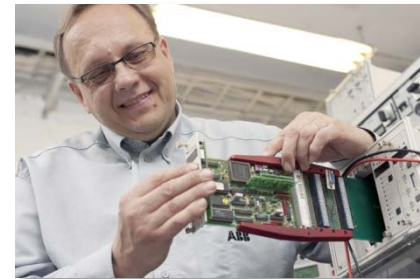


Life cycle services for protection and control relays - If it breaks, we're there to support

Mika Kauppinen, Marketing and Sales Manager

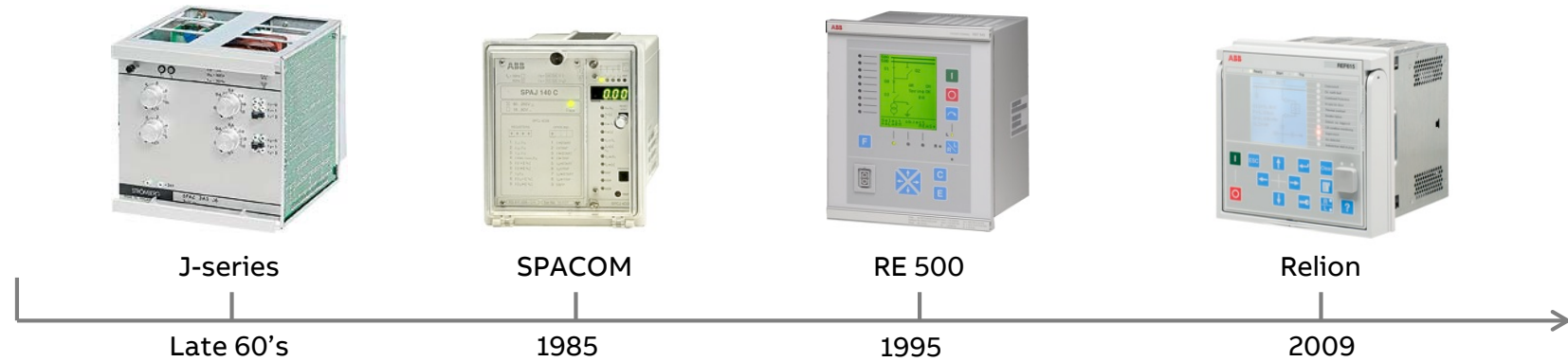
Content

- Introduction
- Product Life Cycle Management
- Life Cycle Services and Business Potential



Full support from start to finish

Business Opportunity





[Logout](#) [Mika Kuuppinen](#)

ServIS

- Advanced Search
- Drill-Down ▾
- By Location
- By Company**
- By Product Classification
- By Category
- By People
- Notifications
- Reports
- Add data to ServIS ▾
- Upload Data
- Content Data Mgmt. ▾
- Recommended Services
- Service Contracts ▾
- Search
- Matrix Definitions
- Access Request ▾
- My Access Requests
- User Settings
- Help ▾
- Allowed Values
- Contact Us

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Search


















OK

Sites for Vaasan Sähköverkko Oy (Select a different Company)

GUID: G06323327
 Local Name: Vaasan Sähköverkko Oy
 Address: Kirkkopuistikko 0
[Customer \(27\)](#) | [Owned Sites \(28\)](#) | [Operated Sites \(27\)](#)

List of Sites

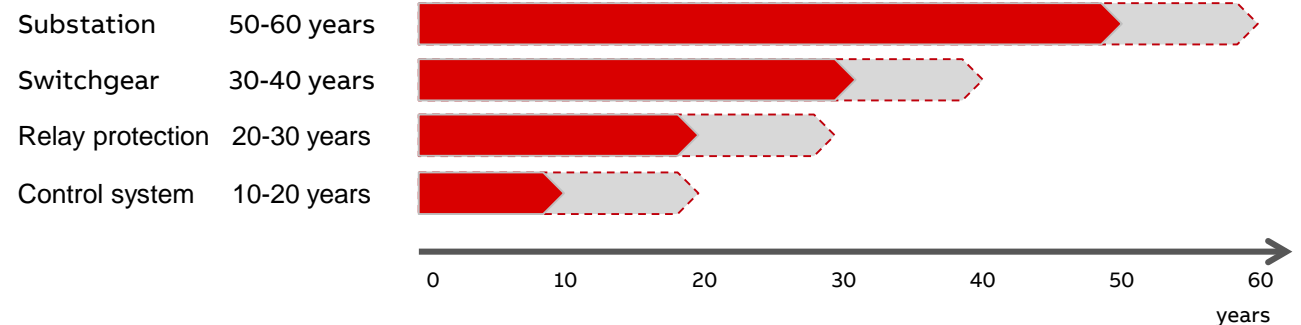
Map of Sites

- | | | |
|---|---|---|
|  | All_Relays_AE_1993-2006_based_on_invoice_data |  NEW |
|  | All_Relays_LT_1993-2006_based_on_invoice_data |  NEW |
|  | All_Relays_ZA_1993-2006_based_on_invoice_data | |
|  | End customers 1993-2006 ZA | |
|  | REF_REM_RET_before_2010 | |
|  | REF542Plus_before_2010 | |
|  | SalesData REX521 2000-2005 | |
|  | ServIS_AE_DA_installed_base | |
|  | ServIS_AR_DA_installed_base | |
|  | ServIS_AU_DA_installed_base | |
|  | ServIS_BE_DA_installed_base | |
|  | ServIS_BR_DA_installed_base | |
|  | ServIS_CA_DA_installed_base | |
|  | ServIS_CH_DA_installed_base | |
|  | ServIS_CL_DA_installed_base | |
|  | ServIS_CN_DA_installed_base | |
|  | ServIS_CZ_DA_installed_base | |
|  | ServIS_DE_DA_installed_base | |
|  | ServIS_DK_DA_installed_base | |
|  | ServIS_EG_DA_installed_base | |
|  | ServIS_ES_DA_installed_base | |
|  | ServIS_FI_DA_installed_base | |
|  | ServIS_FR_DA_installed_base | |
|  | ServIS_GB_DA_installed_base | |
|  | ServIS_GR_DA_installed_base | |
|  | ServIS_HR_DA_installed_base | |
|  | ServIS_ID_DA_installed_base | |
|  | ServIS_IE_DA_installed_base | |
|  | ServIS_IL_DA_installed_base | |
|  | ServIS_IN_DA_installed_base | |

Life cycle services – to secure your investments

- The main purpose of protection and control relay is to protect both human lives and equipment as well as ensure uninterrupted power supply.
 - Safety
 - Operations
 - Assets
 - Economy

Estimated lifetime of assets in distribution network

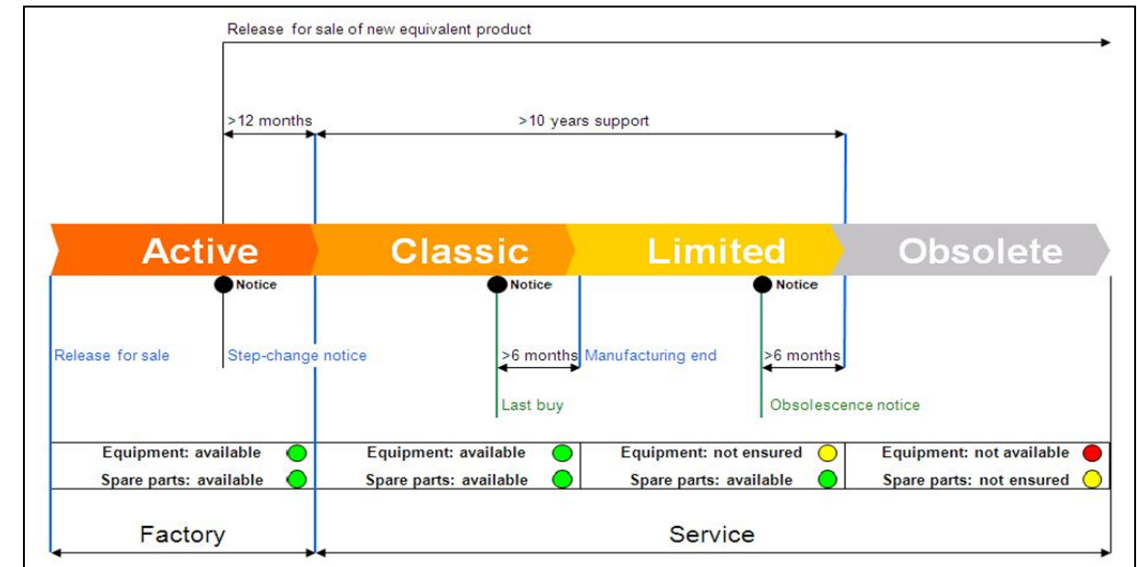


Product Life Cycle Management

Industry Leading Life Cycle Policy ABB's products are designed for continuous evolution.

It is ABB's goal to protect our customers' investment beyond the life-cycles of the underlying platform products.

Products will continue to be supported by ABB for at least 10 years from the start of the Classic stage, although exceptions to this may occur if components or technologies needed are no longer available to ABB.



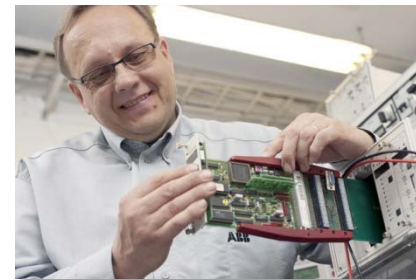
Product Life Cycle Management and Services

Preventive Maintenance Spare Parts Repair Warranties Modifications	Preventive Maintenance Spare Parts Repair Post Manufacturing Warranties Modifications	Preventive Maintenance * Spare Parts Repair Post Manufacturing * Warranties Modifications *	Maintenance Exchange Unit * For selected products
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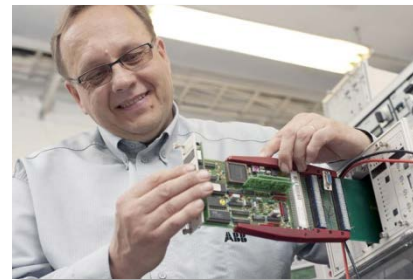
Portfolio

- Clionet – Online Service
- Clionet – Data Care
- Classic Products
- Modification Services
- Maintenance Exchange Units
- Relay Retrofit
- Preventive Maintenance
- Spare Parts and Repair
- BIO-Testers
- Local Field Service



Portfolio

- Clionet – Online Service
- Clionet – Data Care
- Classic Products
- Modification Services
- **Maintenance Exchange Units**
- Relay Retrofit
- Preventive Maintenance
- Spare Parts and Repair
- BIO-Testers
- Local Field Service



Life cycle services for protection and control relays

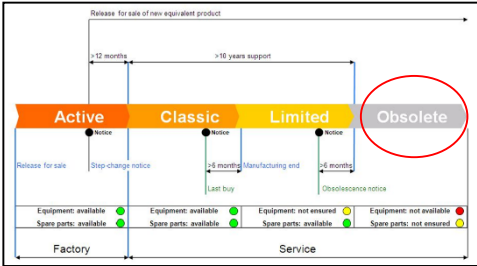


Project name	Life cycle extension of protection relays, Statoil's Kvitebjorn offshore platform
Scope	Upgrade of aging REF 542plus relays
Product	REF 542plus Maintenance Exchange Unit Service
Customer	Statoil
Industry	Oil and Gas
Country	Norway

Background
The customer identified the need to replace old relays to avoid unscheduled operation downtime due to aging equipment. Further, the customer had also identified a need for additional relay functions and the necessity to increase maintenance scheduling predictability. Short maintenance break was the challenge.

ABB Response
Maintenance Exchange Unit service for REF 542plus relays provided a perfect fit to ensure the fast and easy installation of the new version of the same relay. With this service, the customer gained the assured availability of life cycle services and new functionality.

- Customer Benefits**
- Upgrade to a newer version of the same product is convenient for the maintenance and operations personnel
 - Future retrofit and upgrades for the relays becomes easier
 - Improved reliability of the electric power system for the oil platform
 - Minimized shutdown time thanks to fast and easy installation, migration of existing configuration and no major new wiring



Kvitebjorn capacity
190.000 BOE/D (barrels of oil equivalent per day)

Success story – Maintenance Exchange Unit service



Life cycle services for protection and control relays

Maintenance Exchange Unit service (MEU)

Key elements

- New relay (same type but latest HW & SW)
- Existing configuration, setting, wiring is used
- Installation, testing and recycling supported (optional)

Customers challenge

- Installed base with obsolete version of the device where spare parts are not available any longer
- Need for the additional functionality
- Fast replacement – short shutdown time

Benefits and key results

- Extended life time of the protection solution – secure the process
- Easy, fast and cost effective installation
- Risk of malfunctions minimized
- Familiar to maintenance and operating personnel

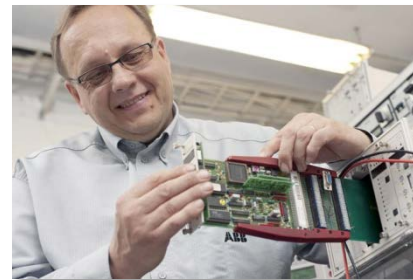


REF 542plus
RE500
REX 521

ABB offers easy replacement for the obsolete versions of the products

Portfolio

- Clionet – Online Service
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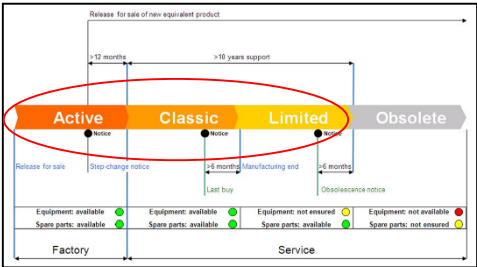


Life cycle services for protection and control relays



Background
KOGAS identified the need to change their protection relay communication from LON to IEC 61850, to benefit from the advanced functions available through the IEC 61850 protocol BUT they wanted to keep the already installed RE500 series protection relays.

ABB Response
To meet the hardware requirements for IEC 61850 communication, it was necessary to replace the central processing unit (CPU) and the human-machine interface (HMI) in the relays. Solution built on the modification, upgrade and spare parts service available for the RE500 series relays was the perfect fit.



Project name	Upgrade of protection relays, ~300 pcs
Scope	Upgrade and Modification of RE500 series relays
Product	Modification and Upgrade Services
Customer	Korea Gas Corporation (KOGAS)
Industry	Oil and Gas
Country	South Korea

- Customer Benefits**
- Shortened shutdown time to perform the upgrade project, as using the same protection relay required no new wiring or modification of the switchgear panels
 - A harmonized installed base lead to minimized amount of engineering required on site
 - Annual maintenance activities within budget for this upgrade and modification project
 - Access to the latest software developments and new optional features and functions
 - Extension of product’s life cycle and assured availability of ABB’s life cycle services

Success Story – Upgrade, Modification and Spare Parts



Life cycle services for protection and control relays

Modification services –for new functionality or upgrades

Key elements

- To adapt to changes in protection requirements
- Software (additional functionality; version changes) and hardware (change or add modules) upgrades

Customers challenge

- Need to harmonize the installed base with several versions of same relay type
- Need for additional features or functions even years after original purchase

Benefits and key results

- Same product can be used even if protection requirements and functionality change
- Low investment costs
- Ecological option



ABB offers extensive selection of alternatives, replacement of the complete device is not always needed

Portfolio

- Clionet – Online Service
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Life cycle services for protection and control relays

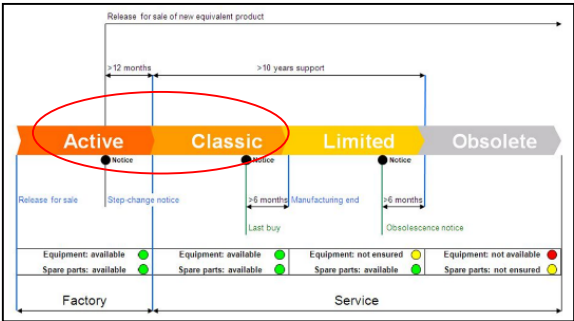


Project name	Life cycle extension of protection relays for Vaasan Sähköverkko Oy
Scope	Maintenance of aging SPACOM relays (20+ years) in all substations
Product	SPACOM Preventive Maintenance Service
Customer	Vaasan Sähköverkko Oy
Industry	Utility
Country	Finland

Background
Unexplained power cuts and trips for no reason on different substations made the customer evaluate the condition of their protection relays.

ABB Response
The relays that caused the trips were analyzed and faults were detected on aging components. ABB made a preventive maintenance offer for all the relays on the distribution network.

Customer Benefits
All the relays protecting the network were maintained at the same time at site. This factor and promise of ten years reliable operation, gave the network company more time to spread the investments and confidence in the future.



Success story – Preventive Maintenance



Preventive Maintenance –for preventing malfunction due to aging

Key elements

- Modules affected by aging components are replaced - recommended for relays > 10 years
- Replaced modules are based on the fault statistics
- Spacom and RE500 series

Customers challenge

- Aging installed base - risk of malfunction
- Critical impact on the process

Benefits and key results

- Extended life time of the relay
- Lower the risk of device failure – lower impact on the process
- Additional service costs can be avoided

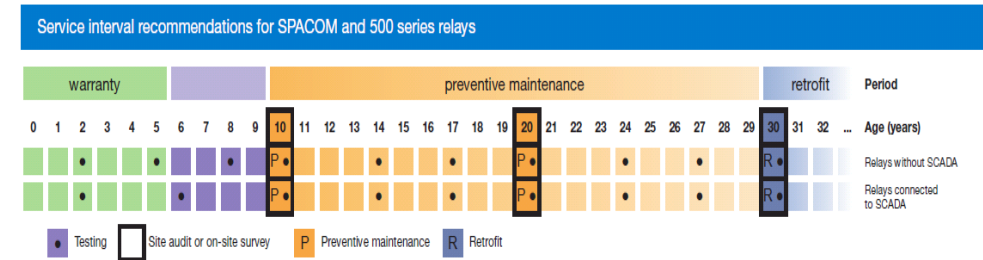


ABB offers preventive maintenance to lower risks due to aging

Portfolio

- | | |
|------------------------------|---|
| ▪ Clionet – Online Service | Knowledge base – open to all, free of charge |
| ▪ Clionet – Data Care | Cloud service for data sharing and back-up of protection relays |
| ▪ Classic Products | Post manufacturing after Active stage |
| ▪ Modification Services | Sw/hw modification, functionality changes |
| ▪ Maintenance Exchange Units | Obsolete product version -> Active stage, REF 542plus, RE500, REX 521 |
| ▪ Relay Retrofit | Concept to retrofit Spacom relays with Relion products |
| ▪ Preventive Maintenance | Recommended activity after 10 years of use, Spacom and RE500 |
| ▪ Spare Parts | Available even within 48 hours |
| ▪ Repair | Cost effective way to restore relays |
| ▪ BIO-Testers | Equipment to support engineering and commissioning |
| ▪ Local Field Service | |

Life cycle services for protection and control relays

Demo Sessions and Exhibition Area

Products

- REF 542 Plus Maintenance Exchange Unit
 - Relay Retrofit Program, Configuration Migration
 - 615 BIO Testers
-

Contacts

Mika Kauppinen	Antti Imppola
Anssi Kukkonen	Paresh Mandpe

Wednesday Factory Tour

Please contact above persons for individual discussions
and/or EP Service factory tour (13:00-14:00)

ABB offers an extensive portfolio of life cycle services for protection and control relays

EP Service Finland

Portfolio

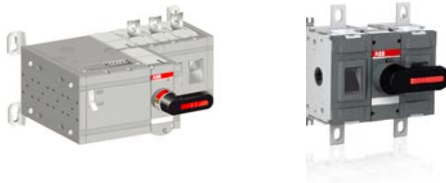
PG 3442

- DA Service
- MV Apparatus
- MV Switchgears



PG 3107

- LV Switches



PG 3102

- LV Switchgears
- LV Busducts



Services for MV switchgear



Services for MV circuit breakers



Services for protection relays



Service agreements



Spares and consumables



Installation and commissioning



Maintenance



Repairs



Replacements



Training



Engineering and consulting



Extensions, upgrades and retrofits



Advanced services



End of life services



Arc flash protection

EP Service - extensive portfolio of life cycle services for low and medium voltage equipment

EP Service Finland

Where to find more information



HOME + OFFERINGS + MEDIUM VOLTAGE PRODUCTS + DISTRIBUTION AUTOMATION PRODUCTS AND SOLUTIONS + SERVICE AND LEGACY PRODUCT SUPPORT

GLOBAL SITE ▼

Services for distribution protection and control relays

Life cycle services for protection and control relays - full support from start to finish

There are over one million ABB distribution protection relays of different ages in use at utilities and industries all around the world. ABB provides product support for the users throughout the products' entire life cycle by providing high quality, global services.

Relays that have gone through systematic life cycle service operations are today efficient and long-lived products, and have become smarter and more environmentally-friendly in the last decades. The systematic usage of life cycle services for protection relays supports you in your efforts to secure and optimize your investment in a predictable, safe and low cost manner.

Why ABB?

- Ensure reliable and safe operation throughout the entire life cycle
- Protection relays that meet the newest regulations
- Protection relays that are modified and upgraded to meet demanding requirements
- Protection relays that are environmentally-friendly and convenient to use



Are you looking for support or purchase information?

↓ [Contact us](#)

<http://new.abb.com/medium-voltage/distribution-automation/protection-relay-services>

Full Support from Start to Finish



ABB