



## Case Study

Intel® Active Management Technology

Ryarc CampaignManager\* Software

Digital Signage Industry



**"It's a real waste of time and money to send someone out to flip a switch on a digital signage system when it can be done with a right mouse click."**

*- Fergal Ó Ceallaigh,  
CEO and Founder, Ryarc*

# Decreasing IT Support Costs for Digital Signage

## Ryarc's remote management software enhances system repair and query capabilities

It's nighttime as a contractor finishes cleaning up a fuel station in the countryside. Before leaving, the well-intentioned cleaner sees the glow of the digital signage system and turns it off to save power. The following morning, the signage system doesn't respond to repeated pings by a central IT professional, who decides to dispatch a technician to fix the problem – a switched off system. Surprisingly common, scenarios like this are responsible for a large number of costly onsite repair visits.

In an effort to reduce service costs for its customers, Ryarc, a leading digital signage software company, developed a more robust remote management solution. Now, Ryarc's CampaignManager\* Software can power systems on/off and collect system information without physical intervention, thereby significantly reducing customers' total cost of ownership (TCO). This was achieved by leveraging Intel® Active Management Technology (Intel® AMT),<sup>1</sup> which offers breakthrough system management capability.

### Summary

<b>Challenge</b>	Most of today's remote management solutions can't perform unless the digital signage system is powered on and in relatively good working condition – functioning CPU, operating system (OS) and hard disk drive (HDD). Developers at Ryarc asked themselves, "Is there a workaround, besides dispatching a technician, for when a signage system is inadvertently turned off?" Additionally, Ryarc wanted to make other remote management enhancements, like generating comprehensive system inventory reports and repairing systems by reloading the OS or booting from a golden HDD on the network.
<b>Solution</b>	Ryarc wrote an interface to Intel AMT, which enables its remote management software to control digital signage systems that are powered off, thus reducing the number of onsite service calls. Intel AMT, available on select Intel® platforms, is used by IT professionals to query, fix and secure devices, even when they're powered off or have software issues.

## IT Support Challenges

By definition, digital signage infrastructure is highly distributed, with units located in geographically dispersed business locations. Unlike enterprise systems, where a user or IT professional is typically within arms reach of a client or server, digital signage systems are usually unmanned. Another IT challenge is that signage computers are often in hard-to-access places, like tucked away in a locked cabinet or hung above a false ceiling. When digital signage systems are relatively inaccessible, remote management solutions provide even greater cost savings over sending a repair person.

## Ryarc Digital Signage Software

Ryarc’s CampaignManager is a complete digital signage software solution with remote management, publishing, monitoring, logging, proof of play and versatile playback capabilities. This user-friendly software makes it easy to construct multiple display zones and delivers Flash animation, video, live web content, RSS tickers, images, live video capture, and digital (DVB) and analog TV in a seamless channel.

**“Digital signage has a tremendous impact on customer perception, and when systems are down for even a short time, businesses lose an opportunity to connect with their customers.”**

– Ben Mooney, Sales and Marketing Manager, Ryarc

## Cutting IT Support Costs

IT organizations facing an escalation of networked embedded devices are turning to remote management to help them contain rising support costs. Remote management facilitates the repair of various system problems over the network, thus reducing the number of costly onsite repair visits. Applying the unique features of Intel AMT, Ryarc improved its capabilities to repair and query signage systems, even when they’re powered off, as described in Table 1 and in the following.

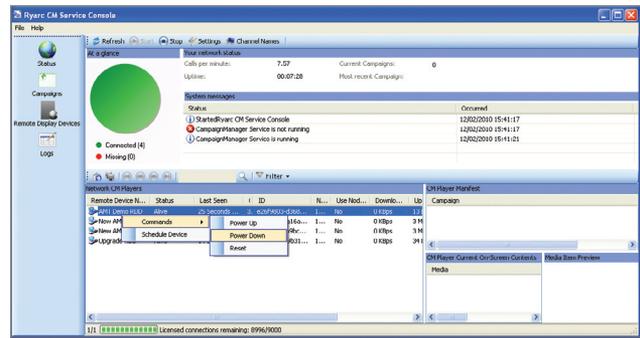


Figure 1. Get Systems Back Online with a Mouse Click

## Reduce Onsite Repair Costs

When a management console can’t communicate with a digital signage system, IT sometimes calls the business location to ask someone to check the equipment; however, this creates a business disruption, and in some regions actually violates health and work ordinances. Clearly, another option is sending a technician to service the device. Now, Ryarc’s CampaignManager offers a third option for Intel AMT-enabled systems, which is to remotely reset or power cycle a device that’s not responding with the right click of a mouse, as illustrated in Figure 1.

## Track Inventory without Physical Interaction

For many businesses, it’s a struggle to perform a fixed asset inventory because they have to resort to physical methods, especially for equipment that’s in a remote location, turned-off or non-functioning. For example, if a business hires a contractor to upgrade the memory in a system, the only way IT can verify it was done may be to open up the box and look inside. Eliminating the need for human intervention, CampaignManager generates a comprehensive list of hardware and software components for any Intel AMT-enabled device that’s plugged into the network and an electric socket. This capability also enables IT departments to monitor the software, by version and license, of every device on the network, as shown in Figure 2 on the next page.

### Remote Capabilities (based on Intel® Active Management Technology)

Remote Capabilities (based on Intel® Active Management Technology)	Benefits	Availability
Power system on	<ul style="list-style-type: none"> <li>Override system power button</li> <li>Perform reset to reboot system</li> <li>Save energy by scheduling system to power on before business opens</li> </ul>	Ryarc Today
Query system assets	<ul style="list-style-type: none"> <li>Quickly collect inventory data (e.g., boards and peripherals)</li> <li>Check version and capacity (e.g., OS, BIOS, CPU and memory size)</li> <li>Avoid service cost by monitoring warranty status</li> </ul>	Ryarc Today
Check system error logs	<ul style="list-style-type: none"> <li>Alert of possible/imminent failure condition</li> </ul>	Ryarc Future
Boot from a network drive	<ul style="list-style-type: none"> <li>Get system running in the event of HDD failure or software corruption</li> </ul>	Ryarc Future

Table 1. Ryarc Remote Management Enhancements

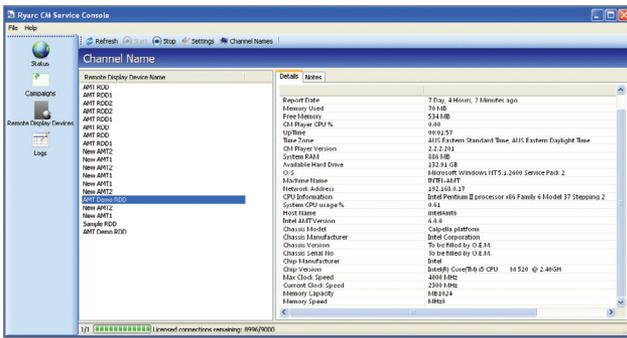


Figure 2. Create a Comprehensive System Inventory List

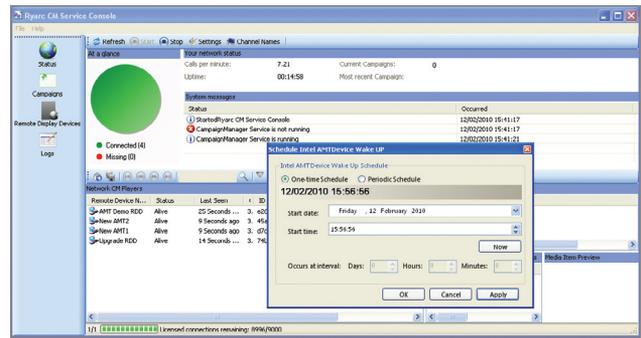


Figure 3. Automatically Turn Systems On

### Lower Utility Costs

Although most companies could power down digital signage systems at the close of business to save power, many don't because IT departments typically send software and data updates during off hours. With CampaignManager, IT can open up a scheduling window (Figure 3) to automatically turn systems on when access is required. This feature, combined with the power-efficiency of Intel® processors, can significantly reduce utility costs and help businesses practice environmental responsibility.

**"Ryarc's CampaignManager software coupled with Intel® Active Management Technology delivers a rich visual experience to end users and robust remote management functionality capable of easily managing and quickly repairing display systems."**

*– Jose Avalos, Digital Signage Director, Intel Corporation*

### What's Makes Intel® Active Management Technology Different?

Intel® Active Management Technology (Intel® AMT) is a silicon-resident management mechanism for remote discovery, healing and protection of computing systems. It helps software vendors improve the efficiency of remote management and asset inventory solutions, while safeguarding critical agents from operating system failure, power loss and intentional or inadvertent client removal.

Traditionally, remote management consoles communicated with devices using their standard networking capability, called "in-band" link, which includes the device's operating system (OS), CPU and network drivers. In contrast, Intel AMT circuitry establishes a new communications channel, called "out-of-band" link, that operates independently of the computing system and provides persistent connectivity. This out-of-band link employs a dedicated management engine, shown in Figure 4, which enables communication with, and control over non-functioning systems.

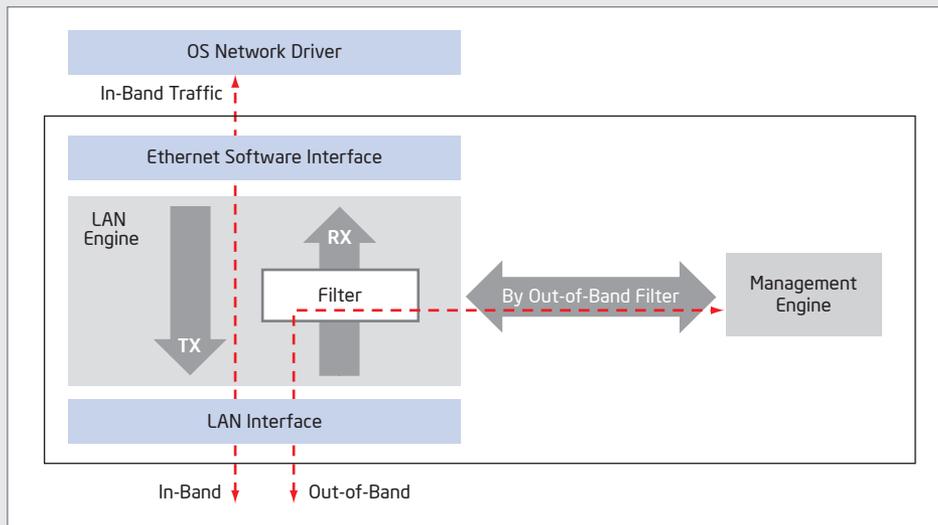


Figure 4. In-Band Versus Out-of-Band

## Install Software Quickly

For busy IT professionals, complex software and command prompts are a real nuisance. Simplifying the installation of its enhanced remote management software, Ryarc developed an auto-provisioning feature. It opens a popup when an Intel AMT-capable device is discovered and asks whether it should set it up, thereby providing Plug-and-Play capability.

## More Effective Remote Management

Managing a digital signage infrastructure and its supporting software is not a trivial task. Consequently, businesses want digital signage software that's simple enough for the office staff to get work done quickly and keep systems running. Ryarc enhanced its remote management solution by integrating Intel AMT capabilities that allow IT professionals to support more tasks from their desktops, thereby eliminating costly repair visits. The unique capabilities of Intel AMT are helping to reduce IT support costs, while getting systems back on line faster.

For more information on Ryarc CampaignManager software, please visit [www.ryarc.com](http://www.ryarc.com).

For more information on digital signage solutions from Intel, please visit [www.intel.com/go/digitalsignage](http://www.intel.com/go/digitalsignage).

## About Ryarc

Ryarc is a software company that focuses on Digital Signage Software, distributed audio and playback technology. Ryarc's core product is CampaignManager,\* an end-to-end Digital Signage management platform, which is used to operate and manage digital signage networks, large and small, all over the world. CampaignManager also supports audio (in-store radio) platforms and corporate communications channels, all managed from a central location.

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Solution provided by:



<sup>1</sup> Intel® Active Management Technology (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 connection. 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 of implementation of new business processes. With regard to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see [www.intel.com/technology/platform-technology/intel-amt/](http://www.intel.com/technology/platform-technology/intel-amt/).

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