

Proof-Of-Audit

Implementation of Electronic Fiscalization for Revenue Assurance (Public Sector – Tax Authority)

Who we are?

Data Tech International Ltd. (www.dti.rs) is solution development and consultancy company based in Serbia. We assist and advise governments combating tax frauds with independent, real-time, tax compliance data solution that offers revenue authorities, device and software developers, sales tax payers and customers comprehensive benefits in electronic fiscal revenue reporting.

Goran Todorov

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Innovation and use of emerging technologies for tax, Certification of invoicing systems, Consulting Revenue Authorities on fiscal compliance. 18 years in development and implementation of anti sales suppression technologies





VAT FRAUD AND SALES SUPPRESSION

UNDER REPORTING

Falsifying books or deleting sales records



Zappers and Phantom-Ware

On or off premise modification of sales records to manipulate ledger using software.

HONEST MERCHANT
12345 Aby Rd.
Anycity, Anystate, 99887

PURCHASE No 321

Item	Qty	P	Total
Hamburger	10	5.00	50.00
Beer	10	3.50	35.00
Salad	10	2.00	20.00

Total Tax 23.00
Total 105.00



HONEST MERCHANT
12345 Aby Rd.
Anycity, Anystate, 99887

PURCHASE No 321

Item	Qty	P	Total
Beer	10	3.50	35.00

Total Tax 5.00
Total 35.00

Connecticut Store Owner Sentenced in Tax Fraud

By JACQUES STEINBERG OCT. 21, 1993

Stew Leonard Sr., whose circuslike Connecticut dairy stores made him a folk hero of American retailing, was sentenced to more than four years in prison and fined \$947,000 for his role in a sophisticated tax-fraud scheme.

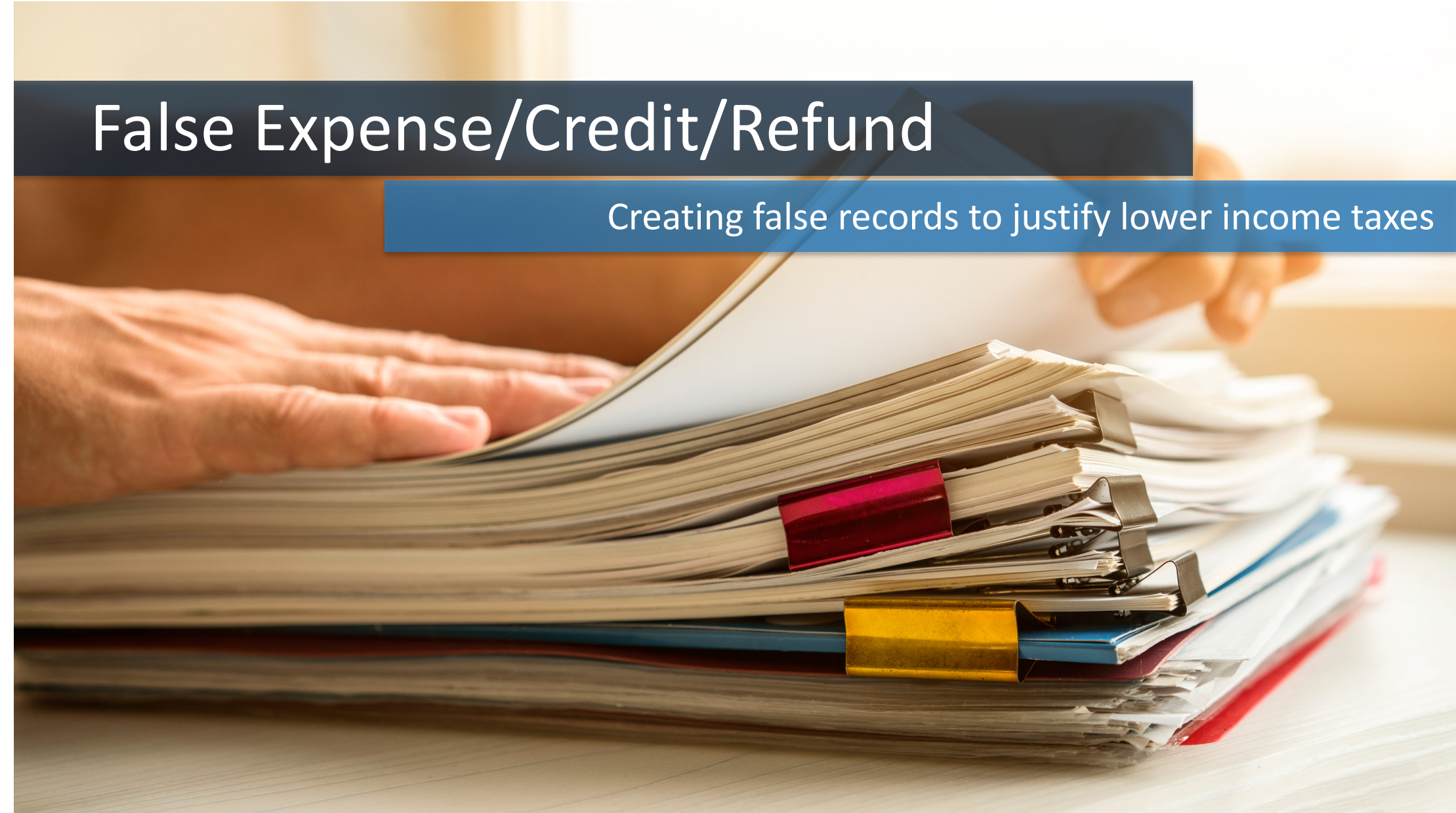
.... three executives pleaded guilty to skimming more than \$17 million in sales from the family's Norwalk store.

The scheme, a decade long effort to defraud the Federal Government that involved [customized computer programs](#), destruction of records and bags of money smuggled to the Caribbean, was the largest criminal tax case in state history and [the largest computer-driven tax-evasion case in the nation](#), the authorities said.



False Expense/Credit/Refund

Creating false records to justify lower income taxes



OECD Research

- Legislation to require the production of invoices for every transaction, together with legislation requiring the use of data recording technology or cash register that are compliant with specified standards.
- The technical requirements should be very clear and its implementation easily able to be verified.

Source: <https://www.oecd.org/tax/crime/technology-tools-to-tackle-tax-evasion-and-tax-fraud.pdf>



Blockchain

Prerequisites that may need to be in place for the technology to be successful:

- Records need to be digital
- Digital identity needs to be in place
- Laws and regulations
- Digital literacy



TaxCore

Our Solution is targeted to environment with the following market characteristics:

- Significant proportion of Small and Medium Businesses (including brick and mortar, mobile, virtual)
- E-commerce
- Highly disproportionate low-value transactions (i.e., cash, electronic)
- Large geographic coverage area
- Limited auditing resources (relative to Point of Sales)
- Average to low income for target consumer segment

B2C, B2B, G2B, G2G, G2C



B E N E F I T S

For Tax Authority

- **Significant increase of tax collection** due to registration of taxpayer's turnover
- **Decreasing activity of gray economy** share due to organized evidence of registered taxpayers, their activities and their sales locations;
- **Suppression of tax evasion** due to the comprehensive insight of all taxpayer's activity;

For Taxpayers


- **Protect honest taxpayers** from unfair competition;
- **Minimizing cost of compliance** per taxpayer and per sales point;
- **Registration of both sales and purchases** in business-to-business transactions enables easy cross-checking for processing claims;

For Customers (Public)

- **A raise of consumer awareness** by receiving certified invoices along with purchased good or service
- **Clear and true specification of tax amount** dedicated to the government
- **Paperless** Invoices
- Participation in **Consumer Compliance Award** program

For Invoicing System Vendors

- **Transparency and leveled playing field** for all suppliers of fiscal equipment
- **Modernizing sale outlets** with management tools designed to better serve taxpayers business
- **Simple and free accreditation** process



TaxCore is a scalable software solution that **enables tax** compliance through usage of commercially available technologies and public APIs to **issue fiscal receipts in online/offline environment** and collect audit data

Mini – Blockchain Audit Methodology

	REMOTE	LOCAL	QR SCAN	SE AUDIT
LATENCY	Instant	On Demand	Instant	On Demand
DATA SET	Full	Full	Subset	Internal data only
JOURNAL AND ITEMS	Full	Full	No	No
SECURITY	Full	Full	Full	Full

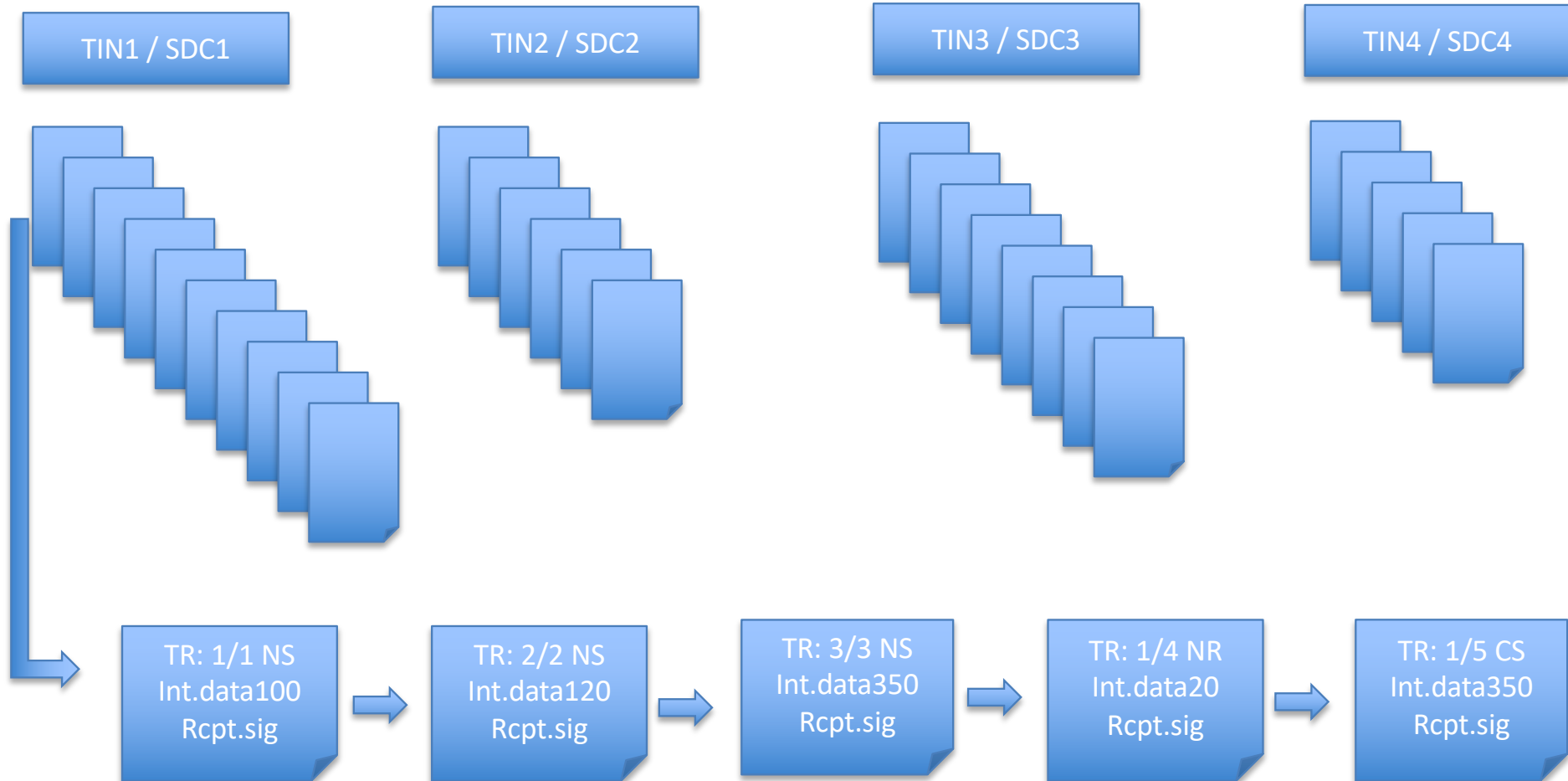
Internal data contains fiscal data in encrypted form. Content of internal data is readable by the Tax Administration only.

Internal data receipt counters and totals (very simplified representation):



Result: SE signed 1090\$ in total 875\$ worth missing 11 receipts

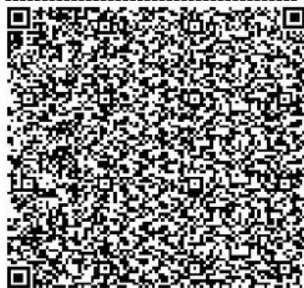
Mini – Blockchain Audit Methodology



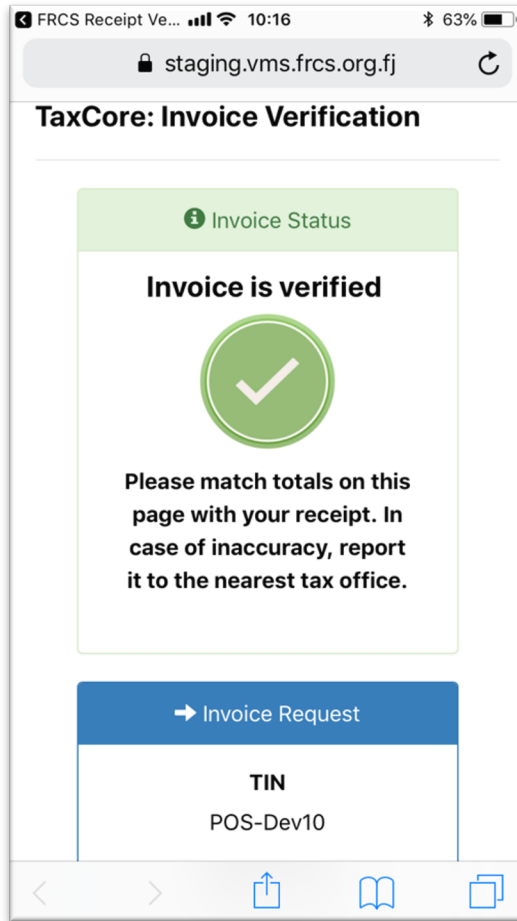
Fraud detection by the each and every customer

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===== FISCAL INVOICE =====
TIN: 502579006
Company: Golf V
Store: Sun Store
Address: 7 Someplace
District: Suva
Cashier TIN: 1234567890
Buyer TIN: 5123456789
Buyer Cost Centre: 123
POS number: POS2017/998
POS time: 15/6/2017 8:56:23AM
Ref no: P22VC8VR-3TJCSV65-114906
-----NORMAL SALE-----
Items
=====
Name Price Qty. Total
Sport-100 Helmet, Blue (E)
34.99 10 349.90
Mountain Bike Socks, M (A)
9.03 4 36.12
HL Road Frame - Red, 58 (F, A)
1431.50 2 2863.00
Plastic bag (P)
0.10 5 0.50
-----
Total Purchase: 3249.52
Payment Method: Cash
=====
Label Name Rate Tax
E STT 6.00% 19.81
A VAT 9.00% 219.51
F ECAL 10.00% 240.59
P PB 0.10$ 0.50
-----
Total Tax: 480.41
=====
SDC Time: 2017-06-15 08:56:25
SDC Invoice No: 7AF40923-E3B30A31-234
Invoice Counter: 230/234NS
    
```



TaxCore Fraud Detection & Verification

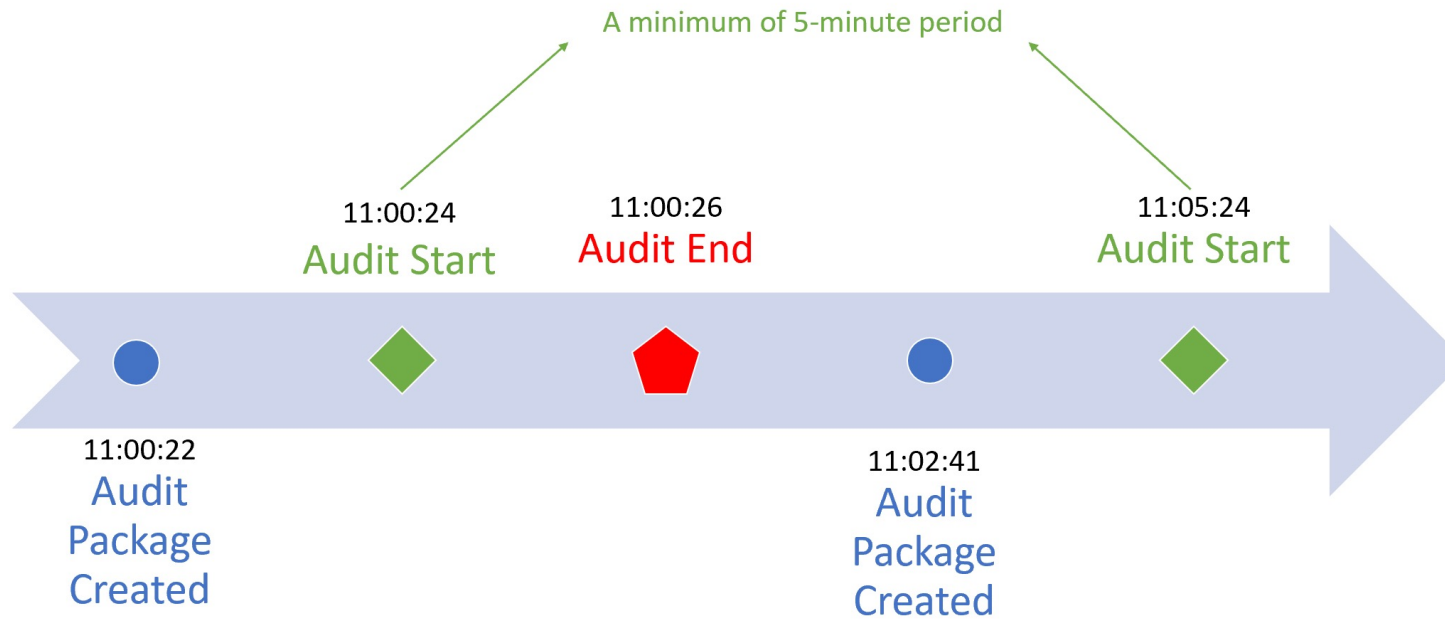


- Save Receipt
- Send to email
- Tourist Tax Refund
- Play Lottery
- Donate
- Loyalty



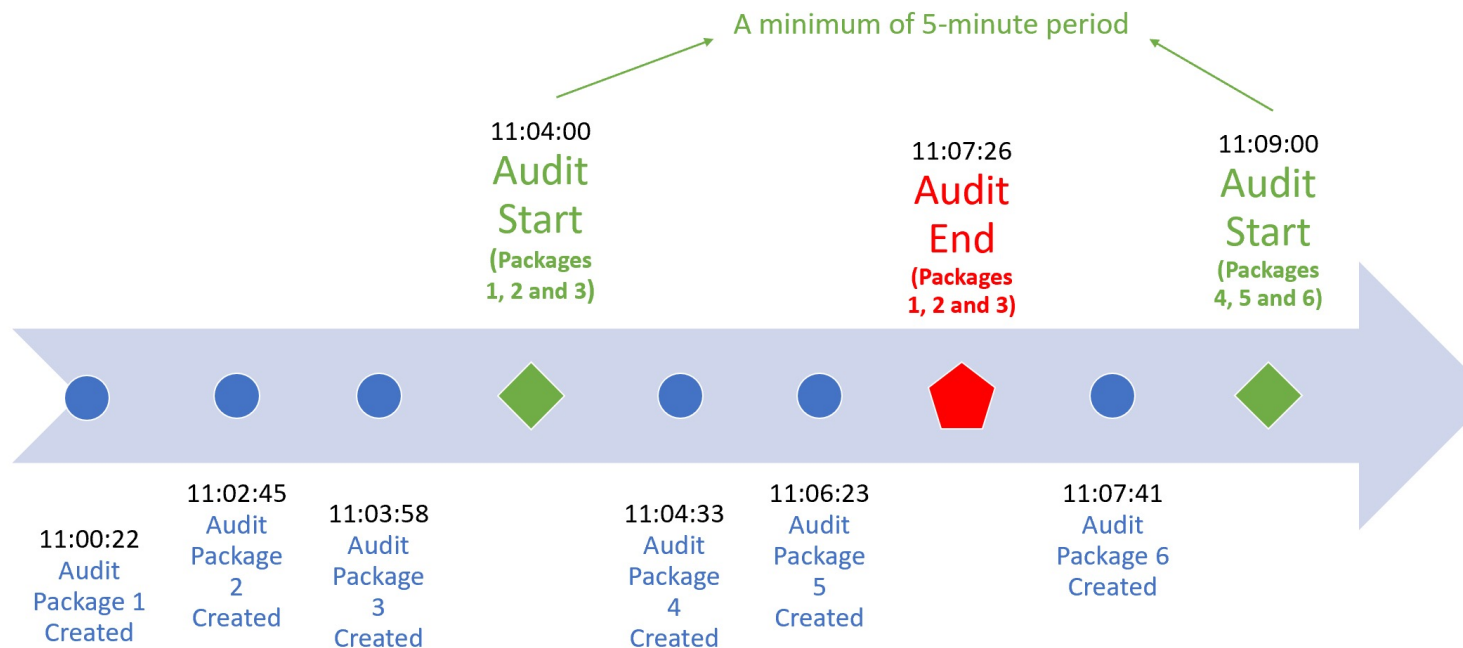
Proof Of Audit for each Secure Element

Case 1 – Audit is performed after the creation of each audit package



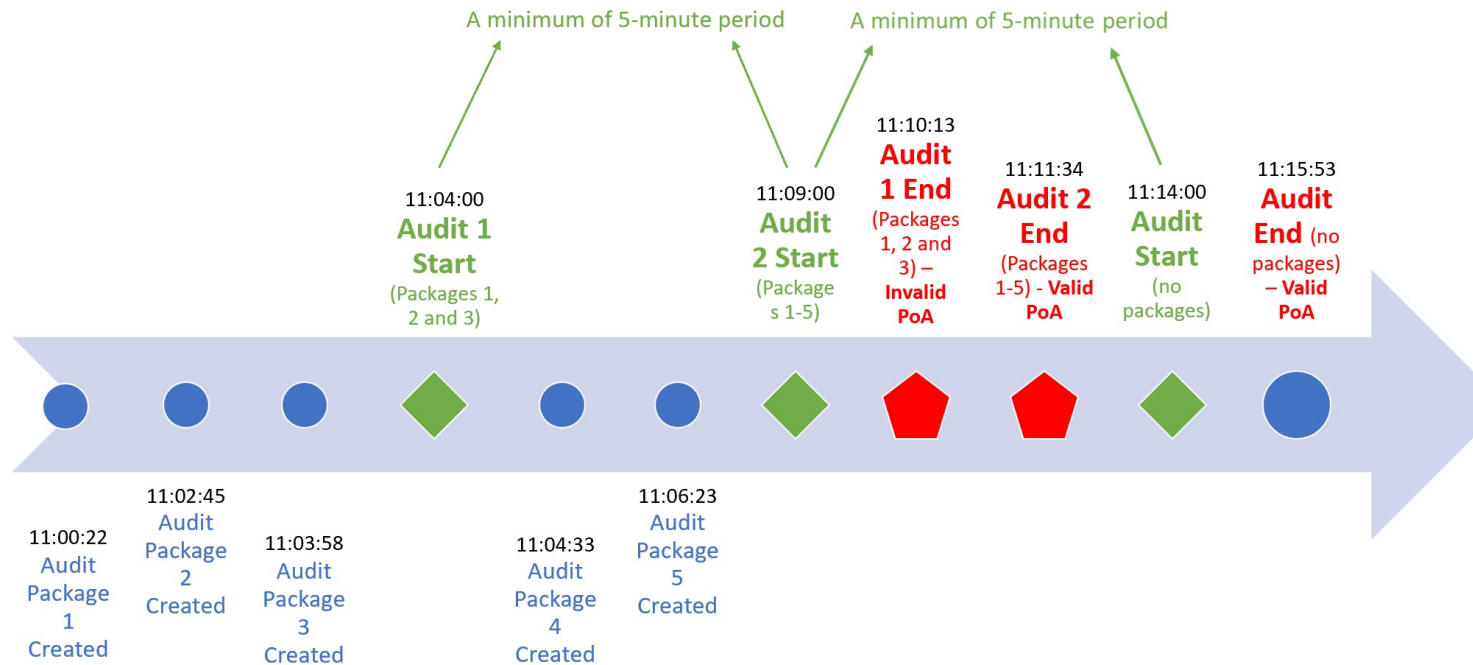
Proof Of Audit for each Secure Element

Case 2 – Audit is performed after multiple audit packages have been created



Proof Of Audit for each Secure Element

Case 3 – Audit is started multiple times before the first proof of audit arrived



Proof Of Audit

- Each Secure Element (SE) has Transaction Limit
- If Transaction Limit is reached SE is locked
- If all invoices are audited TaxCore issues Proof Of Audit to SE
- Proof of Audit resets Transaction Limit
- Seamless, automatic process, invisible to taxpayer, unless audits are not performed

TaxCore Fraud Detection & Verification

- ✓ 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

Resources

- Manifesto (En, Fr, Es, De, Pt, Sr)
http://dti.rs/dti_manifesto.html
- Sales Data Controller
www.salesdatacontroller.com
- Digital Invoice Customs Exchange
www.digital-invoice-customs-exchange.com
- Fiji Revenue And Customs Services – **VAT MONITORING SYSTEM (VMS)**
<https://www.fracs.org.fj/our-services/vat-monitoring-system-vms>
- Samoa Ministry for Revenue and Customs – **TAX INVOICE MONITORING SYSTEM (TIMS)**
<http://support.tims.revenue.gov.ws>

Thank you for attention!



Request a copy of white paper:
"Fiji – Mandatory Digital Invoices"

