



ELIMINATE MANUFACTURING PLANT NETWORK DOWNTIME

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INTRODUCTION

From thrown off schedules to disgruntled employees, no business can afford to suffer from significant network downtime. Manufacturing facilities are especially crippled by network downtime as it means lost revenue, paying out wages for no work or effort, a bottleneck of future work due to lost manufacturing, and missed timelines. There are several steps every manufacturing plant should take to prevent issues and keep your network running. From investing in a strong physical infrastructure to connecting your devices, all factors combine to keep your business running.





THE COST OF NETWORK DOWNTIME

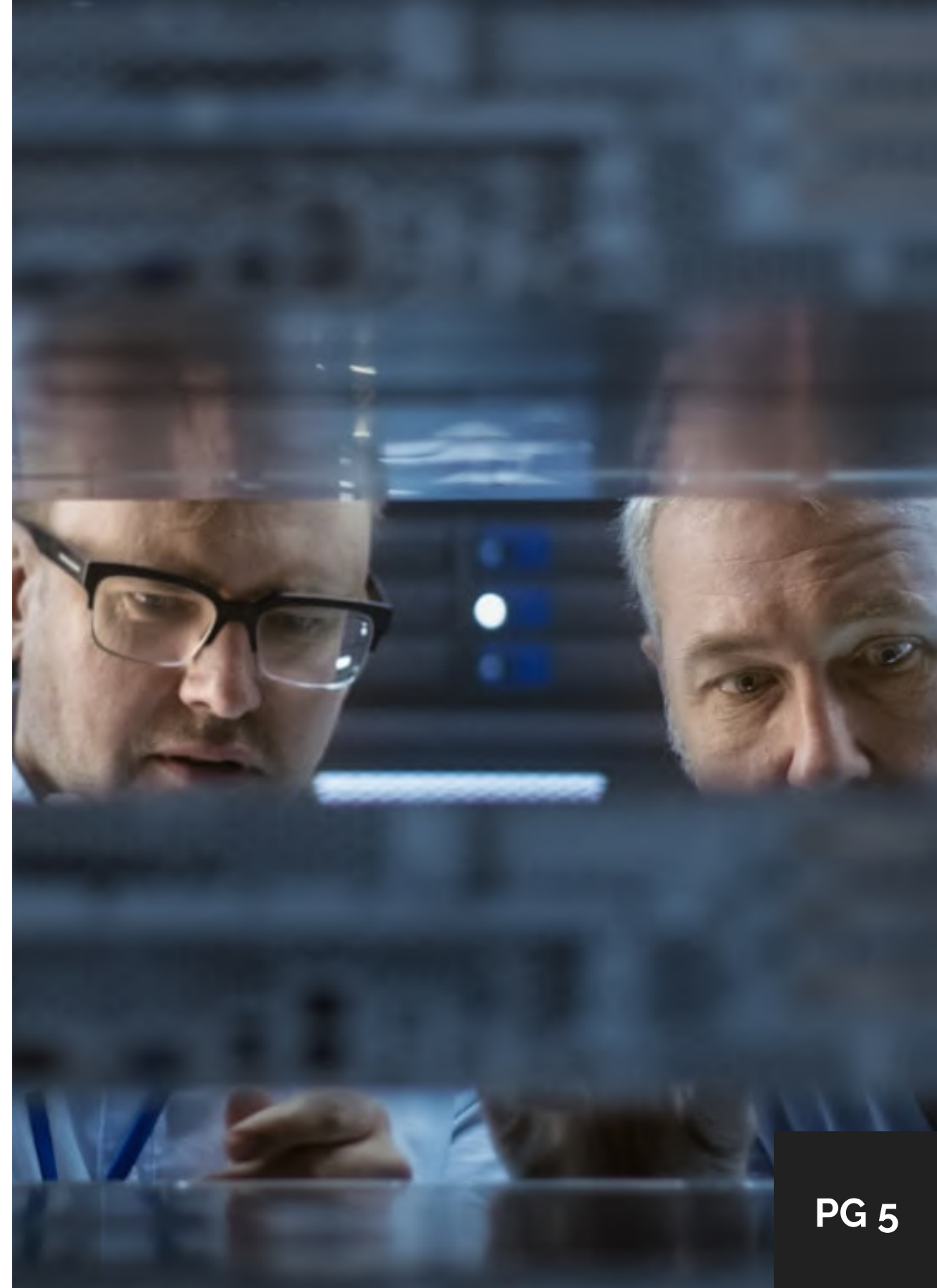
The domino effect in such an organization can cost hundreds of thousands. In a case study completed by the ARC Advisory Group, it was found that only one hour of downtime can cost “\$43,000 an hour of lost revenue on an automotive OEM stamping machine, \$15,000 an hour of lost revenue for a typical packaged food or consumer item, and up to \$500,000 a pharmaceutical batch.”

With our increased reliance on network connectivity, there is no room for your business to suffer downtime. When your manufacturing plant is down, you are losing time, money, and production. You don't have to tolerate high downtime costs.

INVEST IN A STRONG PHYSICAL INFRASTRUCTURE AND LASTING BUILDING BLOCKS

More than anything, the investment you make in your network should be in its building blocks. You likely already have a network in place but your usage of it is also likely to expand as well. When working with a professional, you may get recommendations that include the use of cloud-based systems, wireless capabilities, or SDNS.

The Industrial Distribution Frame is highly recommended for the growing needs of your manufacturing business. An IDF is made specifically for industrial applications and keeping all of your devices connected to one another. It holds high distribution switches, can accommodate switching in control panels, and even connects to access points. One of the biggest benefits of this specific setup is that it is a complete enclosure for keeping your systems running without overheating.





DON'T OVERLOOK THE VALUE OF YOUR OWN ETHERNET/IP

Aside from the convenience of ethernet/IP, it is also more secure. This specific system is one of the leading industrial network protocols because it actually is designed around object orientation so you can control applications internally. Perks of this system include multiple types of broadcast communication through devices, change-of-state monitoring, and the upload of recipes.

In general, relying on ethernet allows you to connect all of your devices to OPC interfaces and Data Historians so you can gather data all in one place. Analytic insights are the key to tracking your downtime and turning it into increased uptime. Ethernet is beneficial because of high speed, low signal loss, high bandwidth, and flexibility.

CARING FOR THE SERVER ROOM IN THE LONG TERM

Although this seems like a simple point, it is often overlooked. Care for your server room to guarantee it is not overheating and all connections are sound. Many manufacturers focus on their server rooms only when there is an issue with the system. Your tech team members should keep the room clean, assess the system on a weekly or biweekly basis. Simple care tips include:

- Make sure there is proper ventilation, cooling and moisture controls in the room.
- Regularly dust and clean the room. Use positive pressure systems to prevent dust from entering.
- Use cable management to eliminate wire clutter and keep all connections tight.





CONNECT ALL OF YOUR DEVICES

Upgrading your plants network infrastructure is only one step to increasing machine reliability. A plant wide network will enable the implementation of intelligent systems to monitor and track machine performance. Many manufacturers have the capacity to monitor their systems but are not connecting all field devices and sharing the information in reporting systems. Check the capabilities of your existing automation and field devices. Connect those that are ethernet capable, then create upgrade plans and timelines to bring additional visibility to your plant.

PROPERLY TRAIN YOUR PRODUCTION LINE EMPLOYEES

Training your employees seems like it has little to do with downtime, but in the long-run, it can improve the way your business operates. Implementing a strong reliability and preventative maintenance program can potentially save you thousands of dollars. Aside from basic job responsibilities, empower your employees to learn more about the machinery they operate. If your average line worker is able to identify a sticking part, a strange noise, or even a missing part, you have a staff working to keep your machine running as well!



ADD WIRELESS SENSORS TO MONITOR CRITICAL ENCLOSURES AND PLANT AREAS

The more information you know about your system, the better your prevention. Adding wireless sensors makes it easier for you to schedule your maintenance in advance, improve your asset management, and even control your energy costs. These can detect:

- Temperature
- Overheating or Freezing
- If Objects are Moving Properly
- Valve Opening or Closing Position
- Complete or Incomplete Services

Here's what a sensor can do for your production facility or plant. In the past, a machine would break down, someone would come in and fix the issue, and the machine could be up in a few hours if you're lucky. With intelligent devices in your facility, you can detect issues before they become problems. Even a minor slowing down of production, an increase in average system temperature, or a change in current can be an indicator of a future system issue. A wireless sensor can detect this before you can! Just like you'd service a car or care for your own health, knowing your data for preventative maintenance helps avoid downtime.

HIRE A CERTIFIED INSTALLER FOR YOUR PROJECT

A professional that provides IT services and solutions can effectively assess your system and determine the quality of your existing setup. Even something as simple as making sure your connections are tested should be completed by an expert. Once tested, make an investment in network monitoring tools to detect any issues with your system. The right sensor data will diagnose issues with your system before they lead to downtime or outages.

DC Plus provides solutions that rest on their experience in manufacturing and understanding of pain points. Get a company able to work as your partner in solving network issues and increasing network uptime.

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