OptimumAIR®

OptimumAIR® is patented, state-of-the-art configurable control software that comprises one operational module of the Optimum Energy OptiCx® platform. It provides continuous, automated, system-level optimization of direct digital controlled (DDC) variable air volume air handlers to provide building space temperature, flow and relative humidity requirements in the most efficient manner possible. This platform module, inter operable with multiple building automation systems (BAS), improves occupant comfort and dramatically lowers costs. Energy savings with OptimumAIR® range between 20-40%.

HOLISTIC, SYSTEMS-LEVEL OPTIMIZATION VIA PATENTED, RELATIONAL CONTROL ALGORITHMS

OptimumAIR® demand-based relational control algorithms automatically adjust airflow to deliver precise output while using the least amount of fan power, chilled water and heating energy to meet temperature, humidity and airflow requirements.

In contrast to conventional methods that operate systems to static temperatures and pressures or optimize based on "worst case" zones, OptimumAIR® reads the actual required airflow and holistically regulates energy exchange across the chiller plant, boiler plant and AHU system in real time. Our relational, whole systems approach ensures energy use and savings are always optimal, while safeguarding space requirements.

The OptiCx® Platform

1. Design
2. Implement
3. Optimize

Optimization Services

- Reporting Services
- Technical Support

Platform Enhancements

- Predictive Free Cooling
- Chiller Diagnostics

Visualization Tools

Operational Modules

- OptimumLOOP®
- OptimumAIR®
- OptimumHEAT®

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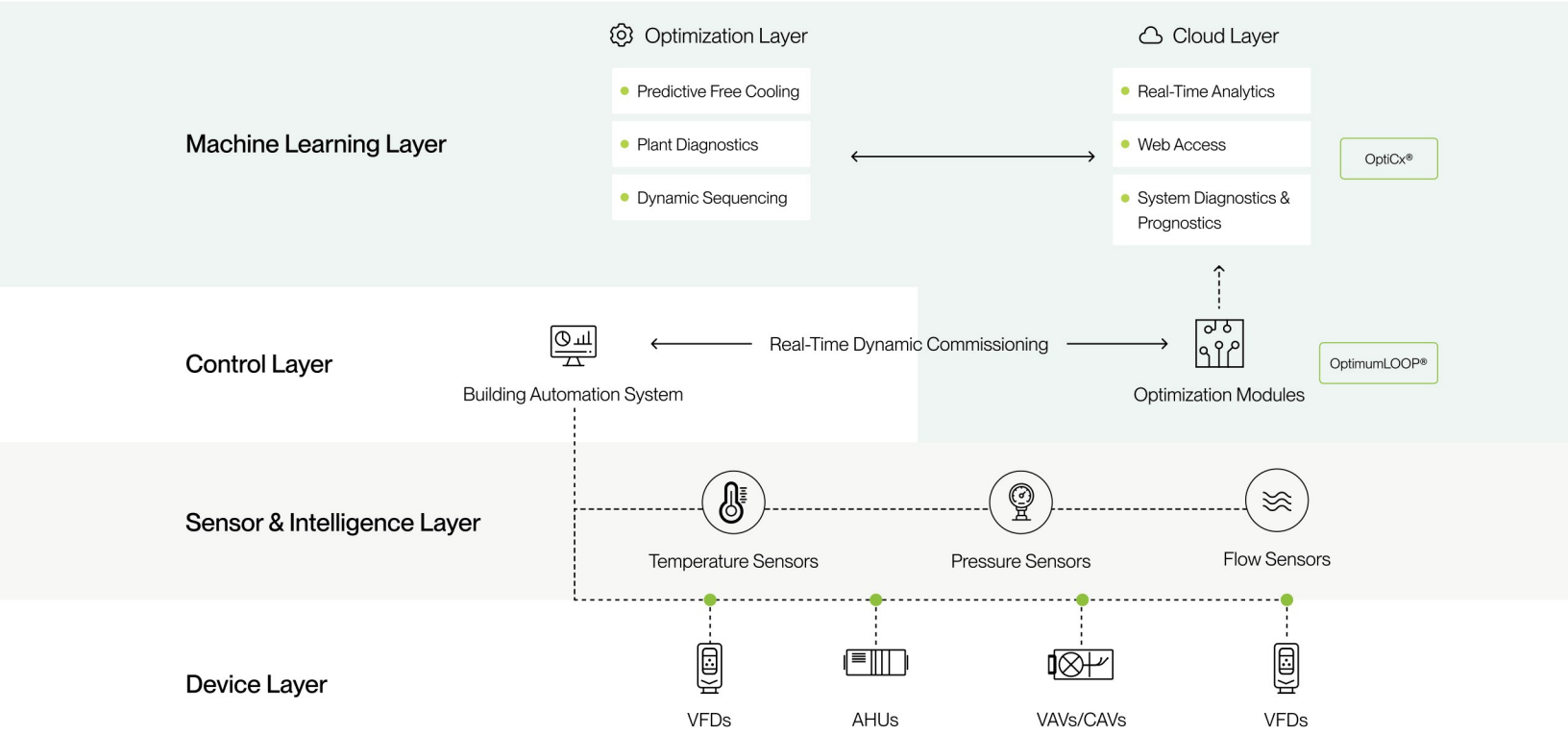
OptimumAIR® Technical Architecture



OptimumAIR® BENEFITS

Improves occupant comfort
Significantly lowers operating expenses
Sustainably reduces energy use by up to 40%
Substantially reduces water use (due to reduced ton-hrs at the chiller plant)
Automatically, continuously optimizes variable air volume systems in the most holistic, economical manner
Adapts and responds to real-time building loads and changing ambient and occupancy conditions
Delivers consistent savings across industries, settings and control systems
Streamlines operations and lengthens equipment life
Saves operator intervention time and increases personnel productivity
Pairs with world-class, full-lifecycle support and engineering services

HOW OptimumAIR® MAXIMIZES EFFICIENCY

Our solution continuously and dynamically:

- Supplies the required cubic feet per minute (CFM) using the lowest possible amount of energy
- Reduces simultaneous heating and cooling inherent of VAV systems with perimeter reheat
  Decreases the amount of heating produced by boilers or electric resistance heat
  Minimizes ton-hrs at the chiller plant
  Supplies cooling from the most efficient source—air or chilled water—according to real-time conditions
  Reduces energy waste during air movement through ducts—minimizing static operating pressures, therefore reducing duct leakage