

The background of the slide features three overlapping globes showing the Americas. The globes are semi-transparent and layered, with the one in the foreground being the most prominent. The entire scene is set against a dark blue background filled with a pattern of white binary code (0s and 1s) of varying sizes and orientations, creating a digital or network-like atmosphere.

# Securing Global IP Networks

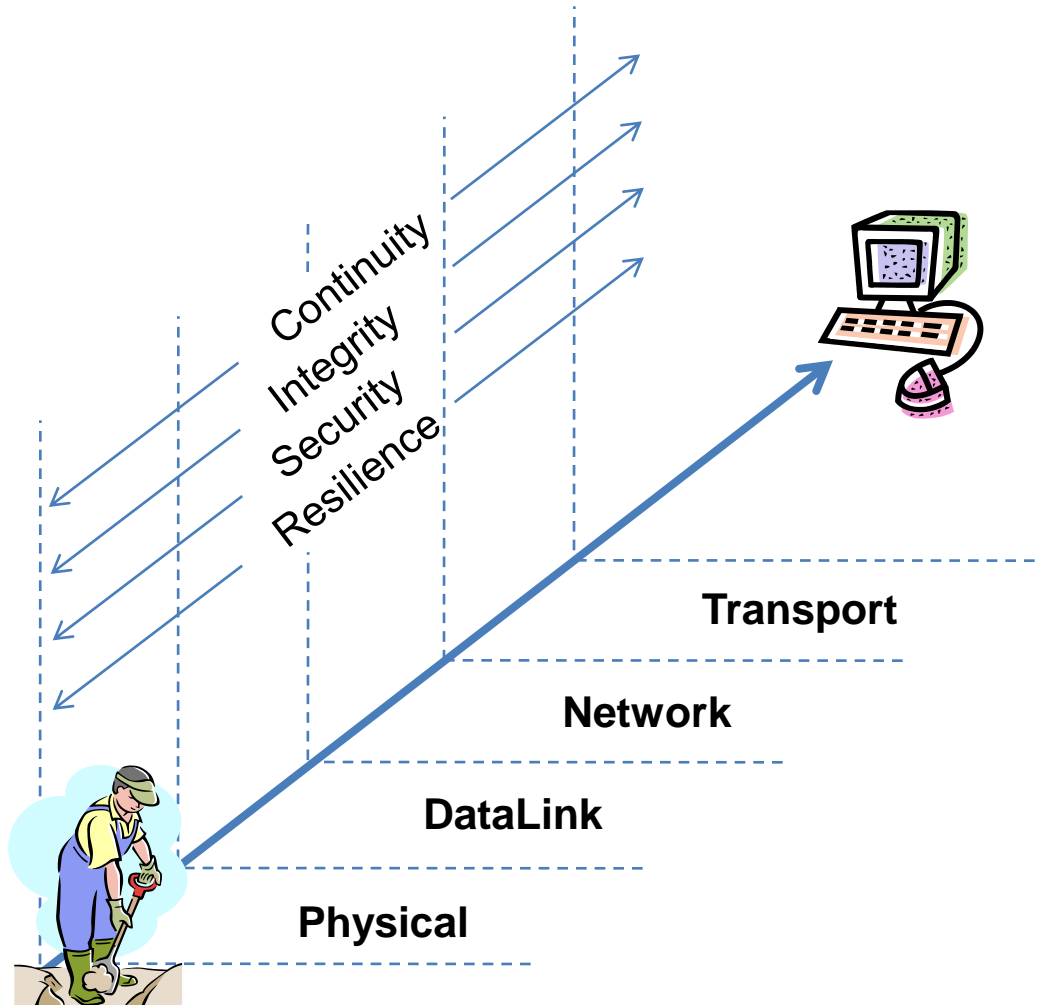
Peter Lawson

29<sup>th</sup> September

# Security – the Challenge

## What is at risk?

Customer and Employee Trust  
Reputation  
Shareholder Value  
Regulatory Compliance  
Protection of Assets



# Core Network Reach



Data Transport   Internet   IP   Security   Voice   Collaboration

# Global Crossing's Security Strategy

**Global Security Organization** ensures the confidentiality, integrity and availability of critical business systems and associated data, specifically:

- Security Architecture and Engineering
- Security Operations
- Security Compliance
- Physical Security

## **“Defense-in-Depth”**

- Multiple, independent and interlinking layers of security provide greater protection than each layer individually, so:
  - Overall integrity of the network system remains secure, even if one part of it fails or is compromised, and
  - A layered security model with changeable components to respond to new technologies



# Global Crossing's Security Culture

## **Security Program Plan governs all aspects of security**

- Compliant with ISO 17799 standards and Global Crossing's Network Security Agreement signed with U.S. Government.
- Enables us to offer an unparalleled level of global security for:
  - Government agencies
  - Financial services providers with SEC compliance and transactional security requirements
  - Customers transacting e-Commerce across our global network
  - Customers requiring voice, data and video transport over a highly secure network - wherever they are located

## **Network Security Agreement addresses network security concerns via:**

- Network Information and Traffic Security, Personnel Screening, Corporate Governance

## **Executive oversight by a Security Committee of the Board of Directors**

# Security for Converged IP Services

## **Physical separation**

- Different edge devices (routers) separating Public and Private IP networks

## **Logical separation at layer 2**

- Provides same level of security as ATM/FR networks
- No visibility between Public & Private edge devices

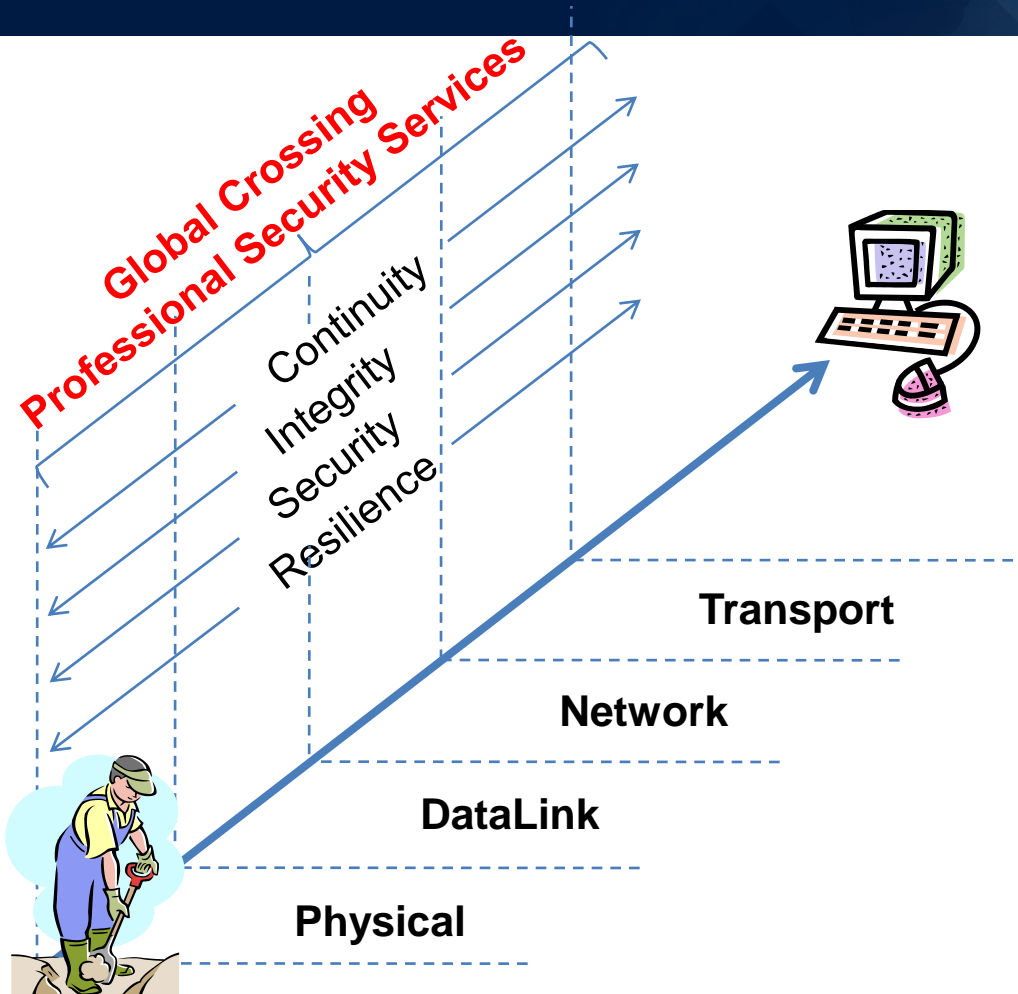
## **Network Based Firewalls protect against attacks**

- MPLS from Private edge router across entire network
- Firewalls securing Internet browsing by end users

## **Converged IP Applications**

- VoIP on Private backbone, additional network-based security

# Security – the Challenge



# China Economics

GDP growth c. 10% pa

Net importer of metals

2 million tonnes p.a. of copper

Price growth:

Copper (Cu)

2002: £ 792 per tonne

2007: £ 4,500 per tonne

2009: £ 3,700 per tonne

Lead (Pb)

2006: £ 300 per tonne

2008: £ 1,600 per tonne



Six specialist Import Facilities:  
e.g. Guangdong Province: 1M tonnes pa



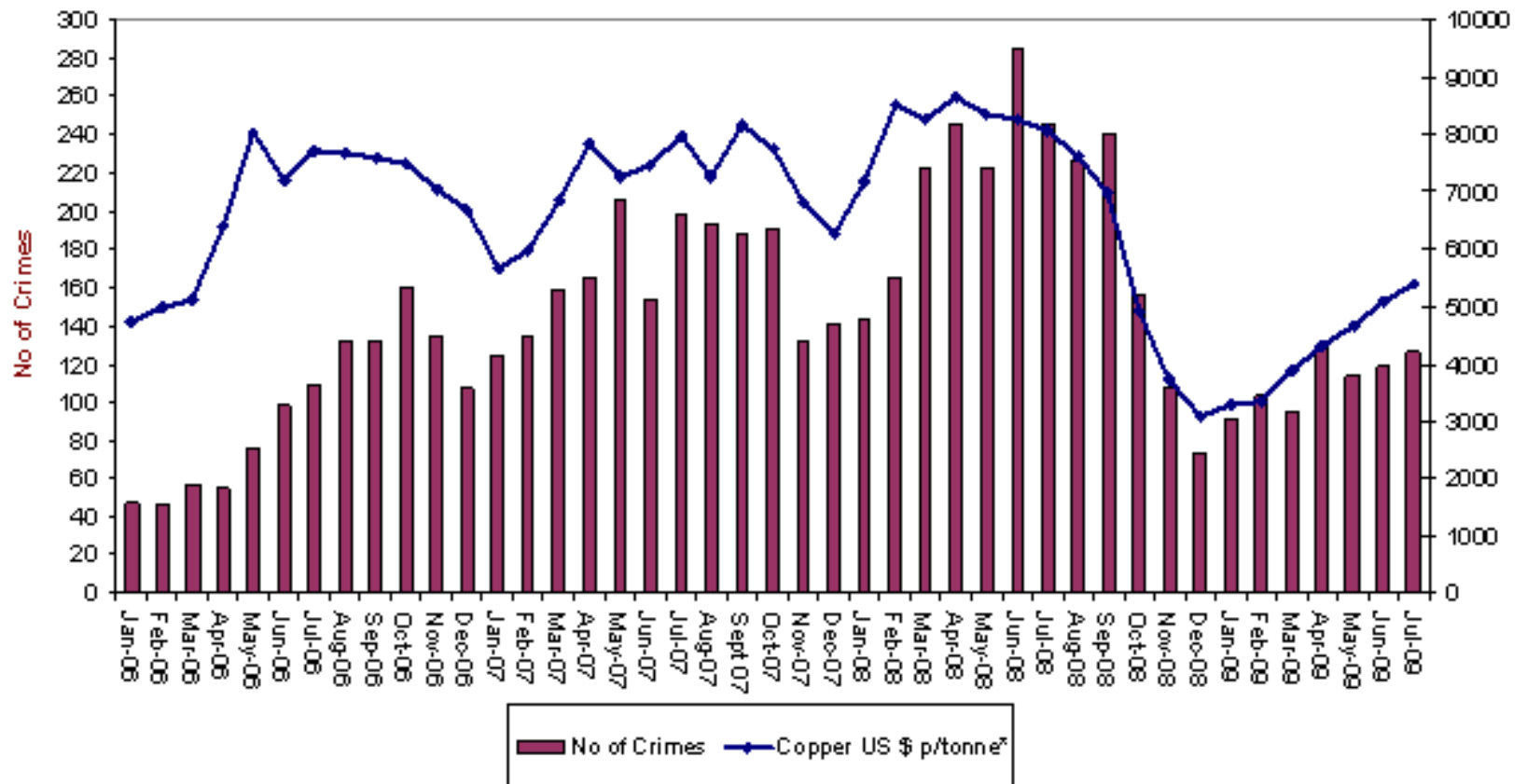
# Metal Theft vs Metal Price

## Cable / Copper Theft Comparison with Trade Market Trends

Jan 2006 to 29th July 2009

(Source: London Metal Exchange)

Copper US \$ p/tonne\*



# Victims of Metal Theft Include

## Victims

Rail Infrastructure  
Telecom Industry  
Water Companies  
Electrical Suppliers  
Public Buildings  
Local Communities  
Scrap Metal Dealers

## Effect

### Injuries and Fatalities

Three UK Police officers seriously injured  
Two offenders a month, killed or hurt

### Electrical Power

Major power loss

### Communications

Telecommunication Losses – Kent,  
Cambridgeshire and Bedfordshire,  
112 system, Internet

### Gas Energy

Lost – with risk of fire

# Examples

**UK** Ecclesiastical Insurance received 1,400 claims  
Energy Networks 400% rise in incidents this year  
NTL/ VirginMedia – 40 kilometres of cable stolen

**ITALY** tombs denuded, at least one blackout. Thieves in Rome targeting city bridges.  
Hundreds of trains in Turin and Rome delayed effecting 250,000 people

**UKRAINE** Removal of an entire steam locomotive from a museum

**SINGAPORE** – 1,092 offences in 2006; 100% increase (bicycle racks).

**U.S.A.** ‘PATRIOT’ Missile found in scrap yard

**GEORGIA** Police stop ‘Radioactive’ Scrap Metal at Azeri border

**MALAYSIA** major power blackout affecting 300,000 homes



# Scrap Metal Dealers

**A key commercial link in the chain**

**Metal Dealers often:**

Deal with cash

Under-regulated

Not always registered



***What is being done?***



# What is being done?

## **Pre-emptive**

- Designed-in separacy
- Screened and selected locations

## **Reactive**

- Multi-agency operations inc. Cable identification experts, Trading Standards, DVLA, VOSA, E. Agency, Transport Police, and other forces
- Media campaign , Crime Stoppers, Vehicle seizure, ANPR at Target hotspots
- Forensic opportunities

## **Structural/Enforcement**

- Technology
- Target hardening advice to businesses
- Focus on Value Chain
- Third party visits and review of commercial transactions
- Licensing checks and enforcement



Thank you

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