VT Alerts

Portfolio Updates

LUDWIG GANTNER
SOLUTIONS ARCHITECT

NETWORK INFRASTRUCTURE & SERVICES
DIVISION OF INFORMATION TECHNOLOGY

VIRGINIA TECH™

Agenda

Improvements

Infrastructure
Applications

New Channels

New Message Boards
Annunciators (Fire Alarms)

Introduction

Overview
Design

Upcoming

Subscribe Alerts
Digital Signage
UONS

VT Alerts Overview

Channel Reliability

Non-predictable user engagement path

Audio/ visual considerations

»ENS Philosophy: What, where, what to do?

VT Alerts Delivery Modes

Automatic Alert Channels

- Virginia Tech Homepage
- Electronic Message Boards
- Virginia Tech (@vt.edu) emails
- Annunciators (Fire Alarms)
- Campus sirens

Opt-in Alert Channels

- VT Phone Alerts
  - Text/SMS
  - Non-Virginia Tech email
  - Voice calls
- VT Desktop Alerts
- Social Media

Improvements

Collaboration

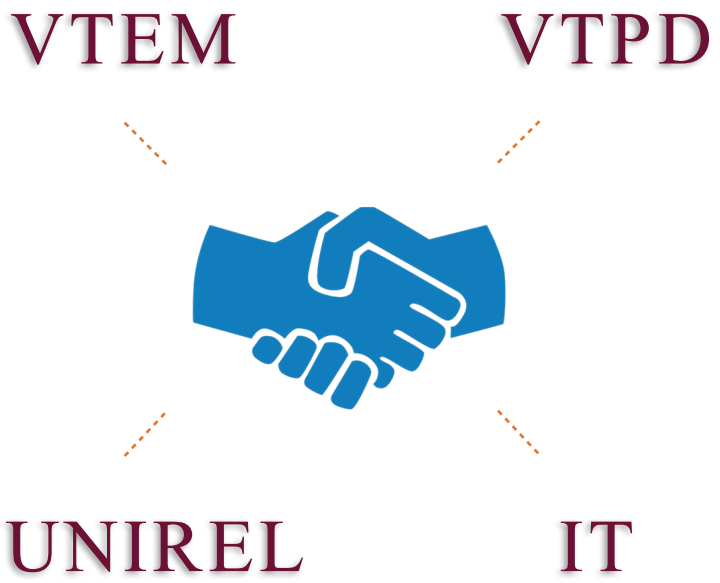
Public Safety Collaboration Group

Recognition that service has 2 components (equally important):

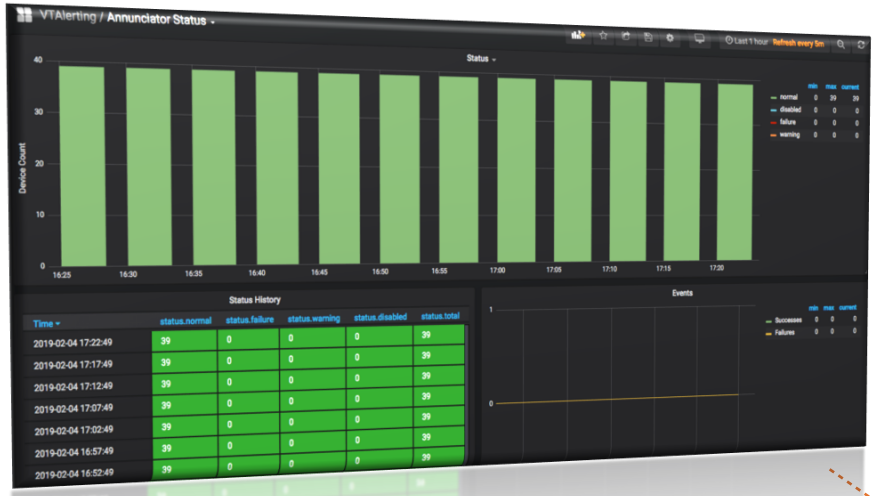
- ✓ IT recognizes technical needs
- ✓ Public Safety prioritizes items

- ➢ **Shared vision/mission:**

- ➢ Ensure proper life safety system
- ➢ Explore what is possible together

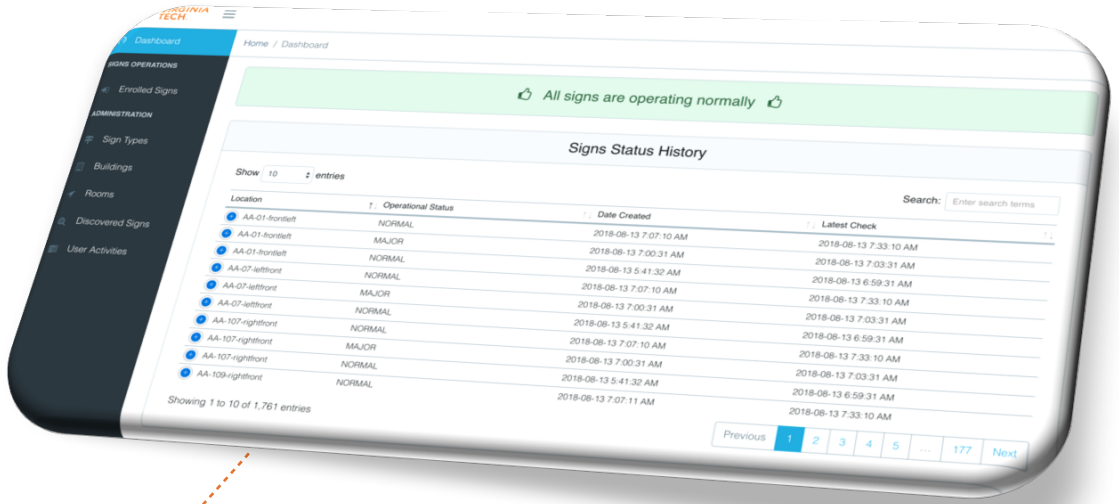


VT Alerts Dashboards



Annunciator Live Status

Monitors the status off all installed annunciators

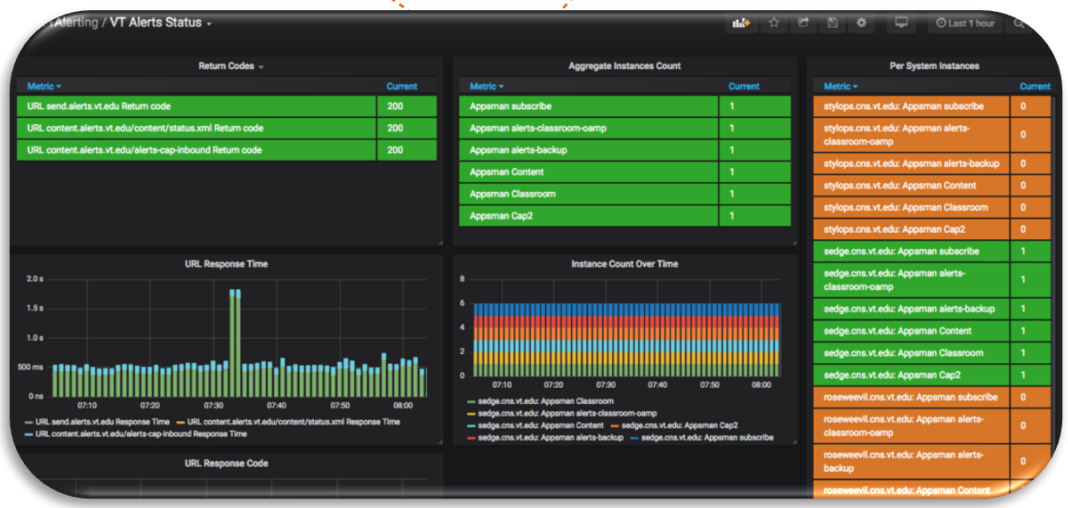


Message Board Live Status

Monitors the status off all installed message boards

Applications Live Status

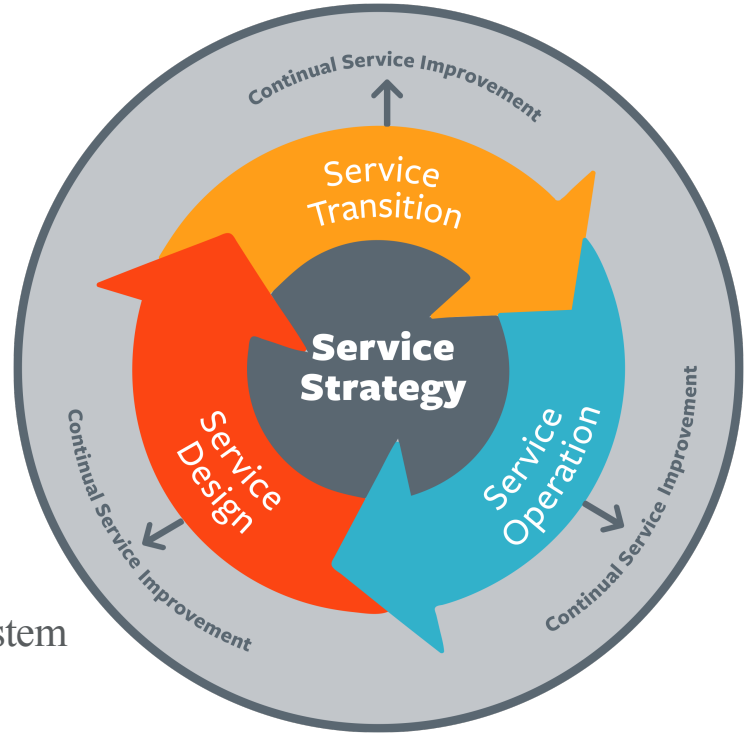
Monitors all applications in the VT Alerts Portfolio



Sustainable Support

New Monitoring Capabilities

- Infrastructure
- Applications
- Devices



Improved Redundancy for each channel

- Physical Layer
- Network Layer
- Application Layer

Service Management

- Long term operation of the system
- Changing environment

Channel Development

- Scope
- Scale

It is important to be proactive instead of reactive in public safety.

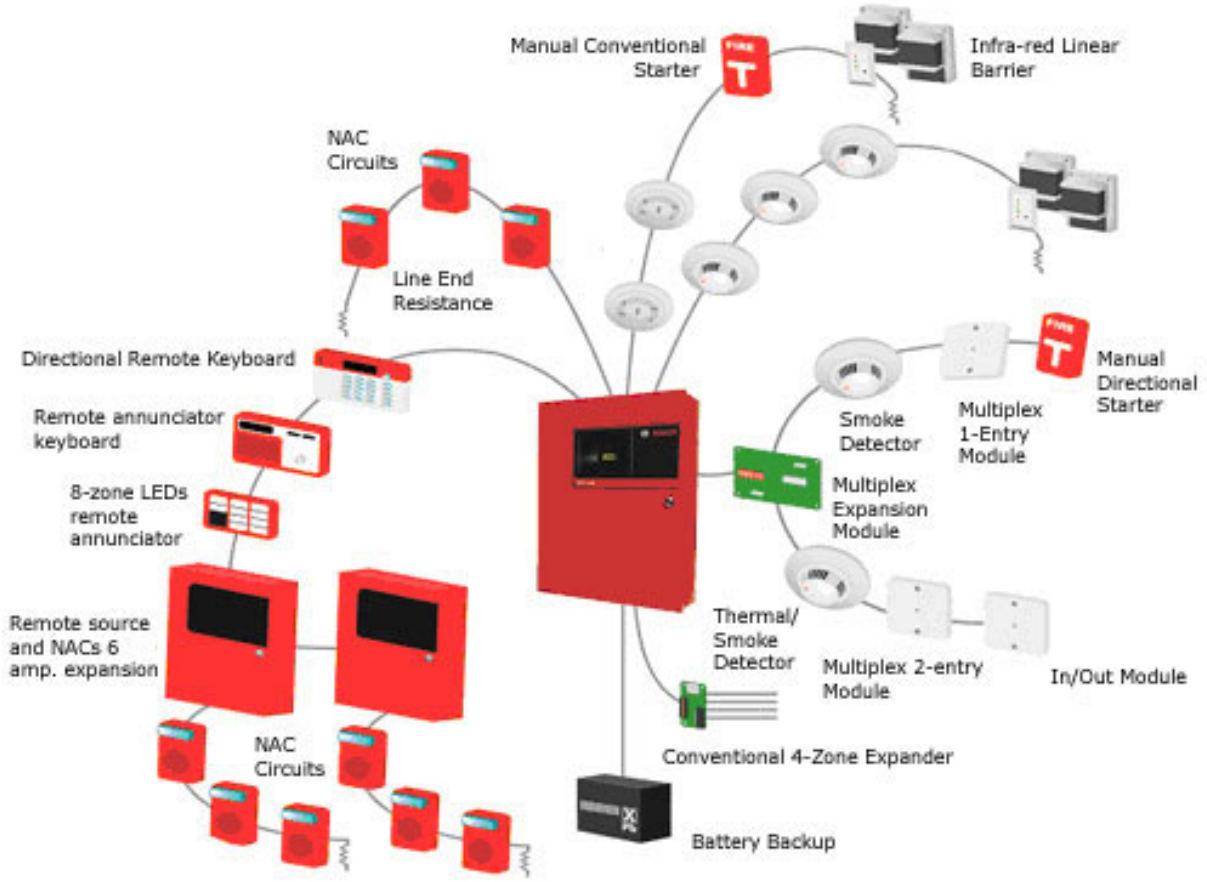
New Channels

Message Board Channel

- Next Generation boards
  - Reliability (SSH security)
  - High visibility LED display with anti-glare coating
  - LED light and speaker call attention to the display when a message is playing
  - Direct connect to text messaging providers

Annunciator Channel

- Audio Notifications
  - Based on CAP* protocol
  - Entire buildings
  - Larger range than boards
  - Cost effective
    - 1 building ~ 1 board



*Common Alerting Protocol

Annunciator Roadmap

Phase 1

- ✓ Proof of concept
- ✓ Initial 8 Annunciators

Infrastructure

- ✓ Server and Network Improvements
- ✓ Redundancy / Back up

Phase 2

- ✓ 23 new Annunciators
- ✓ + 4 building renovations

Enhancements

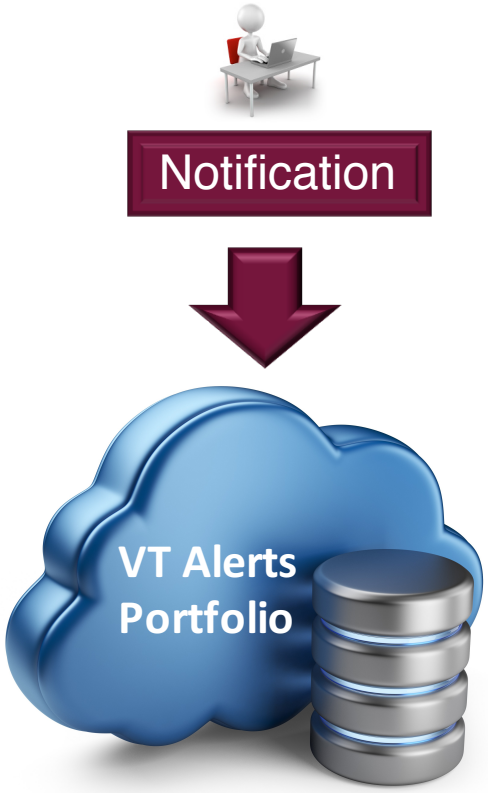
- ➢ Custom Settings
- ➢ Weather Alerts
- ➢ Remote Sites
- ➢ Further Redundancy

Total: 35 Annunciators installed across the university.

Notification

Annunciator Channel *Architecture*

Annunciator Channel *Architecture*



Annunciator Channel *Architecture*

Notification

Annunciator CAP* server

*Common Alerting Protocol

Annunciator Channel *Architecture*

Notification

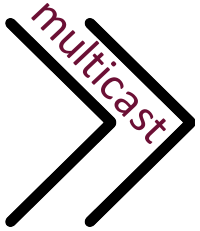
UTM

Capability:
- Converts network traffic between multicast and unicast.

Capacity:
- 26 annunciators

Unicast / Multicast Converter

Annunciator CAP* server



*Common Alerting Protocol

Annunciator Channel *Architecture*

Notification

VT Alerts Portfolio

Annunciator CAP* server

multicast

UTM

Capability:
- Converts network traffic between multicast and unicast.

Capacity:
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Unicast / Multicast Converter

unicast

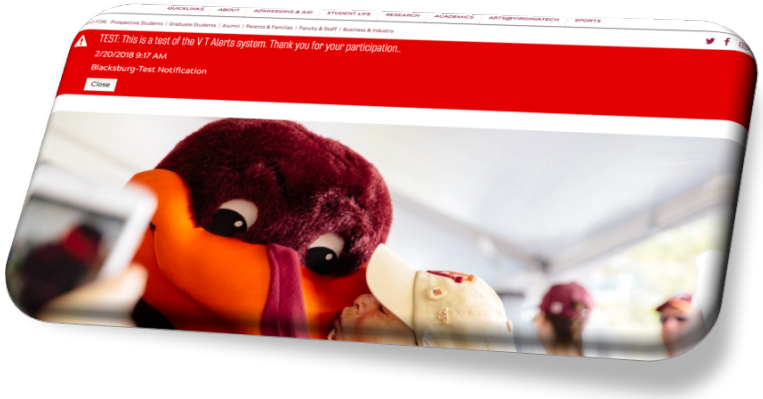
Annunciator

Page Zone Extender

*Common Alerting Protocol

Upcoming

Subscribe Alerts



OPPORTUNITIES FOR IMPROVEMENT

COLLABORATION ON CHANGES

FRONT END USER INTERFACE

BACK END INTEGRATION

QUALITY CONTROL

- Subscribe Alerts App
- Admin Interface
- User Interface
- Guest Interface
- Metrics

✓

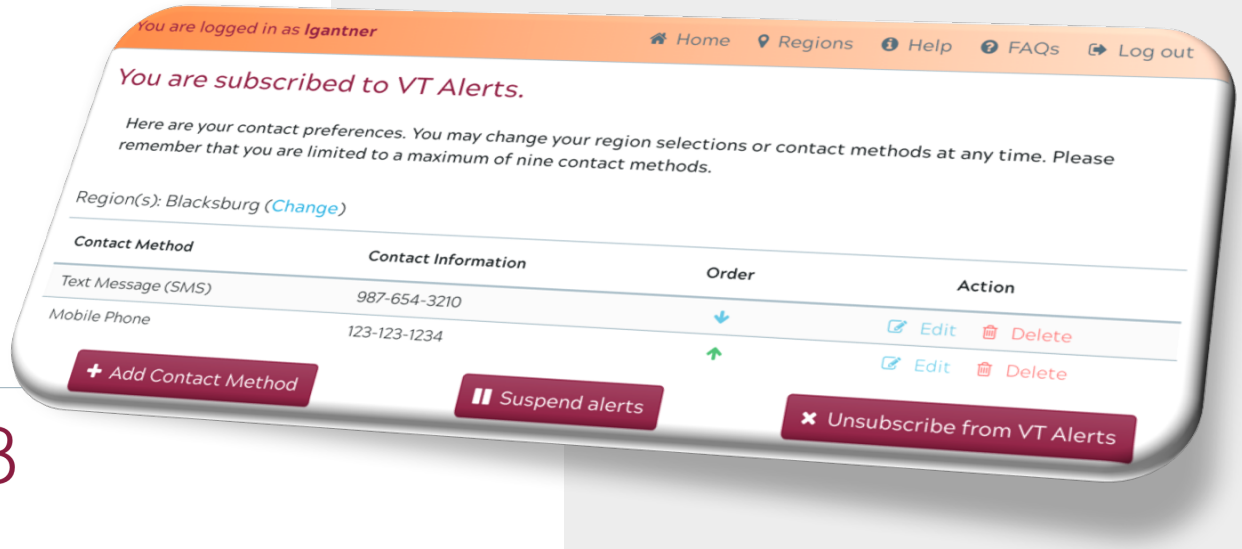
Release

Subscribe Alerts

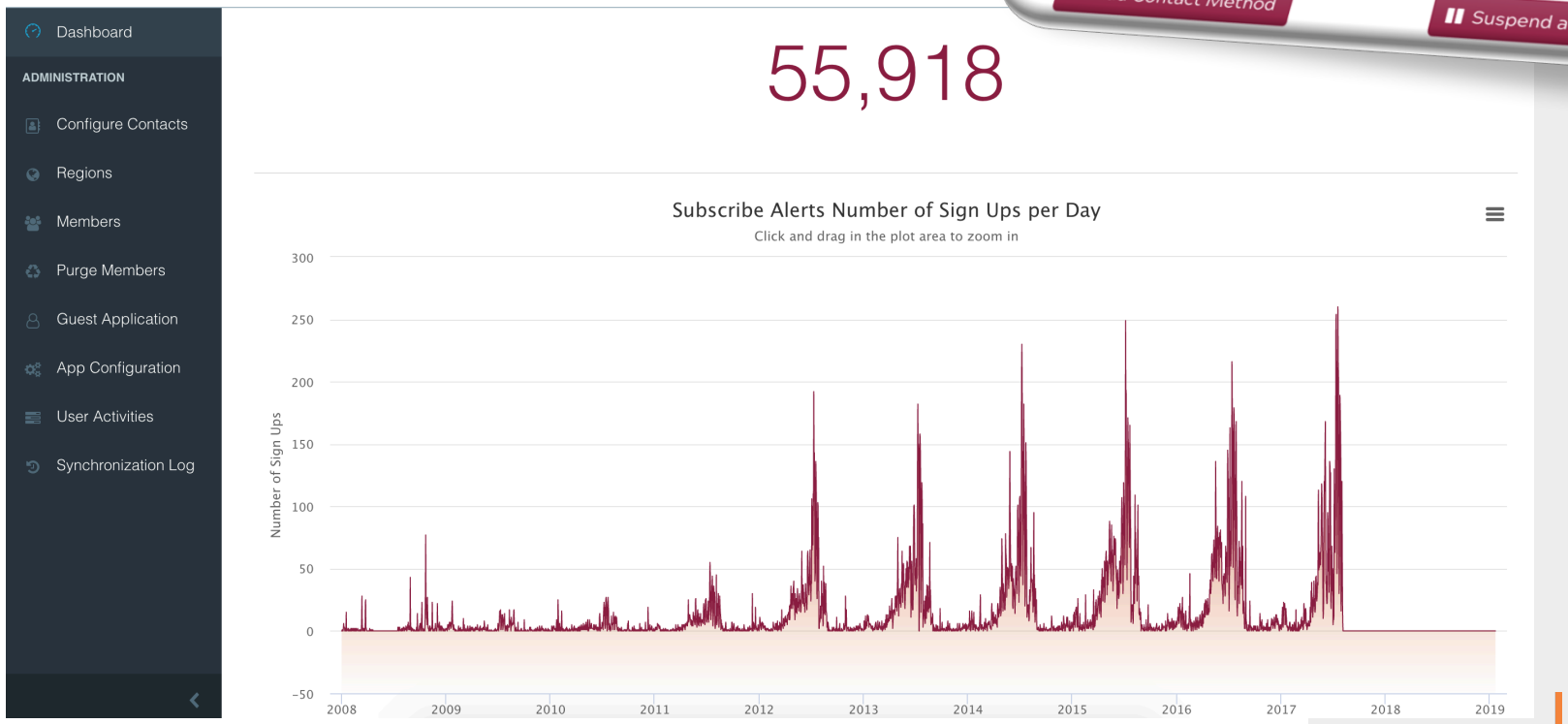
2019 Release

* pre-production images

Guest Alerts Application
User Self Service & Administration



Management Interface
Configuration & Operation



Digital Signage

Collaboration

- Locate and validate signage
  - Which signs should be included?
- Enable signs to receive VT Alerts
  - Social Media (Twitter, Facebook, etc.)
  - Desktop Alerts
  - New Application / Channel

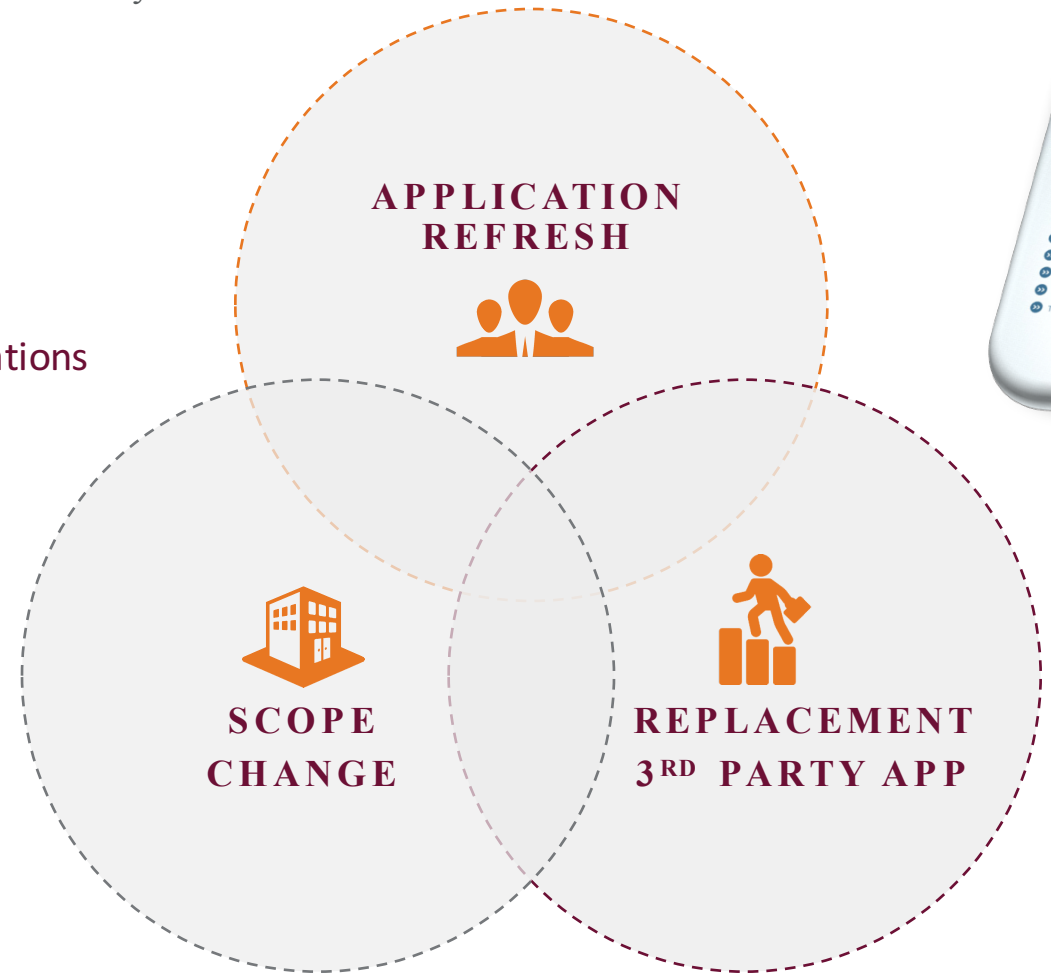
Email Channel

UONS

University Online Notification System

Use Cases

- VT Alerts
- Daily Emails
- Timely Notifications



Questions?

Thank You !

Questions & Answers

»Conference Session

»Date/Time - March 1st 2-3pm

»Zoom Link: https://virginiatech.zoom.us/j/296495345

Takeaway Messages

»It is important to be proactive instead of reactive.

»Watch for new Message Boards.

»Listen for new Annunciators.

»Subscribe to VT Alerts.