ETI·NET  Your NonStop Partner



# Advancements in backup and storage management, monitoring, MQ translation and workload automation.

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Management Tools and Storage

9/12/2023

3:45 PM – 4:45 PM

Denver 4

# Agenda (for HPE NonStop)

## Data Protection

- BackBox®: Proven Virtual Tape Solution

- QoreStor®: Advanced Storage for BackBox
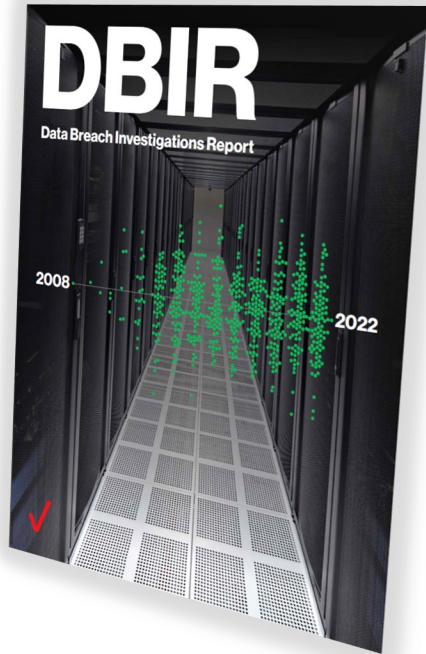
## Management Solutions

- Sentinel: Dynamic Operations & Service Management

- C-Deep: Transaction Monitoring & Instant Search

- MQGate: IBM MQ Translator

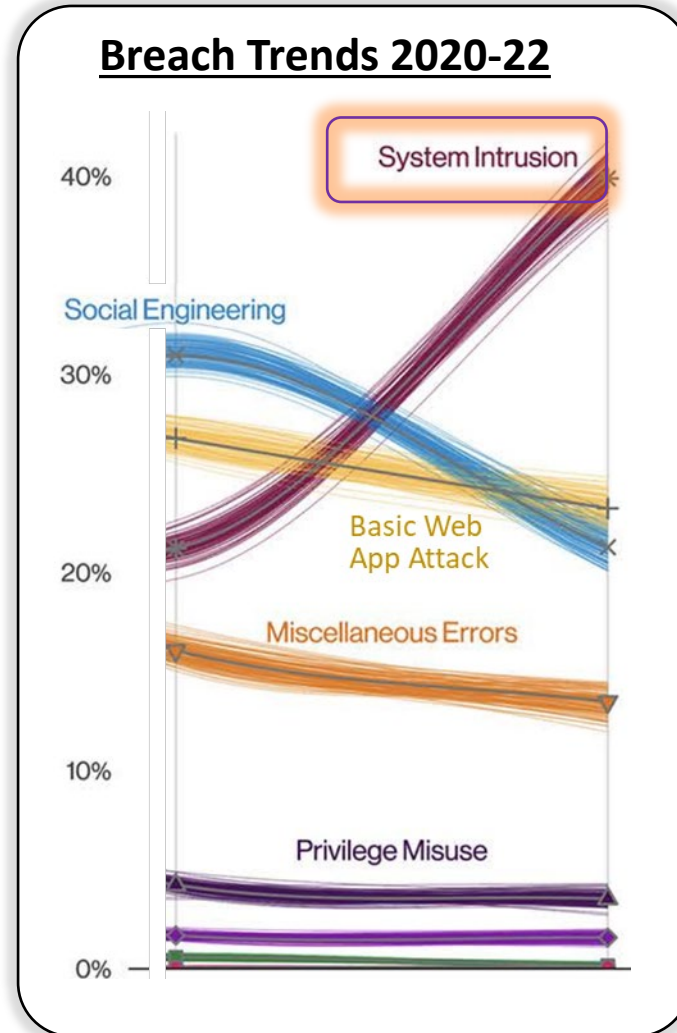- MultiBatch: Intelligent Workload Optimization

## Your NonStop Partner.

# Top Cyber Criminal System Types & Targets



**Verizon 2022 Data Breach Investigations Report**



**Breach Trends 2020-22**

- System Intrusion
- Social Engineering
- Basic Web App Attack
- Miscellaneous Errors
- Privilege Misuse

"When targeting companies, the criminals proceed to alter the company's backup so that they continue to run each night but no longer actually backup any data. This is where having those **offline backups** come in handy."

**What to do to avoid becoming a target**

"Keep a consistent schedule with regard to backups and be sure to **maintain offline backups."**

# Advanced NonStop Backup & Storage Solution

Complementary Backup and Storage tools designed to Secure, Modernize, and Control NonStop data backup and restoration.

- ☐ **Linear expandability & fault tolerance**

- ☐ **Multiple Disaster Recovery options**
  - Multi-node on-site and geographic synchronization
  - Tape Catalog synchronization (Catsync)

- ☐ **Integrated storage management w/BackBox**

- ☐ **3-2-1-x best practice data protection adherence**

- ☐ **HPE Solution (ProLiant, Service & Support)**

# NonStop Security Advancements

Meeting and exceeding NonStop security requirements through ETI-NET/HPE enhancements and BackBox/QoreStor functionality.

- **System Build Snapshot (Bare-metal Restoration)**
  - Saves and restores the $SYSTEM image
  - Acts as the NonStop Media target for the $SYSTEM image
  - *Places the image(s) in accordance corporate w/policy
  - *Restoration capability to select image from optimal location

- **QoreStor with BackBox***
  - Integrated Storage
  - Data encryption in transit and at rest
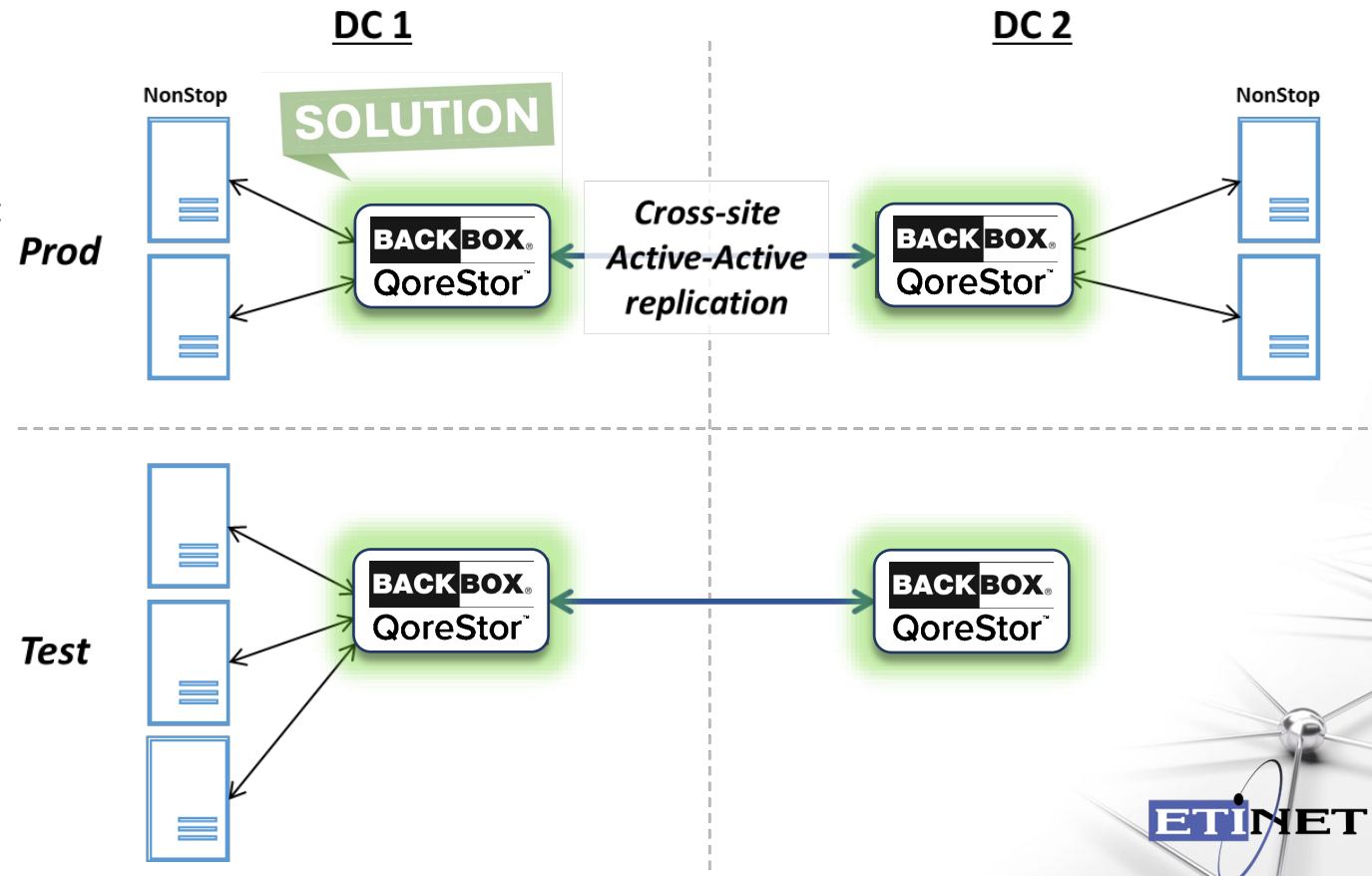  - Object (Cloud) Storage benefits: Immutability, off-site & off-line

# Success story

## CHALLENGE

## Immediate Backup Solution Replacement

### Key Requirements:

- Robust data replication between sites

- Locally attached storage managed by VTC

- Data encryption at-rest (within the VTC) and in-transit (cross-site)

- Resilient connectivity to multiple NonStop systems via multiple FC

- Scheduling urgency: On-site and sustaining support (preferably from HPE) for installation, configuration, updates, and training

**DC 1**   **DC 2**

NonStop   NonStop

SOLUTION

Prod

Cross-site Active-Active replication

Test

Payment Systems

# Production Solution Overview

## 4x VTCs / 12 NonStop Systems

- ▣ **HPE ProLiant Servers**
  - ▪ 64TB Storage (locally integrated)
  - ▪ Backbox (VTC MC & UI) runs in Windows
  - ▪ QoreStor runs as a VM in Hyper-V
  - ▪ 6 FC connections (per appliance)
- ▣ **Windows VDIs deliver access to BackBox / QoreStor & NonStop**
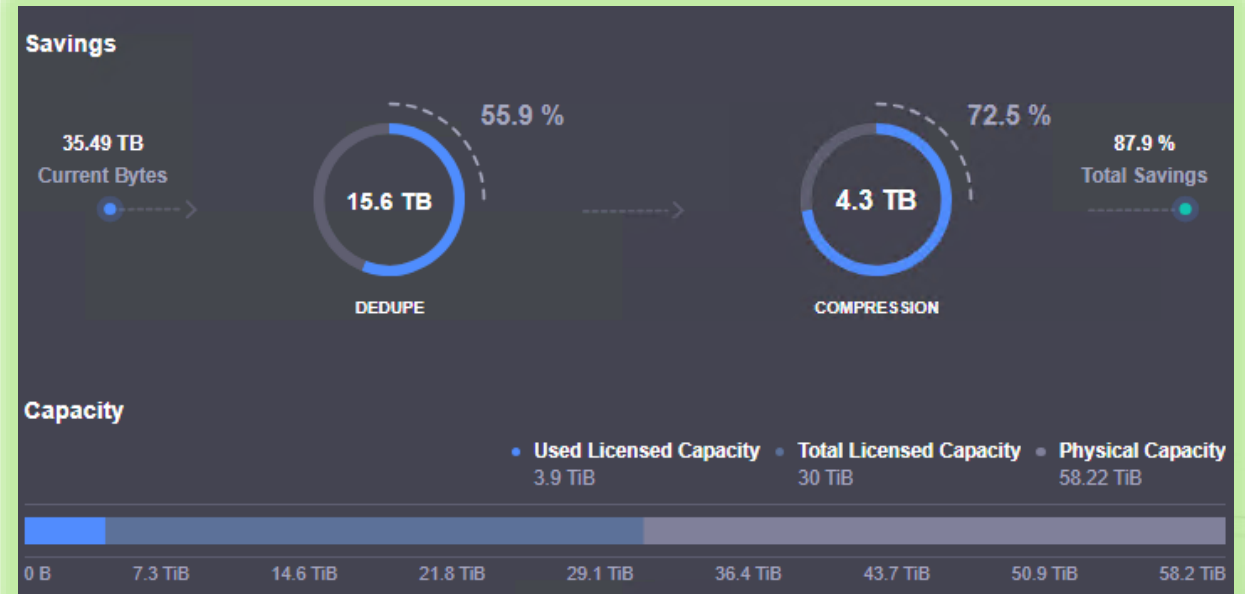- ▣ **Infrastructure HPE IRS remote monitoring to each VTC**
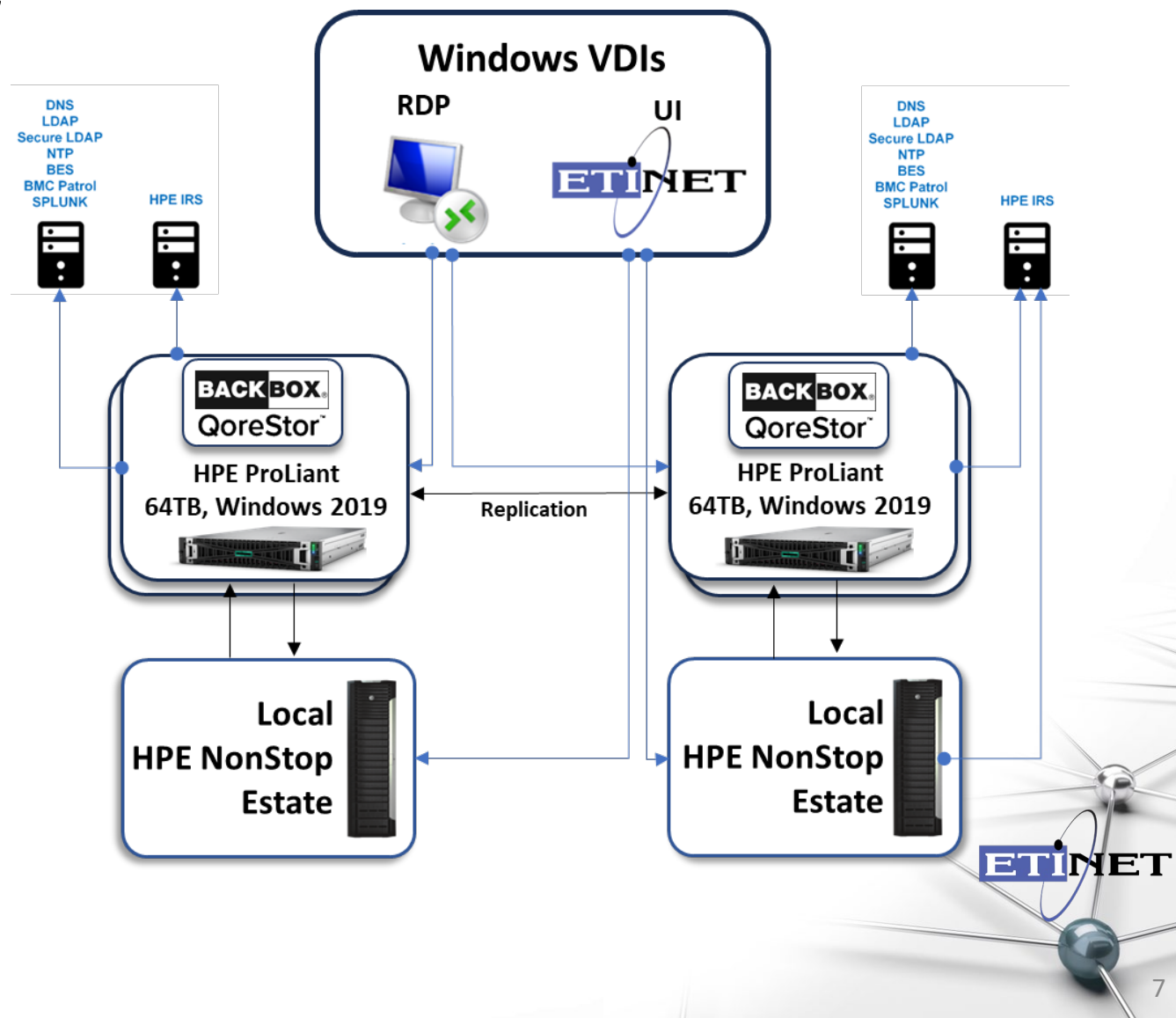
# Success Story - Results

- ◻ **Non disruptive NS system upgrade**
  - ▪ **Start to finish under 1Q to select, order, install, test, and deploy**

- ◻ **Enhanced Security**
  - ▪ **Encryption at rest & in transit**

- ◻ **Enhanced Support**
  - ▪ **Streamlined (less time to answers)**
  - ▪ **Common architecture (VTC & Storage)**

- ◻ **Substantial Savings**
  - ▪ **Common Platform for VTC & Storage**
  - ▪ **GUI Modernization & Storage Control**
  - ▪ **88% Reduction in Data (added benefit)**



Savings

35.49 TB
Current Bytes

55.9 %

15.6 TB

DEDUPE

72.5 %

4.3 TB

COMPRESSION

87.9 %
Total Savings

Capacity

• Used Licensed Capacity
3.9 TiB
• Total Licensed Capacity
30 TiB
• Physical Capacity
58.22 TiB

0 B    7.3 TiB    14.6 TiB    21.8 TiB    29.1 TiB    36.4 TiB    43.7 TiB    50.9 TiB    58.2 TiB

# Success Story - Quotes

*"The results of the project have been very successful; there were minimal issues encountered – very light touch.  The BackBox-QoreStor de-duplication and compression delivers significant storage savings"*
*-   Sr. NonStop IT Director*

*"When my customer had an issue with their Backup vendor going out of business, we knew from experience that the ETI-Net/HPE BackBox solution would be a great fit. The support we had from both ETI-Net and HPE Services Technical Consultants made the transitions to BackBox quick and painless and the benefits of QoreStor surpassed our expectations."*
*- Iain Liston-Brown, HPE NonStop Presales*

# Advanced NonStop Management Tools

Complementary management solutions designed to modernize and enhance NonStop Operations, Transaction & Messaging Management.

**Transaction**

C-Deep

- ☐ Payment Processor SLA Assurance & Planning
- ☐ Real-time & Comprehensive Query Data Insights
- ☐ Detailed Data Content & Longevity

**Operations**

Sentinel

- ☐ Intelligent Rationalization of EMS Events
- ☐ Advanced Presentation Layer & Architecture
- ☐ Automated Escalation & Problem Resolution

**Messaging**

MQGate

- ☐ Intelligent Message Management
- ☐ Simplified Visualization
- ☐ Message Translation

# Sentinel for HPE NonStop

Enterprise class NonStop system monitoring designed to simplify, rationalize, and deliver world-class operations and service management.

- ◻ Designed for operations to enhance monitoring of the entire NonStop environment and associated applications
  - ▪ Consolidation & object rationalization of EMS events
  - ▪ Global NonStop nodes, networks, subsystems, files and events
  - ▪ 3rd Party application support
- ◻ Real-time data rationalization & automation
  - ▪ Intelligent presentation of data
  - ▪ Automatic problem resolution
- ◻ Complementary suite of services
  - ▪ Automatic problem resolution
  - ▪ Software and Services part of the HPE NonStop Catalog
  - ▪ Intelligent monitoring of ETI-NET's suite of products
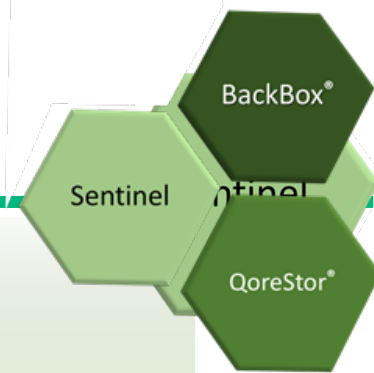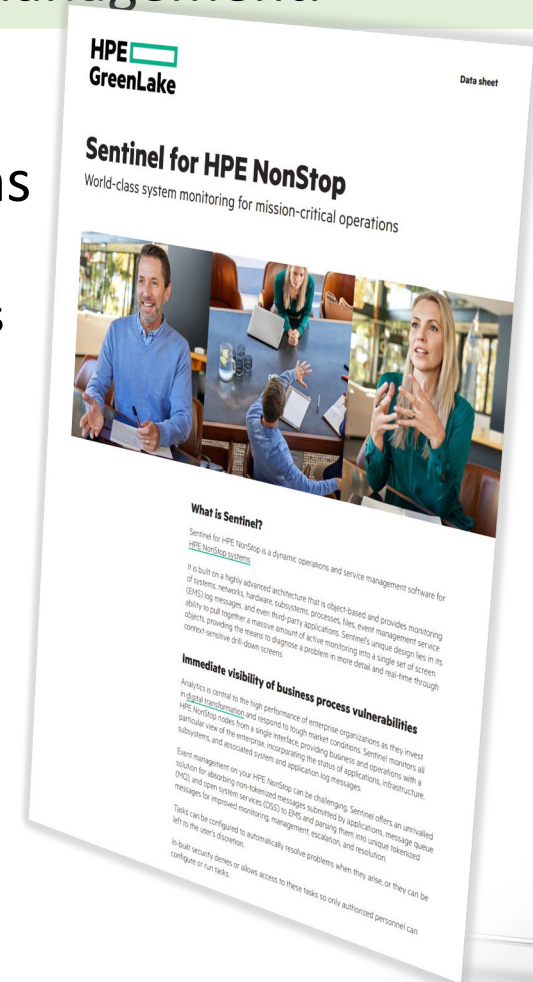
# Sentinel Status Monitor & Drill Down

Delivering complete system monitoring covering all aspects of the NonStop environment.

Sentinel

**CHALLENGE**

## Deliver Regional Monitoring of a Centralized NonStop System

**Requirements:**

- ◻ ID Relationship resource to region

- ◻ Utilize a standardized configuration of the processes to resource to associate to the correct region

- ◻ Utilize single team to monitor (consolidation)

- ◻ Real-time alerting

1  2  3

Sentinel

Sentinel
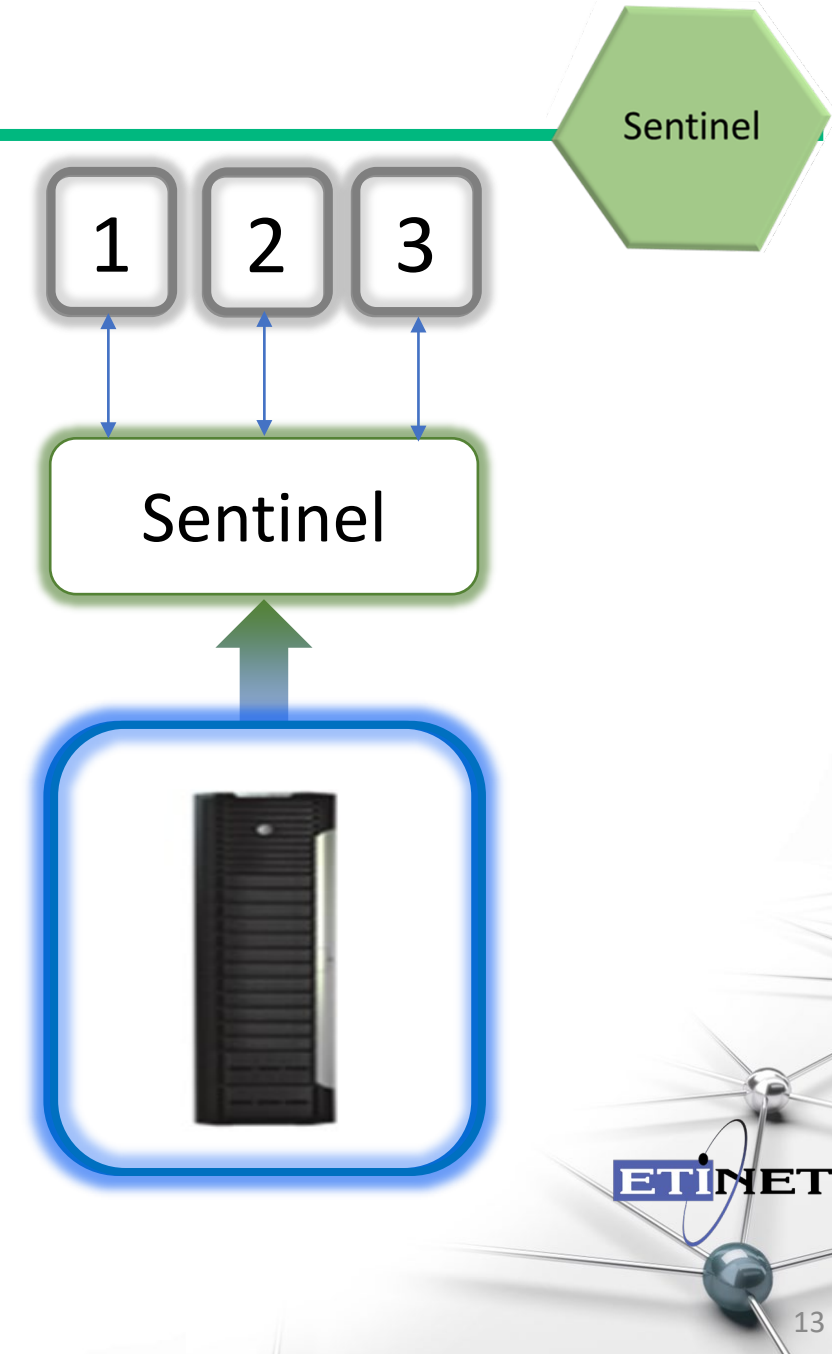
**CHALLENGE**

## Confirmation of every file is processed within the stated SLA on NonStop

Sentinel

**Requirements:**

- ◘ Confirmation that files sent to NonStop from IBM mainframe and open systems have been processed
- ◘ Ability to establish and track thresholds in alignment with SLA requirement
- ◘ Ability to alert in real-time

1   2   3

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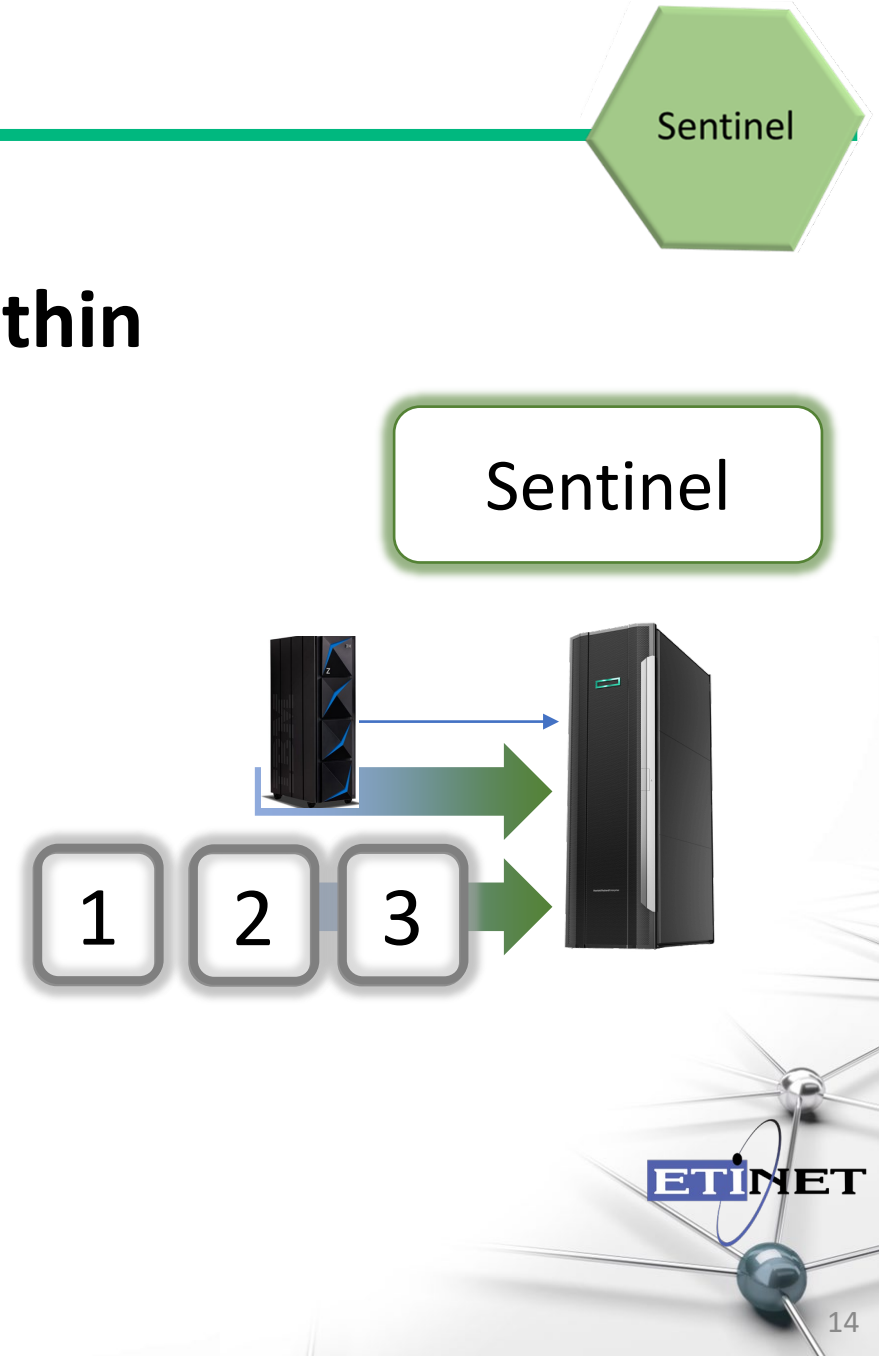
# C-Deep for HPE NonStop

C-Deep

Powerful transaction flow tool **allowing monitoring and query of every field and token created by primary payment engine applications**.

- Built for payment processors operating POS | ATM application environments
- Operators get immediate information on delays in their payment infrastructure
- C-Deep can monitoring transactions by:
  - Volume
  - Card Type
  - Retailer
  - Response Code
  - Station Group
- Customized rules can be applied against any data source to alert to payment vulnerabilities *to get ahead of the local regulator* and proactively inform of any outages affecting customers
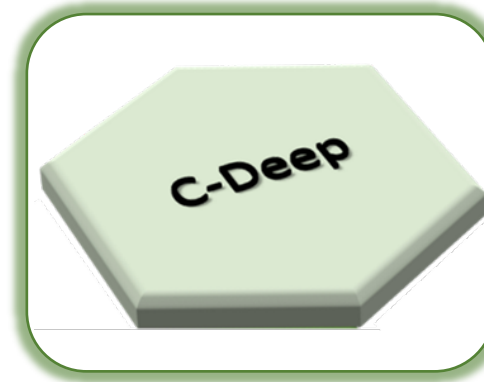
# C-Deep Success Story (1 of 2)

**CHALLENGE**

## Regulation Requirement (10Yrs. online transaction history)

### Requirements:

- ☐ Real-time query of payment transaction data

- ☐ Easy to use (graphical)

- ☐ Concise search criteria

- ☐ Robust transaction data fields
  - Including complete token data

- ☐ Non-intrusive to NonStop System

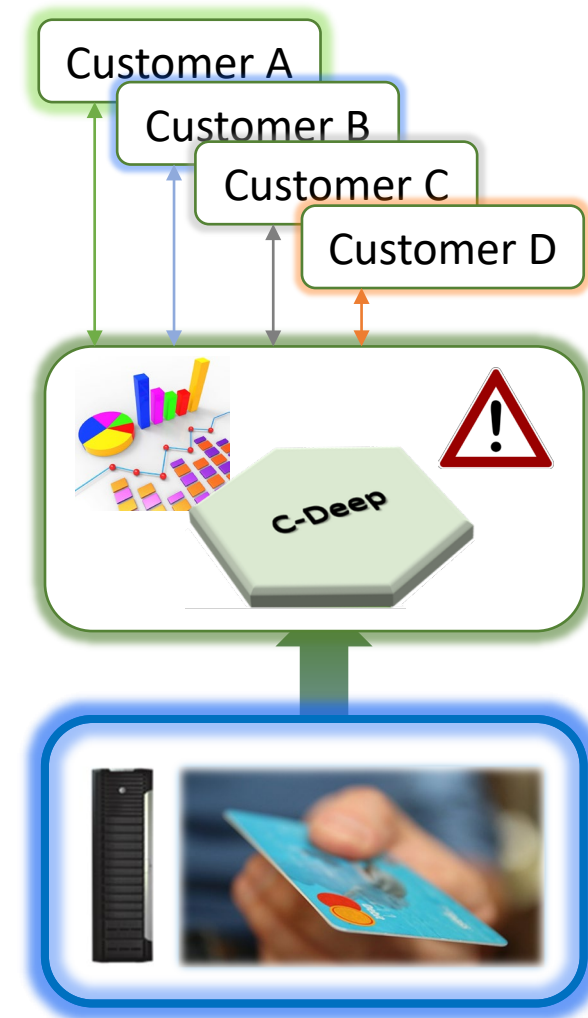- ☐ Able to load archive data into the live data repository

Payment Systems

**CHALLENGE**

## Customer Satisfaction / SLA Adherence

### Requirements:

- ◻ Proactive Real-Time Payment Monitoring
- ◻ Customer Specific
- ◻ Graphical Dashboards
- ◻ Alerting
- ◻ Non-intrusive to NonStop System

# MQGATE for HPE NonStop

MQGate

Provides advanced management of communications between HPE NonStop applications, IBM and distributed systems.

- Differentiates between "identical" MQ events

- Includes an automated EMS template generator

- Convert existing MQ EMS events to unique, tokenized EMS events

# Success Story

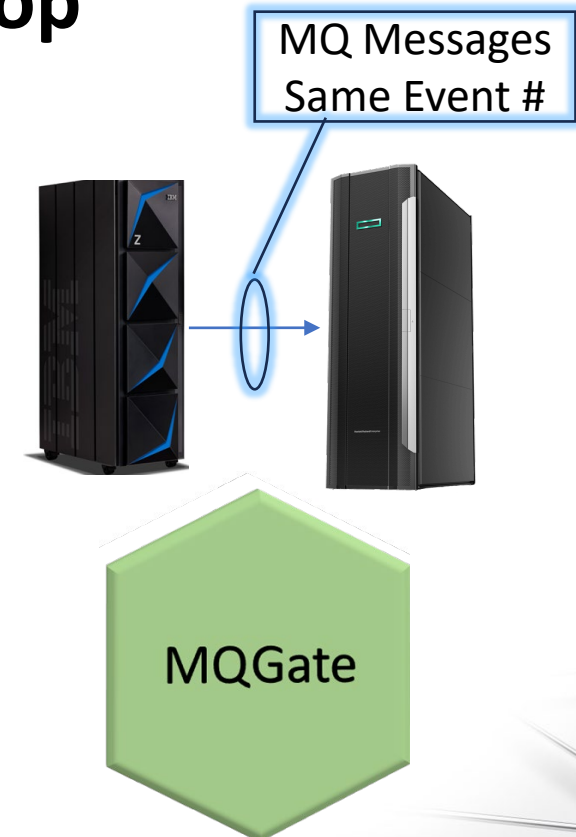MQGate

**Improve operations understanding and ability to to quickly react to IBM MQ Events on NonStop**

## Requirements:

- Provide operators insight into IBM MQ events
- Improve operators' ability to react to MQ events

MQ Messages
Same Event #

MQGate

ETINET

# MultiBatch for HPE NonStop

Modernized workload management designed to protect and simplify your NonStop workload management.
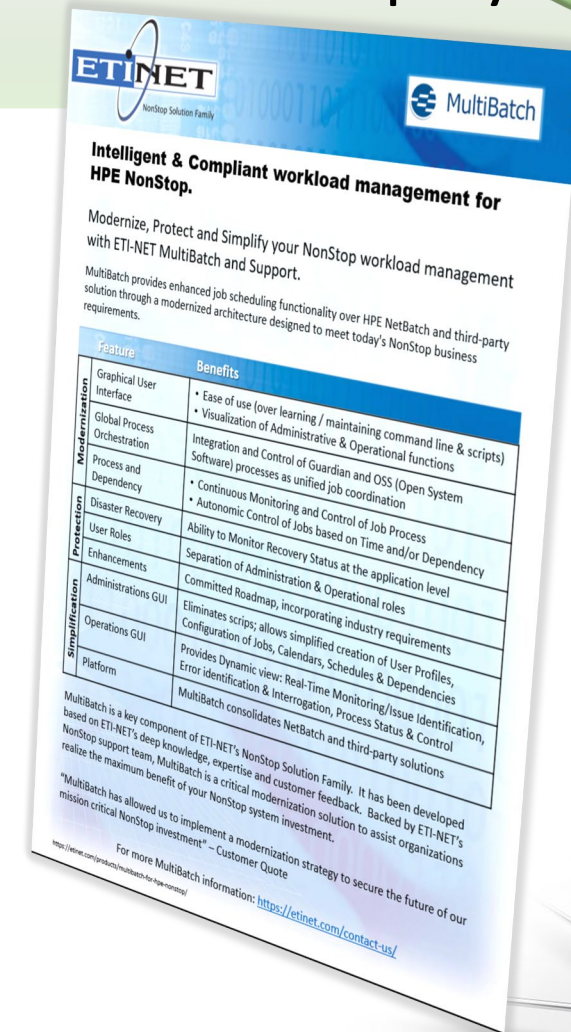
- ◻ **Modernization**
  - ▪ Graphical User Interface
  - ▪ Global Process Orchestration
  - ▪ Continuous Processing & Automatic Control
- ◻ **Protection**
  - ▪ Disaster Recovery
  - ▪ Separation of Administrative & Operational Roles
- ◻ **Integration**
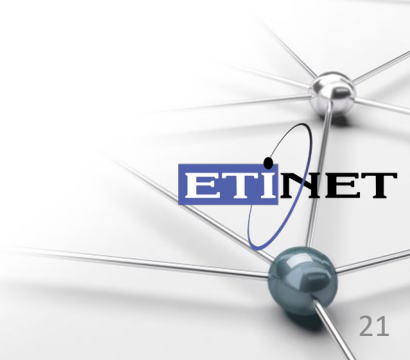  - ▪ Consolidation with NetBatch and 3rd Party Solutions

# Success Story

**CHALLENGE**

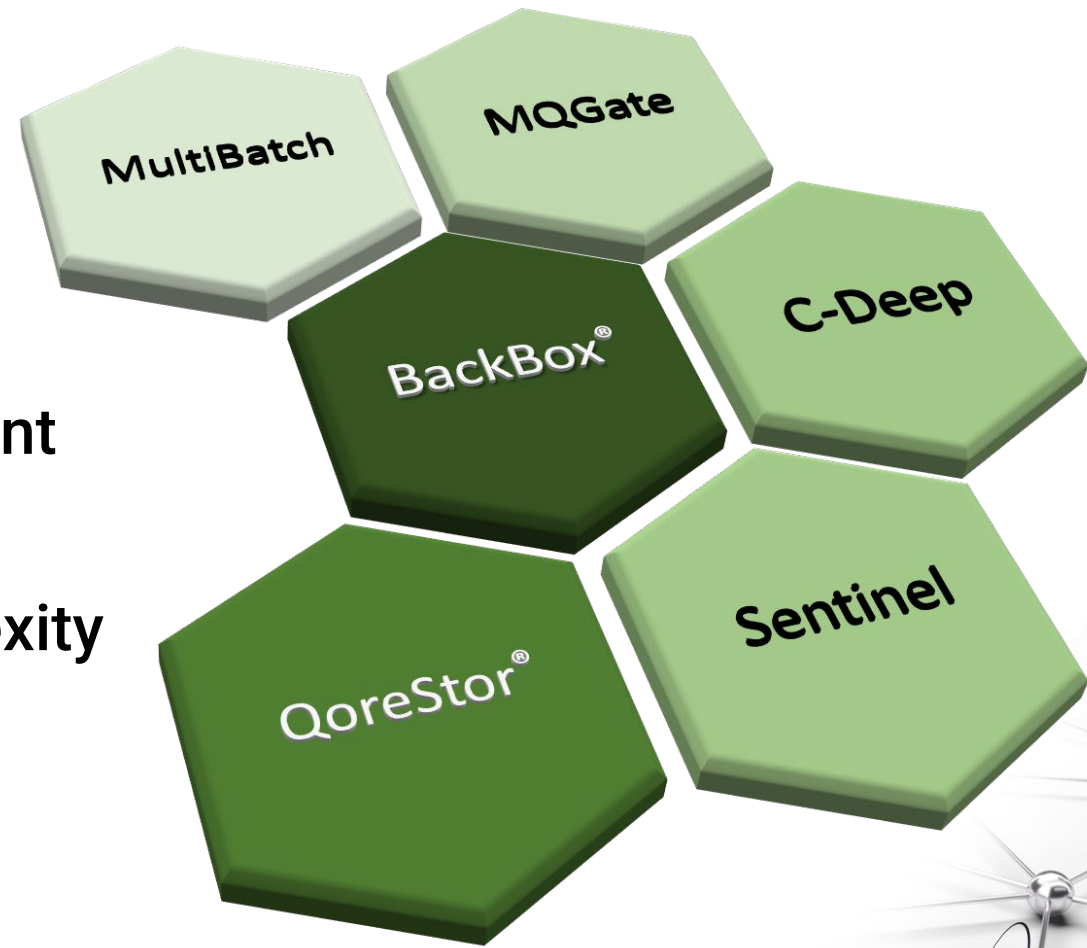## IBM Scheduler NonStop End of Life & Complexity

Requirements:

- Number of jobs

- Complexity of dependencies

- Easy to administer and operate

- Future platform for OSS system administration

# ETI-NET NonStop Benefits Summary

- ▪ Best practice data protection
- ▪ Modernized architecture
- ▪ Regulatory compliance
- ▪ Service Level Agreement (SLA) Attainment
- ▪ Data insights (Customers & Operations)
- ▪ NonStop Database Management Complexity
- ▪ Intelligent processing
- ▪ HPE Service & GreenLake programs



MultiBatch
MQGate
BackBox®
C-Deep
QoreStor®
Sentinel

**Thank You**