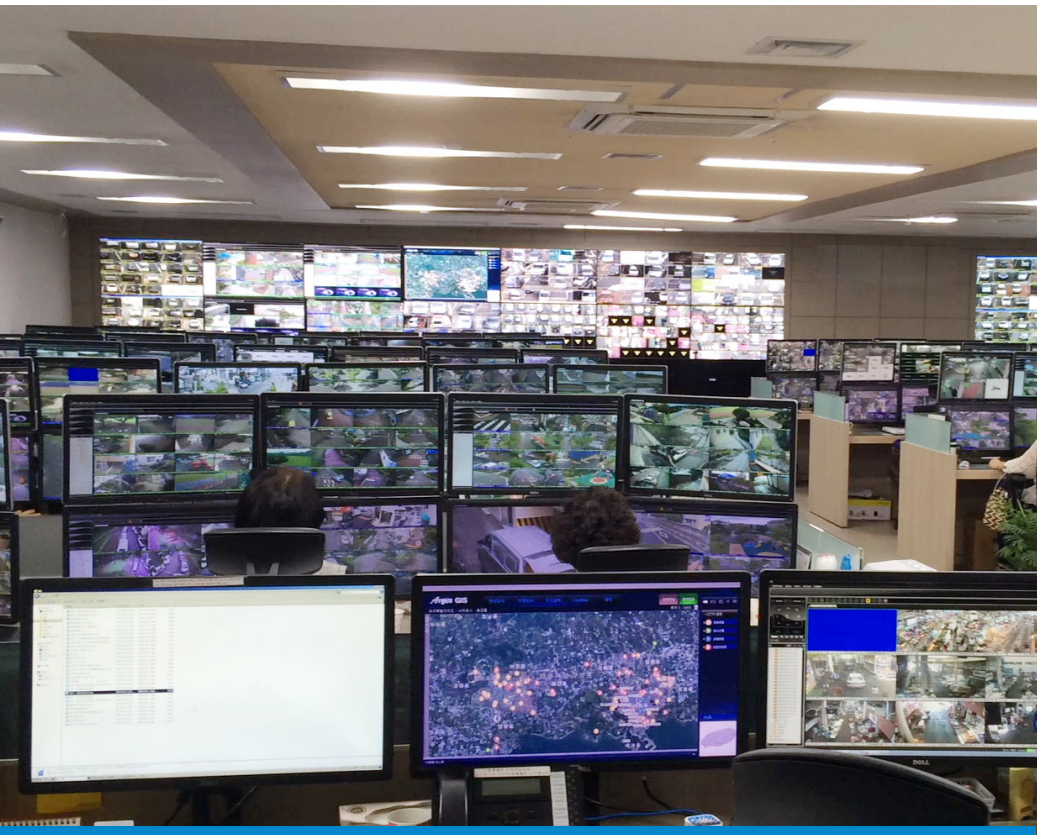
Simplifying the evolution of smart tech

Innodep in South Korea cuts development time by 40 percent for its Internet of Things (IoT) security management solution by working with an original equipment manufacturer that understands smart thinking



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Sun Jin Lee, CEO, Innodep

Customer profile

Company	Innodep
Industry	Security & Surveillance
Country	South Korea
Website	www.innodep.co.kr

Business need

Innodep wanted to seize the market opportunity for IoT-enabled devices by extending the success of its IP-based security solution for a smarter world.

Solution

The company strengthened its relationship with Dell OEM Solutions, working in partnership to engineer IoT capabilities into an already market-leading surveillance product.

Benefits

- Helps customers improve the safety of their buildings
- Enables simple integration with an IoT solution based on open standards
- Reduces development time for IoT capabilities by 40 percent
- Reduces the IT platform by 95 percent with end-to-end solution
- Simplifies management with a single point of contact

Solutions at a glance

- OEM Solutions
- Data Center
- Enterprise Support

The Internet of Things (IoT) offers great opportunities for businesses. It provides new sources of value from the data being collected by sensors embedded in everyday objects. Indeed, companies such as Innodep in South Korea are seeking early mover advantage in this exciting business landscape that is shaping our future.

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>
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> *Marketing Director, Innodep*

In the case of Innodep, the company wanted to build on the success of its Vurix IP-Matrix video security management appliance. Innodep IP video security is already helping organizations across South Korea and other parts of the world manage the security of their facilities. More specifically, it gave customers a centralized security management system for an unlimited number of cameras, ensuring cost-effective and reliable security of any location size.

A success story that begins with a 30 percent sales growth

What made Vurix IP-Matrix successful was its delivery as an appliance. Customers gained a highly converged, all-in-one solution to simplify deployment and management. Innodep worked with Dell OEM Solutions from the early stages of its design right through to development of the finished product. The relationship also extended to deployment and support. From any angle, the partnership worked well because Innodep saw overall sales increase by 30 percent with the launch of the Vurix IP-Matrix.

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The time for IoT capabilities

Innodep wanted to build on the success of the Vurix IP-Matrix, incorporating IoT capabilities. The potential for an IoT-enabled solution was enormous. With populations worldwide rapidly urbanizing, countries need to build smarter cities. IoT solutions answer this requirement, networking vast numbers of sensors to "smarten" living environments. For Innodep, such a shift

Products & Services

Services

- Dell OEM Solutions
- Dell OEM Express
- Dell OEM for ProSupport

Hardware

- Dell PowerEdge R730 servers with Intel® Xeon® E5-2600 v4 processors
- Dell PowerVault MD3860 and MD1280 storage arrays
- Dell Networking N2024 switches
- Dell OptiPlex 7010 desktop with Intel® Core™ i5 processors
- Dell PowerEdge VRTX shared infrastructure platform
- Dell Edge Gateway 5000

was an opportunity to service public and commercial properties as well as private homes. The goal was to extend the value of Vurix IP-Matrix in two major ways: enhancing the appliance and offering customers a Microsoft cloud-based version of the same technology.

For the appliance, Innodep turned to Dell OEM Solutions once again. Key for Innodep was the overall Dell position on IoT. Dell OEM Solutions enables a pragmatic approach to IoT, encouraging customers to leverage existing IT investments for analytics-driven operations. Says Chris Lee, marketing director at Innodep, "We found that Dell OEM Solutions was ready for our IoT communication. The Dell team reflected the wider adoption across Dell of IoT and cloud-based systems. It was already familiar with the smart city concept and we could work straight away."

Built on an IT platform created for modern-day businesses

Innodep's already market-leading Vurix IP-Matrix is built on a high-performance and scalable Dell platform. At its heart are Dell PowerEdge R730 servers with Intel® Xeon® E5-2600 v4 processors. With their high-density memory and balanced input/output, the servers get the best out of the virtualization options available, namely Windows Server 2012 R2 Datacenter Edition with Hyper-V, VMware vSphere and Citrix XenServer. Chris Lee says, "In addition to a five-year warranty period of the R730 platform, Dell also offers Dell ProSupport for OEM, which made our choice easier."

Working alongside the servers are Dell PowerVault MD3860 storage arrays as well as Dell Networking N2024 switches. Dell OptiPlex 7010 desktops with Intel Core™ i5 processors provide customers with the appliance interface. Comments Lee, "We could increase the amount of storage we offer customers – from 500 terabytes to 1 petabyte of storage for the Vurix IP-Matrix appliance – thanks to our Dell PowerVault arrays. Besides the continuous need for large amounts of storage, the appliance has to support a lot of data traffic. We chose Dell Networking N2024 switches together with Ethernet capabilities to help manage the data traffic for 500 to 1,000 channels of high-definition video."

A practical approach to IoT that saves customer resources

For Innodep, the goal was to IoT-enable the Dell hardware stack by integrating a Dell Edge Gateway 5000 based on its own infrastructure. IoT gateways enable users to collect and analyze data from multiple, interconnected sensors at the edge. It's a key building block in connecting legacy devices, and in the example of Innodep, gave the Vurix IP-Matrix IoT performance. Unlike many gateways, however, the Dell Edge Gateway 5000 model is built on open standards and can thus provide BIOS and other hardware-level security.

More broadly, Lee and fellow stakeholders were also keen to adopt the intelligent, industrial-grade Dell gateway solution because of its construction and the work with Intel that went into its design, which depends on dual-core, low-energy E3800 series Intel Atom™ processors for its computing. "The IoT partnership between Dell and Intel is very important. Dell has been building on the successful development that Intel has already completed in the IoT market, and this kind of partnership resonates well with our customers," he says.

Innodep and the Dell OEM Solutions Team then worked together on integrating the Dell Edge Gateway 5000 with the Vurix IP-Matrix appliance. Work focused on the IoT lab at the Dell Solution Centre in Singapore. The facility allows Dell and Intel customers to test and deploy IoT solutions. "We gained the expertise and efficient IoT platform facilities necessary for developing our

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gateway solution for our Dell OEM-based appliance at the Dell Solution Centre," comments Lee.

Reduces development time for IoT enhancement by 40 percent

Currently, Innodep is looking to drive growth for its IoT-enabled Vurix IP-Matrix appliance. With impending legislation in South Korea and other countries to encourage the development of smart cities, the time is right for IoT solutions, and Innodep has an early mover advantage. According to Lee, working with Dell OEM Solutions has been crucial in obtaining such a timely presence in the market. "We have reduced the development time for our IoT-enabled Vurix IP-Matrix appliance by at least 40 percent by partnering with Dell OEM Solutions." Lee points to the availability of the Dell Solution Centre in Singapore as well as IoT experts from Dell for cutting overall development time.

The IoT-enabled Vurix IP-Matrix is in its last stages of development and a prototype of the finished product is completing its final evaluation. Current tests also include stacking the solution in a Dell PowerEdge VRTX shared infrastructure chassis. "The government of South Korea is clear on how IoT can help improve the efficiency and safety of buildings," says Lee. "We can answer the need for IoT technology to enable smart cities through our work with Dell OEM Solutions. Within just a couple of years, IoT technology will be fully integrated into our buildings, and we'll be in the right place to meet the demand."

Improvement of building safety for customers

Innodep customers will be able to enhance the security of their facilities within buildings with the IoT-enabled appliance. As Lee makes clear, the IoT technology ensures many improvements, such as better fire protection. For example, by processing data locally on moisture levels, temperature, dust and gas from sensors, the intelligent gateway can detect correlations that indicate a fire hazard faster than traditional methods and react with less latency than centralized analytics in the cloud or data center. "An extra minute of warning can save many lives and injuries in the event of a fire in a typical multistory office building," he says.

Enables simple integration with standards-based IoT solution

Customers will also minimize the cost of upgrading their appliances thanks to the interoperability of the Dell platform. "Our Dell-based appliance already comes with servers, storage and networking to simplify deployment and management processes. Likewise, the Dell Edge Gateway 5000 is built on open standards and can integrate industry-standard Intel protocols. We've created a highly cost effective IoT solution with the support of Dell OEM Solutions that delivers real value to our customers," comments Lee.

Consolidates IT by 95 percent with end-to-end solution

Innodep has extended the capabilities of its Vurix IP-Matrix while retaining the advantages of an end-to-end Dell OEM Solution. The company uses the Dell OEM Express service to badge the appliance Vurix, helping promote the Innodep brand. More importantly, customers also gain the benefits that come from the Dell commitment to high-quality and high-performance technology. Lee says, "It is certain we have improved the stability and performance of our IoT-enabled Vurix appliance by building the device on technology from a single vendor."

Simplified support and management, with single point of contact

Besides retaining the end-to-end solution advantage, Innodep also preserves a simplified support model. For instance, Innodep stakeholders have a single point of contact at Dell OEM Solutions to support development work. In addition to that, Innodep and its customers can also make use of Dell OEM ProSupport to answer all their support inquiries. This ensures a consistently high level of service regardless of whether the request involves the servers, storage, networking or IoT features in the appliance.

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