

# Transforming Tax and Revenue Management



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# Tax and revenue management in the new digital age

*Many national, regional, state and local government agencies are experiencing pressure to deliver improving and innovative citizen-centric services in a cost effective way to their constituents.*

At the same time they need to modernize legacy manual services, improve accountability and transparency and stay compliant with ever changing legislation, all while maintaining delivery and keeping citizen data safe.

The budgets allocated for the delivery of these essential citizen services are constrained by the total revenue gathered by the relevant tax and revenue authorities who themselves are looking to find ways to modernize their service delivery and maximize the revenue collection capability. But there are big challenges in doing so.

On the revenue collection side, many countries have a 'Tax Gap'<sup>1</sup> that if resolved and brought back into compliance, could help change societal outcomes for a country. Figures from the USA Internal Revenue Service estimate the average gross annual tax gap for 2008-2010 to be \$458 billion<sup>2</sup> and Her Majesty's Revenue & Customs in the UK estimate a gap of £33 billion for the 2016-17 tax year<sup>3</sup>.

These tax gaps can also exist at a local level and across many tax types, so in total the uncollected revenues at all levels and revenue streams may be significant. Improving cost efficiency and reducing the tax gap is a top priority objective for all tax and revenue authorities, but there is much more to do. Constantly changing tax legislation, the drive to be more citizen-

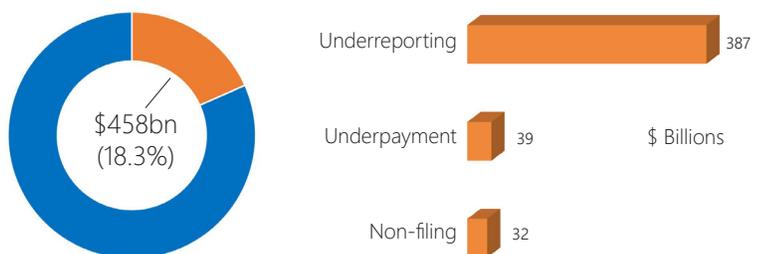
centric and the need to modernize multiple legacy tax systems all add to the challenges. So how can digital transformation help these agencies?

In the following pages we will explore some of the potential solutions, touch on the cloud technology revolution enabling digital transformation and learn how tax and revenue agencies have implemented cloud technologies in the areas of taxpayer engagement, compliance management, worker productivity and the modernization of legacy systems.

UK estimated tax gap 2016-17 <sup>3</sup>



USA estimated average gross tax gap 2008-2010 <sup>2</sup>





## The technology revolution enabling the future of tax and revenues

*It wasn't so long ago that paper forms, completed in black pen and posted to the tax office, were the way that many tax and revenue agencies managed tax matters.*

Employment taxes, deducted at source and paid to tax agencies via payroll service providers delivered some speed and digital automation, but the paperwork still survived. Since the establishment of high speed internet, the move to digitize more of the

tax process has picked up pace to reduce the reliance on inefficient, slow paper and manual processes. However, there was a reliance on in-house or outsourced datacenter resources and development skills that had significant cost, usually with contractual inflexibilities, and the history of major public sector IT projects had financial and political risks.

And then the internet, smartphones, social media and cloud computing technologies converged to create a seismic shift to raise the real and potential value of the torrent of data being produced. Many have compared the recent advances in cloud and mobile computing technology as a 'Fourth Industrial Revolution', characterized by cost effective access to unprecedented processing power, storage, availability,

scalability and security that we can now get access to from our phones and pay as we go. However, it's the ability to generate, store, manipulate, integrate and analyse Big Data and gain new and revealing insights that is changing the way we understand the world and how we live and work in it. While technology and business entrepreneurs have leapt to exploit this revolution with new and disruptive business models, many governments are doing the same to change the face of government including taxation and revenue generation.

The flexibility and scalability of cloud computing allows tax authorities to get the computing capacity when they need it most, particularly at peak times around tax filing deadlines. The taxpayer experience can be improved with multi-channel access to information, records, payment status and filing, improving voluntary compliance and reducing the cost per tax return or inquiry. In turn, tax agency staff have the ability to adopt new, mobile and proactive workstyles while keeping data safe and compliant and driving productivity to new levels. And with the ability to store case management data and interaction history, tax agencies can use analytics and machine learning to detect the patterns of fraudulent non-compliance and to better understand and forecast the impact of complex tax law changes on the total tax collected and gap rate for multiple personas of individuals and businesses.

Innovative tax authorities are embracing this technology revolution to modernize their legacy processes, applications and infrastructure to take advantage of much needed benefits of cloud technologies.

The next pages will refer to innovative Microsoft customers who are taking benefit now, reducing waste, fraud and costs, driving productivity and engaging with taxpayers to positively impact their tax gap.



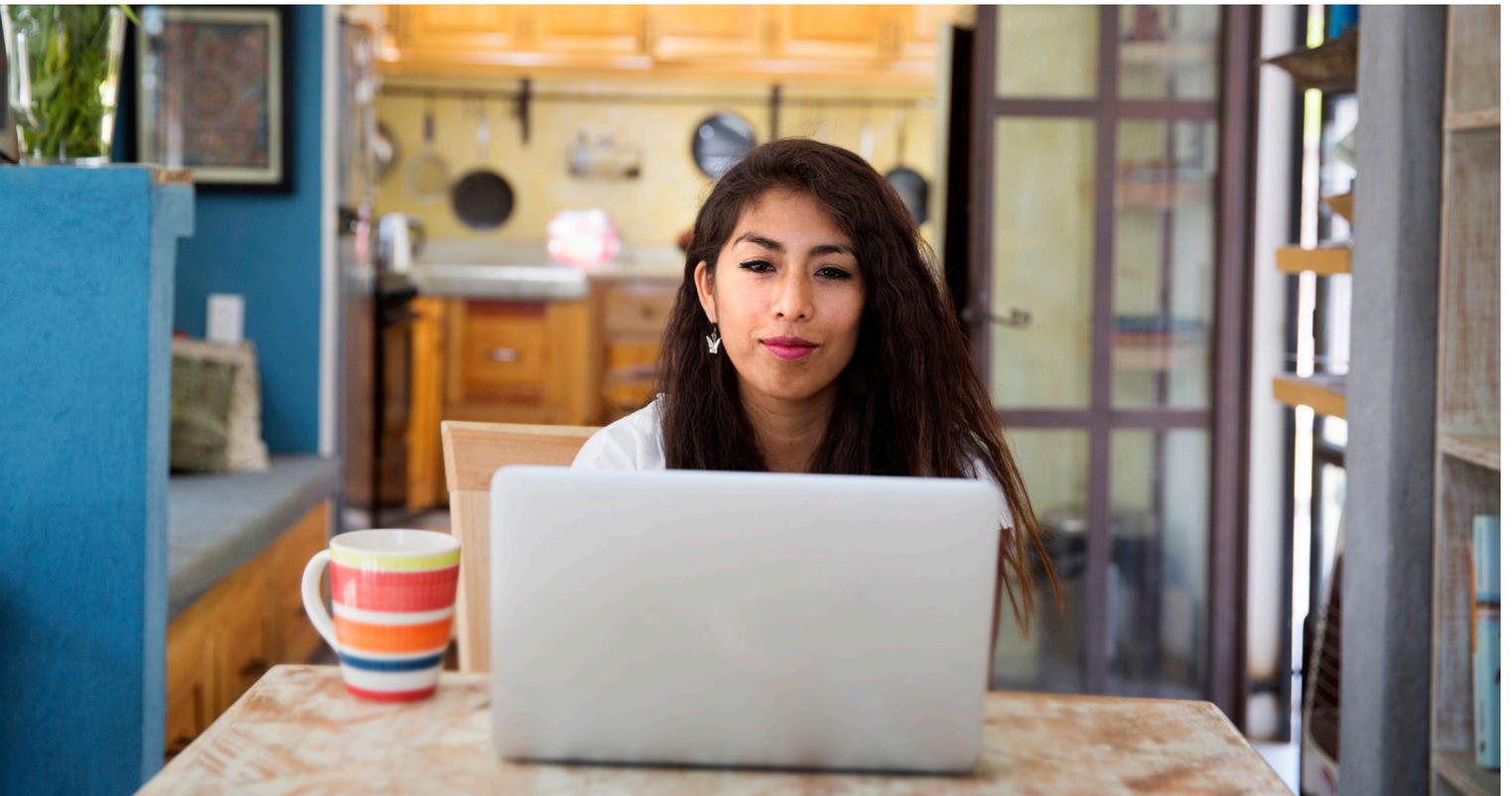
# Tax compliance management

*The losses created by non-compliance can be significant proportion of relevant tax and revenue agency's tax gap.*

This fraudulent activity can be due to a number of factors but can be grouped into: **Evasion** – when an individual or businesses deliberately omits, conceals or misrepresents information to reduce their tax liabilities; **Hidden, Shadow, Grey or Informal economy** - where taxable income, often in cash or kind, is unknown, untaxed or not monitored by government agencies, and **Criminal activity** - such as identity theft or scams that often seek to extract payment from citizens or claim refunds or allowances from the tax authority by impersonation. These scenarios often require tuned and sophisticated data-driven approaches to enable detection and the gathering of evidence leading to an enforcement or prosecution.

*“With our new online portal, we're successfully encouraging taxpayers to file their taxes voluntarily, which means increased revenue collection at rates higher than our gross domestic product.”- Juan Manuel Galarza, General Administrator of Communications and Information, Tax Authority of Mexico.*

The **Tax Authority of Mexico (SAT)** transformed its tax IT to the Microsoft Cloud to better serve 40 million taxpayers who were required to interact online with the authority following legislation changes in 2014. SAT chose a number of cloud and data insight technologies to provide the reliability and scalability they needed and to deliver modern digital services for citizens and businesses. This generated improving voluntary compliance while also increasing tax control, management and collection rates, lowering processing times and helping to reduce tax evasion.<sup>4</sup>





Modern cloud-based fraud detection solutions use data analytics, predictive models and machine learning tools such as the Cortana Intelligence Suite, to identify trends, patterns and anomalies in current and historical tax data that can alert agencies to investigate potential evasion. For example, fraud detection tools can spot data entry mistakes and patterns associated with individual tax preparers with additional analyses to identify any defaulters and trigger an audit alert. In addition, payments deducted at source by employers and invoice payers can help reduce the need for filing process for many individuals and businesses, using intelligence and machine learning to track patterns that may indicate non-compliant events.

Bringing together multiple data types from diverse interaction points including portals, financial institutions, social services, other

agencies and social media, can help discover hidden taxable events through behavioural analysis. And making sure taxpayers are who they say they are, when dealing online with government as a citizen, agent or corporate officer, is also vital to preventing identity fraud and scams. Technologies such as face, fingerprint and voice recognition, secure keys and multi-factor authentication all help to improve compliance, protect privacy and security and particularly when individuals seek access to their highly sensitive information or make a claim for financial benefits or refunds.

Microsoft Cloud-based technologies and partners solutions can help tax agencies reduce their tax gap and meet operational objectives by reducing errors and fraud and voluntary compliance through improved taxpayer experience and participation.



## Taxpayer experience

*Contacting a tax agency with a question or to file a return or paying a demand can often be a daunting prospect for many. This can lead to last minute action, errors, omissions and avoidable complications that delay revenue collection.*

Tax and revenue agencies understand this and want to improve the taxpayer experience of agency interactions, building a consistent experience regardless of the chosen communications channel. The benefits of better taxpayer engagement often include greater transparency and compliance with reduced response times and cost efficiencies that all help grow collection rates. An optimal taxpayer experience can often reduce fraud by making tax less daunting and so boosting voluntary compliance.

*"Thanks to Microsoft technologies we have a system that is easy to manage and easy to upgrade. Revenue collection has increased since the system was introduced and I'm happy to say it's certainly efficient in terms of fees and tax collection." - Bernard Mpangala, Senior Business Analyst, Tanzania Revenue Authority.*

The **Tanzania Revenue Authority (TRA)** has improved their motor vehicle tax collection rates by introducing online payments. Some payment functions still relied on manual processing and the motor vehicle registration tax office had limited opening times for payments. These manual steps led to mistakes, overcharging, delayed payments and citizen dissatisfaction. The new Microsoft technology-based payment system integrated with mobile phone provider platforms, the existing TRA online payment gateway and back-office systems for reporting and analytics. Benefits have included accurate fee calculation, improved collection, increased transparency and growing citizen participation.<sup>5</sup>

Tanzania has sought to improve their taxpayer experience and engagement to drive compliance and collection. Simplifying the complexity of tax and revenue compliance and making access quick and easy, were all critical to success.

Consider the scenario of simplifying online tax filing and payments. Web-forms can be automated using rules based intelligence;

question-based smart navigation helps the logical flow and pre-populating forms with data from historic case files, employer tax records, banks and other relevant organisations, all speed up the process. This all helps make tax easy and less stressful for payers attracting more online users. In turn the agency benefits from reduced errors, costs and fraud and improves citizen satisfaction and collection efficiency.





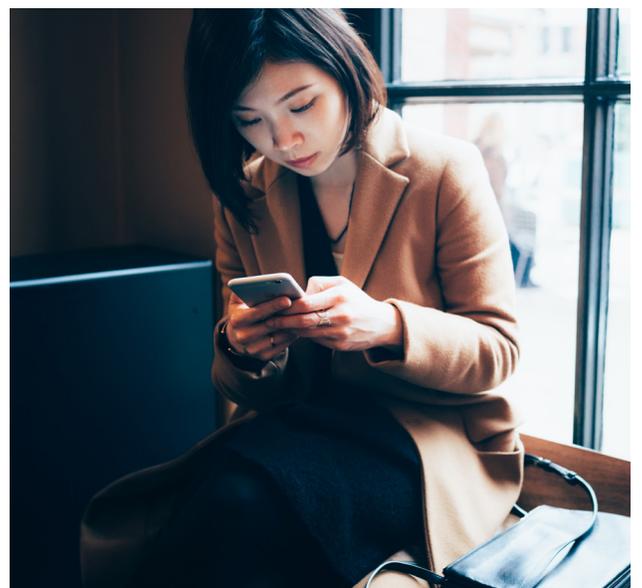
## Tax employee experience

*Employment costs consume a substantial proportion of a tax and revenue agency's budget and many agencies have experienced cuts, forcing the issue of increasing productivity.*

At the same time many tax workers need to work on site, visiting payers, conducting audits and inspections, often taking paper notes in the field and returning to their office desk to access systems, enter case notes, complete reports and make calculations.

This traditional workstyle can now be transformed through mobile cloud technologies, allowing staff to work on location, connected to the systems they need, updating case files, meeting and

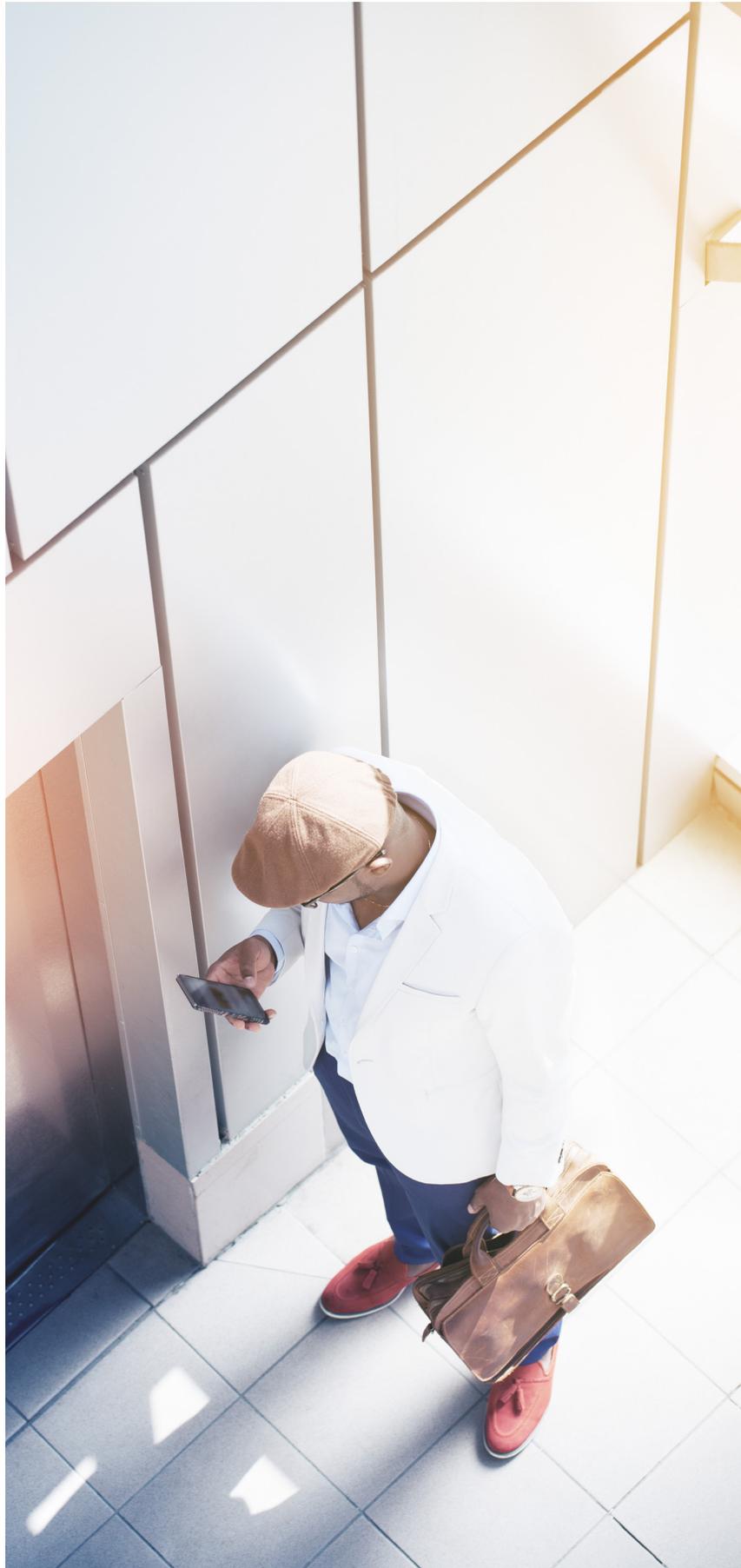
collaborating with colleagues and staying compliant with data regulations. While this new world of mobile connected working provides productivity gains, so does the ability to share and collaborate across revenue departments.



*"With everyone using the same communication and collaboration tools, the divisions between our agencies are disappearing. We can work better together to improve government services for our citizens." - Reuben Molloy, Chief Information Technology Officer, Government of the US Virgin Islands.*

The **Government of the US Virgin Islands** (USVI) needed to standardize on a single communication and collaboration solution for employees across 23 agencies. It reduced siloed government functions, automated paper-based business processes, and expedited government services because employees use the messaging and collaboration technologies in Microsoft Office 365. The USVI Department of Licensing and Consumer Affairs (DLCA) processes approximately 14,000 business licenses annually and by using Office 365 they collaborate efficiently online with their Internal Revenue Bureau issuing a license in three days instead of taking weeks and storing licensing data on an intranet so enforcement officers receive a notification when there's an inspection ready.<sup>6</sup>

Like the USVI, many governments have multiple tax and revenue types to manage and the number increases as new taxes and licenses are used to change or encourage behaviour such as protecting the environment and promoting health. At the same time those multiple departments often have their own IT systems, apps and processes tuned to their tax type. While lack of integration of IT infrastructure and systems is a huge challenge, this can be compounded if workers are unable to communicate and work together and share case files and essential information with other teams across silos of departmental responsibility. Microsoft Cloud-based collaboration and communication tools such as Microsoft 365, Dynamics 365, Skype for Business, OneDrive for Business and SharePoint Online can all make significant contributions to raising productivity in terms of revenue per head and specific role based metrics.





## Tax revenue management and modernization

*As mentioned on the previous pages, governments need to manage multiple tax and revenue types as well as different payers and payment procedures, so revenue accounting processes are vital to account for the revenue per tax type, region, period and other parameters both for levied and paid tax.*

This information is then reconciled with the general ledger and made available for analytics, reporting and forecasting to help manage and reduce tax gaps.



Taxpayer registration, integrated with identity management for digital transactions, is critical for the tracking and cross referencing of payers and their taxable events. This data enables a modernized agency to create accounts by tax type and other criteria to establish relationships between taxpayer, agents and income sources. In addition, relationships between taxpayers, such as businesses, their officers and shareholders, can be identified through registration data. This is a vital when centralized registers of citizens and business are incomplete or missing. Microsoft Cloud technologies can be an advantage for intelligent analytics and the compliant, security-enhanced management of this sensitive data.

Modernizing the business of tax and revenue management can often involve the re-platforming of legacy applications or even new tax application development to effectively manage revenues. Microsoft Cloud and development technologies can enable DevOps software delivery processes to speed up and optimize the building, testing and launch of reliable new tax software.



*"We really are on the leading edge of some of the technology changes and thinking towards enabling whole of government, citizen centric services." - Damien Hobbin, IT Program Manager, Enterprise Apps & Online, Australian Tax Office.*

The **Australian Taxation Office** (ATO) has driven a range of new digital and mobile projects supported by Microsoft developer tools and the Azure cloud platform, in an initiative to reinvent and transform the ATO's business. Their MyTax portal for lodging tax returns has already received awards for its innovation<sup>8</sup>. The ATO is working on other key priorities around Digital infrastructure and software that will enable people to interact

easily, tailoring services based on profile, history and circumstances so citizens get what they need, when they need it, and in the form they want. And the ATO Smarter Data program will deliver systems that are able to analyse, predict, anticipate, pre-fill, and generate meaningful risk profiles.<sup>7</sup>

Through digital transformation, a tax and revenue management and modernization strategy can help deliver real time insights on budget execution, anticipate and spot new revenue streams, improve a taxpayers' ability to interact with other government departments and improve the operational efficiency of the agency.

# Security and data compliance for tax and revenue agencies

*The digital transformation journey for tax and revenue agencies will naturally be guided by best practices on cloud security, privacy and compliance due to the sensitive and private nature of the data they manage.*

Cybersecurity is of equal importance as cybercrime is a growing area of organized systematic fraud extending the Tax Gap as criminals exploit technology to acquire revenues by illegal means. This is why it is vital for a cloud technology provider to not only understand but also to deliver the security, compliance, privacy, resiliency and resulting trust insisted upon by tax and revenue agencies.

Microsoft understands that security and privacy are intrinsically connected and the data that agencies entrust to any cloud services provider must be kept secure and private so Microsoft works diligently to help protect data from unauthorized access. Microsoft has made significant investments in the security of its platform, which, when combined with high levels of security-intelligence and strategic partnerships, helps keep cloud-based products and services more secure. Tax and revenue agencies can benefit from this approach to 'trust' when embarking on a digital transformation or tax modernization strategy or deploying a cloud solution. This helps governments strike the appropriate balance of security and end-user empowerment, with effective security controls across identity, device, data and apps, and infrastructure.

Cybercrime is also a constantly evolving and ever-increasing challenge for all organizations and particularly tax agencies. As a cloud service provider, Microsoft

continuously fights cybercrime at multiple levels using teams of specialists, from IT security experts to policy advocates. It takes a concerted effort as well as deep financial and operational investment to truly understand cybercrime and effectively fight it.

*"When I saw that Office 365 enabled us to be HIPAA compliant, I felt comfortable. And we allayed the concerns of the US Virgin Islands Police Department regarding leaks and accidental disclosures of sensitive information. Our Office 365 environment enables us to set access control and distribution restrictions along with our cloud-based email service and to encrypt email messages." - Reuben Molloy, Chief Information Technology Officer, Government of the US Virgin Islands.*

Data management compliance regulations can be multiple and complex varying by country, region or superior jurisdiction. This is why the Microsoft approach to compliance, from products to datacenter procedures, have earned expansive and comprehensive compliance certifications and accreditations that help government organizations meet relevant standards including criminal justice, public safety, tax, trade, education, health, cloud privacy and security.

After four decades of working in the public sector, Microsoft understands the challenges of digital government operations and in this increasingly mobile-first, cloud-first world, trust is paramount. Microsoft will continue to be committed to developing trusted solutions for government, working with industry partners, competitors, worldwide regulators, global law enforcement and most of all, government customers.



## Transforming tax and revenue agencies with Microsoft

Flexibility, integration, trustworthiness, openness and a citizen-centric approach, all provide strong foundations for Microsoft to partner with tax and revenue agencies on their road to digital transformation.

The Microsoft focus on delivering more personal computing, reinventing productivity and business processes, and building the intelligent, trustworthy cloud, supported by a vast network of technology partners, all empower government leaders and workers to do more and achieve more for the institutions, businesses and citizens they serve.

### Learn more about Microsoft in Government

<https://www.microsoft.com/government>

1. The 'tax gap' is defined as the difference between the amount of tax that should, in theory, be collected and the amount actually collected. This provides a metric for the relative size of non-compliance.
2. <https://www.irs.gov/statistics/irs-the-tax-gap>
3. <https://www.gov.uk/government/statistics/measuring-tax-gaps>
4. Microsoft, "Tax authority improves interaction with taxpayers through cloud computing services," December 11, 2015.
5. Microsoft, "Enabling smarter transportation," October 15, 2014.
6. Microsoft, "Government Boosts Service Delivery, Saves Tax Payers Money with Cloud-Based Tools," February 26, 2015.
7. Microsoft, "ATO leads the digital charge," June 30, 2015.
8. <https://www.ato.gov.au/Individuals/Lodging-your-tax-return/In-detail/MyTax-replaces-e-tax/>

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