



# The Future of the Commercial HVAC Company

**Velosio**



**Increasingly, the construction industry is becoming a technology industry –and the changes are happening quickly.**

Technology can power positive progress for the HVAC industry, fueling efficiencies that allow contractors to overcome many of the challenges they face today and helping to bring the future into sharp focus.

As commercial HVAC contractors map out future goals to grow their companies, what role can technology play in helping achieve them? In other words, what is the future of commercial HVAC companies?

Here, we look at five ways technology is heating up efficiencies and setting the temperature for future operations.



1.

# Attracting Tomorrow's Workforce

One of the single biggest challenges facing HVAC contractors today is the **shortage of skilled labor**. While it's easy to point to the pandemic as the cause, the shortage began much earlier. Fewer young adults are joining the trades. High school graduates have been so effectively encouraged to get a bachelor's degree that high-paying skilled trade jobs —requiring shorter and less expensive training —go unfilled.

**The problem is exacerbated by the fact that the nation's skilled workforce skews older. One analysis found that 40% of the skilled trades workforce in the U.S. are over the age of 45, with nearly half of those over the age of 55. Only 9% of workers are aged 19-24.**

That makes Generation Z, those born between 1997 and 2012, the workforce of the future. And they're digital natives. They've never known a world without the internet. Attracting and keeping Gen Z will require HVAC companies to prioritize technology at every level of the operation. Paper work tickets aren't going to fly with this crowd.

While an organization may have invested in ERP, CRM, and job costing applications that are primarily used by office personnel, to attract and keep a Gen Z workforce in the field, contractors will need to equip them with technology tools as well. (We'll look at some of those in a bit.)



For their part, HVAC contractors are getting creative in their efforts to increase the skilled talent pool. Some are launching their own “universities” where they augment union training with software skills like scheduling, estimating and productivity tools like Excel. In addition, many are investing in virtual reality (VR) training courses that provide immersive learning opportunities in ways that younger workers in particular can relate to.

Going forward, the HVAC industry may best mitigate the labor shortage by incorporating technology into every aspect of the business as a way to attract and keep talent and optimize the productivity of every worker.

2.

## Green Building Requires Data/See Around the Bend

Sustainable building is a growing movement in the construction sector and is top-of-mind for many construction executives —and their clients.



**Driven by a combination of increased government regulation, cost control initiatives, and expanding environmental concerns, the construction industry is beginning to embrace sustainable practices, and many HVAC contractors have begun to use them as a competitive differentiator.**

For example, smart sensors on HVAC equipment gather and transmit data to help improve energy consumption and ensure occupant health, safety, comfort, and productivity. Internet of Things (IoT) technologies enable HVAC systems to communicate data with other connected devices, and even predict issues before they occur, reducing the need for emergency calls and minimizing downtime.

HVAC companies will need to invest in their own technology systems in order to monetize sustainability. They'll need software systems designed to store and organize large volumes of data, plus predictive analytics tools to analyze that data to predict future outcomes and make informed decisions.



### 3. Optimize Employee Efficiency

**HVAC contractors can scale their operations in one of two ways. They can grow their workforce larger, so they can handle more new projects and service more customers. Or they can make operations more efficient, allowing them to perform more work with the same number of personnel.**

Since we've acknowledged that the labor shortage will likely be with us for a while, it makes sense to incorporate greater efficiencies. And technology as the lever that activates those efficiencies.

Some of this technology is already in broad use, such as equipping technicians with mobile devices running field service management software applications. The applications can notify a technician of a new service call, direct them there with maps and directions, walk them through the steps involved in a typical service call, collect labor and parts data, and pass the information to the business's billing department upon completion.


Using technology, companies will find they can keep more senior technicians in the office, supporting a fleet of junior-level technicians through real-time expert collaboration that leverages mixed reality, machine learning, and IoT tools.

There's also a growing movement among service organizations to adopt a service subscription model. Customers pay a monthly or annual rate that includes specific maintenance services. The growing subscription economy is a boon to many HVAC companies who are able to schedule maintenance during slower seasons, freeing technicians' time for urgent repairs during peak periods. Software tools that support service-level agreements, optimized scheduling, recurring billing, and predictive travel and work duration will help maximize technician utilization and make the move to subscription service seamless.

4.

## More Profitable Field Service Operations

**Ensuring the profitability of field service operations is critical to a company's long-term success.** As HVAC contractors learn to operate with a leaner workforce, accounting for and optimizing every billable hour will become even more critical in the future.

A close-up photograph of a person's hands holding a smartphone. The screen displays a map application with various colored markers and lines, likely representing service locations or routes. The background is blurred, showing a wooden surface.

**Geofencing is one technology tool that shows promise. Geofencing can lead to more accurate work order and job costing. It allows users to draw zones around a service location or job site.**

You then configure the system to “start the clock” when a field technician enters the zone and stop the clock on the way out. The data can then be used for accurate costing and billing purposes. It also has the potential to simplify time tracking for payroll purposes. Geofencing isn't brand new, but as the technology is incorporated into more business applications and becomes increasingly accurate and easy to use, its value to contractors will continue to grow.

Back in the office, field service technology tools will provide the dispatch team and management with real-time insights into field operations, from open work orders to system statuses and technician skillsets that all contribute to exceptional customer service and more profitable projects.



## 5. Uniting the Operation

**From opportunity tracking, bid management, project and work order management, equipment optimization, scheduling, cost management, and billing —and then through ongoing support, field service and more, commercial HVAC companies are diverse operations with complex workflows.**

Perhaps the single highest use of technology for HVAC contractors is its ability to unite the diverse aspects of the business and deliver near real-time visibility into the operation. Technology tools designed for the task grow more powerful and sophisticated every day. For example, they may incorporate artificial intelligence and machine learning to automate scheduling, make preventative service recommendations, perform bid trend analysis, monitor opportunities, better connect sales teams to customers, accurately forecast workloads, and much more.

In years past, gaining a full picture of such a diverse operation would have been impossible. But today, it's a growing reality. As technology continues to become more powerful, more connected, and more accessible, contractors gain a level of insight. It's that insight that will allow them to not only face future challenges but anticipate them —and turn them into opportunities.



# Embrace the Future

**As the construction industry continues to evolve into a technology industry, many HVAC companies have turned to Microsoft Dynamics.**

As a cloud-based solution, the system is easily accessed from company offices as well as by technicians on the road and support staff working from home offices—removing barriers to productivity and efficiency.

With all data and processes in one place, companies gain efficiencies in field technician scheduling, dispatching, asset management, and work order processing. Field technicians find Dynamics easy to use on any device, and service managers can run reports to analyze past performance on customer contracts and forecast future demand for technicians during peak and off-peak activity periods.

Dynamics also enables service managers to assign resources and coordinate system deliveries to synchronize technician availability with equipment arrivals. Managers can prioritize which customer tasks warrant the highest priority while managing technician schedules

and making adjustments as emergencies arise. And technicians can track schedules remotely and easily document break-fix and maintenance tasks.

From a reporting standpoint, Dynamics offers dashboards that provide visibility into all operations so the company can take corrective actions before issues impact customers. This includes forecasting resource and equipment availability as business models change the mix of new installations versus break-fix and maintenance subscriptions.

Another key benefit is the integration between Dynamics and other Microsoft solutions. Whether it's ERP, the Office suite, Outlook email, Teams, or Power BI, data flows automatically across all applications. End-users can easily access customer engagement data and files from the other Microsoft applications. This fosters internal collaboration that enables the company to respond quickly to service inquiries and greatly enhance customer experiences.

For more information about how Velosio's solution for HVAC contractors, based on Microsoft Dynamics, helps companies like yours own your future, schedule a free demo today.

<https://www.peopleready.com/skilled-trades-labor-scarcity-workforce-aging-as-fewer-recruits-enter-trades/>



# Velosio

## Contact Us

 888-725-2555

 [insider@velosio.com](mailto:insider@velosio.com)