集团 博士 国家千人计划专家
中国联通大数据首席科学家

The Chief Scientist of China Unicom Big Data Department
the National Thousand Talents Program Expert

范济安，国家千人计划专家，中国联通集团大数据首席科学家，曾任集团信息化部副总经理、CTO；自2013年入职以来先后主持了联通公司的大数据和私有云规划、设计、建设、运营等工作，并组织筹划了联通公司大数据对外合作与开放，创建了联通与西班牙电信的合资公司智慧足迹、主导了招商银行与联通在互联网消费金融领域的大数据合作运营、筹建了联通大数据公司。目前在新成立的联通产业互联网产品创新中心负责工业互联网及医疗等行业的创新业务。

范济安博士曾长期任职于法国电信，先后担任过IT总架构师、集团客户IT业务拓展高级副总裁、Orange业务支撑中心主任等职位。范济安博士早年就读清华大学建筑工程系，后由教育部选派到法国留学，毕业于法国国家高等先进技术学院并在巴黎居里大学获得核工程物理学博士学位。

Dr. Fan is the National Thousand Talents Program expert and the Chief Scientist of China Unicom Big Data Department. Ji'an,

He was National Thousand Talents Program expert, the Chief Scientist of China Unicom Big Data Department om BIG DATA Department. fFormer Deputy General Manager and CTO of the Group Information Technology Department. Since joining the companyChina Unicom in 2013, he has led the construction, planning, design and operation of China Unicom Big Data System. And he has organized the external cooperation to create the "smart footprint" a joint venture between Unicom and Telefónica. He has also led the big data cooperation of China Merchants Bank and China Unicom in the field of Internet consumer finance. In 2017, he participated in the establishment of Unicom Big Data Company. At present, he is responsible for the innovation business of Industrial Internet and medical industry in the newly established China Unicom Industrial Internet Product Innovation Center.

Dr Fan has worked at France Telecom for a long time, and has served as IT chief architect, senior vice president of IT Business Development for group clients, and director of Orange Business Support Centre. Dr. Fan Ji'an studied in the Department of Architectural Engineering of Tsinghua University in the early years. After that, he is selected by the Ministry of Education to study in France. He graduated from the French National Institute of Advanced Technology and obtained a Doctorate in nuclear engineering from Curie University in Paris.



刘譔哲 Xuanzhe Liu

博士，北京大学信息科学技术学院 教授 博士生导师

Professor, School of Information Science andTechnology,
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刘譔哲，博士，北京大学信息科学技术学院教授，博士生导师。主要研究方向包括分布式系统软件、服务计算、大数据等。发表ACM/IEEE Transactions、WWW、ICSE、MobiCom、OOPSLA等学术论文80余篇，获国际万维网大会（WWW）“最佳论文奖”；曾入选教育部“青年长江学者”；曾获CCF-IEEE CS“青年科学家奖”、全国优秀博士学位论文提名奖、中国计算机学会优秀博士学位论文奖；作为核心完成人获国家技术发明一等奖、教育部科技进步一等奖和中国电子学会迄今唯一的技术发明特等奖；担任WWW、ICSE、ICCDs等多个国际顶级学术会议的程序委员会成员；中国计算机学会学术工作委员会秘书、委员。

Dr Liu is now an AssociateProfessor ofEECS, Peking University. His research interests are focused on analyzing, engineering, and operating service-based networked software systems (such as mobility and Web), mostly from a data-driven perspective. His current projects cover the topics from measurement and performance evaluation/ optimization of mobile systems/web browsers, "BigData" analytics based AI for "real-world" large-scale user behavior/interactions, and so on. His has published over 60 referred papers on premier conferences such as WWW, ICSE, OOPSLA, MobiCom, UbiComp, EuroSys, ICDCS, and IMC, and high-impact journals such as ACM TOIS/TOIT and IEEE TSE/TMC/TSC. He received various awards including CCF-IEEE Young Scientist Award, Changjiang Scholar Program Young Scientist, and so on.



镇锡惠 Xihui Zhen

MPA中国联合体 联席主席兼首席专家
北京中数创新科技股份有限公司 董事长

CEO of Content Digital Innovation Technology Co.,Ltd
Co-director and Chief Expert of the Coalition
for Handle Services – China (CIC, CDI and CHC)

镇锡惠，毕业于北京大学，1987年获软件工程专业硕士学位，现任北京中数创新科技股份有限公司董事长兼总裁，MPA中国联合体联席主席兼首席专家，标码技术发展研究院院长，教授级高级工程师。曾任中国数字图书馆有限责任公司技术总监等职务。2017年6月起，担任数字对象体系架构应用技术与标准促进组织（ATSD）理事兼执委会副主席。

自1998年以来，镇锡惠先生开始跟踪新一代互联网信息管理技术，重点组织研究了Handle技术，经过近二十年研发与合作，镇锡惠先生领导的技术团队已经Handle技术应用方面积累了丰富的经验，目前负责Handle根节点的技术运维，并致力于Handle技术应用的推广。

Mr. Xihui Zhen graduated from Peking University with a Master's in Software Engineering in 1987. He now serves as the CEO of Content Digital and Innovation (CDI), and Co-director and Chief Expert of the Coalition for Handle Services – China (CIC, CDI and CHC).

He is also a Dean of the Academy of Handle Technology Development and Research. Since June of 2017 Xihui has been Board Member & Director of DOA Application Technology & Standardization Development Organization (ATSD).

Before CDI, Xihui was the Chief Technical Director for China Digital Library Company. Since 1998 Xihui has looked towards developing a new generation of the internet focused on using Handle technology. After 20 years of hard work the technical team led by Xihui has a multitude of experience in developing DOA based applications. They are responsible for the maintenance of the Global Handle Registry for the Handle Coalition of China and for the development and proliferation of the use of Handle Technology.



萧晓晖 Michael Siu

香港优赛百意有限公司（Elite Cyber Concepts Co., Ltd）和
香港Handle Service Center的创始人、执行董事 ATSD理事

Founder and Executive Director of Elite Cyber Concepts Co., Ltd
and Handle Service Center (Hong Kong) ATSD Director

萧晓晖先生来自香港特别行政区，毕业于北京国际关系学院/英国牛津大学，积累了七年外交工作十五年律师执业和十年科技创业的经验，目前是香港优赛百意有限公司（ELITE CYBER CONCEPTS CO., LTD）和香港HANDLE SERVICE CENTER 的创始人执行董事。萧先生还参与创建了DOA应用技术标准组织（ATSD）和香港新互联网基金会，并在其中担任董事。

Mr. Michael Siu is a resident of the Hong Kong Special Administrative Region of the PRC. Michael was a graduate of the Institute of International Relations in Beijing and Oxford University. He served in the foreign service of the country for 7 years and then as a practicing attorney for over 15 years. Michael also had over 10 years' experience in startups and ventures in the science and technological sectors. Michael's present positions and titles include founder and executive director of Elite Cyber Concepts Co, Limited and Handle Service Center in Hong Kong. He is also co-founder and director of the DOA Application Standards Development Organization (ATSD) and New Internet Development and Promotion Foundation in Hong Kong.



周 骏 Jun Zhou

中国电信5G+工业互联网产业基地执行副总经理
Executive Deputy General Manager of China Telecom's
5G+Industrial Internet Industry Base

首席咨询专家，工业云战略发展专家，智能制造系统资深专家，教授级高级工程师，拥有丰富的技术研发、咨询和管理经验和丰富的项目实施管理经验。多次帮助企业成功进行智能化改造。

Mr Zhou serves as the Executive Deputy General Manager, Chief Consulting Expert, Industrial Cloud Strategy Development Expert, Manufacturing System Senior Export, and Senior Engineer Prof. for China Telecom's Manufacturing Industry Information Application (Shanghai) Division. He has extensive experience in technology Research and Development, consulting and management. Zhou Jun has a plethora of project implementation management experience and has successfully helped many companies with smart transformations.



陈雪鸿 Xuehong Chen

高级工程师，国家工业信息安全发展研究中心保障技术所副所长
Senior Engineer, is the Deputy Director of Department of Security Technology

中国电机学会能源互联网专委会委员，中国能源研究会智能发电专委会委员，大学生网络安全尖峰训练营就业导师。网络空间安全领域从业经验25年，长期从事网络空间安全政策、标准、管理、技术的研究与实施等工作，先后牵头多项国家标准和国家发改委信息安全专项申报与建设工作。

Xuehong Chen, Senior Engineer, is the Deputy Director of Department of Security Technology, China Industry Control Systems Cyber Emergency Response Team, the member of the China Electrical Engineering Society Energy Internet Committee and China Energy Research Association Smart Power Generation Committee, and is also the employment instructor of college student cybersecurity training camp. She has 25 years' experience in cybersecurity and has engaged in the research and practice of cybersecurity policies, standards, management and technologies. Xuehong has led a number of national standards and cybersecurity projects of National Development and Reform Commission.



蔡先勇 Xianyong Cai

深圳奥联信息技术有限公司联合创始人，副总经理
V.P. and co-founder of Shenzhen Olym Information Security Technology Co., Ltd.

深圳奥联信息技术有限公司联合创始人，副总经理。长期从事国密算法应用相关工作，负责过信息安全专项、网络空间专项等多个重大安全项目的架构设计和建设部署等工作，参与了多个国家信息安全标准的编写，曾获中国电力行业创新奖、科学进步奖等。

V.P. and co-founder of Shenzhen Olym Information Security Technology Co., Ltd. He has engaged in Domestic Cryptographic Algorithms application and other related jobs. He has taking charge of many major security projects' architecture design and construction deployment, like information security projects, Cyberspace projects and other related projects, he has participated in the compilation works of national information security standards, won the China Electric Power Industry Innovation Award, Scientific Progress Award, etc



高振刚 Zhengang Gao

MPA中国联合体联席主席、雏菊机构专家委员会主席
北京西恩多纳信息技术有限公司 董事长

Co-Chairman of The Coalition of Handle Services – China ,
Chairman of the Daisy Financial's Experts Committee,
Chairman of Corporation for Handle Services in China(CHC)

高振刚，MPA中国联合体联席主席、北京西恩多纳信息技术有限公司董事长、数字对象体系架构应用技术
与标准促进组织（ATSD）理事兼执委会副主席、新互联网发展促进会会长、中国工业环保 促进会执行副
会长、雏菊机构专家委员会主席、《中国资管评论》主编、研究员等。1984年7月毕业于南京大学地球科学
系,获理学学士学位。1987年7月毕业于中国科技大学研究生院和国家地震局地质研究所，获理学硕士学位。
先后担任国务院发展研究中心咨询研究员、副研究员，山东省日 照市政府市长助理、副市长，中国工业经济
联合会信息委员会总干事、研究员等。兼任全国青联委员、中央 国家机关青联委员、国务院国资委高级职称
评审委员会委员、中国世界贸易组织研究会副秘书长、日本国环 境厅环境科学研究所客座研究员、中国管理
科学研究院教授、中国可持续发展研究会常务理事等。

Prof. Zhengang Gao, Co-director of the Coalition for Handle Services – China (CIC, CDI and CHC), CEO of the
Corporation for Handle Services in China(CHC) ,Board Member & deputy Chair of DOA Application Technology &
Standardization Development Organization (ATSD) Committee, President of the New Internet Development and
Promotion Foundation), Executive Vice President of the China Council for Industrial Environmental Protection
(CIEP) ,Chairman of the Export Committee of Daisy Financial Group LLC., Editor-in-chief of China Asset
Management Review. In July 1984 Zhengang Gao graduated with a Bachelor of Science from the Nanjing University
department of Earth Science.IN 1987 he graduated from the University of Science and Technology of China graduate
school and Institute of Geology, China Earthquake Administration, with a master's degree. Zhengang Gao has served
as a Development Research Center of the State Council Research Consultant and Research Associate, Shandong
Province Rizhao City Mayoral Assistant and Deputy Mayor, China Federation of Industrial Economics Information
Committee Director General. He is also a member of the State-owned Assets Supervision and Administration
Commission of the State Council Senior Titles Review Committee, Deputy Secretary General of China World Trade
Organization Research Association, Guest Research Fellow of the Japan Environment Agency Institute of
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李雨航 Yale Li

广州影子科技有限公司
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Guangzhou Yingzi Technology Co.,Ltd
Vice President of Institute of Digital Economics;
/Co-Founder & CSO of Yingzi Technology

李雨航，现任联合国世界丝路论坛数字经济研究院副院长，影子科技联合创始人/CSO，云安全联盟大中
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原华为首席网络安全专家，微软全球首席安全架构师，IBM全球服务首席技术架构师。曾兼美国华盛顿大学
博导，美国政府NIST大数据顾问，印尼总统安全顾问，早年曾从师欧洲核子中心诺贝尔物理奖获得者，也
是《云计算360度》，《微软360度》，《大数据革命》等书的主要作者之一。

Yale Li, Vice President of UNWSF Institute of Digital Economics, Co-Founder & CSO of Yingzi Technology ,
Chairman of Cloud Security Alliance Greater China Region (CSA GCR) , Executive Chairman of China Security
Alliance of Cloud and Emerging Technology Innovation (C-CSA), Chief Cloud Security Scientist & Fellow of the
Chinese Academy of Sciences,,Senior Fellow & Adjunct Professor at Xi'an Jiaotong University. Yale had been Chief
Cyber Security Technologist of Huawei and had been with Microsoft in US for 16 years as the Chief Security Architect
and China CISO. He came to Microsoft from IBM in Canada where he was the Chief Technology Architect.He was
also Ph.D. Supervisor at University of Washington. Yale had background in Physics as research assistant to CERN's
Nobel Prize and Rutherford Medal laureates. He has also authored several books and many articles,such as“Cloud
360: An In-depth Look at Cloud Era by Microsoft Experts”, "Microsoft 360 – Enterprise and Culture" , “Big Data:
Theory, Model, and Technology” and so on.



王金合 Jinhe Wang

淘金集团创始人、云品荟电子商务股份有限公司董事长
Founder of Taojin Group and Chairman of Yun Pin Hui E-commerce Company

王金合，淘金集团创始人、董事长、总裁，江苏省现代商务数据研究院院长，中国电子商务联盟副秘书长，江苏省国际服务外包企业协会副会长，云南、江苏、陕西、安徽、河南等多地电子商务发展顾问，2016年江苏省劳动模范，第11届“江苏青年五四奖章”获得者，“江苏省双创人才”、南通市“江海英才”、南通民营经济“三名”年度人物，荣选2015年江苏省“发现双创之星”、新泰市十大杰出青年，被共青团江苏省委聘为全省“青春导师”，2017年10月荣获创响江苏“江苏省大学生创业标兵”、最佳励志奖，2017年12月受邀荣登央视二套《创业英雄汇》节目，已先后为近50个县域政府提供电子商务综合解决方案。

Jinhe Wang, founder, chairman and president of the Tao Jin Group, president of the Jiangsu Modern Business Data Research Institute, Deputy Secretary-General of the China E-Commerce Alliance, Vice President of the Jiangsu International Service Outsourcing Enterprise Association, Consultant for E-Commerce Development in Yunnan, Jiangsu, Shaanxi, Anhui, Henan and other places, Model Worker of Jiangsu Province in 2016, 11th" Jiangsu Youth May 4 medal "winner", "Double Talent in Jiangsu Province", Nantong City "Jianghai Talent", Nantong Private Economy "Three" Person of the Year, rong2015 Jiangsu Province "Discovering Double-Created Star", Xintai City," the top ten outstanding young people, was appointed by the Communist Youth League of Jiangsu Province as the province's "youth mentor", in October 2017 won the creation of Jiangsu Province "Jiangsu University students entrepreneurship standard soldier", the best inspirational award, in December 2017 was invited to be awarded the second set of CCTV "Entrepreneurial Hero Hui" program, has been nearly 50 county governments to provide comprehensive e-commerce solutions。



吕涛 Tao Lu

四川智数宝科技有限公司总裁（兼执行董事长）
企业信息化ERP专家、移动互联网营销领域专家、
中欧国际学院在线分院院长
Sichan Zhishubao TechnoLogy Co.,Ltd.
President,Executive chairman

中国西部农（牧）业品牌孵化中心四川运营中心主任、四川大学计算机网络专业毕业，专注于企业信息化18年，擅长于移动互联网宣传营销，国内知名企业ERP实战导师，财税风控领域，拥有十几年专业经验。

ERP expert of enterprise informationization 、Expert in mobile internet marketing 、Dean of the online bruch of CEIBS、 Director of Sichuan Operation Center of China Western Agriculture (Shepherd) Brand Incubation Center 、Lu graduated from Sichuan University whose major was computer network . He has devoted himself to enterprise informationization for 18 years and specializes in mobile internet marketing. He is a well-known domestic ERP combat instructor and he also has more than ten years of professional experience in the field of Fiscal and Taxation.



黄伟 Wei Huang

国家工业信息安全发展研究中心（CIC）网络处副处长
Deputy Director of Section of Network Office, China
Industrial Control Systems Cyber Emergency Response Team

高级工程师，中国科学技术大学计算机应用专业硕士，清华大学MBA，从事工业互联网、DOA架构、MRO系统、区块链等方面的研究工作，主持过多个大型信息化系统的规划设计和系统建设工作，在信息化体系建设、平台架构、网络基础设施建设、技术融合应用等方面具有丰富经验。

Mr. Huang is specialized in Industrial Internet, DOA Architechture, MRO System, Block-chain Technology and etc. He has been in charge of many projects of large Information System Design and Construction. He is specifically having rich experience in Information System Construction, Platform Architecture, Network Insfrastructure and Technical Integration Application. He is holding the professional title of Senior Engineer.He graduated from University of Science and Technoogy of China with the Master of Science in Applied Computer Tehcnology. He earned the MBA degree from Tsinghua University.



Vicknesh Suppramaniam

国际电信联盟（ITU）顾问
ITU Consultant

Vicknesh Suppramaniam, 解决方案架构师, 自2011年以来一直参与数字对象体系架构工作, 并与国际电联合作, 计划、设计、开发和实施使用数字对象体系架构打击假冒移动设备、食品和医药的解决方案。他主要开发工具和平台, 以降低不熟悉DOA的开发人员在应用程序和解决方案中的技术进入壁垒。除此之外, 他还为卢旺达进行了DOA培训, 介绍并帮助开发人员使用DOA。目前, 他正与HandleTecSdn.Bhd（私人实体）合作, 在其他领域进一步探索和开发DOA解决方案。

Vicknesh Suppramaniam, a Solution Architect for Has been involved in Digital Object Architecture since 2011 and has worked with the ITU to plan, design, develop and implement solutions to combat counterfeit mobile devices, food and medicine using Digital Object Architecture. He primarily develops tools and platforms to lower the barrier of entry for developers unfamiliar with DOA to begin using this technology within their own applications and solutions. In addition to this, he has conducted DOA training for Rwanda to introduce and assist their developers to get started with DOA. Currently, he is engaged with HandleTec Sdn. Bhd., a private entity to further explore and develop DOA solutions in other areas.



高 澜 Lan Gao

北京中数创新科技股份有限公司基础平台部 经理
Content Digital Innovation Technology Co.,Ltd
Primary Platform Manager

高澜 北京中数创新科技股份有限公司（CDI）基础平台部经理。在澳大利亚悉尼出生和长大, 毕业于悉尼大学, 航空（空间）工程学士。在Molonglo Synthesis Radio Telescope担任网站工程师, 后迁居北京, 在CDI工作开发网络应用程序。

Lan Gao is the Primary Internet Platform Manager for Content Digital Innovation (CDI). Originally born and raised in Sydney, Australia, Lan graduated from the University of Sydney with a Bachelors of Engineering, Aeronautical (Space). After working at the Molonglo Synthesis Radio Telescope as a Site Engineer Lan moved to Beijing to work on web app development with CDI.



Christophe Blanchi

DONA基金会执行理事
DONA Foundation Executive Director

Christophe Blanchi是DONA基金会的执行理事。他负责监督全球Handle注册的管理和运营, 以及促进数字对象体系架构及其相关技术的采用, 如Handle系统和DOIP。

Christophe Blanchi is the Executive Director of the DONA™ Foundation. He is responsible for overseeing the management and operations of the Global Handle Registry™ as well as facilitating the adoption of Digital Object Architecture and its related technologies such as the Handle System™ and DOIP around the world.



王晓龙 Xiaolong Wang

北京中数创新科技股份有限公司
高级软件开发工程师、高级项目经理
Content Digital Innovation Technology Co.,Ltd
Senior Software Development Engineer,
Senior Project Manager

现任北京中数创新科技股份有限公司高级软件开发工程师及高级项目经理。长期负责组织Handle系统及相关应用的技术研发。针对不同用户群体，提供了大量的基于Handle体系架构的解决方案，有效解决了用户在标识解析应用方面的难题。

Xiaolong Wang is currently a Senior Software Development Engineer and Senior Project Manager at Content Digital Innovation Technology Co.,Ltd. He is responsible for the development of Handle system and Handle based applications. He has worked on many different use cases for the Handle architecture to provide solutions for identification and resolution applications.

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