



# PCI DSS 4.0 It's here, now what?

Ed Adams

May 13, 2025

# Agenda

- About comforte
- Data security implementations this past year in the Americas with comforte
- PCI/DSS: How comforte can help to achieve compliance on the HPE NonStop
- Comforte SecurDPS MFA for NonStop

# About comforte

- 26 years of support for Tandem and HPE NonStop
- HPE partnership since 2004
- Some comforte products are included in NonStop Operating System
- Offices in the USA, Germany, Australia & Singapore
- Privately owned - employs ~150 people around the world
- Over 500 enterprises worldwide rely on comforte solutions
- Help-desk support in English, Spanish and German

# Global success in payments and data security



15 of the 25 largest banks in the world




3 of the 15 largest retailers in the world



The 3 largest credit card processors in the world




# Comforte Products



## HPE NonStop/Mission Critical


### Connectivity

Modern User Interface to NonStop Systems.  
**MR-Win6530**  
**J6530**  
**Jpath**  
**Kafka**




### Productivity

**TOP**  
Windows Tandem Operations  
**SafePoint**  
(Safeguard, KSL, FIM, LogStream)



### Modernize

Enterprise Integration using Modern Interfaces **CSL**(REST/SOAP).  
**Escort/SQL**  
Convert legacy databases to SQL transparently.




### Data Security

#### SecurDPS NonStop


Transparent NS Data Security

Breach risk reduction, data security compliance.




### Risk and Compliance


- Protect offline media data – **SecurTape**
- Locate and identify unsecured PII data **PANFinder**



### IT Security

- **SecurSSO** Single Sign on.
- Native TLS and SSH support.
- **Comforte MFA**






## Enterprise SecurDPS

### Data Security

#### SecurDPS Enterprise

Transparent Enterprise & Cloud Data Security

Breach risk reduction, Privacy compliance (GDPR, POPIA, CCPA).




### Privacy Compliance Automation

#### SecurDPS Discover & Classify

AI-based PII Data Lineage discovery

Privacy Compliance Automation (GDPR, POPIA, CCPA).




### Transparent Integration

#### SecurDPS Connect

Transparent SaaS, Web and COTS App Data Security

Codeless deployment



# Data security implementations this past year in the Americas with comforte

## ❑ ACI AOD

- ❑ Major US bank implemented NonStop SecurDPS to meet PCI 4.0 deadline
  - ❑ Approximately 1 year from PoC to production rollout complete
  - ❑ ACI Base24eps
- ❑ Major US credit union is implementing NonStop & Enterprise SecurDPS to help meet PCI 4.0 compliance
  - ❑ NonStop SecurDPS rolling out to production. PoC started in June 2024
  - ❑ Enterprise PoC started March 2026
  - ❑ NonStop ACI Base24eps, ACI PRM LINUX
- ❑ Major US bank NonStop SecurDPS PoC completed. Project kickoff scheduled ACI Base24 & SQL/MP
- ❑ ATM network in Uruguay. ACI Base24eps. Currently in implementation phase
- ❑ Four Latin American SecurDPS NonStop/Enterprise ACI successful PoC's, 2 in contracting phase other 2 implementing to help meet PCI compliance
- ❑ One Latin American SecurDPS NonStop successful PoC in contracting phase for protection of Government IDs

# LATAM

- **BANRED**

- Montevideo, Uruguay
- Customer network, including BBVA, Itaú, Santander and Scotiabank



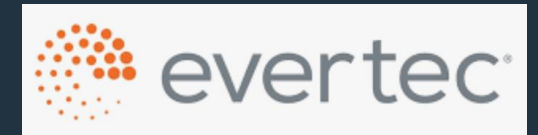
- **PagoNxt + Getnet**

- Sao Paulo, Brazil
- Acquirer with 6B transactions in 2024



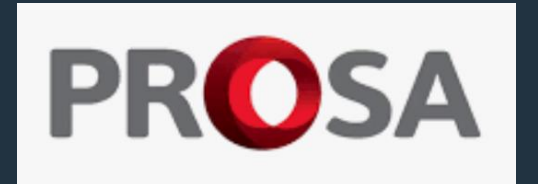
- **Evertec**

- San Juan, Puerto Rico
- Acquirer with 3B transactions in 2024



- **Requirements**

- Protect business operations due to SLA's with network banks
- Tokenize PAN data to meet PCI 4.0 DSS requirements
- ACI BASE24-eps on HPE NonStop & Linux







## Quantum Proof Format Preserving Protection

Added support for `FAST`, comfote's next generation, high performance quantum proof format preserving protection algorithm.

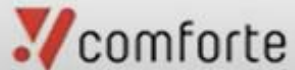
### FAST: Secure and High Performance Format-Preserving Encryption

F. Betül Durak

Henning Horst

Michael Horst

Serge Vaudenay



<https://eprint.iacr.org/2021/1171>

[https://www.youtube.com/watch?v=0K\\_OGmCqR4Q](https://www.youtube.com/watch?v=0K_OGmCqR4Q)



# 4.0 PCI Requirements - Where comfote helps

Goals	PCI DSS Requirements	How comfote helps
Build and Maintain a Secure Network and Systems	1. Install and Maintain Network Security controls	
	2. Apply secure configurations to all system components	Win6530, J6530
Protect Account Data	3. Protect Account Data	SecurDPS, PANfinder, Discover&Classify, SecurTape
	4. Protect cardholder data with strong cryptography during transmission over open public networks	SSH/SSL/SSL-AT, Win6530, SecurFTP, SecurCS, SecurTN
Maintain a Vulnerability Management Program	5. Protect all systems and networks from malicious software	
	6. Develop and maintain secure systems and software	SafePoint, SecurSSO
Implement Strong Access Control Measures	7. Restrict access to system components and cardholder data by business need to know	Safepoint
	8. Identify users and authenticate access to system components	Comfote MFA, Safepoint, Win6530, J6530, SSO
	9. Restrict physical access to cardholder data	
Regularly Monitor and Test Networks	10. Log and monitor all access to system components and cardholder data	Safepoint, SecurTN, KSL, SecurSH, SecurFTP
	11. Test security of systems and networks regularly	Safepoint
Maintain an Information Security Policy	12. Support information security with organizational policies and programs	

# Comforte PCI DSS 4.0 Compliance eBook

[https://www.comforte.com/fileadmin/Collateral/eBook\\_PCI\\_Compliance\\_for\\_NonStop.pdf](https://www.comforte.com/fileadmin/Collateral/eBook_PCI_Compliance_for_NonStop.pdf)



# Multifactor Authentication

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# Agenda

- What is MFA ?
- PCI 4.0 and the importance of MFA. What has changed?
- MFA benefits
- Introducing comfote SecurDPS MFA
- Architecture and SSH integration
- APIs
- comfote MFA benefits
- Roadmap

# What is Multifactor Authentication (MFA)



Something you  
**KNOW**



Something you  
**ARE**



Something you  
**HAVE**

At least **TWO** of the above,  
must be implemented in a robust environment

# MFA benefits

- Enhance security (anyone accessing the company VPN without Google Authenticator?)
- Compliance with regulations
- Improved user trust and confidence (Brand reputation)
- Reduced impact of password-related issues

MFA is a critical component of modern cybersecurity strategies, helping to protect both users and organizations from a wide range of security threats

# MFA in PCI DSS 4.0 - What has changed?

PCI 3.2.1	PCI 4.0
Retiring March 2024	Effective in March 2025
MFA is required in <b>some situations</b> and for some users accessing the CDE (Card Holder Environment)	MFA is required for <b>ALL</b> users who have access to the CDE
Requirement: 8.2	Requirements: 8.4.1, 8.4.2, 8.4.3, 8.5.1



# Some problems with MFA and NonStop platform

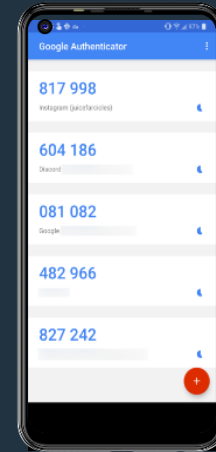
- Safeguard SEEP (Security Event Exit Process) is required, though it is generally not favored by customers.
- No intuitive solutions
- OSS needed
- Holistic approach to solve PCI 4.0 requirements
- TOTP (Timed One-Time Passwords)- NonStop based?

# What is TOTP?

- Time-based One time Password
- The most common and easy to use MFA



1 Scan it



2 Use it

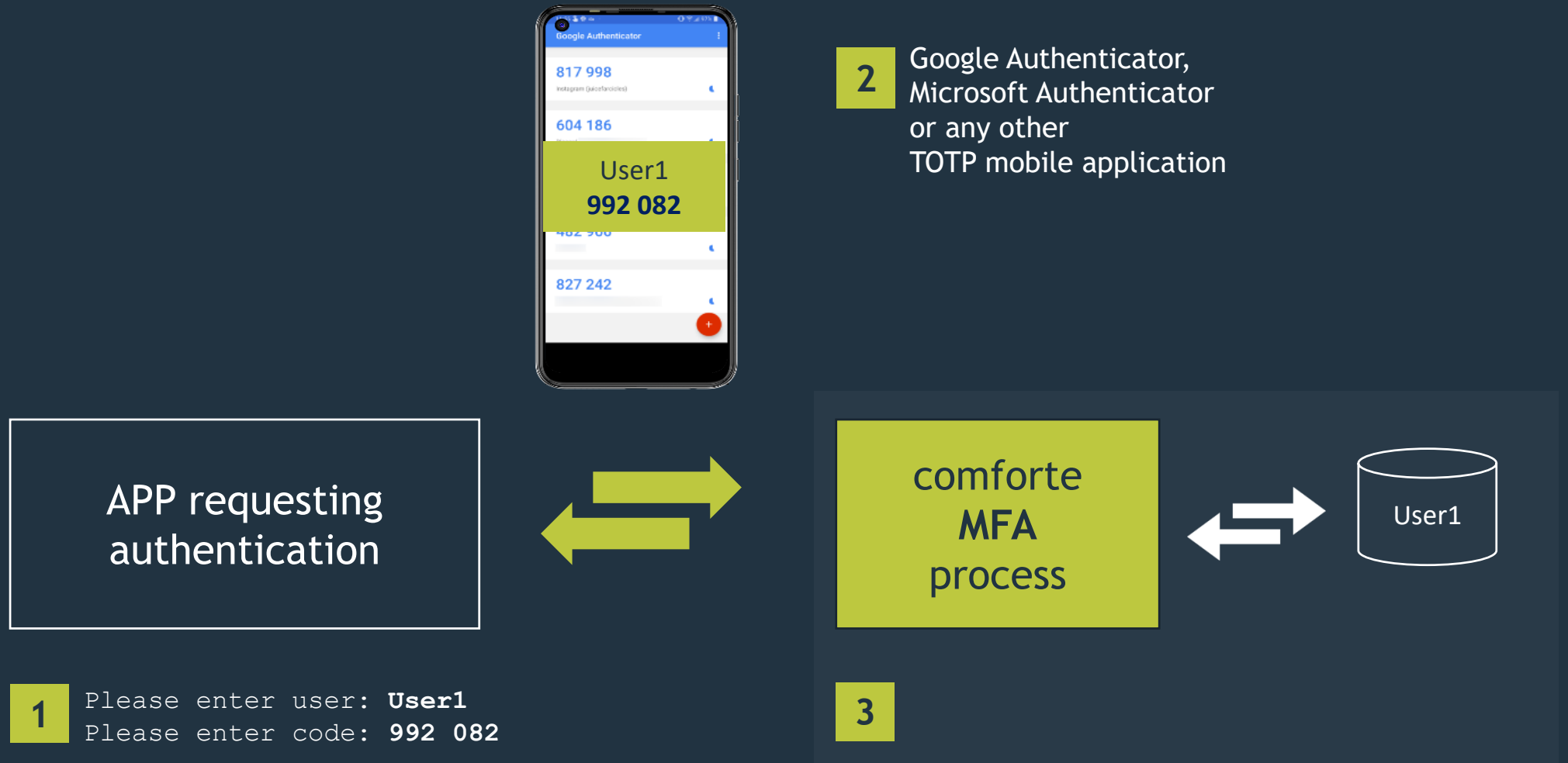
# comforte SecurDPS MFA for NonStop

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# comforte MFA for NonStop

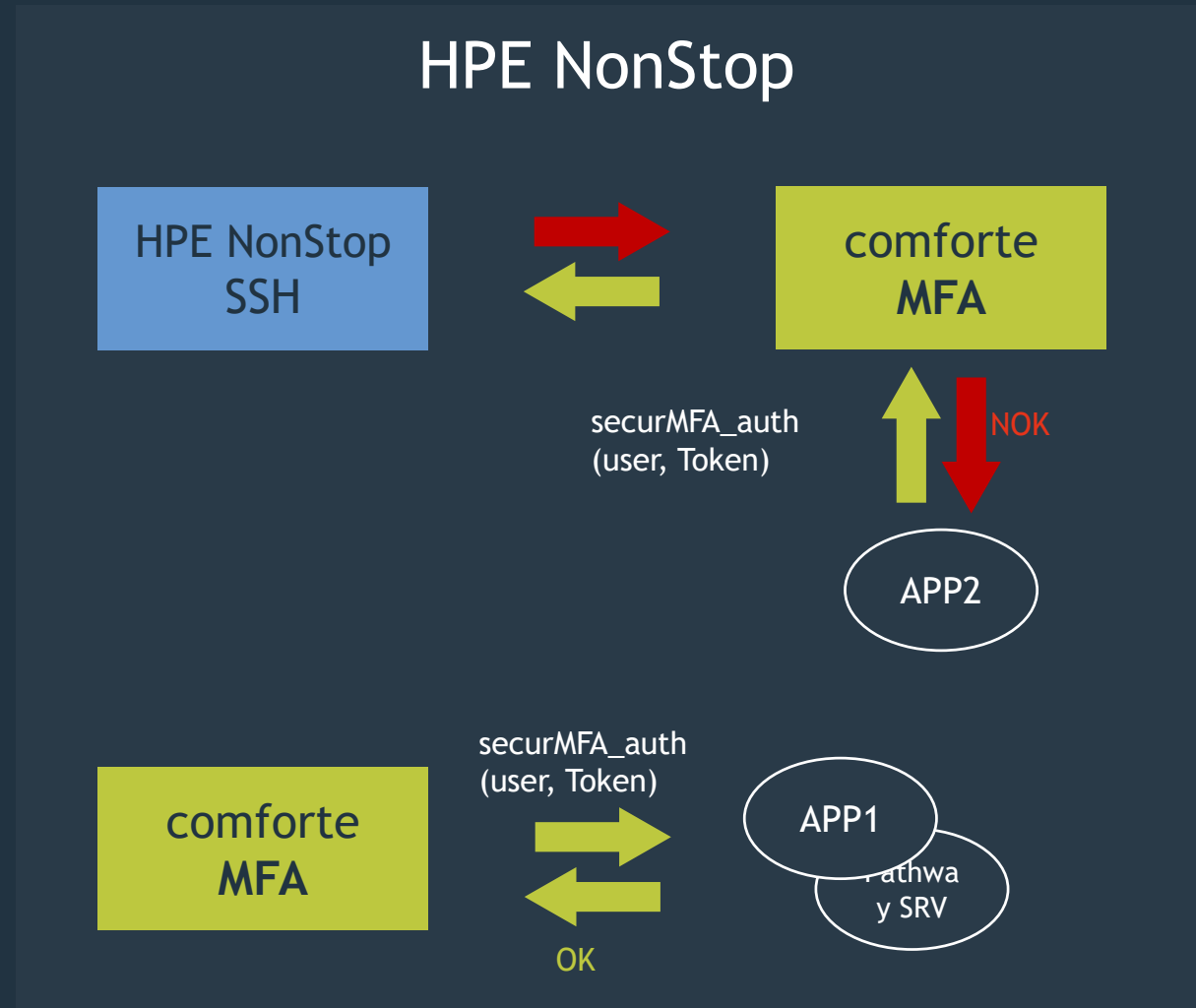
- TOTP support
- No Safeguard SEEP required
- Guardian process
- Setup in less than 10 minutes
- No additional hardware or software required
- Intuitive - Hardly any learning curve to understand and use it
- Smooth integration with HPE NonStop SSH (the standard access method)
- Encrypted information
- Transparent Integration into any Pathway Application, i.e. no source code change required
- API support for tight integration where desired

# comforte MFA Components



# comforte MFA - API support

- ✓ Simple API to integrate Pathway servers and any other customer application process
- ✓ Relinkable library provided, headers in Cobol, TAL, C



# MFA Screen Cobol integration (TRANSPARENT!)

NonStop

BASE24-ADMN LOGON 24/09/16 15:42 01 OF 01

P L E A S E L O G O N

USER NAME: PASSWORD: LOGICAL NET:

BBBBBBBB	AAAAA	SSSSSSS	EEEEEEEE	22222222	4444
BB BB	AA AA	SS	EE	22	44 44
BB BB	AA AA	SS	EE	22	44 44
BBBBBBBB	AAAAAAAA	SSSSSS	EEEEEEEE	22222222	44444444
BB BB	AA AA	SS	EE	22	44
BB BBB	AA AA	SS	EE	22	44
BBBBBBBB	AA AA	SSSSSS	EEEEEEEE	22222222	44

SCREEN PRINTER:  
CHANGE PASSWORD (Y/N):  
NEW PASSWORD: (TAKES EFFECT ON NEXT LOGON)

**MFA CODE:** \_\_\_\_\_

\*\*\*\*\* BASE24 \*\*\*\*\*

FILE DESTINATION:

F1-ENTER DATA F10-PRINT F16-EXIT SF16-LOGOFF

BLOCK

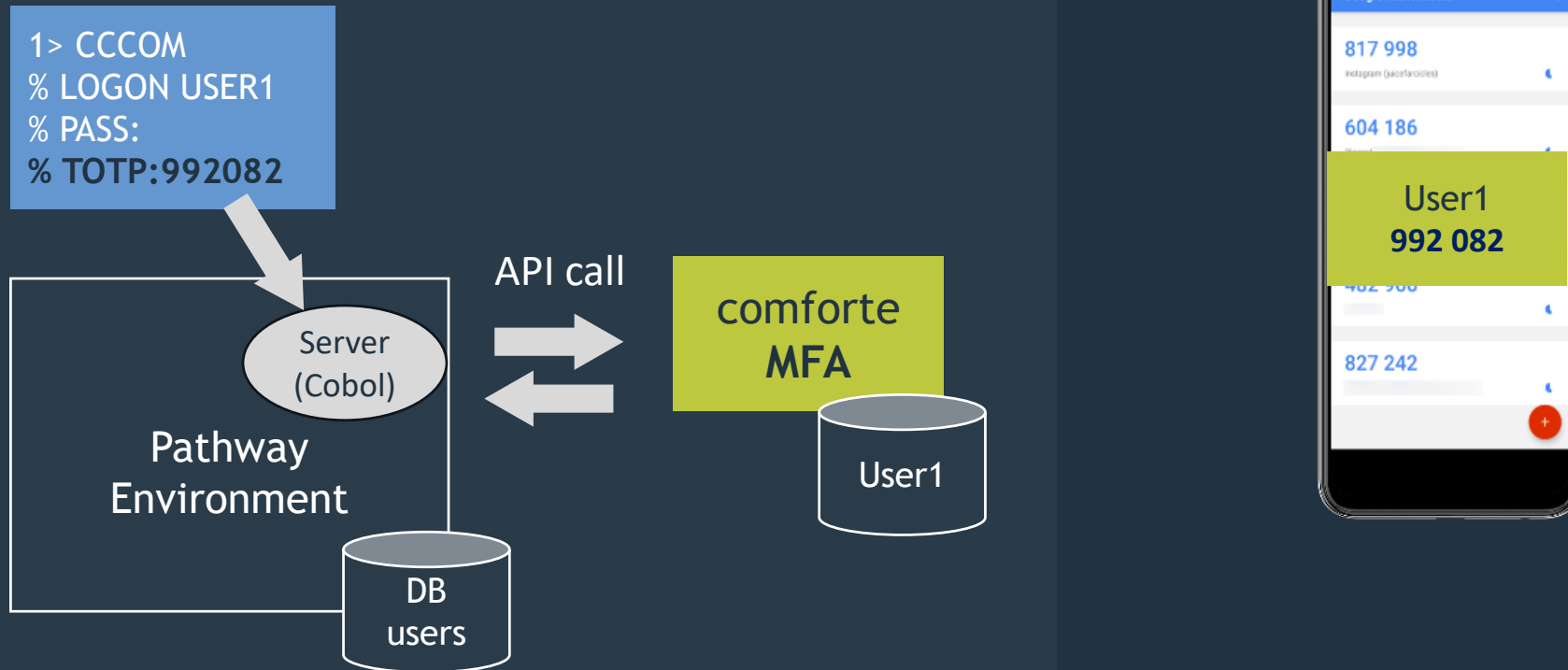


# comforte MFA - Benefits

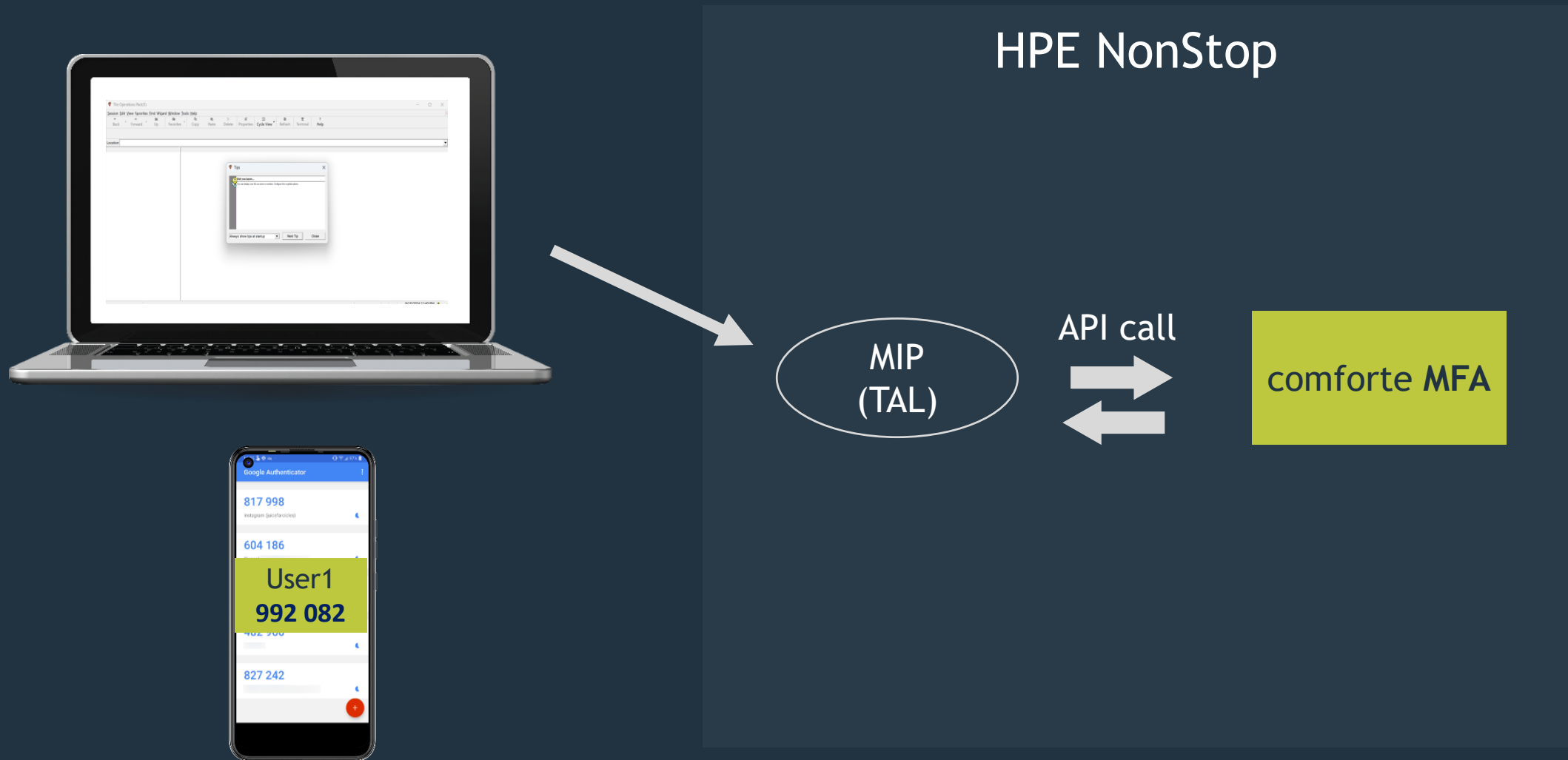
- ✓ Smooth integration
- ✓ Transparent integration of Screen Cobol requesters
- ✓ Easy to understand and maintain
- ✓ Implement a modern authentication method
- ✓ Hardly any learning curve

# comforte MFA - Some use cases

## HPE NonStop



# Comforte MFA - Some use cases





# SECURE YOUR GROWTH

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