Korean Register
Cyber Resilience Platform
KR-CRP

A unified platform to support cyber resilience compliance throughout the ship lifecycle



KR
KOREAN REGISTER

01

Cyber Resilience Is Now Mandatory for Ships

Under IACS UR E26/E27, cyber resilience design and on-board testing are mandatory for ships contracted for construction on or after 1 July 2024 and engaged in international voyages (passenger ships, as well as cargo ships, high-speed craft, MODUs, etc. of 500 GT and upwards). IMO Resolution MSC.428(98) also requires cyber risk management procedures to be included in a ship's Safety Management System (SMS).
The class notations available depend on whether the ship is a newbuilding or an existing ship in service.

Newbuilding MANDATORY
Cyber Resilience
Cyber resilience across the ship lifecycle; mandatory for ships contracted on or after 1 July 2024

Newbuilding OPTIONAL
Cyber Resilience (CSMS)
Cyber Resilience plus an essential CSMS based on cyber risk management (MSC.428(98))

Existing ship OPTIONAL
CSMS
Essential CSMS based on cyber risk management, supporting MSC.428(98) and vetting requirements

02

It All Comes Down to Document Management

Shipyards (or systems integrators) must have the documents below approved during design and construction; shipowners must keep them up to date in service and have them verified at annual and special surveys.
KR-CRP manages all of these documents in one platform.

Cyber Resilience Documents	Cyber Resilience Newbuilding · UR E26	CSMS Existing ship · MSC.428(98)	Verified at Class Survey
Vessel Asset Inventory (VAI)	Design approval · Maintenance	Approval · Maintenance	Kept up to date; confirmed at annual survey
Zones and Conduit Diagram (ZCD) / Ship Network Configuration Diagram	Design approval · Maintenance	Approval · Maintenance	Kept up to date; confirmed at annual survey
Cyber Security Design Description (CSDD)	Design approval · Maintenance	-	Re-approval upon change
Risk Assessment for the Exclusion of CBSs · Description of Compensating Countermeasures*	Design approval · Maintenance	-	-
Ship Cyber Resilience Test Procedure (CSTP)	Approval during construction · On-board test	-	Verified at special survey
Ship Cyber Security and Resilience Program (CSRP) / Ship CSMS Manual	Approved and surveyed at first annual survey	Approval	Periodic review and revision confirmed at annual survey
Cyber Risk Assessment Report (RA)	-	Approval · Periodic assessment	Periodic review confirmed at annual survey
Cyber Incident Response and Recovery Plan	-	Approval · Maintenance	Kept up to date; confirmed at annual survey
CSMS Operating Statements	-	Approval · Implementation evidence	Evidence verified at annual and special surveys

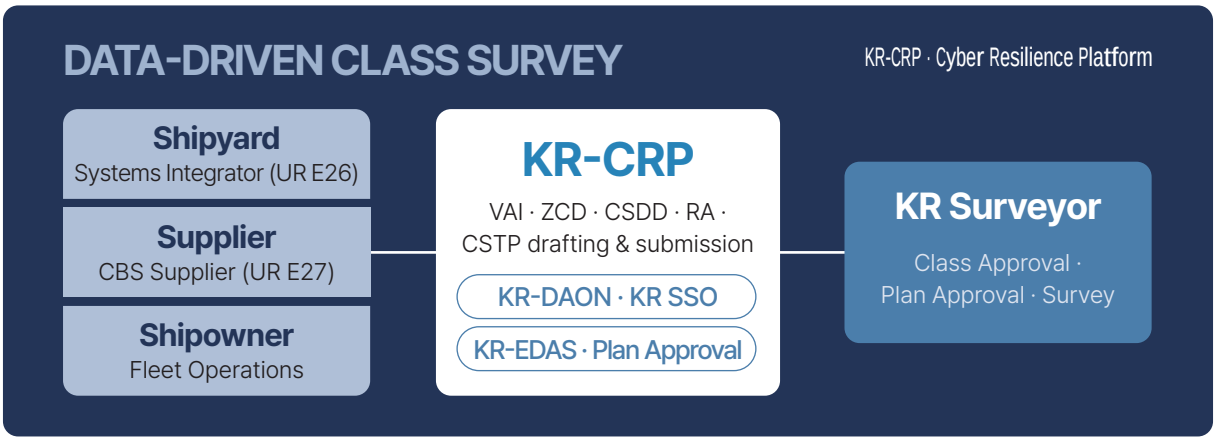
* Submitted where applicable

Ref.: KR Guidance for Cyber Resilience of Ships and Systems

03

What Is KR-CRP

KR-CRP (KR Cyber Resilience Platform) is a cloud-based cyber resilience platform developed by Korean Register. It manages everything from IACS UR E26 design documents to CSMS operational documents as data, and the same data is used in annual and special surveys.



Why KR-CRP? — Replacing Email and Excel with a Data Platform

Preparing the approval documents for a single newbuilding involves coordinating dozens of CBS suppliers, hundreds of emails and hundreds of Excel files. KR-CRP brings all of this data, including the Vessel Asset Inventory (VAI), Zones and Conduit Diagram (ZCD) and Cyber Security Design Description (CSDD), into one platform.

1 Direct Supplier Input

No more email back-and-forth or Excel consolidation

2 One Inventory, Every Document

ZCD, CSDD, RA and CSTP are generated from the VAI

3 Straight to Plan Approval

KR-classed ships can request approval directly through KR-CRP

VAI	Asset Inventory
ZCD	Auto-Diagramming
CSDD	KR Template
RA, CSTP	KR Template

Asset Registration Methods

Individual Entry

Shipyards and systems integrators register assets one by one

Excel Bulk Upload

Upload your existing asset inventory in Excel for automatic classification

Supplier Bulk Request

Suppliers log in to the platform, and their input is synced automatically

04

When to Use KR-CRP

KR-CRP supports not only cyber resilience design verification for newbuildings but also annual, special and occasional surveys, so cyber resilience information can be continuously managed and verified through class surveys across the ship's lifecycle.

Design Approval
UR E26 plan approval

Build · Integration
CSDD · Asset inventory

On-board Test
Using KR-Tester

Annual Survey
Change record verification

Special · Occasional Survey
Configuration re-verification

KR-CRP supports surveys; final decisions rest with the class surveyor.

With KR-Tester

UR E26 ON-BOARD TEST

KR-CRP supports UR E26 on-board testing using KR-Tester. KR-Tester provides network scanning, automatic asset identification, DoS testing and automatic test report generation. Test results are automatically linked to KR-CRP for data-driven cyber resilience verification.

Network Scanning

Automatically scans the on-board network to identify connected devices and network topology

Asset Identification

Automatically collects asset information such as device type, operating system (OS) and software version

DoS & Network Load Test

Verifies protection functions and system stability through network load and DoS testing under controlled conditions

Automated Reporting

Analyzes test results and generates reports for class submission

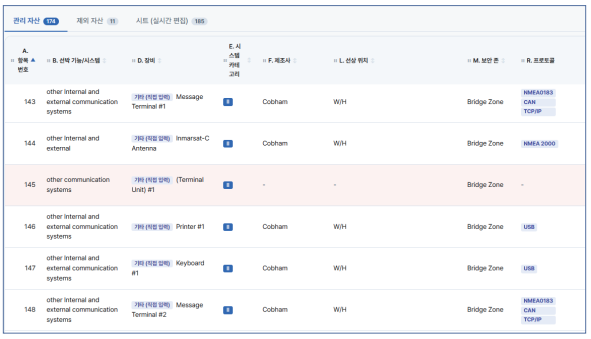
Cutting Cyber Resilience Document Preparation Time

(Based on KR internal measurements)

Task	Current (Manual)	Reduction	With KR-CRP
Supplier data collection	4-8 weeks	50%	2-4 weeks · Supplier self-service
VAI consolidation	2-3 weeks	80%	Approx. 1 week · Auto-classification & validation
ZCD preparation	2-3 weeks	85%	2-3 days · Auto-diagramming from VAI
CSDD drafting	4-6 weeks	70%	1-2 weeks · Auto-linked fields
CSTP · Test reporting	3-4 weeks	75%	Approx. 1 week · Auto-generated from CSDD
Total	15-26 weeks	Approx. 73%	6-8 weeks

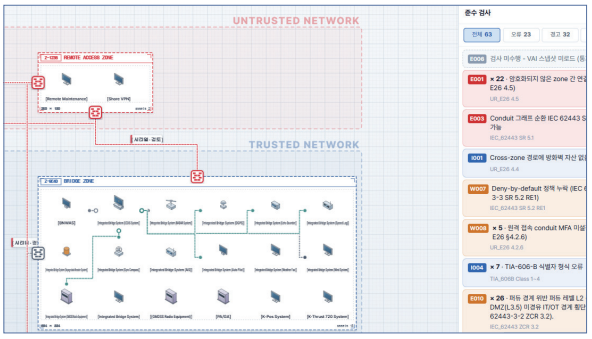
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Inside KR-CRP — Four Core Features in Action



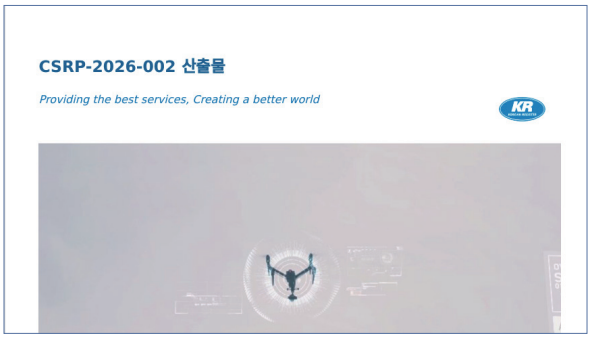
01. Vessel Asset Inventory

Manage in-scope and excluded assets
in a live spreadsheet view. Supplier input appears
in the asset inventory instantly.



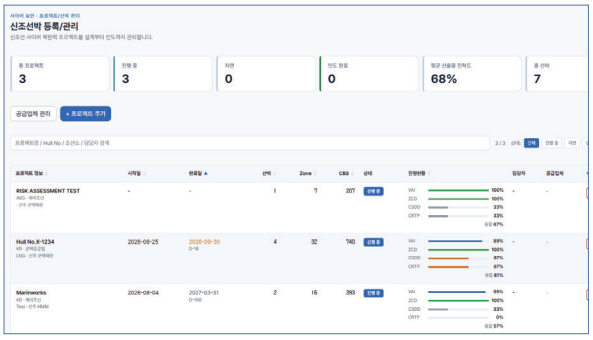
02. Automated Network Diagrams

Zones and conduit diagrams are generated from the
asset inventory, with around 60 items automatically
checked against UR E26 and IEC 62443.



03. Auto-Generated KR Template Documents

Class submission documents such as the CSDD and
CSRP are generated straight from input data.
Edit once, and all related documents are updated
automatically.



04. Newbuilding Project Dashboard

See ship, security zone and CBS status and
the progress of each document at a glance, and
identify delayed projects early.

All Customer Data Is Securely Protected

- End-to-end encrypted communication
- Access rights by user and project
- Access via KR SSO
- Suppliers see only their own systems

Key Benefits

SHIPYARD

Approx. 70% less management time per ship, with less design rework

SUPPLIER

A single submission portal, with CBS profiles reusable across shipyards

SHIPOWNER

Automated change management and support for operational documents with approx. 50% less annual survey time

CLASS

Consistent class surveys based on real-time test data

CONTACT

Experience KR-CRP for Yourself

For a platform demo license or account setup, please contact us using the details below.

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