ResNET Custom Digital Signage System

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Agenda

- Purpose and function of the system
- System Components
- Underlying Technology
- Technical Expertise required
- Is it working?
- Pros
- Cons

Purpose

- Provide information to residents at halls across campus
- Slides include:
  - Date, time, temperature and weather
  - DHRE staff information
  - ResNET staff locations and service event dates
  - Fire training interface
  - UNC and community events and notices
  - Other, community specific, interfaces
- Display Alert Carolina messages

System Components

- Digital Signage Code (PHP, JavaScript, CSS)
  - Digital sign content
  - API pulls and AJAX content updated
- Content Management System Code (PHP, JavaScript, CSS)
  - Add/remove content and define display parameters
  - User access controls for system and individual sign access
- Digital Publicity System (PHP, JavaScript, CSS)
  - Accessible friendly interface for sign content
- Hardware installations in 17 residence halls

Technology - Software

- UNC AFS and the accompanying web infrastructure
- Custom, in-house PHP applications
  - Digital Signage code
  - CMS system
  - Digital Publicity
- PHP 5.4, JQuery, JavaScript, CSS, HTML5
- Custom VLAN
- Browser with a full screen and lock-down feature

Technology - Screens

- Installation comprised of 2 components
- LCD Touch Screen (1080P)
  - Samsung 400TS Touch LCD
  - $2,199.00 each
- Slide In Media Player PC
  - Samsung SLID in Module Media Player
  - $540.00 each
- Current equipment cost: $2,739.00 per sign plus installation

Technical Expertise Required

- PHP programmer
- Solid understanding of web services
- Solid understanding of web security
- Solid CSS design experience
- Solid JavaScript and JQuery experience
- Understanding of touch interfaces
- Cron scripts and service monitoring
- VNC experience

Is it Working? Yes

- The system is flexible and robust enough for our needs.
- DHRE and ResNET can provide information to residents
- Community staff and residents can post relevant information
- All Alert Carolina messages are clearly conveyed to residents
- We can adapt the technology as we need, allowing robust uses

Pros

- Interactive interface
- In-house code
  - Customizable to our specific needs
- Versatile
  - Easy to deploy - Web browser based
  - Any content that can be displayed on web will work
- Easy to manage and test
- Relative Low Cost (if you have a programmer)
- Scales Relatively Well
- Web services provide updated information

Cons

- In-house code
  - There are many feature requests in the queue
- Older Code and Hardware
  - Much of the code needs to be updated (OOP, modular, etc.)
  - Expensive screens and complex configuration
- Requires a closed loop
  - With web content, cannot leave the interface (no external links)
- Not accessible to all (an issue of digital signage in general)
- Dependent on web connection and UNC web infrastructure