信息科技建设
Building IT Framework

2021年，进出口银行致力于全面提升信息科技水平，决战IT蓝图系统建设，倾力构建新IT基础设施，着力提升数据治理能力，加快推进构建网络安全防护体系，为本行生产运转和业务发展提供有力保障。

决战IT系统建设，绘制IT蓝图。 2021年，本行按照"学习借鉴、以我为主，科学设计、量身打造，联合开发、自主可控"原则实施的企业级核心系统数字化转型集成工程（IT蓝图系统一期建设项目）分两个批次全部成功投产上线。其中，第一批次一次性同步投产189个物理子系统，第二批次投产14个系统，并对105个系统进行了功能扩展与优化，系统功能达到了业内先进水平。在系统建设中，本行把自身业务特色融入其中，系统上线后监管报表指标机采率大幅提升至将近90%，达到业内先进水平。建立以七层级十平台为特征、采用面向服务和事件驱动的IT架构框架，形成组件化、平台化企业级IT架构体系；建立了全行统一参数管理体系，实现了企业级产品工厂、业务一致性自动核对、报表用数灵活定制、决策支持精细管理；推动业务数字化转型，打造"慧聚口行"、支持交易与核算分离、零级清算体系、多维度总账体系，开辟网上银行、手机APP、银企直联电子渠道。实现了企业级应用架构布局，打造符合现代政策性银行组织、经营、管理架构的企业级政策性银行IT系统。2021年，本行企业级核心系统数字化转型集成工程荣获人民银行2020年度金融科技发展奖一等奖。

构建新IT基础设施，建成投产稻香湖数据中心。 稻香湖数据中心建设自启动以来，历经规划、设计、实施三个阶段，通过高效管理、科学规划、有序实施，顺利完成了数据中心机房建设、IT基础设施集成、ECC及运维场地部署、运维支撑体系建设等各项工作，达到了行业领先水平。该数据中心于2021年内正式投产运行，有效保障了IT蓝图系统的安全稳定运行，满足了本行信息系统基础设施需要。该数据中心对标数字化运维新趋势、赋能业务发展新目标，为全行信息化运行和数据处理提供了坚实保障。

加强数据治理与安全防护，夯实数字化转型基础支撑。 以IT蓝图建设为契机，夯实数据治理基础，优化数据服务体系，增强数据应用，发挥数据价值。谋划数据治理"十四五"期间重点工作，构建数字化业务模式，积极发挥数据对经营管理、客户服务、产品应用及满足监管要求的支撑作用。

推进企业级网络安全防护体系建设，提升网络防御防控和应急处突能力。 全面加强网络安全保障体系和能力建设，制定《网络安全防护三年规划（2021-2023）》，以实战化、体系化、常态化为建设思路，布局动态防御、主动防御、纵深防御、精准防护、整体防控、联防联控等措施，逐步提升网络安全威胁发现、监测预警、应急指挥、攻击溯源等四个能力。在稻香湖数据中心部署态势感知、高级持续威胁、抗DDOS、IPS、WAF等安全防护设备，构建防毒墙、网络准入、威胁情报、服务器风控平台、态势感知分行探针、异构WAF等安全系统，实施蜜罐、G01等防护软件系统，优化增强安全防护系统策略，提高威胁感知、攻击诱捕、攻击阻断等总体安全监控和威胁阻断能力。

In 2021, the Bank was committed to enhancing IT application and took the final step in building an IT blueprint. To ensure its business operation and development, the Bank strove to build a new IT infrastructure, improve data governance capabilities, and accelerate the construction of a network security protection system.

The Bank took the final step in building an IT blueprint. In 2021, the Bank witnessed the successful launching of its digital transformation and integration project of the enterprise-level core system (the phase one project in building IT infrastructure) in two batches, which was well designed, tailor-made, independent and controllable. 189 physical subsystems were simultaneously put into operation in the first version and 14 subsystems were launched in the second version. The system function reached an advanced level in the banking industry with functions of 105 subsystems being extended and optimized. While building the system, the Bank integrated business characteristics into it. After the launching of the system, the collection rate of regulatory report indicators increased to nearly 90%, also reaching advanced standards in the industry. The Bank established a service-oriented and event-driven IT architecture characterized by seven levels and ten platforms, and formed a modularized and platformized IT architecture at enterprise level. It established a unified parameter management system for the whole bank, which realized enterprise-level product settings, automatic check of accounting consistency, flexible customization of data report and fine decision support. To promote the digital transformation of its businesses, the Bank built Smarthub CEXIM (SHC), enabling the separation of transaction from accounting and supporting zero-level clearing system and multi-dimension general ledger system. It provided digital channels including online banking, app on mobile phone, and bank-corporate connect. The Bank realized the layout of enterprise architecture, and made its own enterprise-level IT system which was in tune with the organization, operation and management architectures of a modern policy bank. In 2021, the Bank won the first prize in 2020 Award for Fintech Development awarded by PBC with its digital transformation and integration project of the enterprise-level core system.

The Bank constructed new IT infrastructure and put Daoxiang Lake Data Center into operation. Since it was launched, the project of Daoxiang Lake Data Center had gone through three stages: planning, designing and implementation. The Bank completed the construction of the data center's computer room, IT infrastructure integration, deployment of ECC and operation and maintenance sites, as well as its operation and maintenance support system. These goals were achieved through efficient management, scientific planning and orderly implementation, making it a leading data center in the banking industry. The data center went into operation in 2021, which ensured the safe and stable operation of the IT system and satisfied the Bank's requirement of an information infrastructure. The Bank followed the new trend of digital operation and empowered itself to achieve new development goals, providing a solid safeguard for information operation and data processing throughout the bank.

The Bank strengthened data governance and security protection, consolidating the foundation of digital transformation. The Bank took IT development as an opportunity to solidify the foundation for data governance, optimize data services, enhance data application, and make the most of data value. In pursuit of major goals of its 14th Five-Year Plan in data governance, the Bank was committed to building digital business modules. In so doing, it gave full play to the supporting role of data in business management, customer service, product application, and in meeting regulatory requirements.

The Bank improved enterprise-level network security protection system and enhanced network safeguarding and emergency response capabilities. Comprehensive measures were taken to strengthen security of the network and build relevant capacity. The Three-Year Plan for Network Security Protection (2021-2023) was formulated. Bearing in mind the principle of practical, systemic and day-to-day routine protection, the Bank built functions such as dynamic, active and in-depth defense, precise protection, comprehensive and joint prevention and control into the system. It deployed situation awareness, defense against advanced and persistent threat, DDOS-resistant, IPS, WAF and other security protection devices in Daoxiang Lake Data Center. The Bank also introduced anti-virus software and network access control, threat intelligence, server risk control platforms, as well as situation awareness function at business branch level and heterogeneous WAF. Protective softwares including Honeypot and G01 were launched to improve security strategies. With those approaches, the Bank improved its capability in security monitoring and threat blocking, which involved threat detection, attack trapping and blocking.