

# ENGINEER NEWSLETTER

## Getting Started with VRF Zoning

According to a report published by Prescient and Strategic Intelligence, the [fastest growth in the global VRF market](#) between 2018 and 2023 will occur in North America. With that projected growth, there is a surging opportunity for HVAC professionals to specify, install and service Variable Refrigerant Flow (VRF) systems.

### Meeting the Need

Despite the worldwide popularity of VRF technology and a market projected to reach [\\$24.09 billion by 2022](#), only a minority of HVAC professionals are qualified to work with VRF zoning. Much of the resistance to VRF system adoption stems from misconceptions concerning [VRF capabilities](#) and a lack of awareness about the educational and technical support provided by manufacturers. Given the resources available, HVAC professionals capable of understanding the dynamics of heat pumps and refrigerant flow should not find it difficult to learn VRF-specific concepts.



### Success Starts with Manufacturer Support

For engineers to feel confident specifying VRF systems, manufacturers recognize the necessity of a stable support network of experienced installation and service professionals. Mitsubishi Electric Trane HVAC US (METUS) leads the industry in providing hands-on, VRF-specific training and has expanded its footprint with nine company-owned training centers and over 30 new training centers operated by Trane, our joint venture partner. METUS offers classes accredited by the [International Association for Continuing Education and Training \(IACET\)](#).



To learn about the requirements, advantages and opportunities associated with specifying and applying VRF systems, [click here to read "Getting Started with VRF"](#), a new white paper published by METUS.

# Introducing the N-Generation!

The new CITY MULTI® N-Generation outdoor unit is another step forward in the technology evolution of VRF zoning. Engineered to maximize energy efficiency and occupant comfort, the N-Generation increases design freedom with a smaller footprint and greater vertical separation between indoor and outdoor units. Whether your application requires N-Generation in the Standard, High-efficiency or H2i® tiers, there has never been a better time to get started with VRF zoning.



## Features

- Reduced footprint of up to 30% and new single-module capacities available
- Up to 78% heating capacity down to -13°F for High-efficiency tier
- Up to 70% heating capacity down to -22°F for H2i® tier
- Up to 13% reduction in refrigerant volume (versus L-Generation)
- Up to 295 feet of vertical separation between outdoor and indoor units
- Reduced electrical requirements: up to 25% in MCA, up to 16% MOP

## The Garrett-Jacobs Mansion



### Challenge

Modernize HVAC system for historic mansion built in the 1800s and enable comfort control for zones



### Solution

R2-Series system applied with Lossnay® ERV and integrated controls for new and existing equipment



### Result

An unobtrusive, modern heating and cooling system with streamlined controls and zoning

## Project Details

- Located in Baltimore, Maryland
- 5,600-square-foot tower added to historic mansion
- Existing HVAC systems couldn't meet comfort needs
- Patrons rent out various rooms for events

**“That system has worked perfectly. It's never broken down, it's had minimal cost for maintenance. Everyone's thrilled with how the whole system operates.”**

**— Dale Whitehead, Engineering Society of Baltimore, Inc.**