Digital Signage Program

Contacts

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Overview of Digital Signage Program:

1. Signage content consists of streamed video/audio, PowerPoint slides, images, social media feeds, data feeds, calendars, interactive way finding and maps, web pages, PDF documents, Word documents, and many other content types displayed. Signage application allows for interaction.
2. Content is scheduled to display on signage players through a client application or web interface. Content can be scheduled to display at a preset time or can be displayed in a pre-set sequence.
3. Content on signage at any location can be scheduled specific to that location or to a group of locations with coordinated display on multiple players.
4. All signs are coordinated from a common server infrastructure and will display emergency notification simultaneously at all locations.
5. Content is distributed from the server infrastructure to the digital signage players at the signage location through the Internet (wired and WiFi).
6. Licensing for signage is provided by UIT at no cost. Departments will be responsible for providing hardware (computer, LCD TV display) and power. Content can be distributed to players via the University WiFi.
7. Each department schedules their own signage content for their players and can elect to display content from a shared content repository.
8. Each department can access shared content and shared content modules including "stock" modules such as weather, institutional calendar, date and time display, etc.
9. Departments assign an administrator to schedule the display of content or they can acquire administration as a service from UIT Web Service Center.
10. Departments assign content providers who will create or update the content within individual templates that are scheduled by the administrator.
11. UIT sets roles and permission for content providers and administrators through Active Directory (future access will be provided through Access UH).

Support Services to be developed within Web Service Center

1. Defining the Signage Environment (seminar – no cost)
   a. Orientation or digital signage
   b. Exploration of the departmental goals for signage and locations for signage players
   c. Explanation of the roles and responsibilities of the administrators and content providers
   d. Explanation of the signage location types and considerations

     e.   Explanation of the different types of signage players

     f.   Explanation of the content considerations

2. Maintaining the permissions and Signage Registration (ongoing – no cost)
    a. Maintaining, adding, deleting administrators and content providers
    b. Registering Players on the server
3. Administration Support (ongoing – service charge)
    a. Scheduling content onto departmental players
4. Content Creation (ongoing or as needed– service charge)
    a. Slide Creation
    b. Template Design
    c. Graphic Design
    d. Video production
    e. Content Integration (calendars etc.)
    f. Way finding development
5. Hardware Support (ongoing or as needed– service charge)
    a. Procurement of hardware
    b. Installation of Hardware
    c. Contracting Vendors
    d. Submitting Facilities Work-Orders
    e. Maintaining Hardware
    f. Hardware Lifecycle Replacement

Roles and Responsibilities

University Information Technology (UIT)

To ensure compatibility and standardization of digital signage hardware and deployments, UIT will be responsible for the following:

- Create/edit/register/delete content players from digital signage network
- Provide access to digital signage software and licensing
- Add/edit/remove user access to digital signage network
- End-training for administrators and content owners
- Manage integrations with other systems (UH Emergency Notification System, UH Calendar, etc.)
- Ensure digital signage server availability
- Manage user permissions via CougarNet Active Directory groups

Departments/Colleges

- Purchase hardware that meets standard requirements set forth by UIT
- Hardware imaging, monitoring, and software updates of the content player
- Develop, schedule and update signage content, considering the UH Graphic Standards
    - http://www.uh.edu/policies/graphicstandards/index.php
- Ensure all digital signs are online and able to display emergency notifications

Defining Your Signage Environment & Getting Started

1. Department/College IT Administrators (Point of contact for UIT admins)
2. Identify Content Providers
3. Identify audiences and content types to be displayed
4. Identify signage locations and what types of content will be displayed

Installing Signage Locations/Players

1. Contact digitalsignage@uh.edu
2. Meet to discuss signage needs
   - Perform site and network survey of desired signage locations
   - Analyze area traffic to make recommendations for optimal signage size, location and template design
   - Assess any additional service needs (template development, hardware support) and direct these additions to the UIT Service Center
3. UIT will make recommendations for hardware
4. Department/college will purchase recommended hardware
5. Department/college will configure Windows OS based on software recommendations
6. UIT will train users and provide access to the Four Winds Interactive wiki web site
7. Department/College IT administrators will provide UIT with list of content player IDs; UIT will register content players to the signage network and subscribe each computer to receive emergency notifications

Hardware Recommendations/Standard for fixed signage locations

1. Four Winds Signage Player Specifications
   - Slim PC with i3 processor or greater (IE: Intel NUC, Intel Compute Stick, Dell OptiPlex 3060 MFF)
   - 120GB SDD hard drive or greater
   - 4 GB Ram or greater
   - 3ft High Speed HDMI Cable
   - Windows 10 Pro or Enterprise
   - Wi-Fi adapter if needed
2. Display
   a. Passive Display
      i. LCD
      ii. HDMI Input
      iii. Size determinations
         1. Based upon viewing distance from the screen, traffic patterns, room size, audience size, and intended content.
   b. Interactive Display
      i. LCD with touch screen capabilities
      ii. HDMI Input
      iii. Size determinations
         1. Based upon viewing distance from the screen, traffic patterns, room size, audience size, and intended content.

Procedures for Using Contractors

In an effort to expedite audio/visual hardware and installation services, UIT has set up contracts with the following a/v vendors:

- Best Buy Business - (612) 292-0482
- MCA Communications - 832-295-5109
- Troxell Communications - (281) 538-2497
- Network Cabling Services (NCS) - (281) 484-1777

It is not a required to select one of the aforementioned vendors. You may use your own vendors if you'd like. Please follow your Department/College guidelines for using vendors. UIT could help with vendors if requested.

Digital Signage and Emergency Notifications

- All signs on the UH digital signage network are subject to subscription to one ore more emergency channels, as designated by UH Emergency Management Team and UHDPS
  - Emergency channels take over currently playing content and replace it with notification information sent from the UH Emergency Notification System.
  - Signs will continue to display emergency-related content at the discretion of incident command at UHDPS until they decide to take down the notice

Player Location Categories

1. High Traffic area with short view time opportunities (Transitory spaces where audience will not stop to watch)
   a. Hallways
   b. Entries
   c. Elevators
2. Low/High Traffic areas with long view time opportunities
   a. Lounges
   b. Dining Areas
3. High Traffic area with short view opportunities AND includes lounge areas with long view time opportunities.
   a. Lounge areas and waiting rooms
4. Restricted Use with short windows of signage content
   a. Classrooms
5. Interactive kiosk
   a. High/Low traffic areas where needed

Content Considerations

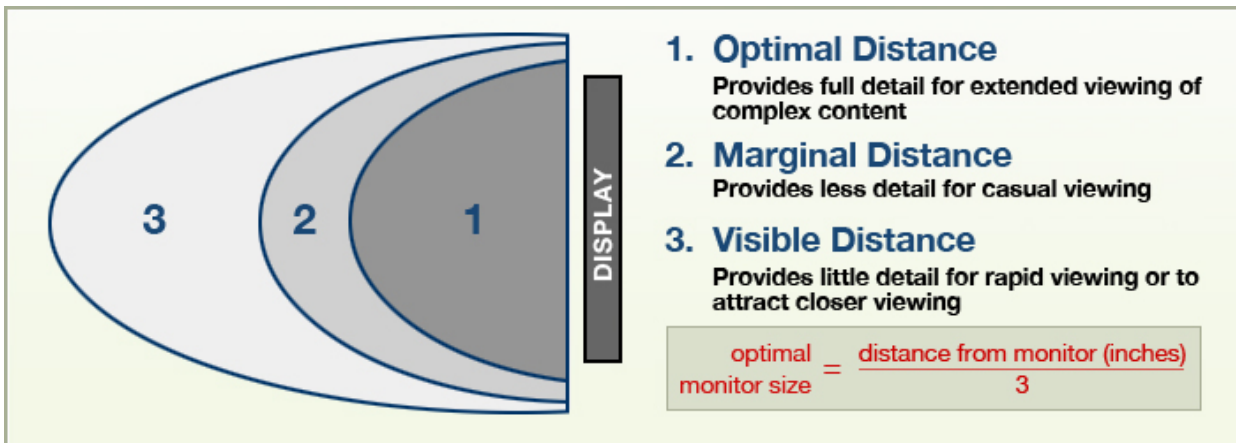1. High Traffic areas with short view time opportunities (Transitory Spaces where audience will not stop to watch)
   a. Essential information presented rapidly.
2. Low/High Traffic areas with long view time opportunities
   a. Larger areas with sufficient space to stop and watch. Content can draw in viewers from a greater distance and present more detailed information.

3. High Traffic area with short view opportunities AND includes lounge areas with long view time opportunities.
    a. Extended content in graphic or video format designed for viewers that have the time watch.
4. Restricted Use with short windows of signage content
    a. Static content the majority of the time or non-distracting content.
5. Interactive
    a. WayFinding
    b. Directories
    c. Communications

Display Considerations

Viewing distance is an important consideration when determining the type and size of content to display on a digital sign. Signage located in open, high traffic areas will require different content than displays located in smaller, enclosed locations to maximize usefulness. The viewing distance can be considered in three increments: Optimal, Marginal, Visible

- **Optimal**: The distance that the audience will be able to observe the content without loss of detail.
- **Marginal**: The distance at which the audience can see the content without great detail.
- **Visible**: The distance at which the audience will be able to recognize general themes and information presented in the largest formats. Content is targeted to draw the audience into the Optimal range to provide more information.

1. **Optimal Distance**
   Provides full detail for extended viewing of complex content

2. **Marginal Distance**
   Provides less detail for casual viewing

3. **Visible Distance**
   Provides little detail for rapid viewing or to attract closer viewing

$$\frac{optimal}{monitor\ size} = \frac{distance\ from\ monitor\ (inches)}{3}$$

1. Determining Appropriate Display Size
    a. Determine space use and content need
    b. Determine optimal view distance
    c. Calculate monitor size based upon optimal view: (Distance from monitor to viewer divided by three equals the diagonal monitor size)