Company Profile & Projects

Integrated engineering. Clear scope. Dependable delivery.



RTTR Engineering Group

2000 successful projects across the wider group. Engineering roots since 1998, with operations in Oman since 2018. Data centers, electrical power, energy, ICT, security, smart systems, mechanical and marine services.



2,000+
Successful projects | Group

28 Years of heritage

Inside this profile

Company and engineering capabilities

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RTTR Engineering Group

Engineering roots since 1998. Oman operations since 2018.



One accountable engineering partner

RTTR combines multidisciplinary engineering with practical delivery from Muscat. Our roots began in electrical-panel engineering and manufacturing in 1998, and our Oman operations began in 2018. We connect consultancy, detailed design, procurement, installation, commissioning and long-term operating support through one coordinated customer interface.

A complete delivery model

Customers can appoint RTTR for a specialist assignment, equipment supply, a coordinated EPC scope, asset repair or ongoing maintenance. Responsibilities, technical interfaces, approvals, programme and acceptance requirements are defined before execution. This supports a documented transition from the initial requirement to a practical, maintainable operating system.

Markets, resources and manufacturing relationships

Our engineering capability supports data centers, industrial plants, oil and gas, utilities, water infrastructure, commercial and institutional facilities, residential systems and marine applications. Wider group production and assembly resources, together with manufacturing and technology partners, support equipment supply and coordinated execution. The team, facilities and specialist support assigned to each job are defined around its actual technical requirement.

Evidence that reaches the operating team

Drawings, equipment schedules, technical approvals, test records, settings, software backups and operating information form a coordinated handover. We connect preventive maintenance, fault diagnosis, repair and contracted 24/7 AMC with the assets, priorities and responsibilities agreed with the customer.

Experience & capacity

Company-supplied figures, clearly scoped

2,000+

Successful projects

28

Years of heritage

6,000+

m² group production space

300+

Group technical resources

1998
Engineering roots

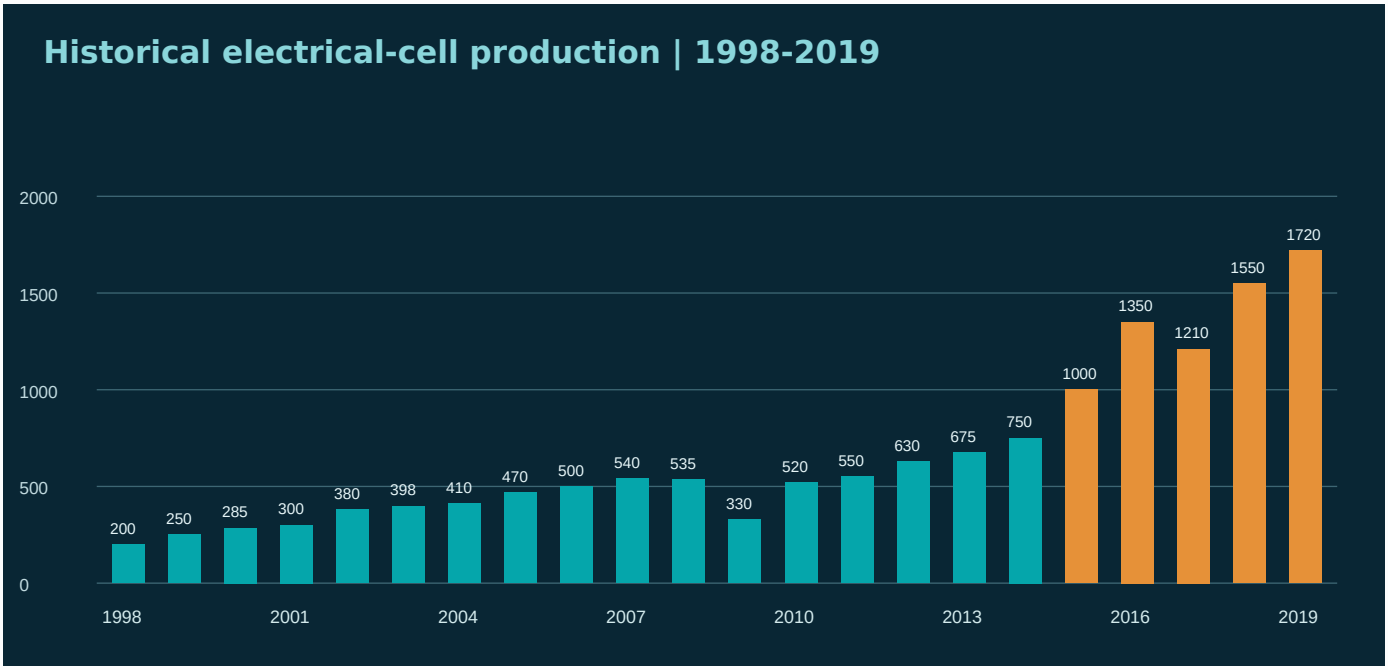
2018
Oman operations

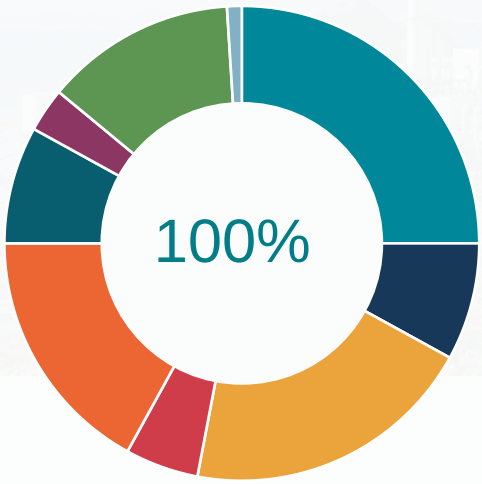
2026
Integrated capability

Figures describe the wider group record and resources, rather than the Oman operation alone. Engineering roots date to 1998; Oman operations began in 2018. The total project figure has been updated using company-supplied information.

Production & sector experience

Historical indicators from the previous company catalogue





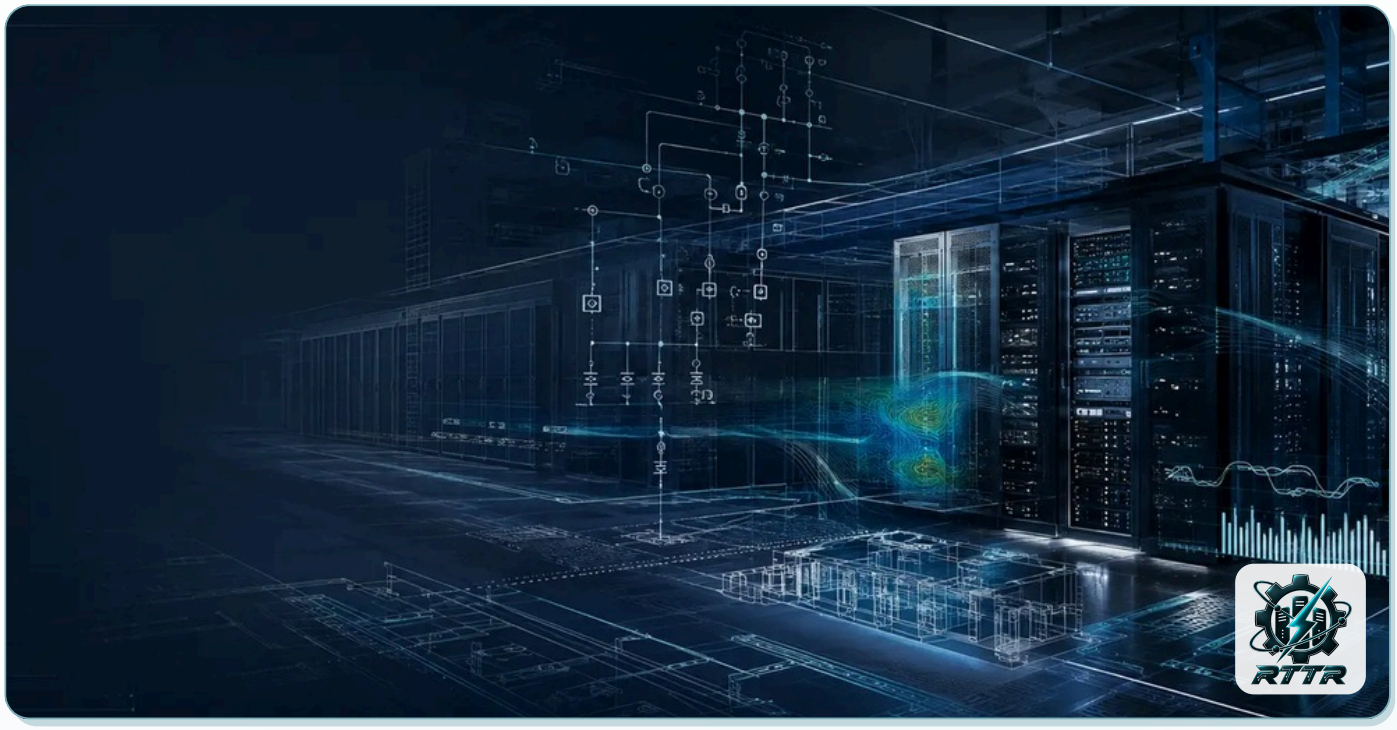
Historical activity-sector distribution

Oil, gas & petroleum	25%
Mining & steel	8%
IT & data centers	20%
Healthcare	5%
Infrastructure	17%
Water & wastewater	8%
Automotive industry	3%
Manufacturing	13%
Railway	1%

Source: supplied previous company catalogue, p.15. Historical data; electrical-cell production is a separate measure from project count.

Vision, mission & certified expertise

Reliability, responsibility and long-term customer value



Certified technical personnel • Multidisciplinary coordination • Multiple technology and delivery partners • Documented testing and handover

Our vision

To be a trusted engineering partner for reliable critical infrastructure, connected facilities and sustainable operation. We aim to connect the technical depth of specialists with the accountability of an integrated delivery partner.

Our mission

Connect sound engineering, appropriate equipment, disciplined site execution and verified performance with practical long-term support. Safety, reliability, efficiency and customer requirements guide engineering decisions from concept to handover.

Certified technical team and supporting partners

Our technical team includes certified engineers and specialists. Personnel and supporting resources are assigned around each discipline, equipment and platform. Multiple technology, manufacturing and technical partners support product access, specialist integration and delivery. Qualifications and relevant supporting records can be submitted as part of project review.

Connected engineering departments

Specialist capability with coordinated project interfaces



Data centers & consultancy

Feasibility, audits, RFP/RFQ, detailed multidisciplinary design, critical power, cooling, CFD, DCIM/BMS/EMS, turnkey delivery and 24/7 AMC.

HD Hyundai Electric & Power / Energy

Electrical equipment supply and support; LV/MV boards, PLC and control, UPS, batteries, diesel generators, ATS, electrical maintenance, earthing/lightning, solar and cathodic protection.

ICT, Security & Smart Systems

Network topology, copper/fiber, CCTV, access control, CHD by Newabel rack security, smart systems, software integration and custom applications.

Mechanical & Marine

Precision and residential cooling, hydronics, pumps, valves, controls and AMC; marine communication, navigation, e-navigation, automation/engine support and VTS.

Technical training

Practical client workshops, specialist training and project-specific operator handover support.

The RTTR engineering network

Specialist departments. One coordinated capability.

Data Centers
Critical infrastructure & operations

HD Hyundai Electric
Equipment supply & lifecycle support

Power & Energy
Electrical, solar, earthing & cathodic

ICT & Security
Networks, CCTV, access & software

Mechanical
Cooling, water networks & controls

Marine
Vessels, offshore & port systems

Consultancy
Design, audits & supervision

Training
Technical skills & operator readiness

Specialist disciplines connected through one customer interface. Each proposal defines discipline responsibilities, equipment coverage and delivery records.

A complete lifecycle service

A clear scope from the first enquiry to operating support

01
Consultancy

02
Design

03
Supervision

04
Supply

05
Installation

06
Commissioning

07
Testing

08
Maintenance

09
Troubleshooting

10
Repair / overhaul

11
24/7 AMC

From requirement to operation

Define the assets, equipment and acceptance criteria first. Engineering, work packages, testing and handover stay connected through a clear scope. Preventive maintenance, repair and 24/7 AMC are tied to agreed coverage, response arrangements, parts and responsibilities.

Data Centers

Department capability overview



CAPABILITY INDEX

Data Centers

01 **Complete lifecycle capability**

02 **Consulting & Feasibility**

03 **Concept & Detailed Design**

04 **Uptime Design Audit**

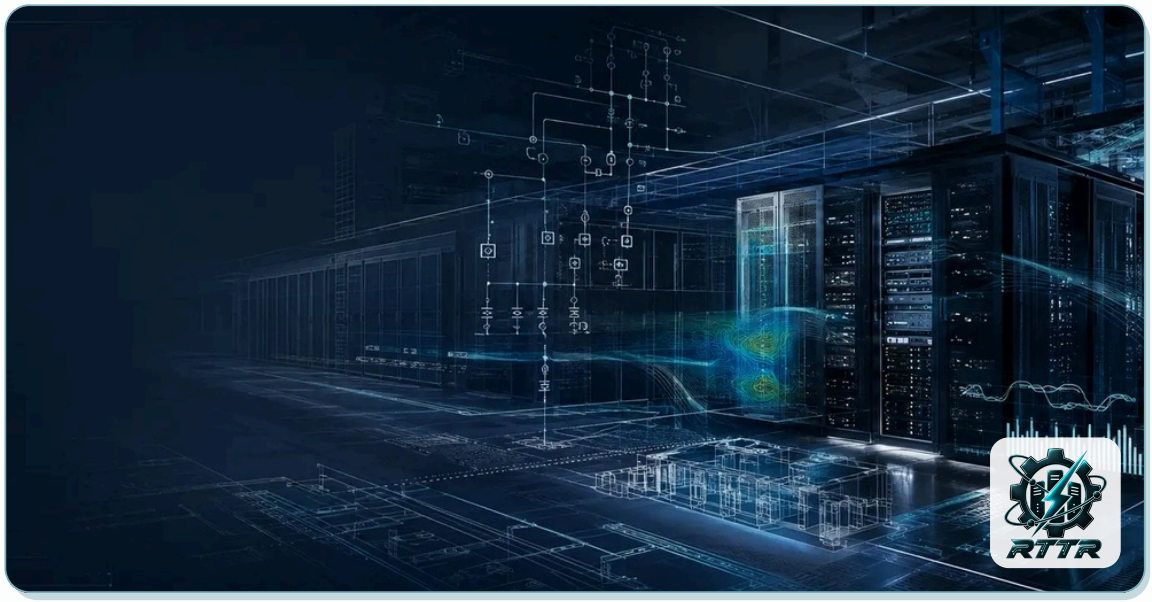
05 **RFP, Specifications & BOQ**

06 **CFD & Thermal Analysis**

07 **Supply & Procurement**

Data Centers | Capabilities 1

Services and systems we deliver



Complete lifecycle capability • Consulting & Feasibility • Concept & Detailed Design • Uptime Design Audit

Complete lifecycle capability

Cross-cutting disciplines: power • cooling • fire/life safety • ICT • security • controls • project governance

Consulting & Feasibility

RTTR provides independent data center consultancy from initial feasibility to operational readiness. We translate business needs into capacity, availability, site, budget and delivery requirements before equipment is selected.

Concept & Detailed Design

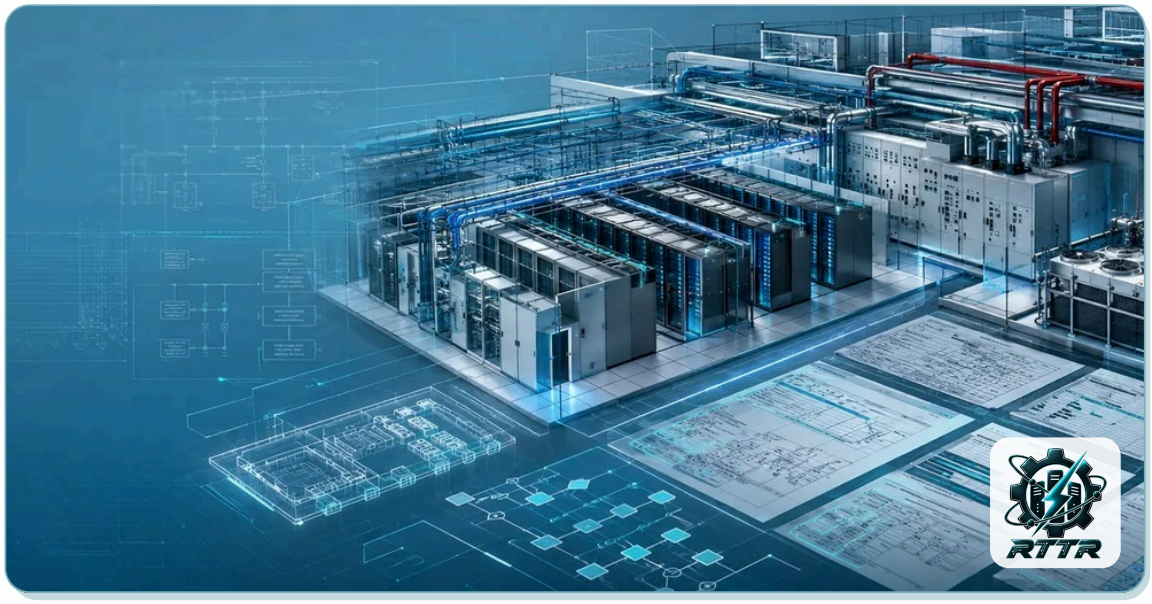
We develop data center concepts, Basis of Design and detailed engineering packages that connect architectural planning with electrical, mechanical, fire, ICT, security and control systems. The design follows the business requirement, site constraints and agreed availability objective.

Uptime Design Audit

RTTR reviews data center design and operating infrastructure to identify gaps between the intended availability objective and the actual engineering arrangement. Our work follows the complete critical service path, from utility and heat rejection through distribution, controls and the IT environment.

Data Centers | Capabilities 2

Services and systems we deliver



RFP, Specifications & BOQ • CFD & Thermal Analysis • Supply & Procurement • Turnkey Implementation

RFP, Specifications & BOQ

We convert approved requirements and coordinated engineering into a procurement-ready Request for Proposal package. A strong tender defines the full obligation: design development where required, supply, installation, integration, testing, commissioning, training and handover.

CFD & Thermal Analysis

Computational Fluid Dynamics reveals airflow, pressure and temperature behaviour that cannot be understood from installed cooling tonnage alone. RTTR models racks, heat loads, raised floors, perforated tiles, cooling units, containment and leakage to determine whether the facility delivers cooling where it is needed.

Supply & Procurement

Procurement turns engineering documents into installed, testable assets. RTTR evaluates equipment against performance, reliability, maintainability, integration and lifecycle support requirements.

Turnkey Implementation

RTTR can convert an approved data center design into a tested, documented and operational facility through an engineering-led turnkey delivery structure. The scope connects procurement, civil and architectural interfaces, electrical power, precision cooling, fire safety, networks, security, controls and DCIM/BMS integration.

Data Centers | Capabilities 3

Services and systems we deliver



Data Center Commissioning • Data Center Tests • Project Management • 24/7 AMC & Operations

Data Center Commissioning

Commissioning is a planned assurance process that establishes whether equipment, systems and the facility operate as intended. RTTR develops and executes commissioning programmes across power, cooling, fire and life safety, controls, security and digital infrastructure.

Data Center Tests

RTTR provides equipment, system and facility testing for new and live data centers. The service can be a discrete assessment, part of commissioning or a periodic assurance programme.

Project Management

Our project-management service coordinates scope, programme, procurement, construction, cost, quality, risk and commissioning within one controlled framework. RTTR's team includes PMP-certified professionals who apply PMBOK-based governance together with data center engineering judgement.

24/7 AMC & Operations

RTTR provides 24/7 Annual Maintenance Contract and operations services for mission-critical data centers, supported by a Muscat-based technical team. We combine monitoring, preventive maintenance, corrective work and incident escalation into an asset-based operating system.

Data Centers | Capabilities 4

Services and systems we deliver



DCIM & BMS • PUE & Capacity Optimization • CCTV & Access Control • AI Data Center Solutions

DCIM & BMS

RTTR delivers integrated Data Center Infrastructure Management and Building Management Systems from engineering and points lists to installation, software configuration, integration, testing, training and support. Our solutions connect assets, energy, capacity, environmental conditions and alarm workflows.

PUE & Capacity Optimization

RTTR evaluates power, cooling, space and IT demand together to establish an evidence-based performance baseline and improvement roadmap. Power Usage Effectiveness is considered in the context of metering boundaries, reporting period, load conditions and operating constraints.

CCTV & Access Control

We design, supply, install, configure, integrate and maintain data center security systems across perimeter surveillance, technical rooms, cages and rack doors. The architecture combines camera coverage, access authorization, recording, event evidence and controlled emergency behaviour.

AI Data Center Solutions

RTTR addresses two connected needs: infrastructure ready for demanding AI workloads and intelligent tools that improve facility operation. We assess new developments, expansions and upgrades by connecting compute requirements with actual power, cooling, connectivity, maintainability and growth limits.

Data Centers | Capabilities 5

Services and systems we deliver



Critical power engineering • Cooling & thermal resilience • Safety, ICT & integration • From mandate to handover

Critical power engineering

Data center power architecture must support the intended IT load, future growth and agreed resilience model. RTTR coordinates utility and MV/LV interfaces, transformation, standby generation, UPS, batteries and final distribution.

Cooling & thermal resilience

Cooling capability is determined by the full path from heat generation to heat rejection. RTTR engineers the interaction of rack loads, precision cooling, chilled-water systems, pumps, valves, containment, controls and outdoor conditions.

Safety, ICT & integration

An operating data center depends on more than power and cooling. RTTR coordinates fire detection/suppression, carrier and structured-cabling infrastructure, security, monitoring and controls with the facility’s physical architecture.

From mandate to handover

01 | Assess and define Confirm the business requirement, capacity, site constraints, availability objective, risk, budget and delivery strategy. Establish OPR and scope boundaries.

Data Centers | Capabilities 6

Services and systems we deliver



UPS installation, commissioning & repair • UPS monitoring installation, integration & repair • UPS batteries, cabinets & battery stands • UPS battery monitoring systems

UPS installation, commissioning & repair

We install, commission, troubleshoot, repair and service UPS systems for data centers, industrial facilities and buildings. The work covers standalone and modular arrangements, electrical interfaces, operating modes and coordinated maintenance planning.

UPS monitoring installation, integration & repair

We install, commission and repair UPS monitoring hardware, communication interfaces and software configurations. Operators receive a verified view of status, alarms and available measurements through the agreed monitoring platform.

UPS batteries, cabinets & battery stands

We supply, install and commission UPS batteries and suitable battery stands or cabinets. Battery selection and replacement are coordinated with the UPS, duty, required autonomy, charger settings and site conditions.

UPS battery monitoring systems

We supply, install and commission battery monitoring systems for supported UPS battery arrangements. String and block-level condition data, trends and alarms help the operator identify developing issues and plan maintenance.

Data Centers | Capabilities 7

Services and systems we deliver



Diesel generator installation, repair & servicing • Fuel systems & filtration packages • ATS panel design, fabrication & lifecycle service • EMS design, supply, installation & monitoring

Diesel generator installation, repair & servicing

We install, commission, service, troubleshoot and repair diesel generators for critical and industrial facilities. Mechanical, electrical and control interfaces are coordinated with the site operating arrangement.

Fuel systems & filtration packages

We design, supply, install and commission diesel fuel systems and filtration packages. Tank arrangements, fuel transfer, filtration, controls and monitoring are engineered as one coordinated generator-support system.

ATS panel design, fabrication & lifecycle service

We design, supply, fabricate, install and commission automatic transfer switch panels, and provide their servicing, troubleshooting and repair. The panel design is coordinated with sources, loads, protection, generator controls and the required transfer philosophy.

EMS design, supply, installation & monitoring

We deliver Environmental Monitoring Systems (EMS) and their monitoring platforms for critical rooms and facilities. Sensors, controllers, gateways, alarms and dashboards are coordinated with the actual operational requirement.

Data Centers | Capabilities 8

Services and systems we deliver



Water leak detection systems • Rodent & insect deterrent systems

Water leak detection systems

We design, supply, install and commission water leak detection systems, and provide their servicing and repair. Detection routes, zones and alarms are designed around the actual water sources and the assets requiring protection.

Rodent & insect deterrent systems

We design, supply, install and commission specified rodent and insect deterrent systems for technical facilities. The selected solution is reviewed for target species, coverage, operating conditions and compatibility with the protected environment.

HD Hyundai Electric

Department capability overview



CAPABILITY INDEX

HD Hyundai Electric

01 **Official representation. Local support.**

02 **Electrical equipment portfolio**

03 **Power circuit breakers**

04 **Miniature & residual-current protection**

05 **Contactors, relays & motor control**

06 **MV switchgear & protection**

07 **Wider power equipment**

HD Hyundai Electric | Capabilities 1

Services and systems we deliver



Official representation. Local support. • Electrical equipment portfolio • Power circuit breakers • Miniature & residual-current protection

Official representation. Local support.

RTTR Engineering Group is an authorized representative of HD Hyundai Electric in the Sultanate of Oman. We provide customers with a local route for product enquiries, technical selection, quotation coordination and supply, supported by our engineering and after-sales capabilities.

Electrical equipment portfolio

Our supply capability is organized around the customer’s electrical system rather than an isolated part number. We can coordinate enquiries for HD Hyundai Electric protection devices, contactors, relays, low- and medium-voltage switchgear, transformers, motors and related power equipment, then define the applicable technical and commercial route for each item.

Power circuit breakers

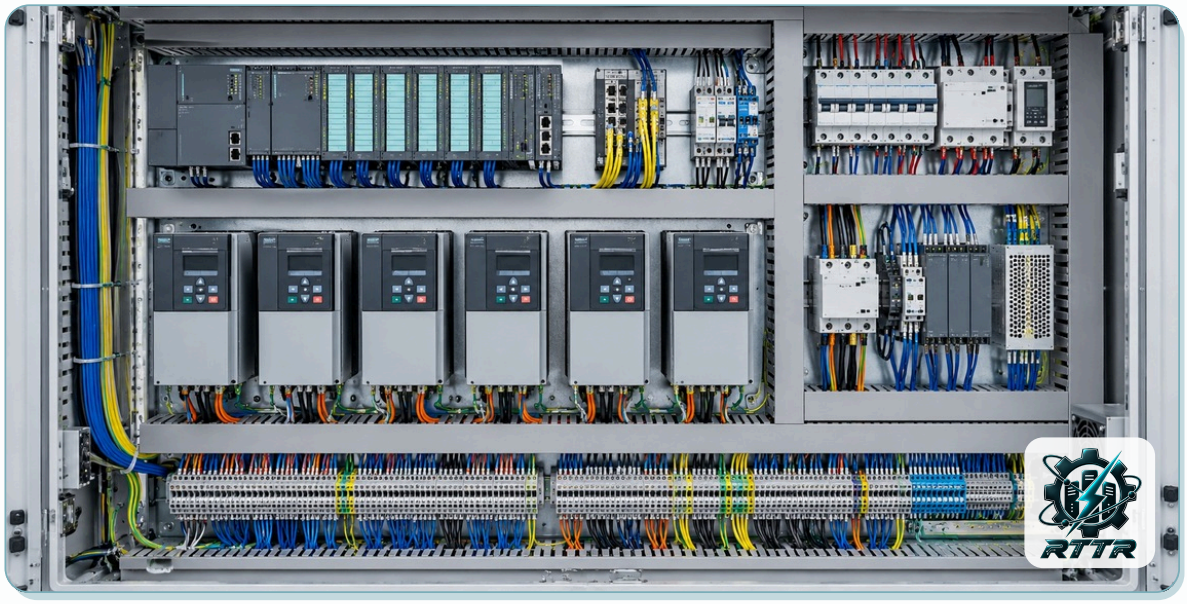
Catalogue example: HGN DC ACB Power circuit breakers protect incoming supplies, bus couplers, distribution feeders and large loads. RTTR supports HD Hyundai Electric ACB and MCCB enquiries, inspection and replacement planning by reviewing the installed equipment and the required protective duty.

Miniature & residual-current protection

Catalogue example: HGD miniature breaker HD Hyundai Electric miniature and modular devices support building and industrial distribution applications. The supplied catalogue resources include HGD and HiBD miniature protection, HRC/HiRC residual-current devices, switch-disconnectors and associated product families.

HD Hyundai Electric | Capabilities 2

Services and systems we deliver



Contactors, relays & motor control • MV switchgear & protection • Wider power equipment • Supply, selection & spare parts

Contactors, relays & motor control

Catalogue example: UL HG-MC contactor Magnetic contactors and overload relays are central to motor-control systems and other frequently switched loads. The downloaded UL product resource is titled UL HG-MC and covers magnetic contactors and thermal overload relays.

MV switchgear & protection

RTTR supports the design, supply coordination, installation and commissioning of medium-voltage panels and associated equipment. The project definition includes the incoming system, load duties, protection philosophy, interfaces and the environmental conditions of the electrical room.

Wider power equipment

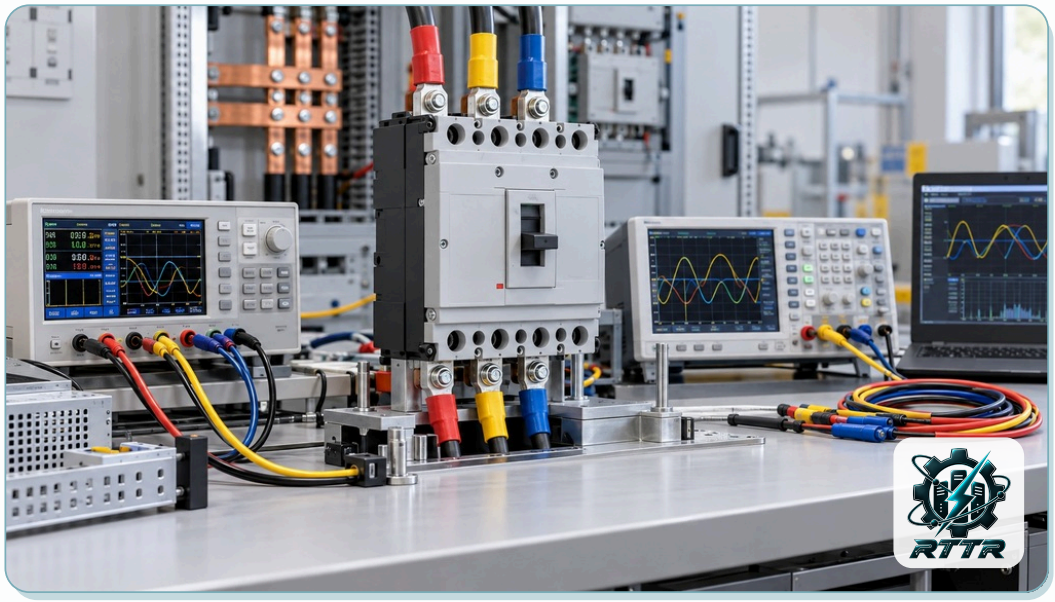
HD Hyundai Electric publishes a broad power-equipment portfolio that includes transformers, gas-insulated switchgear, MV/LV switchgear, motors and generators. RTTR provides a local engineering and enquiry route for customers who need those product families, alongside the protective and control devices required to connect them into the facility.

Supply, selection & spare parts

RTTR supports equipment procurement by turning a customer enquiry into a technically defined purchase. We review the application, existing equipment where relevant, required accessories and the documents needed for customer approval.

HD Hyundai Electric | Capabilities 3

Services and systems we deliver



Equipment troubleshooting & repair • Circuit-breaker overhaul • Switchboard overhaul & servicing • Factory electrical maintenance

Equipment troubleshooting & repair

RTTR provides troubleshooting and repair services for Hyundai electrical equipment and related electrical-system interfaces. The process begins with the reported symptom and operating history, followed by a controlled inspection and the tests appropriate to the equipment condition.

Circuit-breaker overhaul

A circuit-breaker overhaul can restore a serviceable unit when its condition and parts availability support that route. RTTR assesses the breaker, its history and the manufacturer information before defining the extent of disassembly, cleaning, inspection, replacement and testing.

Switchboard overhaul & servicing

RTTR provides overhaul, troubleshooting and servicing of electrical switchboards. The work considers the complete assembly: busbars, connections, breakers, control circuits, metering, indicators, enclosure condition, earthing, cable terminations and the operating environment.

Factory electrical maintenance

RTTR provides repair and maintenance of factory electrical installations and power-distribution systems. The scope can cover incoming supplies, distribution panels, motor-control equipment, cables, earthing, controls and the electrical interfaces serving the production process.

HD Hyundai Electric | Capabilities 4

Services and systems we deliver



24/7 electrical AMC & support • LV panels: design to commissioning • MV panels: coordinated project delivery • Electrical testing & commissioning

24/7 electrical AMC & support

RTTR offers 24/7 maintenance and technical support arrangements for electrical installations and switchboards. The service can combine planned preventive maintenance with callout coordination, fault assessment, corrective works and operational reporting.

LV panels: design to commissioning

RTTR designs, supplies, installs and commissions low-voltage electrical panels for industrial, commercial and critical-facility applications. The work can include main distribution, sub-distribution, motor-control and project-specific control panels, with Hyundai devices selected where appropriate to the approved design.

MV panels: coordinated project delivery

RTTR provides a connected engineering scope for medium-voltage switchboard projects. We develop the design basis with the customer, coordinate equipment supply and installation, and plan the testing and energization route required for the facility.

Electrical testing & commissioning

RTTR develops electrical test and commissioning scopes that connect the approved design with the actual installed condition. The objective is to demonstrate the required equipment functions and system interfaces, document defects and establish a clear basis for handover.

HD Hyundai Electric | Capabilities 5

Services and systems we deliver



Retrofit, replacement & obsolescence • From enquiry to dependable operation

Retrofit, replacement & obsolescence

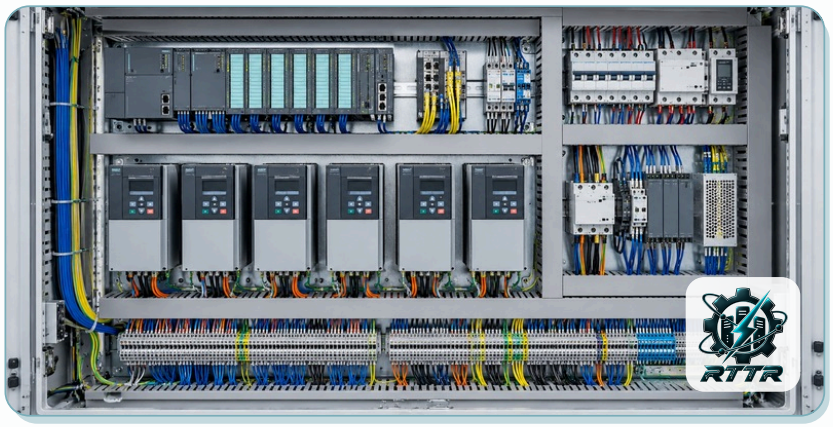
RTTR supports replacement planning for ageing Hyundai equipment and legacy switchboards. The assessment identifies whether the existing unit can be repaired, whether parts remain available and how a replacement would connect to the installed mechanical and electrical arrangement.

From enquiry to dependable operation

Our delivery route is structured around progressive technical clarity. The customer can engage RTTR for equipment supply, a repair package, a complete panel project or ongoing electrical maintenance.

Power & Energy

Department capability overview



CAPABILITY INDEX

Power & Energy

01 **Four specialist pillars**

02 **Electrical strategy & detailed design**

03 **LV & MV switchboard engineering**

04 **Capacitor banks & power-factor correction**

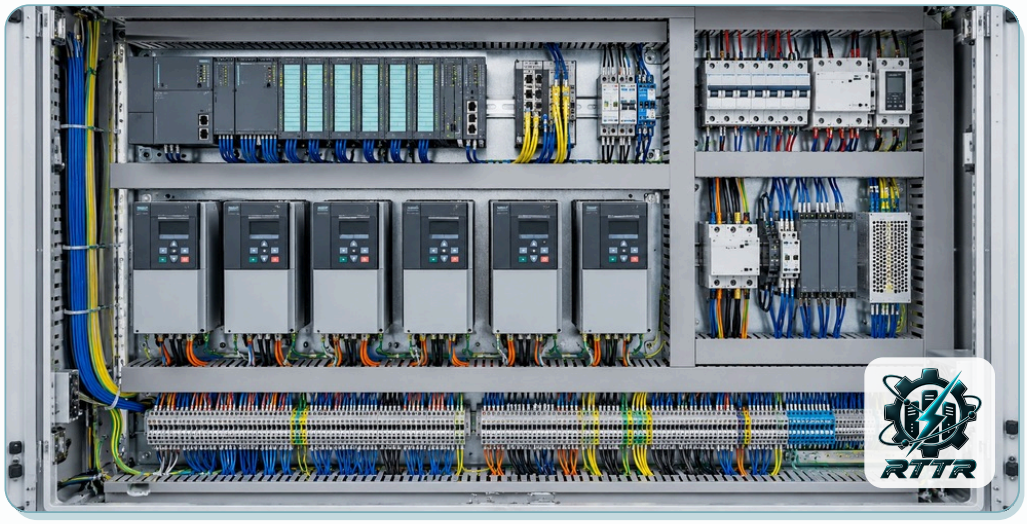
05 **PLC programming & electrical automation**

06 **Panel manufacturing & wiring**

07 **Equipment supply & procurement**

Power & Energy | Capabilities 1

Services and systems we deliver



Four specialist pillars • Electrical strategy & detailed design • LV & MV switchboard engineering • Capacitor banks & power-factor correction

Four specialist pillars

Electrical Power architecture, LV/MV panels, capacitor banks, PLC/HMI, manufacturing, supply, installation, commissioning, overhaul and 24/7 support. Earthing & lightning protection Soil investigations, earthing studies, grids/electrodes, bonding, lightning/ surge protection, installation, testing and maintenance.

Electrical strategy & detailed design

RTTR provides electrical consultancy and design for factories, commercial and residential developments, utilities and critical facilities. We begin with the actual loads, supply arrangement, operating conditions and expansion plan, then develop a power architecture that can be built, tested and maintained.

LV & MV switchboard engineering

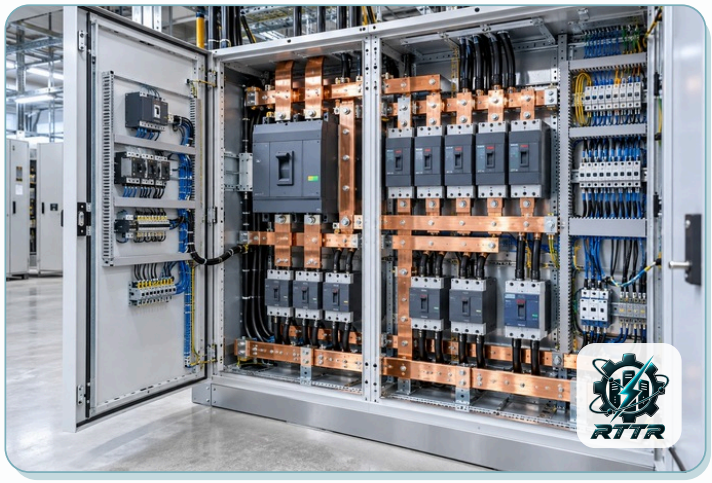
RTTR designs a wide range of electrical panels, including main and sub-distribution boards, motor control centers, ATS and synchronization arrangements, control panels and project-specific LV/MV assemblies. The scope connects incoming supply, busbar architecture, outgoing circuits and control interfaces to the approved system design.

Capacitor banks & power-factor correction

RTTR designs, manufactures, supplies, installs and services capacitor-bank panels. Our group’s manufacturing record exceeds 1,200 capacitor banks.

Power & Energy | Capabilities 2

Services and systems we deliver



PLC programming & electrical automation • Panel manufacturing & wiring • Equipment supply & procurement • Installation & electrical commissioning

PLC programming & electrical automation

RTTR develops control and automation solutions for electrical panels and industrial systems, including PLC programming, HMI configuration, equipment interfaces and the associated control wiring. The programme is based on an agreed functional description that explains how the process should start, stop, respond to faults and recover.

Panel manufacturing & wiring

RTTR provides panel manufacturing, assembly and wiring for approved distribution and control designs, supported by the group's factory capability and specialist manufacturing partners. Work includes component installation, busbar arrangement, internal wiring, terminal preparation, identification and the inspection records needed before release.

Equipment supply & procurement

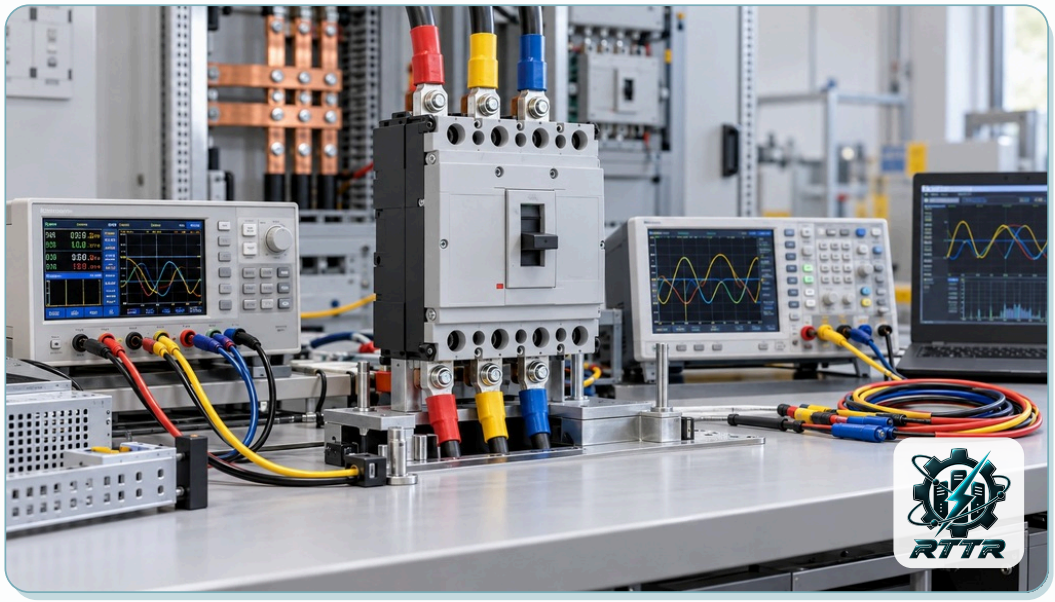
RTTR supplies electrical equipment and coordinates manufacturer or vendor enquiries across the approved project scope. Protection devices, switchgear, transformers, cables, controls, metering, capacitor-bank components and associated materials are selected using the actual system requirements.

Installation & electrical commissioning

RTTR installs and commissions electrical panels and associated infrastructure, coordinating equipment positioning, cabling, terminations, earthing, control interfaces and installation inspections. The scope is planned around site access, other trades, shutdown windows and the customer's operating constraints.

Power & Energy | Capabilities 3

Services and systems we deliver



Troubleshooting & equipment repair • Switchboard overhaul & refurbishment • 24/7 electrical maintenance • Consultancy, supervision & project control

Troubleshooting & equipment repair

RTTR provides fault diagnosis and repair for switchboards, protection and control devices, wiring and electrical-system interfaces. The process begins with the reported symptom, operating history and available evidence, followed by controlled inspection and equipment-appropriate tests.

Switchboard overhaul & refurbishment

RTTR undertakes overhaul and refurbishment of electrical panels, breakers and associated control assemblies. Work may include cleaning, component inspection, connection servicing, mechanism assessment, wiring repairs, replacement devices and restoration of damaged or deteriorated parts.

24/7 electrical maintenance

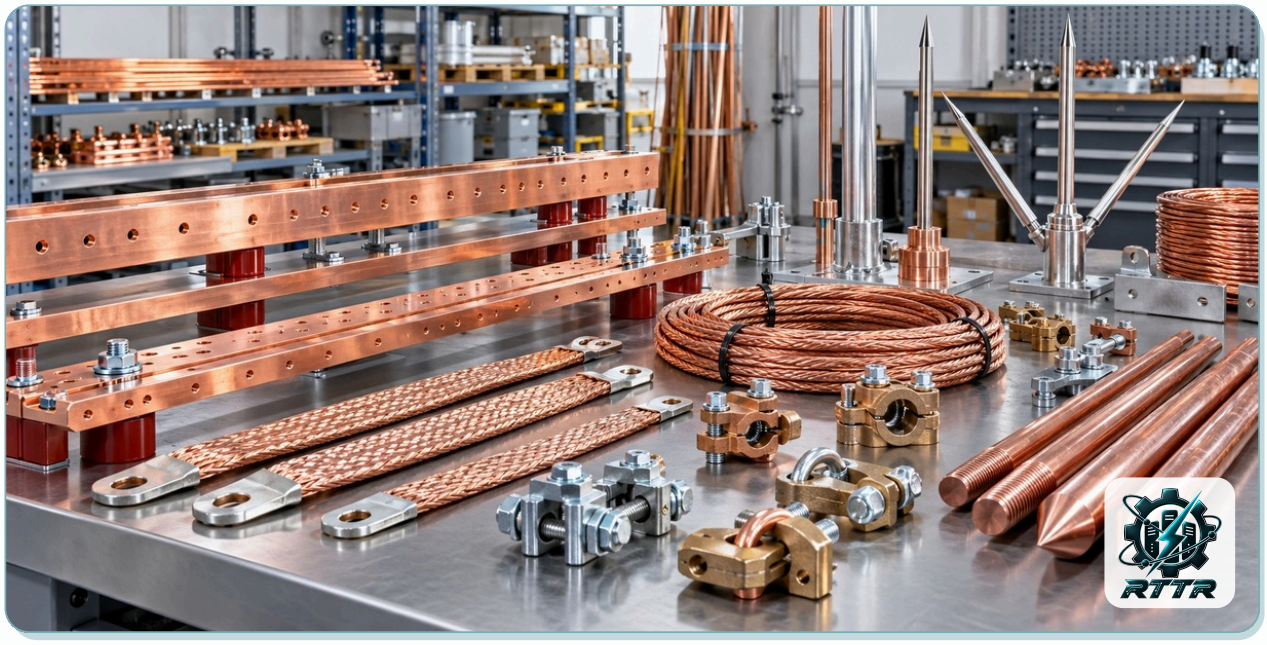
RTTR offers 24/7 maintenance and technical support arrangements for electrical installations, panels and factory power systems. The service can combine preventive maintenance, inspections, fault assessment, corrective work, callout coordination and periodic reporting.

Consultancy, supervision & project control

RTTR provides electrical consultancy, design review, technical supervision and owner-side project support. We review the engineering basis, drawings, equipment submissions and work methods, then follow the installation through inspection, testing and handover.

Power & Energy | Capabilities 4

Services and systems we deliver



Testing, power quality & energy studies • Earthing strategy & site assessment • Soil resistivity & grounding studies • Earth grids, electrodes & bonding

Testing, power quality & energy studies

RTTR provides electrical inspection, testing and performance studies that support design, commissioning, maintenance and remedial decisions. The scope can include load distribution, short-circuit and protection review, voltage drop, power factor, harmonic conditions, phase balancing and energy-consumption analysis.

Earthing strategy & site assessment

A protection system engineered from the actual site. The earthing solution is based on the facility’s actual conditions and can be verified and maintained.

Soil resistivity & grounding studies

RTTR undertakes soil-resistivity testing and grounding-system studies to develop a defensible engineering basis. Field measurements are planned for the site geometry and conditions, then interpreted with the available geotechnical information and electrical-system data.

Earth grids, electrodes & bonding

A continuous network with accessible inspection points. Controlled workmanship and accurate records make the network more dependable and easier to inspect.

Power & Energy | Capabilities 5

Services and systems we deliver



Lightning & surge protection • Earthing installation, testing & handover • Maintenance & corrective improvement • Solar capability & manufacturer partners

Lightning & surge protection

RTTR develops external lightning-protection and internal surge-protection scopes around the facility geometry, exposure, occupancy, incoming services and consequence of damage. The external system and the electrical/data interfaces are reviewed as one coordinated protection arrangement.

Earthing installation, testing & handover

RTTR provides earthing-system installation, inspection and commissioning using approved materials and controlled workmanship. Testing is planned around the network arrangement, connected systems and the purpose of each measurement, with access and isolation coordinated with the facility operator.

Maintenance & corrective improvement

RTTR inspects, tests, troubleshoots and maintains existing earthing and lightning-protection systems. Networks can be affected by corrosion, construction work, damaged conductors, changed equipment and loss of access to test points.

Solar capability & manufacturer partners

Engineering, supply and lifecycle support for the actual energy need. Customers can select an architecture and supply route shaped around their site and operating needs.

Power & Energy | Capabilities 6

Services and systems we deliver



Feasibility, yield & energy economics • PV design & grid-connected systems • Off-grid, storage & hybrid power • Solar procurement, panels & structures

Feasibility, yield & energy economics

RTTR undertakes solar feasibility and site assessment, reviewing electricity consumption, demand pattern, roof or land availability, shading, environmental conditions and grid interfaces. Preliminary capacity is matched to usable space and the operational objectives of the customer.

PV design & grid-connected systems

RTTR develops integrated electrical, mechanical and civil design for solar PV projects at residential, commercial and industrial scales. The scope includes array arrangement, stringing, inverter selection, AC/DC distribution, protection, earthing, structures and the interfaces required for a grid-connected installation.

Off-grid, storage & hybrid power

Generation and autonomy matched to the load. The proposed autonomy and operating strategy are supported by a documented design basis.

Solar procurement, panels & structures

RTTR coordinates solar equipment supply through multiple manufacturer relationships. The scope can include PV modules, inverters, chargers, batteries, monitoring, cables, protection and other balance-of-system components.

Power & Energy | Capabilities 7

Services and systems we deliver



Solar EPC, installation & commissioning • Solar monitoring, O&M & repair • Corrosion-control capability & factory partners • Surveys, assessment & CP design

Solar EPC, installation & commissioning

RTTR provides solar project installation, quality control, testing and handover. Electrical, mechanical and civil work are coordinated through agreed drawings and methods, including structures, modules, cables, inverters, distribution panels, earthing and monitoring interfaces.

Solar monitoring, O&M & repair

RTTR provides solar-system monitoring, preventive maintenance, troubleshooting, repairs and lifecycle support. The work considers generation trends, inverter alarms, equipment condition, cleaning needs, electrical connections, structural condition and the effects of the site environment.

Corrosion-control capability & factory partners

Engineering and direct factory supply for protected assets. The engineering scope and direct factory route remain connected from design through operation.

Surveys, assessment & CP design

RTTR undertakes cathodic-protection surveys and design development for new installations and existing-system improvements. The assessment considers the protected structure, coating condition, electrolyte, electrical continuity, neighbouring infrastructure and the operational information available from the customer.

Power & Energy | Capabilities 8

Services and systems we deliver



Sacrificial-anode systems • Impressed-current protection • Direct factory material supply • Installation, testing & commissioning

Sacrificial-anode systems

Galvanic protection selected for the asset and environment. The customer receives a documented galvanic system with a clear inspection and replacement route.

Impressed-current protection

Controlled DC supply connected to a verified field network. The installed system has a traceable field configuration and operating baseline for ongoing control.

Direct factory material supply

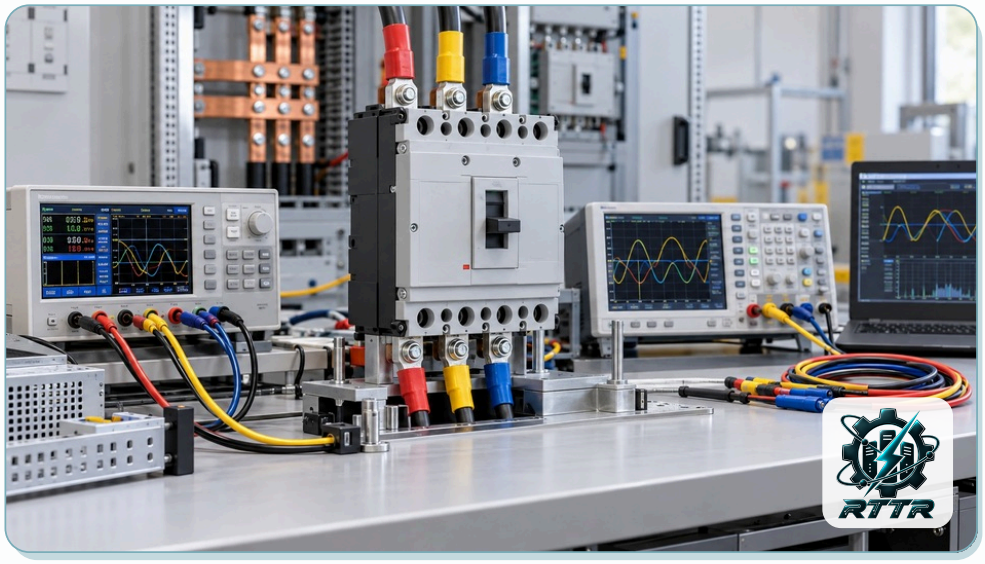
RTTR’s cathodic-protection supply route draws on partnerships with multiple manufacturing factories. Materials and equipment are sourced directly from those manufacturing partners according to the approved project requirements, connecting technical selection with production and delivery coordination.

Installation, testing & commissioning

Connect the design to the asset and measured performance. Measurements and installation evidence establish a defensible baseline for the protected asset.

Power & Energy | Capabilities 9

Services and systems we deliver



Monitoring, troubleshooting & maintenance • UPS installation, commissioning & repair • UPS monitoring installation, integration & repair • UPS batteries, cabinets & battery stands

Monitoring, troubleshooting & maintenance

RTTR provides periodic inspection, monitoring, troubleshooting and maintenance of cathodic-protection systems. Reviews can include field potentials, rectifier output, anode circuits, reference electrodes, cables, test stations, isolation and the conditions of the protected asset.

UPS installation, commissioning & repair

We install, commission, troubleshoot, repair and service UPS systems for data centers, industrial facilities and buildings. The work covers standalone and modular arrangements, electrical interfaces, operating modes and coordinated maintenance planning.

UPS monitoring installation, integration & repair

We install, commission and repair UPS monitoring hardware, communication interfaces and software configurations. Operators receive a verified view of status, alarms and available measurements through the agreed monitoring platform.

UPS batteries, cabinets & battery stands

We supply, install and commission UPS batteries and suitable battery stands or cabinets. Battery selection and replacement are coordinated with the UPS, duty, required autonomy, charger settings and site conditions.

Power & Energy | Capabilities 10

Services and systems we deliver



UPS battery monitoring systems • Diesel generator installation, repair & servicing • Fuel systems & filtration packages • ATS panel design, fabrication & lifecycle service

UPS battery monitoring systems

We supply, install and commission battery monitoring systems for supported UPS battery arrangements. String and block-level condition data, trends and alarms help the operator identify developing issues and plan maintenance.

Diesel generator installation, repair & servicing

We install, commission, service, troubleshoot and repair diesel generators for critical and industrial facilities. Mechanical, electrical and control interfaces are coordinated with the site operating arrangement.

Fuel systems & filtration packages

We design, supply, install and commission diesel fuel systems and filtration packages. Tank arrangements, fuel transfer, filtration, controls and monitoring are engineered as one coordinated generator-support system.

ATS panel design, fabrication & lifecycle service

We design, supply, fabricate, install and commission automatic transfer switch panels, and provide their servicing, troubleshooting and repair. The panel design is coordinated with sources, loads, protection, generator controls and the required transfer philosophy.

Power & Energy | Capabilities 11

Services and systems we deliver



EMS design, supply, installation & monitoring • Water leak detection systems • Rodent & insect deterrent systems

EMS design, supply, installation & monitoring

We deliver Environmental Monitoring Systems (EMS) and their monitoring platforms for critical rooms and facilities. Sensors, controllers, gateways, alarms and dashboards are coordinated with the actual operational requirement.

Water leak detection systems

We design, supply, install and commission water leak detection systems, and provide their servicing and repair. Detection routes, zones and alarms are designed around the actual water sources and the assets requiring protection.

Rodent & insect deterrent systems

We design, supply, install and commission specified rodent and insect deterrent systems for technical facilities. The selected solution is reviewed for target species, coverage, operating conditions and compatibility with the protected environment.

ICT, Security & Smart Systems

Department capability overview



CAPABILITY INDEX

ICT, Security & Smart Systems

01 **Network strategy, topology & detailed design**

02 **Copper cabling, racks & cable management**

03 **Fiber-optic backbones & optical topology**

04 **LAN, WAN, Wi-Fi & network configuration**

05 **Industrial & data-center network infrastructure**

06 **Supply, installation & network commissioning**

07 **Testing, troubleshooting & maintenance**

ICT, Security & Smart Systems | Capabilities 1

Services and systems we deliver



Network strategy, topology & detailed design • Copper cabling, racks & cable management • Fiber-optic backbones & optical topology • LAN, WAN, Wi-Fi & network configuration

Network strategy, topology & detailed design

RTTR designs network architectures for homes, offices, campuses, industrial facilities and data centers. We translate users, applications, device populations, traffic and availability requirements into a practical topology and a coordinated physical infrastructure.

Copper cabling, racks & cable management

We supply and install structured copper cabling, outlets, patch panels, patch cords and communication cabinets. The design connects the user outlet with the telecommunications room through approved pathways and a consistent identification system.

Fiber-optic backbones & optical topology

RTTR develops fiber infrastructure for building, campus, industrial and data-center connectivity. We design the optical topology around distance, capacity, resilience, endpoint equipment and route constraints, then supply, install, splice, terminate and test the approved links.

LAN, WAN, Wi-Fi & network configuration

We supply and configure active network equipment for the approved connectivity requirement. Switching, routing, wireless coverage, IP addressing and network segmentation are coordinated with the physical installation and customer IT policies.

ICT, Security & Smart Systems | Capabilities 2

Services and systems we deliver



Industrial & data-center network infrastructure • Supply, installation & network commissioning • Testing, troubleshooting & maintenance • Security planning, surveys & camera design

Industrial & data-center network infrastructure

RTTR coordinates industrial and mission-critical connectivity with the actual site and operating constraints. The scope can include rugged physical routes, control-room links, high-density rack interconnects, separate network zones and diverse pathways.

Supply, installation & network commissioning

We bring approved network designs into the field through equipment procurement, cable installation, termination, configuration and commissioning. Technical submissions, delivery inspections and installation checkpoints keep supplied materials connected to the approved design.

Testing, troubleshooting & maintenance

RTTR tests network cabling and operating connectivity, diagnoses faults and maintains the installed infrastructure. Work can include copper certification, fiber loss/OTDR testing, port mapping, link repair, cabinet reorganization and active-network investigation.

Security planning, surveys & camera design

CCTV is a major RTTR capability. We develop surveillance plans for residential, commercial, industrial and critical facilities, beginning with the security objective and the operator’s use of the evidence.

ICT, Security & Smart Systems | Capabilities 3

Services and systems we deliver



Camera families & equipment supply • Residential & commercial CCTV installation • Industrial & critical-facility surveillance • VMS, NVR, recording & software configuration

Camera families & equipment supply

We supply and implement fixed IP cameras, dome/turret/bullet units, PTZ cameras and project-appropriate specialist devices. Selection covers domestic installations and demanding industrial settings, with the lens, sensor performance, lighting, housing, mounting and environmental duty reviewed against the scene.

Residential & commercial CCTV installation

RTTR installs and commissions surveillance for homes, offices, shops, hospitality and shared premises. We coordinate camera placement, discreet routing, device power, networking, recording and the agreed user viewing arrangement.

Industrial & critical-facility surveillance

We engineer CCTV for factories, warehouses, utilities, external yards and critical infrastructure. The work considers long viewing distances, variable light, dust/weather exposure, difficult mounting locations and operational continuity.

VMS, NVR, recording & software configuration

RTTR configures video-management software, recorders, storage and operating workstations as one coordinated platform. We set up cameras, channels, recording profiles, users, permissions, alarms, search and evidence export against the customer’s operating plan.

ICT, Security & Smart Systems | Capabilities 4

Services and systems we deliver



Video analytics & integrated security monitoring • CCTV diagnostics, repair & lifecycle maintenance • Security zoning, permissions & system design • Readers, doors & BioStar configuration

Video analytics & integrated security monitoring

We configure project-appropriate analytics and security-event workflows, including detection rules, alarm presentation and links to access-control events where the supported integration permits. Analytics are tuned to the actual camera scene and operating objective.

CCTV diagnostics, repair & lifecycle maintenance

RTTR maintains and troubleshoots cameras, recording systems, software, storage, cabling and network interfaces. Investigations distinguish image/scene problems from power, connectivity, recording, storage and configuration faults.

Security zoning, permissions & system design

We design building and room access around the customer’s security levels, authorized users, operating times and emergency interfaces. The design connects credentials, controllers, readers, locking hardware and central software with a clear access matrix.

Readers, doors & BioStar configuration

RTTR supplies, installs and configures complete access-control systems, including readers, controllers, locking interfaces, networking and management software. Suprema/BioStar platforms referenced on our site support the access-management scope.

ICT, Security & Smart Systems | Capabilities 5

Services and systems we deliver



Credentials & combined access policies • Rack-level access architecture • Rack credentials, locks & combined monitoring • CCTV, visitor & security-system integration

Credentials & combined access policies

We implement project-appropriate access methods using face, fingerprint, RFID card, PIN and other supported credentials. Credential combinations and authorization policies are defined for the selected equipment and software, rather than assumed to be available on every device.

Rack-level access architecture

RTTR designs, supplies and installs rack-access solutions for data centers and technical rooms. Cabinet ownership, tenant separation, front/rear door arrangements, credential policy, door-state monitoring and central event management are coordinated within the rack security architecture.

Rack credentials, locks & combined monitoring

Our rack solutions can use face, fingerprint, RFID, manual PIN and mechanical-key access through the selected hardware arrangement. Combined authentication and cabinet permissions are configured where supported.

CCTV, visitor & security-system integration

We connect access events with video and visitor workflows where the selected platforms provide supported integration. This can give an operator the relevant camera context for a door or rack event, relate a visitor approval to a permission window and retain a consistent operational trail.

ICT, Security & Smart Systems | Capabilities 6

Services and systems we deliver



Installation, repair & 24/7 access support • Smart homes & connected building controls • BMS, Niagara & system integration • Monitoring, automation & lifecycle care

Installation, repair & 24/7 access support

RTTR installs, commissions, troubleshoots, repairs and maintains building and rack access systems. Support covers readers, locks, controllers, door sensors, cables, networks, software and the relevant database/ backup condition.

Smart homes & connected building controls

We design and implement connected control solutions for residential and commercial environments. Lighting, shades, climate, monitoring and supported security interfaces are developed around the customer's daily use, preferred control method and equipment ecosystem.

BMS, Niagara & system integration

RTTR integrates building and technical systems through the project-approved controls and management architecture. Niagara Framework, Sunbird DCIM and BMS platforms referenced on our site provide context for the connected facility scope.

Monitoring, automation & lifecycle care

We provide monitoring and automation work packages that connect sensors, meters, controllers, networks and management interfaces. Site verification ensures that the displayed data reflects the actual device and operating condition.

ICT, Security & Smart Systems | Capabilities 7

Services and systems we deliver



Requirements, workflow & product design • Custom web, mobile & operational software • AI-enabled & customer-specific intelligence • Databases, APIs & integration

Requirements, workflow & product design

RTTR develops custom applications around the customer's actual work. We start with users, decisions, inputs, approvals, calculations and reporting needs, then define the product workflow and interface.

Custom web, mobile & operational software

We build customer-specific software for business, household, industrial and data-center applications. Web and mobile interfaces, databases, management dashboards, approvals and reporting are developed to the agreed requirement.

AI-enabled & customer-specific intelligence

RTTR can develop AI-enabled applications and analytics layers tailored to the customer's data and work objective. The scope may include assisted analysis, event prioritization, document workflows or operational insights where the use case is suitable.

Databases, APIs & integration

We connect custom applications with approved data sources and third-party systems through the supported interface route. Integration starts with data meaning, ownership, identifiers, permissions and synchronization requirements.

ICT, Security & Smart Systems | Capabilities 8

Services and systems we deliver



Roles, dashboards & management workflows • Testing, deployment & application maintenance • CHD cabinet-lock products & credentials • IMS9 software, monitoring & audit

Roles, dashboards & management workflows

RTTR builds role-based operational tools that connect data entry with approval, action and reporting. A dashboard can summarize budget, maintenance, visitor, project or vehicle records, but the underlying workflow defines who creates, verifies, approves and closes each item.

Testing, deployment & application maintenance

We validate applications through agreed functional tests, user acceptance and the relevant data/access checks before release. Deployment connects the application, database, configuration and operating environment with a defined backup and support route.

CHD cabinet-lock products & credentials

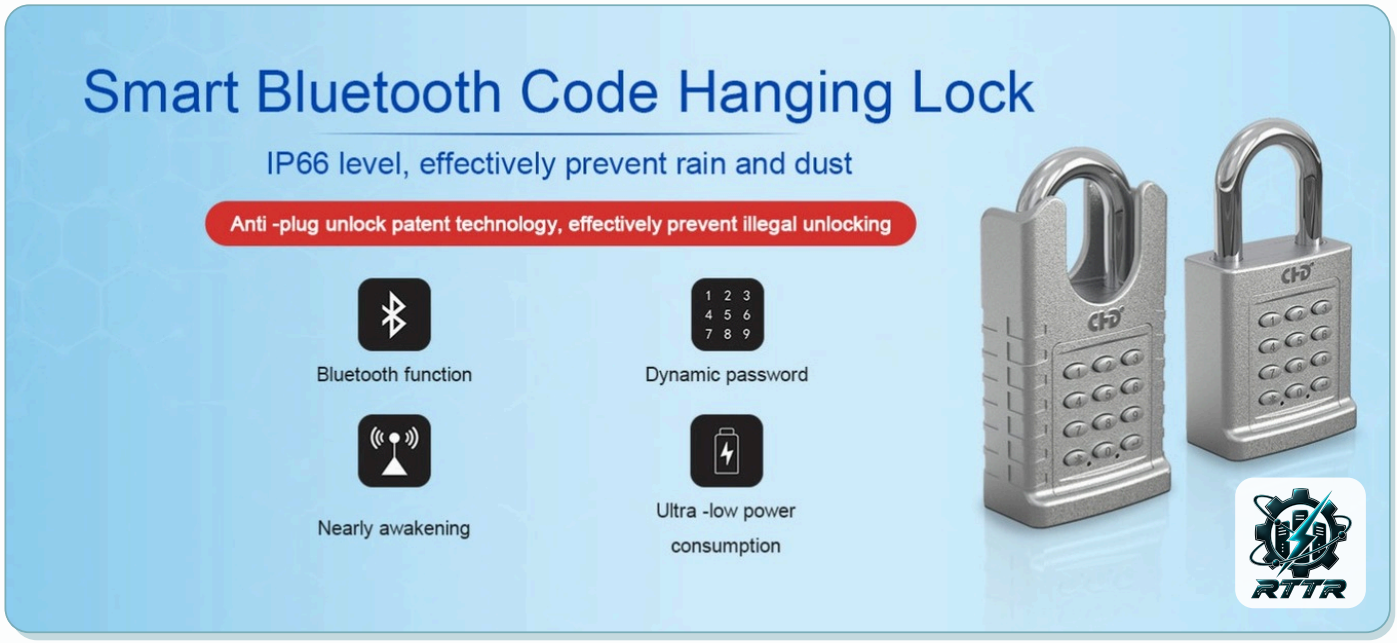
RTTR supplies CHD by Newabel rack-access solutions. The CHD2100 cabinet-lock family provides electronic access at the cabinet itself.

IMS9 software, monitoring & audit

Rack access control includes management software as well as locks. RTTR provides the compatible CHD IMS9 management platform as part of the selected solution, including installation, database setup, user enrollment, device mapping and permissions.

ICT, Security & Smart Systems | Capabilities 9

Services and systems we deliver



Rack security deployment & 24/7 service

Rack security deployment & 24/7 service

RTTR delivers the complete rack-security package: consultancy, design, supervision, supply, installation, software configuration, commissioning and testing, followed by maintenance, diagnosis, repair and contracted 24/7 service. We combine cabinet hardware, credentials and software into a tested system with a clear cabinet-to-user permission matrix.

Mechanical & Cooling

Department capability overview



CAPABILITY INDEX

Mechanical & Cooling

01 **CRAH, CRAC & InRow precision cooling**

02 **Hot / cold aisles & containment**

03 **AHU, FCU, air distribution & ventilation**

04 **Chiller plants, industrial cooling & refrigeration**

05 **Water piping, insulation & plumbing networks**

06 **Manual valves, actuators & control valves**

07 **Pumps, motors & variable-speed drives**

Mechanical & Cooling | Capabilities 1

Services and systems we deliver



CRAH, CRAC & InRow precision cooling • Hot / cold aisles & containment • AHU, FCU, air distribution & ventilation • Chiller plants, industrial cooling & refrigeration

CRAH, CRAC & InRow precision cooling

RTTR supports large data centers and industrial facilities with equipment selection, supply, installation, commissioning, fault diagnosis, repair and continuous maintenance. CRAH solutions use chilled-water coils; CRAC solutions are commonly based on direct expansion.

Hot / cold aisles & containment

We design, supply and install hot-aisle and cold-aisle containment around the actual rack layout. Roofs, end doors, blanking panels, cable openings and floor/overhead air routes are coordinated to reduce mixing and improve useful cooling delivery.

AHU, FCU, air distribution & ventilation

Our air-side scope covers air handling units, fan coil units, fans, filters, coils, ducts, dampers, grilles and diffusers for buildings and plants. We calculate and coordinate fresh air, extract, cooling and distribution around occupancy, process conditions and maintenance needs.

Chiller plants, industrial cooling & refrigeration

RTTR delivers chilled-water plants and industrial cooling packages with coordinated heat rejection, pumping and controls. The scope also includes commercial air-conditioning and cold-room refrigeration, using the selected refrigerant system, insulated enclosure, evaporators and temperature controls.

Mechanical & Cooling | Capabilities 2

Services and systems we deliver



Water piping, insulation & plumbing networks • Manual valves, actuators & control valves • Pumps, motors & variable-speed drives • Pressurization, expansion & heat exchangers

Water piping, insulation & plumbing networks

We design, supply, fabricate and install chilled-water, hot/cold water and industrial utility pipework. Pipe material, diameter, joining method, pressure rating and insulation are selected for the actual fluid, temperature and duty.

Manual valves, actuators & control valves

RTTR provides manual isolation valves, check valves, balancing valves, strainers and electrically actuated control valves as part of the engineered water system. Selection reviews pressure/temperature duty, valve authority, flow requirement, installation orientation and maintainability.

Pumps, motors & variable-speed drives

We select, supply, install, commission and maintain circulation, transfer and booster pumping systems. Duty and standby arrangements are coordinated with the hydraulic network and required service continuity.

Pressurization, expansion & heat exchangers

Our hydronic scope includes pressurization/ top-up packages, expansion vessels, air separation and plate or other specified heat exchangers. These components are coordinated to support the water circuit’s pressure condition, thermal expansion and energy transfer.

Mechanical & Cooling | Capabilities 3

Services and systems we deliver



Expansion vessels & automatic pressurization • HMI, BMS & mechanical plant monitoring • Gauges, sensors & field instrumentation • Sequences, staging, interlocks & failover

Expansion vessels & automatic pressurization

RTTR provides a dedicated scope for expansion and pressurization systems rather than treating them as an incidental pump accessory. We assess the water circuit and coordinate vessel capacity, top-up duty, pressure settings, alarms and isolation.

HMI, BMS & mechanical plant monitoring

We connect mechanical equipment to practical operator interfaces and building management systems. The scope covers controller and panel coordination, point mapping, HMI screens, trends, alarms, approved control logic and integration with the site platform.

Gauges, sensors & field instrumentation

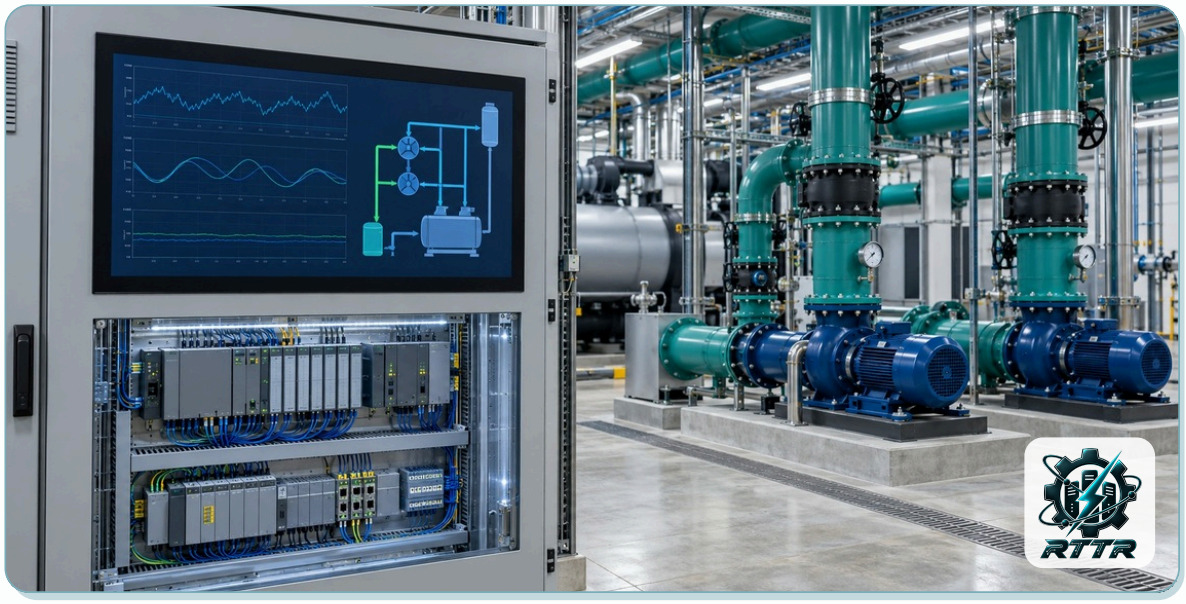
RTTR supplies, installs, tests and maintains temperature, pressure, differential-pressure, humidity and specified flow instruments. Sensor locations, ranges, signal type and access are selected for the measurement objective and control sequence.

Sequences, staging, interlocks & failover

We develop and implement approved mechanical operating sequences for chillers, pumps, valves, fans and cooling units. Lead/lag, duty/standby rotation, permissives, start/stop logic and alarm responses are reviewed with equipment suppliers and the operating team.

Mechanical & Cooling | Capabilities 4

Services and systems we deliver



Performance review & energy optimization • Consultancy, design & coordinated engineering • Supervision, installation, testing & handover • Fault diagnosis, repairs & mechanical overhaul

Performance review & energy optimization

RTTR reviews cooling and hydraulic performance using measured operating data. We investigate temperatures, flow, pressure, valve position, fan/pump speed and load response to identify mismatches, poor balancing and unnecessary energy use.

Consultancy, design & coordinated engineering

Our engineering scope turns the customer's operational requirement into a coordinated mechanical package. We prepare surveys, load and hydraulic reviews, system options, equipment schedules, piping/air-side layouts, specifications and BOQ.

Supervision, installation, testing & handover

RTTR can supervise contractor delivery or provide supply and installation within the agreed work package. Material approvals, incoming inspections, installation checkpoints and test plans link the supplied equipment to the approved design.

Fault diagnosis, repairs & mechanical overhaul

We investigate mechanical faults using symptoms, operating records and field measurements before proposing repair. The scope covers pumps, motors, bearings, seals, valves, actuators, cooling units, coils, fans, piping leaks and related controls.

Mechanical & Cooling | Capabilities 5

Services and systems we deliver



24/7 AMC & preventive maintenance • Home split systems: design, supply & repair • Home cooling optimization & smart control • Domestic water pumps & solar-powered pumping

24/7 AMC & preventive maintenance

RTTR provides preventive and corrective mechanical maintenance for data centers, industrial plants and facilities, with 24/7 support under an agreed service contract. Asset coverage, visit frequency, response/escalation, site attendance, spare responsibilities and exclusions are defined before mobilization.

Home split systems: design, supply & repair

RTTR provides residential split and ducted air-conditioning services from room-by-room assessment to equipment supply, installation and aftercare. We review cooling demand, unit location, outdoor airflow, pipe route, drainage, electrical supply and service access.

Home cooling optimization & smart control

We improve residential cooling through condition review, appropriate sizing, airflow correction, settings and compatible smart controls. Smart thermostats, manufacturer gateways or supported interfaces can provide scheduling, zone control and remote operation according to the selected equipment.

Domestic water pumps & solar-powered pumping

RTTR covers domestic transfer and booster pumps, circulation pumps and suitable submersible or solar-powered water-pumping packages. Selection is based on the water source, demand, head, storage and operating conditions.

Marine Services

Five distinct engineering capabilities



CAPABILITY INDEX

Marine Services

01 **Marine Communication**

02 **Marine Navigation**

03 **E-Navigation**

04 **Automation & Engine Support**

05 **VTS & Port Traffic**

Marine Communication

Radio, satellite, distress and onboard communications engineered as one coordinated system



VHF/UHF, MF/HF and DSC radios • GMDSS, EPIRB, SART and SSAS interfaces • Inmarsat-C, Iridium and FleetBroadband • NAVTEX and LRIT support • PABX, intercom, talkback and public address • TVRO, antennas, power and cabling

RTTR designs, supplies, installs and supports vessel and shore-side communication systems. The scope starts with the vessel type, operating area, existing equipment, antenna arrangement and required interfaces. We coordinate the communication architecture, power, cabling, configuration and acceptance checks, then provide maintenance, troubleshooting, repair and contracted 24/7 support. Equipment and subscriptions are selected for the actual operating requirement; statutory survey and certification remain with the authorized parties.

Scope & delivery

Survey & engineering: Record vessel particulars, operating requirements, existing equipment, frequency/service permissions, power arrangement and installation constraints. Issue an equipment list, block diagram, antenna/cable layout and responsibility matrix.

Supply & onboard execution: Review the approved equipment, accessories and spares. Install supports, cables, terminals and antennas; inspect segregation, bonding, labeling and weather sealing. Configure permitted identities and interfaces with the customer and service provider.

Testing & commissioning: Check power and changeover, radio audio, internal call paths, satellite connectivity and the scoped safety/monitoring interfaces using approved test modes. Document observations and coordinate acceptance with the operator and authorized survey party where required.

Maintenance, fault finding & repair: Inspect corrosion, cables, antennas, connectors and backup supplies. Diagnose RF, power, network and configuration faults; repair or replace approved parts and re-test. Maintain service records, equipment data and an escalation/spares plan under the agreed AMC.

Marine Communication

Radio, satellite, distress and onboard communications engineered as one coordinated system | continued



Project outputs

System architecture; equipment and antenna schedules; cable drawings; approved configuration records; functional test sheets; defect closure; as-builts; operator guidance and AMC plan.

Marine Navigation

Bridge equipment, sensors and interfaces aligned for dependable navigation



X-band, S-band and solid-state radar • AIS, GPS/DGPS and navigation receivers • ECDIS, multifunction and conning displays • Autopilot, steering interfaces and BNWAS • Gyro, satellite and magnetic compasses • Echo sounder, sonar, speed log and VDR/S-VDR

RTTR provides design, consultancy, supervision, supply, installation and lifecycle support for marine navigation equipment. We coordinate the bridge arrangement, sensor sources, power, data interfaces and operator functions for new installations, replacements and upgrades. Testing follows the actual equipment and approved operating procedures; calibration and sea-acceptance activities are coordinated with the vessel operator and appropriate specialist where required.

Scope & delivery

Assess & design: Survey the bridge, mast and sensor arrangement. Define functions, available interfaces, load and cabling, redundancy where required, equipment compatibility and a controlled replacement plan.

Supply & integrate: Supply approved equipment, supports, cables and interface devices. Coordinate installation drawings, power protection and data-source mapping. Configure the selected units and document the agreed settings.

Test & hand over: Verify sensor validity, heading/position/depth indications, alarms and recording interfaces. Coordinate harbor or sea trials only when included and approved. Close installation defects and hand over configuration backups, drawings and test results.

Service & restore: Troubleshoot power supplies, processors, displays, cables and data interfaces. Plan periodic inspection and calibration support, repair approved components and verify restored operation. Arrange 24/7 technical response and field attendance within the contracted coverage.

Project outputs

Bridge architecture; sensor/interface schedule; equipment and cable layouts; approved settings; harbor/sea acceptance records where scoped; backups; as-builts and maintenance references.

E-Navigation

Official charts, publications and digital voyage tools with a controlled update workflow



Official electronic navigational charts (ENC) • Digital nautical publications and subscriptions • Voyage planning and route optimization tools • ECDIS data and software integration • Chart permits, updates and version records • Bridge data connectivity and technical support

RTTR supports electronic navigation through specification, supply coordination, system integration, configuration, update management and technical assistance. We connect chart and publication requirements with the installed ECDIS, operating area, subscriptions and crew workflow. Official data is obtained through the appropriate authorized supply channel. Hardware compatibility, licenses, service terms and backup arrangements are confirmed before a digital-navigation scope is released.

Scope & delivery

Define the digital requirement: Review routes, operating area, existing ECDIS models, chart sources and crew workflow. Identify data formats, coverage, license periods, update paths and supported integration.

Supply, install & configure: Coordinate authorized chart/publication supply and approved software/services. Install permits and datasets, configure user roles and exchange interfaces, and retain licensed-system and version records.

Validate & train: Check coverage and update status, data loading, route exchange, backup restoration and defined alarm/interface functions. Provide operating guidance for the selected system; approved navigation training is arranged separately where required.

Maintain & troubleshoot: Manage subscription renewal and update coordination, investigate permit/data/configuration issues and coordinate supplier repair or software support. Maintain a clear escalation route and audit trail under the agreed support arrangement.

Project outputs

Coverage and subscription schedule; permit/update register; integration and configuration records; data-loading checks; backup procedure; operator guidance and technical support contacts.

Automation & Engine Support

Control, monitoring, panels and machinery support coordinated for the vessel



Alarm monitoring, PLC/HMI and control panels • Fire/gas and emergency-system interfaces • Pumps, valves, tank levels and steering control • Loading-computer and vessel-management interfaces • Main and auxiliary engine component supply • Propulsion spares, diagnostics and service support

RTTR provides engineering, supply, installation, commissioning, maintenance and repair for marine automation and machinery interfaces. Our scope covers alarm monitoring, pump and valve control, tank gauging, safety interfaces, vessel management and selected engine/propulsion components. The actual machinery, manufacturer documentation and vessel operating procedures determine the approved configuration, repair method and acceptance tests.

Scope & delivery

Engineer the function: Survey the machinery/control system and identify operating sequences, protective functions, interfaces, panels, signals and critical spares. Agree a repair or upgrade scope and approved test method before execution.

Supply, build & install: Coordinate compliant parts and panels, fabrication, wiring, equipment installation and field connections. Keep component traceability, cable labels, configuration backups and inspection records.

Commission & verify: Test I/O, alarm thresholds, sequence logic, interlocks and the agreed manual/automatic modes using controlled simulation where appropriate. Equipment movement and shutdown tests require approved conditions; close defects before operational handover.

Repair, maintain & support: Diagnose sensors, actuators, wiring, modules, panels and machinery symptoms. Undertake the agreed repair, overhaul or replacement and repeat verification. Preventive schedules, spares and contracted 24/7 response maintain a practical route from alarm to corrective action.

Project outputs

I/O and alarm lists; panel/control drawings; cause-and-effect or sequence records; parts identification; programming backups; test results; repair reports; as-builts and AMC schedule.

VTS & Port Traffic

Radar, AIS, radio and coastal sensors connected to an operator-focused platform



Radar surveillance and coastal sensor integration • AIS, VHF radio and direction finding • Electro-optical and coastal monitoring • Meteorological and hydrological sensing • Servers, databases, recording and HMI • External information exchange and lifecycle support

RTTR engineers and integrates VTS technology for ports, approaches, coastal facilities and maritime traffic monitoring projects. We connect surveillance sensors, communications, networks, servers, recording and operator interfaces around an agreed coverage and operating concept. The technical delivery supports the competent authority and port operator; it does not replace their responsibility to establish, authorize or operate a statutory VTS service.

Scope & delivery

Study & concept: Gather port limits, traffic patterns, sensor locations and operational needs. Assess coverage, interfaces, communications, power and authority responsibilities; issue the technical concept, equipment schedule and delivery boundaries.

Supply & site execution: Coordinate sensors, consoles, servers, communications and accessories. Install field infrastructure, protect outdoor equipment, configure networks and integrate approved feeds with traceable settings and interface records.

FAT, SAT & operational handover: Develop test cases for feeds, display correlation, recording, alarm handling, data exchange and backup/failover where included. Conduct factory/site acceptance as scoped, document measured coverage and close defects with the operator.

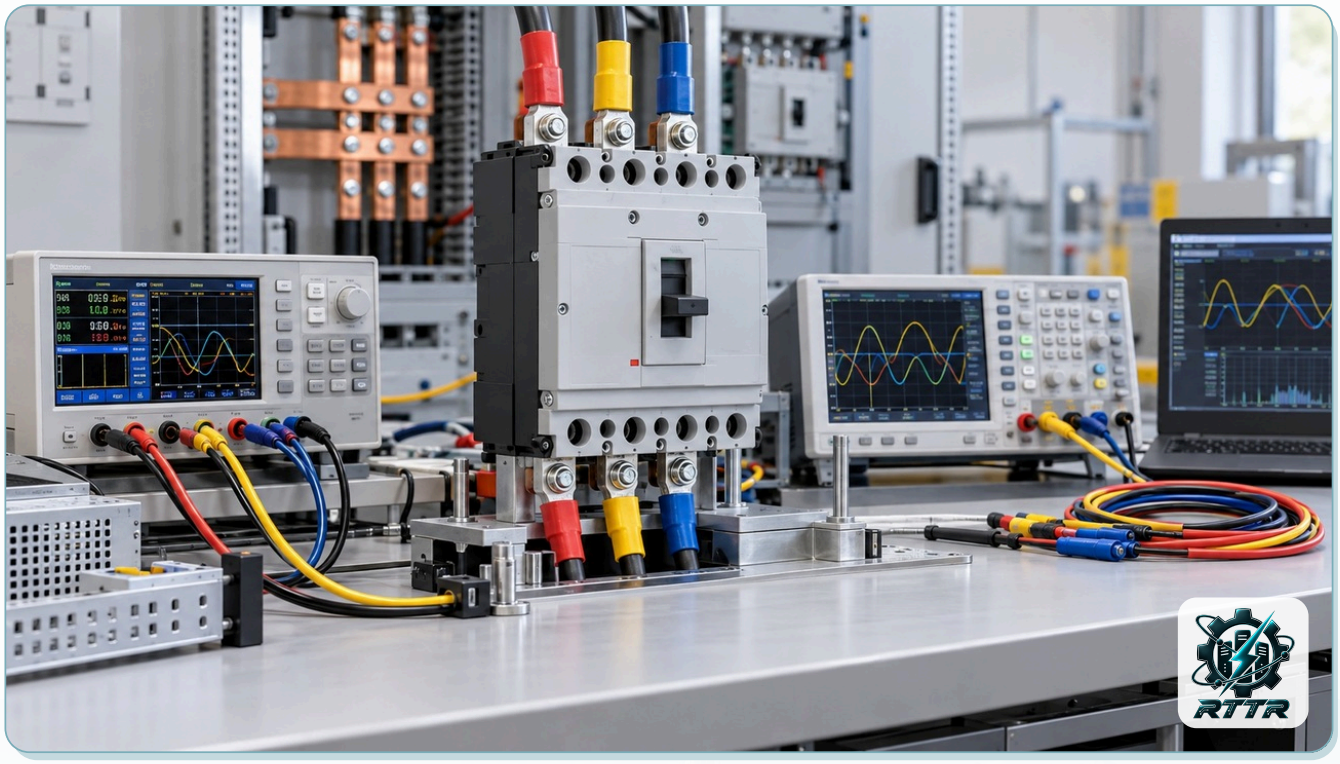
AMC, diagnostics & restoration: Inspect outdoor sensors and remote links, review platform health, clean/protect equipment and maintain configuration backups. Diagnose faults across sensors, communications and software; repair, re-test and escalate through the agreed 24/7 support arrangement.

Project outputs

Coverage assessment; system/network architecture; sensor schedules; interface and access matrix; FAT/SAT records; measured-performance report; backups; as-builts and maintenance plan.

Technical Training

Practical knowledge transfer for operating teams



Data center operations • Electrical safety & power • BMS / DCIM / controls • Testing & commissioning • Client-specific workshops

Training is aligned with real engineering systems, safe working methods and the operator's responsibilities. Classroom sessions, technical workshops, university seminars and project-specific handover training can combine practical examples, structured material, system demonstrations and competency checks appropriate to the agreed course.

Selected delivery footprint

Reference counts from the previous company profile

140 Data center projects

12 DCIM projects

6 Electrical projects in Oman

1 24/7 data center AMC

10 CCTV & access projects

20 Mechanical projects

Selected experience indicators retained from the previous company profile. Categories have different scopes and are not added to produce the total project count.

Technology ecosystem & delivery partners

Partners and platforms selected for the actual requirement

Sunbird DCIM

HD Hyundai Electric

Group of GoldLine

APT

Tavan Sarma Group

Tridium Niagara

CHD by Newabel

Al Hassan LLC

Our data center ecosystem includes HD Hyundai Electric, Sunbird DCIM, Group of GoldLine, Active Processing Technology FZE (APT), Tavan Sarma Group, Tridium Niagara and CHD by Newabel. Specialist manufacturing and technical partnerships also support electrical, solar, earthing and cathodic-protection scopes. The proposed equipment, integration route and partner responsibilities are defined for each assignment.

Four Connected Service Areas

One coordinated scope from requirement to operating support



We turn business and operational requirements into applications, connected workflows and intelligent assistants. Each scope is agreed around users, existing systems, data and the required outcomes.

Custom Business Applications

Applications designed around your team, approvals, records and reporting — from requirements and software selection to development, integration, deployment and support.

AI Business Automation

Connect routine business steps, documents and data so your team can spend less time on repeated administration and more time on the work that needs their judgement.

AI Assistants & Smart Chatbots

Business assistants built around approved company information, helping customers and employees find answers, submit enquiries and reach the right person.

Managed Hosting & Data Services

Plan the hosting and data environment around the application: deployment, databases, access control, backup and operational support sized to the agreed business requirements.

Custom Business Applications

Applications designed around your team, approvals, records and reporting — from requirements and software selection to development, integration, deployment and support.



Service scope

- Business requirements & process mapping
- Application architecture & interface design
- Software selection, licensing & supply
- Web applications & mobile-friendly interfaces
- Roles, permissions & approval workflows
- Database design & system integration
- Testing, deployment & user training
- Maintenance, enhancements & ongoing support

From requirements to a working application

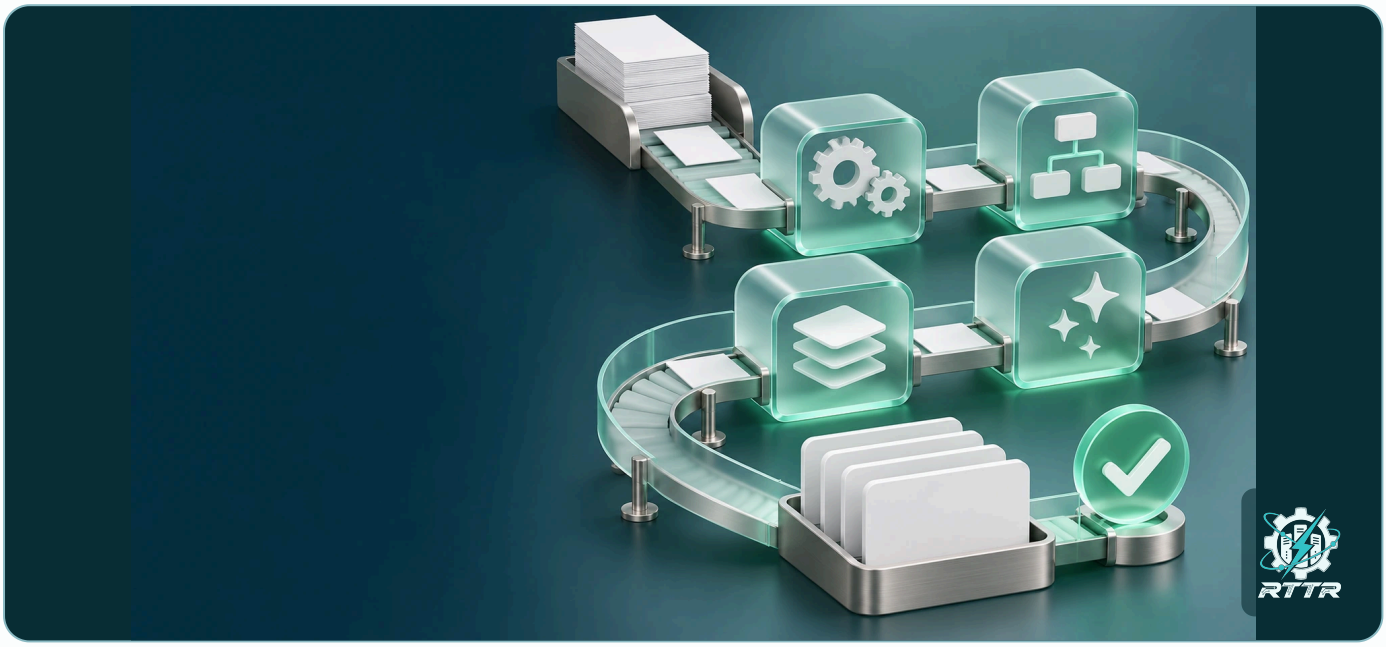
We define screens, user roles, records, approval rules and reports before development. The agreed solution can use selected software, a custom application or a coordinated combination. Testing, deployment and user training form part of the handover scope.

Typical Project Outputs

Agreed requirements, interface design, configured application, test records and user guidance.

AI Business Automation

Connect routine business steps, documents and data so your team can spend less time on repeated administration and more time on the work that needs their judgement.



Service scope

- Workflow assessment & automation planning
- Document intake, extraction & classification
- Quotation, invoice & reporting workflows
- Task routing, approvals & reminders
- Email and business-system integration
- AI-assisted knowledge search & summaries
- Management dashboards & exception reporting
- Human review, testing & performance evaluation

A controlled workflow with human review

Typical opportunities include document intake, field extraction, request routing, approvals, reminders and draft reporting. These are illustrative use cases assessed against your existing systems. AI output is evaluated with representative information; exceptions and important decisions are routed to authorised people.

Typical Project Outputs

Workflow definition, integration settings, exception rules and a tested handover procedure.

AI Assistants & Smart Chatbots

Business assistants built around approved company information, helping customers and employees find answers, submit enquiries and reach the right person.



Service scope

- Website customer-service assistants
- English & Arabic conversational interfaces
- Company knowledge-base assistants
- Product and service enquiry capture
- WhatsApp business integration where supported
- Lead qualification & human handover
- Access permissions & knowledge updates
- Conversation testing, monitoring & support

Approved knowledge. Clear handover.

An assistant can explain services, collect an enquiry or help staff search approved company information. We define knowledge sources, permissions, language journeys and the handover to a human team. Conversation testing and knowledge updates are included in the agreed service scope.

Typical Project Outputs

Approved knowledge sources, conversation flows, handover rules and an update procedure.

Managed Hosting & Data Services

Plan the hosting and data environment around the application: deployment, databases, access control, backup and operational support sized to the agreed business requirements.



Service scope

- Hosting assessment & environment selection
- Application deployment & configuration
- Database setup, migration & administration
- Domain, SSL & application access setup
- Backup & recovery procedures
- Availability and application-health monitoring
- Updates, maintenance & technical support
- Capacity review & service improvement

An operating environment matched to the application

We plan deployment, databases and access alongside application requirements. Configuration records, backup and recovery procedures, monitoring and updates are defined with the client. Hosting resources and support coverage are selected to match the agreed operating scope.

Typical Project Outputs

Environment configuration, access records, backup procedures and operating guidance.

Our Engineering Applications

Application-development experience in critical-facility operations



Applications developed by RTTR

Data Center Infrastructure Application

Infrastructure records, equipment information and technical follow-up

Data Center Monitoring Application

Monitoring views, operating readings and management reporting

Data Center Visitor Management

Visitor registration, visit records and access coordination

AMC & Maintenance Management

Maintenance schedules, service tasks and follow-up records

These areas describe our application-development experience. Functions, interfaces and integrations are specified individually for each customer.

Our Business Applications

Application-development experience beyond infrastructure



Applications developed by RTTR

Project Management Applications

Project tasks, progress follow-up and reporting

Finance & Expense Management

Business financial records and household budget tracking

Vehicle Management Application

Vehicle expenses, service history and repair tracking

These areas describe our application-development experience. Functions, interfaces and integrations are specified individually for each customer.

From Idea to Operation

A clear delivery process with documented responsibilities



01 **Discover & Define**
Users, business rules, records, existing systems and acceptance criteria.

02 **Design & Scope**
Interfaces, data structure, permissions, integrations and project deliverables.

03 **Build & Integrate**
Software supply, configuration, development and agreed connections.

04 **Test & Train**
Functional checks, user acceptance, guidance and team training.

05 **Deploy & Support**
Release, handover records, maintenance and agreed technical support.

Define your project with RTTR

Muscat, Sultanate of Oman



Start with a clear requirement

Send the site or vessel location, equipment list, drawings, operating conditions, required functions and target dates. For service requests, include nameplates, symptoms, history and the required maintenance coverage. We will define the engineering, equipment and delivery scope with you.

Contact

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