Virtual Engagement Environment (VEE)

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Background Information

The MITRE Corporation is a not-for-profit organization chartered to work in the public interest. As a national resource, we apply our expertise in systems engineering, information technology, operational concepts, and enterprise modernization to address our sponsors' critical needs.

At the core of MITRE’s business goals is the desire for early and continuous engagement with its sponsors. These engagements take many forms, but often take the shape of high-level presentations on MITRE’s McLean campus in a new high-profile facility called the “Senior Engagement Room” (SER). The SER employs state-of-the-art audiovisual components to offer rich collaborative experiences for all involved. In order to use the room effectively, presenters must first set up and then practice their presentations. However, due to the popularity of the room, there are few times when the room can be used for practice and many times scheduling is impossible. Because of this, MITRE wanted a virtual engagement environment (VEE) to support both rehearsal of content and remote presentation to groups of participants who could attend over the network.

Design

The system is composed of several parts:

- A pre-processing server which accepts messages from the toolkit indicating that a new arrangement has been published. The server then does any necessary processing on the arrangement’s media assets to prepare them for presentation in the virtual room.

- The Flash Media Server synchronizes the display for all participants in a room and controls the seven different screens. Code to run the media server is generated by the pre-processing server based on the presentation schedule, and is then uploaded to the Flash media server.

- The client application renders the room and its assets and communicates with an LDAP server to verify login information. It also communicates with an SQL database to receive information about existing rooms and presentations.

Delivered Product

Full Room

The Virtual Senior Engagement Room with slides, pictures and videos displayed.

Create

The user can create a new room with a presentation loaded into it.

Lobby

The user can select a room to join that has a presentation already in progress.

Manage

The user can change settings of presentations that they own.

Lessons Learned

- Integrating closed-source executables should be avoided if possible.
- Features are more fun to work on than documentation and testing.
- Try to obtain all software licenses as soon as possible, preferably before beginning development. Licenses may take a while to receive.