



Case Study

Intel® Active Management Technology

Fractalia Media and Manager Software

Digital Signage Industry



“All of our digital signage displays in over 1,600 stores throughout Spain are remotely managed from one location.”

– Carlos Millán, Channel Director, Vodafone España, S.A.U

Lowering Operating Cost for Digital Signage

Vodafone manages over 4,200 screens from a single platform, decreasing IT support cost

Managing a digital signage infrastructure and distributing content on a per-screen basis is not a trivial task. Then, imagine expanding to more than 4,200 screens in over 1,600 stores located throughout Spain. This was the “New Image” project plan, implemented by Vodafone España, S.A.U., a subsidiary of Vodafone Group Plc – one of the world’s leading mobile telecommunications companies. A key component of the solution was the management platform, which supported Vodafone’s visionary marketing strategy, while reigning in IT support costs.

The reason for deploying such a large number of screens was to influence consumer purchasing decisions by showing corporate advertising, interactive programs, and demos of new products and services. In fact, the number of digital signage displays in some stores increased nine-fold, from a couple to as many as 18 screens. With this bold change, Vodafone improved the appearance of its retail outlets and increased its in-store presence. Seeking to manage content and infrastructure centrally in order to reduce operating costs, Vodafone chose to implement a software solution and contract management services from Fractalia Remote Systems.

Challenge	Vodafone wanted to cost-effectively contract the management of thousands of digital signage screens and kiosks, 24x7, each with content customized on-the-fly based on customer input. For example, some kiosks had to be highly interactive – with touchscreens, microphones and headphones – and play customized messages and music preferred by consumers.
Solution	Fractalia is managing Vodafone’s digital media screen network using its Manager and Media software together with signage systems powered by Intel® Core™2 processors and using Intel® vPro™ technology with Intel® Active Management Technology (Intel® AMT). ¹ This solution offers the highest level of remote management, including software problem diagnosis and repair, hardware diagnosis, software and hardware inventory and security patch management.
Results	Fractalia reduced the number of on-site repair visits by 20 percent , streamlined security and inventory processes and improved IT technician productivity, thereby reducing IT support cost. At the same time, system availability for Intel AMT-enabled systems went from 97 percent to 99.3 percent, increasing the effectiveness of the digital signage solution.

IT Support Challenges

As an innovative company, Vodafone is continually searching for new ways to stand out in the market and provide higher service levels to customers. They determined the best way to boost in-store presence was to install a digital media screen network in every store throughout Spain. This approach placed a number of requirements on the network and created some IT support challenges, including:

- Enable Vodafone to send customer-based, individualized content, such as product and service messages, to any screen in Spain.
- Control every digital signage display in Spain from a single, central platform, which ensures each system is running smoothly.
- Deliver a scalable solution capable of supporting more stores and screens in the future.
- Support a ticket system for managing customer queues and providing information about products being picked up.

“New Image” Project

Fractalia helped Vodafone architect a new store concept that divides the store premises into five zones, which are all controlled from a central platform. The *Demo-Area* has interactive kiosks providing information about Vodafone products and services; the *Cyber-Area* allows customers to connect to the Internet; the “*Red Hot*” *Display-Area* presents information about the adjacent phone; the *Ticketing-Area* handles customer queuing; and the *Control-Area* plays corporate advertising on multiple screens.

In addition to controlling every system, (examples shown in Figure 1) Fractalia Manager software manages over two hundred customized media elements created with Fractalia Media. Fractalia

Manager remotely monitors and controls every device across more than 1,600 stores and reduces IT support costs by eliminating many on-site repair visits. Equally important, the management platform has enough computing power to accommodate additional screen installations as Vodafone expands.

Central Management Platform

Previously, the lack of a management platform that cost-effectively supports both content and infrastructure has been an obstacle for developing large, distributed digital signage networks. Today, businesses can deploy a centralized and unified platform that facilitates the design and distribution of multimedia content and remotely manages geographically dispersed screens and kiosks using software from Fractalia:

- **Fractalia Media:** Simplifies the creation and management of media, both static and dynamic, for playback on any display device.
- **Fractalia Manager:** Manages digital signage infrastructure, provides high levels of operability and reduces maintenance costs by remotely repairing systems, distributing software and collecting inventory information.

“With Fractalia software, which utilizes remote management capabilities of Intel® vPro™ technology, we can create, coordinate and distribute media content for new products and in-store promotions from a central point.”

– Jose Ignacio Domecq de Wenzet, CEO, Fractalia

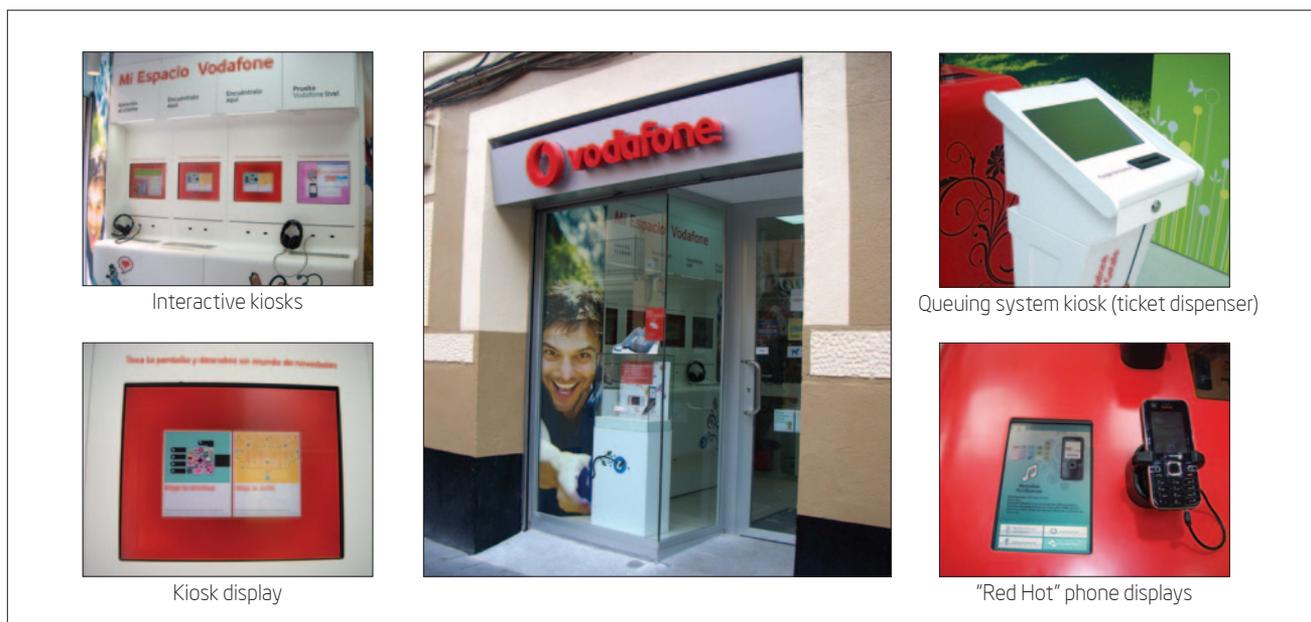


Figure 1. Vodafone retail outlet

This full-featured solution, illustrated in Figure 2, maximizes operational efficiency by providing the tools needed to ensure that any screen can display individualized content at any time. Fractalia offers a group of applications that support both content and infrastructure management, delivering operational efficiency, control and security of all reproduction devices in a centralized and unified way.

An integral part of Fractalia’s platform is Intel AMT, which helps to increase system uptime and save on costly technical service calls. This technology enables IT personnel to quickly fix many types of system problems remotely, which improves system availability and the end-customer experience. For example, Vodafone system availability increased from 97 percent to 99.3 percent through the use of the remote reboot and power-up capabilities of Intel AMT. In addition, Intel AMT allows Fractalia to manage systems when they are turned-off or when the operating system (OS) is unresponsive because it makes use of the manageability capabilities built into Intel® silicon components.

“Fractalia’s Manager and Media software combined with Intel® Active Management Technology allows IT personnel to manage both signage systems and content in a centralized and unified manner.”

– Jose Avalos, Digital Signage Director, Intel Corporation

What’s Makes Intel® Active Management Technology Different?

Intel® vPro™ technology with Intel® Active Management Technology (Intel® AMT) is built into select Intel® processors and chipsets and provides mechanisms for remote discovery, healing and protection of computing systems. It helps software vendors improve the efficiency of remote management and asset inventory solutions by providing persistent connectivity that doesn’t require the computing system to be functional.

Unique Intel® AMT Capabilities

Remotely Discover Computing Assets in Any Operational State: Intel AMT stores hardware asset information in flash memory that can be read anytime, even if the PC is powered off.

Remotely Heal Computing Assets: Intel AMT enables remote software to diagnose, control and repair signage systems after software, operating system or hardware failures.

Remotely Protect Computing Assets: System software and virus protection are remotely updated with the most recent patches and virus definitions.

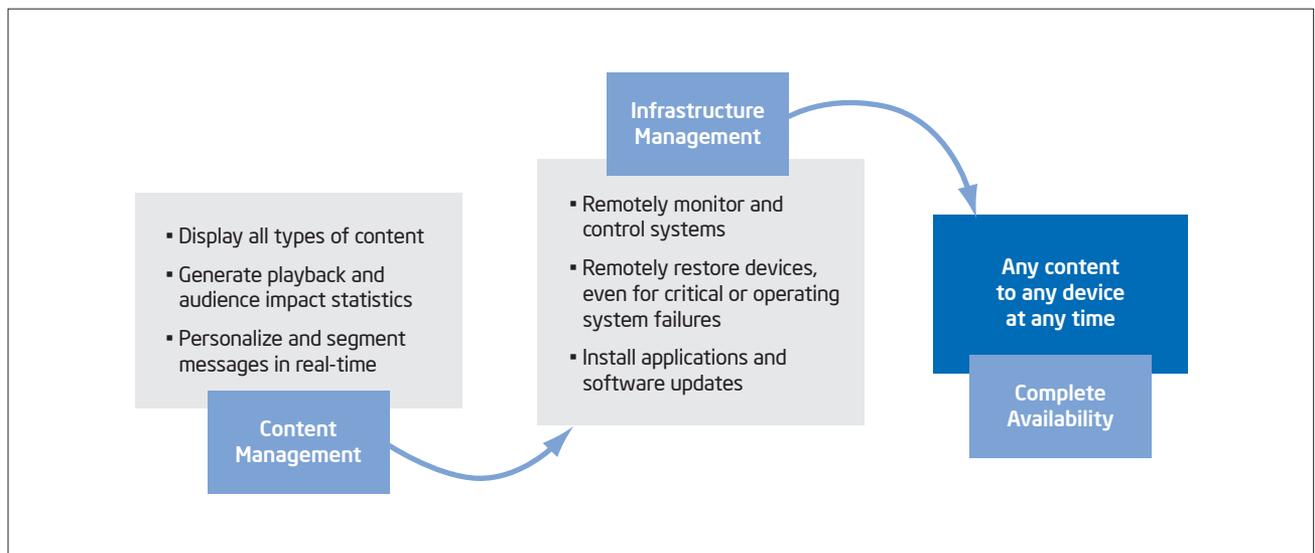


Figure 2. Fractalia Content and Infrastructure Management Solutions

Table 1. Fractalia Remote Management Capabilities

IT Support Activities	Remote Capabilities (based on Intel® Active Management Technology)	Benefits
Reactive Support	<ul style="list-style-type: none">▪ Perform hardware diagnosis, restore signage systems and solve problems of end users	<ul style="list-style-type: none">▪ Reduce on-site visits▪ Offer improved service level agreements (SLAs)
Proactive Maintenance	<ul style="list-style-type: none">▪ Prevent future problems using continuous monitoring and tune-up tools▪ Provide reporting and "self-service" tools to customers	<ul style="list-style-type: none">▪ Increase system availability▪ Improve the end-customer experience
System Administration	<ul style="list-style-type: none">▪ Collect asset and inventory information▪ Automatically distribute software updates and patches	<ul style="list-style-type: none">▪ Lower IT support cost

Lowering Support Cost

Managing the Vodafone digital signage network, Fractalia can diagnose and resolve 99 percent of software issues remotely. When there's a hardware failure, it's often possible to diagnose the problem and determine which spare parts are required in advance. As a result, 30 percent of hardware-related incidents require only one deskside visit compared to two visits previously – one to diagnose the faulty component and another to replace it.

Using the remote power-up capability, Fractalia can install software updates and security patches more rapidly and effectively, during or after business hours. With the integration of Intel AMT, updates and patches take effect immediately, whereas before they weren't installed until the digital signage systems were switched on. Furthermore, other management tasks, such as software and hardware inventories, are carried out more quickly and easily. Delivering more robust remote management capabilities based on Intel AMT, Fractalia is significantly lowering operating cost for digital signage.

Through a combination of reactive, proactive and system administration capabilities, described in Table 1, Fractalia Manager software performs many support tasks remotely and drives down operating cost.

For more information on Fractalia software solutions, please visit www.fractaliasystems.com.

For more information on digital signage solutions from Intel, please visit www.intel.com/go/digitalsignage.

About Fractalia

Fractalia is a leading software vendor specializing in the management of large PC networks, vertical public Internet access and digital signage solutions that serve institutional, business, hotel and education sectors. Based in Spain, Fractalia also has a presence in Portugal, the United Kingdom, France, Germany, Mexico and the Dominican Republic.

Solution provided by:



¹ 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/.

This document and the information given are for the convenience of Intel's customer base and are provided "AS IS" WITH NO WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. Receipt or possession of this document does not grant any license to any of the intellectual property described, displayed, or contained herein. Intel® products are not intended for use in medical, life-saving, life-sustaining, critical control, or safety systems, or in nuclear facility applications. Intel may make changes to specifications, product descriptions and plans at any time, without notice.

Copyright © 2010 Intel Corporation. All rights reserved. Intel, the Intel logo, Core, and vPro are trademarks of Intel Corporation in the U.S. and other countries.

*Other names and brands may be claimed as the property of others.