

*NonStop Solutions by comForte:
The Natural Choice*



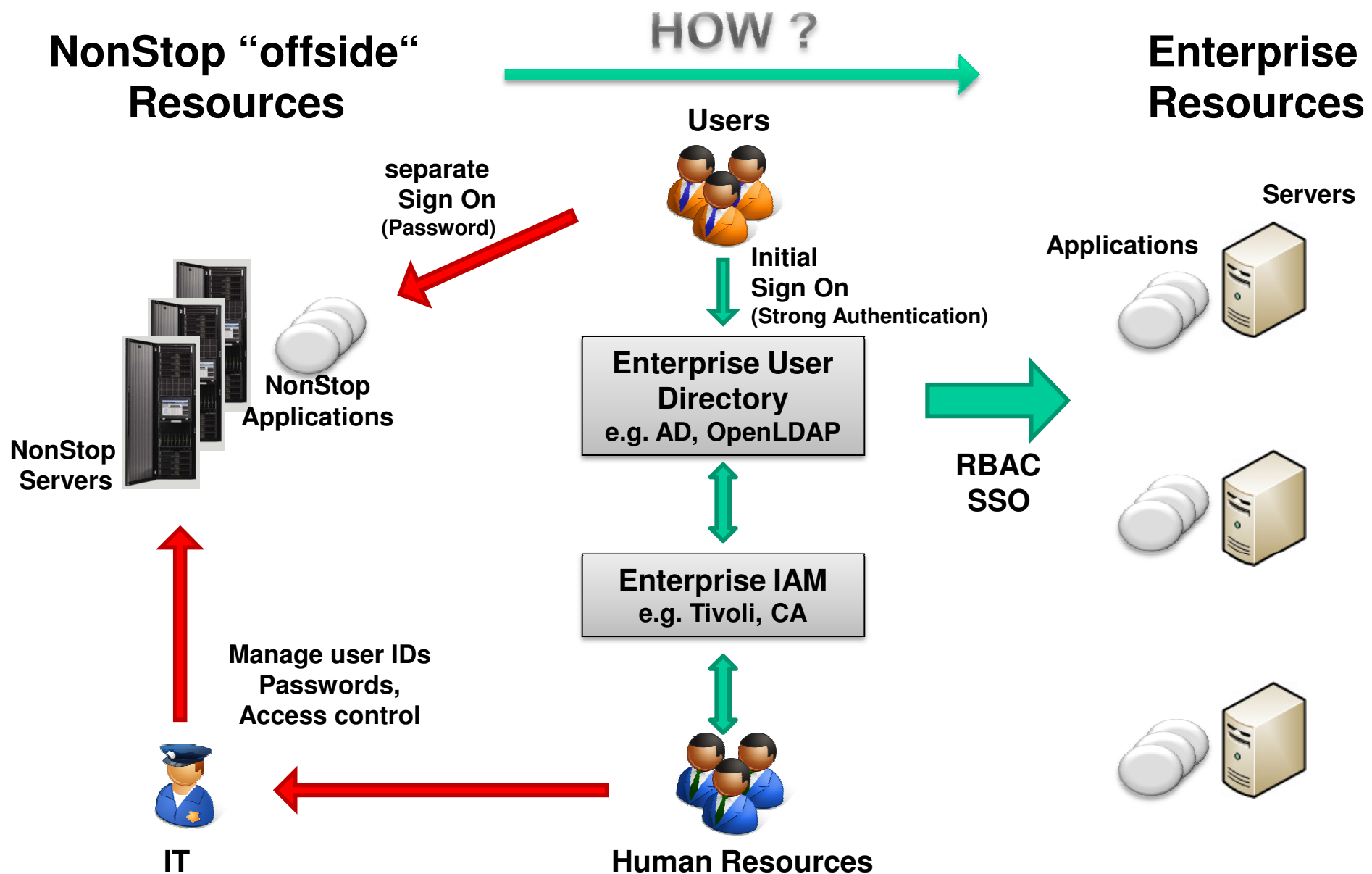
sales@comforte.com
www.comforte.com

comForte Security Solutions Update

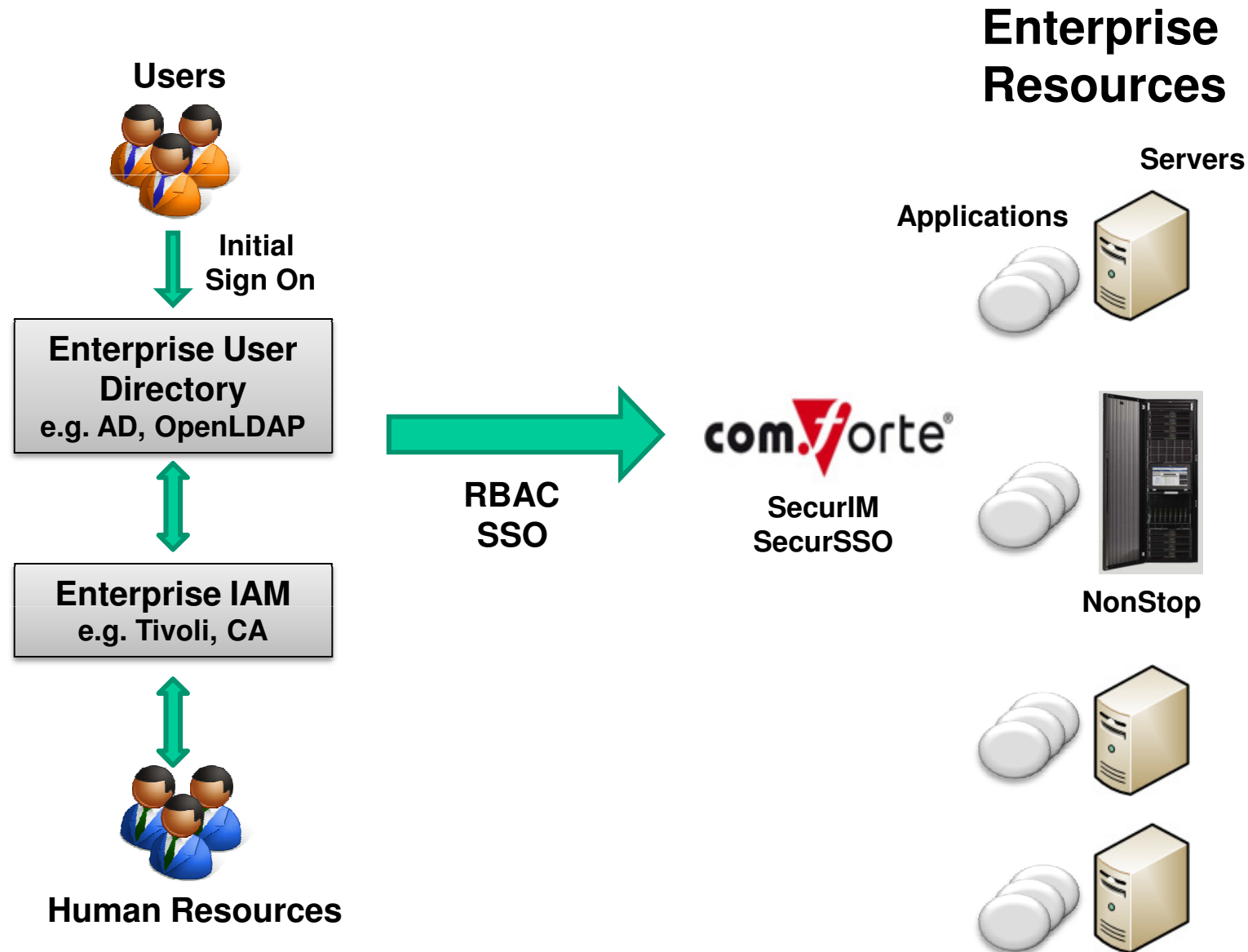
Identity Management
Single Sign-On
Data-At-Rest Protection

Michael Horst, VNUG Conference 2011

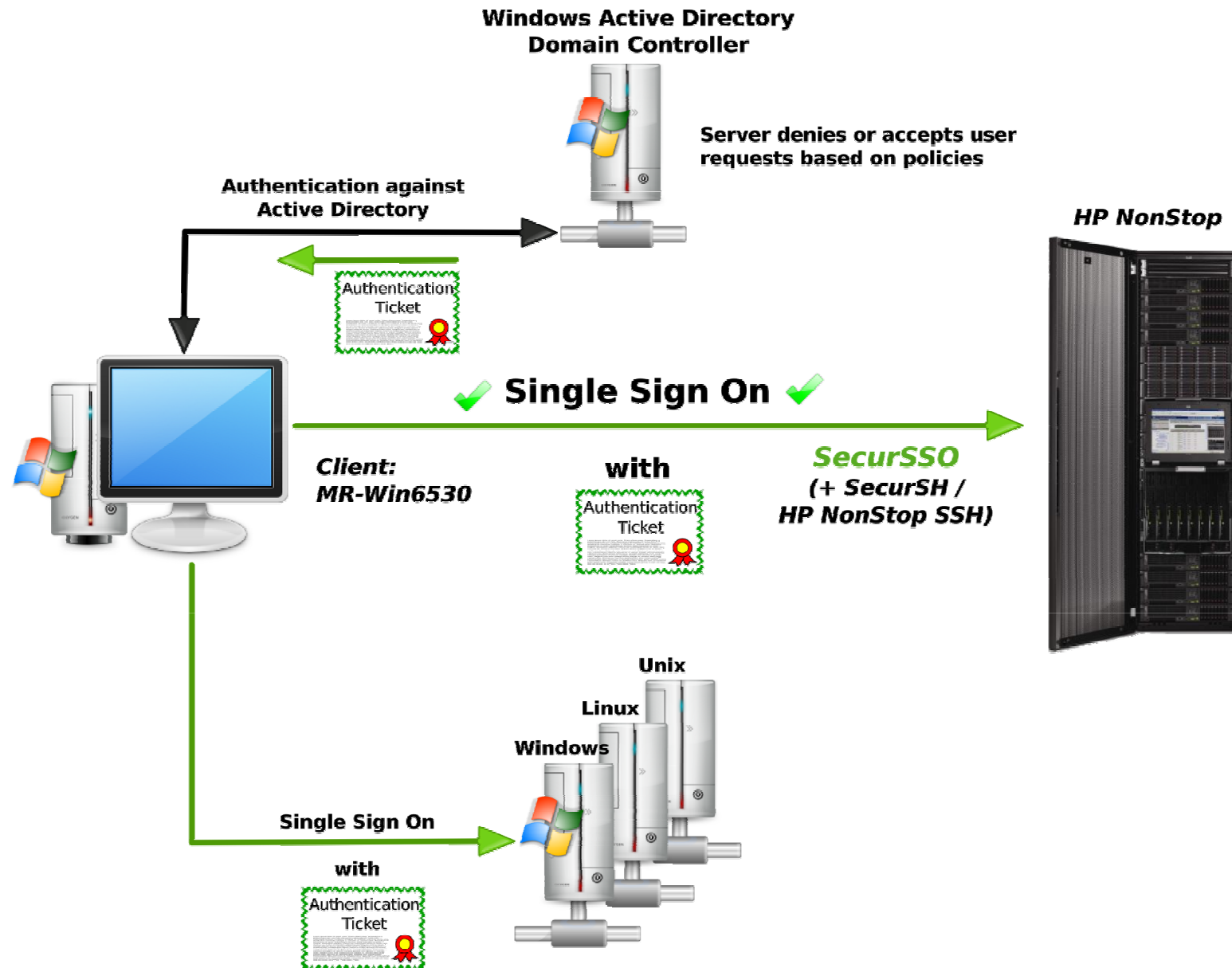
Enterprise Identity and Access Management



Integrating NonStop with Enterprise IAM



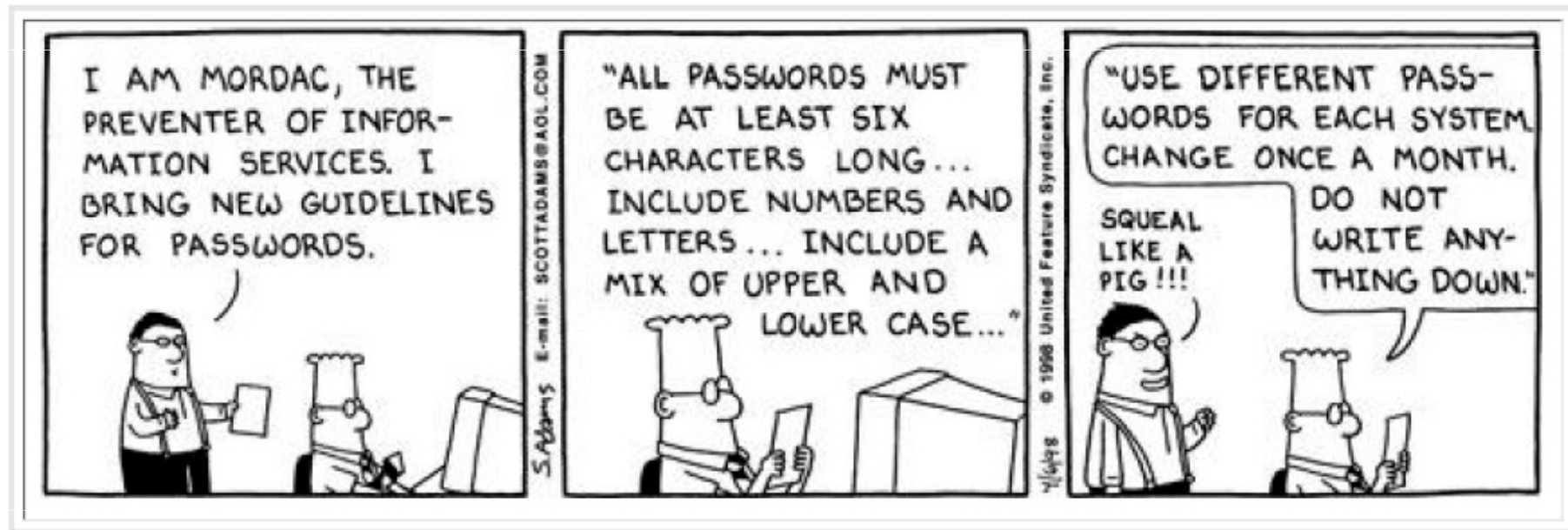
SecurSSO: Kerberos for NonStop Servers



SecurSSO: How does it feel?

```
I mh 1 : npns01 - Default
STN00 Connected to STN version B08 2011/09/07 08:40 \NPNS01.$ZPTY.#ZWN0178
STN46 Secure SSH session: TN6530-8 gssapi-with-mic arcfour hmac-md5
STN81 Client IP address: 10.0.0.225 port 2201
STN76 Authenticated Kerberos client: m.horst@COMFORTE.LOCAL
STN82 SSH external user: comForte, guardrail system user: comForte
STN44 Application $Y3PG has connected to this window
TACL (T9205H01 - 30NOV2010), operating system H06, Release H06.22.00
(C) Copyright 2005-2010 Hewlett Packard Development Company, L.P.
CPU 1, process has no backup
September 7, 2011 8:40:04
(Invoking $SYSTEM.SYSTEM.TACLLOCL)
Loaded from $SYSTEM.SYSTEM.CFWHO:
WHO
(Invoking $MH.MHHOME.TACLCSTM)
Current volume is $MH.MHHOME
1> who
--- comForte WHO macro extension version 1.02 25Aug2009 ---
Home terminal: $ZPTY.#ZWN0178
TACL process: \NPNS01.$Y3PG
Primary CPU: 1 (NSE-B)
Default Segment File: $MH.#0144758
Pages allocated: 28 Pages Maximum: 1036
Bytes Used: 20988 (0%) Bytes Maximum: 2121728
Current volume: $MH.MHHOME
Saved volume: $MH.MHHOME
Userid: 110,101 Username: COMF.MH Security: "NONO"
Login name: COMF.MH
--- comForte WHO: Kerberos principal is m.horst@COMFORTE.LOCAL
27
```

Do you want to escape the Password Torture?



The Strong Password Dilemma

from the Center for Password Sanity

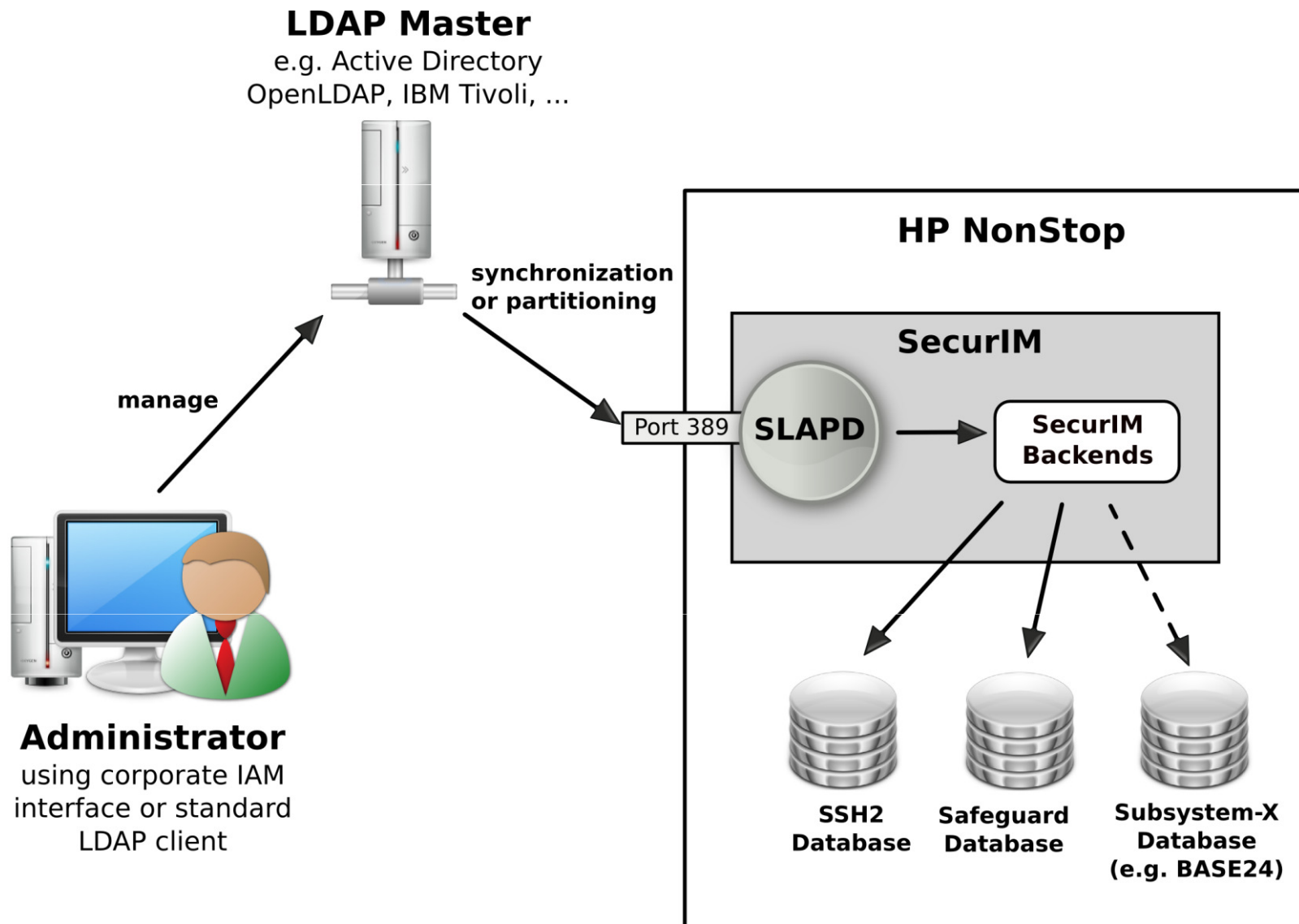
<http://www.smat.us/sanity/>

[Richard E. Smith, Ph.D., CISSP](#)

Excerpt from Chapter 6 of *Authentication: From Passwords to Public Keys*
ISBN 0-201-61599-1. Copyright © 2002 Addison-Wesley.

This paper is also being published in the *CSI Computer Security Journal*, 2002.

SecurIM: Exposing NonStop User Directories with LDAP



Benefits of the comForte IAM and SSO solution

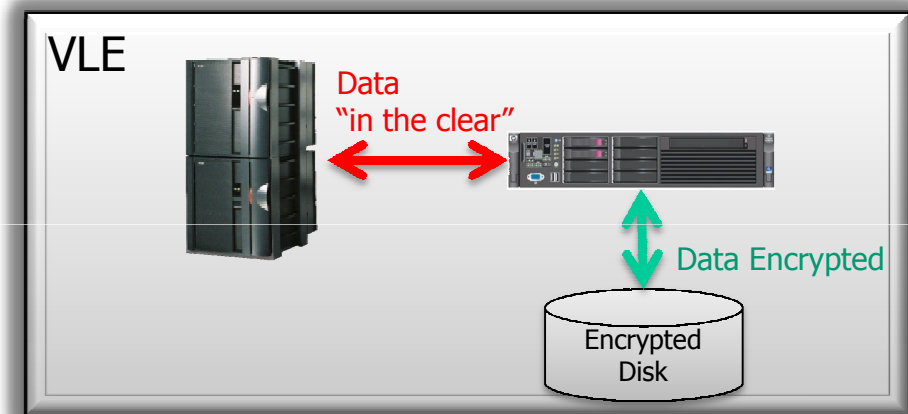
- ▶ **Increases Productivity and Convenience**
- ▶ **Streamlines Administration**
 - ▶ Integrates with your corporate SSO/IAM solution
 - ▶ Enables Full User Lifecycle Management for NonStop user accounts
 - ▶ Role based access control implemented easily
- ▶ **Saves Costs**
 - ▶ 10% - 30% of help desk calls: (Gartner: \$51 to \$147 per Password reset)
- ▶ **Enhanced Security**
 - ▶ Only one strong Single Sign On
 - ▶ Using proven standard protocols
 - ▶ Strong Authentication possible
 - ▶ Integrates NonStop in enterprise security strategy
- ▶ **Improves Governance, simplifies Risk Management and Compliance**

Data-At-Rest Protection

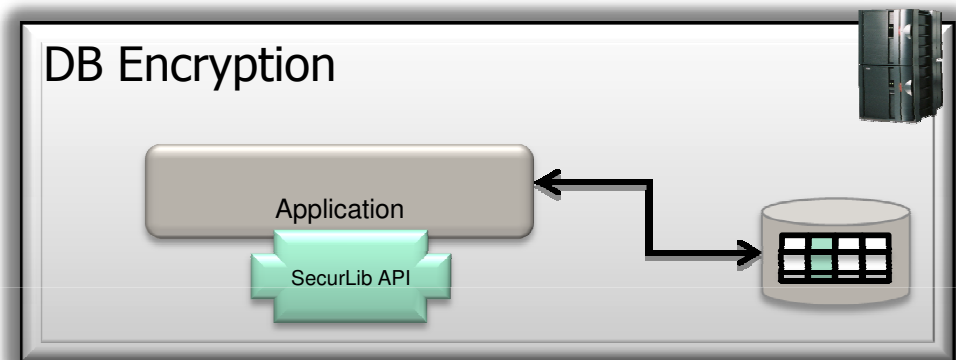
**Thou Shalt
Encrypt Sensitive Data!**

Alternatives for securing Data-at-Rest on NonStop

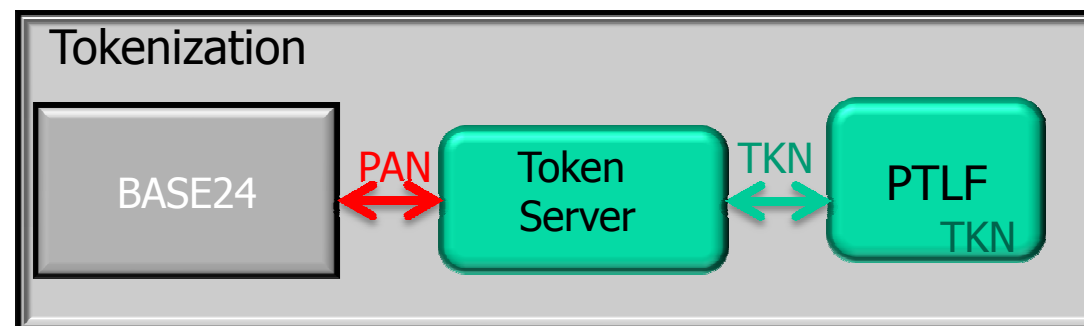
1. VLE (Volume Level Encryption)



2. Column Level DB Encryption

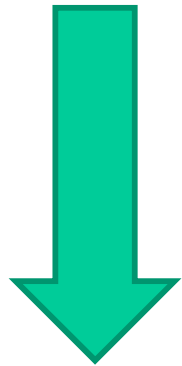


3. Tokenization



Tokenization – the concept

4026157151401408 (PAN)



4026xExn12VT0258 (Token)

Data Vault

TKN1	PAN1
TKN2	PAN2
...	...
TKNX	PANX

Transaction Log before Tokenization

\$B2402.RYN1PTLF.PO110114 RECORD 11 KEY 12290 (%30002) LEN 1066

```

0:   ....S...01VISA4026157151401408 000RYN1AIB1001500158888830
35:   88888830      001001RYN1AIB188888830      1026410088888830
70:   588888830      11111100210001399....S.....1101
105: 1410264100110114000000110114000000005605TEST TERMINAL ASSET ML   JOE
140: DOE           NEW YORK  IE IE0000  ..630493000000000000000007011
175: 111100000000000005999B24 B24 100000V      050.....
210: ....1306M4026157151401408=1306?
245:           P1A^APACS^02      9001000      69100000000000
280:           02000001501109789786100000097861000000.....1220
315: 00      000000000000
350: 0000      00
385:           & ....! 04..      0      Y ! C0..111      2
420: 7 1      ! C1..S1A^APACS^AST^02! C4..20351000061 ! B4..011500..
455: 15060 ! P0.&      88888830      ! B8."
490: POS           ! B9.<      ISO000000
525:

```

Transaction Log after Tokenization

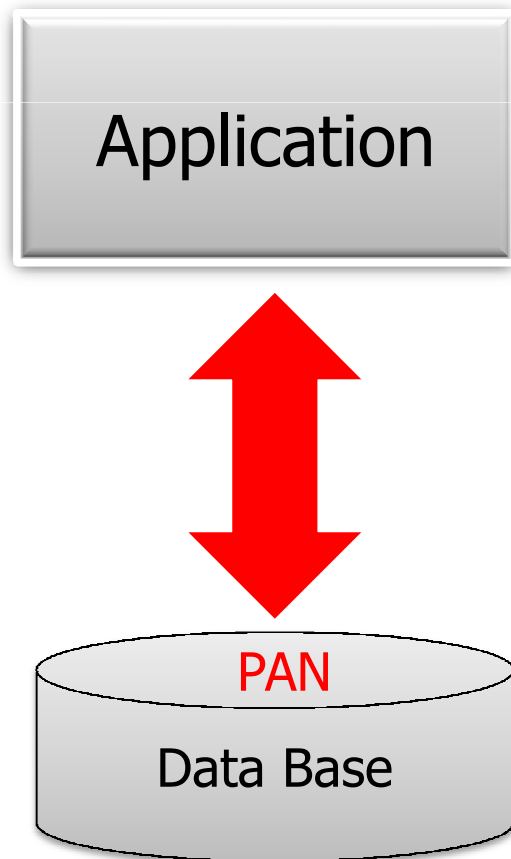
\$B2402.RYN1PTLF.PO110114 RECORD 11 KEY 12290 (%30002) LEN 1066

```

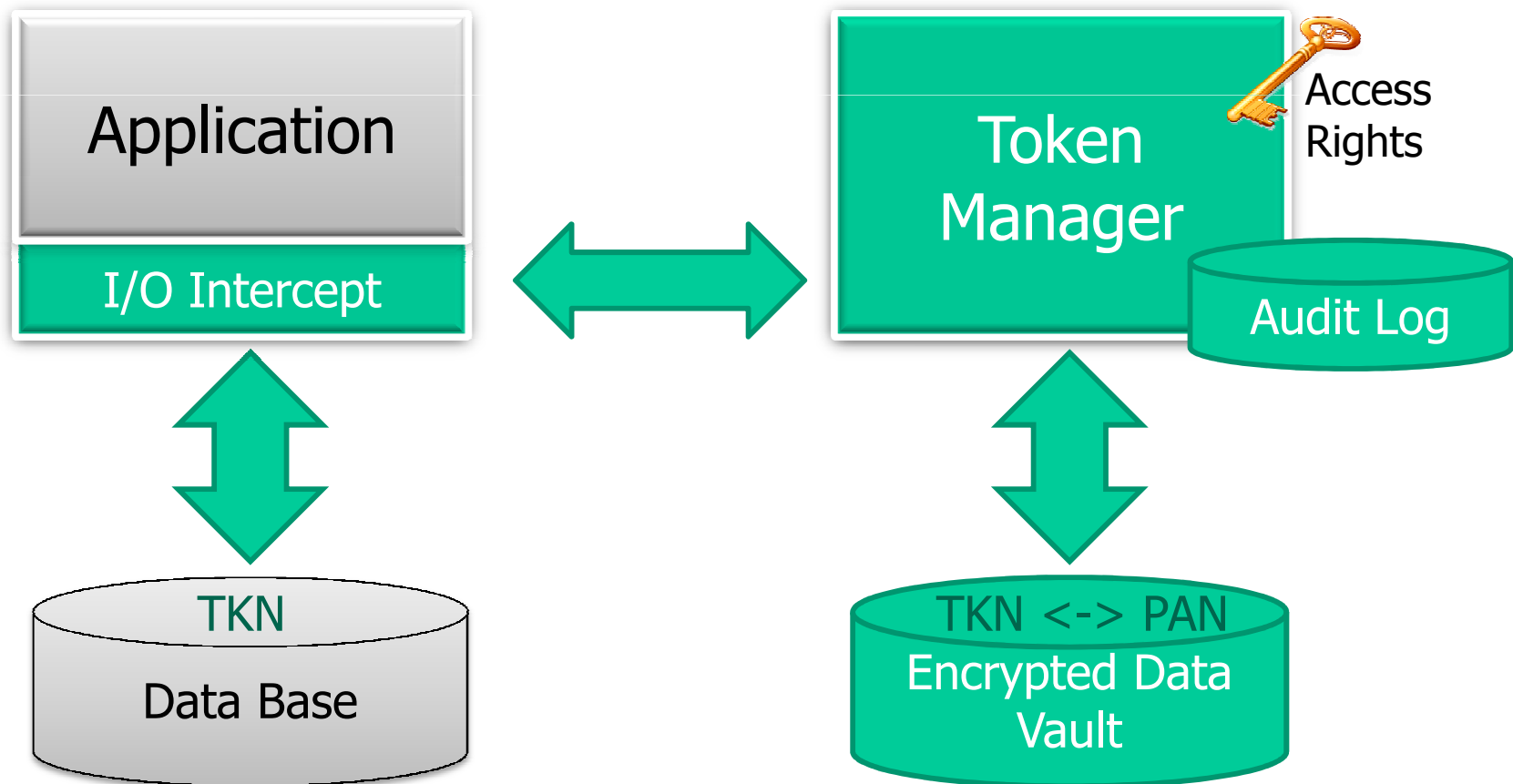
0:   ....S...01VISA4026xExn12VT0258 000RYN1AIB10015001588888830
35:   88888830      001001RYN1AIB188888830      1026410088888830
70:   588888830      11111100210001399....S.....1101
105: 1410264100110114000000110114000000005605TEST TERMINAL ASSET ML   JOE
140: DOE           NEW YORK   IE IE0000   ..630493000000000000000007011
175: 111100000000000005999B24 B24 100000V      050.....
210: ....1306M4026xExn12VT0258=1306?
245:           P1A^APACS^02      9001000      69100000000000
280:           02000001501109789786100000097861000000.....1220
315: 00      000000000000
350: 0000      00
385:           & ....! 04..      0      Y ! C0..111      2
420: 7 1      ! C1..S1A^APACS^AST^02! C4..20351000061 ! B4..011500..
455: 15060 ! P0.&      88888830      ! B8."
490: POS           ! B9.<      ISO000000
525:

```

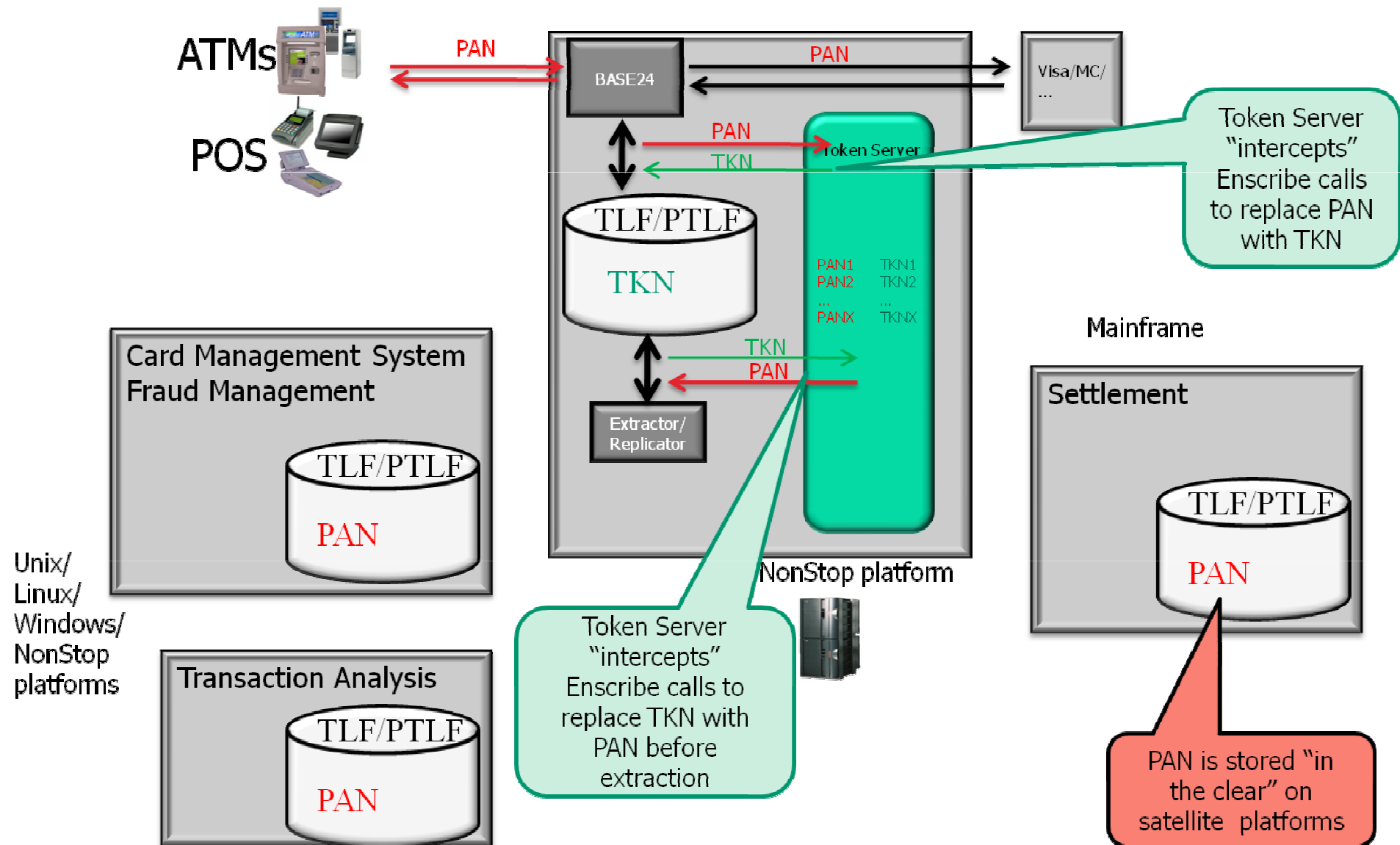
SecurData: Transparent Tokenization for NonStop



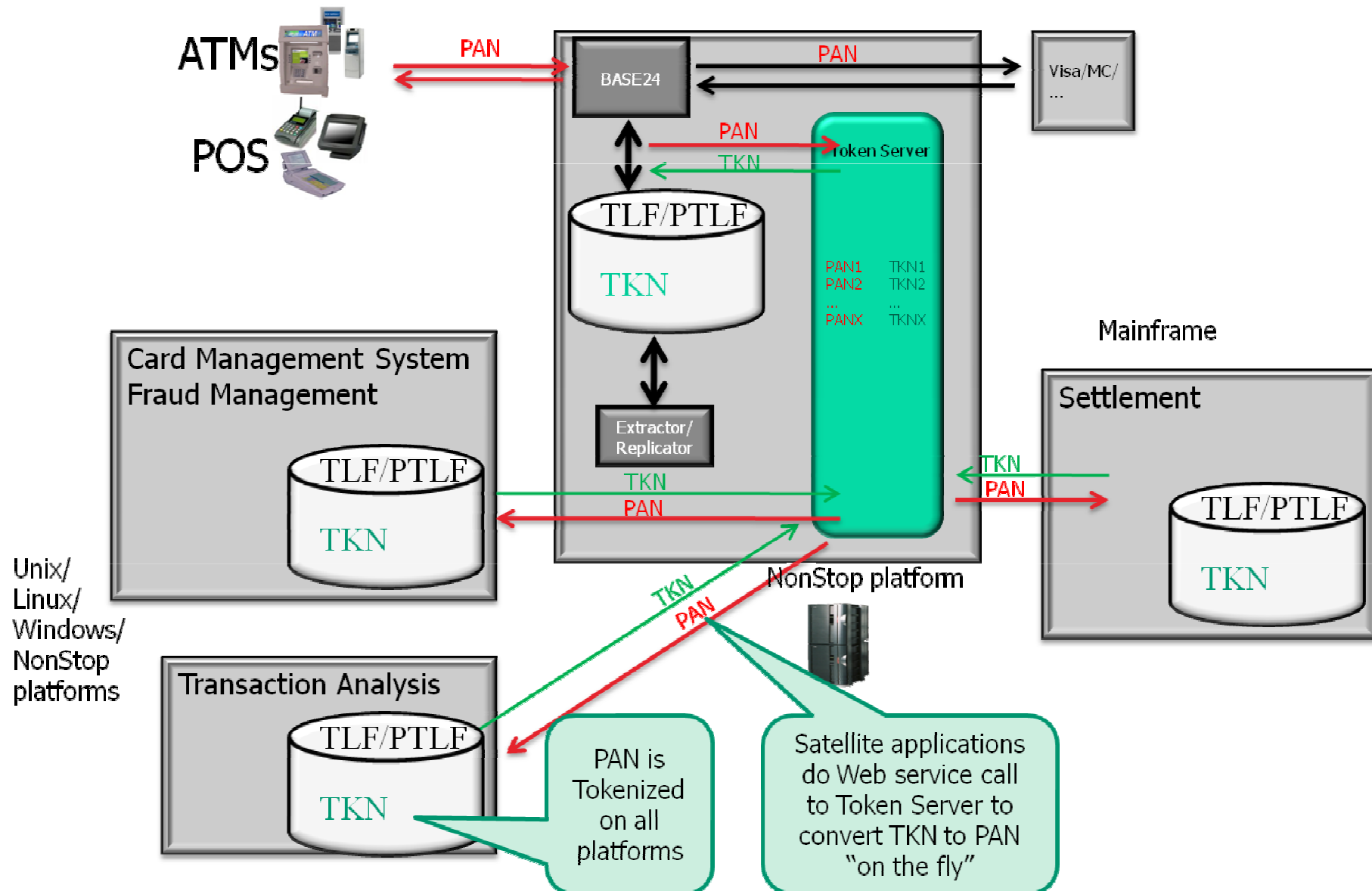
SecurData: Transparent Tokenization for NonStop



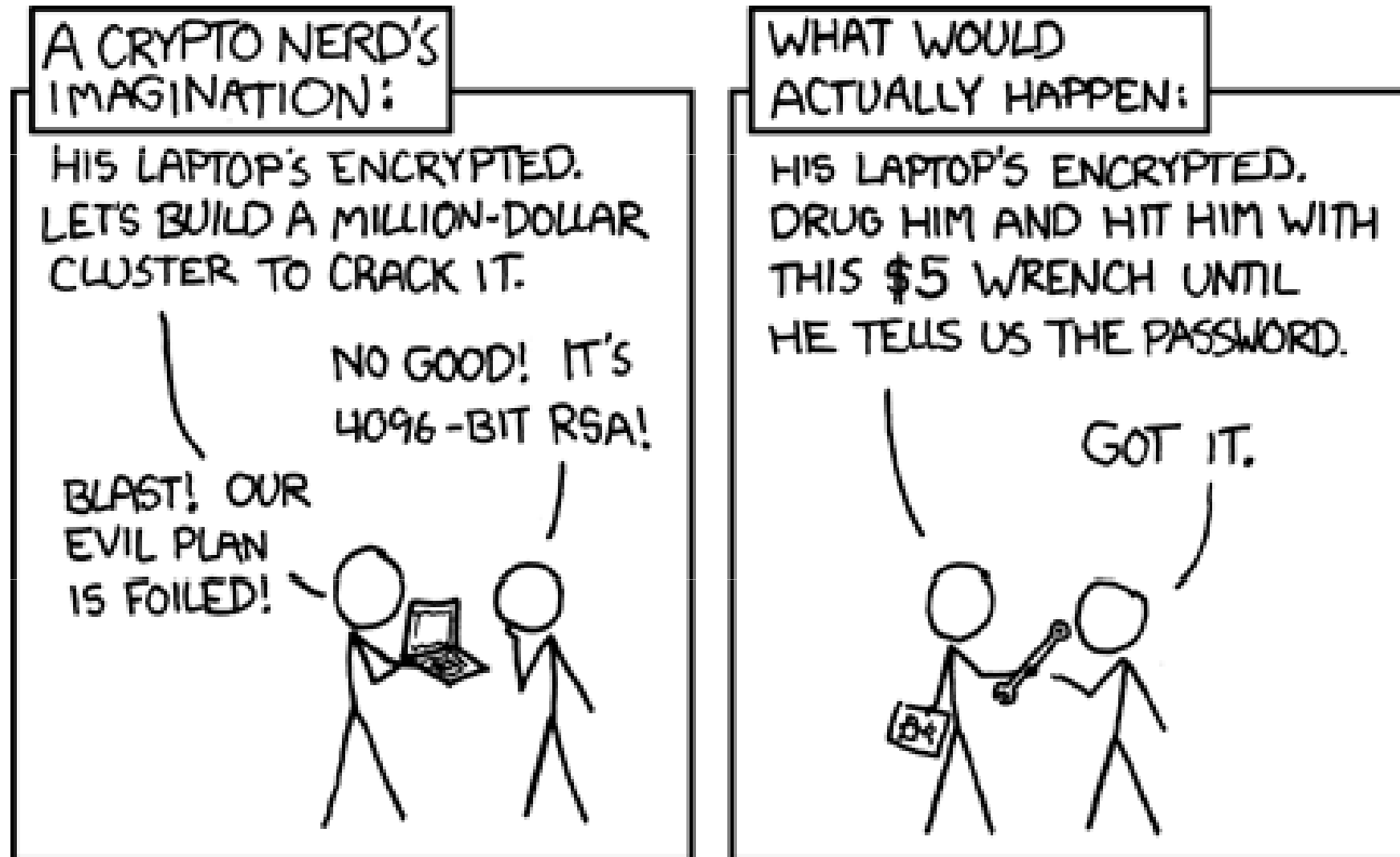
No man is an island!



SecurData: NonStop as an Enterprise Token Server

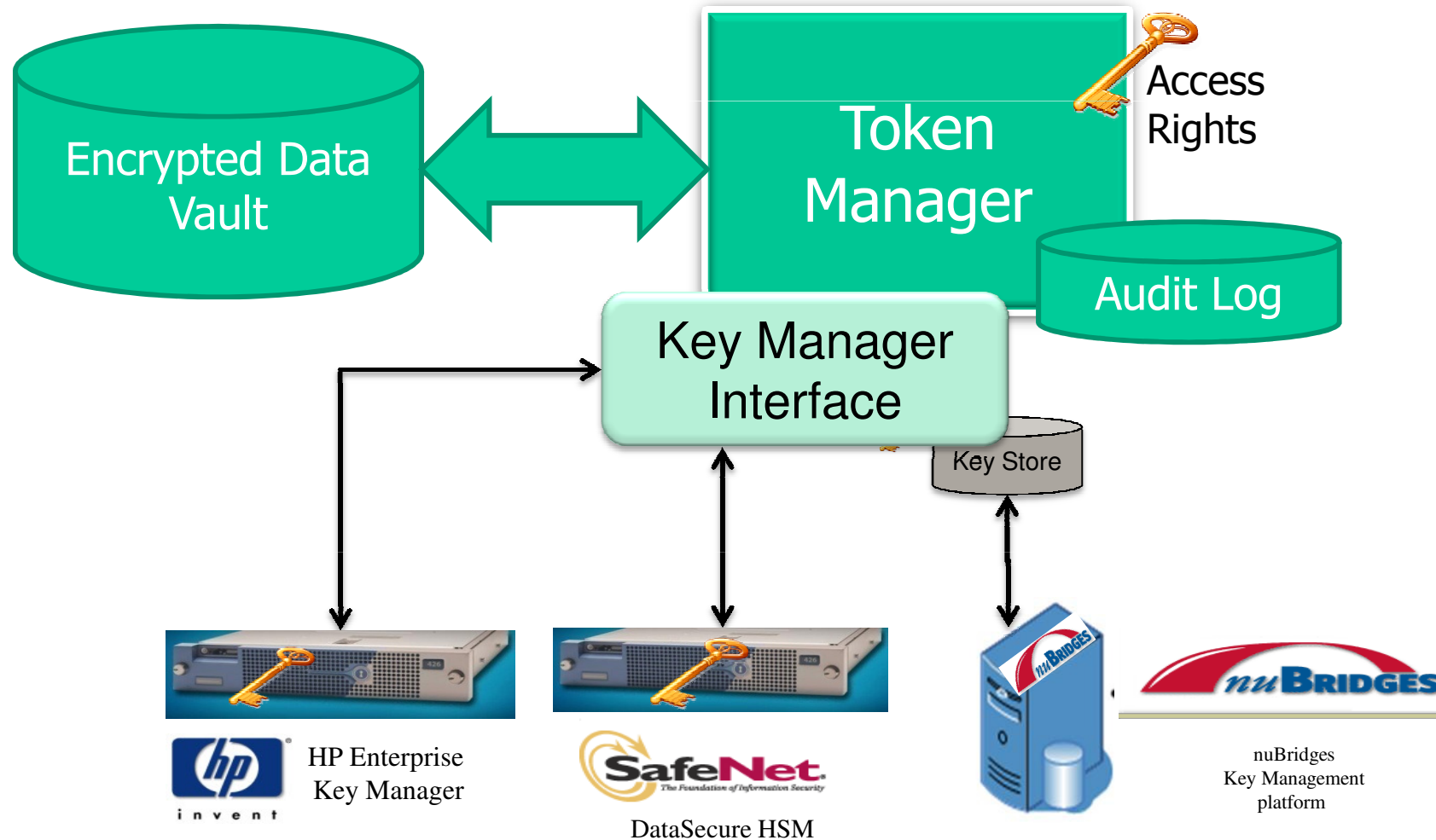


And what about Key Management?



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SecurData Key Management Options



SecurData Benefits

- ▶ Compliance without Excuses
- ▶ De-Scoping
- ▶ Lower Compliance Cost
- ▶ Reduced Risk

comForte SecurData EAP program

- ▶ As the product is brand-new, we are looking for customers to join the EAP program
- ▶ Free on-site consulting
("is this feasible in your environment")
- ▶ Free on-site POCs



*NonStop Solutions by comForte:
The Natural Choice*

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www.comforte.com

comForte Security Solutions Update

Questions?

Michael Horst, VNUG Conference 2011
