

Development Plan for Informatization of Accounting Sector in China (2016 - 2020)

(Released by CICPA on December 15, 2016)

The Development Plan for Informatization of Accounting Sector in China (2016 - 2020) (hereinafter referred to as the Plan) is formulated to systematically implement the strategy of informatization of accounting sector in China, seize opportunities brought by the “internet plus” trend, innovate and integrate the application of information technologies (hereinafter referred to as the IT) and provide the IT platform to leapfrog the accounting sector to greater heights.

I Progress and status

During the 12th “Five-Year Plan”, the IT development has been placed great importance and been defined as a key development strategy. In 2011, the Chinese Institute of Certified Public Accountants (hereinafter referred to as the CICPA) published the Overall Plan for Informatization of Chinese Accounting sector and supplementary publications to guide the IT development, which has generated remarkable achievements.

IT applications have improved the profession management and service. The Profession Management Information System (phase 2) has been completed, realizing: the implementation of the computer-based CPA exam system, upgrade of CICPA’s network security, operation of a High Definition Videoconference System that facilitates video conferences, remote learning and training programs, and central monitoring of CPA exams. The industry integrity monitoring system has also been enhanced to promote greater public confidence in the accounting sector.

The adoption of IT applications has increased amongst accounting firms. Major software providers have been encouraged to develop auditing applications for large-scale accounting firms (hereinafter referred to as the firm) and deploy them in interested firms. A committee to improve auditing software for SMPs has been established to improve the quality of such software and assisting tools that are fit for their practices. An on-line database that houses relevant laws and regulations and economic data has been established to support risk-oriented auditing. An increasing number of firms have placed IT as one of the key contributors to their practice success.

However, there is still much room for improvement amongst firms. Firstly, there are still a number of firms not placing IT as a key driver of their practice, while some others are not investing enough in IT and fulfilling their subject responsibilities. Secondly, some firms do not have IT capabilities that match their clients’ IT environment. Thirdly, there is a lack of integration in interconnection and interworking of IT systems in some firms, resulting in the phenomenon of “information isolated island”. Last but not least, some integrated IT systems have not been properly utilized, while some others require a fair degree of functional integration.

Presently, IT is being applied in a wide spectrum of activities in society. The Modern IT with internet, cloud computing and big data at the core is being applied in many economic and social areas, and is becoming a key driver to transforming commercial and business practices. IT is moving towards connecting information and processes, integrating platforms, cross-border collaboration and artificial intelligence. Since the 18th National Congress of Communist Party of China (hereinafter referred to as the CPC), IT development has been elevated to the level of a national strategy. It is affirmed that informatization will drive the economic and social development during the 13th “Five-Year Plan” by expanding network economy through the big data, “internet plus” action plan and “national rejuvenation through internet” strategies, etc. Consequently, the accounting sector is urgently in need of embracing IT, transforming audit concept, methodology and techniques and innovating the management and service model, so as to achieve interconnection and information and resource sharing.

II Guiding philosophies, basic principles and overall objectives

(1) Guiding philosophies

Based on the development concepts that is innovation-driven, coordinated, green, oriented towards global progress and beneficial to all, according to the requirements of the 18th CPC National Congress and successive sessions and in line with deployment of Central Government on network and informatization, new development opportunities must be grasped to enhance the regulation, management and supervision of the accounting sector and the informatization of institutes of CPAs and firms to a deeper degree and at a higher level through internet, cloud computing, big data and other IT innovations, so as to drive the modernization of profession services with informatization, lay a modern technical foundation for the sustainable development and contribute to national constructions and integrity-building.

(2) Basic principles

Centralized planning and coordinated implementation. To guarantee a scientific overall structure design, logic functions and optimal resource allocation, a centralized top-down planning approach is adopted to master new IT trends and provide classified guidance for the application and coordinated development by entities in all categories and at different levels.

Demand-driven in-depth applications. Based on demands deriving from profession management and services, operations of institutes of CPAs and audit practices and internal management of firms, the orientation and priority of informatization will be cleared. The role of market mechanism and IT should be played to improve the competitiveness of firms, inter-connection and information sharing and create a new pattern for intelligent application of informatization.

Innovation-led integration. A good grasp of IT trends and clients’ needs is essential to promoting an integrated, open and inclusive information sharing platform. The IT will become the new development momentums and pillars through technical, applications and service innovations.

Clearly defined roles and safe environment. The subject responsibilities of different categories at various levels in all categories and at different levels are clearly defined and enacted. Informatization requires a clear construction, application and maintenance system to ensure the proper technical support and monitoring and safety of network, systems, applications, data and information.

(3) Overall objectives

The accounting sector will be highly IT equipped with sound IT infrastructures as the basis, data resources as the core and proper technical support and rigorous safety management as the guarantee that provide an inter-connected, mobile and intelligent IT framework.

Specifically, within five years, the objectives are to: enhance the informatization framework and establish its technical standards and data and data exchange standards to form standardized system to ensure inter-connection and information sharing among systems; carry out a comprehensive overhaul of the Profession Management Information System to construct a seamless OA system and an information sharing database for intelligent and modern profession management and services; firms will deliver audit services and manage internal affairs through cloud technologies, making achievements both in IT and data technologies.

III. Key tasks

In congruent with the “internet plus” initiative, based on new technologies of inter-connection, data applications and information sharing, network and data security, internet application cloud computing and big data technologies will be emphasized to enhance the level of informatization at institutes of CPAs at all levels and firms.

(1) Firming up informatization fundamentals

Informatizing calls for an open and optimized framework and advanced and compatible technical standards and uniform data standards to resolve the poor compatibility and lagged inter-connection among systems constructed in different time by entities of different categories at various levels.

(i) Optimizing informatization framework

The informatization framework is an overall description of the organizational structure, processes and technologies, a plan that integrates advanced technologies and optimizes enhanced processes and a bridge that links the strategy of informatization to business strategies. In accordance with *the Overall Plan for Informatization of Chinese Accountancy Profession*, institutes of CPAs and firms will, based on their own developing objectives, match their informatization strategies to respective business objectives from a strategic perspective, optimize the structured, horizontally integrate internal businesses and vertically unify external communications of major entities of all categories and at different levels and finally construct a three-dimensional IT structure.

(ii) Establishing technical standards of informatization

To realize data sharing and collaboration amongst IT systems and embed green concept, based on requirements of IT structures, application scope of information systems, types and quantities of users and data sources, forward looking technical standards that take account of mobile interconnection, cloud computing and big data will be established to support the development, integration and consolidation of IT systems, ensure the expandability, compatibility and inter-connection among IT systems.

(iii) Data governance

To realize opened sharing of data, data governance will be made in fields of capturing, processing, using and sharing data. Classified and categorized data standards recorded and managed electronically and data exchange standards among different systems will be established to form a standardized system with distinct levels and reasonable structures. In accordance with such a system and the requirements on data sharing and statistic decisions, the entities of different categories at various levels will filter and improve data information to establish an information sharing database on basis of data safety.

(2) Establishing a management and service IT platform

Informatizing the management and service functions calls for an integration with IT systems that evolves towards mobile computing and big data factors to completely upgrade the Profession Management Information System, develop a cooperative OA system, safeguard network information security and construct an intelligent platform.

(i) Overhauling Profession Management Information System

The management information system will achieve unification of coding, authorized management, synchronized filing and opening-up and sharing and push profession management and services to transit from pure business management support towards both business management and decision-making support. With supervising and servicing members as the principal driver, online and offline functions will be integrated to seamlessly manage the whole career cycle from exam candidates to member (practicing or non-practicing) registration. By integration and improvement of service processes and functions, convenient and rapid online services will be provided for networked management, informatized services and standardized processes.

Based on the inter-connection, informatization framework and technical and data standards, the Profession Management Information System will act as the hub of collecting and publicly sharing data flows by connecting the collaborative OA system and IT systems of firms and authorities. The design, development, testing and operation of the management information system will be led by the CICPA and supported by local institutes of CPAs and firms.

(ii) Establishing a collaborative OA system

A collaborative OA system will be built to enable the mobile and digitalized office, data sharing and decision making support. The system will strengthen knowledge sharing and the coordination of personnel, finance and materials and eliminate the limit of space and time to improve efficiency in internal management and decision making through online office and approval functions.

The collaborative OA system will be connected to the management information system reserve interfaces for related systems. The CICPA will lead the design and construction links and be supported by local institutes of CPAs in view of their own demands.

(iii) Improving profession information service mechanism

A database of relevant laws and regulations and one of economic data will be improved by centralized procurement and regular updating to enhance the accuracy and intelligence of search tools. Analysis and reporting tools will be developed, functions and mobile application will be simplified and linkage of databases to various databases will be explored to support risk-based audit decision making and form basic knowledge platform.

To support firms effectively, a knowledge database that provides information on risk control, audit procedures, and audit guidance etc. will be built. The CICPA will lead the initiative and be supported by local institutes of CPAs and firms.

A industry integrity service system will be established. Through cloud computing, data and information about members and firms will be collected, stored and provided to the public through online facilities. The information consists of, amongst others, basic information about members, practising history, annual returns etc. to publicize information on integrity and authenticity of service reports. A mechanism of customer evaluation and feedback will also be explored to enhance the public credibility.

(3) Building or enhancing firms' IT systems

Firms will informatize internal management and auditing practices by applying the internet, cloud computing and big data technologies in accordance with the technical standards of informatization framework and requirements on data governance. Firms will play a subject role and CICPA will play a strategic leading and policy guidance role to develop a software market and supply software products.

(i) Constructing an intelligent cloud platform for auditing practice

Firms will build an intelligent cloud platform that covers engagement management, project management, independence management, follow-up management and client management etc. The platform will be linked to the Profession Management Information System on basis of data exchange standards. It will integrate IT innovation results, improve capabilities of data extracting, and eliminate the data interface bottlenecks with clients' information systems. Firms will acquire and implement necessary hardware,

software, network and safety sources to effectively collect, store, integrate and share huge amounts of data and information by cloud computing (IT source service model). Firms will establish quality control and risk warning mechanisms to control their audit quality before, amid and after assignments, explore timely and follow-up audit models for customers and identify frauds and errors in a timely manner. Firms will also develop data analytic tools to advance gross data testing and improve identification, assessment and handling of material misstatement and fraud risks. CPAs will be encouraged to achieve mobile office and remote office functions and improve practice quality and efficiency.

Firms will construct intelligent audit systems in accordance with their practice requirements in an orderly way. Those who are members of international accounting networks could use the intelligent audit platforms of the networks on basis of localization and security; big accounting firms will improve intelligent audit practices; SMPs can acquire supplementary systems for intelligent audits or lease public cloud platforms with intelligent audit functions on market.

(ii) Construct intelligent internal management information systems

Based on the concept of “network-enabled, collaborative, intelligent” design, firms will build and consolidate their internal management information systems to cover such key aspects as finance, human resource, continuing professional development, communications, asset management, administration and knowledge sharing. The internal management information systems will cohesively manage the head office and branches and various departments, enable distant and mobile office operation and link and share information with the OA systems of institutes of CPAs, so as to better share information, support decision making and enhance internal governance.

According to their own practice requirements, firms can adopt the universal internal management systems of their international networks, or develop their own systems, or acquire established internal management systems on market. On the premise of proper system functions, qualified firms could adopt cloud computing technology to establish an integrated cloud platform for both internal management and audit through either building their cloud computer facility or leasing it from established cloud computing providers.

(iii) Improving infrastructure and secure information

When improving infrastructures, firms must strictly comply with the national infrastructure standards for network and computer environment to ensure the stable and safe operations of IT systems at a high level, including the main computers, storage equipment, network equipment and other equipment in the computer rooms and wiring.

Firms must improve their information security management ability, especially in the era of mobile networking, cloud computing and big data. In accordance with the national information security rules and regulations as well as their practice requirements, firms will improve their network and information security infrastructures, improve the management system of information collection, processing storage

and transmission, the operation and maintenance management system, the fore-warning and prevention system for network information security incidents and set up emergency response mechanisms for network information security, so as to lay a sound foundation for informatization.

(4) Strengthen data application

Data has become a strategic economic and social resource. As the accounting sector improves its informatization capabilities relating to establishment of infrastructure and information management systems, it will increasingly move its focus to both IT and data technologies. To that extent, the accounting sector will move to establishing data analytic standards.

Informatization will enhance CPAs' IT and data application capabilities, thus speeding up the training of data analytic talents. In areas of correlation analysis, risk identification, prevention and forecast, client analysis, profession management and service and decision making support relating to audit data, researches and practice on big data applications on basis of cloud computing practices will be carried out to improve data mining, analysis and applications.

IV. Safeguard measures

(1) Strengthening organizational leadership

The Profession IT System Construction Committee, the Committee for Use of Audit Software in Large Firms and the Committee for Improvement of Audit Software in SMPs will exercise their coordination, leading and technical guidance roles to establish a working mechanism with scientific decision-making, efficient operation and clarified responsibilities. The entities of different categories at various levels will strengthen coordination and interactions. The firms as major executors will be brought to full play.

(2) Increasing funding commitment

The CICPA and local institutes of CPAs will continue to work to refine its policy, enhance its annual budget, and increase incentives to firms and under-developed central and western China. Firms will continue to increase their investments, especially in areas of infrastructures, application software systems and training of multi-disciplinary talents.

(3) Accelerating talent training

The CICPA and local institutes of CPAs will devote greater resources to profession IT talent training and increase the proportion of IT knowledge in fields of pre-qualification education, continuing profession development and leading-talents training; they will also strengthen IT knowledge training of their staff and facilitate leading-talents to take on a leadership role in this respect. Firms will reinforce training and introduction of IT talents, attach importance to the training and recruitment of multi-disciplinary talents who are conversant with financial audit, audit on information system and big data analysis techniques, so as to satisfy the demands of new talents in the environment of informatization.

(4) Establishing a performance evaluation system

A scientific and feasible performance evaluation system for informatization will be established based on the informatization governance standards to clearly define the relationships and subject responsibilities of entities of different categories at various levels. The top level design of the informatization framework and related projects will form the basis of effective risk management control and performance evaluation of the whole life cycle of informatization, enhance supervision on implementation and give full play to the guiding role of the performance evaluation. Greater weights will be given to the informatization achievements of firms in the comprehensive evaluation system of accounting sector.

(5) Emphasizing implementation of Plan

All entities of different categories at various levels will play their respective roles in the cohesive implementation of the Plan. Each entity will, in accordance with its defined role and practice requirements, establish its own plan, break down tasks, clarify schedules and clear responsibilities. An annual summary and assessment of annual tasks will be conducted at the end of every year. A problem-oriented principle will be adopted to develop powerful measures and strengthen supervision and assessment of the Plan to ensure an orderly advancement of the tasks.

(CICPA organized translation of the Plan into English. The Chinese text is the official version and this English text is for reference only.)