

**Zappers:  
What's Already Here?  
What's Coming?**

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Midwestern States Association of Tax Administrators

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**JUMP START** by Robb Armstrong



YOU'RE GONNA LIKE THIS MOVIE, JOJO



IT'S CALLED "BACK TO THE FUTURE PART TWO"



IT'S ABOUT A KID WHO VISITS 2015...



THEN HE GOES BACK TO 1955 TO SAVE 1985 FROM DISASTER



MADE ME WANT A TIME-TRAVELLING DELOREAN!



COOL MOVIE, RIGHT?



Wow. Really? No iPhones or iPads in 2015?

Who are these guys?



# Prometheus & Epimetheus

- Epimethean:
  - Where have we been? ECRs/POS systems ... audit on the business premises
  - Zappers, phantomware
- Promethean:
  - Where are we going? tablets/phones/hand-held devices ... the cloud
  - Where will the next generation of Zappers be?

# INDEX

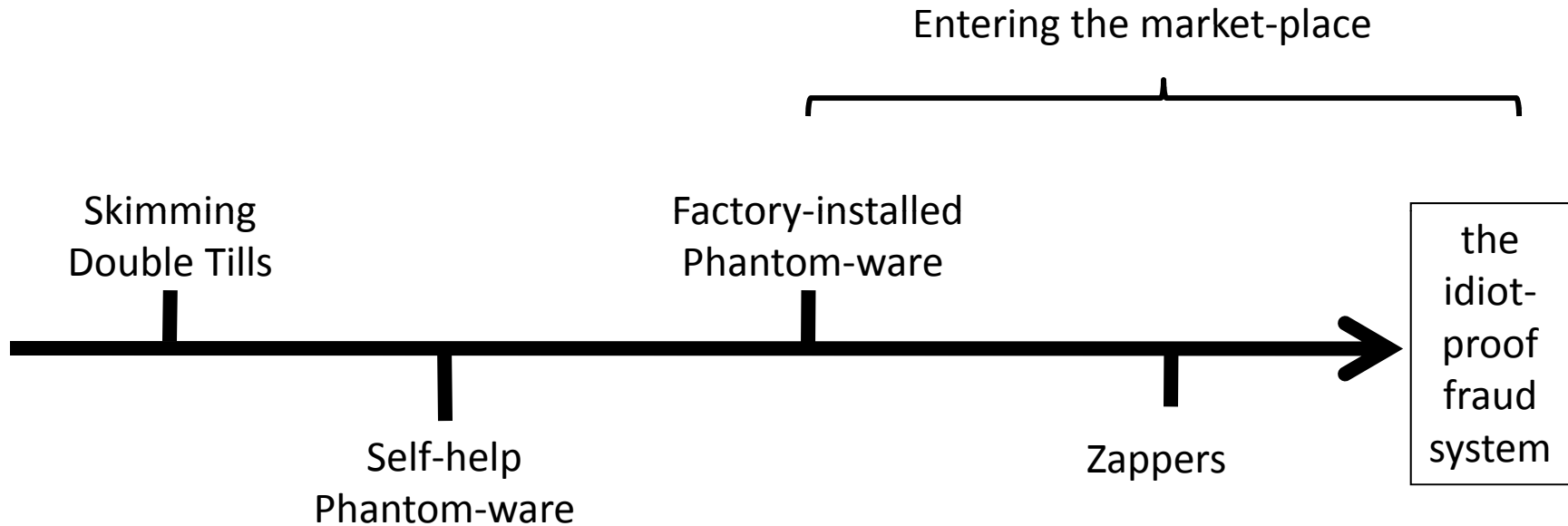
- Theme: Market-place
- Estimated Losses
- Epimethean:
  - Phantom-ware
  - Zappers
  - Is there a Zapper here?
    - Ohio (Example 1)
    - Pennsylvania (Example 2)
    - Questions from the field ...
- State Legislative Activity
- Promethean:
  - Zappers in the cloud
  - Zapped credit cards
  - Zapping with tablets/phones/hand-held devices

# Theme: Market-place

This is a **Mid-size business** issue

- (1) Skimming has been an individual fraud issue, not a market-place issue
- (2) Phantom-ware applications show skimming entering the market-place:
  - Self-help phantom-ware
  - Factory-installed phantom-ware
- (3) Zappers developed next
  - Installers, rogue developers, smaller developers
- (4) Internet based programs

# Development Time Line



## THE COMPETITIVE MARKET-PLACE

Greece – 10m people; 800,000 SMEs; 300,000 to 350,000 ECRs and POS systems; turnover of 30,000 to 40,000 systems per year; 300+ different machines (**all certified**); 50 importers and manufacturers – Germany & Italy (EU); USA, Japan, China (non-EU).

**AND Greece has the highest fraud ratio in the EU (30%)**

# Estimated Losses & Efforts Undertaken

## 1. Estimated tax losses [restaurant only] Missouri:

- GDP = 98% of Quebec
- \$417 million

## 2. Total USA \$21.095 billion

## 3. Other states:

<b>California</b>	<b>\$2.8b</b>	<b>New York</b>	<b>\$1.8b</b>
Illinois	\$1.075b	Michigan	\$740m
Kansas	\$195.5m	North Dakota	\$43m
Nebraska	\$132m	South Dakota	\$51m
Iowa	\$208m	Ohio	\$880m
Wisconsin	\$400m	Indiana	\$446m
Minnesota	\$30m	Oklahoma	\$208m



# Three US Zapper Cases & more ?

- Connecticut case – 1994
  - Custom made zapper (former NCR IT expert)
  - Zapper is kept in a hollowed out book in office
  - \$17m (IRS income tax audit) – Customs uncovered
- Michigan case #1 – 2007
  - Zapper kept at owner's residence connected to ECRs at 13 restaurants
  - Skim \$20m (4 years) sent to Hezbollah (Lebanon)
  - CIA mole (sister-in-law); wife in prison
  - Husband is fugitive from US (in Lebanon)
- Michigan case #2 – 2011
  - Installer (Journal Sales Remover program)
  - 2 strip clubs – over \$500,00 gross sales
  - 5 years in prison (plea bargain – will talk

# Phantom-ware

There are two types:

Self-help

Factory Installed

# Type 1 – Self-help Phantom-ware

- Modern ECRs can be re-programmed to eliminate the audit trail (critical records)
  - Z Reports (daily/periodic) – end of day report that records sales, taxes, media totals, discounts, voids, etc.
  - X Reports – same as Z Reports except they do not “reset” the system after being taken.
  - Electronic Journal – records all transactions (blow-by-blow) entered in the machine
- Programming is “secret” (not in user’s manual) – limit access [bad employee issues]

# Type 2 – Factory installed Phantom-ware

- Does not require re-programming
- Secret (hidden) functionality built in to ECR
  - Not discussed in user's manual
  - Not visible in menu structure
  - Commonly revealed only in oral communications with
    - » Installer
    - » Sales representative
- The idea is to remove the need to re-program
  - Manufacturer loses “deniability”
  - These programs have only one function

# Zappers

There are three generations  
Zappers Past; Zappers Present;  
Zappers Yet to Come

# Zapper from the Past

- This is an old Quebec Zapper. It has been “hard wired” into the ECR. The picture shows the top of the ECR removed, and the yellow arrow points to the device.
- When Zappers are added to ECRs this way it is very easy to find them.
- People only do it this way in jurisdictions that are not looking for them.



# Contemporary Zapper

Note: this Swedish zapper requires a lot of manual intervention.





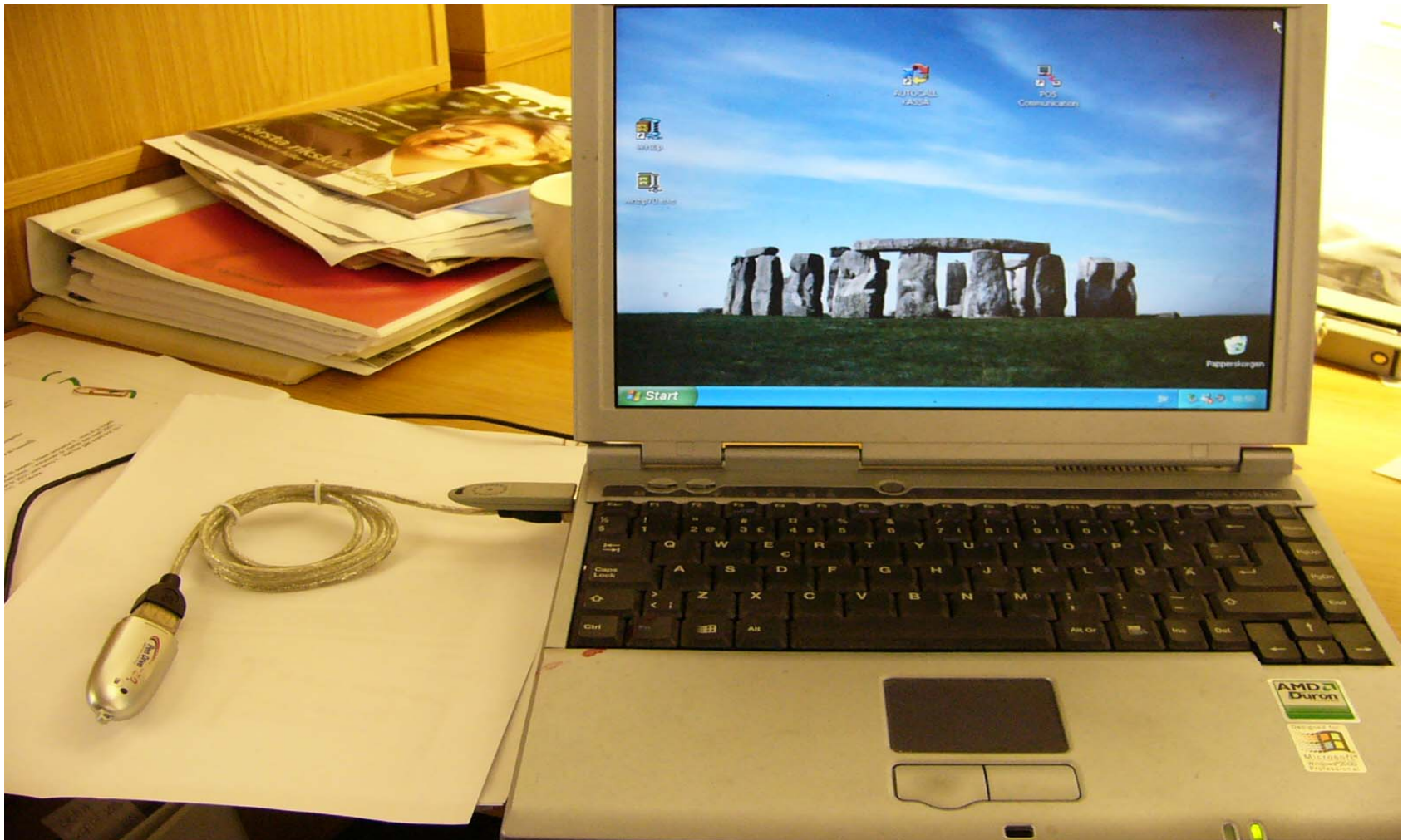
## A specific brand of cash register (blood)

Manufactured in Paris (since 1983)

Popular in Italy, Belgium, Portugal, Spain, Germany, Denmark, Australia, USA and North Africa.

Uses "Specific kind of" back-office program

Cash register is connected to a PC (in the back office) like the one on the following slide.



## Back-Office PC

Notice the “dongle” (grey memory stick) protecting proprietary program

Notice the silver memory stick – this is the “zapper”

Restodata is programmed to automatically download **all** information about **all** transactions from **all** cash registers every morning at (for example) 5:00 am

# Ohio

US District Court, Northern District of Ohio, Western Division  
3:12-cr-262-DAK (filed 5-22-2012)

- 18 people indicted - \$3 million [Tarek Elkafrawi]
- FBI; ICE-HSI; Joint Terrorism Task Force [Egypt; Jordan; Lebanon]
- Change in POS (2010) – Internet access
- Two franchise fees [Equipment/land; royalty/advertising = 8% net sales].
- Manipulation of
  - Sales, payroll, false SSN, multiple SSN, 200+ illegal workers, underpaid for overtime, “New” system manipulation of hours worked, weekly central administration credit \$2,300
  - Remote access to Ohio “new system” with “specific on-line software viewer” software from home computers – reset clock; manipulate cash transactions because tickets remained open; “new system” taken “off-line”

# PA & NJ

US District Court, Eastern District of Pennsylvania  
2:12-cr-241-MAM (May 16, 2012)

- Evasion began in 1986 – FBI & IRS-CI
  - Philadelphia, PA area & several NJ locations
- \$15 million skimmed (\$2.2m income tax)
- Paid workers in cash – cash taken to Florida retirement home & kept in safes on premises
- Second set of books found
- Family owners and managers at each location
- Several owners filed \$0 returns with claims for refundable credits

# Calls from the field -- Zapper?

“We have an account where the records show only receipts for certain times of the day, the other times of operations are missing. I assume this would be turning off the machine or putting it on training mode. Have you heard of a zapper that would remove certain time periods from records? Thanks.”

# A Possible Zapper?

“There is a chain of five restaurants in the same town, two high end, three middle to higher end. Labor ratio is 26 percent, should be around 38 to 40, mostly credit cards, seems high though the average is about 88 percent on preliminary analysis, same POS. I suspect that maybe credit cards could be diverted, need to dive deep to see what is there, the labor is out of line based on analysis of what we usually see.”

# How about here?

“Another one, we have the electronic data and the order numbers are missing throughout the audit at a rate of 11 percent per quarter. Guest check numbers are missing at a smaller rate, the order numbers are deep programmed where there are reasons for missing guest receipt numbers to be missed per software IT folks, they say order numbers should always show, .... zapper?”

# Found One

“I was able to see a zapper in person, interesting. I can not believe how easy it works.”

- Icon [double click] + password
- Eliminate manually or automatic
- Maybe ... 10 min.
- All ECRs must be off to re-index
- Installer identified (installed in 2008)
- Owner showed how it works
- Proof of deficiency difficult ... estimates ... will pay in full
- Will use Zapper for training ...
  - Internally ..... and on the road .....



# State Legislative Activity 9/15

STATE	BILL	ACTION	STATE	BILL	ACTION
CT	HB 5421	Law	NC	SB 854	
FL	HB 7099	Veto	NY	SB 2854	
GA	HB 415	Law	OK	HB 2576	Law
IL	HB 6155		TN	SB 2194	
IN	HB 1337		UT	HB 96	Law
LA	SB 616	Law	WV	SB 411	Law
ME	LD 1764	Law			
MI	SB 768	Law			
MO	SB 840				

# Epimethean Solutions

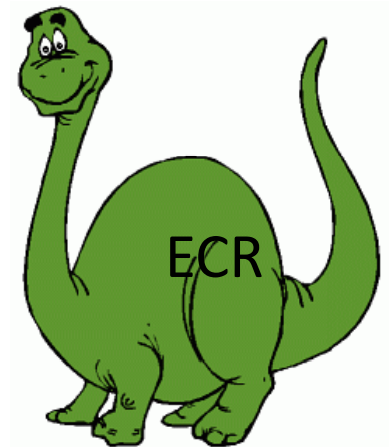
- Comprehensive Technology
  - Greek government – certification of each ECR (\$ ??)
  - German government – INSIKA smart card (\$50)
  - Quebec government – Sales Recording Module (\$800)
  - Private sector – Sales Data Recorder with mobile (\$350)
    - Belgium; Sweden; Slovenia; Rwanda; Kenya;
- Traditional
  - Netherlands – persuasion
  - Norway – comprehensive regulation
    - Potentially like the Greek solution

# Promethean Problems

- Technology solutions require a receipt

<http://www.skatteverket.se/privat/kvitto/webbfilm/medengelsktext.4.71004e4c133e23bf6db80003181.html>

- Internet-based Zappers [Zapper-as-a-Service]
  - Six cases in Portugal
- Zappers have migrated into credit cards
  - United Kingdom, Portugal & Norway
- tablets/phones/hand-held devices
  - The ECR is a dinosaur
  - Big retail store #1, #2 & Big hardware store #1, #2 and Big coffee store #1 ...



# Promethean Solutions



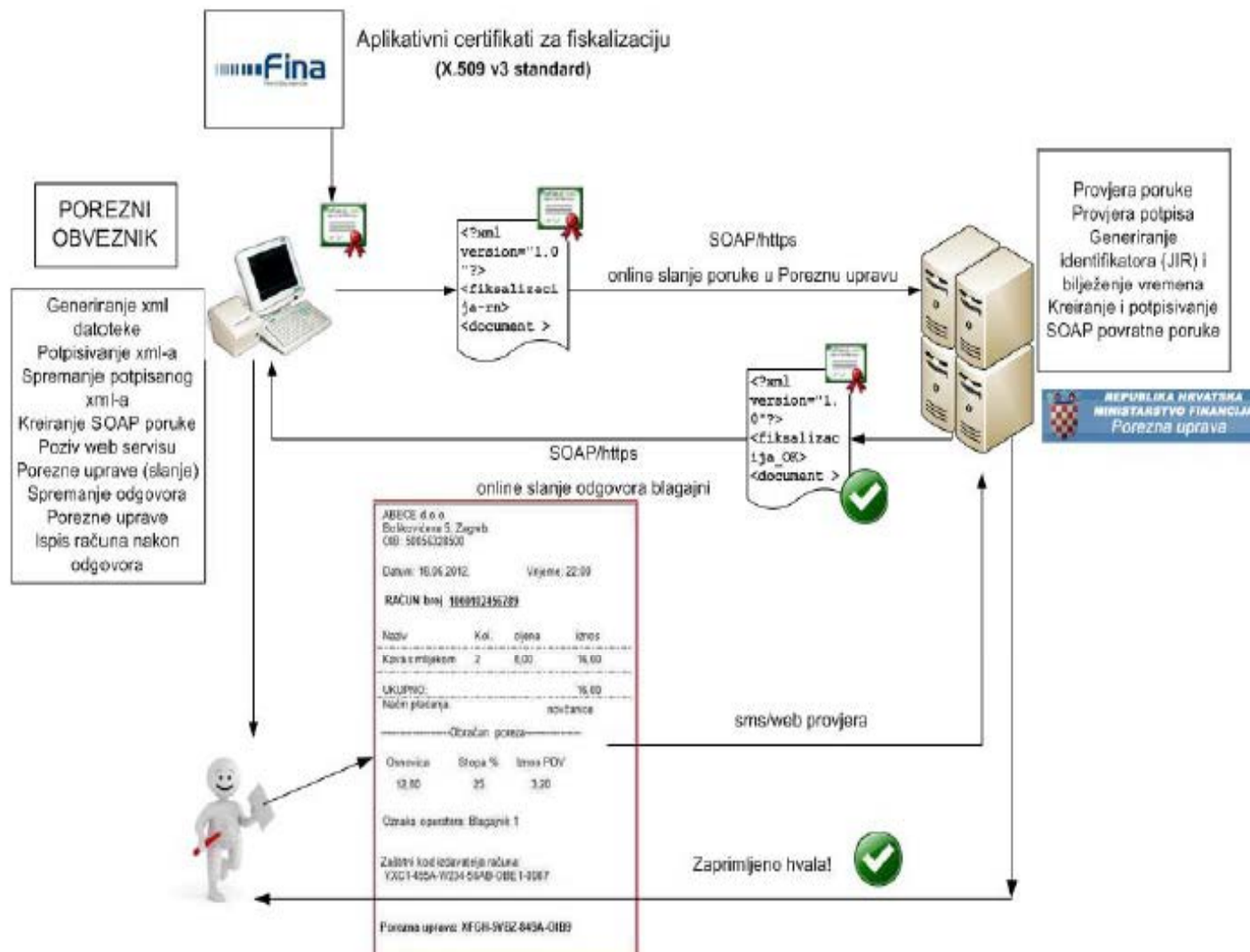
- Penalize the Installer
- Do a sting with a false restaurant
- If there are privacy concerns with comprehensive technology solutions, opt for
  - severe (limited) enforcement (Oklahoma)
  - broad (conditional) enforcement (Missouri)
  - “bad apple” enforcement (New York)
- Split credit card payments



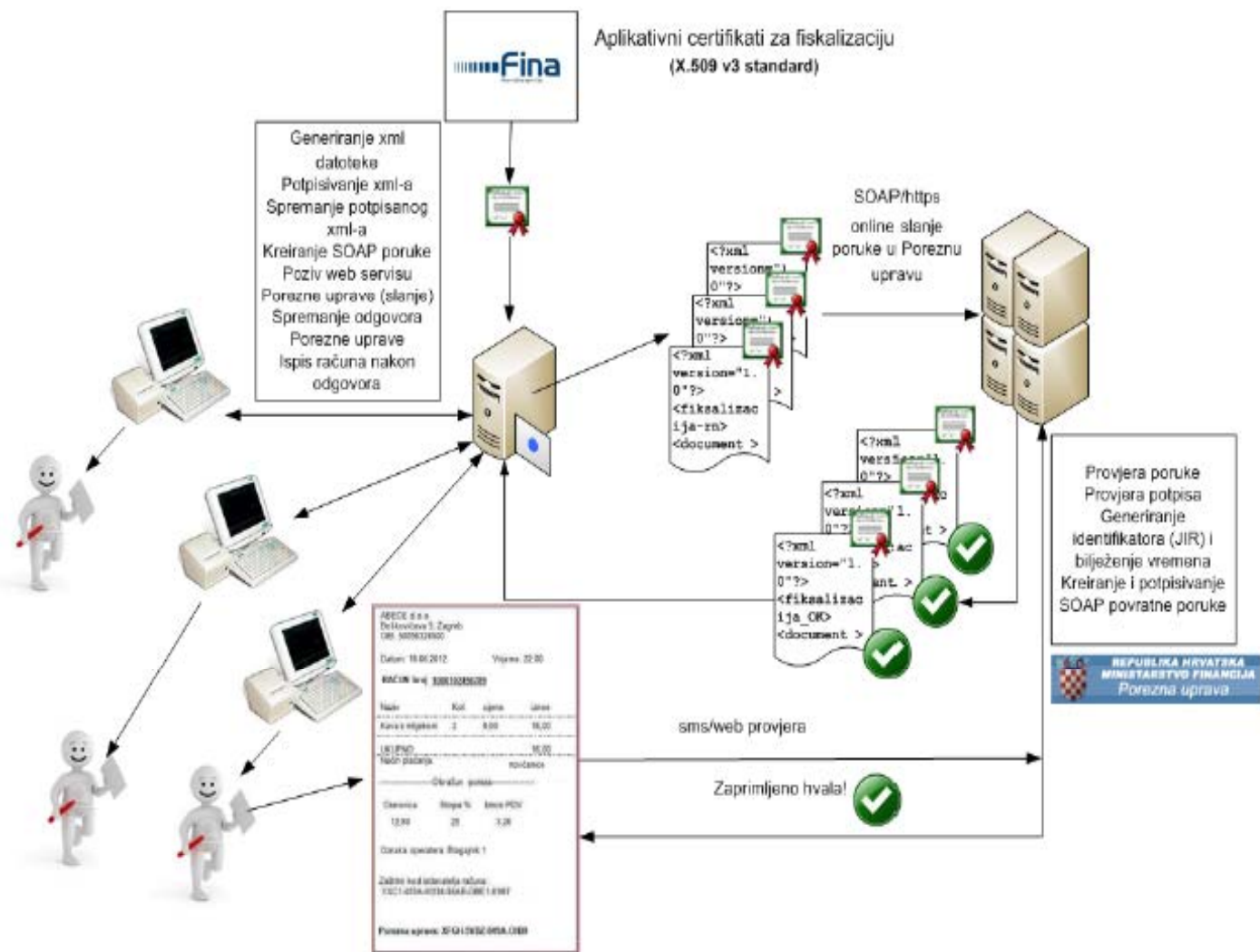
- Ecuador, Russia, Turkey, Argentina, Brazil, Peru, Chile, Uruguay, Austria, Mexico, Colombia, Guatemala, El Salvador, Dominican Republic, and Costa Rica.



# Croatia (1)



# Croatia (2)



# Croatia (3)

ABECE d.o.o. Boškovičeva 5, Zagreb OIB: 50056328500				← OIB poreznog obveznika
Datum: 18.06.2012.		Vrijeme: 22:00		
RAČUN broj 1000102456789				← Redni broj računa
Naziv	Kol.	cijena	iznos	
Kava s mlijekom	2	8,00	16,00	
UKUPNO:			16,00	
Način plaćanja:		novčanice		
-----Obračun poreza-----				
Osnovica	Stopa %	Iznos PDV		← Obračun poreza
12,80	25	3,20		
Oznaka operatera: Blagajnik 1				← Oznaka osobe koja je izvršila naplatu
Zaštitni kod izdavatelja računa: YXC1-455A-W234-56AB-OBE1-0987				← Zaštitni kod – offline i online izdavanje računa
Porezna uprava: XFGH-5VBZ-849A-OIB9				← Potvrda Porezne uprave o transakciji (JIR)

## Obavezni sadržaj računa:

- OIB
- Naziv
- Datum i vrijeme
- Redni broj računa
- Stavke kupnje
- Način plaćanja
- Obračun poreza
- Oznaka operatera (osoba)
- Zaštitni kod izdavatelja računa
- Potvrda Porezne uprave o online primitku transakcije (JIR) ili u offline modu posebna poruka - upozorenje

# Prometheus & Epimetheus





# Further Reading

- **An American Look at Zappers: A Paper for the Physikalisch-Technische Bundesanstalt, Revisionsssicheres System Zur Aufzeichnung Von Kassenvorgängen Und Messinformationenthe**  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2026140](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026140)
- **Zappers & Phantom-Ware: A Global Demand for Tax Fraud Technology**  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1139826](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1139826)
- **Zappers: Tax Fraud, Technology and Terrorist Funding**  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1095266](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1095266)

# Thanks

- Richard T. Ainsworth
- ADP
  - [Richard.Ainsworth@adp.com](mailto:Richard.Ainsworth@adp.com)
- Boston University
  - [vatprof@bu.edu](mailto:vatprof@bu.edu)

# Supplemental Slides

- Details of a Zapped transaction (from a Swedish Zapper)
  - 11 slides
- 9 Ways to find a Zapper
  - 11 slides

# Supplement 1

Details of a “zapping” from Sweden

So, before manipulation here is the  
electronic journal  
the sales report  
the sales receipt

Fil Ändra

AB  
----- 208  
(TEL )

ORG NR

2006-10-05 15:02:41 **ELECTRONIC JOURNAL UTSKRIFT -** - 2005-03-11 00:00  
--> 2005-03-11 23:59

Nr	Namn	Ant	SUM
21	LUNCH B	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,00
TOTAL KVITTO			65,00
Direkt POS number:1			
Bord NR:0 GÄST ANT:1 Nyk nr:1			
2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1			
*****			
23	LUNCH BUFFE	1	68,00
1	KONTANT	1	68,00
	MOMS 25%	1	13,60

## Electronic Journal (before manipulation)

1. Item number 21 is a Lunch B
2. It cost 65,00 kroner
3. The receipt is number 2/1

AB

ORG NR.

***Förs.per familj***  
2005-03-11 till 2005-03-11

<b>Namn</b>	<b>SUM</b>
Unknown family	693,00 kr
AVHÄMTNING	1 701,01 kr
DRINK	340,00 kr
DRYCK	1 026,00 kr
MAT	19 981,00 kr
SPRIT	669,00 kr
STARKÖL	13 492,00 kr
VIN	3 144,00 kr
<b>TOTAL</b>	<b>41 046,01 kr</b>
Out of SALES :	0,00 kr
Rabatt :	-209,70 kr

## Sales Report (before manipulation)

We need this for comparison later



# T00120050311.TIC - Anteckningar

Arkiv Redigera Format Visa Hjälp

```
A 21 1 1 6500H 2
R 1 1 6500I
X 1 1 1300P
C 0 2 0G
D 0 1 1 1 1L
-1103051113000002/1 3 650007670006001H
F
A 23 1 6800G
R 1 1 6800D
X 1 1 1360B
C 0 2 0G
D 0 1 1 1 1L
-1103051120000003/1 680007676006001N
F
```

## Sales receipt (before manipulation)

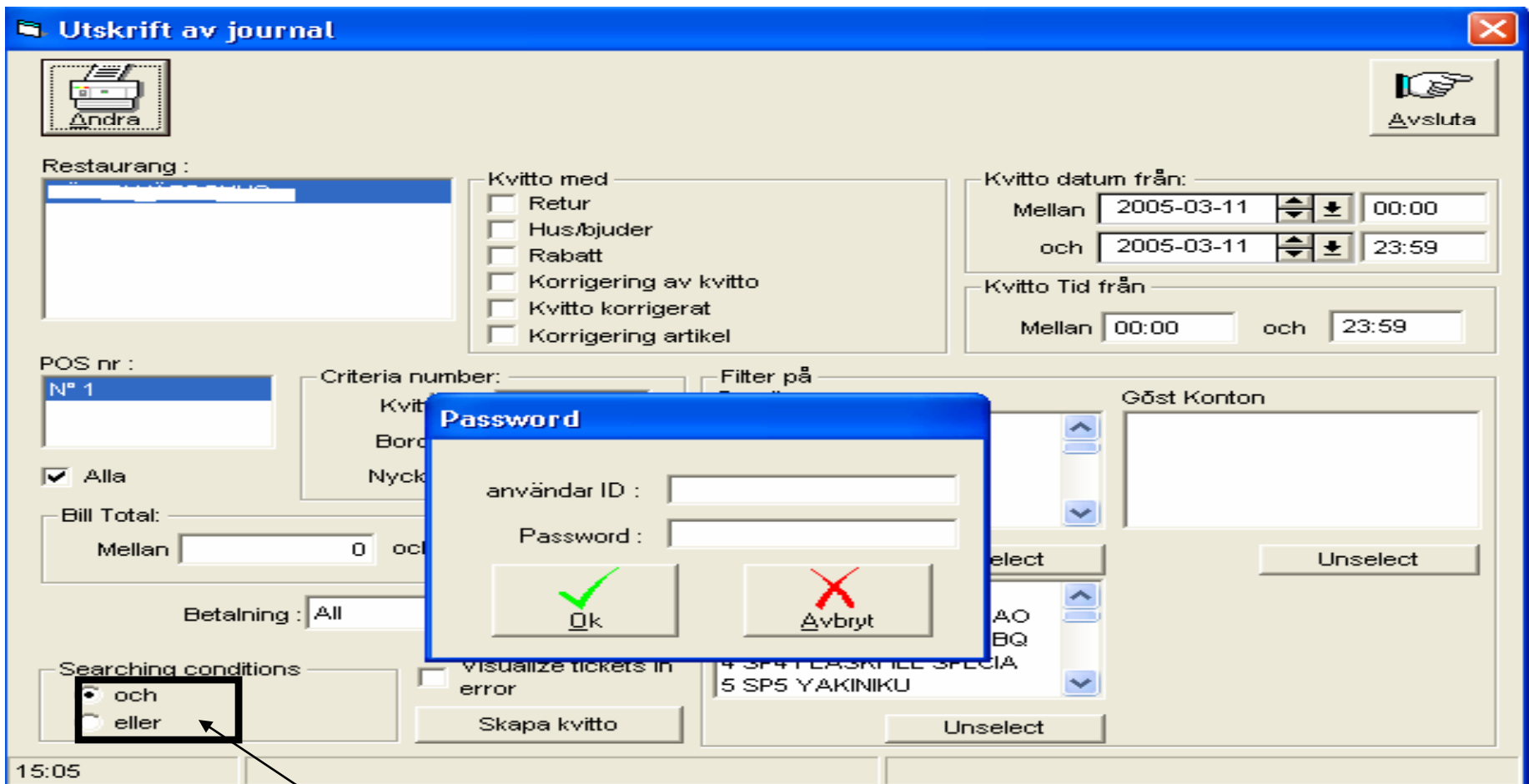
These are in the "TIC" files (for "tickets"). Notice:

1. Item number 21
2. Sales price of 65,00 kroner
3. Ticket number (receipt number) 2/1



To manipulate the data you insert  
the zapper (silver memory stick)

There is a new version of the  
CMDCAR.DLL program on the zapper



## Double-Click on the secret module

It is not all that apparent what you need to do here, but by double clicking in the box in the lower left, entering an ID and a password, you will get to the next screen – the Electronic Journal (which can be adjusted).

Elektronisk journal

Change password

Change

End

Restaurant :

POS Nb : N° 1

Waiters : 2 CAFE 2, 3 SERV 3, 4 SERV 4, 5 SERV 5

Date: 2005-03-11 au 2005-03-11

Bill Total: Upper to 0

Receipt time: Entre 00:00 och 23:59

All

List of tickets paid in cash			Replacement tickets			Articles à exclure: 0		
Date	Time	Nb ticket	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Direkt	65,00 kr		
05-03-11	11:20	000003/1	1	1	Direkt	68,00 kr		
05-03-11	11:30	000004/1	1	1	Direkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Bord	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Select the tickets to replace in the list  Manual selecting of replacement tickets

Total Sales : 40 836,31 kr

Total P Total : 0,00 kr

Total Gross : 40 836,31 kr

Amount to remove :

Threshold amount : 100

Buttons: Analyse, Replace auto, Validate

## “Manipulate-able” Electronic Journal

Notice that we can either

- (1) select a ticket to adjust, or
- (2) auto-replace

So, assume we take the selection of a ticket approach ... (1),

When we select the first item (ticket number 2/1) we then get ...

**Elektronisk journal**

Change password

Change

End

Restaurant:

POS Nb:

Waiters: 2 CAFE 2, 3 SERV 3, 4 SERV 4, 5 SERV 5

Date: 2005-03-11 au 2005-03-11

Bill Total: Upper to

Receipt time: Entre  och

**List of tickets paid in cash**      **Replacement tickets**      **Articles à exclure: 0**

Date	Time	Nb ticket	POS	Wait	Type	Amount	Replaced by	Total removed
05-03-11	11:13	000002/1	1	1	Direkt	65,00 kr	Nr1 45,00 kr	20,00 kr
05-03-11	11:20	000003/1	1	1	Direkt	68,00 kr		
05-03-11	11:30	000004/1	1	1	Direkt	60,00 kr		
05-03-11	11:35	000005/1	1	1	Direkt	136,00 kr		
05-03-11	11:44	000006/1	1	1	Direkt	76,00 kr		
05-03-11	11:46	000007/1	1	1	Direkt	136,00 kr		
05-03-11	11:48	010001/2	1	1	Bord	45,00 kr		
05-03-11	11:49	000008/1	1	1	Direkt	68,00 kr		
05-03-11	11:54	000010/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000011/1	1	1	Direkt	68,00 kr		
05-03-11	11:55	000012/1	1	1	Direkt	130,00 kr		
05-03-11	11:55	000013/1	1	1	Direkt	35,00 kr		
05-03-11	11:56	000014/1	1	1	Direkt	68,00 kr		
05-03-11	11:56	000015/1	1	1	Direkt	65,00 kr		
05-03-11	11:57	000016/1	1	1	Direkt	73,00 kr		
05-03-11	11:58	000017/1	1	1	Direkt	136,00 kr		
05-03-11	11:59	000018/1	1	1	Direkt	65,00 kr		
05-03-11	12:04	000019/1	1	1	Direkt	65,00 kr		

Manual selecting of replacement tickets

Total Sales: 40 836,31 kr      Amount to remove:       Threshold amount: 100

Total P Total: 20,00 kr

Total Gross: 40 816,31 kr

Analyse      Replace auto      Validate

## Manipulated Electronic Journal (pro-forma)

Here is what we have done so far – is this enough manipulation?

Ticket 2/1 has been changed from 65,00 to 45,00 with a reduction of 20,00 on this ticket

There is a running total kept (in case you want to remove more)

**Elektronisk journal**

Change password

Change End

Restaurant : POS Nb : Waiters : Date :  
 2005-03-11 au 2005-03-11

Bill Total: Upper to 0 Receipt time: Entre 00:00 och 23:59

**List of tickets paid in cash**      **Replacement tickets**      **Articles à exclure: 0**

Article List :

134 D	60,00 kr
233 ESPRESSO	25,00 kr
534 FAUSTINO	238,00 kr
330 FLASKÖL 33CL	35,00 kr
<b>334 FLASKÖL 50CL</b>	<b>45,00 kr</b>
341 FOLKÖL 33CL	25,00 kr
210 FYRA SMÅ RÄTTER	105,00 kr

Price Level : Normal

Tickets

334 FLASKÖL 50CL	1	45,00 kr
------------------	---	----------

Total: 45,00 kr

Erase Ticket Add

Ticket with commission

List of replacement tickets

334 FLASKÖL 50CL	1	45,00 kr
Cash		45,00 kr
MOMS 25%		9,00 kr

\*\*\*\*\*

Total Sales : 40 836,31 kr      Amount to remove :      Threshold amount : 100

- Total P Total : 0,00 kr

Total Gross : 40 836,31 kr

Analyse Replace auto Validate

**Replace the Lunch Buffet (65,00) – with a beer (45,00)**

Notice the price reduction (we could have gone lower) – Notice the tax reduction  
 The Swedish VAT is at 25%

Nr	Namn	Ant	SUM
21	LUNCH B	1	65,00
1	KONTANT	1	65,00
	MOMS 25%	1	13,00
TOTAL KVITTO			65,00

Direkt POS number:1  
 Bord NR:0 GÄST ANT:1 Nyk nr:1  
 2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1

Original

Nr	Namn	Ant	SUM
334	FLASKÖL 50CL	1	45,00
1	KONTANT	1	45,00
	MOMS 25%	1	9,00
TOTAL KVITTO			45,00

Direkt POS number:1  
 Bord NR:0 GÄST ANT:1 Nyk nr:1  
 2005-03-11 11:13 Kvitto NR:000002/1 Servit NR:1

Manipulated

## Comparison: Original & Manipulated Electronic Journal

Notice the reduction in gross sales & the reduction in tax.

If this record is tied into inventory control, adjustments in related purchases will be necessary [some zappers will do this for you] because you may have just "sold" more beer than you ordered

```
A 334 1 4500?  
R 1 1 4500?  
X 1 1 900?  
C 0 2 0G  
D 0 1 1 1 1L  
-1103051113000002/1 45000767000600LH  
F  
A 23 1 6800G  
R 1 1 6800D  
X 1 1 1360B  
C 0 2 0G  
D 0 1 1 1 1L  
-1103051120000003/1 68000767600600LN  
r
```

**Manipulated**

```
A 21 1 6500H  
R 1 1 6500I  
X 1 1 1300P  
C 0 2 0G  
D 0 1 1 1 1L  
-1103051113000002/1 650007670006001H
```

**Original**

## Comparison of the TIC-files – Manipulated & Original

Notice the “?” in the Manipulated version in contrast with the letters “H”, “I” & “P” in the original version. This one of the tell-tale signs of manipulation in this particular program. It may indicate that the system has not been correctly updated since the manipulation procedure.

# Supplement 2

## 9 Ways to find a Zapper



# How do you find Sales suppression devices?

- 1. Stealth visits before audit
- 2. Set up a dummy store
- 3. Detailed examination of ECR printouts
- 4. Concentrate on “high risk” businesses
- 5. Audit lead from a different “rigorous audit”
- 6. Audit lead from another jurisdiction
- 7. Find and follow the corrupt installer
- 8. Work collaboratively with absent owners
- 9. Read the 250 Quebec cases in your spare time to learn the fact patterns ... and other stuff ...

# 1. Stealth visits before audit

- This is how Revenue Quebec found its first Zapper in 1997
- Auditor visited a restaurant before opening an audit, saved her receipts, and looked for records in the TIC files of the ECR.
- Requires some luck

## 2. Set up a dummy store

- This is what the Canadian Broadcasting Corporation did in Montreal.
- ECR salesman approached CBC and explained factory-installed Zappers
  - Company was subsidiary of a US ECR distribution business
  - Salesmen actually gave interviews to CBC
- Connecticut has reported the similar activity in complaints by “honest” ECR sales people

# 3. Detailed examination of ECR printouts

- Swedish approach
  - There is a Swedish ECR lab in the government's training facility that has a number of corrupted ECRs for practice & training of auditors
- South Carolina attorney looking for this kind of evidence in court case
- Requires knowledge of ECR programs – they are specific to ECR types not generic

## 4. Concentrate on “high risk” businesses

- Not:
  - If Mom or Pop runs the cash register
  - If publicly held enterprise
- Yes:
  - If multiple locations with a remote but actively engaged owner [La Shish (Detroit); Ronan (Australia)]
  - Employees are paid wages under the table
  - Unusual ratio of cash-credit transactions

## 5. Audit lead from a different “rigorous audit”

- Zappers leave a cash hoard that is difficult to dispose of – don’t stop with the initial audit, push to find the Zapper:
  - Audit shows that many employees are paid in cash [Dudok (Netherlands)]
  - Cash taken off shore- US Customs [Stew Leonard’s Dairy (CT)]
  - Cash sent to Hezbollah – Homeland Security [La Shish (MI)]
  - Normal lavish lifestyle evidence [Aleef Garage (UK)]

## 6. Audit lead from another jurisdiction

- Ontario picks up leads from Quebec
- New York should do the same with Quebec
- Frequently the devices spread in ethnic communities that have business ties to jurisdictions where this fraud is common [Brazil; Venezuela; Quebec]
  - Austria & Germany found similar Zappers in 600 Chinese restaurants – started in Austria with a Chinese grad student in a technology school – Germany followed the Austrian lead on audits

# 7. Find and follow the corrupt installer

- Revenue Quebec uses search warrants against installers simultaneously with a search of a restaurant.
  - Dudok (Netherlands) installers are correcting the system during an IRS audit to hide data
  - Boutique programmers – makers of specialty cash register programs [Roy (Quebec)]



## 8. Work collaboratively with “absent” owners

- Absentee owners can be victims of the management company [Celine Dion (Quebec)].
- Franchise holders [McDonalds; Burger King; Duncan Donuts] that get a royalty per sale in the store [Cincinnati, Ohio (2007) – IRS]
- A business that hires too many computer savvy students could be a victim.

## 9. Read the 250 Quebec cases in your spare time to learn the fact patterns

- Revenue Quebec publishes summaries of all the **ongoing** cases on the web.
- Go to:  
[http://www.revenu.gouv.qc.ca/eng/ministere/centre\\_information/communiqués/év-fisc/2008/janvier.asp](http://www.revenu.gouv.qc.ca/eng/ministere/centre_information/communiqués/év-fisc/2008/janvier.asp)

# What do you do when you find them?

- Think beyond the audit:
  - Who installed it?
  - Who sold it?
  - Who is competing with this business locally?
- Penalize beyond the audit:
  - Make the sale, possession, distribution of a sales suppression device punishable
  - Make continuation of the business contingent on the installation of certified ECRs [business licensing requirements]
- Contact the marketplace:
  - Treat the fraud as the tip-of-the-iceberg – let the market know you are serious
  - Initiate contact with other jurisdictions to collaborate