

# Moxa Remote Connect Suite

*Remote connection management platforms for secure remote access*



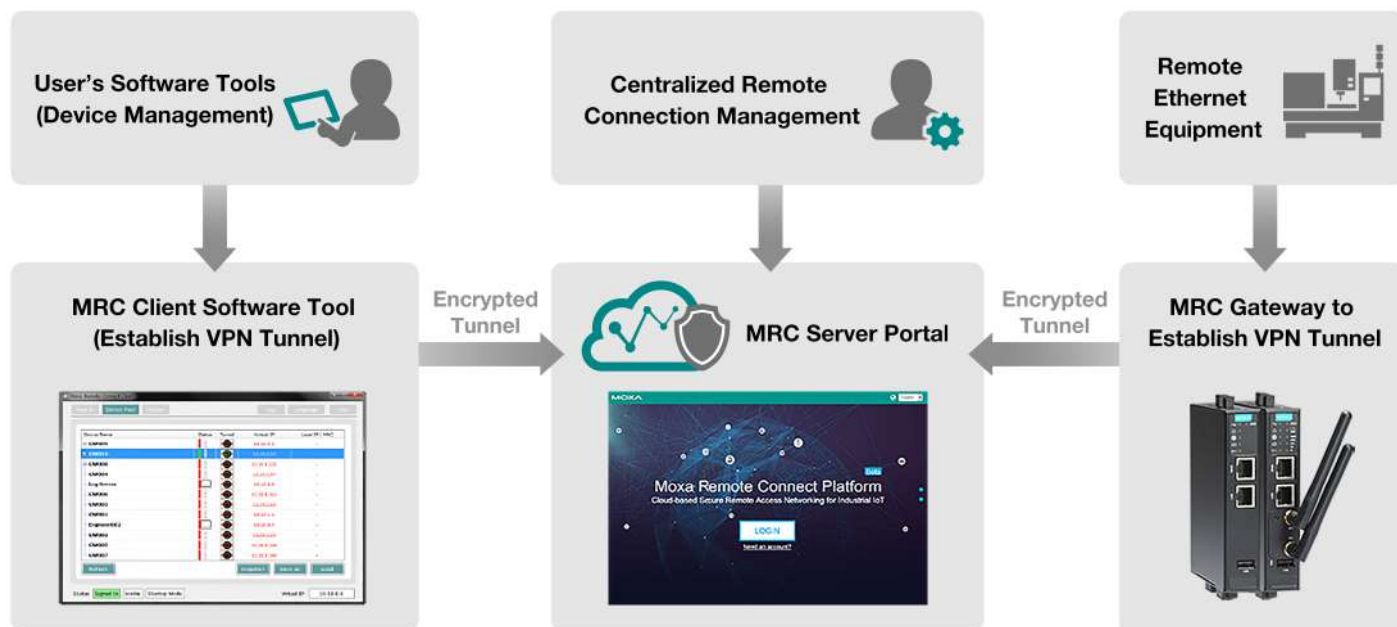
## Features and Benefits

- Security with embedded firewall and whitelist remote access control
- End-to-end data encryption
- Auto virtual IP mapping eliminates the need for field IP management
- Transparent tunnels suitable for existing software tools
- Flexibility for defining the relation between remote connections

## Introduction

Moxa Remote Connect (MRC) is an easy-to-use, secure, and versatile networking solution designed to seamlessly bridge field devices, engineers, and application servers together over the Internet for industrial applications. The solution combines MRC Server, MRC Gateway, and MRC Client. The MRC Server is a connection management platform that determines how the MRC Gateways and MRC Clients are related. The MRC Gateway is a secure gateway that connects Ethernet-ready devices at remote sites to the MRC Client. The MRC Client is a software tool that allows engineers to choose which remote device to connect to from a user's laptop. Another benefit of the MRC Server is that it gives administrators a lot of control over the remote connection including during which periods of time it can be accessed and the kind of features that are available.

Meanwhile, [MRC Quick Link](#), a remote connection service hosted by Moxa, minimizes maintenance efforts and allows users to focus more on their business.



## Featured Highlights

- Machine access is fully controlled by machine operators for on-demand maintenance service
- An embedded firewall allows remote access under whitelist control without disrupting local networks at field sites
- VPN knowledge is not required to deploy the solution
- Plug & play operation makes it easy to get up and running
- Supports existing IT cybersecurity policies
- Less effort is required from your IT engineers

- Changes to network configurations are not required at field sites
- Connect with multiple field machines simultaneously via a virtual IP mapping scheme

## User Scenarios

The MRC Suite supports multiple connection types and provides numerous benefits. Below are three examples where the Moxa Remote Connect Suite can benefit engineers and businesses.

### On-Demand Remote Maintenance, Diagnosis, and Troubleshooting

To minimize security issues and reduce costs, Moxa Remote Connect allows engineers to build remote connections only when necessary.



### Remote Monitoring Minimizes Onsite Maintenance

Moxa Remote Connect helps engineers monitor the status of machines operating at remote sites. Continual monitoring of machine status allows engineers to make adjustments to settings remotely, reducing the need for engineers to make site visits to troubleshoot and fix onsite issues.



### LAN-Like Site-to-Site Secure Network Infrastructure

Moxa Remote Connect enables communication between different machines even though the machines are not at the same location. With Moxa Remote Connect, machines can transmit data to and from each other, just as though they were communicating over a local area network (LAN).



## Specifications

### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)

2

### Cellular Interface

#### Cellular Standards

MRC-1002-LTE-EU(-T) models: LTE CAT-4, UMTS, HSPA, EDGE, GSM, GPRS  
MRC-1002-LTE-JP(-T) models: LTE CAT-4, UMTS, HSPA  
MRC-1002-LTE-US-T models: LTE CAT-3, UMTS, HSPA, EDGE, GSM, GPRS

#### Band Options (US)

LTE Band B2 (1900 MHz) / LTE Band B4 (AWS MHz) / LTE Band B5 (850 MHz) / LTE Band B13 (700 MHz) / LTE Band B17 (700 MHz) / LTE Band B25 (1900 MHz)  
UMTS/HSPA 2100 MHz / 1900 MHz / AWS MHz / 850 MHz / 900 MHz  
Universal quad-band GSM/GPRS/EDGE 850 MHz / 900 MHz / 1800 MHz / 1900 MHz

#### Band Options (EU)

LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 5 (850 MHz) / LTE Band 7 (2600 MHz) / LTE Band 8 (900 MHz) / LTE Band 20 (800 MHz)  
UMTS/HSPA 900 MHz / 1800 MHz / 2100 MHz  
Universal quad-band GSM/GPRS/EDGE 850 MHz / 900 MHz / 1800 MHz / 1900 MHz

#### Band Options (JP)

LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 5 (850 MHz) / LTE Band 6 (850 MHz) / LTE Band 8 (900 MHz) / LTE Band 19 (850 MHz)  
UMTS/HSPA 800 MHz / 900 MHz / 1700 MHz / 2100 MHz

#### LTE Data Rate

MRC-1002-LTE-US-T: 10 MHz bandwidth: 50 Mbps DL, 25 Mbps UL  
MRC-1002-LTE-US-T: 20 MHz bandwidth: 100 Mbps DL, 50 Mbps UL  
MRC-1002-LTE-EU-T: 10 MHz bandwidth: 150 Mbps DL, 50 Mbps UL  
MRC-1002-LTE-EU: 10 MHz bandwidth: 150 Mbps DL, 50 Mbps UL  
MRC-1002-LTE-JP-T: 10 MHz bandwidth: 150 Mbps DL, 50 Mbps UL  
MRC-1002-LTE-JP: 10 MHz bandwidth: 150 Mbps DL, 50 Mbps UL

#### HSPA Data Rates

42 Mbps DL, 5.76 Mbps UL (Category 24, 6)

#### GPRS Data Rates

85.6 kbps DL, 42.8 kbps UL

#### EDGE Data Rates

237 kbps DL, 237 kbps UL (Category 10, 12)

#### Antenna Connectors

2 SMA connector(s)

<b>LED Interface</b>	
LED Indicators	USB, Power, Internet, Cloud, Key, Cellular Signal, Chain
<b>USB Interface</b>	
USB Standards	USB 2.0
<b>Input/Output Interface</b>	
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA
<b>Relays</b>	
Contact Current Rating	1 A @ 24 VDC
<b>System Power Parameters</b>	
Input Current	0.62 A @ 12 VDC
Input Voltage	12 to 36 VDC
Power Consumption	7.44 W
<b>Physical Characteristics</b>	
Housing	Metal
Dimensions	101 x 27 x 128 mm (3.98 x 1.06 x 5.04 in)
Weight	Packaged: 700 g (1.54 lb)
<b>Standards and Certifications</b>	
EMI	CISPR 32, FCC Part 15B Class A
EMC	EN 61000-6-2/-6-4, EN301489-1-52, EN 55032/35
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 0.5 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	EN 61010-2-201, UL 61010-2-201
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Radio	RED, TELEC
<b>MTBF</b>	
Time	MRC-1002-T: 954,531 hrs MRC-1002-LTE-US-T: 561,262 hrs MRC-1002-LTE-EU: 932,351 hrs MRC-1002-LTE-JP: 932,351 hrs
Standards	Telcordia (Bellcore) Standard TR/SR
<b>Warranty</b>	
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

## MRC Client Software

Operating System	Windows 7/10 (32-bit or 64-bit)
Package Contents	
Device	1 x Moxa Remote Connect MRC-1002 Series gateway
Antenna	2 x LTE
Installation Kit	2 x cap, metal, for RJ45 port
Documentation	1 x product certificates of quality inspection, Simplified Chinese 1 x warranty card 1 x product notice, Simplified Chinese 1 x quick installation guide

## Ordering Information

Model Name	10/100BaseT(X) RJ45 Ethernet Ports	LTE Cellular Ports	No. of Concurrent Online Nodes Supported	MRC Quick Link Data Add-on Volume	Operating Temp.
MRC-1002-T	2	-	-	-	-40 to 75°C
MRC-1002-LTE-US-T	2	1	-	-	-40 to 70°C
MRC-1002-LTE-EU	2	1	-	-	-10 to 60°C
MRC-1002-LTE-EU-T	2	1	-	-	-30 to 70°C
MRC-1002-LTE-JP	2	1	-	-	-10 to 60°C
MRC-1002-LTE-JP-T	2	1	-	-	-30 to 70°C
LIC-MRCQL-ADD-1Y-XGB-SR	-	-	-	Customizable, minimum 1 GB	-

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