

Moxa Remote Connect Suite

Remote connection management platforms for secure remote access

Features and Benefits

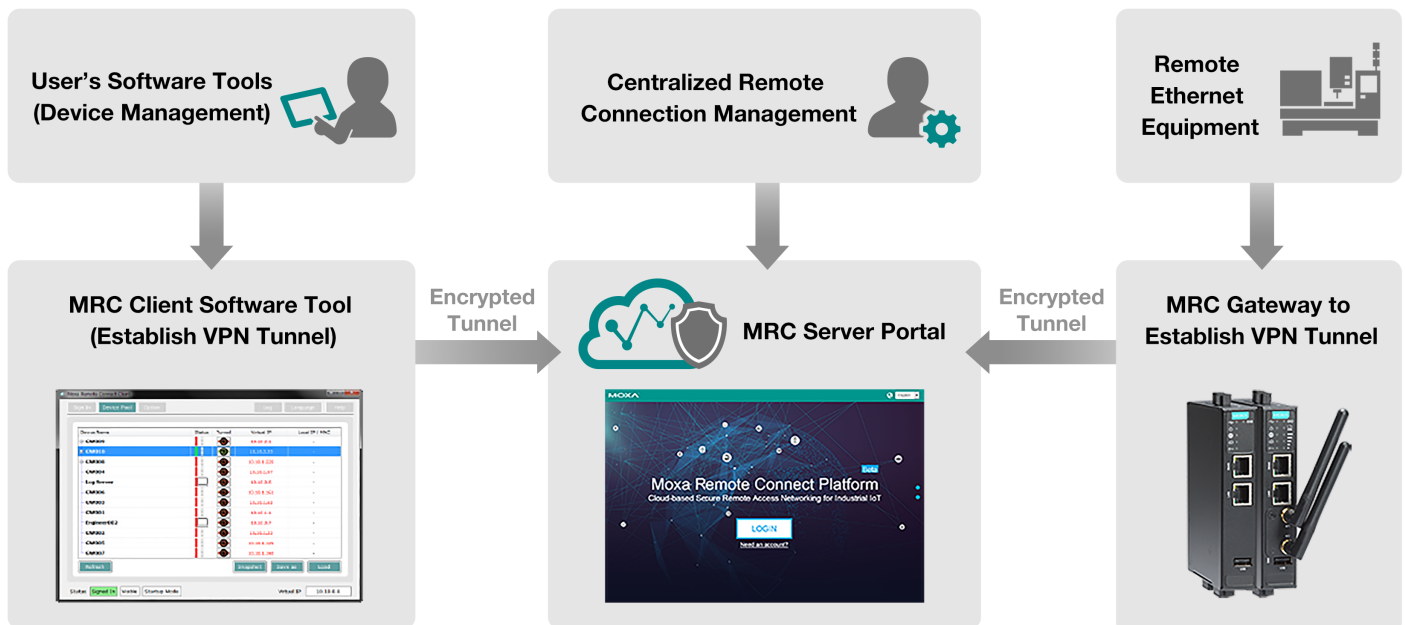
- Security with embedded firewall and whitelist remote access control
- End-to-end data encryption
- Auto virtual IP mapping eliminates the need for field IP management
- Transparent tunnels suitable for existing software tools
- Flexibility for defining the relation between remote connections



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.

Users can choose either **BYOS** (build your own server) business model to have full control of your MRC, or you can choose **MRC Quick Link**, which is a remote connection service hosted by Moxa to minimize maintenance efforts and allow 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)

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Cellular Interface

Cellular Standards

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

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 20 (800 MHz) / LTE Band 5 (850 MHz) / LTE Band 8 (900 MHz) / LTE Band 3 (1800 MHz) / LTE Band 1 (2100 MHz) / LTE Band 7 (2600 MHz)
UMTS/HSPA 5 (850 MHz) / LTE Band 8 (900 MHz)

Band Option (APAC)

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

LED Interface	
LED Indicators	USB, Power, Internet, Cloud, Key, Cellular Signal, Chain
USB Interface	
USB Standards	USB 2.0
Input/Output Interface	
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA
Relays	
Contact Current Rating	1 A @ 24 VDC
System Power Parameters	
Input Current	0.62 A @ 12 VDC
Input Voltage	12 to 36 VDC
Power Consumption	7.44 W
Physical Characteristics	
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)
Standards and Certifications	
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
MTBF	
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
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty

MRC Server Software

Amazon AWS EC2	Supports Amazon AWS EC2 service (can be downloaded from AWS Marketplace)
Licensing	Apply for an MRC Server License from Moxa's channels before activating your software portal

MRC Client Software

Operating System	Windows 7/10 (32-bit or 64-bit)
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Package Contents

Concurrent Online Nodes	MRC-Server License: 10 (expandable with upgrades)
Device	1 x Moxa Remote Connect MRC-1002 Series gateway or MRC-Server license
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	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-JP	2	1	-	-10 to 60°C
MRC-Server License	-	-	10	-
MRC-Server Node License 25	-	-	25	-
MRC-Server Node License 100	-	-	100	-

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