



# Eliwell Refrigeration Expert XP /10

Remote monitoring and maintenance for small retail

20240710 - Mauro De Barba

# Eliwell Refrigeration Expert XP /10

Remote monitoring and maintenance for small shops, restaurants, refrigerated warehouses

**Refrigeration Expert XP** is the ready-to-use, quick, and simple solution for monitoring and remotely maintaining refrigeration systems for up to 10 equipment.

- full **visibility into the operation** of display cases, cold rooms, energy consumption and refrigerant leaks
- **analyze** the equipment performance and take action to **resolve issues** or **fine-tune** control parameter



# Eliwell supermarket monitoring system portfolio

Refrigeration Expert XP is the tailored solution for small sites up to 10 controllers

Application	Small Retail	Small Retail   Warehouses   Supermarkets	
Model	Refrigeration Expert XP /10	TelevisGo v10 LE /10 /30 /60	TelevisGo v10 /10 /30 /60 /100 /224
Hardware			
Size	10 controllers 200 logged resources	10 to 60 controllers	10 to 224 controllers
Main features	ESSENTIAL	ADVANCED	ADVANCED with efficiency algorithms
System Integration	---	ADVANCED	ADVANCED
Cloud service	optional from v2 software	---	---

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## Compact yet powerful

- 4 DIN rail modules
- Stand alone operation
- One year data-logging
- Switched dual ethernet port

**2x Ethernet ports**  
LAN switch

**USB port**  
for USB pen drive

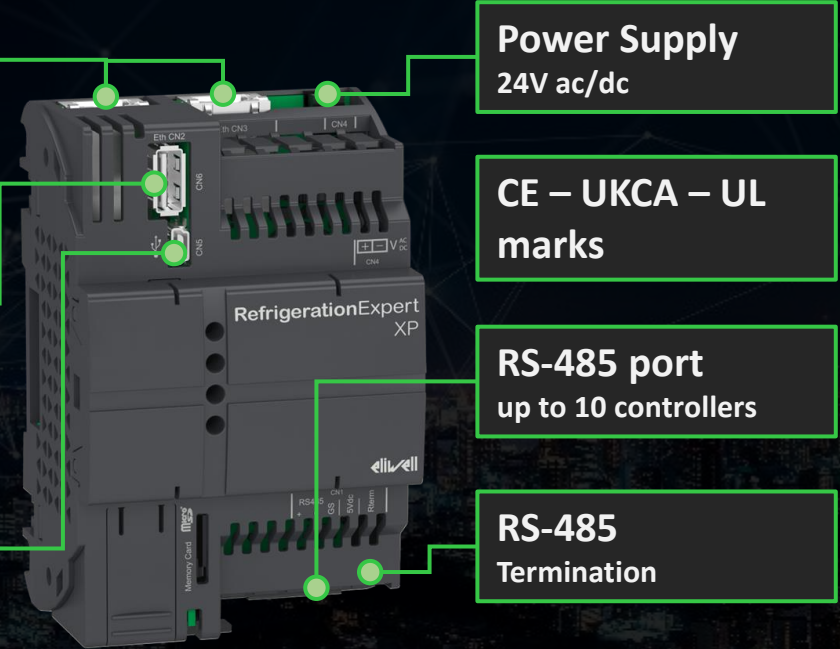
**Mini USB port**  
RNDIS LAN

**Power Supply**  
24V ac/dc

**CE – UKCA – UL**  
marks

**RS-485 port**  
up to 10 controllers

**RS-485**  
Termination



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## Compact yet powerful

- Ethernet LAN connectivity & USB-LAN point-to-point connectivity
- PC & mobile web user interface
- Wide compatibility with Modbus and Eliwell Micronet controllers
- Easy configuration: controllers autodetect
- Quick configuration online / offline with profiles\*
- Data logging and report scheduler
- Alarm management & notification
- Equipment list with configurable cards
- Equipment detail: data, alarms, parameters, commands in one page
- Equipment overview with most used data, parameters and commands
- HACCP daily dashboard & scheduled report
- Lights scheduler\*
- Remote software upgrades via web page
- Configurable users and access rights



\* Functionality will be available in the future with a software upgrade

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## Flexible

- Compatible with a wide range of standard Eliwell controllers
- Manage energy meters
- Manage refrigerant leak detection

### Refrigeration controllers

IDNext, IDPlus, ID LX, ID 985 /V, V800, V900 series  
EWRC NT AIR, EWRC NT, EWRC series  
RTX DOMINO ZERO, RTX DOMINO, RTX, RTD, series  
EWDR 980 LX, IWP 985, IWP 700, RTN series  
EWNNext, EWPlus, EW, IWC series

### Compressor rack controllers

EWCM 9000 PRO, EWCM 8/9000 eo series  
EWCM 400 D PRO, EWCM 4100 series  
V910, XVD series

### Refrigerant leakage detection controllers

LKD NEXT, LKD 500/600 series

### Temperature, Humidity, Pressure controllers

ICPlus, IC LX, IC PID series  
EW48, EW72, DR4000 series

### Meters, Timers, Energy meters

EMPlus, EM 300, EWTS Plus  
PM 3255, iEM3150

### I/O and alarm modules

TelevisIn, TelevisOut

### Wireless temperature sensors

EWSense



TelevisOut



TelevisIn



EWSense



LKD Next



IDNext AIR



EWRC NT AIR



RTX DOMINO ZERO



EWCM 9000 PRO

Alarms / Lights

Monitoring

Controls

Advanced controls

Life Is On

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## Plug-n-play

1. Install in a convenient DIN panel
2. Connect the twisted shielded cable controller serial network to the RS-485 port
3. Use BusAdapter for controllers not provided with RS-485 serial port
4. Terminate the RS-485 network
5. Provide 24V power supply
6. Connect a PC with USB cable and access "192.168.254.254" on the web browser
7. Manage administrators accounts
8. Auto-discover controllers for quick initial configuration



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## Intuitive navigation of all functionalities

### EQUIPMENT

Real time view with equipment Cards

Refrigerated Cabinet  
001@COM1

Control temperature	52.9 °C
Evaporator temperature	0.0 °C
Door Status	0

IDPlus 974  
002...

Analogue input (display) 1	48.4
Analogue input (display) 2	-3.276.8
Digital input 1	0

### HACCP

HACCP 24h dashboard

HACCP report scheduling

### HISTORY

Alarm history → Alarm detail

View saved charts and reports

Overview with most used parameters and commands

All real time values, parameters, commands

Single and multiple equipment contextual operation:

- commands
- historical charts & tables
- maintenance mode & off-line

Alarms mode

- confirm alarms

**Resources**

Control temperature	53.1 °C
Evaporator temperature	0.0 °C
Door Status	0
Cooling	On
Defrost	Off
Fan	On

**Commands**

Auxiliary output On	Execute
Auxiliary output Off	Execute
Manual defrost activation	Execute

**Parameters**

SEt Regulation set point	°C	-55	99
LSE Minimum value settable for set point	°C	-55	99

Filter by description...  Resource ID

Description	Values	UM	HA...	Hist...	Alar...	Ene...	Color	Groups
Control temperature	53.1	°C	🟢	✓		🛡️	chart	
Evaporator temperature	0.0	°C	🟢	✓		🛡️	chart	
Control setpoint	3.0	°C	🟡	✓		🛡️	---	
Door Status	0		★	✓		🛡️	---	
Alarm	On		★	✓			---	
Cooling	On		★	✓			---	
Defrost	Off		★	✓			---	



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All configuration easily accessible

## SYSTEM

### All general setting and information

The screenshot shows the SYSTEM configuration page. On the left is a sidebar menu with the following items: Site, Information, Localization, Date and time, Users, Groups, Users, System notification, Connectivity, Ethernet, mini USB / RNDIS, Email server, Utilities, Software, License, Open Source Licenses, Upgrade, Certificates, Backup and restore, History, and Support. The main content area is titled 'History' and includes a 'Short recording interval' dropdown menu set to '5 minutes' and a 'Historical recording' section. Below the screenshot are several green callout boxes with white text:

- Site defaults
- Users
- Connectivity and email
- Historical data
- Critical notification
- Backup & restore
- Software upgrade
- Support

## Context based configuration

## EQUIPMENT

The screenshot shows the EQUIPMENT configuration page. The top navigation bar includes: 'Alarms mode' (toggle), '+ Add Equipment' (button), 'Alarms mode' (toggle), 'Alarm manager' (dropdown menu), and 'Categories' (button).

Auto-discover controllers, add, remove, edit equipment and resources

Create and edit Alarm Categories with notification emails and TelevisOut  
Create and edit time slots for Alarm Categories

Create, edit Virtual Alarms,

Set HACCP resources, History resource groups and chart colors

Create and edit historical report Tables and Charts

## HACCP

Schedule HACCP report

## HISTORY

Manage saved reports

Schedule reports delivery

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## Cybersecure and sustainable

Refrigeration Expert XP is designed according to **Schneider Electric cybersecurity standards** implementing specific security features:

- All functionalities accessible via HTTPS
- Strong password management
- SSL certificate management
- Secure Boot and software signature
  - only original Eliwell software and upgrades can be installed and executed by Refrigeration Expert XP
- TPM module
  - secure storage of network keys and credentials
- Schneider Electric microprocessor
  - hackers cannot access product information



Refrigeration Expert XP is designed according to Schneider Electric sustainability guidelines:

- Future proof thanks to upgradable software
- Compact, to reduce use of raw material
- Sustainable packaging
- Environmental data available



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## Plan your installation and accessories



Power supply



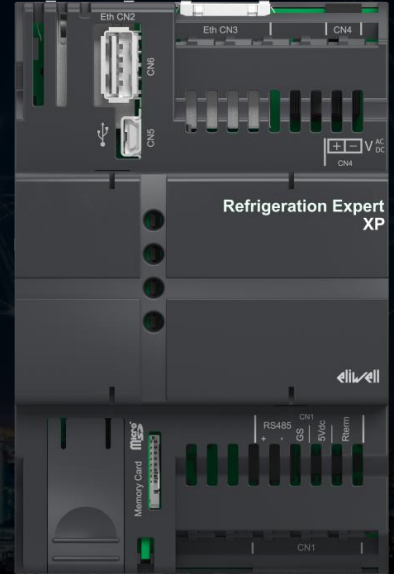
Alarm output



Controllers



Connectivity for notification, reporting and remote access



Refrigeration Expert XP /10  
RXB01000E000

# Eliwell Refrigeration Expert XP /10

## Choose an appropriate power supply

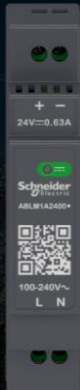
Power supply:

24 Vac  $\pm$  10 % 50/60 Hz

20...38 Vdc (UL/CSA) - 24 Vdc (IEC)

Power draw (maximum):

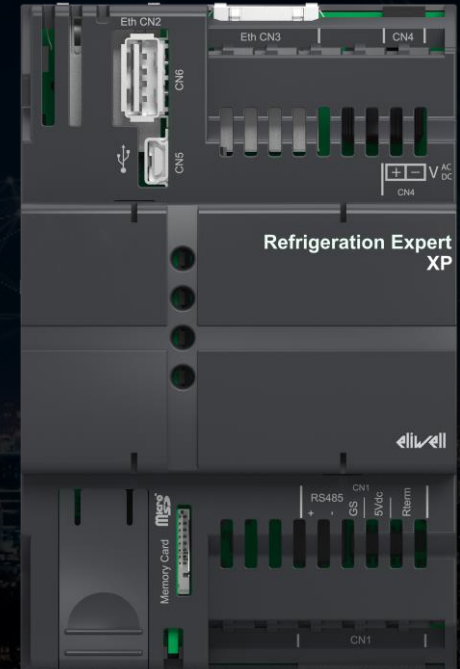
8 W / 11 VA



**Suggested 24V power supply for Refrigeration Expert XP**

Schneider Electric POWER SUPPLY  
24V 0.6A MODULAR  
**ABLM1A24006**

To increase system reliability and never miss a notification, consider installing an UPS (Uninterruptable Power Supply) for both Refrigeration Expert XP and the 4G modem / router where present.



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Alarm module for local notification with telephone dialer, lamp, siren



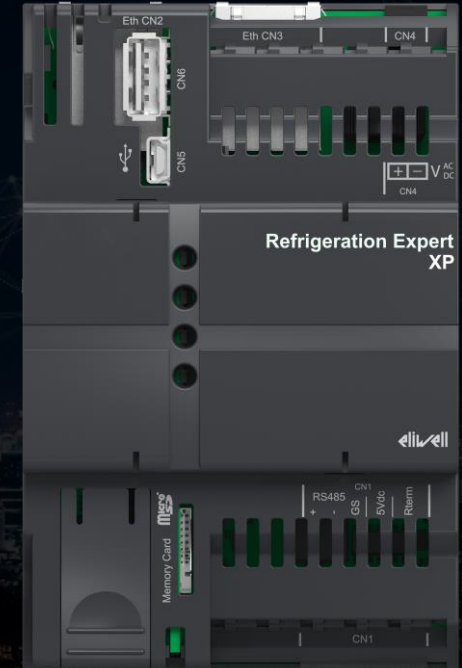
TelevisOut 100-240Vac  
TAMOD602RS700

## Refrigeration Expert XP

- manage multiple TelevisOut
- With configurable Alarm Categories, differentiate alarm outputs based on severity

Only TelevisOut modules can be used as Alarm Outputs.

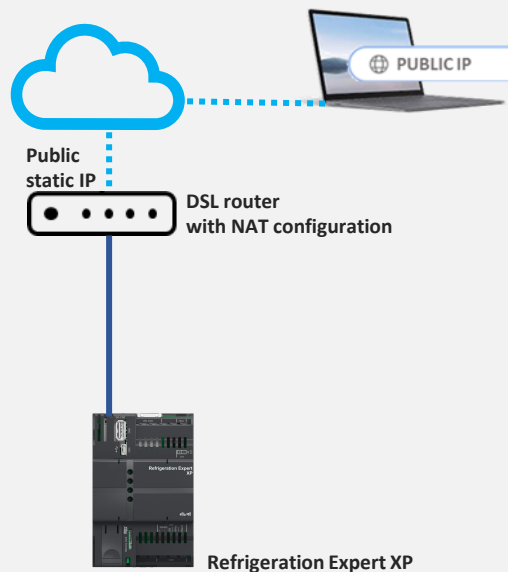
Outputs are immediately available in Alarm Category configuration as soon as a TelevisOut is configured in the serial network.



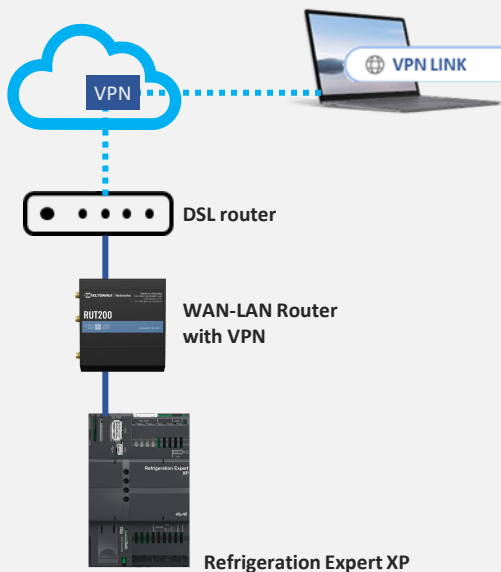
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## Internet and remote connectivity options

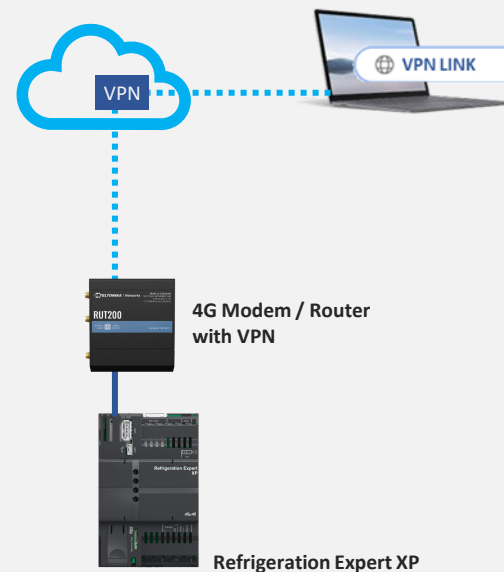
### DSL line with public static IP



### DSL line



### 4G connectivity



Contact IT administrator for NAT configuration.

Router and VPN Service are not included in Refrigeration Expert XP.  
Contact Eliwell Refrigeration Expert Centre for recommended solution and support.

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Suggested Modem / Router. 4G, dual Ethernet and WiFi



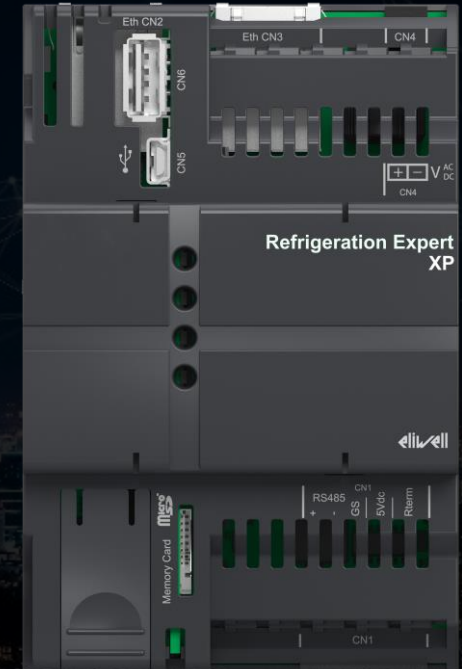
Teltonika  
ROUTER 4G LTE W/ANT PSU RUT 200  
SAM4GW000AA00

## Multiple options

- Access Internet via 4G and WAN-LAN routing
- Use WiFi as an Hotspot to enable local access

## Eliwell

Refrigeration Expert Centre provide support and managed VPN service for Teltonika routers supplied by Eliwell.



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## Controls and input modules application examples

Temperature monitoring and alarms of cold rooms and refrigerated cabinets



**EWSense**

EWSense Gate ZBRN12 **ESG0010700**  
EWSense 2 x RJ45 serial cable 1m **ESARJC200**  
EWSense Repeater ZBRA12 **ESR0012700**  
EWSense Temp **ESST010B00**

Monitoring, alarms and remote management of cold rooms and cabinets controls



**ColdFace AIR**



**IDNext AIR**

Wide range of models available. See  
«Refrigeration Expert Driver List» for full listing

Temperature, humidity, pressure monitoring and alarms for cold rooms, cabinets, condensing units, compressor racks



**TelevisIn**

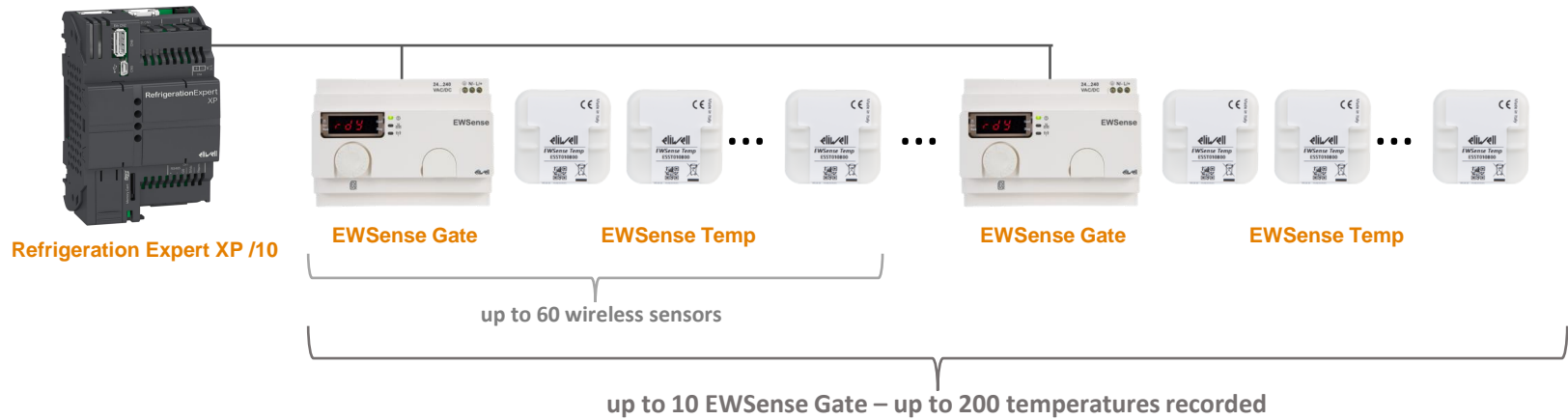
TelevisIn 100-240Vac

**TAMID152RS700**



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## Temperature monitoring and alarms for cold rooms and cabinets



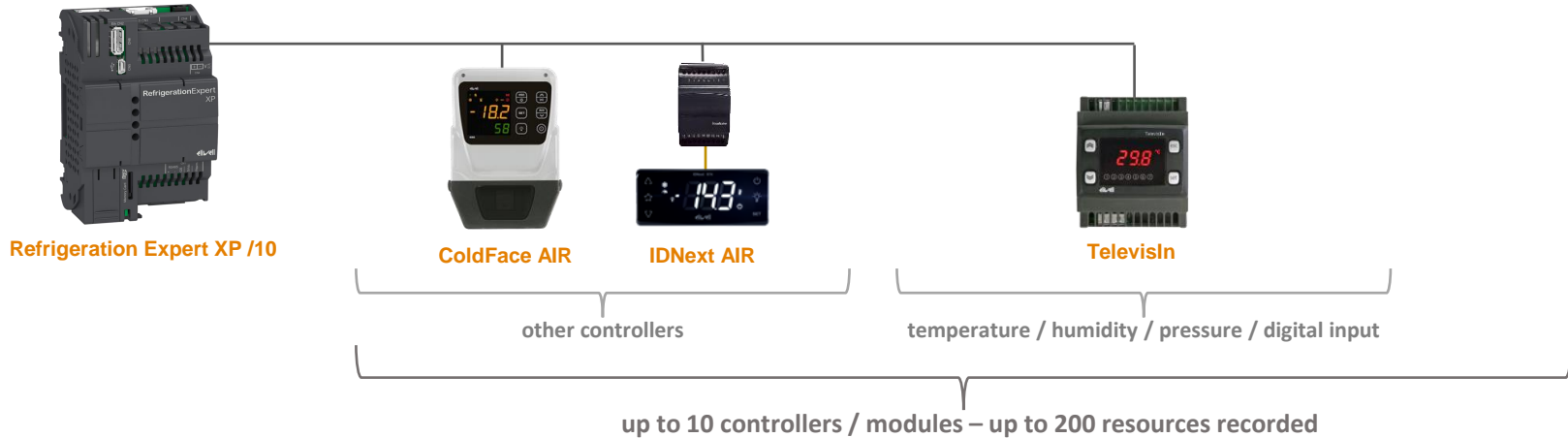
# Eliwell Refrigeration Expert XP /10

Monitoring, alarms and remote management of cold rooms and cabinets



# Eliwell Refrigeration Expert XP /10

Monitoring and alarms for condensing units or racks, with cold rooms and cabinets



# Refrigeration Expert XP /10

Compact yet powerful

Ready to use

Flexible

Intuitive

Accessible

Secure

Sustainable



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