mFi®

Overview

mFi® is a Machine-to-Machine management system from Ubiquiti Networks®. mFi hardware is managed and monitored from the mFi Controller software. The mFi Controller allows you to create rules that trigger actions based on data from your mFi sensors. For example, motion detection can turn a light on, or a high temperature reading can trigger a fan. The mFi platform is compatible with third-party devices, making the options unlimited!

Features

Plug and Play Installation Use standard Ethernet cable to connect machines and sensors. Use Wi-Fi to seamlessly connect mFi nodes to your IP network. Unlimited device scalability allows you to add mFi devices as needed.

Powerful Functionality Create powerful relationships between sensors, machines, and powered devices.

Mobile Support The mFi iOS application is available for iPhone and iPad. Other mobile devices can connect to a customized mobile version of the mFi Controller interface using a web browser.

Sophisticated User Experience From auto-detection of machines through intuitive and powerful rule creation, the mFi Controller transforms a machine network into an automated symphony.

Hardware

In-Wall Devices There are two in-wall devices available for mFi management. The mFi Outlet is a standard in-wall dual electrical outlet with Wi-Fi that features energy monitoring and can be independently controlled by an mFi Controller. The mFi Switch is an in-wall manageable switch/dimmer. In switch mode, it can be used to turn lights on and off. In dimmer mode, it can control incandescent, halogen, dimmable CFL, or dimmable LED lamps. Energy monitoring and controls are available in the mFi Controller.

mPower The mPower™ products are mFi-controllable power outlets with Wi-Fi capability. There are three mPower models available. The mPower mini is a single-port outlet, the mPower is our standard 3-port power strip, and the mPower PRO is an 8-port power strip that also includes an Ethernet port. All feature independent, switchable AC ports and energy monitoring.

mPorts and Sensors There are two mPort™ models available for connecting devices to the mFi network. The mPort has two mFi RJ45 connectors and a terminal block connector. The mPort Serial features RS232/422/485 serial connectivity through a standard DB9 serial port or a terminal block connector. Both have built-in Wi-Fi and Ethernet to connect to the IP network. Ubiquiti offers a variety of motion, temperature, current, and door sensors to connect to the mPort and your mFi network. These sensors connect to the mPort using a standard RJ45 cable, except for the mFi-DS, which connects using a terminal block connector.

![mFi logo]
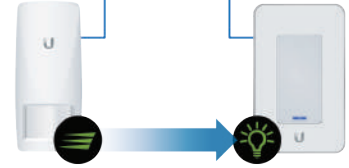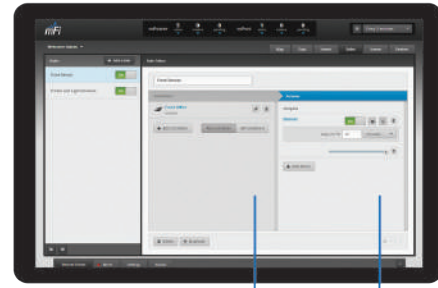
Software

The mFi Controller software is designed to work with the Ubiquiti Networks mFi product line and third-party devices. The software interface design is based on the popular and easy-to-use UniFi® software interface. The mFi Controller software allows you to manage your mPort, mPower, sensor, in-wall, and third-party devices from your web browser.

Features

Machine Auto Detection The mFi Controller software will auto-detect and provision mFi devices and connected machines on the machine network.

Advanced Analytics Powerful graphing with user-defined views provides in-depth analysis of the machine network.

Events and Alerts User-defined event recording and alerts provide feedback on machine network activity.

Remote Control Capability Remotely control the power and functionality of the machine network.

Remote Terminal Support Terminal command windows support unlimited machine network scalability through a single interface.

System Requirements

- Microsoft Windows 7/8, Windows Vista, Mac OS X, or Ubuntu Linux 12.04 or later 64-Bit Operating System
- Web Browser: Mozilla Firefox, Google Chrome, or Microsoft Internet Explorer 8 (or higher)
- Java Runtime Environment 1.6 (1.6.0_26 or higher recommended)
- Flash Player 10
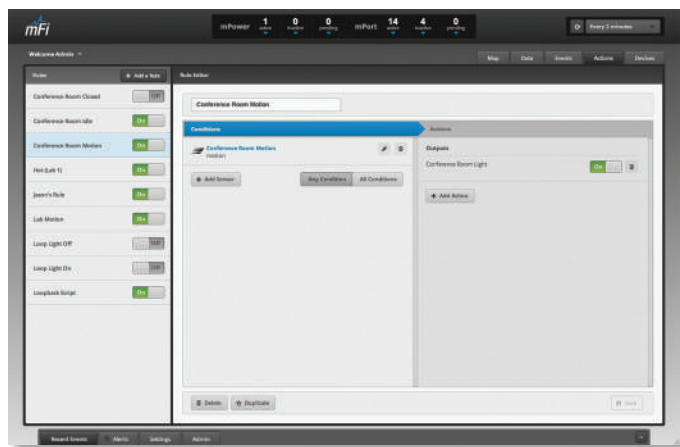- Minimum 2 GB RAM is highly recommended

![mFi logo]

Maps

Upload map images of your location(s) for a visual representation of your machine network.
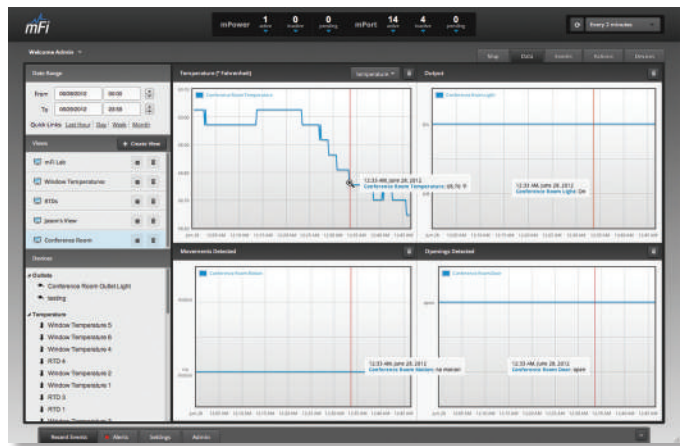
Customizable Data Views

Display information on your machines and sensors in a customizable view with selected times and date ranges.

Advanced Rule Creation

Create powerful relationships and automation in your machine network with complete freedom.

mFi

mPort Sensor Specifications

These sensors are designed to be used with the mFi mPort.

Temperature Sensor

mFi-THS	
Dimensions	100 x 85 x 27.8 mm (3.94 x 3.35 x 1.09")
Weight	80 g (2.82 oz)
Temperature Range	-10 to 50° C (14 to 122° F)
Accuracy at +25° C, 50% RH	±0.5° C
Temperature Accuracy from -10 to +50° C	Max. ±1.3° C
Response Time	<15 Seconds
Ports	(1) mFi RJ45 Port
Operating Temperature	-25 to 60° C (-13 to 140° F)
Operating Humidity	0 to 95% Noncondensing

Current Sensor

mFi-CS	
Dimensions	32 x 57 x 22 mm (1.26 x 2.24 x 0.87")
Size of Opening	13 x 13 mm (0.51 x 0.51")
Weight	50 g (1.76 oz)
Ports	(1) mFi RJ45 Port
Input Current	0 to 100A
Load	Linear*
Core Material	Ferrite
Bobbin	Nylon
Mechanical Strength	Number of Switching Operations ≥ 1000 Times (Tested at 20° C)
Dielectric Strength (Between Shell and Output)	6000VAC/1 min.
Fire Resistance Rating	UL94-V0
Operating Temperature	-25 to 70° C (-13 to 158° F)
Operating Humidity	≤85% Noncondensing

* Non-linear loads are approximated as linear loads (sine wave).