

Control System Platform Diversity: How to know what is right for your facility

There are so many control system platforms to choose from, it is hard to know what is right for your facility. To make matters more complex, you may also be debating whether or not to standardize platforms across your entire facility. While we find a mix of both facilities that have standardized their control system as well as those who have a diverse environment, what we find to be common is that often not much thought has gone into the decision. The good news is there are great reasons for both decisions, but it is imperative to think through why those decisions are made as you can unlock both tangible and intangible benefits.

Platform Standardization

Let's start with the pros of standardizing your facility. First of all, it will likely be easier to connect all your equipment. With Rockwell, for instance, they have the "Connected Enterprise" meaning that everything works together more seamlessly than it would with multiple platforms reducing engineering time. Also, because there is only one platform to learn training your team will be easier and they can develop a deeper understanding of the system. It is also likely easier to find support –assuming you have standardized on a platform that is well known and commonly used.

On the other hand, standardization has its challenges as well. If your entire organization is using the same platform, it could open you up to cyber-attacks on specific platforms causing more damage to you. If there happens to be a vulnerability in your platform, the entire plant can be at risk as compared to a single system or department. This means that an attack to your standardized system could bring your entire facility down. While we mentioned above that it can be easier to find support when you are standardized, the opposite can also be true. If you have chosen to standardize on a platform that is less common, it could be more difficult for you to find support from someone other than the manufacturer, which could be costly.

Platform Diversity

In a lot of ways, platform diversity means additional security. If one of your platforms has a vulnerability, the entire facility isn't put at risk. It is also a great way to protect proprietary information. For instance, if there is one part of your process that is particularly proprietary that area can run on a platform that is different from the rest of your plant with only certain employees knowing that platform and having access to

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the area. Another option is to have one half of an operation on one platform and the other half utilize a different control system. Then you will have employees that know one side or the other, but no one knows the entire process — thus keeping your proprietary information safe from competitors.

Another benefit of platform diversity is that it encourages you to use multiple integrators. We believe that competition between integrators is healthy and prevents complacency. Our recommendation is to have two to three integrators that you trust. Not only will diverse platforms allow you to benefit from the expertise of multiple integrators, it will also allow you to take advantage of additional functionality and innovations from the different manufacturers. This will allow you to make better choices about the best platform for each process in your facility.

The primary concern when discussing the use of multiple control system platforms in your facility is training. Additional platforms mean that training will be more difficult and time-consuming. Whether you have a team that focuses on each platform, or you have a team of technicians that know all the platforms, you will spend more time and money training your team to program and operate multiple control systems.

So what is the right choice?

Well, unfortunately, there isn't one clear answer. As we have discussed there are a number of reasons both for standardizing as well as diversifying. Speaking very generally, if you work in a highly regulated or very secretive industry such as pharmaceuticals, food & beverage, or nuclear, platform diversity may be the better choice. It will decrease your risk of total failure due to cybersecurity or human-error and keep your proprietary information safe. If you work in a less regulated environment and have a small to medium size facility, standardization could be the right choice as there isn't as much benefit for you in diversifying.

In the end, the decision will be different for each customer. We suggest you have a conversation both internally as well as with an integrator to talk about your current environment and determine what your policy around platform diversity should be moving forward. If you would like to discuss platform diversity further, reach out to our team of integration experts.