

# MR45

Dual-band 802.11ax compatible access point with separate radios dedicated to security, RF management, and Bluetooth



## High Performance 802.11ax compatible wireless

The Cisco Meraki MR45 is a cloud-managed 4x4:4 802.11ax compatible access point that raises the bar for wireless performance and efficiency. Designed for next-generation deployments in offices, schools, hospitals, shops, and hotels, the MR45 offers high throughput, enterprise-grade security, and simple management.

The MR45 provides a maximum of 3.5 Gbps\* aggregate frame rate with concurrent 2.4 Ghz and 5 Ghz radios. A dedicated third radio provides real-time WIDS/WIPS with automated RF optimization, and a fourth integrated radio delivers Bluetooth scanning and beaconing.

With the combination of cloud management, high performance hardware, multiple radios, and advanced software features, the MR45 makes an outstanding platform for the most demanding of uses—including high-density deployments and bandwidth or performance-intensive applications like voice and high-definition video.

## MR45 and Meraki cloud management

Management of the MR45 is through the Meraki cloud, with an intuitive browser-based interface that enables rapid deployment without time-consuming training or costly certifications. Since the MR45 is self-configuring and managed over the web, it can be deployed at a remote location in a matter of minutes, even without on-site IT staff.

24x7 monitoring via the Meraki cloud delivers real-time alerts if the network encounters problems. Remote diagnostic tools enable immediate troubleshooting over the web so that distributed networks can be managed with a minimum of hassle.

The MR45's firmware is automatically kept up to date via the cloud. New features, bug fixes, and enhancements are delivered seamlessly over the web. This means no manual software updates to download or missing security patches to worry about.

### Product Highlights

- 4 x 4 802.11ax with MU-MIMO and OFDMA  
Multi-Gigabit 1G/2.5G Ethernet
- 3.5 Gbps dual-radio aggregate frame rate
- 24 x 7 real-time WIPS/WIDS and spectrum analytics via dedicated third radio
- Integrated Bluetooth Low Energy Beacon and scanning radio
- Enhanced transmit power and receive sensitivity
- Full-time Wi-Fi location tracking via dedicated 3rd radio
- Integrated enterprise security and guest access
- Application-aware traffic shaping
- Optimized for voice and video
- Self-configuring, plug-and-play deployment
- Sleek, low-profile design blends into office environments

## Features

### Dual-radio aggregate frame rate of up to 3.5 Gbps\*

A 5 GHz 4x4:4 radio and a 2.4 GHz 4x4:4 radio offer a combined dual-radio aggregate frame rate of 3.5 Gbps\*, with up to 2,402 Mbps in the 5 GHz band and 1,147 Mbps in the 2.4 GHz band. Technologies like transmit beamforming and enhanced receive sensitivity allow the MR45 to support a higher client density than typical enterprise-class access points, resulting in better performance for more clients, from each AP.

### Multi User Multiple Input Multiple Output (MU-MIMO)

With support for features of 802.11ax, the MR45 offers MU-MIMO and OFDMA for more efficient transmission to multiple clients. Especially suited to environments with numerous mobile devices, MU-MIMO enables multiple clients to receive data simultaneously. This increases the total network performance and improves the end user experience.

### Multigigabit Ethernet

The MR45 has an integrated multigigabit uplink that ensures maximum capacity for this high performance 802.11ax compatible hardware configuration.

### Bluetooth Low Energy Beacon and scanning radio

An integrated fourth Bluetooth radio provides seamless deployment of BLE Beacon functionality and effortless visibility of Bluetooth devices. The MR45 enables the next generation of location-aware applications while future proofing deployments, ensuring it's ready for any new customer engagement strategies.

### Automatic cloud-based RF optimization

The MR45's sophisticated and automated RF optimization means that there is no need for the dedicated hardware and RF expertise typically required to tune a wireless network. The RF data collected by the dedicated third radio is continuously fed back to the Meraki cloud. This data is then used to automatically tune the channel selection, transmit power, and client connection settings for optimal performance under even the most challenging RF conditions.

### Integrated enterprise security and guest access

The MR45 features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and Enterprise authentication with 802.1X and Active Directory integration provide wired-like security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors. PCI compliance reports check network settings against PCI requirements to simplify secure retail deployments.

### 3rd radio delivers 24x7 wireless security and RF analytics

The MR45's dedicated dual-band scanning and security radio continually assesses the environment, characterizing RF interference and containing wireless threats like rogue access points. There's no need to choose between wireless security, advanced RF analysis, and serving client data - a dedicated third radio means that all functions occur in real-time, without any impact to client traffic or AP throughput.

### Enterprise Mobility Management (EMM) & Mobile Device Management (MDM) integration

Meraki Systems Manager natively integrates with the MR45 to offer automatic, context-aware security. Systems Manager's self-service enrollment helps to rapidly deploy MDM without installing additional equipment, and then dynamically tie firewall and traffic shaping policies to client posture.

### Application-aware traffic shaping

The MR45 includes an integrated Layer 7 packet inspection, classification, and control engine, enabling the configuration of QoS policies based on traffic type, helping to prioritize mission critical applications while setting limits on recreational traffic like peer-to-peer and video streaming. Policies can be implemented per network, per SSID, per user group, or per individual user for maximum flexibility and control.

\* Refers to maximum over-the-air data frame rate capability of the radio chipsets, and may exceed data rates allowed by IEEE-compliant operation.

## Features (cont'd)

### Voice and video optimization

Industry standard QoS features are built-in and easy to configure. Wireless Multi Media (WMM) access categories, 802.1p, and DSCP standards support all ensure important applications get prioritized correctly, not only on the MR45, but on other devices in the network. Unscheduled Automatic Power Save Delivery (U-APSD) and new Target Wait Time features in 802.11ax clients ensure minimal battery drain on wireless VoIP phones.

### Self-configuring, self-maintaining, always up-to-date

When plugged in, the MR45 automatically connects to the Meraki cloud, downloads its configuration, and joins the appropriate network. If new firmware is required, this is retrieved by the AP and updated automatically. This ensures the network is kept up-to-date with bug fixes, security updates, and new features.

### Advanced analytics

Wireless Health is a tool integrated within the Meraki Dashboard to offer powerful heuristics for smarter troubleshooting of customer networks. Drilling down into the details of network usage provides highly granular traffic analytics. Visibility into the physical world can be enhanced with journey tracking through location analytics. Visitor numbers, dwell time, repeat visit rates, and track trends can all be easily monitored in the dashboard and deeper analysis is enabled with raw data available via simple APIs.

## MR45 Tx / Rx Tables | 2.4 GHz

Operating Band	Operating Mode	Data Rate	TX Power (conducted)	RX Sensitivity
2.4 GHz	802.11b	1 Mb/s	26.0 dBm	-99 dBm
		2 Mb/s	26.0 dBm	-94 dBm
		5.5 Mb/s	26.0 dBm	-94 dBm
		11 Mb/s	26.0 dBm	-90 dBm
2.4 GHz	802.11g	6 Mb/s	26.0 dBm	-94 dBm
		9 Mb/s	26.0 dBm	-93 dBm
		12 Mb/s	24.0 dBm	-90 dBm
		18 Mb/s	24.0 dBm	-89 dBm
		24 Mb/s	23.0 dBm	-86 dBm
		36 Mb/s	23.0 dBm	-83 dBm
		48 Mb/s	22.0 dBm	-78 dBm
		54 Mb/s	22.0 dBm	-77 dBm
2.4 GHz	802.11n (HT20)	MCS0	26.0 dBm	-95 dBm
		MCS1	26.0 dBm	-92 dBm
		MCS2	24.0 dBm	-90 dBm
		MCS3	24.0 dBm	-87 dBm
		MCS4	24.0 dBm	-84 dBm
		MCS5	22.0 dBm	-80 dBm
		MCS6	22.0 dBm	-70 dBm
		MCS7	21.0 dBm	-77 dBm

Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
2.4 GHz	802.11ac (VHT20)	MCS0	26.0 dBm	-95 dBm
		MCS1	26.0 dBm	-92 dBm
		MCS2	24.0 dBm	-90 dBm
		MCS3	24.0 dBm	-87 dBm
		MCS4	24.0 dBm	-84 dBm
		MCS5	22.0 dBm	-80 dBm
		MCS6	22.0 dBm	-79 dBm
		MCS7	21.0 dBm	-77 dBm
		MCS8	20.0 dBm	-73 dBm
2.4 GHz	802.11ax (HE20)	MCS0	26.0 dBm	-95 dBm
		MCS1	26.0 dBm	-93 dBm
		MCS2	26.0 dBm	-91 dBm
		MCS3	24.0 dBm	-88 dBm
		MCS4	24.0 dBm	-85 dBm
		MCS5	24.0 dBm	-81 dBm
		MCS6	23.0 dBm	-79 dBm
		MCS7	22.0 dBm	-77 dBm
		MCS8	21.0 dBm	-74 dBm
		MCS9	20.0 dBm	-72 dBm
		MCS10	19.0 dBm	-68 dBm
		MCS11	19.0 dBm	-66 dBm

Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
2.4 GHz	802.11ac (VHT40)	MCS0	24.0 dBm	-92 dBm
		MCS1	24.0 dBm	-89 dBm
		MCS2	24.0 dBm	-87 dBm
		MCS3	24.0 dBm	-84 dBm
		MCS4	24.0 dBm	-81 dBm
		MCS5	23.0 dBm	-77 dBm
		MCS6	22.0 dBm	-76 dBm
		MCS7	23.0 dBm	-74 dBm
		MCS8	20.5 dBm	-71 dBm
		MCS9	20.0 dBm	-69 dBm
2.4 GHz	802.11ax (HE40)	MCS0	24.0 dBm	-92 dBm
		MCS1	24.0 dBm	-91 dBm
		MCS2	24.0 dBm	-88 dBm
		MCS3	24.0 dBm	-85 dBm
		MCS4	24.0 dBm	-82 dBm
		MCS5	23.0 dBm	-78 dBm
		MCS6	22.0 dBm	-79 dBm
		MCS7	21.5 dBm	-75 dBm
		MCS8	20.5 dBm	-71 dBm
		MCS9	20.0 dBm	-69 dBm
		MCS10	18.5 dBm	-65 dBm
		MCS11	18.5 dBm	-63 dBm

## MR45 Tx / Rx Tables | 5 GHz

Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
5 GHz	802.11a	6 Mb/s	26.0 dBm	-93 dBm
		9 Mb/s	26.0 dBm	-91 dBm
		12 Mb/s	24.0 dBm	-89 dBm
		18 Mb/s	24.0 dBm	-87 dBm
		24 Mb/s	23.0 dBm	-84 dBm
		36 Mb/s	23.0 dBm	-81 dBm
		48 Mb/s	22.0 dBm	-77 dBm
		54 Mb/s	22.0 dBm	-75 dBm
5 GHz	802.11n (HT20)	MCS0	26.0 dBm	-93 dBm
		MCS1	26.0 dBm	-90 dBm
		MCS2	24.0 dBm	-88 dBm
		MCS3	24.0 dBm	-85 dBm
		MCS4	24.0 dBm	-82 dBm
		MCS5	23.0 dBm	-78 dBm
		MCS6	22.0 dBm	-77 dBm
		MCS7	22.0 dBm	-75 dBm
5 GHz	802.11n (HT40)	MCS0	24.0 dBm	-90 dBm
		MCS1	24.0 dBm	-88 dBm
		MCS2	24.0 dBm	-85 dBm
		MCS3	24.0 dBm	-82 dBm
		MCS4	24.0 dBm	-79 dBm
		MCS5	23.0 dBm	-75 dBm
		MCS6	22.0 dBm	-74 dBm
		MCS7	22.0 dBm	-73 dBm

Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
5 GHz	802.11ac (VHT20)	MCS0	26.0 dBm	-93 dBm
		MCS1	26.0 dBm	-90 dBm
		MCS2	24.0 dBm	-88 dBm
		MCS3	24.0 dBm	-85 dBm
		MCS4	24.0 dBm	-82 dBm
		MCS5	23.0 dBm	-78 dBm
		MCS6	22.0 dBm	-77 dBm
		MCS7	22.0 dBm	-75 dBm
		MCS8	21.0 dBm	-71 dBm
5 GHz	802.11ac (VHT40)	MCS0	24.0 dBm	-90 dBm
		MCS1	24.0 dBm	-88 dBm
		MCS2	24.0 dBm	-85 dBm
		MCS3	24.0 dBm	-82 dBm
		MCS4	24.0 dBm	-79 dBm
		MCS5	23.0 dBm	-75 dBm
		MCS6	22.0 dBm	-74 dBm
		MCS7	22.0 dBm	-73 dBm
		MCS8	20.5 dBm	-69 dBm
		MCS9	20.0 dBm	-67 dBm
5 GHz	802.11ac (VHT80)	MCS0	24.0 dBm	-87 dBm
		MCS1	24.0 dBm	-85 dBm
		MCS2	24.0 dBm	-82 dBm
		MCS3	24.0 dBm	-79 dBm
		MCS4	24.0 dBm	-77 dBm
		MCS5	22.0 dBm	-72 dBm
		MCS6	22.0 dBm	-71 dBm
		MCS7	20.0 dBm	-69 dBm
		MCS8	19.0 dBm	-65 dBm
		MCS9	19.0 dBm	-64 dBm

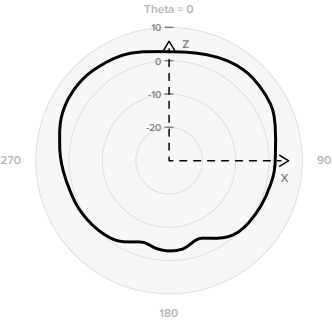


Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
5 GHz	802.11ax (HE20)	MCS0	26.0 dBm	-93 dBm
		MCS1	26.0 dBm	-91 dBm
		MS2	24.0 dBm	-89 dBm
		MCS3	24.0 dBm	-86 dBm
		MCS4	24.0 dBm	-83 dBm
		MCS5	23.0 dBm	-79 dBm
		MCS6	22.0 dBm	-77 dBm
		MCS7	22.0 dBm	-75 dBm
		MCS8	21.0 dBm	-72 dBm
		MCS9	21.0 dBm	-70 dBm
		MCS10	19.0 dBm	-67 dBm
		MCS11	19.0 dBm	-67 dBm
5 GHz	802.11ax (HE40)	MCS0	24.0 dBm	-90 dBm
		MCS1	24.0 dBm	-89 dBm
		MCS2	24.0 dBm	-86 dBm
		MCS3	24.0 dBm	-83 dBm
		MCS4	24.0 dBm	-81 dBm
		MCS5	23.0 dBm	-76 dBm
		MCS6	22.0 dBm	-75 dBm
		MCS7	21.5 dBm	-73 dBm
		MCS8	20.5 dBm	-69 dBm
		MCS9	20.0 dBm	-68 dBm
		MCS10	18.5 dBm	-64 dBm
		MCS11	18.5 dBm	-61 dBm

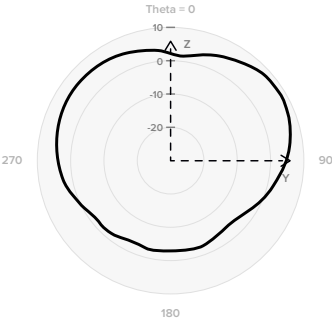
Operating Band	Operating Mode	Data Rate	TX Power	RX Sensitivity
5 GHz	802.11ax (HE80)	MCS0	24.0 dBm	-87 dBm
		MCS1	24.0 dBm	-85 dBm
		MCS2	24.0 dBm	-83 dBm
		MCS3	24.0 dBm	-80 dBm
		MCS4	24.0 dBm	-77 dBm
		MCS5	22.0 dBm	-73 dBm
		MCS6	22.0 dBm	-73 dBm
		MCS7	20.0 dBm	-70 dBm
		MCS8	19.0 dBm	-67 dBm
		MCS9	19.0 dBm	-65 dBm
		MCS10	17.0 dBm	-61 dBm
		MCS11	17.0 dBm	-59 dBm

**MR45**

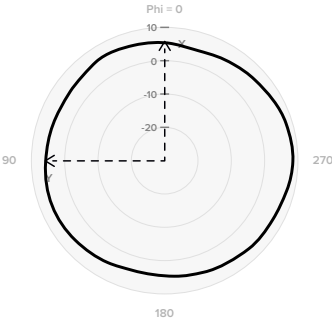
**Radiation Pattern for 2.4 GHz Antennas**



**XZ-cut**



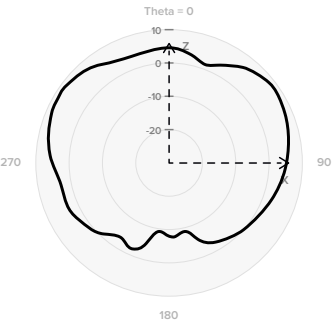
**YZ-cut**



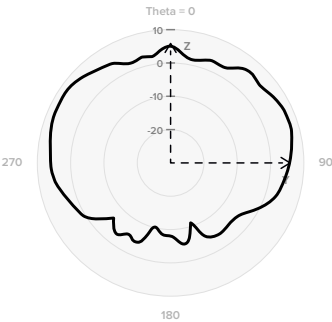
**XY-cut**  
(Theta = 90°)

**MR45**

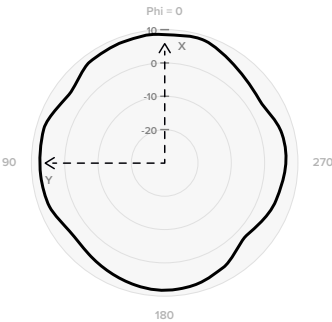
**Radiation Pattern for 5 GHz Antennas**



**XZ-cut**



**YZ-cut**



**XY-cut**  
(Theta = 90°)

## Specifications

<b>Radios</b>
2.4 GHz 802.11b/g/n/ax client access radio
5 GHz 802.11a/n/ac/ax client access radio
2.4 GHz & 5 GHz dual-band WIDS/WIPS, spectrum analysis, and location analytics radio
2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and BLE scanning support
Concurrent operation of all four radios
Supported frequency bands (country-specific restrictions apply): <ul style="list-style-type: none"><li>• 2.400-2.484 GHz</li><li>• 5.170-5.250 GHz (UNII-1)</li><li>• 5.250-5.330 GHz (UNII-2)</li><li>• 5.490-5.730 GHz (UNII-2e)</li><li>• 5.735-5.835 GHz (UNII-3)</li></ul>
<b>Antenna</b>
Internal omni antennas (5.4 dBi gain at 2.4 GHz, 6 dBi gain at 5 GHz)
<b>802.11ax Compatible, 802.11ac Wave 2 and 802.11n Capabilities</b>
DL-OFDMA, TWT support
4 x 4 multiple input, multiple output (MIMO) with four spatial streams
SU-MIMO and DL MU-MIMO support
Maximal ratio combining (MRC) and beamforming
20 and 40 MHz channels (802.11n); 20, 40, and 80 MHz channels (802.11ac Wave 2)
Up to 1024-QAM on both 2.4 GHz & 5 GHz bands
Packet aggregation
<b>Power</b>
Power over Ethernet: 42.5-57 V (802.3at compliant)
Alternative: 12 V DC input
Power consumption: 18 W max
Power over Ethernet injector and DC adapter sold separately
<b>Interfaces</b>
1x 1000/2.5G BASE-T Ethernet
1x DC power connector (5.5 mm x 2.5 mm, center positive)
<b>Mounting</b>
All standard mounting hardware included
Desktop, ceiling, and wall mount capable
Ceiling tile rail (9/16, 15/16, or 1 1/2" flush or recessed rails), assorted cable junction boxes
Bubble level on mounting cradle for accurate horizontal wall mounting
<b>Physical Security</b>
Two security screw options included
13.5 mm long, 2.5 mm diameter, 5 mm head
Kensington lock hard point
Concealed mount plate with anti-tamper cable bay
<b>Environment</b>
Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
Humidity: 5% to 95%

<b>Physical Dimensions</b>
12.05" x 5.06" x 1.74" (30.6 cm x 12.84 cm x 4.426 cm), not including deskmount feet or mount plate
Weight: 28.22 oz (800 g)
<b>Security</b>
Integrated Layer 7 firewall with mobile device policy management
Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal
Flexible guest access with device isolation
VLAN tagging (802.1Q) and tunneling with IPSec VPN
PCI compliance reporting
WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X
EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM
TKIP and AES encryption
Enterprise Mobility Management (EMM) & Mobile Device Management (MDM) integration
Cisco ISE integration for guest access and BYOD posturing
<b>Quality of Service</b>
Advanced Power Save (U-APSD)
WMM Access Categories with DSCP and 802.1p support
Layer 7 application traffic identification and shaping
<b>Mobility</b>
PMK, OKC, and 802.11r for fast Layer 2 roaming
Distributed or centralized Layer 3 roaming
<b>Analytics</b>
Embedded location analytics reporting and device tracking
Global L7 traffic analytics reporting per network, per device, and per application
<b>LED Indicators</b>
1 power/booting/firmware upgrade status
<b>Regulatory</b>
RoHS
For additional country-specific regulatory information, please contact Meraki Sales
<b>Warranty</b>
Lifetime hardware warranty with advanced replacement included
<b>Ordering Information</b>
MR45-HW: Meraki MR45 Cloud Managed 802.11ax Compatible AP
MA-PWR-30W-XX: Meraki AC Adapter for MR Series (XX = US/EU/UK/AU)
MA-INJ-4-XX: Meraki Gigabit 802.3at Power over Ethernet Injector (XX = US/EU/UK/AU)
MA-INJ-5-XX: Meraki Multigigabit 802.3at Power over Ethernet Injector (XX = US/EU/UK/AU)
Note: Meraki access point license required

# Compliance and Standards

IEEE Standards
802.11a
802.11ac
802.11ax Compatible
802.11b
802.11e
802.11g
802.11h
802.11i
802.11k
802.11n
802.11r
802.11u and Hotspot 2.0

Safety Approvals
CSA and CB 60950 & 62368
Conforms to UL 2043 (Plenum Rating)

Radio Approvals
Canada: FCC Part 15C, 15E, RSS-247
Europe: EN 300 328, EN 301 893
Australia/NZ: AS/NZS 4268
Mexico: IFT, NOM-208
Taiwan: NCC LP0002
For additional country-specific regulatory information, please contact Meraki Sales

EMI Approvals (Class B)
Canada: FCC Part 15B, ICES-003
Europe: EN 301 489-1-17, EN 55032, EN 55024
Australia/NZ: CISPR 22
Japan: VCCI

Exposure Approvals
Canada: FCC Part 2, RSS-102
Europe: EN 50385, EN 62311, EN 62479
Australia/NZ: AS/NZS 2772

# ThunderIT for the REMC SAVE Contract

ThunderIT offers products and services for REMC SAVE contract customers at a discounted price in accordance to the REMC price list.

## Overview for the REMC SAVE contract

REMC SAVE provides large volume contracts for a variety of educational resources, including furniture, school and office supplies, software and digital services, and technology.

The program saves time and money by providing bids compliant with the Michigan Revised School Code that also provides local school districts with the authority to purchase using REMC contracts. The legislation that established REMCs (Michigan Compiled Laws Act 451 Section 380.671), and State Board of Education Rules, enables REMCs to bid on behalf of local school districts and also provide local school districts with the authority to purchase using REMC contracts. All items and vendors are awarded through a sealed bid process by the REMC SAVE Bid Project and approved by the REMC Association.

REMC SAVE is provided as a project of the REMC Association of Michigan for all Michigan schools. REMC SAVE provides large-volume contracts for a variety of educational resources. By using REMC SAVE contracts, Michigan schools have saved more than \$1 billion since 1990. Every dollar saved through REMC SAVE today is one more dollar to invest in instruction tomorrow.

**ThunderIT services the following REMC districts;** REMC 1, REMC 2N, REMC 2C, REMC 2S, REMC 3, REMC 4, REMC 5, REMC 6, REMC 7, REMC 8, REMC 9, REMC 10, REMC 11, REMC 12W, REMC 12E, REMC 13, REMC 14W, REMC 14E, REMC 15, REMC 16, REMC 17, REMC 18S, REMC 18N, REMC 19W, REMC 19E, REMC 20, REMC 21, REMC 22

**ThunderIT services the following REMC customers;** AKIVA HEBREW DAY SCHOOL, BIRNEY MIDDLE SCHOOL, BUSSEY CTR-EARLY CHILDHOOD DEV, DEVRY UNIVERSITY - SOUTHFIELD – CENTRAL, HAMILTON ACADEMY CENTRAL OFFICE, LEONHARD ELEMENTARY SCHOOL, MCINTYRE ELEMENTARY SCHOOL, OAKLAND INTERNATIONAL ACADEMY

Other REMC contract holders include: Inacomp Technical Services Group, Sentinel Technologies, Software Services Group, Insight Direct USA, Information Systems Intelligence, Netech, Secant Technologies, CDW Logistics Inc (CDWG)

## **ThunderIT offers a variety of Solutions & Services to meet your every need**

### **Digital Workplace**

Transform your digital workplace and empower employees to drive your business forward. We deliver flexible, tailored, end-to-end solutions to keep your workforce engaged and productive. With an innovative approach centered around exceptional user experiences.

### **Smart Spaces**

We provide smart workspace solutions to help you deliver consistent network performance and give guests, employees and students an uninterrupted experience.

### **Secure Network Solutions**

Our security solutions help protect your network and critical data from cybersecurity threats

### **Safe Environments**

We believe that employee, student, and customer safety is paramount in any environment. That's why our solutions provide a cloud based platform to help you intuitively manage and monitor physical locations to ensure a safe experience for everyone.

### **Next Generation WiFi**

Power new and improved user experiences with our managed wifi solutions, offering faster speeds for enhanced application experience and more capacity for high density indoor and outdoor environments.

### **Remote Work Solutions**

With our remote work solutions, working away from the office is no big deal. Give employees a secure, optimized connection to your entire network from anywhere.

### **Hybrid Workforce**

We provide a seamless hybrid workforce solution that embraces change and operational scale. Give your employees and customers unrivaled experiences with a cloud platform that unifies best-in-class technologies.

## **Free Network Evaluation & Demo**

ThunderIT offers a FREE Network Evaluation and/or product Demo to help ensure you are well informed and confident when choosing the right Cisco Meraki solution for your needs. During our call we'll architect a custom built Cisco Meraki solution for your business or environment.

## **Migration & Deployment**

ThunderIT offers Migration and Deployment Services for your Cisco Meraki solution. Our experienced team of IT Professionals can configure, deploy and support your products to meet your needs. Our custom solutions ensure maximum efficiency and provide a clear path for your business going forward.

## **Managed Security**

ThunderIT offers the best and most cost-effective solution to lower your risk in a heightened threat environment. Our team of certified Cisco engineers are ready to ensure that your network is secure, and your firewall is optimally configured to defend your business.

## **Mobile device management (MDM) Services**

Our Mobile Device Management (MDM) solution unifies management of thousands of endpoint devices in a secure cloud platform, driving your organization's mobility initiatives, while maintaining an environment of agility and security.

## **Support & Monitoring**

ThunderIT offers network support and monitoring services that are designed to fit the needs of every customer.



## FAQs for the REMC SAVE Contract

**Q: Does REMC SAVE meet the legal requirement for competitive bidding?** A: The legislation that established REMCs (Michigan Compiled Laws Act 451 Section 380.671), and State Board of Education Rules, enables REMCs to bid on behalf of local school districts and also provide local school districts with the authority to purchase using REMC contracts. All items are competitively bid by REMC SAVE and awarded by the REMC Association.

**Q: Who can Use REMC SAVE contracts?** A: The following agencies are eligible to purchase using REMC SAVE contracts: PreK-12 Public, Charter (PSA) and Non-Public Schools, Community Colleges, Universities and Colleges, Public Libraries, Museums, State, County, and Local Government Agencies, Educational Non-profit Organizations and Health Care Facilities. Personal purchases at awarded bid pricing are at the discretion of the vendors.

**Q: What is REMC SAVE?** A: REMC SAVE is a free service of the REMC Association for all Michigan schools. There are 3 staff of REMC SAVE, and they conduct all of the bids and maintain vendor contracts. You can ask your local REMC Center questions. Find your local REMC Center by scrolling down the REMC SAVE home screen to view the map for your region or look up by zip code.

**Q: How do I provide feedback?** A: Your local REMC SAVE contact will always listen to any feedback you wish to provide. If you have feedback about the product, scroll down the home screen at [remcsave.org](http://remcsave.org) and click 'View All Vendors' and you can complete a vendor evaluation form.

**Q: What if my company wishes to become an awarded vendor?** A: Go to [vendorcenter.remcbids.org](http://vendorcenter.remcbids.org) and create an account by clicking Login or Register in the upper right corner. Follow the directions! The only requirement is that you need five Michigan K12 school references. Customers can send their vendor recommendations to their local REMC contact or email [remcsave@remc.org](mailto:remcsave@remc.org)

**Q: How are the vendors and products selected?** A: Products and Vendors are awarded through a competitive bid process. REMC SAVE staff analyzes all bids and make recommendations to the REMC SAVE Advisory Committee for award. Once the REMC SAVE Advisory Committee votes on the award recommendations, they are then voted on by the REMC Association Board of Directors for final award.

**Q: Where do I send my order or contact an awarded vendor?** To contact vendors, navigate to the vendor listing by scrolling down the home screen and click 'view all vendors,' or navigate to <https://www.remcsave.org/vendors>. Click on the vendor name to find their contact information.

**Q: What do I need to include on my purchase order?** Please make sure your purchase order is itemized and includes the REMC item number, the model number/name, the reseller product number (if available), the quantity of each item to be purchased, and the unit price. A quote may be attached, but the purchase order should still be itemized. Sometimes the item numbers for the warranties, accessories, and upgrades are located on the spec sheet, linked from the awarded item page – be sure to include on the Purchase Order.