



ELECTRIFICATION SERVICE

Collaborative Operations for electrical systems - CLOSER

High-quality, immediate first level support delivered through augmented reality

Collaborative Operations for electrical systems - CLOSER

Agenda

01 Introducing CLOSER

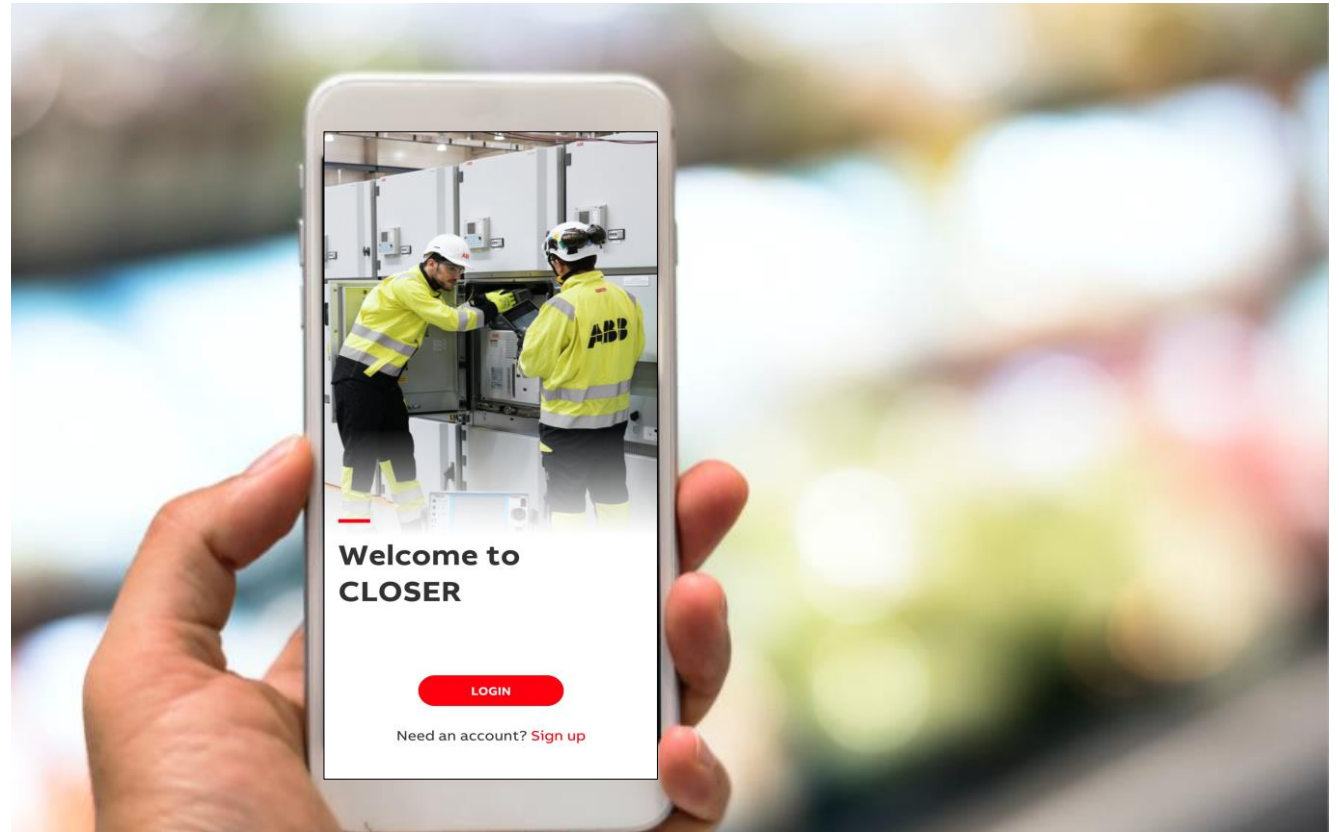
02 Value proposition

03 Getting started

04 Features

05 Devices

06 FAQ



Collaborative Operations for electrical systems - CLOSER

Fast and easy first level support

ABB's innovative Electrification Service solution, **Collaborative Operations for electrical systems – CLOSER**, offers fast support and easy-to-access operation and troubleshooting guides via an immersive augmented reality experience.

With CLOSER, you can self-implement operations on switchgear, with the option to connect with an ABB Expert for further support as needed.



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Value proposition

Reduced resolution time
with first level support made
immediately available via the
CLOSER application



High-quality first aid help
thanks to troubleshooting
best practices



**Easy to understand
guidance** delivered through
an immersive augmented
reality experience



**Direct access to an ABB
Expert** as required



CLOSER

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Getting started in 4 steps

1 Download the app

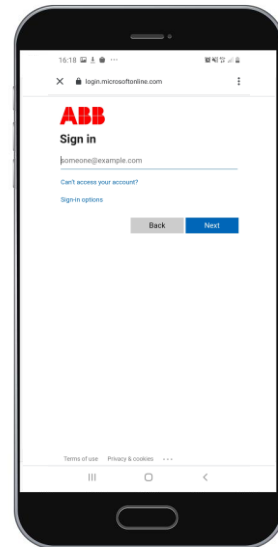
Look for “ABB CLOSER” in [Google Play](#) or [Apple App Store](#)



CLOSER

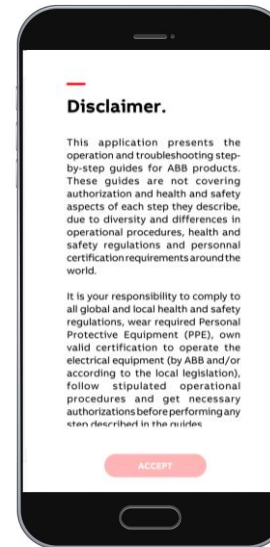
2 Log in or register

Enter your ABB credentials or – if not yet registered – sign up through the dedicated link



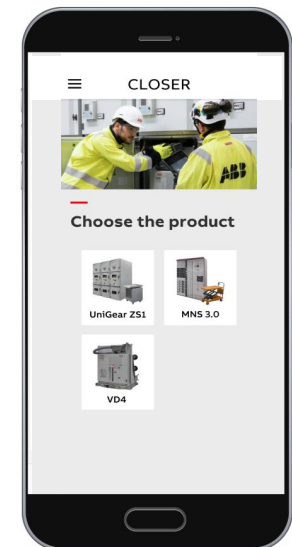
3 Check the disclaimer

Read the disclaimer carefully as it concerns safety, ABB’s first priority



4 Get fast and easy support

Select the product and review operational and troubleshooting procedures for each product section



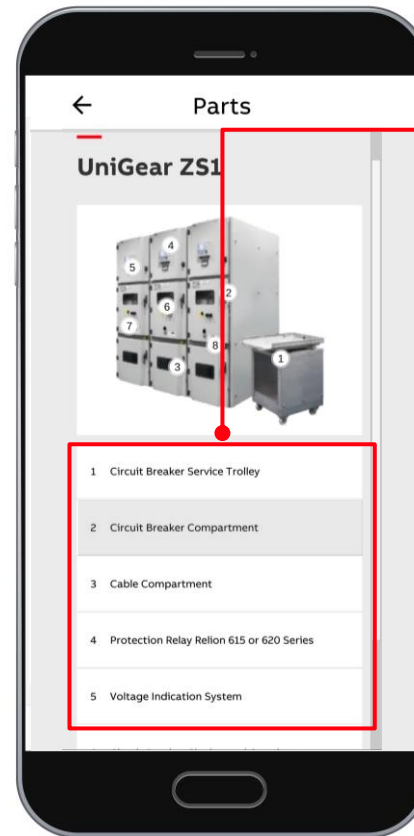
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Features - Product and parts selection



PRODUCTS SELECTION

Example: UniGear ZS1



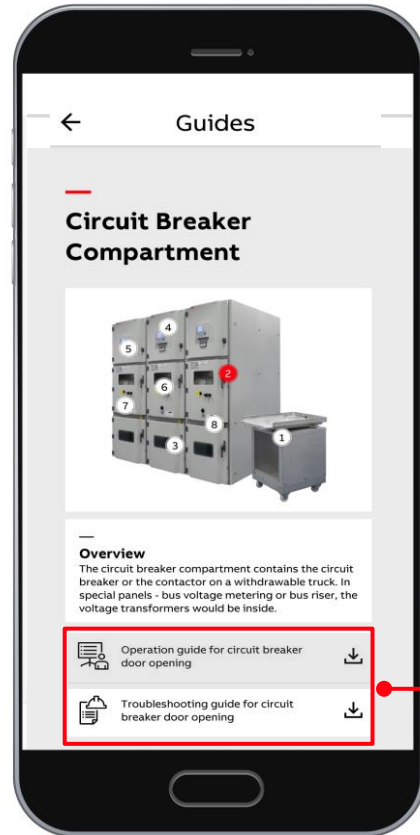
PARTS SELECTION

Available UniGear ZS1 sections:

1. Circuit Breaker Service Trolley
2. Circuit Breaker Compartment
3. Cable Compartment
4. Protection Relay Relion 615 or 620 Series
5. Voltage Indication System
6. Circuit Breaker Closing and Opening
7. Circuit Breaker Truck Racking In and Out
8. Earthing Switch Closing and Opening

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Features - Guide selection



OPERATION AND TROUBLESHOOTING GUIDES

for each switchgear section

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Guides – example for UniGear ZS1 and MNS 3.0

UniGear ZS1 section

List of guides

Circuit Breaker Service Trolley	Operation guide for circuit breaker withdrawing
Circuit Breaker Compartment	Operation guide for circuit breaker door opening
	Troubleshooting guide for circuit breaker door opening
Cable Compartment	Operation guide for cable door opening
	Troubleshooting guide for cable door opening
Protection Relay Relion 615 or 620 Series	Relion 615 and 620 series – Operation guide for human machine interface
	Relion 615 and 620 series – Advanced guide for reading events record
Voltage Indication System	Voltage indication system troubleshooting
	Operation guide for circuit breaker closing and opening
Circuit Breaker Closing and Opening	Troubleshooting guide for circuit breaker closing
	Troubleshooting guide for circuit breaker opening
	Troubleshooting guide for circuit breaker spring charging
Circuit Breaker Truck Racking In and Out	Operation guide for circuit breaker truck racking in and out
	Troubleshooting guide for circuit breaker truck racking in
Earthing Switch Closing and Opening	Operation guide for earthing switch closing and opening
	Troubleshooting guide for earthing switch closing
	Troubleshooting guide for earthing switch opening

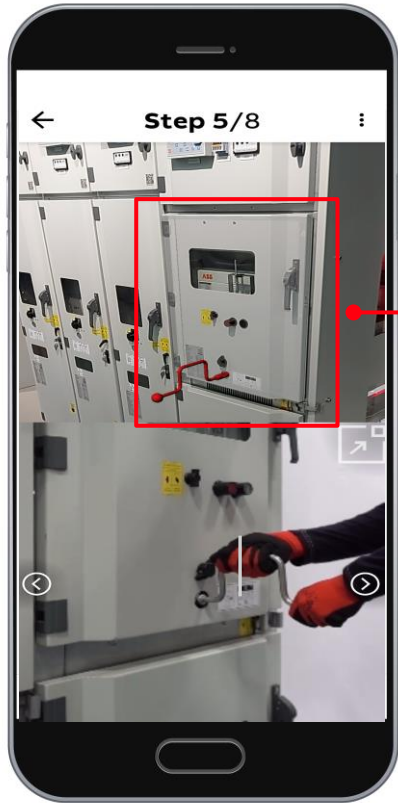
MNS 3.0 section

List of guides

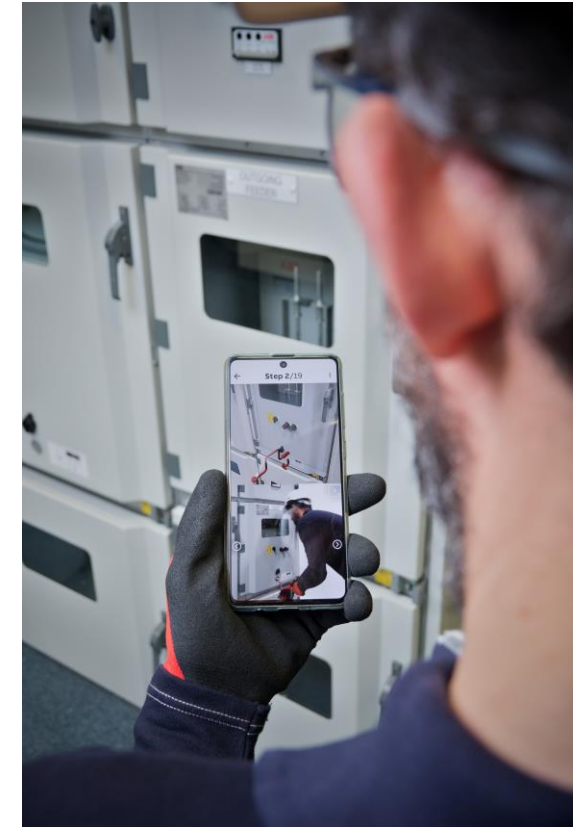
Circuit Breaker Service Trolley	Operation guide for circuit breaker withdrawing
Protection Relay Ekip Dip and Ekip Touch	Ekip Dip – Operation guide for human machine interface
	Ekip Touch – Operation guide for human machine interface
	Ekip Touch – Advanced guide for reading events record
Emax Circuit Breaker	Operation guide for circuit breaker closing and opening
	Operation guide for circuit breaker truck racking in and out
	Troubleshooting guide for circuit breaker truck racking in
	Troubleshooting guide for circuit breaker closing and opening
Half/Quarter size withdrawable module	Troubleshooting guide for circuit breaker spring charging
	Operation guide for half/quarter module switching
	Operation guide for half/quarter module racking in and out
Full size withdrawable module	Troubleshooting guide for half/quarter module operation
	Operation guide for full size module switching on and off
	Operation guide for full size module racking in and out
	Troubleshooting guide for full size module operation

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Features - Augmented reality models

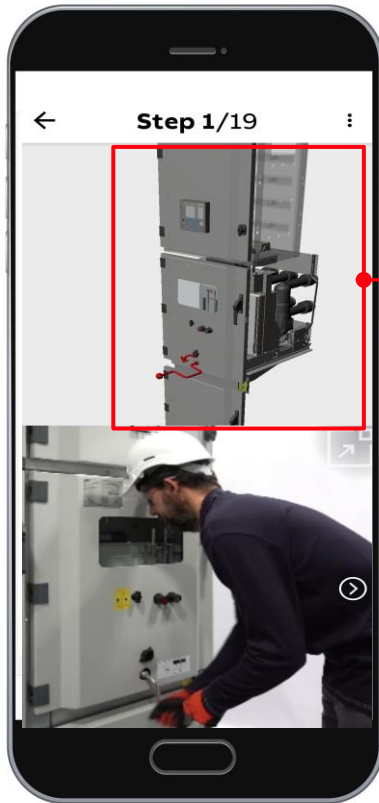


Augmented reality (AR) model option
The digital door can be overlaid onto the actual door providing a visual of the specific steps directly on the panel in view



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Features - Non-augmented reality models



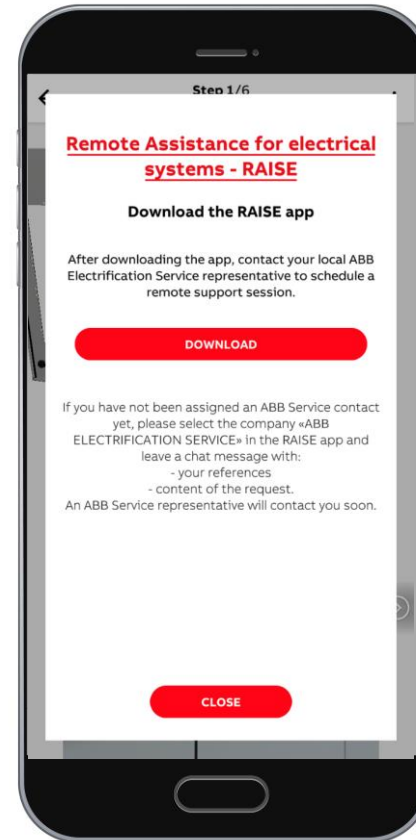
Non-Augmented Reality (AR) model option

Offers the possibility to view a step-by-step guide shown on a 3D model of the panel



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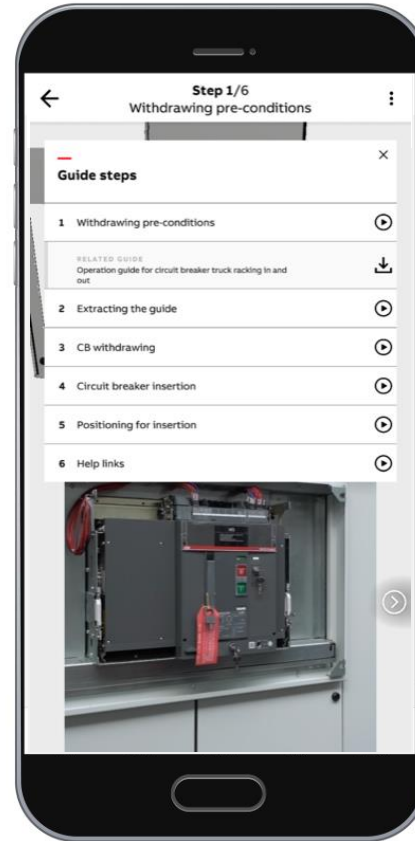
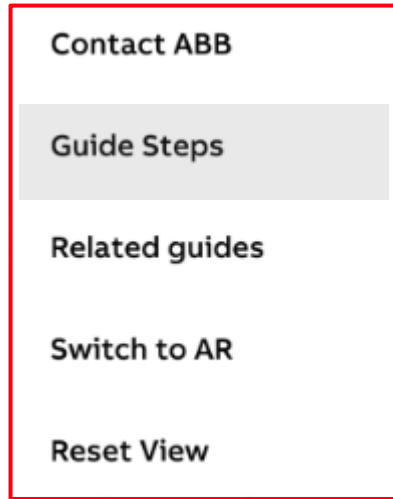
Features - Contact an ABB Expert with RAISE



Contact ABB
Get in contact with an ABB Expert through [Remote Assistance for electrical systems - RAISE](#)

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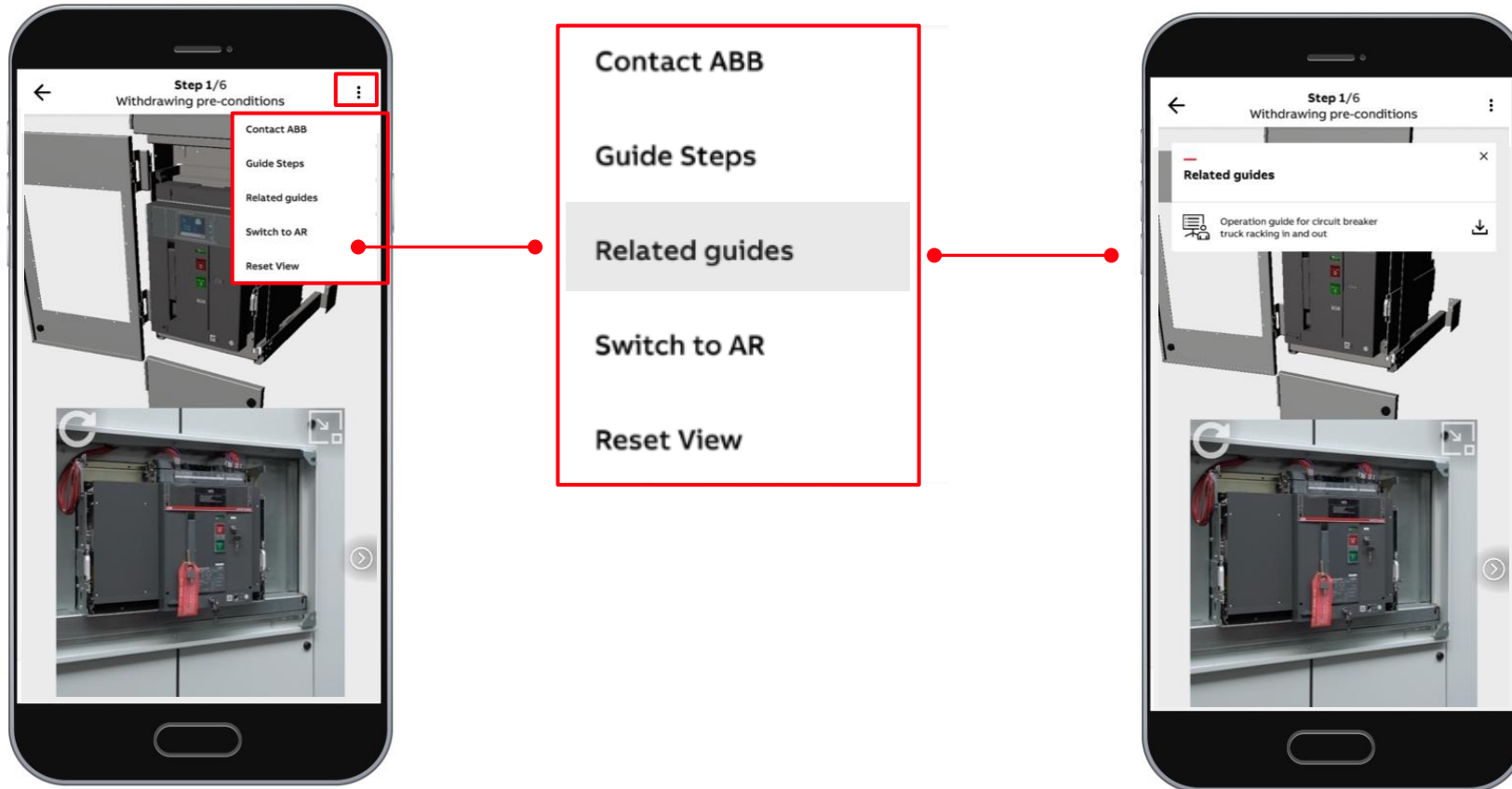
Features – Guide steps



Guide Steps
Review the list of steps of a specific guide

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Features – Related guides



Related guides

Suggested after specific steps based on the content, so that you can easily have all information needed for troubleshooting

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Devices

Smartphone

CLOSER is compatible with both Android and Apple iOS smartphones

Operating system	Version
Android	4.4 Kitkat or newer
iOS	13 or newer



CLOSER is available for download from [Google Play](#) and [Apple App Store](#)

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Frequently Asked Questions (FAQ)



Are the AR models suitable for all switchgear panels' widths?

The AR models are normally suitable for the most used panel width (e.g., 650mm for UniGear ZS1 panel) but might well cover the other variants too. If you need to use CLOSER on other panels, it's always possible to choose the non-AR model and be guided through the different steps of the specific procedure.



How can I overlap the AR model to my switchgear?

When you open a guide, you will see the indication to scan the area around you to detect plain surfaces. Scan all the surroundings and then overlap the model to your panel.



What if I have no connection available in the switchgear room?

You can download the guides in advance and then go through the steps directly in front of the equipment.



What if the guides are not providing the needed information?

CLOSER gives the possibility to connect with an ABB expert remotely in case of need.

ABB