

# Moxa Remote Connect

*Preliminary*

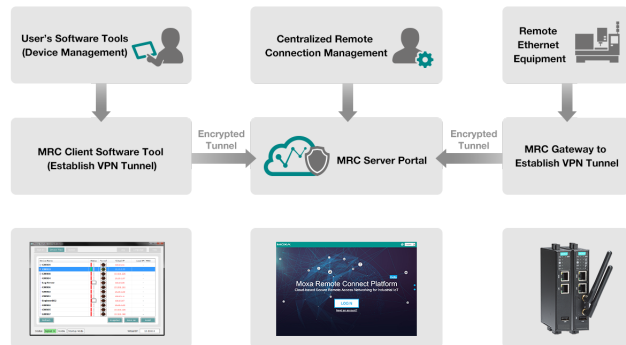
*Remote connection management platform for secure remote access*



- > 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

## Overview

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. 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 to MRC server portals. MRC Client is a software tool for connecting an engineer's laptop to the MRC server portal. MRC Server administrator manages all of these connections through a secure HTTPS web console.



## Featured Highlights



### Smart Protection

- 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



### Auto-configuration

- VPN knowledge is not required to deploy the solution
- Plug & play operation makes it easy to get up and running



### Firewall-friendly

- Supports existing IT cybersecurity policies
- Less effort is required from your IT engineers



### Smart IP Mapping

- 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 solution supports a variety of connection relations, including 1-to-1 connections, multiple-to-multiple connections, and LAN-like site-to-site networking infrastructures.

### Scenario 1:

On-demand remote maintenance, diagnosis, and troubleshooting



### Scenario 2:

Continuous remote monitoring minimizes onsite maintenance trips



### Scenario 3:

LAN-like site-to-site secure network infrastructure



## : MRC Software Specifications

### MRC Server Software

**Amazon AWS EC2:** Supports Amazon AWS EC2 service (can be downloaded from the Amazon AWS Marketplace)

**Licensing:** Apply for an MRC Server License from Moxa's channels before activating your software portal

### MRC Client Software

**Operating Systems:** Supports Windows-based computers running Windows 7/8/10 (32-bit or 64-bit)

**Note:** The MRC Client Software can be downloaded from Moxa's website.

## : MRC Gateway Specifications

### Interface

**RJ45 Ethernet Ports:** 2, 10/100BaseT(X) auto negotiation speed

**USB Host Port:** USB 2.0 compliance

**LED Indicators:** USB, Power, Internet, Cloud, Key, Cellular Signal

#### Digital Input:

- +13 to +30 V for state "1"; -30 to +3 V for state "0"
- Max. input current: 8 mA

#### Relay Output:

- One relay output with current-carrying capacity of 1 A @ 24 VDC

### Cellular Interface

**Cellular Port:** GSM/GPRS/EDGE/UMTS/HSPA/LTE

**Cellular Antenna Connectors:** 2, SMA (female), MIMO for LTE, antenna diversity for WCDMA

#### Band Options:

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

#### LTE Data Rate:

- 20 MHz bandwidth: 100 Mbps DL, 50 Mbps UL
- 10 MHz bandwidth: 50 Mbps DL, 25 Mbps UL

**HSPA Data Rate:** 42 Mbps DL, 5.76 Mbps UL (Category 24, 6)

**EDGE Data Rate:** 237 kbps DL, 237 kbps UL (Class 10, 12)

**GPRS Data Rate:** 85.6 kbps DL, 42.8 kbps UL

### Power Requirements

**Input Voltage:** 12 to 36 VDC (3-pin terminal block, V+, V-, SG)

**Input Current:** 0.62 A (max.) @ 12 VDC

**Power Consumption:** 7.44 W (with cellular module)

### Physical Characteristics

**Housing:** Metal

**Dimensions:** 101 x 27 x 128 mm (3.98 x 1.06 x 5.04 in)

#### Weight:

MRC-1002-T: 425 g (0.94 lb)

MRC-1002-LTE-US-T: 470 g (1.04 lb)

### Standards and Certifications

**Safety:** UL 61010-2-201

**EMI:** FCC Part 15B Class A

**EMC:** EN 55032/24, EN 61000-6-2/6-4

**EMS:** IEC 61000-4-2/3/4/5/6/8

**Shock:** IEC 60068-2-27

**Free Fall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

### MTBF (mean time between failures)

#### Time:

MRC-1002-T: 954,531 hours

MRC-1002-LTE-US-T: 561,262 hours

**Standard:** Telcordia (Bellcore) Standard TR/SR

### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## : Ordering Information

### Available Models

**MRC-1002-T:** Moxa Remote Connect gateway with 2 Ethernet ports, -40 to 75°C operating temperature

**MRC-1002-LTE-US-T:** Moxa Remote Connect gateway with 1 LTE cellular port and 2 Ethernet ports, -40 to 70°C operating temperature

**MRC-Server License:** License to activate the user-hosted Moxa Remote Connect server; supports 10 concurrent online nodes

**MRC-Server Node 25:** License for adding 25 additional concurrent online nodes

**MRC-Server Node 100:** License for adding 100 additional concurrent online nodes