



Construction Materials Manufacturer Automates Plants with Cybernet

Customer Bio

Vulcan Materials is a large producer of construction materials, manufacturing sand, gravel, crushed stone, asphalt, and concrete. They have more than 50 plants located in California, Arizona, and New Mexico with a second division of the company operating plants on the East Coast.

Vulcan
Materials Company

Vulcan Materials
Company

Industry: Industrial
Product: Cybernet iPC R1
HQ: Riverside, CA

Challenge

Due to the nature of their business, primarily quarrying and rock crushing, dust, dirt and other airborne particles have always presented a threat to any electronics running at Vulcan Materials' plants. Depending on the size of the plant, Vulcan needs between 1 to 6 rugged industrial computers to manage their automated processes. They had initially purchased Stealth computers, but had consistent issues with hardware failure. The Stealth computers they used had standard platter hard drives and fans that quickly became saturated with soot, dust, and dirt.

Furthermore, the Stealth computers were bulky and needed large enclosures and cooling devices to withstand the high desert temperatures. The final straw was the lack of timely support. Because Stealth support was located in Canada, they would oftentimes be quoted several weeks for repairs or replacement computers. Vulcan materials needed something resilient enough to withstand the poor air quality and hot desert environments, but powerful enough to run their HMI software.

Solution

Vulcan Materials chose to go with the Cybernet IPC R1 because of the fanless design and the solid state drives to avoid contaminants in the computers' builds. The computers made less noise for a quieter warehouse floor and came with side mounting brackets, freeing up desk and shelf space.

The industrial grade components on the motherboard stood up against the desert temperatures and bad air quality. Vulcan has also been upgrading their operating system from Windows XP to Windows 7, and the IPC R1 can still run that OS as well as newer versions of Windows in the event they decide to further upgrade their systems.

Results

Vulcan Materials has been implementing the IPC R1 over the course of the last several years. The same Cybernet computers that Vulcan initially purchased for their first plant are still operable today. They were so satisfied with the products that they began replacing all Stealth computers in their plants.

Unlike with their previous vendor, in the rare instances there has been a need for service, turnaround time has been a matter of days rather than weeks. Vulcan will continue to systematically upgrade all of their computers to Cybernet models until all of their plants have been automated. End users have had no complaints with the computers' ability to run the software. Most importantly however, because of no moving parts on each computer and industrial-grade, quality components, Vulcan's has seen a positive ROI through the extended lifespan of the computers and the savings on maintenance costs.

“ We'd open some of our old units up and they'd be totally packed with dirt and fine dust. That definitely caused a lot of problems...That hasn't been a problem with [the Cybernet] units.

- M.V., Systems Integrator
Vulcan Materials Company

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