

## Case Study

### Web Conferencing Solution

#### The Problem

The US based client (Company) is a document management systems (DMS) vendor. Based on their extensive knowledge of the DMS software market the Company saw a need for a next generation, flexible and customizable system that its customers could quickly and easily integrate in their existent business processes.

#### Technology

Server: **ASP.NET, C#, ADO.NET, Javascript**

Database Engine: **MS SQL**

Client: **Visual C++, COM**

#### The Solution

Softwarium was contracted to build a new generation virtual meeting and collaboration product that would allow business associates, clients, students , etc. to instantly connect and collaborate through virtual meetings via any internet-connected computer.

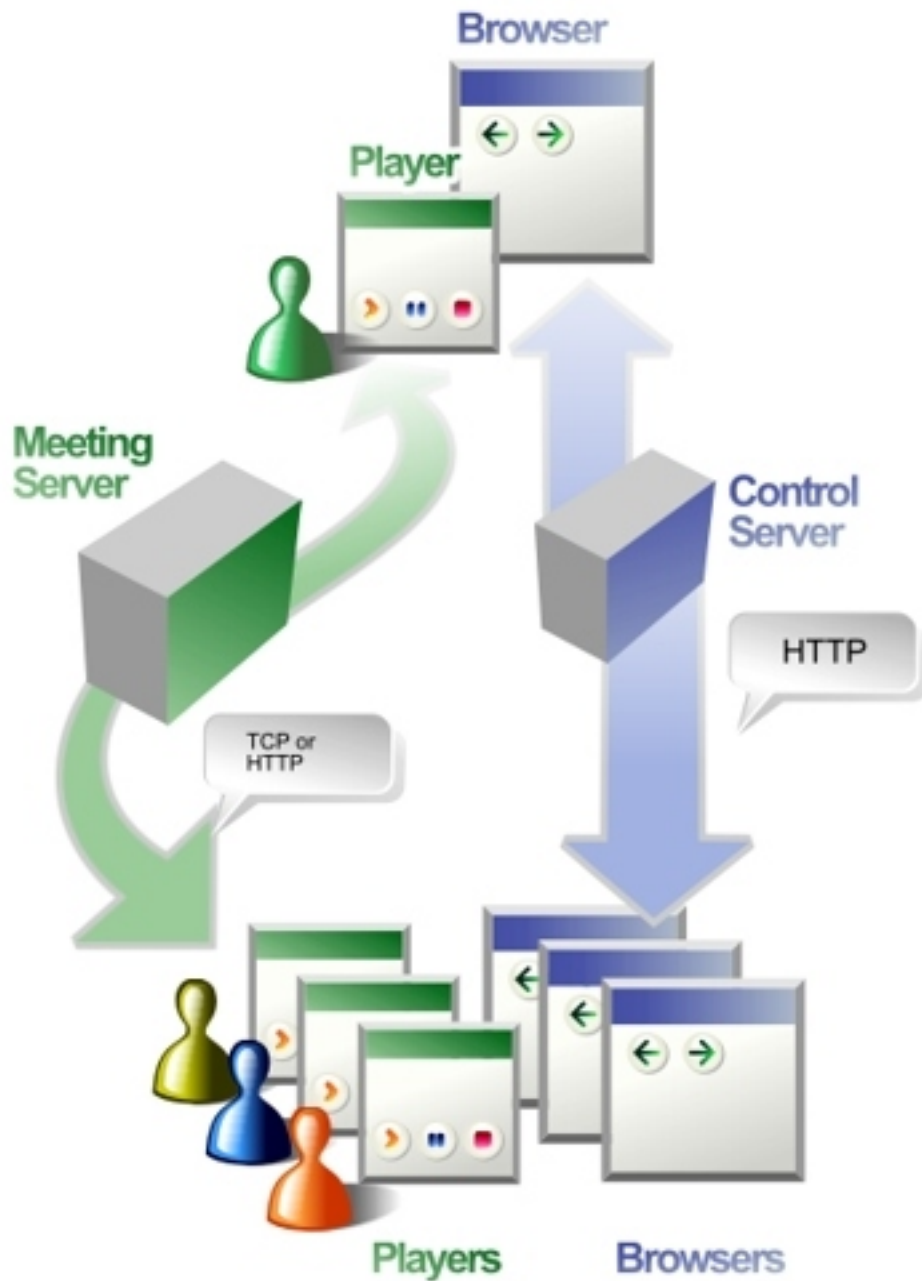
The application incorporates video, Voice over IP and instant messaging to provide a seamless platform for teamwork over the Internet and private IP networks. The software's unique technology foundation is based on a real-time sharing of PC-based content. Individual meeting participants can view presentations, discuss problems, see software demonstrations and troubleshoot programs directly from their PCs. The real-time sharing occurs via secure, reliable, and firewall-friendly infrastructure.

The product uses a standard IP network for all data transmissions which makes it compatible with both public (internet) and private networks and easy to integrate into any environment. And by using a unique, transparent TCP over HTTP tunneling technology in both HTTP 1.0 and HTTP 1.1 request-response models no firewall configuration changes are needed

The system is based on three components: Control Servers, Player, and Meeting Servers:

- Control Servers - provide standard, web-based control functionality. They host the web site and are used by clients to authenticate, schedule meetings, join meetings, configure preferences, etc. The meeting host or a presenter can share files with other meeting participants. The files can be copies of the presentation, lecture notes, associated documents, or any other files useful for the meeting.
- Player provides end-user functionality. It is a small component that runs in the background on the user's PC. The Player is automatically downloaded and configured from the web site (hosted on the Control Servers) when a user starts the meeting and does not require any additional installation. The component obtains a meeting content (PC, voice, or video) from the presenters and makes it available to the meeting viewers. Internally, the player is a Win32 application that runs on the end-user's machine in a native mode.
- Meeting Servers - provide network transmission functionality within the system. They are directly responsible for transmitting the presentation content (PC, voice, or video) from a presenter to viewers. Each participant's player connects to a Meeting Server after which virtual circuits between the presenter and viewers are created. Once the circuits are established the content is multiplexed and transmitted to the viewers. A viewer's feedback content is similarly multiplexed through the virtual circuits and transmitted to the presenter and other viewers. The Primary Meeting Servers are located on a major backbone for maximum network throughput. Secondary Meeting Servers can be installed on local client networks for optimal network performance.

Softwarium designed and fully developed this product using its unique offshore outsourcing model with only the project manager working on the customer's premises..



## Benefits

The Company is able to offer a new way of collaboration over the internet to its customers as a service or can distribute the whole package as a software suite for deployment on independent corporate networks accomodating any local network security policies without modifications or adjustments.

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