



**Inspire Digital Signage LLC**

**Inspire Digital Signage Suite  
Architectural Overview**

**Revision 1.5.0**

## Inspire Digital Signage Suite - Architectural Overview

### Introduction

The Inspire Digital Signage Suite is a Microsoft Windows based system that leverages the most current visual technology to provide a unique user experience. The drag-and-drop user interface is used to create compelling and interactive content by utilizing a mixture of existing templates. The system uses a lightweight communication layer to provide reliable and secure data transactions over the Internet, WAN or LAN. The Inspire Digital Signage Suite is hardware agnostic and requires no proprietary hardware.

### Core Components

The Inspire Digital Signage Suite is a client/server based application designed to allow secure and reliable digital content delivery to multiple independent digital displays. Our flexible architecture allows the system to be scaled for single properties with one display to multiple properties controlling hundreds of displays. The software suite contains three major system components; Inspire Client, Inspire Media Player, and Inspire Media and Scheduling Server.

***Inspire Client*** – The client component includes the Inspire Designer and Inspire Content Scheduler. The Inspire Client is the primary user interface application for the Inspire Digital Signage Suite. This application is typically installed on one or multiple workstations allowing users to create, edit, schedule, and manage digital media. The Inspire Client allows users to be assigned security roles that dictate feature and accessibility levels throughout the system.

***Inspire Media Player*** – This always on digital media player is designed to serve as a lightweight media player application. The Inspire Media Player is responsible for playing back scheduled content at the appropriate times, whether scheduled or triggered by configurable rules. The Inspire Media Player caches digital content and scheduling information to reduce the system's network footprint when multiple displays are deployed on a single network. This caching also keeps displays up to date in the event of a network outage. The Inspire Media Player is typically installed on an individual PC to control a single LCD/plasma display. However, a single PC can run multiple LCD/plasma displays if independent content is not required. This system allows users to view and interact with all content created within the Inspire Digital Signage Suite.

***Inspire Media and Scheduling Server*** – This is an enterprise ready digital media and scheduling data repository. The server application allows multiple users to share digital media and scheduling information as well as distributes content to displays connected to the server. The Inspire Media and Scheduling Server can be installed on a single PC or in a multiple server schema depending on the volume of displays and users.

### System Architecture

Windows based system – The Inspire Digital Signage Suite leverages the latest Microsoft Windows technology stack, and is designed to be compatible with all currently supported Windows based operating systems.

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Touch enabled content – Our system allows any visual element to become a touchscreen navigational link. This enables users to create interactive touchscreen content creation without the need for third party software such as Adobe Flash.

Modular Design – The Inspire Client utilizes an “App” concept. Our system contains a standard secure API to allow easy creation of custom visual elements to be used within our system. This architecture reduces time-to-market for custom features and third party data integration. This enables our clients to deploy feature rich visual elements such as flight information, wayfinding capabilities or a digital concierge without requiring the software to be reinstalled throughout the enterprise.

Data Integration – Data can be imported from several different systems using XML, SQL or file based data sources. This data can be formatted and displayed or used to control content on the Inspire Media Player.

### **Communications Architecture**

Secure Communications – The Inspire Digital Signage Suite uses HTTPS to communicate and transmit data. All sensitive data is encrypted before transmission with 128bit encryption.

Network Formats - The Inspire Digital Signage Suite utilizes HTTPS over port 80 by default. This allows the system to communicate over multiple network architectures. The system can communicate over both wired and wireless network architectures. The Inspire Media and Scheduling Server can distribute data through most standard network switches and firewalls.

Internet and VPN – The Inspire Digital Signage Suite can communicate over the Internet, VPN based WANs or internal LANs.

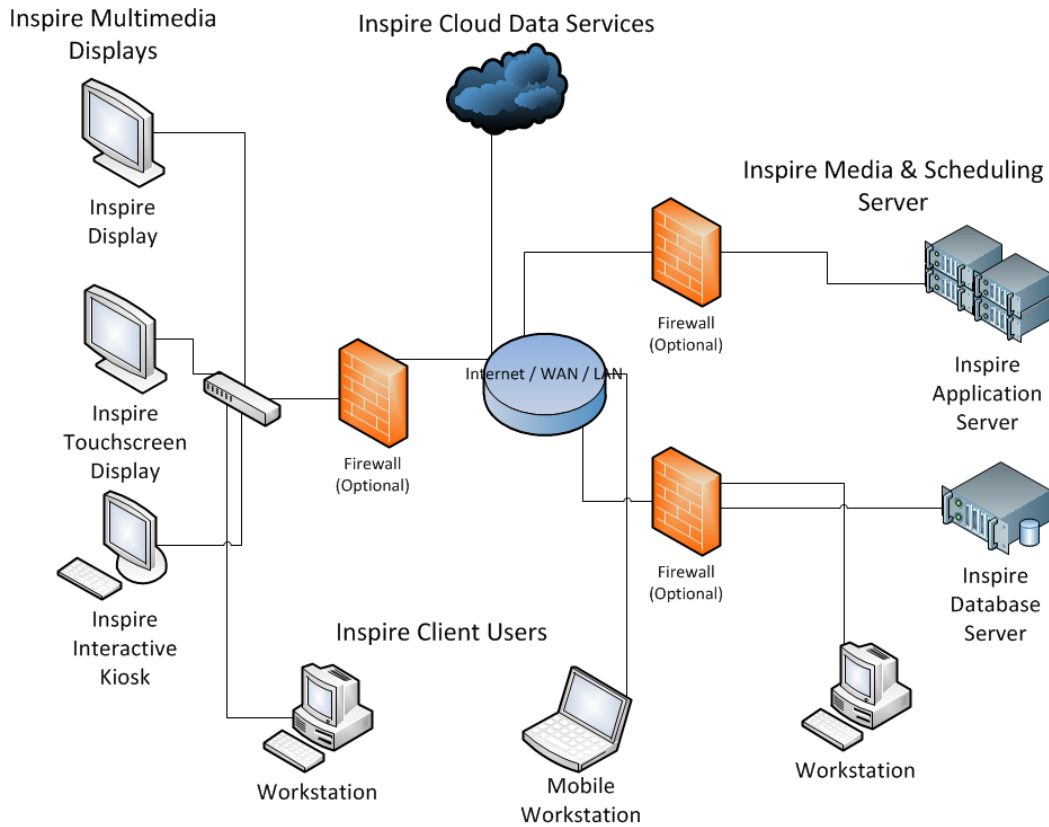
### **Enterprise Integration Architecture**

Server Scalability – The Inspire Media and Scheduling Server is completely hardware agnostic. This server software can be installed on a single PC or a multiple server configuration. Each application server can work independently to process requests from both clients and displays. The Inspire Media and Scheduling Server can be scaled to meet the needs of a growing system and enterprise.

Microsoft SQL Server - The Inspire Media and Scheduling Server utilizes a Microsoft SQL based platform to maximize system scalability and uptime. Microsoft SQL Server’s existing architecture provides backup, system redundancy and allows up-to-the-second system restore. Leveraging these tools allows our system to be installed on an existing SQL server farm and or data warehouse.

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## Enterprise System Diagram



## Hardware Requirements

Each digital LCD/plasma or touchscreen display requires a PC to provide unique digital media presentation. If individual content is not required, a player PC's output can be split to multiple LCD/plasma displays, which is typically done using Cat5 video extenders. For high resolution LCD/plasma displays playing back layered HD content, we recommend a dedicated video card installed with the Inspire Media Player. Inspire Media Players can also be utilized to provide output through a COAX TV system.