



Using Digital Technologies and Process Control Frameworks to Battle Sales Suppression

Securing the Fisc

Presenters

David Deputy

- Director of Strategic Development, Vertex
- Areas of expertise: Finance, Data Management, Analytics, Innovation and use of emerging technologies for tax
- 30 years of US and International tax, ERP, startups, corporate finance, bank regulatory

Goran Todorov

- Managing Director, Data Tech International
- Areas of expertise: Electronic revenue assurance, Certification of invoicing systems
- 14 years in development and implementation of anti sales suppression technologies

Agenda

TOPIC

TIME

- Categories of Tax Collection Risk (Goran) 10 minutes
- Common Goals and Compliance by Design (David) 10 minutes
- Opportunity and Outside the US Experience (Goran) 10 minutes
- Key Components (Goran & David) 10 minutes
- Adoption Recommendations (Goran) 5 minutes
- Q&A 15 minutes

Categories of Tax Collection Risk

Under Reporting – Falsifying books or deleting sales records

Zappers and phantom-ware – on or off premise modification of sales records to manipulate ledger

Collected but Unremitted – Lag between collection and payment results in non payment

Wrong Tax Rate – Intentionally or unintentionally applying the wrong rate

False Expense/Credit/Refund – Creating false records to justify lower income taxes

Digital Remedies: Focusing on the Transaction Tax Concerns



Under Reporting & Zappers

Ensure all business transactions are evaluated for taxation by securing the data flow to the point of tax determination



Wrong Tax Rate

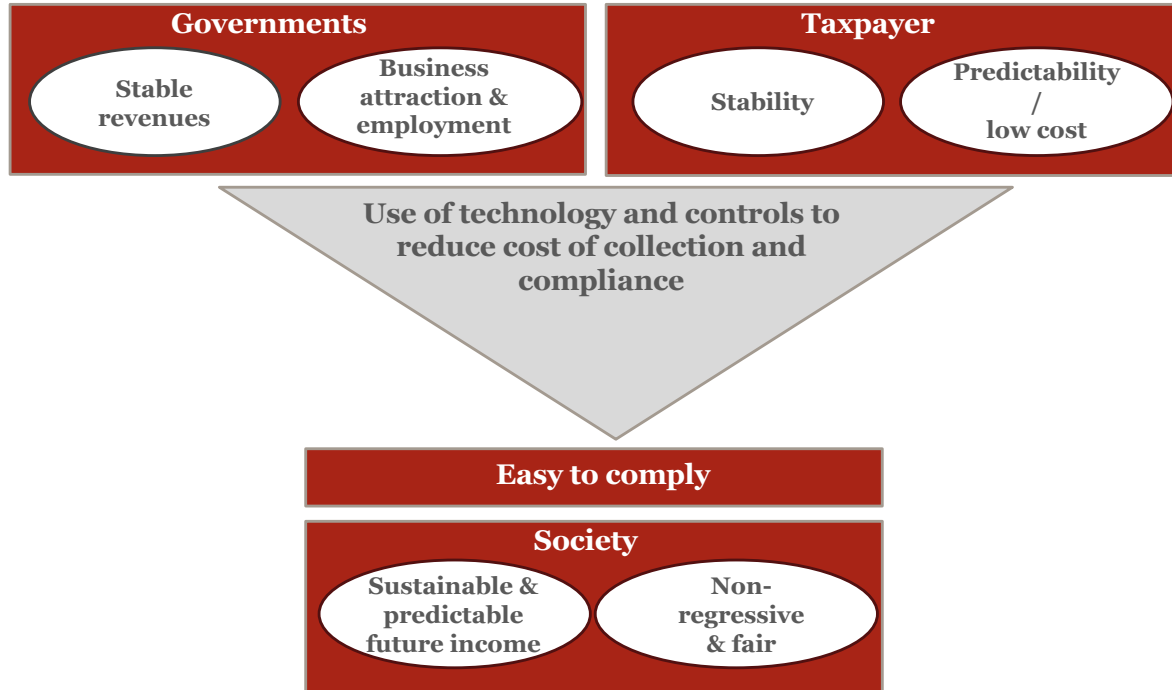
Ensure the appropriate tax rates and rules are applied through use of validated, monitored interaction with a trusted source(s) of calculation services



Collected but Unremitted

Remove the potential for alternative use of funds collected by eliminating the time lag between funds collection and remittance to tax authorities

Moving Towards a Common Objective



Application of Digital Technologies and Process Controls

Digital Technologies – Designed Compliance

- Anti-sales suppression system framework
- Verification of document integrity, inspection and audit
- Trusted Tax Determination: Processes & Parties
- Immediate Remittance
- Leveling the playing field for all suppliers
- User acceptance

Process Controls – Tax Control Frameworks

Enterprise Income Tax Focused TCF	SMB Indirect Tax Focused TCF
Tax Strategy Established	Secured Chain System Established
Applied Comprehensively	All Transactions Processed
Responsibility Assigned	Digital Communications Established
Governance Documented	Notifications of Changes Communicated
Testing Performed	Baseline Established, Changes Tracked
Assurance Provided	3rd party Signoff & Standards Adopted

Tax Compliance by Design...

“Tax compliance by design” recognizes these fundamental changes in the way SMEs operate and shows how tax compliance can become an integral part of the systems businesses use to carry out their daily transactions with one another and with citizens. Tax compliance can become easy and accurate if it is simply a by-product of the steps a business follows automatically to transact. “Tax compliance by design” assembles the different elements of technology on which modern commerce relies into a system that delivers a seamless and secure flow of accurate tax information and tax payments.....”



Tax Compliance by Design

Centralized Data Approach

The Centralized Data Approach...

“The idea behind the centralized data approach is to make sure that the revenue body itself can capture as many business transactions from the source as possible in order to determine the right amount of tax to be paid with minimum information from the taxpayer. The role of the revenue body is more about managing the whole process, handling and transforming all information by itself so the need for the taxpayer to provide information on his own transactions is significantly reduced.....”



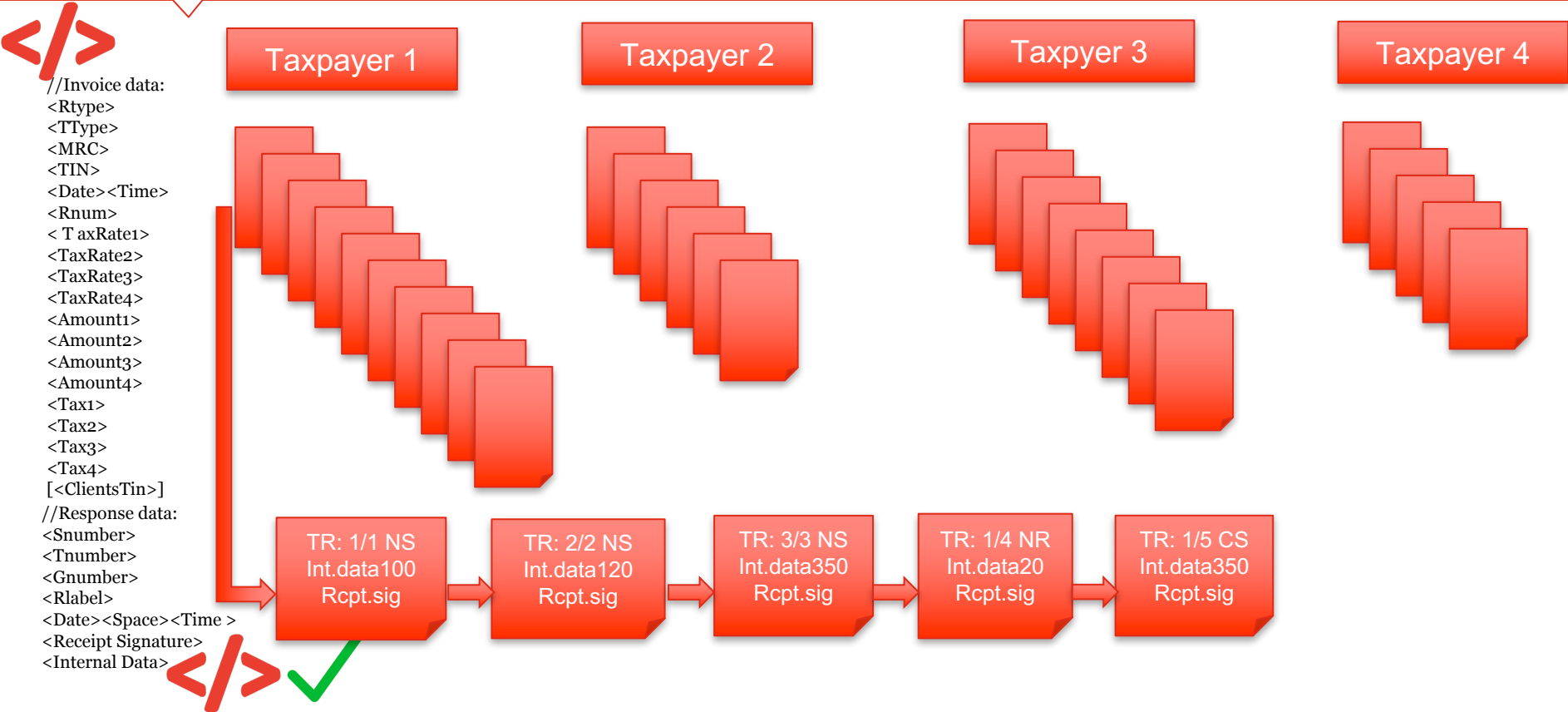
Tax Compliance by Design

Secured Chain Approach

The Secured Chain Approach...

“The idea behind the secured chain approach is to create a secured flow of information from the capture of business transactions to the final determination of the correct amount of tax being paid. The role of the revenue body is mainly to act as a facilitator of needed features in the environment in order to make sure that the flow of information from the taxpayer is secure enough. This reduces the need for the revenue body to handle all of the data by itself and it reduces the need for doing post-filing audits....”

The Secured Chain Approach...



A stack of US dollar bills, a calculator, and a pair of glasses on a desk. The scene is dimly lit, with the text overlaid in white. The calculator is a standard desktop model with a display screen and various function keys. The glasses are tortoiseshell. The dollar bills are fanned out, showing the front side with the number 100.

Estimating US Sales Tax Revenue Losses

Sizing the Opportunity

Sizing the Opportunity



Under Reporting &
Zappers

Estimate of over \$16 billion per Year



Wrong Tax Rate

Unknown



Collected but
Unremitted

Unknown

...potentially billions of dollars of **lost revenue**

Under Reporting Estimate Details



Multiple Vulnerable Sectors

- With High Sales Volume
- And High Infection Rates



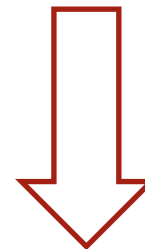
Double Books



Under Reporting Estimate Methodology

Estimated US Sales Tax Losses		\$ Billions 2015		
	# Establishments	Revenue	Tax	Tax Losses
Restaurant	620,807	\$ 740	\$ 62	\$ 6.2
Bars/nightclubs	68,039	\$ 24	\$ 2	\$ 0.2
Dry cleaners/laundromats	59,521	\$ 14	\$ 1	\$ 0.1
Hotels	92,331	\$ 182	\$ 15	\$ 1.5
Convenience stores	42,032	\$ 27	\$ 2	\$ 0.2
Other	n/a	\$ 987	\$ 83	\$ 8.2
Total US:		\$ 1,974	\$ 166	\$ 16.4

Initial Estimated Sector



Grossed up

... \$16 billion rough estimate based upon
little available information

Non US Experience Indicates these Opportunities **can be** Realized



Argentina
Bosnia
Brazil
Bulgaria
Cyprus
China
Chile
Ethiopia
Greece
Italy (1983)
Jordan
Kenya
Lithuania
Macedonia
Malta

Mexico
Moldavia
Montenegro
Poland
Quebec
Romania
Russia
Rwanda
Serbia
Spain
Sweden
Turkey
Ukraine
Venezuela...

Tax Revenue Impact

Sweden €300 million per year

Hungary 15% increase in first year revenue

Rwanda increase of 20% over two years

Other Impact

Slovak Republic €500 million risk identified

Quebec inspections from 120 to 8000 per year

Belgium and Slovenia increased employment

A hand in a blue suit and tie is pointing to a green checkmark inside a white-bordered box. The box is the second one in a vertical list of four similar boxes. The background is a blurred image of the same person in a suit.

A Modular Framework for Enhanced Revenue

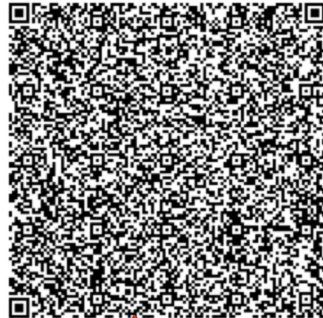
Key Components

Securing the Business Transaction

FISCAL INVOICE
TIN: 444555888
Company: DTI
Invoice no: 36
Invoice time: 7/12/2017 12:34:10 PM

-----NORMAL SALE-----

Items				
Name	Price	Qty.	Total	%
Mountain Bike Socks, L	9.50	1.00	9.50	9.00
Sport-100 Helmet, Red	34.99	1.00	34.99	0.00
Total:			44.49	
Rate %	Base	Vat		
9.00	8.72	0.78		
0.00	34.99	0.00		
MRC: 6B000000517ACF7AF4D95B0A7A000000000051				
VSDC id: 6B00000052C2FFAE2F06E8471E000000000052				
VSDC time: 2017-07-12 12:34:15				
VSDC Invoice No: 8				
Invoice Counter: 8/8SN				



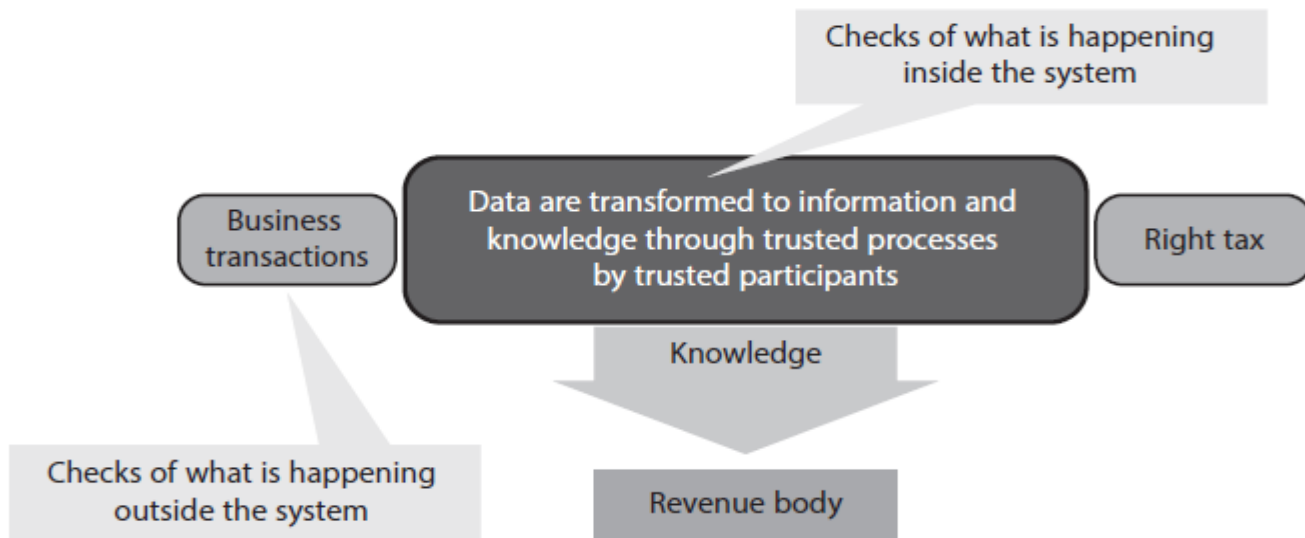
Fraud detection by the public eye

...digital signatures remove the opportunity for sales under reporting

=====TAXCORE BY DTI=====

Securing the Tax Computation

Figure 3.1. The secured chain approach

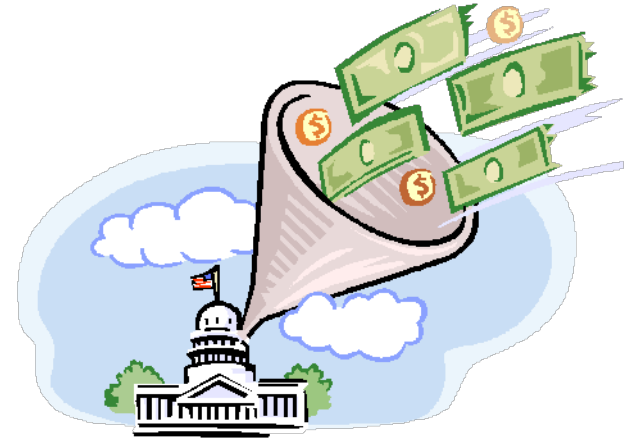


...trusted processes ensure the integrity of tax determination

Securing the Remittance

INVOICE							
INDZARA 123 ABC Street, Peace City, Earth.							
Peace for Everyone							
INVOICE # 1234							
CUSTOMER Karnataka		CONTACT Tippu		INVOICE DATE 22-Jul-2016			
BILLING ADDRESS Mysore, KA		EMAIL bengal@uru.com		PAYMENT DUE DATE 22-Aug-2016			
SHIPPING ADDRESS Bengaluru, KA		PHONE 2213146546		ID 2			
ID	DESCRIPTION	UNIT	QUANTITY	DISCOUNT	PRICE	TAXABLE	AMOUNT BEFORE TAX
BSOR	Boys Shirt Small Size Orange Color	Piece	5	\$1.00	\$16.00	YES	\$80.00
BSOR	Boys Shirt Small Size Orange Color	Piece	10	\$1.00	\$16.00	YES	\$160.00
MMYE	Men Shirt Medium Size Yellow Color	Number	5		\$18.00	YES	\$90.00
BMRE	Boys Shirt Medium Size Red Color	Piece	2		\$9.00	YES	\$18.00

SPLIT PAYMENT



...real time split payments remove the lag between collection and remittance

Path Forward

Adoption Recommendations

Adoption

think in terms of
providing certainty
as a means of attracting
taxpayer support



Adoption



think in terms of **legislation around standards** to enable an open marketplace for adoption by trusted parties and supporting organizations

Adoption

REMOTE AUDIT



LOCAL AUDIT



- ✓ Link events
- ✓ Interoperability
- ✓ Immutability
- ✓ Authentication and access control
- ✓ Protection of trade secrets
- ✓ Non-repudiation
- ✓ Logging incorrect data
- ✓ Not logging data at all
- ✓ Rectification and erasure

<http://dti.rs/manifesto/>



Q&A

For Additional Information

Request a Copy of the Full Report

Securing the Fisc via Digitization



David Deputy, Vertex, Inc.
Goran Todorov, Data Tech International

Get in Contact with us...

David Deputy

- Vertex Inc.
- David.deputy@vertexinc.com
- US +1 484 595 2503

Goran Todorov

- Data Tech International Ltd.
- goran.todorov@dti.rs
- SRB +381 62 235532