



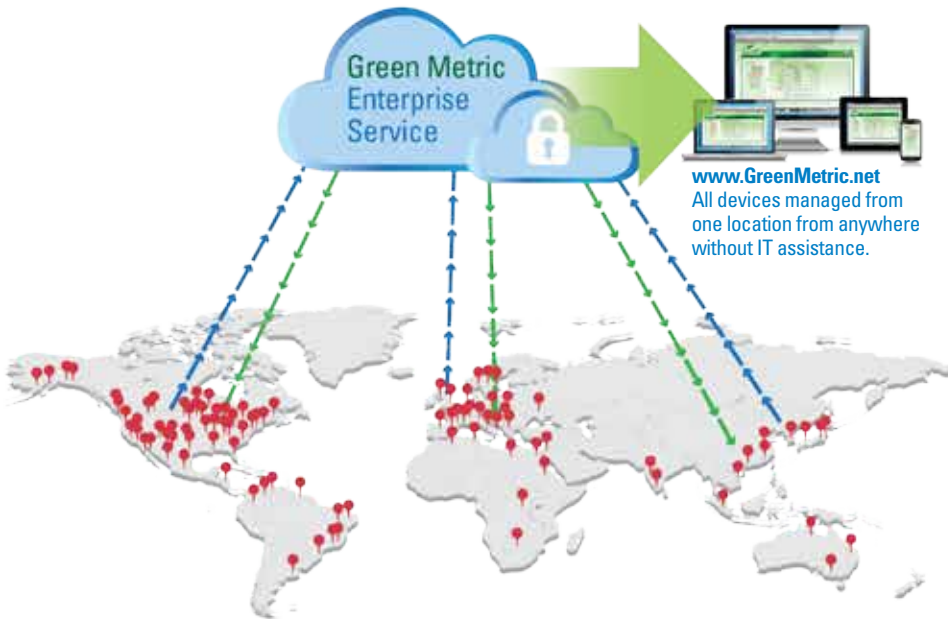
delivering **GREEN** to the environment & your bottom line

## Measure. Control. Report. **SAVE.**

At Green Metric we put you in control. With our easy plug-and-play solution you can centrally manage your Maverick Appliances for buildings across the globe. Whether you have 5 sites or 5000 - our solution will monitor, collect, manage, analyze and report data from your facilities management and control devices. Our secure cloud-based technology provides our clients with critical analysis and reporting via dashboards and alerts.

Green Metric has partnered with MAMAC Systems®, an industry leading global manufacturer of sensors, transducers, control peripherals and web browser based IP Appliances. The Green Metric solution was designed to extend the capabilities of the Maverick Appliance product line. Together these products provide a solution that excels in simplicity and cost effectiveness second to none.

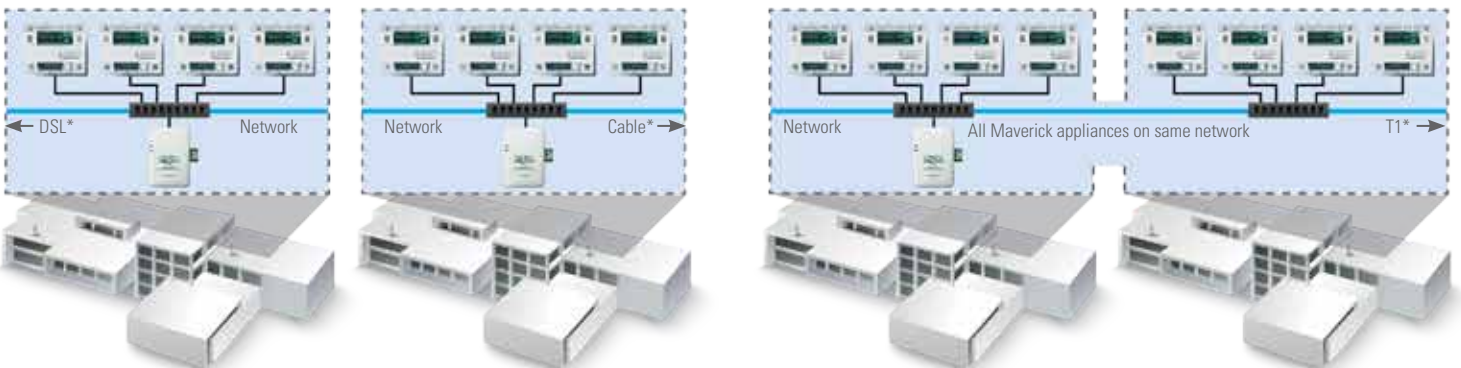
### Extend Maverick Capabilities with this Simple Cloud Solution



#### KEY FEATURES

- » **No IT Required** - Uses DHCP and outbound https (port 443)
- » **No Installation Costs** - Just plug-in the network cable and power cable
- » **No External IP Required** - Does not require a VPN or an external IP for remote management functions
- » **Automated Archiving and Backup** – Historical data available for dashboards and compliance reporting
- » **Auto-Discovery of Mavericks** - Each Toaster automatically finds up to 25 Mavericks on same network
- » **Wireless Available** - Solution can run over WiFi or Cellular networks
- » Automated date and time synchronization across all Mavericks for any time zone and DST setting. No need to remember to change Daylight Saving Time or adjusting for time drift.
- » Real-time dashboards with min/max/avg capability or zoom into data by minute
- » Resilient to Internet Outages - Toaster will store up to 2 days of data during an internet outage
- » High Availability – Inquire about redundancy options to ensure your data is always available even with a hardware failure
- » Uses industrial strength encryption and best practices to keep your data available and secure
- » Data centers located in Asia, Europe, and United States
- » Data centers are managed by Microsoft and undergo annual audits: ISO/IEC 27001:2005 and SSAE 16/ISAE 3402 Attestation

See next page for Toaster Specifications.



\* Just plug it in and the toaster will self-discover the Maverick Appliances regardless of the type of connection (DSL, Satellite, Cable, T1, T3, OC3)

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### PACKAGE CONTENTS:

- » Toaster Device
- » 3 Foot Ethernet (cat 5) Cable
- » 3 Foot Power Cable

### HARDWARE SPECIFICATIONS:

- » 1.2 GHz operation
- » L1 Cache: 16K Instruction + 16K Data
- » L2 Cache: 256KB
- » DDR2 400MHz, 16-bit bus
- » 512MB DDR2: 1Gb x8, 4 devices
- » Power efficient Samsung devices
- » NAND FLASH Controller, 8-bit bus
- » 512MB NAND FLASH: 4Gb x8, direct boot
- » 128-bit eFuse Memory
- » Gigabit Ethernet Port
- » USB Port

### POWER INPUT:

100-240VAC/50-60Hz Max. 20W

### TOASTER SOFTWARE:

- » Hardened Linux OS that only listens for ping requests with all other listeners disabled.
- » Default setup uses DHCP to obtain an IP address.
- » Upon startup only, the toaster searches for Maverick devices. nmap is used to get a valid list of IP addresses. The toaster will scan its own network segment defined by the first 3 octets of the IP address ###.###.###. This means the minimum base code (a.k.a. network bits) used by the toaster to define the search range will be 24. If your subnet mask is base 16 or something less than 24, the toaster will still use 24 and only search a maximum of 254 IP addresses. Here's an example: If the IP address of the toaster is 192.168.0.43 and subnet mask is 255.255.255.0, it will find devices with IP addresses in the range of 192.168.0.1 to 192.168.0.254. Each valid IP address that is retrieved with nmap is used to test if device is a Maverick using <http://<ip address>/start.html> only during startup.
- » Toaster will search additional networks when customer specifies additional IP ranges in the Management Portal.
- » After startup, the toaster gets XML from each Maverick and sends only changes to cloud over https (port 443).



### INSTALLATION REQUIREMENTS:

- » Requires a power connection within 3 feet of toaster.
- » Requires an open Ethernet port to the network router or switch within 3 feet of the toaster unless a longer Ethernet cable is used.
- » Toaster must be on same network as Mavericks unless additional IP ranges are specified that have access to the Mavericks. For example if Mavericks have an IP address of 192.168.2.23 thru 192.168.2.34; the toaster must also be on the network segment 192.168.2 when no other IP ranges are specified.
- » Network should have DHCP enabled that allows an IP address to be assigned to the toaster. The toaster has a MAC address on the back of it for IT when they need to specify the MAC address in the router. Assigned IP address must have the same first 3 octets (192.168.2) as those used by the Mavericks unless additional IP ranges are entered in the cloud.
- » Maverick devices typically show up under Tree View within a few minutes. If a network segment has all 254 IP addresses used, it could take up to 30 minutes for the Mavericks to appear in the Tree View.
- » Mavericks can use DHCP when toaster is on the same network segment with subnet mask of 255.255.255.0 or 255.255.254.0.
- » Requires outbound access to port 443 (https) and Google DNS (8.8.8.8, 8.8.4.4).

