



**INETCO**®

Every transaction tells a story®

**Carlos Larrañaga**

*Regional Sales Manager*

# Securing HPE Nonstop Environments with AI

*E-BITUG*

*European NonStop Symposium*

*Edinburgh - May 16, 2023*

# Our Agenda



- Company **Introduction**
- Evolution of **Fraud and Cyber attacks**
- Rising sophistication of **Cyber Threats with AI**
- Embracing AI for **Enhanced Fraud Prevention**
- About **INETCO BullzAI**

A tall, black server rack stands against a dark teal background. The rack is filled with server units, each with a mesh front panel. Numerous green indicator lights are visible on the units, some forming a glowing green rectangle at the top. The word "NonStop" is written vertically in small white letters on the right side of the rack. Overlaid on the center of the image is the word "NonStop" in large, bold, white, sans-serif font.

NonStop

# Customers From Around The World Use INETCO's Products

Financial Institutions					
National Switches					
POS Processors					
Retail					
Others					

# How INETCO and HPE Work Together

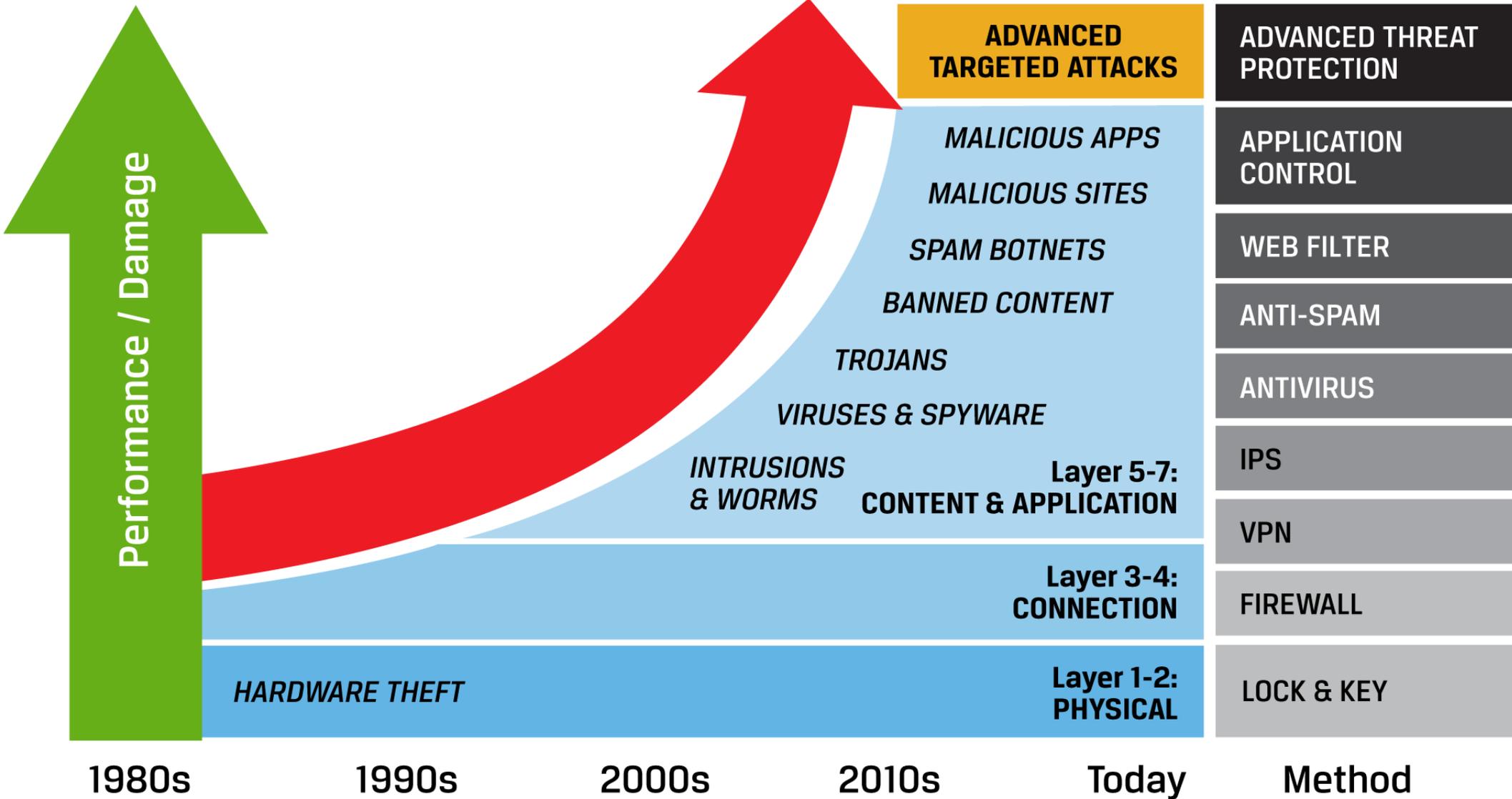
- INETCO became an HPE Silver partner in 2019
- NonStop servers are ubiquitous, used by over 50% of Global 500 banks.
- Co-developed a collector that integrates HPE NonStop log data directly into INETCO's solutions
- Enables FI's using NonStop servers to benefit from INETCO's fraud prevention and cybersecurity solutions





# The Evolving Payment Fraud and Security Landscape

# Evolution of security...



# Digital Transformation

**82%**

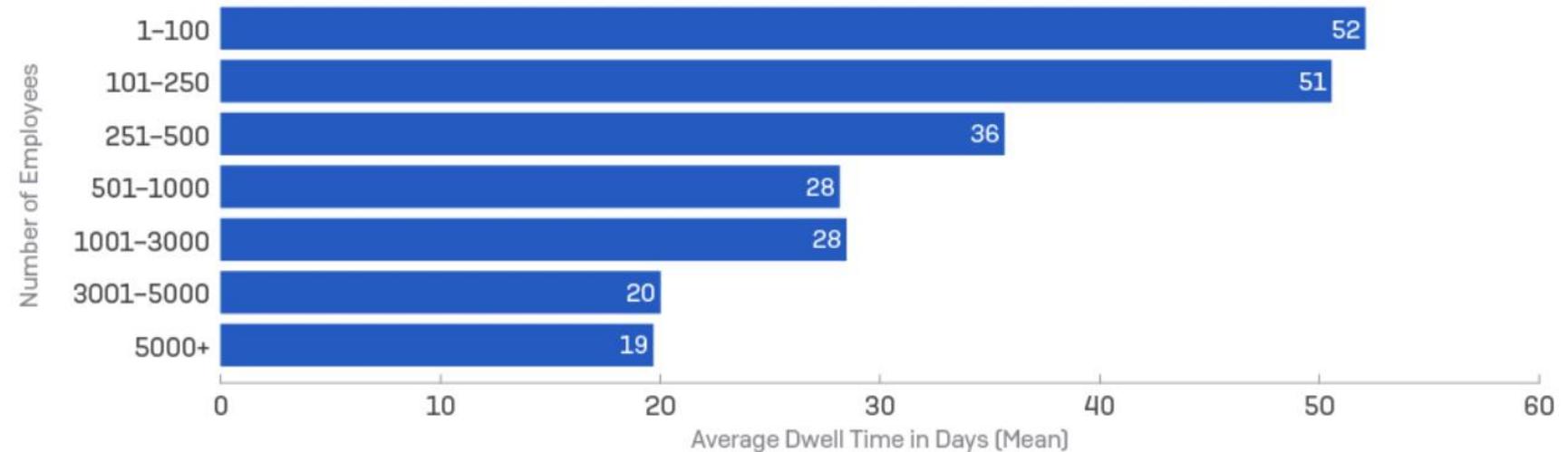
# Time To Detect Compromise Is High...

34

Median number of days advanced attackers are on the network before being detected



Intruder Dwell Time by Company Size (Mean)



# A Multinational Bank Lost \$19M In 3 Hours And Didn't Know For Several Days

## The Target Bank

- With over 8,000 ATMs, 40,000 POS devices, and millions of online transactions
- lacked early detection and prevention of irregular transactions
- Did not have real-time end-to-end visibility into every transaction

## The Attack

- Hackers installed malware that would automatically approve their transactions by bypassing the host
- Fraudsters took \$19M in under 3 hours without the bank knowing about it until days later
- Highlights the banks inability to see the problem as it occurred and their inability to stop the problem

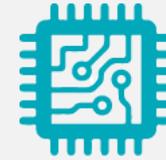


# Embracing AI for Enhanced Security in HPE NonStop Environments

# AI Threats to Your HPE NonStop Environments



Spear Phishing and Social Engineering



Man-in-the-Middle Attacks



Distributed Denial of Service (DDoS) Attacks



Insider Fraud



Advanced Persistent Threats (APTs)



AI Dataset Poisoning and Adversarial Learning

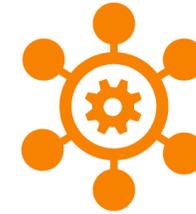
# AI-Based Fraud Prevention Landscape



**Machine Learning &  
Deep Learning**



**User and Entity  
Behavior Analytics  
(UEBA)**



**Biometrics**



**Risk Scoring and  
Fraud Prediction**



**Automation and  
Orchestration**

# Combining AI and Traditional Methods



## 6 Ways Adding AI Benefits Traditional Systems

### *Integrating AI with Tradition Fraud Prevention*

*While conventional methods often rely on static rules and manual analysis, AI brings dynamic capabilities such as machine learning, pattern recognition, anomaly detection, and real-time decision-making. By incorporating AI-driven techniques into existing fraud prevention solutions, businesses can significantly improve the accuracy and efficiency of their fraud detection processes.*



**Data Aggregation**



**Implementing Machine Learning Models**



**Real-time Monitoring**



**Adaptive Risk Scoring**



**Automation and Orchestration**



**Continuous Learning and Improvement**

# Benefits of Using AI to Secure HPE NonStop Environments



**Enhanced Fraud  
Detection**



**Improved Security  
Posture**



**Faster Response  
Times**



**Reduced Operational  
Costs**



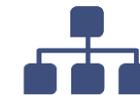
**Regulatory  
Compliance**



**Staying ahead of  
Cybercriminals**



**Enhancing  
Customer Trust**



**Streamlining  
Operations &  
Supporting Digital  
Transformation**

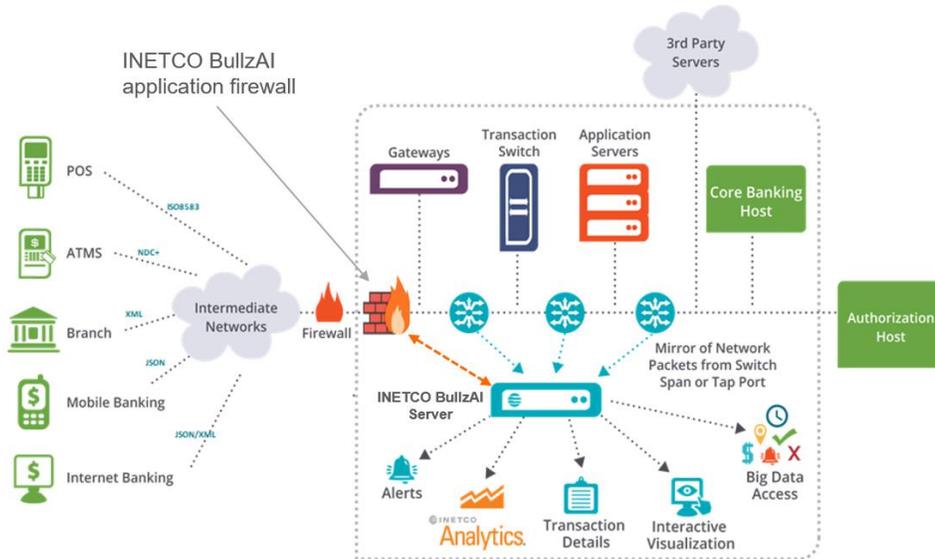


# How INETCO BullzAI Can Help Fight Back Against AI Driven Payment Fraud

# INETCO BullzAI Payments Fraud Prevention

## How does INETCO BullzAI work?

- Uses a sensor network to capture, decode, correlate and analyze network and application payload information in real-time.
- ML creates a unique behavioral profile of every interacting user, device, and entity. When their behavior is out of pattern INETCO BullzAI can pick up new and emerging trends much quicker than other solutions.
- The INETCO BullzAI application firewall can automatically block (or rate limit) at the message level, not IP address and port. Malicious traffic is blocked; legitimate transactions are not.



An Intelligent container-based Application Firewall controlled by machine learning that **blocks at the network level on any range of fields** rather than at the Port and IP Address level.

# INETCO BullzAI - Advanced Machine Learning and Analytics



**Comprehensive  
monitoring**



**Proactive Threat  
Detection**



**Streamlined Incident  
Response**



**Regulatory  
Compliance**



**Scalable and  
Adaptable solution**



**Harnessing the  
power of AI**



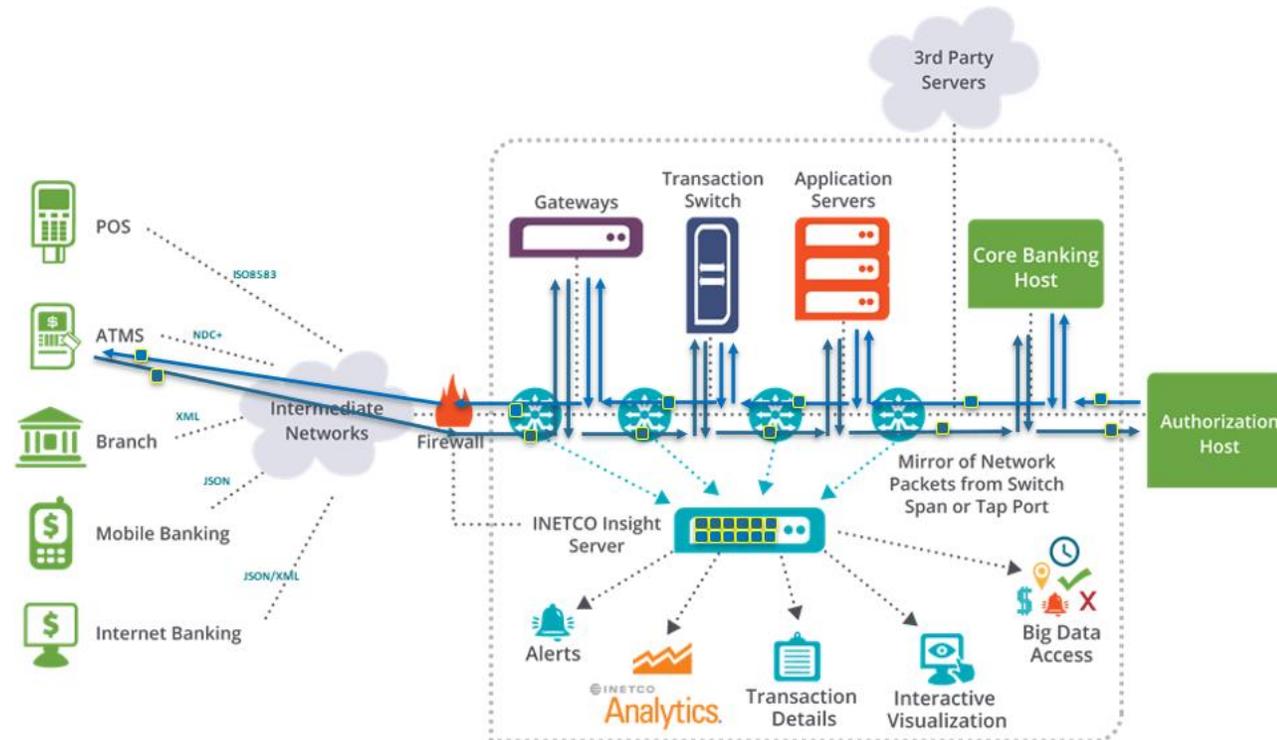
**Continuous learning  
and adaptation**



**Real-time  
Decision-Making**

# INETCO BullzAI Real-time Data Capture for Every Transaction Channel

Acquires network and application data to which other fraud detection solutions don't have access

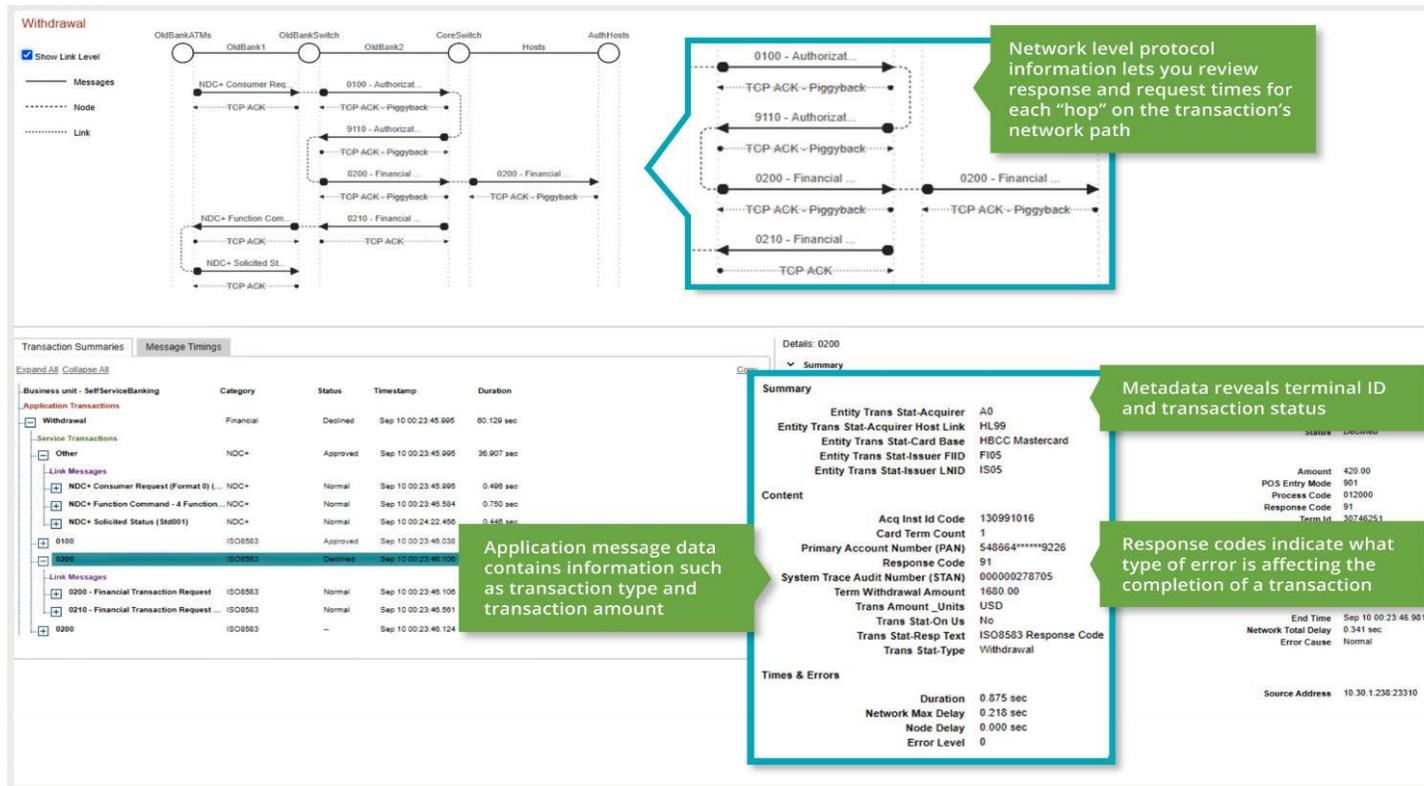


INETCO BullzAI's unique data intelligence platform is deployed at some of the **worlds largest financial institutions**, payment processors, and retailers

- Better data enables better fraud detection:
  - Network data
  - Application data
  - Application payload data
  - On-us and off-us traffic
  - Every electronic channel
- Sees data fraudsters can hide from others.
- Public cloud, private cloud, on premise and hybrid deployment.
- No latency added to transactions.
- No integration required & PCI compliant.

# INETCO BullzAI Real-time Transaction Correlation & Profiling

A homogeneous view of every end-to-end transaction other fraud detection can't build



- Faster root cause and risk analysis.
- End-to-end transaction profile:
  - Multi-protocol
  - Multi-hop
  - Multi-channel
- Analysts are provided with a single view of all transaction data in real-time:
  - Transaction topology and behaviour
  - Protocol, status and timings
  - Complete message field details
  - Transaction risk scores

Network, application and message payload data are correlated and profiled to identify payment and transaction fraud with **better data** and **greater precision**

# INETCO BullzAI Real-time Risk Scoring

Automatically detects zero-day threats as well as known threats – in milliseconds

**Unknown**

Messages: NDC+ Transaction, NDC+ Transaction, NDC+ Solicited St, ATM

RiskScore1, RiskScore2

**Multiple rules-based risk indicators contribute to the real-time Card Score of 70%**

**Indicators**  
 Card(506105\*\*\*\*\*7681)  
 OperationWithdrawal3h+=3  
 WithdrawalAmount3h+(20000)=90000  
 CardATMVelocity24h+  
 (273km/0.17hr)=1654 CardScore+=70

**Transaction Summaries**

Business unit	Category	Status	Start Time	Duration
Unknown	Financial	--	Sep 24 10:29:20.802	31.311 sec
Withdrawal	NDC+	Approved	Sep 24 10:28:20.802	31.311 sec
NDC+ Transaction Request - No...	NDC+	Incomplete	Sep 24 10:29:20.802	5.000 sec
NDC+ Transaction Reply - No Tr...	NDC+	Normal	Sep 24 10:29:48.729	7.571 sec
NDC+ Solicited Status	NDC+	Normal	Sep 24 10:29:50.300	1.813 sec

**Anomaly Indicators**

OperationWithdrawal160h+=26  
 OperationWithdrawal24h+=3  
 CardATMVelocity3h+  
 (273km/0.17hr)=1654 ATM3h+  
 (ATM1082)=2 ATMVelocity=1654  
 WithdrawalAmount2160h+  
 (20000)=9382000  
 OperationWithdrawal2160h+=386  
 WithdrawalAmountDeltaAverage2160h=  
 4305  
 WithdrawalAmountDeltaPrevious=10000

**Details**

**Summary**

**Content**

Amount	Term Id	PAN From Link	Response Code
20000.00	506105*****7681	506105*****7681	100
	ATM1082		USD
	5		No
	Approval		No
	ACAAAB		Other

**Times & Errors**

**Network & Infrastructure**

**Risk Score**

Anomaly Indicators	Anomaly Score
OperationWithdrawal160h+=26 OperationWithdrawal24h+=3 CardATMVelocity3h+ (273km/0.17hr)=1654 ATM3h+ (ATM1082)=2 ATMVelocity=1654 WithdrawalAmount2160h+ (20000)=9382000 OperationWithdrawal2160h+=386 WithdrawalAmountDeltaAverage2160h= 4305 WithdrawalAmountDeltaPrevious=10000	58

**Card Score**

Card Score	Indicators
70	Card(506105*****7681) OperationWithdrawal3h+=3 WithdrawalAmount3h+(20000)=90000 CardATMVelocity24h+ (273km/0.17hr)=1654 CardScore+=70

**Real-time machine learning models are built and individually updated for each customer to detect behavioral abnormalities and assign the Anomaly Score.**

- Analyzes the unique behavior of each customer (individual), card, device ID and key message fields.
- Extracts behavioral patterns from past transactions.
- Assigns risk advice & action for transactions in milliseconds.
- Learns from the results of its analysis & adjusts accordingly.
- Rebuilds individual customer models on the fly for more precise scores.

Combines in-depth transaction intelligence, adaptive machine learning models, and per customer behavioral analysis to **detect zero-day threats** as well as known threats

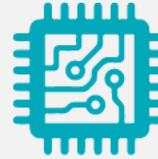
# Key Takeaways



**Importance of AI in  
Fraud Prevention  
and Cybersecurity**



**AI's Vital Role in Securing  
HPE NonStop  
Environments**



**Integration of AI with  
Traditional Fraud  
Prevention Methods**



**The Ever-Evolving  
Landscape of Digital  
Threats**



**Working with  
INETCO BullzAI for  
Payment Fraud and  
Cyber Security**



**The Need for  
Continuous Innovation  
in Cybersecurity**

# Thank You

## Come Talk With Us



Booth # 20



[www.inetco.com](http://www.inetco.com)



[@carloslarranaga](https://www.linkedin.com/company/inetco)



[clarranaga@inetco.com](mailto:clarranaga@inetco.com)