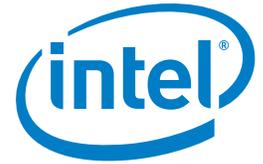


## CASE STUDY

Intel® Xeon® processor 5500 series

Intel® Core™ i7 processor

Pack-Smart Inc.



# Intel Helps Pack-Smart Deliver Innovative Packaging Solutions

For Pack-Smart Inc., designing, building and installing new machines and its software must run like clockwork.



**PACK** smart inc.

“We’ve used other processors but have moved to Intel exclusively to eliminate software and hardware compatibility issues. You can’t afford compatibility issues when delivering on tight time frames.”

– Derek Dlugosh-Ostap,  
President, Pack-Smart Inc.

## CHALLENGES

- **Manufacturers face tight** delivery deadlines for new automated packaging solutions needed for new product launches or redesigns, which are costly to miss. For Pack-Smart Inc., designing, building and installing new machines and its software must run like clockwork.

## SOLUTION

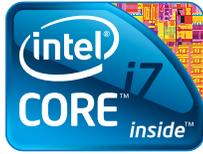
- **Reliability Meets Speed:** After a major network failure, Pack-Smart redesigned its infrastructure using three Dell\* servers powered by Intel® Xeon® processors and upgraded its engineering workstations to run on either Intel® Core™ i7 processors or Intel Xeon processors, providing the speed needed turn ideas into manufacturing machines in as few as eight weeks.

## IMPACT

- **Network infrastructure stabilized** with Dell PowerEdge\* servers running Quad-Core Intel Xeon E5500 series processors provides engineers with dependable and fast access to files.
- **A virtual server** running on Pack-Smart’s Dell PowerEdge with Quad-Core Intel Xeon E5504 processor allows easy management and maintenance of ERP system.
- **Engineering workstation powered** by the Intel Core i7 processor speeds the design of manufacturing equipment comprised of thousands of parts, reducing wait and downtime.

President Derek Dlugosh-Ostap started Pack-Smart Inc.\* in 1996 to provide design services for industrial automation which then expanded to provide in-house design, manufacturing and support for printing industry leaders around the world.

“We focus on innovative solutions to automate direct mail and high visibility packaging. A lot of manufacturers are ramping up production and they’re anxious to get new machines running yesterday,” says Dlugosh-Ostap, adding that creative staff, marketers and designers often change



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package design right up to the day of production, which means building flexible machines that can adapt to changing mandates.

Pack-Smart builds machines in modules, allowing customers to be creative without jeopardizing performance or driving up costs. Each module is run by a centralized virtual machine that monitors performance and allows operators to troubleshoot issues – on site or remotely.

When systems administrator Daniel Rosenstein joined the company he re-built the entire network to address performance and reliability issues. Two new Dell PowerEdge\* servers featuring Quad-Core Intel® Xeon® processors give Pack-Smart a solid and reliable base for the engineering files, domain controllers, administration and ERP system. The network is fully backed up for business continuity.

“When I joined there a lack of stability. During peak periods, it was a disaster,” recalls Rosenstein. “Intel gives us the speed we need and reliability. Two hours of downtime for four engineers is costly for our business and Intel processors have proven themselves for reliability.”

“We’ve used other processors but have moved to Intel exclusively to eliminate software and hardware compatibility issues. You can’t afford compatibility issues when delivering on tight time frames,” adds Dlugosh-Ostap.

From two people more than a decade ago to a staff of 30 in Toronto today, Dlugosh-Ostap needs his network and

the computers used by his designers and engineers to be fast and reliable. Missing a deadline has real economic impacts for clients so he relies on his MacBook Pro\*, powered by the Intel® Core™ i5 processor to keep projects running seamlessly while in the office or on the road.

“If we don’t deliver on time, that equipment might not be necessary until another project comes in months down the road,” says Dlugosh-Ostap, adding for some clients, the business earned in the six weeks or production can pay for the machine. “If a customer is not able to receive product for launch, you can immediately deduct 30% off the value of equipment.”

#### **Addressing Need For Speed**

For mechanical designers like Anthony Dirracolo, speed and reliability are key. Pack-Smart equips its engineers with the fastest workstations it can afford, running dual or quad core Intel Xeon processors, or more recently the Intel Core i7 processor.

When working with his clients, Dirracolo uses 3D engineering software to build customized components or features for each module. Working closely with clients, Dirracolo has eight to 10 weeks to take an idea and create a working machine, complete with the software needed to run it.

“Speed and reliability are critical,” he says. “If my computer cuts out, I not only lose what I didn’t save but it can mean up to half an hour of lost time while I reboot.” Since joining

Pack-Smart in March, and working on his Dell\* Studio\* XP with the Intel Core i7 processor, Dirracolo says he's had no issues with lag or downtime.

"We have seen the biggest step forward in processing power with the Intel Core i7 processor. In the past, there was never enough processing power on a workstation," says Dlugosh-Ostap. "With new Intel Core processor family we've seen a leap forward in speed. When you're building an assembly with 5,000 components, engineers would be sitting and waiting for up to ½ hour to open an assembly or need to open a project on multiple machines. Today, big assemblies can be opened in 10 minutes on one machine."

"Time is money and when we're working to deliver a machine in eight weeks, every minute counts. If our machine is down and our project is late, it can mean really bad things for a client," says Dirracolo, noting if a machine isn't running for a launch, a client might need to hire staff to stuff CDs in a folder or glue loyalty cards in place to meet launch timing. "If card affixing line can do 10-20,000 cards an hour, can you imagine how many people you'd need to hire? It's super critical that we meet our timelines."

### ERP Virtually Seamless

On one Dell\* PowerEdge\* server, Rosenstein created a virtualized environment for the ERP system, allowing more flexible management of the system without impacting the speed of the network serving design and engineering staff.

Rosenstein says Pack-Smart is one of the first companies to run SolarSoft\* ERP software on a virtualized machine and they are pleased with the performance and flexibility virtualization has allowed.

"I wanted the ERP system to be completely separate from the rest of the network. Since it's a powerful server, I can easily add more functionality using virtualization without impacting users on the network," says Rosenstein. "On a virtual machine, if something happens, I can take a snapshot and put it back to where it was. I'm not losing time restoring from a back up and I can also restart virtual server while the physical server is still running minimizing impact on staff."

For more information on Intel® Core™ i7 processors, visit: [www.intel.com/go/corei7](http://www.intel.com/go/corei7)

For more information on Intel® Xeon® processors, visit: [www.intel.com/go/xeon](http://www.intel.com/go/xeon)

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### ABOUT PACK-SMART INC.

**With machines running** around the world for more than 200 customers, Pack-Smart Inc. designs, builds and installs equipment and software to automate digital printing, finishing and packaging. Since 1996, the company has grown from two people to a full service design and manufacturing company of 30, specializing in modular packaging equipment for printers, marketers and the secure packaging industry.

SOLUTION PROVIDED BY:

