CASE STUDY
2nd generation Intel® Core™ i5 vPro™ processor
Enterprise Client

Demonstrably persuasive

Capgemini proves the value of Intel® AMT by demonstrating the viability of host-based configuration

Capgemini is one of the world's leading consulting, technology, outsourcing and professional services organizations. Headquartered in Paris, France, it operates in 40 countries and employs approximately 110,000 people across Europe, the Asia Pacific region and North and South America. Capgemini Netherlands noted that many of its customers would benefit from Intel® Active Management Technology[1] (Intel® AMT), a component of 2nd generation Intel® Core™ i5 vPro™ processor, for remote management of PC fleets. However, the majority were deterred because of a solution based on the requirement for supporting technologies such as a public key infrastructure (PKI). To surmount this, Capgemini Netherlands developed a host-based configuration of Intel AMT which removed the complexity of traditional provisioning.

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Arnold Verhoeven,
Senior IT Architect, Capgemini Netherlands

CHALLENGES

- **Reduce complexity:** Capgemini Netherlands was faced with barriers to customer adoption of Intel AMT technology for desktop PCs and laptops because of provisioning complexities such as the need for tight integration into the customer network
- **Refusing to engage:** Up to 90 percent of potential customers refused to engage with Intel AMT proofs of concepts (PoCs) because of provisioning complexities
- **Looking for solutions:** The organization needed to prove to customers the value of Intel AMT and persuade them to engage with a PoC

SOLUTIONS

- **Host-based configuration:** The organization carried out a PoC of host-based Intel AMT configuration to demonstrate that complex back-end systems were not required
- **System details:** The company used HP laptops powered by 2nd generation Intel Core i5 vPro processors with the Intel AMT 7.0 enabled
- **Migration ease:** PoC revealed that host-based configuration is far easier than traditional provisioning

IMPACT

- **Take off in seconds:** Host-based configuration reveals that the provisioning of an Intel® vPro™ technology-based desktop or laptop in client control mode can be done within seconds
- **Building out:** The PoC proved that host-based configuration has the flexibility to easily move from client to full admin control mode providing full Intel AMT functionality
- **Customer gains:** Capgemini Netherlands expects the number of customers who request host-based configuration PoCs to climb from 10 percent to about 40 percent

Up-close and personal

Capgemini's guiding maxim is to work closely with customers so they can profitably adapt to technological advancements, dissolving geographical boundaries and intensifying competition. The organization provides customers with the expertise needed to successfully engage with complex and unpredictable challenges, so the business can become more agile and competitive.

One of its important aims is the adoption of technology that provides greater flexibility, enhanced productivity and reduced total cost of ownership (TCO).

Within the context of lower TCO and greater flexibility, Capgemini Netherlands introduced its clients to Intel Core i5 vPro processors that included Intel AMT 7.0 which supports remote PC repair and upgrades, including hardware keyboard, video and mouse[2] (KVM) support.

Intel AMT is hardware and firmware technology that builds functionality into business PCs to make them less expensive for businesses to monitor, maintain, update, upgrade, and repair. Intel AMT is part of the Intel® Management Engine (Intel® ME), which is built into PCs with 2nd generation Intel® Core™ vPro™ processors.

Quick and simple Intel® AMT implementation

Intel AMT gives a system administrator better access to the PC down the wire to remotely and securely handle tasks that are difficult or even impossible when working on a PC without built-in remote functionality. In short, Intel AMT can help IT administrators substantially reduce the cost and time associated with deskside visits by letting them remotely manage both desktop PCs and laptops.

It also enhances security since updates can be applied remotely and a remote power on/off feature enables IT to work out-of-hours. For example, security patches can be applied overnight. It's also a powerful solution for malware protection.

Complexity leads to reluctance

When Capgemini Netherlands introduced the technology, clients were reluctant to adopt it because of provisioning difficulties. Some of these complexities were the need for a PKI, a central management system, and a wired local area network (LAN) connection. Because of these constraints, many customers were not even interested in carrying out a PoC.

Capgemini Netherlands recognized the need for a simple and cost-effective solution and decided to see if host-based configuration would provide a suitable alternative to traditional methods. It placed two Intel vPro technology-based systems capable of host-based configuration in an isolated environment. This consisted of laptops powered by 2nd generation Intel Core i5 vPro processors with Intel AMT 7.0 enabled. The systems were configured with the Intel® AMT Configuration Utility in 20 seconds.

This demonstrated just how easy it is to provision Intel AMT using host-based configuration. However, one of the differences noted was that nearly all AMT functionality is available in client control mode, but user acknowledgement is needed to execute the AMT functionality. Capgemini also proved that it was possible to move client control mode to admin control mode quickly to gain full functionality.

Simple and fast provisioning

Overall, Capgemini proved that during a large migration project it's possible to configure machines at a remote location. In short, host-based configuration makes it possible to provision a machine during pre-staging without the need to create a complex back-end environment.

Capgemini now expects more companies to engage in an Intel AMT PoC and to follow up with a quick and easy implementation. To date, approximately 90 percent of potential customers have not been willing to adopt Intel AMT due to the provisioning complexities. This figure is expected to drop to about 60 or 70 percent thanks to the success of host-based provisioning.

Arnold Verhoeven, Capgemini, Netherlands, said: "Customers will now receive a quick and easy implementation of Intel AMT. If they want full AMT functionality, they have the option of going for the advanced version without needing to revisit each machine. We now believe that this flexible migration path, from client control mode to admin control mode, ensures that Intel AMT host-based configuration will become a valuable option for customers."

Spotlight on Capgemini

Since the company's founding in 1967, Capgemini has established itself as one of the top five IT services and consulting companies worldwide. Over the last four decades, it has witnessed periods of success, challenge and reappraisal. Its long-term growth and the accompanying expansion of its service offerings have relied on internal evolutions, international acquisitions and organic expansion. Today it is a highly regarded organization.

Find a solution that is right for your organization. Contact your Intel representative or visit the Reference Room at **www.intel.com/references**

[1] Intel® vPro™ technology includes powerful Intel® Active Management Technology (Intel® AMT). Intel AMT requires the computer system to have an Intel® AMT-enabled chipset, network hardware, and software, as well as connection with a power source and a corporate network. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications or implementation of new business processes. With regard to laptops, Intel AMT may not be available or certain capabilities may be limited over a host OS-based virtual private network or when connecting wirelessly, on battery power, sleeping, hibernating, or powered off. For more information, see http://www.intel.com/technology/platform-technology/intel-amt/.

[2] KVM Remote Control (Keyboard Video Mouse) is only available with Intel® Core™ i5 vPro™ processors and i7 vPro™ processors with Intel® Active Management technology activated and configured and with integrated graphics active. Discrete graphics are not supported.

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