



# NATIONAL COST OF VoIP BYPASS

Presented by Julian Fellows

Executive Vice President

Bitek International Inc



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## Presentation Agenda

- 1. Introducing Bitek International**  
Why Bitek is qualified to present to CANTO
- 2. Changes in Telephony**  
Telephony from Yesterday to Today
- 3. The Operators, Governments and Customers**  
Expectations and Issues of the Operator, Government and Customer
- 4. Implications of Managing and Protecting VoIP**
- 5. The Decision to Manage VoIP**



## NATIONAL COST OF VoIP BYPASS

### 1. Introducing Bitek International

Why Bitek International is qualified  
to represent you....



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## Introducing Bitek International

- US based company established in 1974 (33 Years)
- Offices in Los Angeles, Washington DC, and London
- Specialises in Call Management Software Solutions
- History in Traditional Call Accounting and Billing
- Specialists in IP Billing, Fraud & Packet Management
- Bitek has over 50 clients on 3 continents

## Intelligent Network Solutions

Bitek intelligently controls and filters all VoIP communications



## Bitek Markets

- Telecom & Cellular Operators (Grey Traffic Control)
- Telecom Regulators (Grey Traffic Auditing)
- 3G Mobile Operators (VoIP and Skype Control)
- Internet Service Providers (Value Added Services)
- Law Enforcement (ETSI and CALEA Lawful Intercept)
- Security Services (Incriminating Forensic Data Capture)
- Enterprise and Government (Information Security)



# NATIONAL COST OF VoIP BYPASS

## 2. Changes in Telephony

Telephony from Yesterday  
to Today ...



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## How did we get here?

Ten to fifteen years ago Fixed Line was King

- Analogue Mobile was rolling out and GSM on its way
- The internet was just beginning
- Deregulation was ripping up the industry
- Customers were boxed in
- Rates too high
- PSTN's were Government Institutions not Businesses
- Bypass was usually a dial-back service

## Implications of Yesterday's Technology

- Security was more straight forward
- Telco's were national assets that collected indirect taxes
- Customers had no choice
- Bureaucracy made growth difficult
- Access to a Telephone was limited
- Economies of Scale were still relatively expensive

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## Entering new markets was very expensive

- Acquisition of Incumbent Operator
- Purchasing Licenses
- Rationalizing Staff
- Resolving Debt and Financial Problems
- Remote Control Management
- Gambling with Political Change

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***Today, new markets are a Mouse Click Away!***

## The Internet Explosion

Internet may be the New King but Fraud and Bypass Rule!

- No Significant Cost of Entry
- No Taxes Paid
- No Service Obligations
- No Security Responsibilities
- No Infrastructure to Manage
- No Business Overheads
- No Investment in "Target" Country

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***Customers now expect free or very cheap 'Voice'***

## Implications of Today's Technology

- Regulations are not applied at the network level
- Crime is more sophisticated
- Grey and Bypass are rampant and well resourced
- Consumer Bandwidth Demand is exponential
- Expectation that Internet access is a *Birthright!*
- Terrorism and Security are new critical priorities
- Economies depend on their Nation's Internet Networks
- Telco's are expected to be Communication Superhighways
- Voice Rates, Revenues and Taxes are crashing

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***Governments are introducing the concept of "Illegal VoIP"***

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## The VoIP Revolution means

- Free (to consumer) Peer-to-peer Service
- Grey and Bypass Traffic Operators
  - Declining International Rates
  - Lost customers and revenues
  - Customers still pay Calling Card Retail prices
- Confusion for Regulators
- New markets yet to emerge

## P2P VoIP Growth is Exploding

- Skype subscriptions anticipated to grow at a CAGR of 25%  
*(over the next 5 years)*
- Yahoo, MSN, and AOL: VoIP services anticipated to grow to 19% of IM users *(by 2011)*
- Google: Expected growth by a CAGR of 38%  
*(over the next 5 years)*
- Skype projects 7.4% of its users will call landline and cell phones via VoIP *(by 2011)*
- Skype has been downloaded more than 250 million times

July 31, 2006 (Source Pyramid Research)

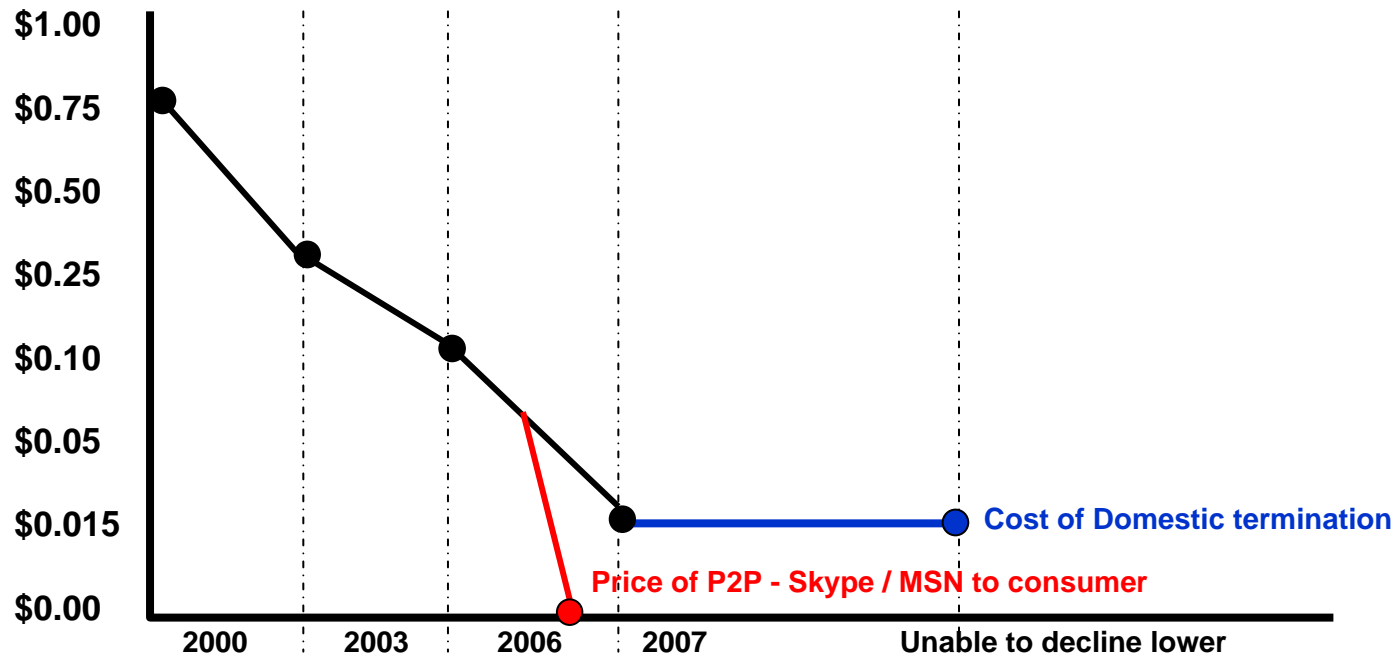
## Skype Consumer Advantages

A popular version of P2P soft phone

- Register under any alias name (no verification process)
- Free calling from anywhere in the world
- Use from any wireless 2G/3G
- Create conference calls to your team
- Provides video conferencing - enabling remote training
- Send & receive documents & images
- Access from PDA, 2G (Via GPRS) and 3G handsets

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## VoIP Bypass/Grey Traffic Undercuts Rates and Taxes



## Around the World

- **Middle East**  
President of Telco confirmed over US \$400million loss
- **Mid Asia**  
Regulator and PTT publish losses over US \$500million
- **North Africa**  
PT&T measured loss at US \$400million in 2006
- **Sub-Sahara Africa**  
Measured at over US \$60million losses in 2005
- **Central America**  
Government officially recognizes loss over US \$100million
- **Europe**  
VoIP bypass calls exceeded \$30bn in 2005 to Africa



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### 3. The Operators, Governments and Customers

Issues and Expectations ...



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## Operators are Real Organizations with Real Costs

- Bandwidth
- Infrastructure
- Service levels
- Regulatory compliance
- Return on Investment
- Competition

## Governments Demand

- Compliance
- Reliability of Supply
- Value for Money
- Variety / Choice
- Technology Renewal
- Taxes and Levy's
- Security and Lawful Intercept
- Political Capital (easy life)

## The Customer is now 'trained' to

- Be suspicious of the Telco
- View ISP and P2P as a "Robin Hood"
- Expect Accessibility / Convenience
- Demand reliable Quality of Service
- Want a Variety and Choice
- Desire Value for Money, (actually they want it for free)
- Need security



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### 4. Implications of Protecting and Managing VoIP



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## Why Protect VoIP from Bypass?

- Governments already demand VOICE Licenses are Bought and Complied with
- Operators have paid for licenses, staff, infrastructure, taxes and bandwidth
- Regulators are normally funded on a percentage
- Taxes are supposed to be collected for value received
- Economy only benefits by keeping money in country

## Why is it important to Keep Revenues in Country?

Reinvestment within country means

- More service
- More choice
- More availability and accessibility
- More economic stability
- More data and physical security
- More liberalization
- More people ultimately pay less – better pricing

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***The customer gets a better deal!***

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## **Additional Benefits to the Customer**

Investment into Competing and Complementary Technologies

- SIP over GSM, 2G and 3G
- WiMax
- Ultra Wideband
- High Speed Broadband
- Bundled Services



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### 5. The Decision to Manage VoIP



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## Do you as a Country, do Nothing?

- Let the ISP and Operator fight it out with Bypass?
- Allow US \$millions to leave the country?
- Fail to bring US \$millions into the country?
- Risk underinvestment in infrastructure?
- Risk the economy on under funded communication infrastructure?
- Fail to build a protected free market?
- Fail to invest in your own nation?

## Do You Protect the National Market?

Unite Operators, Regulators and Governments

- Combat fraud, stop bypass and uphold regulations
- Police the 'bad guys' instead of tying up the operators
- Create new revenue streams like affordable VoIP, P2P and other services when viable
- Recover Revenue, Reinvest Money and build Market Prosperity

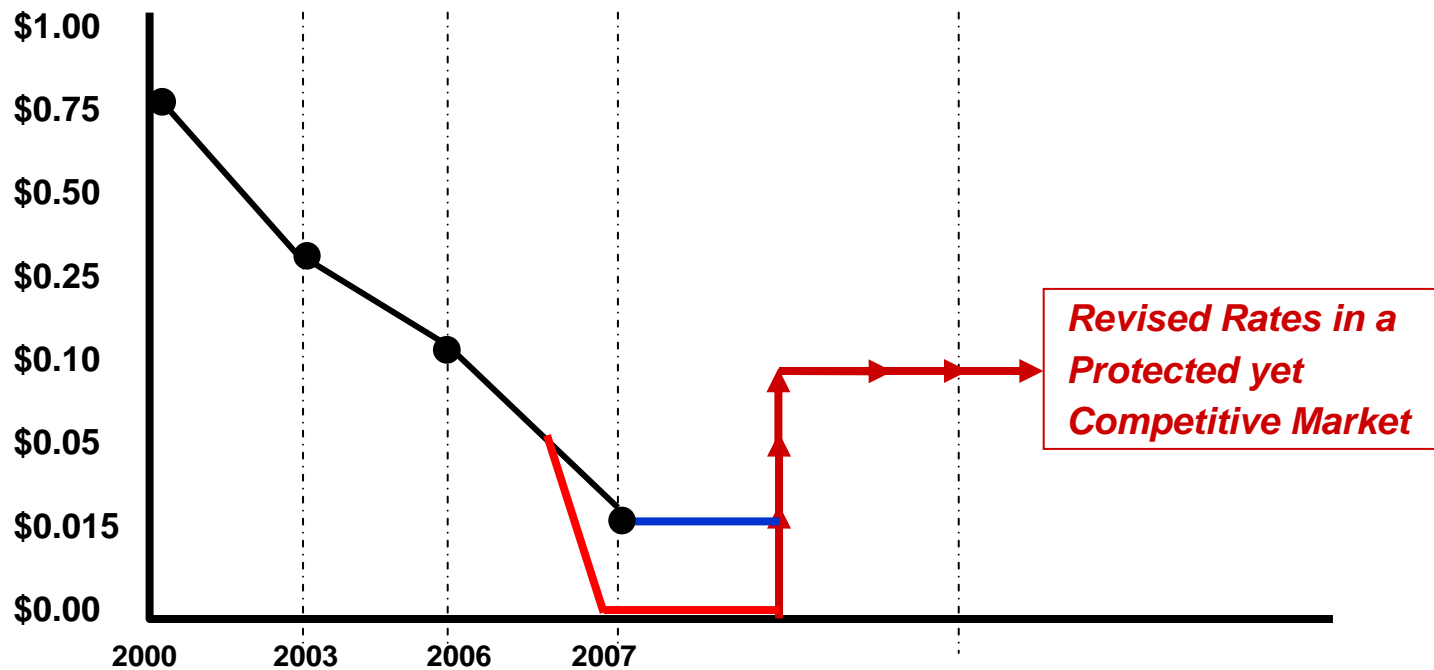
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## Do You Offer Alternatives To Grey Softphones?

- Own Branded VoIP Softphone when Grey or Bypass VoIP is removed
- Launch at the same time as blocking Bypass begins
- Create revenues through Private and Business packages
- Register Customers to satisfy security requirements
- Roll out a PR and Business Campaign to keep the public on side

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## What will happen if you stop Bypass VoIP Fraud?



## **The Proof is in your Network**

- BTC has asked Bitek to Measure its real VoIP
- BTC has offered to be a CANTO Case Study
- All CANTO Operators need to be shown the evidence
- CANTO regional operators will benefit from Bitek case studies

***Facts may be accepted, but only evidence is compelling!***



## 6. Questions and Answers

Thank you Members of CANTO

Julian Fellows – Executive Vice President



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