Tax Administration Product Portfolio

Product No.4

Multiple Channels for Free Choice Make Tax Filing within Easy Reach

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1. Overview of Multi-channel Tax Filing

1.1 Concept of Multi-channel Tax Filing

Multi-channel tax filing refers to the integration of online and offline resources by tax authorities, providing taxpayers with diversified, convenient, and barrier-free channels for tax filing. Its core lies in breaking time, space, and technological constraints, enabling taxpayers to freely choose tax filing methods such as on-site mailed, or electronic filing (including mobile) to fulfill their obligations. This approach achieves a "anytime, anywhere, anyway" filing experience. Its essence lies in reducing tax compliance costs while enhancing tax administration efficiency through technological empowerment and service innovation.

1.2 Why Should Tax Authorities Provide Multi-channel for Tax Filing?

From the taxpayers' perspective, the core value of tax authorities providing multi-channel tax filing lies in significantly reducing tax compliance costs and enhancing the right to independent choice. Multi-channel tax filing removes barriers of temporal and spatial constraints, enabling taxpayers to choose the most convenient way to fulfill their obligations based on their own circumstances. The diversified channels are designed with consideration for different groups' capabilities and needs, achieving inclusive accessibility. Moreover, multi-channel tax filing has significantly reduced the economic burden on taxpayers in fulfilling their obligations, allowing taxpayers to allocate more resources to the core business activities rather than tedious tax filing procedures. Therefore, the convenient, inclusive and cost-effective multi-channel services empower taxpayers with greater autonomy and a sense of control, enabling them to fulfill their legal obligations easily and efficiently.

From the perspective of tax authorities, the core value of providing multi-channel tax filing lies in comprehensively enhancing tax administration efficiency and optimizing tax governance capabilities. Multi-channel tax filing has significantly reduced collection and management costs while freeing up human resources, enabling tax authorities to redirect limited resources to precise taxpayer serving and tax audits areas. At the same time, electronic channel has greatly improved data quality and risk management and control capabilities. In addition, taxpayer behavior data has become a key basis for policy optimization. Therefore, the multi-channel system drives tax authorities to transform from manual operations to intelligent governance, continuously improving the modernization level of tax governance while reducing social collection and management costs.

2. The Development of Multi-channel Tax Filing

2.1 Manual Operation Stage

As the starting point of multi-channel tax filing, the core feature of the manual operation phase was the establishment of basic filing channels with paper-based forms, relying entirely on the physical transmission of paper forms and manual processing to achieve tax collection interaction. This stage only supported two methods: on-site submission or by mail. Taxpayers had to strictly comply with the time and location rules of tax authorities. The tax filing materials were completely processed manually, leading to high error rates in data and lengthy processing cycles. Its essence was a management-oriented model—taxpayers passively adapted to the requirements of tax administration, bearing significant

time-space costs and operational burdens, while tax authorities faced the challenges of efficiency bottlenecks and resource constraints. This stage laid the physical foundation for filing channels and also highlighted the contradiction between the traditional collection and management model of one-way management and the needs of taxpayers.

2.2 Technology-driven Stage

The technology-driven phase marked the electronic transformation of multi-channel tax filing, with core breakthroughs in communication technologies enabling electronic filing channel, transforming from a single paper-based form to diverse electronic forms, which significantly improved efficiency and reduced social costs. Supported by information technologies, this phase established new channels such as mobile app filing, online platforms, and self-service terminals, which greatly shortened the processing time of filings. Digitalization made filing data machine-readable, significantly reducing the error rate of manual entry and improving the processing efficiency of tax authorities. However, this stage exposed a significant digital divide issue—the electronic filing rate varied drastically between developed and developing countries (regions). Meanwhile, various electronic channels were isolated from each other, forming "system silos", and taxpayers still had to perform repetitive operations. For example, enterprises in one country (region) had to log into 5 separate platforms to complete filings for different tax types, highlighting the system deficiencies. In essence, this was a primary transformation from physical transmission to digital transmission, laying the foundation for subsequent intelligent systems.

2.3 Intelligent Integration Stage

The intelligent integration stage has realized the transition of multi-channel tax filing from electronic to intelligent and ecosystem-driven. Its core feature is the realization of full-channel data coordination and seamless scenario connection through technological integration and ecological synergy. Based on the in-depth popularization of mobile terminals, this stage breaks through physical and digital boundaries, embedding declaration scenarios into high-frequency nodes of social life. The data hub architecture eliminates channel silos, enabling real-time cross-platform information synchronization and the integration of historical records. Artificial intelligence (AI) and blockchain technologies drive the automation of declaration processes, transforming from pre-filled form to "tax calculation upon transaction" reforms. Inter-departmental collaboration mechanisms have incorporated social resources such as banks and payment platforms into the service system, forming a socialized tax handling network. Additionally, the global interconnection framework promotes mutual recognition of cross-border filing rules, establishing a multilateral collaborative governance model.

Ultimately, technological empowerment has upgraded from the tool level to the ecological level, driving tax declaration from "multiple options" to "seamless and direct access". It has essentially reshaped the taxpayer experiences, while improving tax administration efficiency.

3. Guidelines for the Development Stages of Multi-channel Tax Filing

3.1 Stage A: Basic Capacity Building (Applicable to the Initial Stage of National Digital Collection and Management)

The core task of this stage is to build a main channel for electronic tax filing and realize the systematic migration of high-frequency tax filing from offline to online.

3.1.1 Objective Level

The top priority is to develop a standard web-based tax filing platform, focusing on the basic form filling and submission functions for core taxes such as Value-Added Tax and Corporate Income Tax, ensuring that taxpayers can complete independent online tax filing through a standardized interface. The platform needs to have basic data verification, electronic signature support, and tax filing status enquiry capabilities to provide minimum viable product support for digital tax filing.

3.1.2 Implementation Path

In optimizing traditional channels, it is necessary to promote the electronic transformation of paper-based processes. By designing structured mail-in tax filing forms, deploying supporting optical character recognition systems to handle data conversion from paper forms, and simultaneously equipping administrative service centers with simple self-service tax filing terminals, a hybrid service network featuring "online as the mainstay and offline as a fallback" will be formed. This ensures that basic tax filing services are accessible to remote areas and digitally vulnerable groups.

3.1.3 Data Sharing

The construction of a data ecosystem is the cornerstone of this transformation. Priority should be given to unblocking the one-way interface between the business registration system and the tax registration database, enabling the automatic synchronization of enterprise establishment information to tax authorities, and promoting "zero-documentation" for tax registration of newly established taxpayers. Simultaneously, a basic identity information database for taxpayers should be established, aggregating key fields such as the taxpayer identification number and unified social credit code, legal representative, and business address, so as to provide identity verification support for the pre-filling of subsequent filing data.

3.1.4 Supporting Mechanisms

Capability advancement requires matching institutional guarantees. It is necessary to formulate the code of practice for electronic tax filing to clarify the legal effect of digital filing, revise the tax administration regulations to add rules for electronic form archiving, and conduct supporting training for grass-roots tax personnel on system operations, thereby establishing an organizational framework to digital transformation.

3.1.5 Implementation Outcomes

The primary objectives of this phase are to expand the coverage rate of web-based filing for major taxes, reduce the processing time for paper forms and improve filing efficiency. By consolidating the three pillars of channel infrastructure, data foundation, and institutional support, it anchors the starting line for intelligent upgrading. Meanwhile, the transitional compatibility of paper-based channels is retained to ensure inclusive implementation.

3.2 Stage B: Intelligent Upgrading (Applicable to Countries / Regions with a Medium Level of Digitalization)

The core task of this stage is to promote the upgrading of tax filing from basic electronization to intelligent automation through technological empowerment and service reconstruction, and to build a modern filing system characterized by data-driven and scenario adaptation.

3.2.1 Objective Level

The objective is to significantly reduce tax compliance costs and social losses, improve the online rate of high-frequency tax filing, and reduce the average time of a single taxpayer filing.

3.2.2 Technical Implementation

Technological upgrading focuses on two pillars: omni-channel mobile coverage and intelligent pre-filling.The national (regional) tax app shall integrate full-process functions including tax filing, payment, and enquiry, and embed lightweight access points in social media to expand the reach of services. The intelligent pre-filling system, relying on cross-departmental data sharing mechanisms (if applicable), automatically captures data such as social security payments and electronic invoices to generate pre-filled tax returns. In simultaneously incorporates a real-time risk verification engine to instant pop-up alerts for abnormal data, guiding taxpayers to make self-corrections. Innovation in service models emphasizes scenario-based adaptation and cross-border collaboration capabilities. In China, for small and medium-sized enterprises, a "simplified confirmation-based filing" is launched to automatically match preferential tax policies; and for freelancers, a mobile "quick channel for per-transaction income" is developed, supporting automatic tax calculation. For cross-border filing, it is necessary to connect with internationally accepted data exchange standards to realize automatic aggregation of overseas income information, and build a multilingual interface to lower the threshold for cross-border operations.

3.2.3 Supporting System

Institutional guarantees should be updated simultaneously, focusing on revising laws and regulations related to electronic tax filing, clarifying the legal validity of pre-filled forms and taxpayers' responsibilities for correction. Meanwhile, an annual algorithm audit mechanism should be established to review the fairness and compliance of pre-filling logic and risk models.

3.2.4 Implementation Outcomes

Through the three-dimensional linkage of technology, services, and institutional frameworks, key indicators such as mobile tax filing adoption rate, pre-filled form acceptance rate, and coverage of scenario-based modules will be significantly improved. This will achieve a qualitative transformation from "passive filing" to "active service" laying an intelligent foundation for ecological collaboration in the global era of Tax Administration 3.0.

3.3 Stage C: Ecological Integration (Applicable to Countries / Regions with Mature Digitalization)

The task of this stage is to build a tax ecosystem of "zero-touch filing", realizing accurate tax calculation and automatic compliance without any operation by taxpayers through the integration of global data and cross-border collaboration.

3.3.1 Objective Level

The objective is to break down the boundaries of the tax system, promoting seamless direct connection between third-party ecosystems such as Enterprise Resource Planning (ERP) systems, e-commerce platforms, and payment systems with tax authorities. This enables real-time synchronization of transaction flows, capital flows, and invoice flows to generate tax calculation bases, allowing taxpayers to complete filing with only a final confirmation.

3.3.2 Technical Implementation

It can rely on methods such as blockchain-based evidence storage to technically ensure data immutability, and deploy AI dynamic risk control models to scan in real-time for cross-border tax evasion and complex fraudulent behaviors. The service dimension has fully shifted to scenario-based zero-touch services: providing Application Programming Interface embedded tax collection tools for the platform economy to realize real-time tax deduction during merchant settlements; building lifelong tax files for individuals, which can automatically trigger preferential tax declarations based on events (such as house purchases, retirement, etc.).

3.3.3 Supporting Mechanisms

In terms of institutional innovation, the focus is on a global collaboration framework, taking the lead in establishing cross-border filing mutual recognition agreements and unifying digital currency tax payment standards. The governance system has been upgraded to a "co-creation" model, inviting enterprises, platforms, and intermediary institutions to jointly build a repository of tax administration rules. Ultimately, this will enable the maximum degree of zero-touch processing for high-frequency businesses, significantly shorten the cycle for resolving cross-border tax disputes, and reduce the compliance costs of taxpayers. This will elevate tax administration from technical empowerment to ecological reconstruction, establishing a new paradigm of "silent compliance" in global digital governance.

4. Typical Cases of Multi-channel Tax Filing

What are the mature and innovatively formatted multi-channel tax filing cases internationally? How did these models evolve into maturity, and what are the useful experiences and practices ? This section shows several typical cases.

4.1 China A New Electronic Tax Bureau with Unified National Standards

The State Taxation Administration of China has driven the development of a nationally standardized digital tax bureau system, leveraging big data analytics to achieve digital transformation and intelligent upgrades in tax services. This system delivers scenario-based efficiency improvements across all processes while enabling cross-regional collaboration, significantly enhancing tax compliance convenience. As the core achievement of tax digital transformation, the new E-tax China breaks down data silos, strengthens data-driven tax administration, and provides critical support for optimizing the tax business environment and serving high-quality economic development.

4.2 China Individual Income Tax Annual Settlement and Individual Income Tax App

In order to improve the tax handling efficiency and tax compliance of individuals, we have successfully launched a

mobile application, the Individual Income Tax App, by leveraging cloud computing, big data, and mobile Internet technologies. Since its launch at the end of 2018, this app has now had hundreds of millions of registered users and has become one of the largest government service applications in China.

The Individual Income Tax App mainly supports the handling of tax-related businesses such as the annual final settlement of comprehensive income for individual income tax and other tax declarations, the filling of special additional deduction information, the enquiry of income tax payment details, objections and appeals, the uploading of tax-related supporting materials, and entrusted agency services. It also provides functions such as online consultation, frequently asked questions, and help center.

4.3 China Simplified Confirmatory Filing and Comprehensive Associated Filing

The Simplified Confirmatory Filing is an intelligent filing model designed by tax authorities for taxpayers with straightforward business operations and single tax-related scenarios. It supports the automatic extraction, calculation, and batch filings of multi-tax data, enabling an efficient tax processing workflows. During the filing phase, intelligent pre-filling and tax calculation are realized: the system automatically extracts data, calculates tax amounts, and generates forms. After a simple confirmation by taxpayers, multiple tax categories can be confirmed and submitted in a one-time process.

The Comprehensive Associated Filing is a tax pre-filling service provided by tax authorities for taxpayers with complex business operations. It adopts a feature classification and precise pre-filling approach to realize an element-based filing model that replaces the traditional declaration model. Through this function, taxpayers can quickly complete the filings of multiple tax categories, realize associated filing and one-click payment, and shorten the declaration time to just minutes. The system automatically identifies taxpayers' associated business situations and data elements, generates personalized forms based on taxpayers' behavioral characteristic tags, and uses invoice data and automatic tax calculation rules to intelligently match preferential policies and automatically calculate tax amounts for taxpayers, truly realizing a "comprehensive filing" that integrates multiple tax categories in an element-based manner.

4.4 China Leqi Direct-connection Filing

China's Leqi Digital Open Platform (Natural System) is based on the concept of seamless tax administration characterized by "embedded compliance". Tax authorities open tax-related business rules, systems, logics, and application program interfaces to eligible taxpayers in the form of "business digitalization" capability documents. Taxpayers embed these capabilities into their own business systems, enabling a model where enterprises can conveniently issue invoices through their own systems and directly upload invoice data to the tax authorities.

4.5 Algeria "JIBAYATIC" Tax Administration System

JIBAYATIC in Algeria is an integrated and centralized ERP type software solution that covers all business activities of the Algerian General Directorate of Taxes. Through the JIBAYATIC portal, taxpayers can file and pay tax electronically online, realize direct deduction from banks, and create an exclusive tax space.

4.6 The United Arab Emirates Digital Tax Handling Portal "EmaraTax"

The tax authority of the United Arab Emirates has developed a digital tax handling portal called EmaraTax, which provides intelligent services covering the entire process of tax filing, tax payment, tax refund, and applications. Through this platform, taxpayers can conveniently handle various tax matters, submit relevant materials, and check the progress of tax applications. The platform offers user manuals and online customer service to facilitate taxpayers' use, significantly improving the process for handling their tax obligations and reducing their compliance costs. In addition, a mobile application has been launched to facilitate registration, but will be expanded to include other service channels.

4.7 Kazakhstan Mobile Application "E-Salyq Azamat" and "E-Salyq Business"

Kazakhstan has developed a mobile application (E-Salyq Azamat) for individuals and entrepreneurs to fulfill their tax obligations. This app is directly integrated with banks, designed to simplify individuals. It allows users to view upcoming taxes payable, make tax payments without filling in detailed information, perform automatic offsets, manage overpayments, and submit tax reports for individual entrepreneurs. Utilizing E-Salyq Azamat, users can submit declaration forms, perform automatic deductions and withdrawals, and make online cash deposits within 2 minutes without the need to fill in numerous details. Additionally, it enables the review and adjustment of taxation objects.

E-Salyq Business is another mobile application created to simplify tax obligations for entrepreneurs, enabling sole proprietors to register online and fulfill their duties, automatically calculate taxes, generate notifications, and issue receipts without the use of cash registers or financial documents. Looking forward, there are plans to further integrate with internet platforms (such as taxi services and deliveries), complete services for prefilling declarations based on updated data (including bank data), and add more services and training videos.

4.8 Hong Kong, China Upgrading of "eTAX" Online Platform

The Inland Revenue Department (IRD) of Hong Kong, China launched three new tax portals under eTAX Online Platform, namely the Individual Tax Portal, Business Tax Portal and Tax Representative Portal, to enhance the efficiency and user experience of electronic tax services. The three new tax portals provide electronic tax services to individuals, businesses, and tax service agents respectively, allowing them to handle tax matters conveniently and efficiently, such as tax return filing. The IRD also provides intelligent services such as data pre-filling and electronic reminder of the declaration before deadline via the "eTAX" online platform. The IRD has also introduced fillable PDF forms with automatic generation of QR codes. A QR code containing all the input information will be generated automatically after the form is completed. Upon receipt of the forms, the staff of IRD will capture the information contained in the QR code with barcode scanner, which is then automatically updated to the database.

4.9 Macao, China Self-service Kiosks

The Financial Services Bureau of Macao, China (FSB) has been focusing on self-service kiosks in recent years. The FSB installed its first self-service kiosk in 2015, and now there are over 80 kiosk machines that provide tax services. These machines enable individuals to check tax information, change correspondence addresses, apply for tax certificates, and

submit tax declaration forms at the FSB's branches and various government premises. The kiosk machines are mainly designed for individual users, including SME owners and professional taxpayers.

4.10 Indonesia Website Page "www.pajak.go.id" and Mobile APP "M-pajak"

The Directorate General of Taxes (DGT) of Indonesia provides multiple tax filing channels to ensure accessibility and compliance for taxpayers. The primary platform is DJP Online, which serves as the official system for e-Filing and e-Form submissions, complemented by Application Service Providers (ASPs) as licensed intermediaries, and in-person filing at tax offices for those requiring direct assistance. In parallel, DGT has developed M-Pajak, a mobile application that stands out as a digital companion by integrating various tax services—such as billing code generation, fiscal certificates, deadline reminders, and live support—into a single platform. With the implementation of Coretax, these formal filing channels and complementary digital services are increasingly interconnected within one integrated system, enabling real-time data management, greater accuracy in compliance monitoring, and a more seamless, user friendly taxpayer experience.

4.11 Gambia Taxpayer Self-assessment Regime

The Gambia operates a self-assessment regime where taxpayers assess themselves and file their returns to the GRA. The introduction of the self-assessment regime is to encourage filing and payment on time by easing the burden of filing tax returns. To further smoothen the process, Taxpayers can pick up hard copies of the tax returns or download them from the GRA website, complete them and submit them to the nearest GRA tax office. The Authority is currently working on developing and implementing a new Integrated Tax Administration System (ITAS) that will introduce online filing functionality.

5.Future Outlook for Multi-channel Tax Filing

The future development of multi-channel tax filing will be oriented toward intelligentization, ecologicalization, and zero-touch. Through technological restructuring and service integration, it will achieve a qualitative transformation from "multiple options" to "zero-touch access". New technologies such as AI and blockchain will deeply penetrate the whole process of tax declaration.

Intelligent pre-filling and algorithmic auditing will enable automated processing, while deep learning models will build precise taxpayer profiles, driving the shift of tax administration from "post-event risk management" to "pre-event early warning". Service channels will break through physical and digital boundaries, forming a multi-dimensional and collaborative ecosystem for online platforms, mobile terminals, and service points to connect seamlessly, with third-party payment systems and enterprise financial systems directly linked to the cloud. This will embed declaration scenarios naturally into daily business activities, achieving "taxation at transaction". In the platform economy, embedded tax collection tools enable instant tax calculation and withholding during merchant settlements, achieving "tax declaration at transaction". AI will proactively predict taxpayers' needs through historical data and behavioral analysis, generating pre-filled filing forms in real-time when transactions occur.

The essence of the future tax ecosystem lies in "silent compliance": where taxpayers experience zero operation and zero perception, marking a dimensional upgrade for tax authorities from regulators to service architects, and

transforming taxpayer-administration relations from confrontational to symbiotic. Through triple leaps in technological penetration, service reengineering, and global collaboration, multi-channel filing will ultimately dissolve into invisibility, becoming a "bridge of imperceptibility" underpinning sustainable global economic development.

The essence of "free choice of channels" lies in empowering taxpayers with autonomy, while the future will move toward a higher-dimensional "boundaryless integration" — where channel boundaries gradually fade, forming an intelligent service ecosystem centered on taxpayers' needs. Tax authorities must uphold the bottom line of inclusiveness amid technological innovation, ensuring that every taxpayer, whether urban or rural residents, whether familiar with digital technologies or adhering to traditional methods, can equally enjoy efficient and user-friendly tax filing experiences.

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