

vibro-meter

VibroSight condition monitoring data management

presented by Alfonso Fernandez,
Product Manager

February 2024

AGENDA

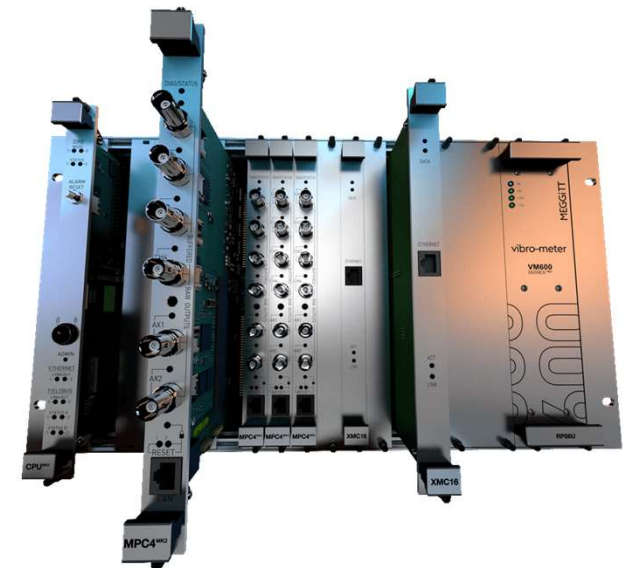
1. Tools and utilities
2. VibroSight software data management
 - Data logging
 - Database backup
 - Database purge
 - Database copy to file storage
 - Database mirroring
 - Cybersecurity architecture

TOOLS AND UTILITIES

UPGRADING VM600 MK2 SYSTEM FIRMWARE

Protection and monitoring systems

- New technical note (short manual)
- Describes the procedure for upgrading the VM600Mk2 firmware
- Available from the [User manuals](#) section in the LOGIN area of the Parker Meggitt website (LOGIN required).
- Information on the most recent firmware versions and compatibility information can be found in the VibroSight release notes.





Bookmarks



- 1 Introduction
- 2 Warnings
- 3 Firmware upgrade procedure
 - 3.1 Prerequisites
 - 3.2 Connect the computer running the VibroSight® software to the VM600 Mk2 system
 - 3.3 Use VibroSight System Manager to access the VM600 Mk2 system
 - 3.4 Display VM600 Mk2 module information, including firmware versions
 - 3.5 Upgrade VM600 Mk2 module firmware
 - 3.5.1 To upgrade the firmware running on a VM600 Mk2 MPC4 Mk2 module or modules
 - 3.5.2 To upgrade the firmware running on a VM600 Mk2 CPUM Mk2 module
- 4 Further information
 - 4.1 Related documentation
 - 4.2 Customer support

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To Fly To Power To Live

MEGGITT

TECHNICAL NOTE

vibro-meter®

Upgrading
VM600^{Mk2} system
firmware

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Fax: +41 26 407 1301
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www.meggittsensing.com/energy
www.meggitt.com

VIBROSIGHT SOFTWARE RELEASES

Protection and monitoring systems

- The latest version of the VibroSight® software, VibroSight 7.4.0, was released in September 2023.
- Refer to the VibroSight software release overview and software release notes.
- VibroSight 7.4.3, a maintenance-level release, was made available in January 2024 to help resolve issues and correct bugs.
- The next version is scheduled for April 2024 and will add support for XMV16 to VibroSight Capture.



STOP SUPPLYING VIBROSIGHT COMPUTERS

Protection and monitoring systems

- For business/commercial reasons, we have decided to stop supplying computers with VibroSight® software pre-installed.
- The letter ("Configured computer – discontinuation letter") announcing the discontinuation of this service is available from the Obsolescence letters section in the LOGIN area of the Parker Meggitt website (LOGIN required).
- Accordingly, such VibroSight computers (blackbox, desktop, workstation and rackmount) have been removed from the VibroSight® software data sheet.



NEW SENSORS AND CONDITIONERS EXCEL TOOL

Sensors and conditioners

- Designed to make your product decision process easier.
- Includes relevant information and filtering tools to help you choose the right product for specific applications.
- You can download the Excel based tool from Energy website's login area - [Tools and utilities](#)

| Parker MEGGITT | | Go to the viewer | | | | |
|--|-----------------|--|--|---|--|------------------------------|
| Cat1 | Sensitivity | Temp min [°C] | Temp max [°C] | Freq. min [Hz] | Freq. max [Hz] | Connection |
| Dynamic Pressure Sensors | 1.33mV/µm | -253 | 40 | 0 | 2 | 5-pin - Flying leads |
| Other Sensors and Conditioners | 10µA/g | 200 | 60 | 0.2 | 5 | 50° 24LINEF-2A |
| Sensit Accessories | 100mm | 190 | 70 | 0.5 | 20 | 5-pin |
| Vibration Sensors & Conditioners | 100mV/g | 90 | 75 | 1 | 66 | 5-pin - Flying leads |
| | 100pC/g | 70 | 80 | 1.9 | 320 | 7116°-27UN-2B - Flying leads |
| | 10g | 45 | 85 | 2 | 350 | 7116°-27UN-2A |
| | 10mm | 55 | 60 | 3 | 400 | 7116°-27UN-2B |
| Accelerometers with integrated electronics (CE) | 10pC/g | 54 | 100 | 5 | 1000 | 7116°-27UN-2B - Flying leads |
| Accelerometers without integrated electronics (CA) | 190pC/bar | 50 | 105 | 10 | 1200 | 7116°-27UN-2B - Flying leads |
| Air gap conditioners (LS) | 200mV/mm | 40 | 120 | 20 | 2800 | 7116°-27UN-2B + LEMO type 0 |
| Air gap sensors (LS) | | | | | | |
| Cable assemblies (EGEDMEH) | | | | | | |
| Type | PNR | Name | Description | Related products | Ex | |
| ABA160 | 630-160-000-11x | ABA160 Industrial Housing | Housing for up to 1 conditioners IPC | IPCxxx, IG5xxx, MA130, ABAxxx | Ex II 2 G / 2 D Ex e II T6 (increased safety) Ex ia IIC T6 (intrinsic safety) Ex eia IIC T6 (mixed equipment) | |
| ABA171 | 630-171-000-01x | ABA171 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 2 conditioners (Q2S, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets | IPCxxx, IG5xxx, IL5xxx, MA130, ABAxxx | Ex e I / G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity: 15.02.2026 | |
| ABA172 | 630-172-000-01x | ABA172 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 4 conditioners (Q2S, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets | IPCxxx, IG5xxx, IL5xxx, MA130, ABAxxx | Ex e I / G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity: 15.02.2026 | |
| ABA173 | 630-173-000-01x | ABA173 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 6 conditioners (Q2S, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets | IPCxxx, IG5xxx, IL5xxx, MA130, ABAxxx | Ex e I / G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity: 15.02.2026 | |
| AE119 | 600-119-000-02x | AE119 Housing expansion probe (50 mm range) | Absolute expansion transducer with integral electronics, standard 4-20 mA output, measuring range 0-50 mm | AE119, EH140 | No | |
| AE119 | 600-119-000-12x | AE119 Housing expansion probe (100 mm range) | Absolute expansion transducer with integral electronics, standard 4-20 mA output, measuring range 0-100 mm | AE119, EH140 | No | |
| AE119 | AE119-A050-B1 | AE119 Inductive expansion probe | A050 Range = 50 mm B1 Version = Standard (0 to +70°C) | AE119, EC-AE119 | No | |
| CA134-20x | 144-134-000-20x | CA134-20x Piezoelectric Accelerometer | 253°C - 200V to +500°C, 10 pC/g, 1716°-27 UNS-2A connector | CA134, PCN707, GS1127, TA104, TA105, EC069, EC112, EC396, CG005, ABAxxx | Ex ia II Zone 0 (Brazil) / Validity: 19.01.2024 Ex ia II Zone 0 (China) / Validity: 07.04.2027 | |



| Type | PNR | Name | Description | Related products | Ex |
|-----------|-----------------|--|---|---|--|
| ABA160 | 830-160-000-11x | ABA160 Industrial Housing | Housing for up to 1 conditioners IPC | IPCxxx, IQSxxx, MA130, ABAxxx | Ex II 2 G / 2 D Ex e II T6 (increased safety) Ex ia IIC T6 (intrinsic safety) Ex e(ia) IIC T6 (mixed equipment) |
| ABA171 | 830-171-000-01x | ABA171 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 2 conditioners (IQS, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets. | IPCxxx, IQSxxx, ILSxxx, MA130, ABAxxx | Ex e / t G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity : 15.02.2026 |
| ABA172 | 830-172-000-01x | ABA172 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 4 conditioners (IQS, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets. | IPCxxx, IQSxxx, ILSxxx, MA130, ABAxxx | Ex e / t G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity : 15.02.2026 |
| ABA173 | 830-173-000-01x | ABA173 Industrial Housing | Industrial housing made from painted steel, door with locking system, rear plate with DIN-rails for up to 8 conditioners (IQS, IPC, IVC) or terminal blocks, sealed cable entry plate with removable plugs for optional stuffing glands, wall mount brackets. | IPCxxx, IQSxxx, ILSxxx, MA130, ABAxxx | Ex e / t G / D Zone 1 / 21 (Russia, Belarus, Kyrgyzstan, Armenia, Kazakhstan) / Validity : 15.02.2026 |
| AE119 | 800-119-000-02x | AE119 Housing expansion probe (50 mm range) | Absolute expansion transducer with integral electronics, standard 4-20 mA output, measuring range 0-50 mm. | AE119, EH140 | No |
| AE119 | 800-119-000-12x | AE119 Housing expansion probe (100 mm range) | Absolute expansion transducer with integral electronics, standard 4-20 mA output, measuring range 0-100 mm | AE119, EH140 | No |
| AE119 | AE119-A050-B1 | AE119 Inductive expansion probe | A050: Range = 50 mm B1: Version = Standard (0 to +70°C) | AE119, EC-AE119 | No |
| CA134-20x | 144-134-000-20x | CA134-20x Piezoelectric Accelerometer | -253°C (20K) to +500°C, 10 pC/g, 7/16"-27 UNS-2A connector, Ex approved | CA134, IPC707, GSH27, TA104, TA105, EC069, EC112, EC390, CG505, ABAxxx, | Ex ia G Zone 0 (Brazil) / Validity : 19.01.2024 Ex ia G Zone 0 (China) / Validity : 07.04.2027 |

VIBROSIGHT SOFTWARE DATA MANAGEMENT

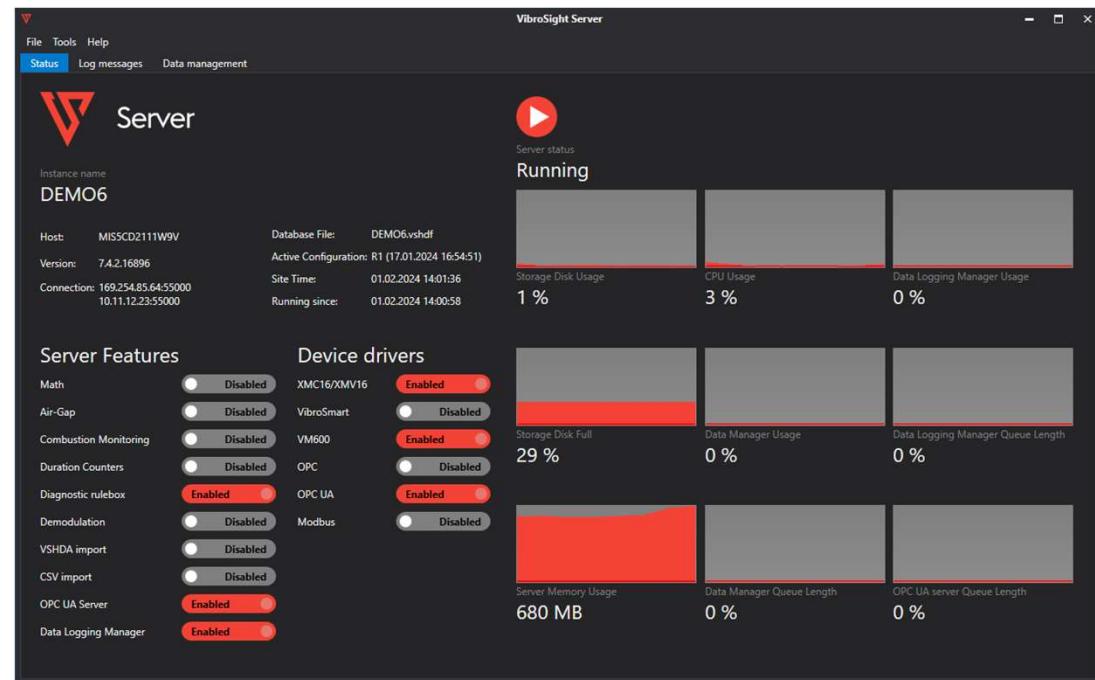
VIBROSIGHT SERVER

VibroSight software data management

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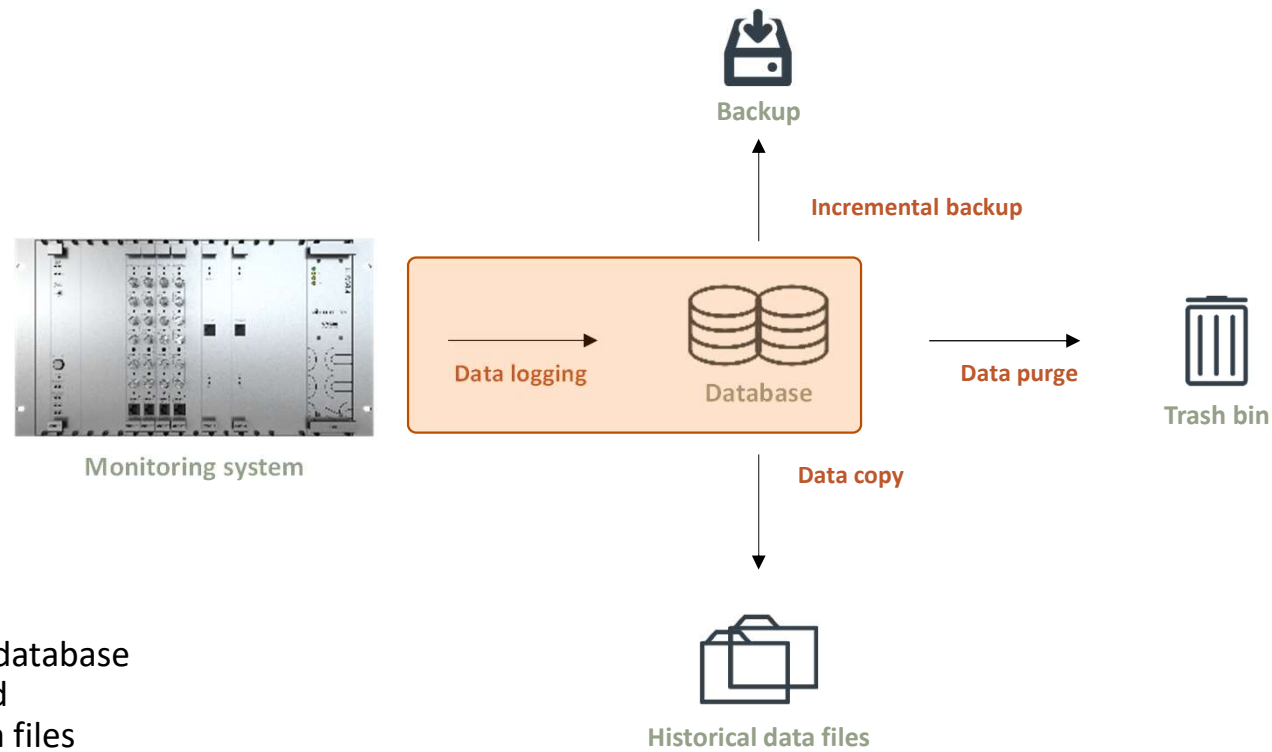


The core server software module that interacts with all other parts of the machinery monitoring system and manages the online database.



INTEGRATED DATA MANAGEMENT

VibroSight software



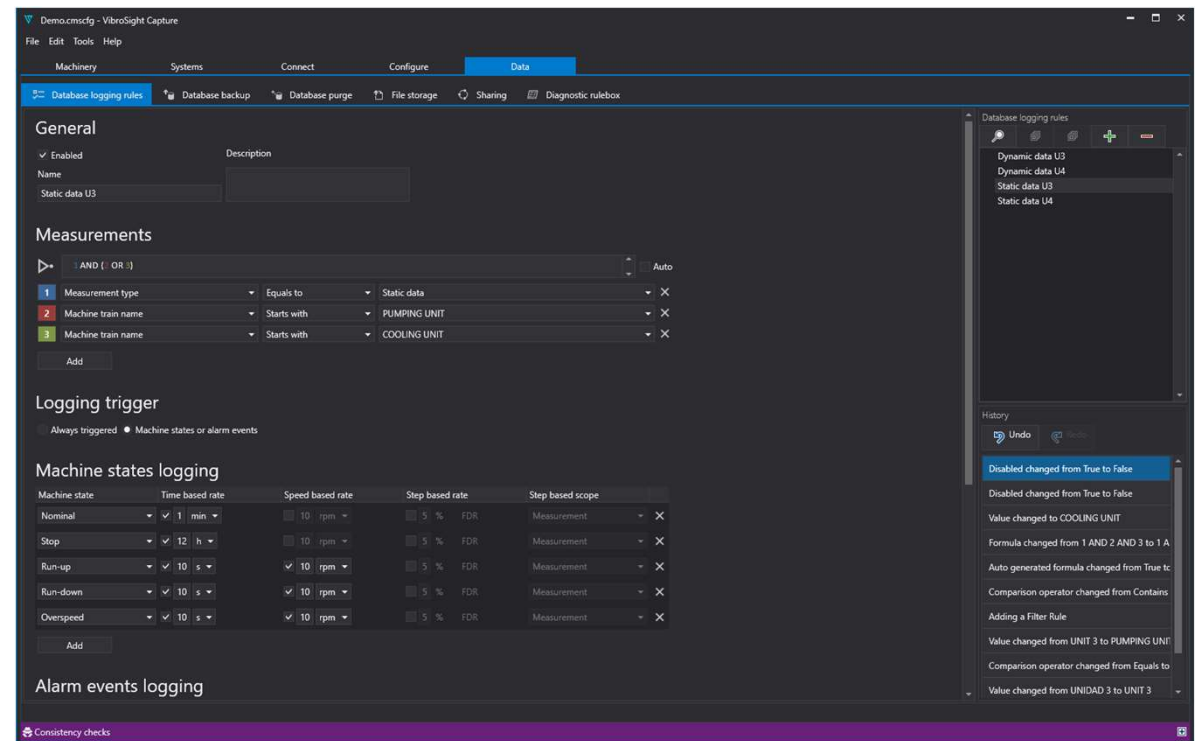
- Simplifies operation of the database backup, database purge and management of offline data files

DATA LOGGING RULES

VibroSight software data management

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- Dynamically selection the measurements to be logged based on a flexible filtering options.
- Change to the machine instrumentation does not require an update of the logging rule.
- Custom logging rate configuration of every machine state or alarm state.
- A single logging rule can be applicable to multiple machine trains.



General

☒ Enabled

Description

Name

Static data U3

Measurements



1 AND (2 OR 3)

☐ Auto

| | | | | |
|---|--------------------|-------------|--------------|---|
| 1 | Measurement type | Equals to | Static data | × |
| 2 | Machine train name | Starts with | PUMPING UNIT | × |
| 3 | Machine train name | Starts with | COOLING UNIT | × |

Add

Logging trigger

☐ Always triggered ☒ Machine states or alarm events

Machine states logging

| Machine state | Time based rate | Speed based rate | Step based rate | Step based scope | |
|---------------|---|--|----------------------------------|------------------|---|
| Nominal | <input checked="" type="checkbox"/> 1 min | <input type="checkbox"/> 10 rpm | <input type="checkbox"/> 5 % FDR | Measurement | × |
| Stop | <input checked="" type="checkbox"/> 12 h | <input type="checkbox"/> 10 rpm | <input type="checkbox"/> 5 % FDR | Measurement | × |
| Run-up | <input checked="" type="checkbox"/> 10 s | <input checked="" type="checkbox"/> 10 rpm | <input type="checkbox"/> 5 % FDR | Measurement | × |
| Run-down | <input checked="" type="checkbox"/> 10 s | <input checked="" type="checkbox"/> 10 rpm | <input type="checkbox"/> 5 % FDR | Measurement | × |
| Overspeed | <input checked="" type="checkbox"/> 10 s | <input checked="" type="checkbox"/> 10 rpm | <input type="checkbox"/> 5 % FDR | Measurement | × |

Add

Alarm events logging

Database logging rules

Dynamic data U3
Dynamic data U4
Static data U3
Static data U4

History

 Undo Redo

Disabled changed from True to False

Disabled changed from True to False

Value changed to COOLING UNIT

Formula changed from 1 AND 2 AND 3 to 1 A

Auto generated formula changed from True to

Comparison operator changed from Contains

Adding a Filter Rule

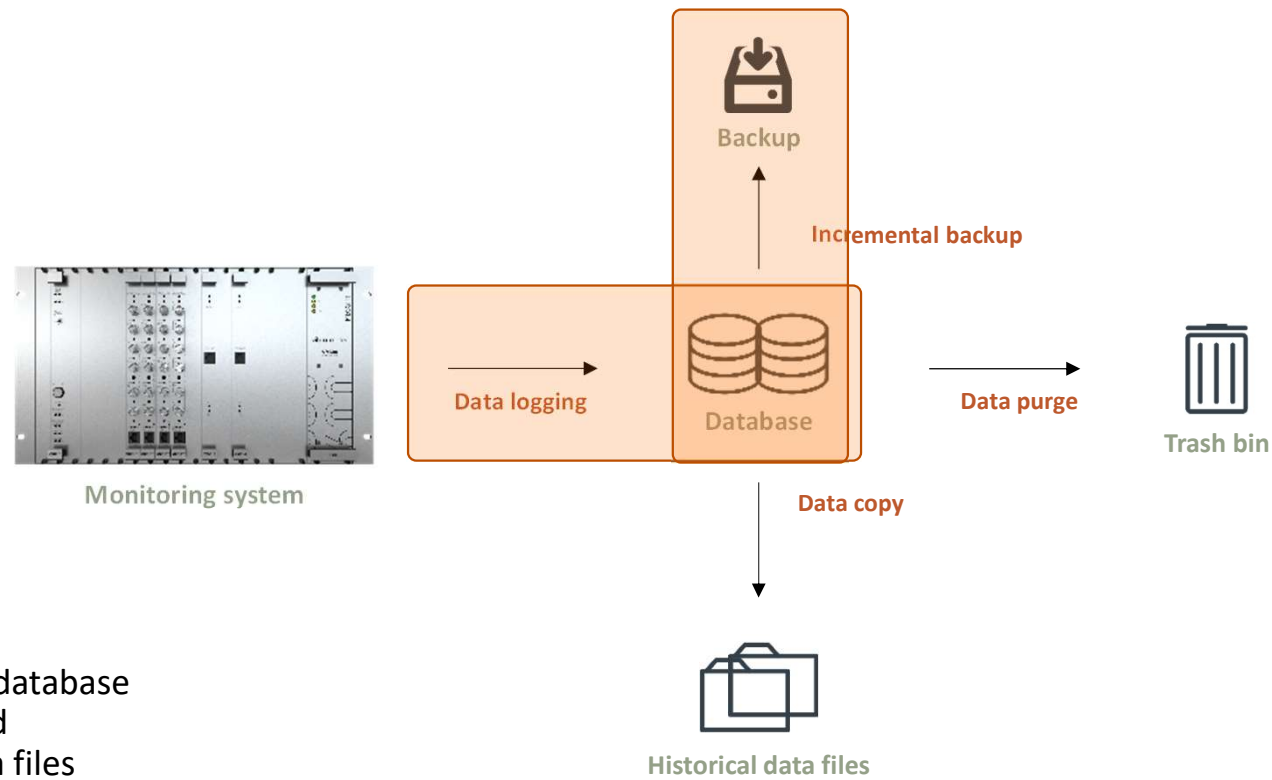
Value changed from UNIT 3 to PUMPING UNIT

Comparison operator changed from Equals to

Value changed from UNIDAD 3 to UNIT 3

INTEGRATED DATA MANAGEMENT

VibroSight software



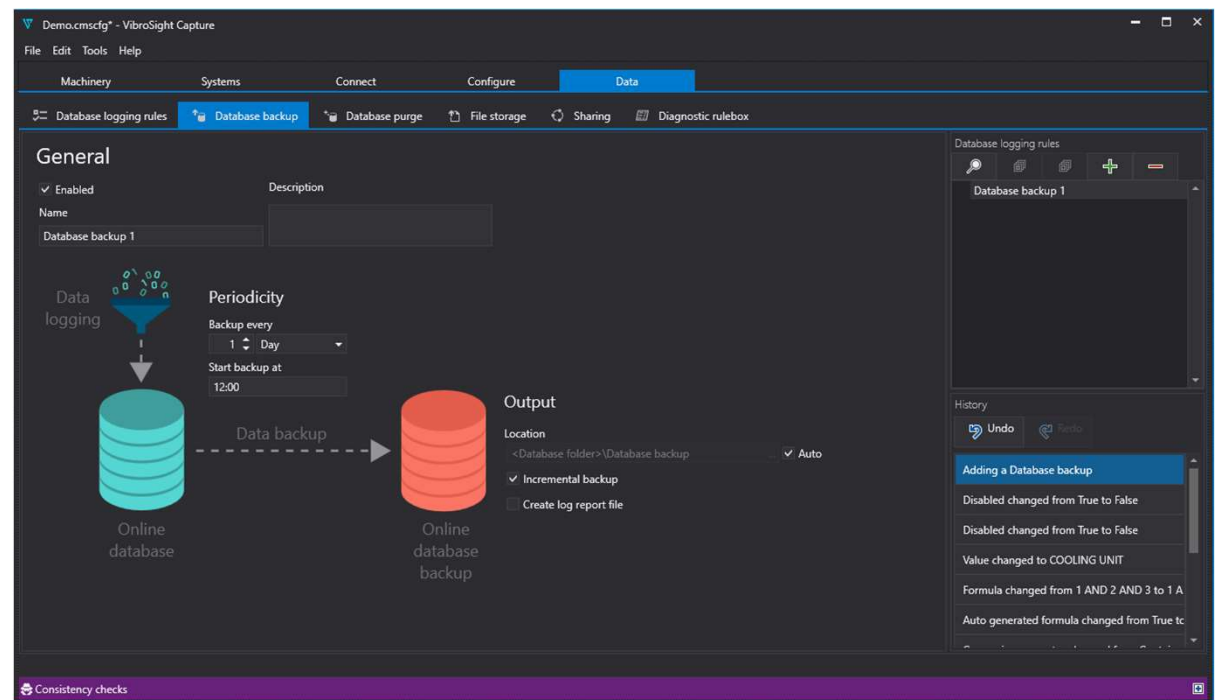
- Simplifies operation of the database backup, database purge and management of offline data files

DATABASE BACKUP

VibroSight software data management

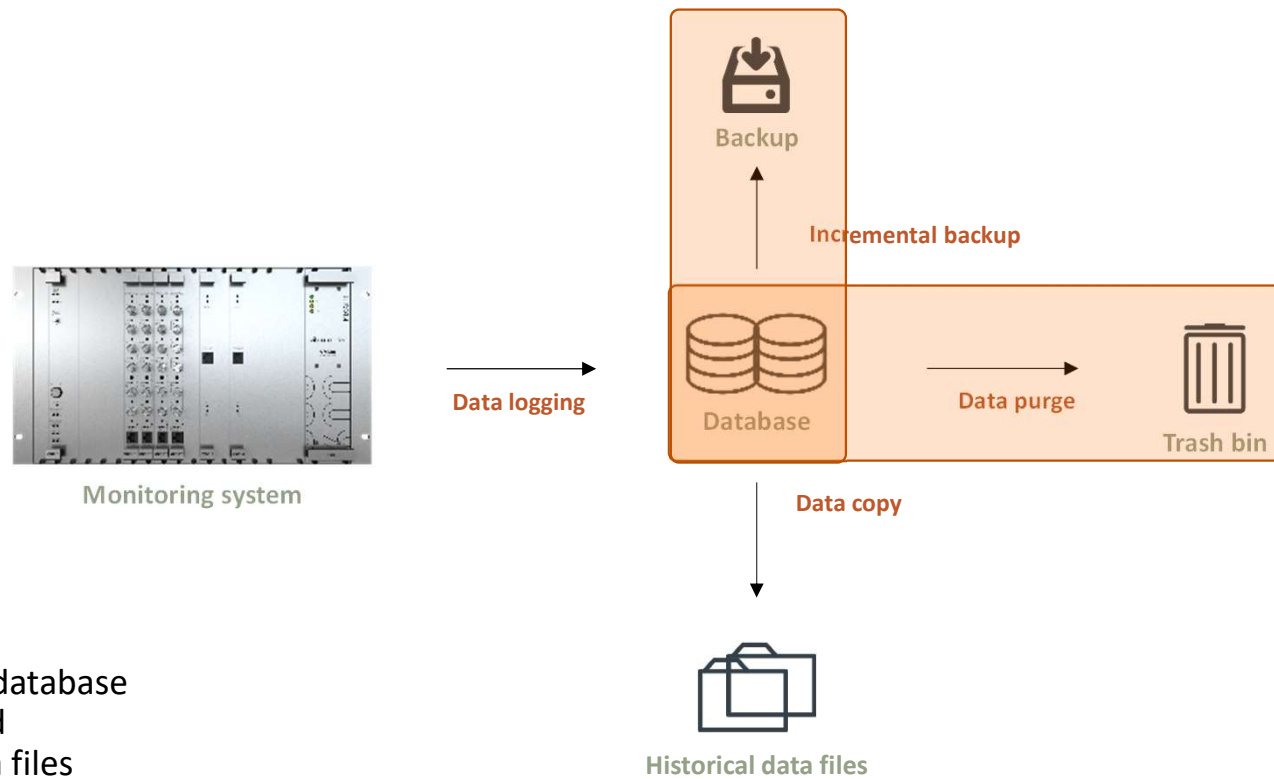
- The VibroSight Server can be recovered from the backup database in case of catastrophic failure
- Incremental backup to reduce usage of PC and network resources
- Does not require system service interruption

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INTEGRATED DATA MANAGEMENT

VibroSight software

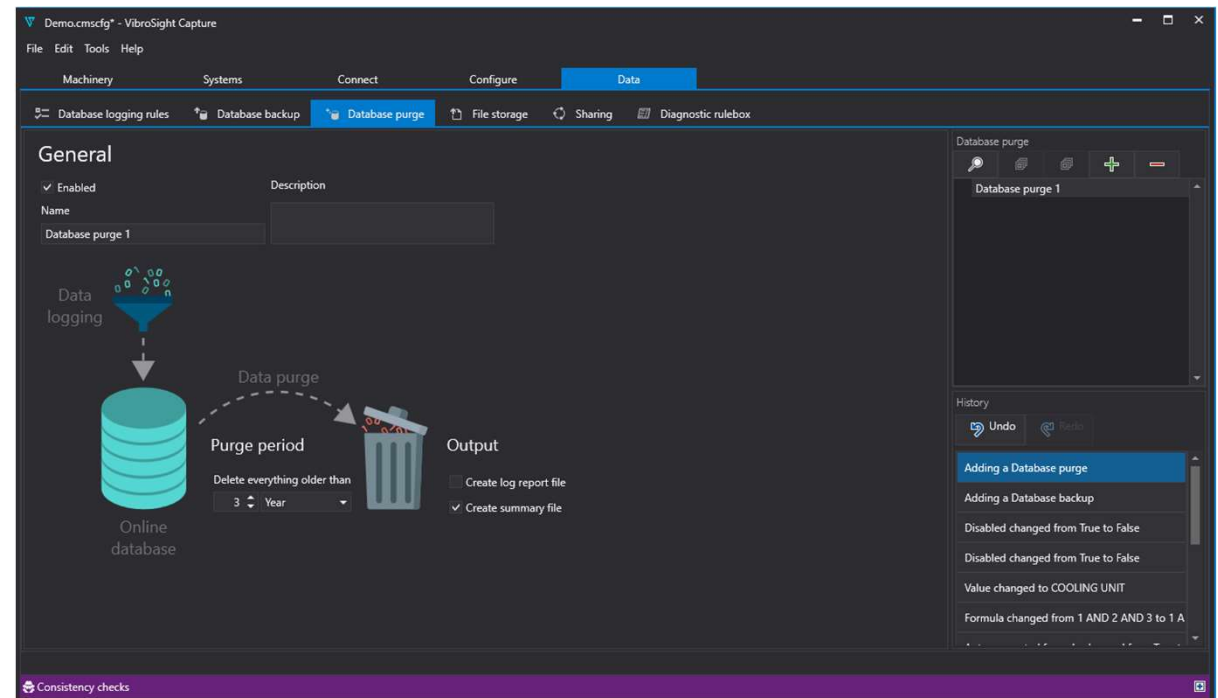


- Simplifies operation of the database backup, database purge and management of offline data files

DATABASE PURGE

VibroSight software data management

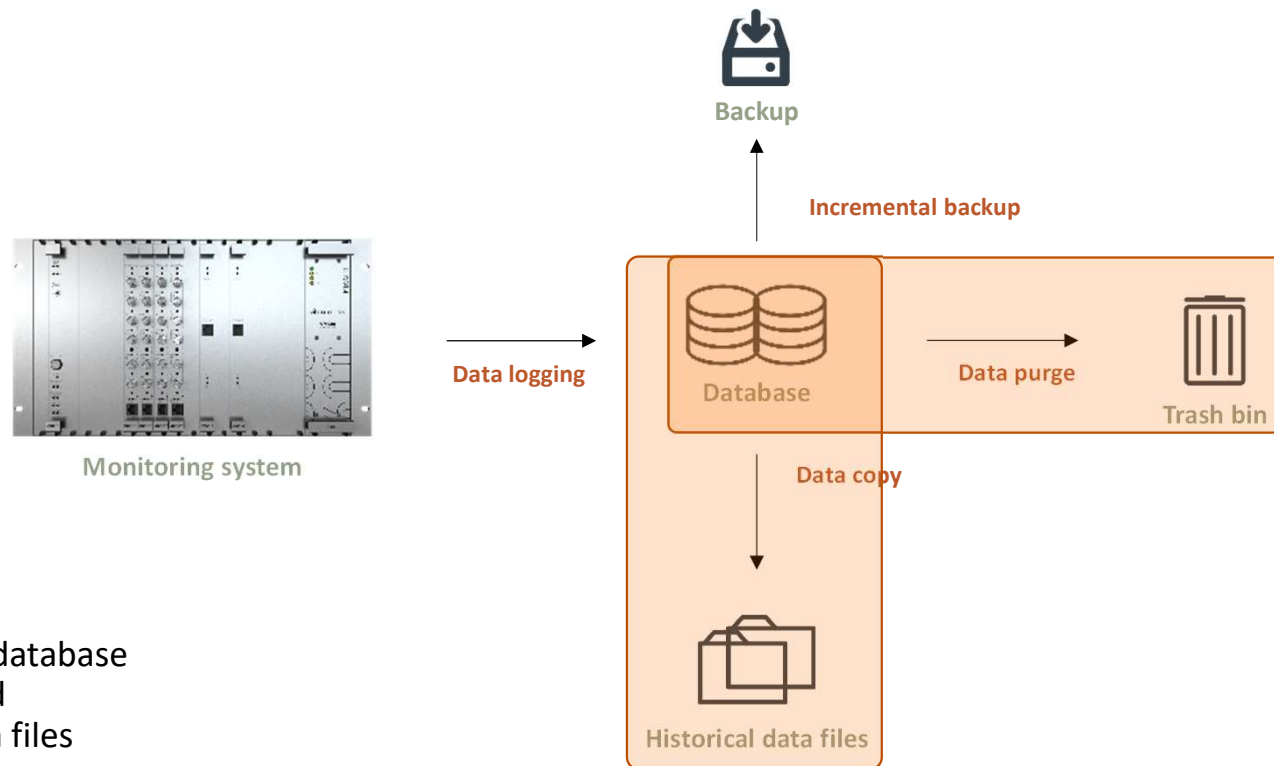
- Allows keeping the Database size under control by deleting the oldest data
- Does not require system service interruption
- The data can be saved to a historical data repository before it is deleted from the database



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INTEGRATED DATA MANAGEMENT

VibroSight software

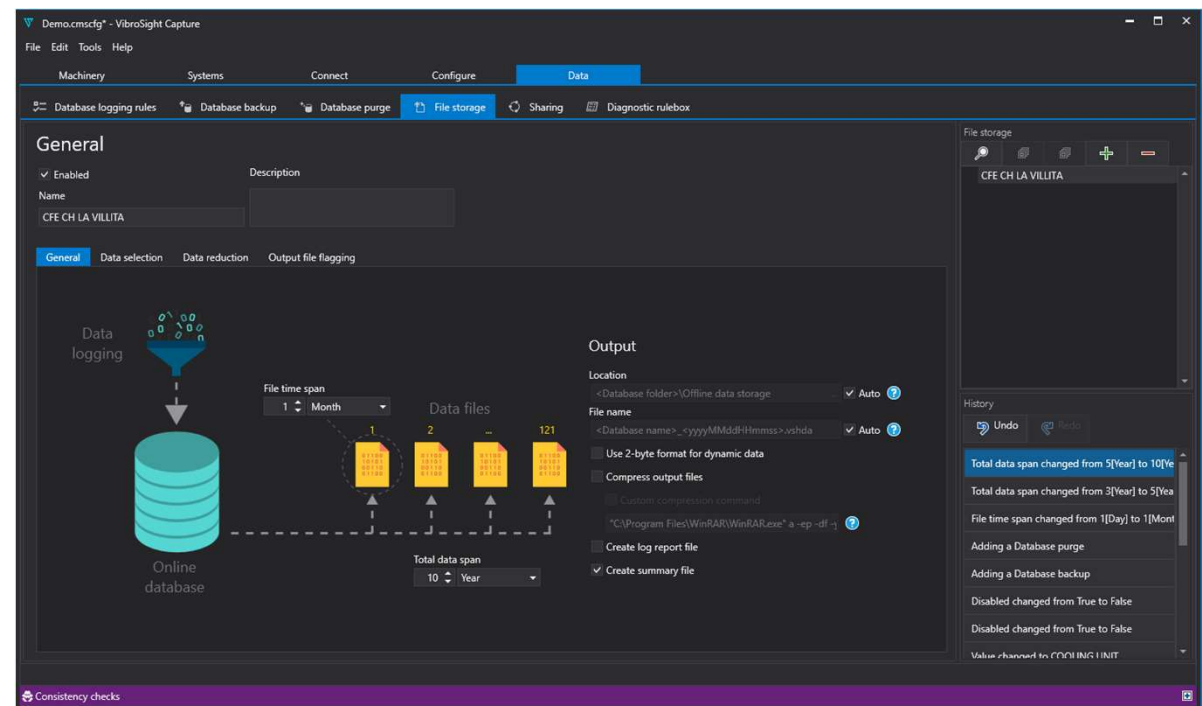


- Simplifies operation of the database backup, database purge and management of offline data files

DATABASE COPY TO FILE STORAGE

VibroSight software data management

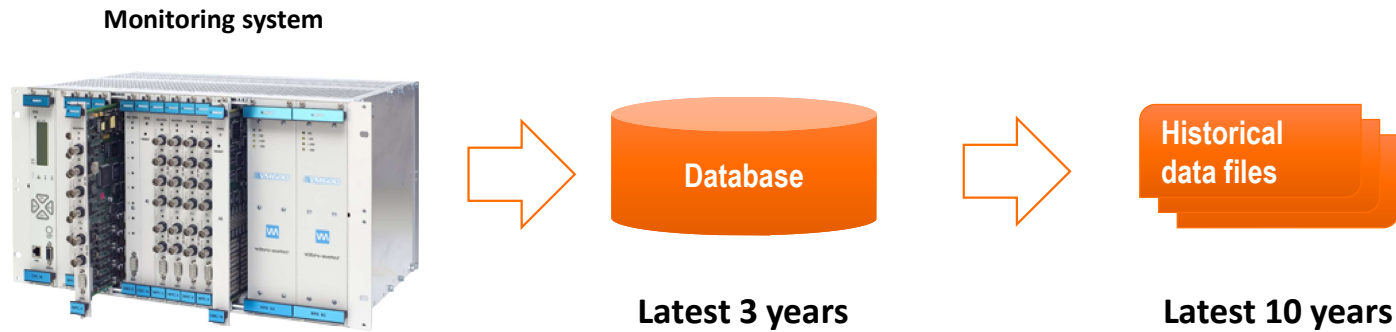
- The database content can be automatically exported to historical data files.
- Disk usage is limited to the maximum amount of files
- Does not require system service interruption
- Typically used for:
 - Offline data repositories
 - Database mirroring



OFFLINE DATA REPOSITORIES

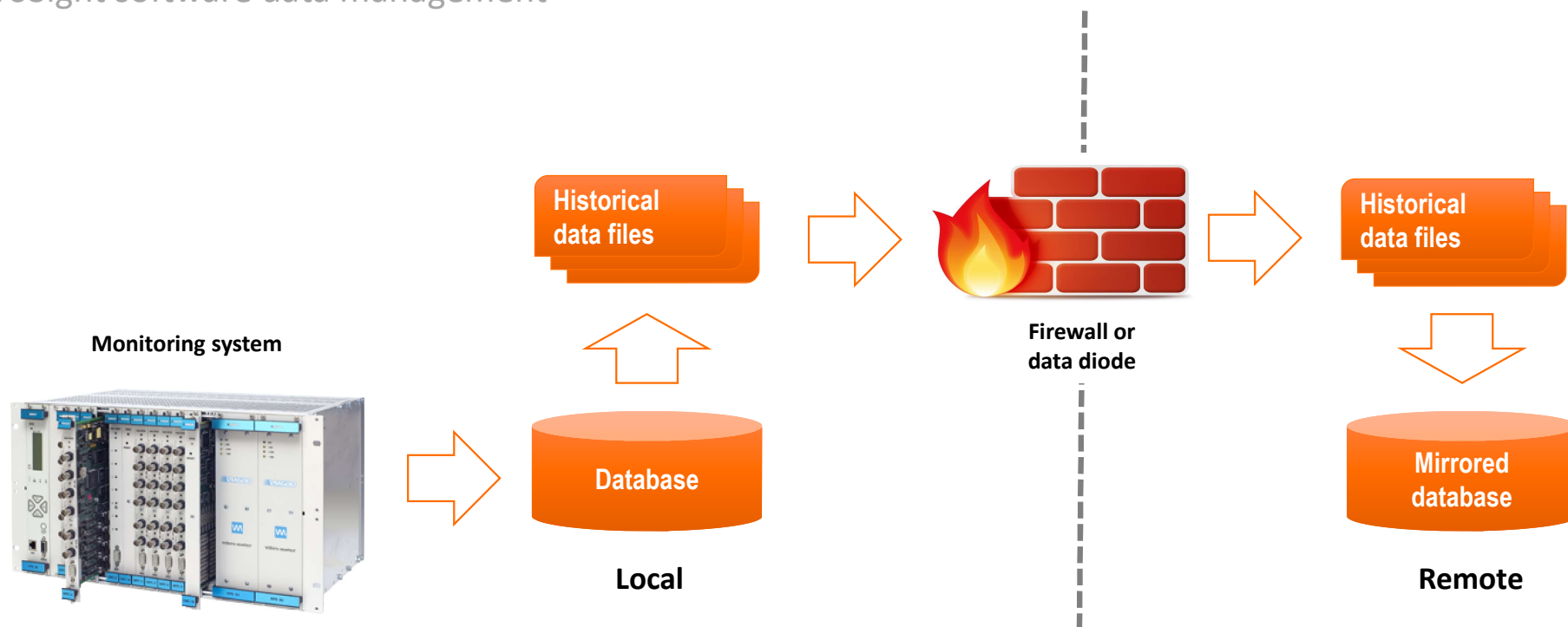
VibroSight software data management

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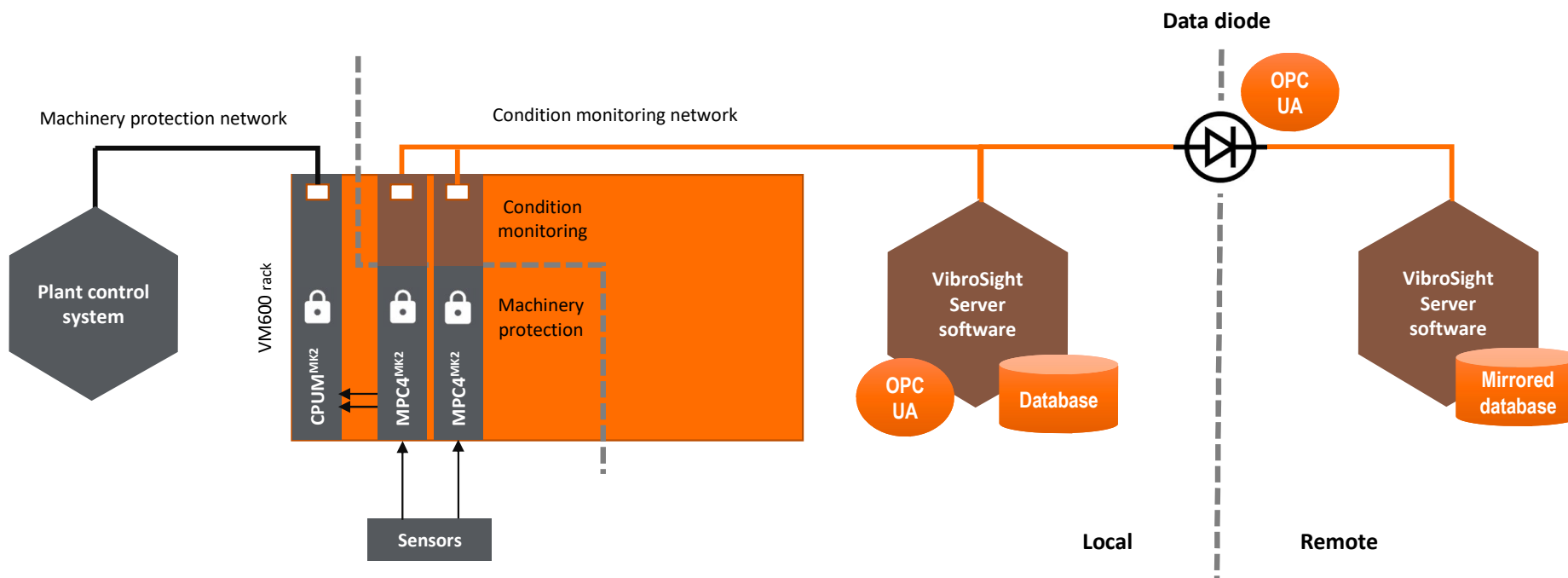
DATABASE MIRRORING

VibroSight software data management



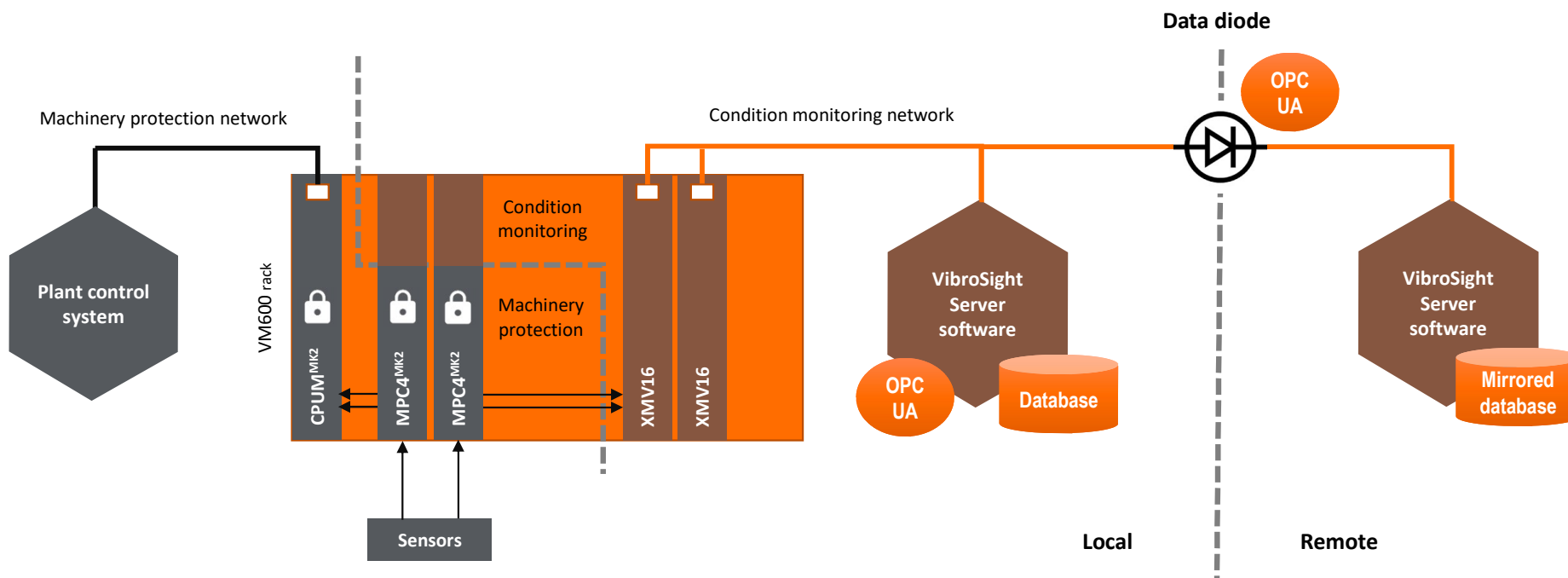
CYBERSECURITY ARCHITECTURE

VibroSight software data management



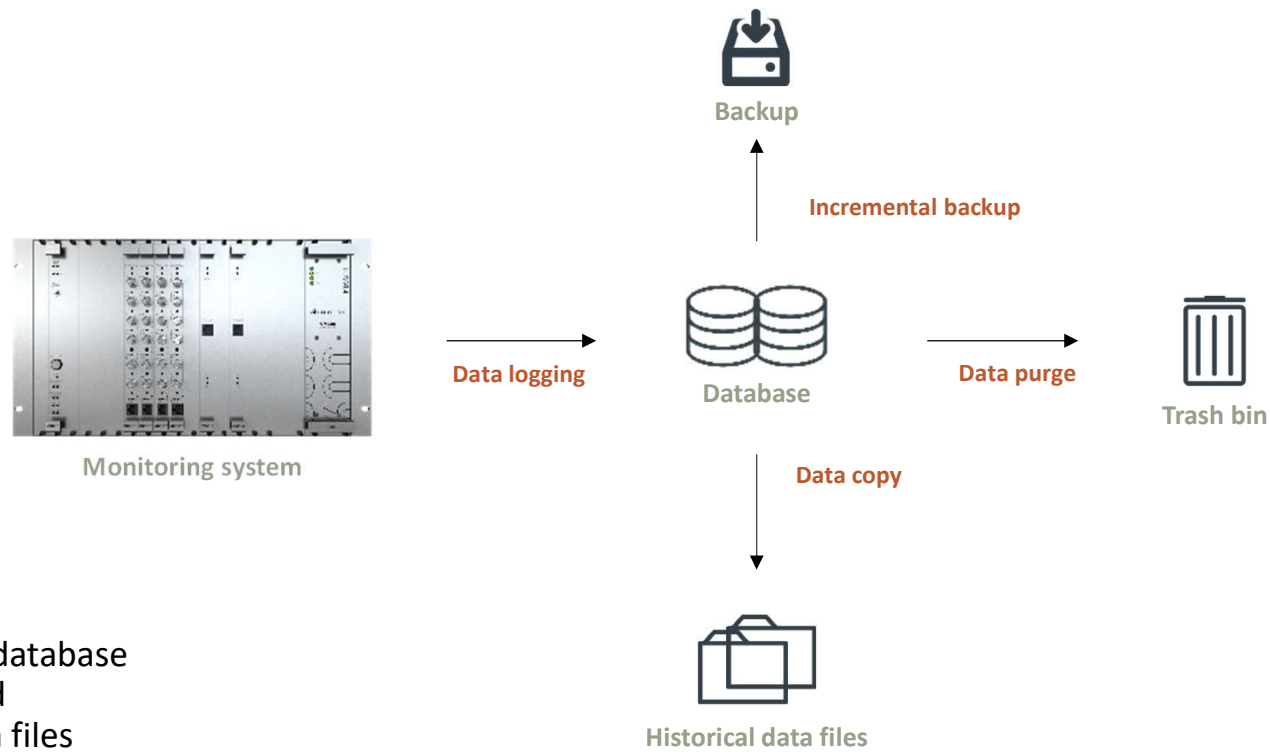
CYBERSECURITY ARCHITECTURE

VibroSight software data management



INTEGRATED DATA MANAGEMENT

VibroSight software



- Simplifies operation of the database backup, database purge and management of offline data files

THANK YOU