

New and Exciting Products for HPE NonStop

Bootcamp 2020

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Blazing Fast File Comparison and Repair





Blazing Fast File Comparison

FS Compare and Repair

Identifies, reports, and repairs inconsistencies
in Production NonStop databases

A hand holding a glowing blue globe with a city skyline in the background. The globe is illuminated with a bright light, and the city skyline is visible in the background. The overall scene is set against a blue background with a grid pattern.

Ask yourself

- **How often do you compare your databases on production and D/R?**
- **What is your confidence that they are 100% the same?**
- **How long does it take you to compare your database today?**
- **How much effort is required to repair inconsistencies?**
- **Would you run it more frequently if it takes minutes instead of hours?**
- **How much time and effort would you save if the solution could Repair the database automatically?**

How does it work?

- Write Block from Source to Target

- Optional for key sequenced files
- Align Block Structure

Repair

(FUP Reload)

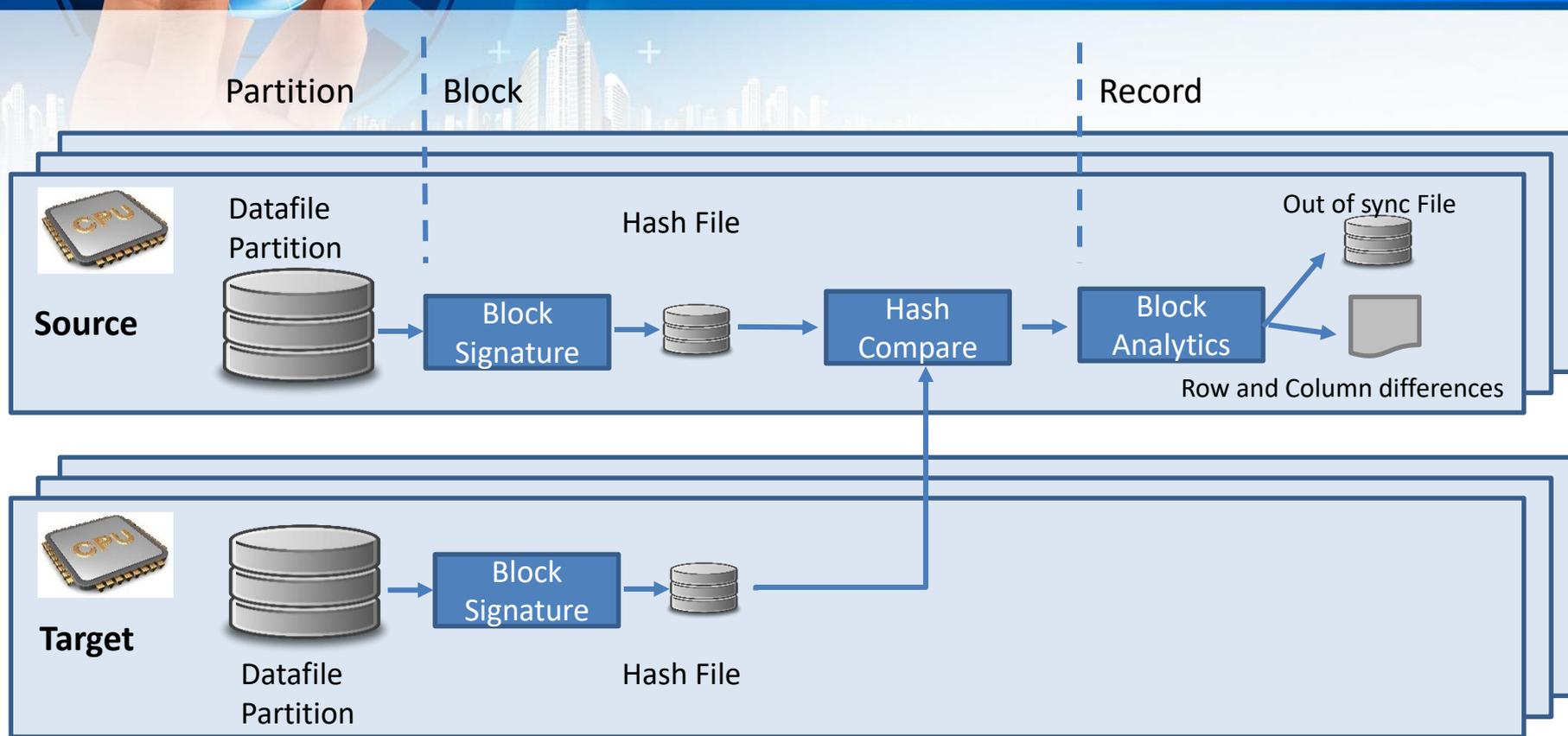
Verify

Compare

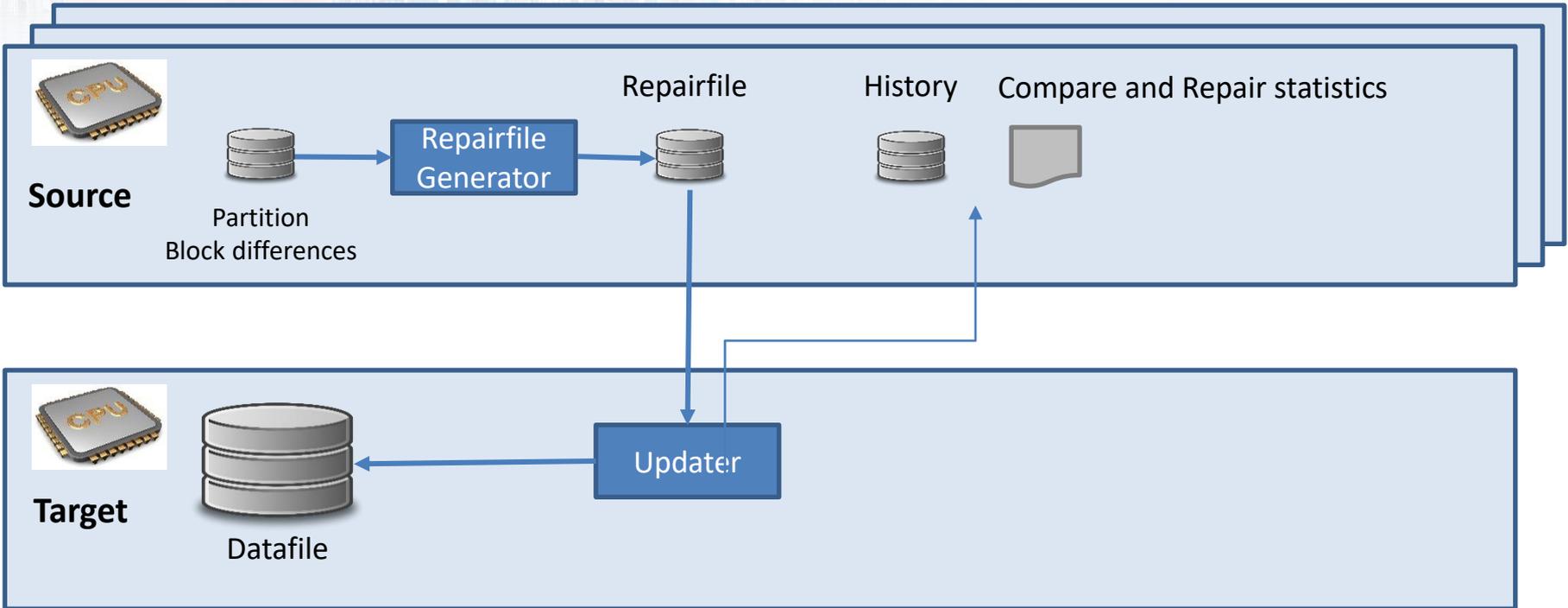
- Verify lag versa real data discrepancy

- Read Files Blocks
- Calculate Hashes for Source and Target Blocks
- Compare Hashes
- Analyze Data discrepancies
- Document Data discrepancies

Architecture - Compare



Architecture - Repair





Business Cases

- Data Replication
 - Auditing – Ensure both databases are equal
 - Time to compare a **1 TB file ~ 12 minutes**
 - Initial time to compare **12.000 files (10GB total) ~ 3 hours**
 - Subsequent compares take **~ 10 seconds**
 - QA for Non-TMF applications: Ensure Library bound in to all objects
- SecurDPS (Tokenization solution from comforte)
 - POC / Rollout / Audit

Data Processing

Sourceblock

Token	Value	Value
Value	Value	Value
Value	"ABC"	Value

Compare Tokenized with
untokenized data

Exclude Columns

Compare with
processed data

Targetblock

PAN	Value	Value
Value		Value
Value	"123"	Value



FS Compare and Repair features

- Compares and Repairs files at the block level for very fast results
- Utilizing renown block level Hash compare, block level analyses, and parallel processing
- Supports Enscribe, SQL/MP, SQL/MX and OSS files
- Compares online and offline databases
- Provides partition-, index-, block-, record-, and column-level statistics
- Requires zero application modification
- Generates reports for auditing and internal verification
- Incorporates HPE NonStop server fundamentals:
 - Fault-Tolerance, Parallel Processing
- File Selection by Wildcarding & Qualified Expressions
- Works with all NonStop data replication solutions
- Certified on all HPE NonStop servers

Blazing Fast Backup and Restore



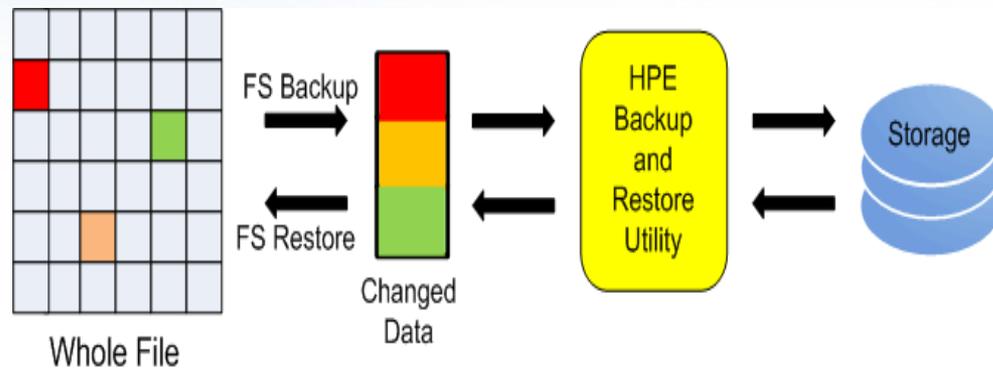
A hand holding a glowing blue globe with a city skyline in the background. The globe is held in the palm of a hand, and the city skyline is visible in the background. The overall theme is technology and global connectivity.

Blazing Fast Backup and Restore

FS Backup and Restore

Unlike HPE Backup,
FS Backup and Restore identifies and
saves only block differences, not whole files

Blazing Fast – Backing up modified file blocks reduces time from hours to minutes!!!



FS Backup and Restore

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Ask yourself

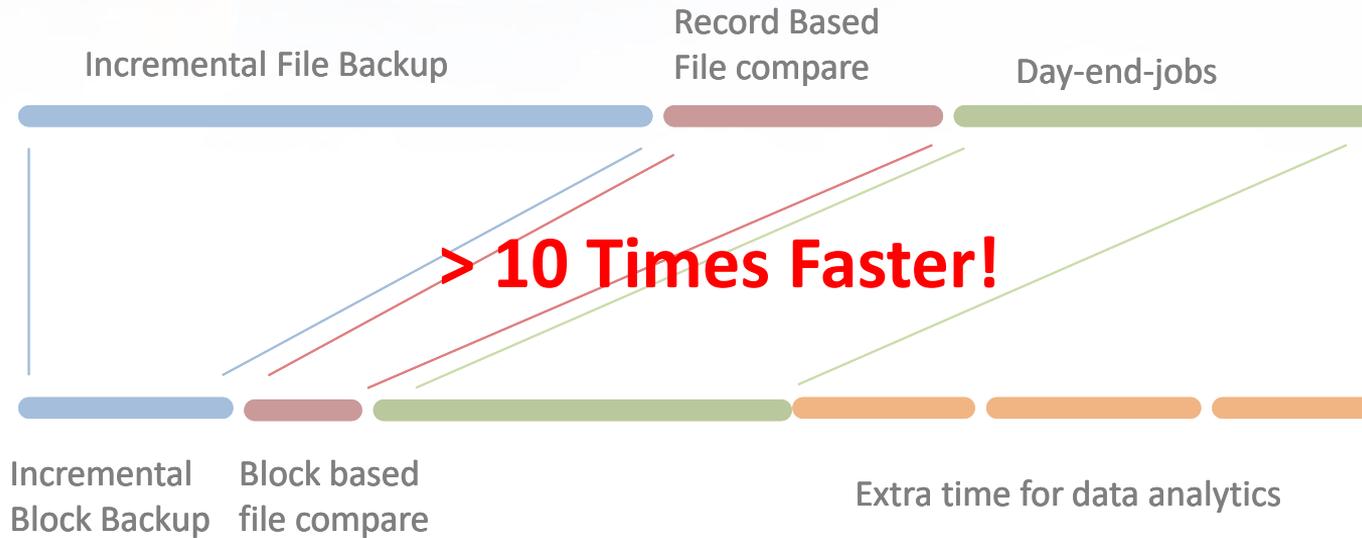
- **How long does it take you to perform your backups today**
- **Do you have enough time to perform all batch tasks every night?**
- **What about reducing the incremental backup time from hours to minutes?**
- **What other tasks can you now perform**
 - **System maintenance, data analytics ?**



FS Backup and Repair features

- Complements all HPE NonStop Backup and Restore utilities
- Compatible with all NonStop vendor storage solutions
- Sending ONLY changed data blocks upstream to HPE Backup utility
- Utilizing renowned block level Hash compare, block level analyses, and parallel processing
- Supports Guardian, SQL/MP, OSS and SQL/MX
- Designed to run automatically on a defined schedule
- File selection by wildcarding & qualified expressions
- Supports trigger execution of TACL job
- Supports File compression
- Certified on all HPE NonStop servers

Summary





TANDsoft solutions

- **FileSync** - Synchronizes applications and files between HPE NonStop servers
- **OPTA2000** - Virtual clock and virtual time zone simulator
- **SDI** – Provides seamless interception of SQL/MP and SQL/MX access and is used to Tokenize sensitive data.
- **Enscribe-2-SQL Toolkit** – Seamless access to SQL DB from Enscribe applications
- **Enscribe-2-SQL Data Replicator** – Replicates Enscribe file modifications to Target DB
- **TMF-Audit Toolkit** - Permits easy conversion of non-audited TMF files to audited TMF files.
- **OPTA** - Online Process Tracer & Analyzer for TNS and Native applications



Thank You for your attention

Any Questions?

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