# REAC IT Industry Event Uniform Physical Condition Standards for Vouchers (UPCS-V)



## U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

July 25 to July 28, 2017

### Agenda

- Objectives
- Who We Are
- Part 1: General Orientation of UPCS-V
  - Need for Change
  - What is UPCS-V?
  - Development of UPCS-V
  - Program Updates
  - Scoring Model
- Part 2: Functional UPCS-V Demonstration
  - UPCS-V Software Demonstration

### Agenda (continued)

#### Part 3: Future of UPCS-V

- UPCS-V Demonstration language
- UPCS-V Inspections from 3<sup>rd</sup> Parties
- Future State Architecture
- Collaboration
- UPCS-V Slack Channel

#### Next Steps

- Feedback
- OED Website
- Updated Resource Library
- OED Newsletter

#### Q&A

#### Objectives

- Provide awareness of HUD's UPCS-V Demonstration
- Encourage collaboration on development of UPCS-V software
- Debunk UPCS-V myths
- Communicate ways to Participate in the Demonstration

#### Who We Are

## Department of Housing and Urban Development (HUD)

#### Public and Indian Housing (PIH)

Housing Programs, Policy, and Administration

#### Real Estate Assessment Center (REAC)

Physical Inspections

#### Oversight and Evaluation Division (OED)

Accuracy, Consistency, and Objectivity of Voucher Inspections

#### Oversight and Evaluation Division (OED)

Who is OED?

Interdisciplinary team of: Housing Inspectors, Construction Analysts, Engineers, Auditors, Program Analysts, Data Analysts, and IT Developers.

What do we do?

Oversee and ensure that the PHAs accurately, objectively, and consistently perform physical inspections according to HUD guidelines refined with your input.

What is our mission?

Ensure that Housing Choice Voucher tenants reside in safe, decent and sanitary housing.

# Part 1: General Orientation of UPCS-V

Wolfgram Cota, Director of OED

### **Need for Change**

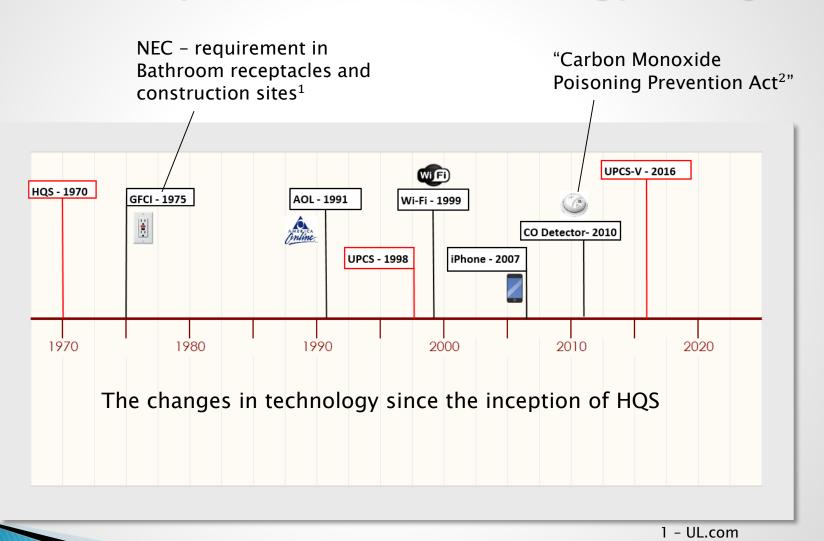
- 2008: HUD Office of Inspector General Audit Report
  - HUD lacked controls and oversight of the Housing Choice Voucher inspection process
- ▶ 2014: REAC completed 27,000 QC inspections
  - Inconsistency pervasive throughout Housing Quality Standards (HQS) process
  - HQS not accommodating of an electronic data model
  - QC under HQS is resource intensive; unable to realize efficiencies of scale or technology

#### Need for Change (continued)

#### Senate Report FY16 on HQS:

- "HUD's housing quality standards should effectively protect the health and safety of public housing and Housing Choice Voucher (HCV) residents...standards for the HCV program remain outdated and do not reflect recent research on health and safety threats in the home."
- "...directs HUD to implement a single inspection protocol for public housing and voucher units..."

#### Timeline of Inspections and Technology Changes



2 - Congress.gov

#### What is UPCS-V?

- UPCS-V, with the "V" signifying "Voucher", aims to clarify and streamline inspection processes for PHAs and inspectors, while increasing owners' and tenants' access to detailed information about their homes.
- UPCS-V is based on the UPCS Protocol and modified to fit the needs of the Housing Choice Voucher (HCV) program.

### What is UPCS-V? (continued)

- There are 2 core components to a UPCS-V inspection:
  - 1. The <u>deficiencies</u> which determine whether a unit is acceptable for occupancy.
    - Deficiencies will be classified on an escalating scale, from minor to significant and emergency or life threatening.
  - 2. The detailed <u>Inspection Process Index</u> which will give residents, owners, PHAs, and HUD better insight into the overall condition of the unit.
    - The Unit Condition Index will include healthy homes indicators.

#### Development of UPCS-V

- Electronic, data-driven inspection protocol
- Accuracy:
  - Different inspectors arriving at the same result each time
  - Inspection reports will have photos of deficiencies
- Consistency:
  - Decision trees or branching logic
  - HUD provided training
  - HUD quality control program
- Objectivity:
  - Inspections (assessments) conducted using a defined set of criteria
  - Improving inspections, training, and compliance

#### Is this Item a Pass or Fail?





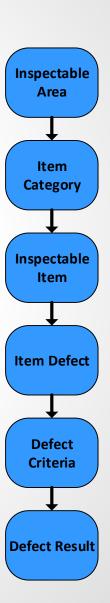


#### The Current HQS definition is:

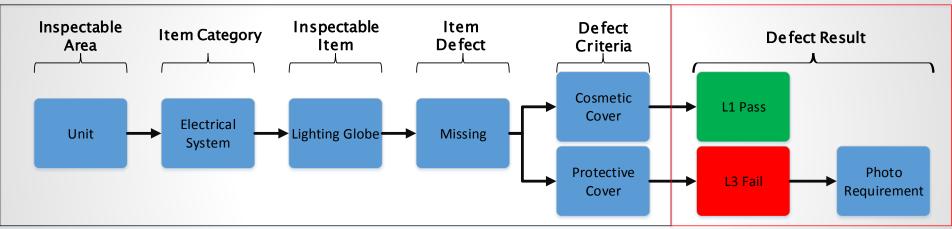
- HUD-form-52580a:
  Are the walls sound and free from hazardous defects?
- "Unsound or hazardous" includes: serious defects such that the structural safety of the building is threatened, such as severe buckling, bulging or leaning; damaged or loose structural members; large holes; air infiltration.
- Pass walls that are basically sound but have some non hazardous defects, including: small or shallow holes; cracks; loose or missing parts; unpainted surfaces; peeling paint (for peeling paint see item 1.9).

#### Value of a Decision Tree Model

- A path to accurate decision making
- Guides inspectors to consistent and reliable outcomes
- Intuitive, easy to learn, and implement



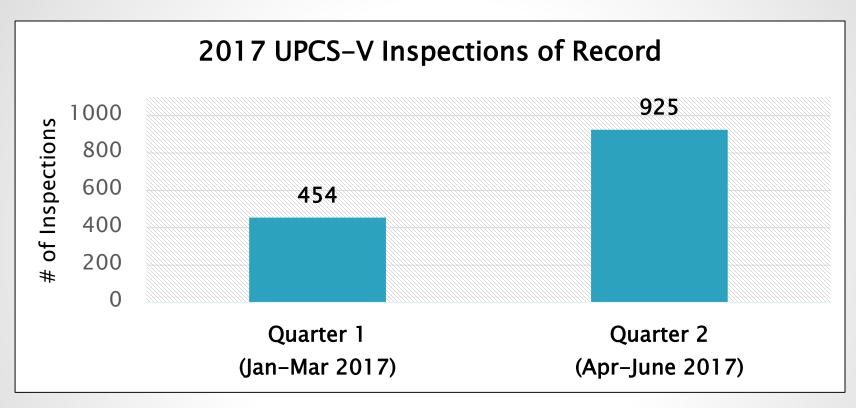
#### Sample Decision Tree for UPCS-V



Determined by Inspector

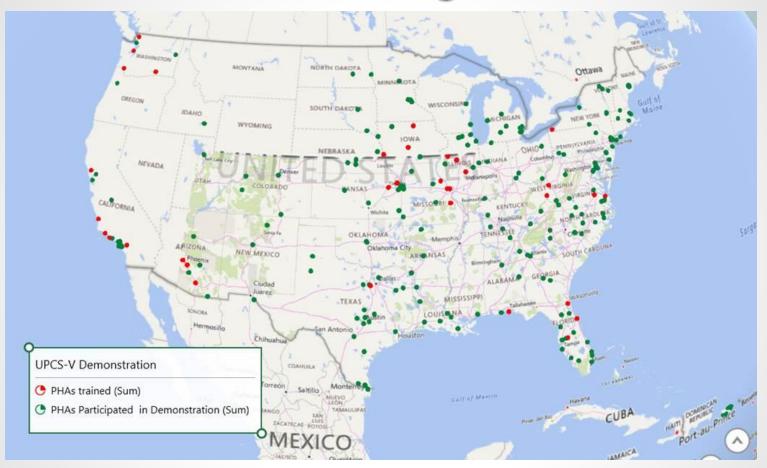
Determined by Software

#### Program Updates



Over 1300 IORs performed (as of 6/30/2017)

#### **Demonstration Trainings to Date**



- 239 PHAs participating in Demo (250 capacity)
- 36 PHAs trained in 14 states

#### **Current Developments**

- Continuing face-to-face & WebEx trainings
- Protocol Version 3 under development
  - Protocol & Decision Tree revisions based on stakeholder feedback
    - Simplifying Interface
    - Simple plain language (Results on DCD Screen)
    - Learning through application
  - IT revisions
    - Standardized updates through iterative releases
    - Improve software user-friendliness
    - Communicate with PHAS as major updates occur beforehand
- Gathering feedback from PHAs for improved usability of inspection software

### Mythbuster # 1

- Myth: PHAs must implement UPCS-V electronic inspections today!
- 3 Year Demonstration Period
- Purpose of Demonstration is to test, evaluate and improve UPCS-V Protocol based on your feedback

#### Timeline for UPCS-V

Past

Present

July-September September -January 2018

- Release of Protocol2.5
- New updated, more user-friendly Software 2.5.0 released 6/5/17
- Expand adoption of UPCS-V to larger number of PHAs
- Continue with face-to-face & WebEx trainings
- Implement Agile framework for software development

- More landlord engagement events
- Continuous improvement of software & user experience
- Mobile App Update 2.5.1

- Protocol 3.0
- Data exchange development
- Online training tool
- Evaluate
   Demonstration data
- 1st Quarterly Town Hall with Vendors

### Mythbuster # 2

Myth: HUD will use the Scoring Model against PHAs

#### Not a punitive tool

 Can provide PHAs, owners, and residents insight into the overall condition of the unit

#### Core Mechanics:

- Attempts to compare inspection processes results across units
- Assigns weights at Inspectable Area, Inspectable Item, and Deficiency Level based on relative importance
- Gauges impacts to livability, tenant health and safety
  - i.e. the importance of frayed electrical wiring compared to damaged kitchen countertops



## **Questions & Answers**

# Part 2: Functional UPCS-V Demonstration

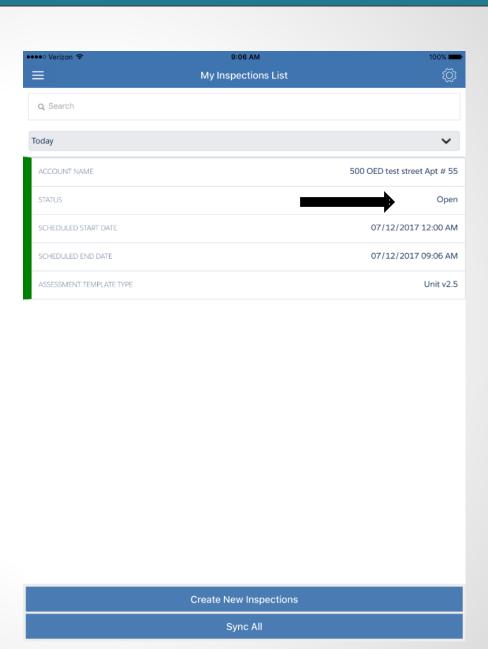
Luis Casillas, Auditor and Product Owner of Inspection Software (EXAM)

### Mythbuster # 3

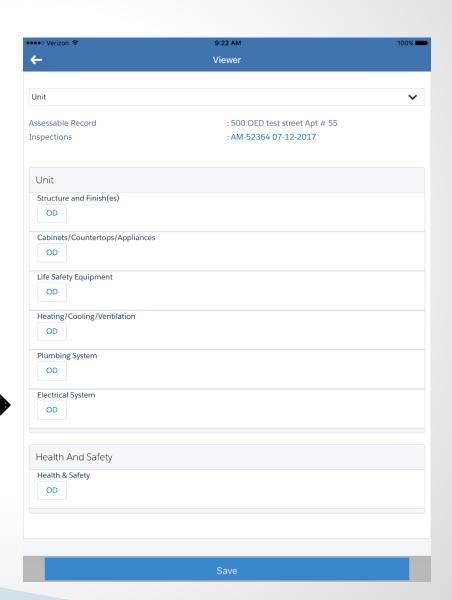
- Myth: UPCS-V inspections take longer
- The UPCS-V inspection software allows the inspector to record defects with just a few clicks. Furthermore, the inspector is able to submit the inspection results from the field; thus eliminating the need for the inspector to type their inspection results, at the end of each day.

#### Demo

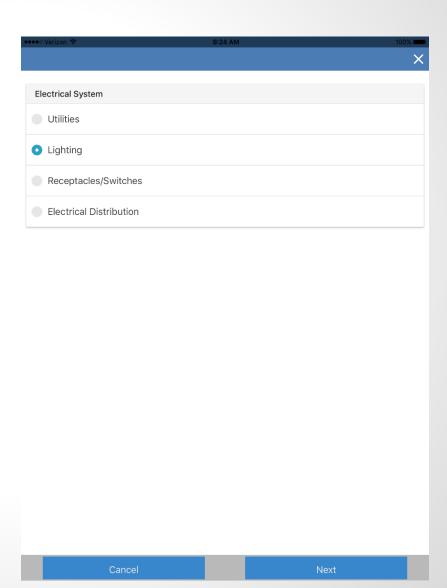
- Inspection Ready
- Status Open



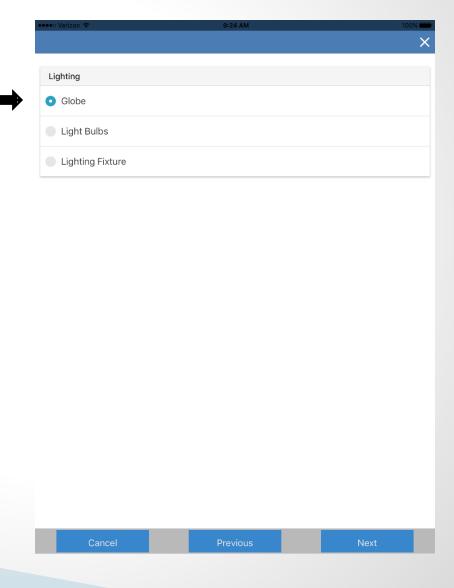
Conduct an inspection of the unit and record a broken light Globe.



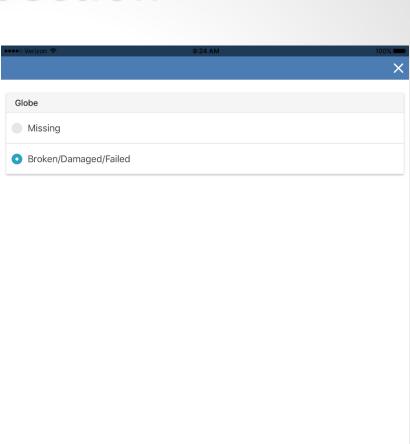
Select Lighting



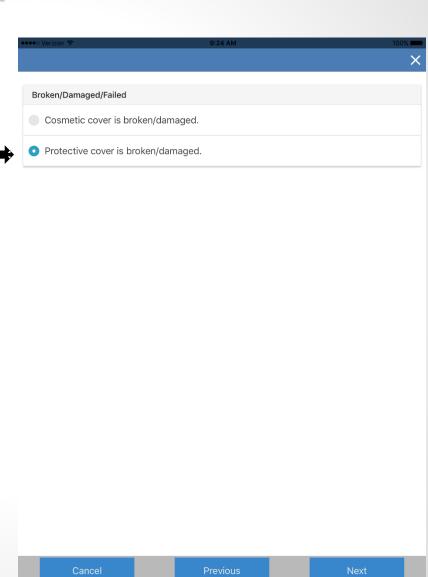
Select Globe



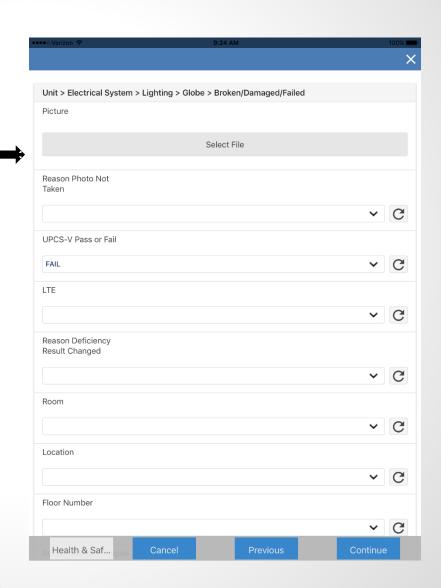
Select Broken/ Damaged/Failed



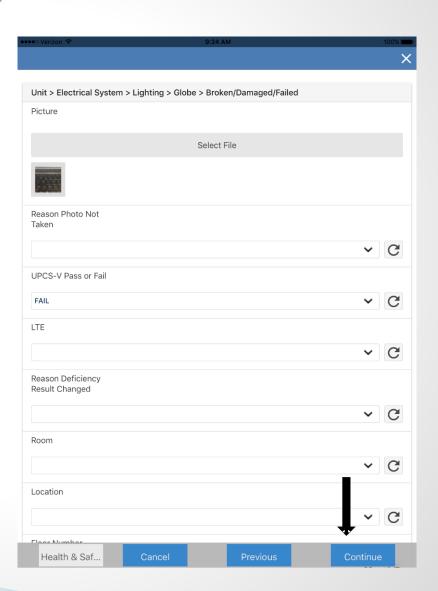
Select Protective cover is broken /damaged



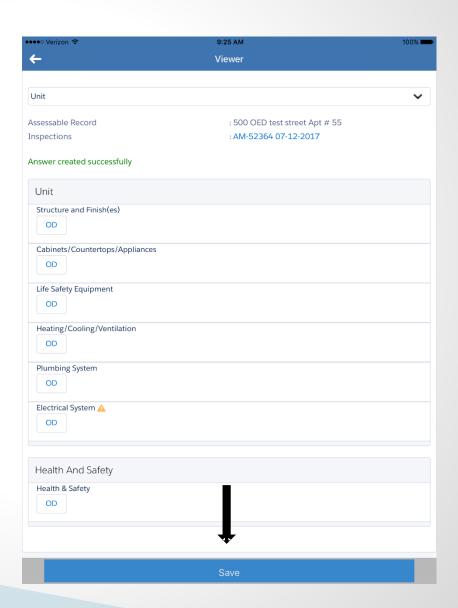
Add a picture –Select File



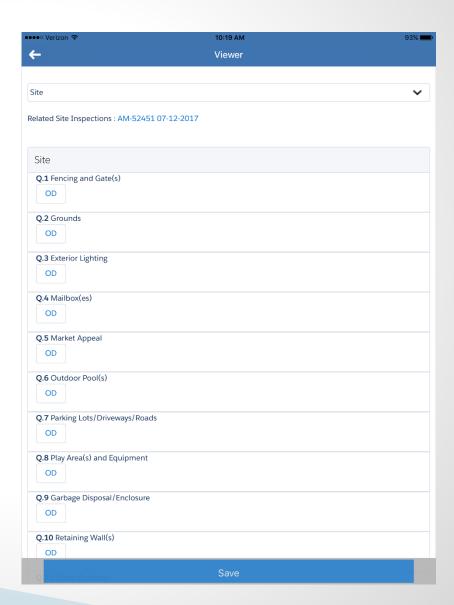
Select Continue



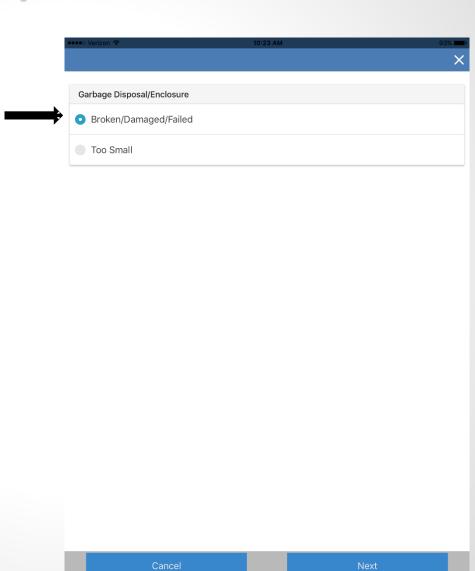
- Select Save
- Navigate to the Site inspection



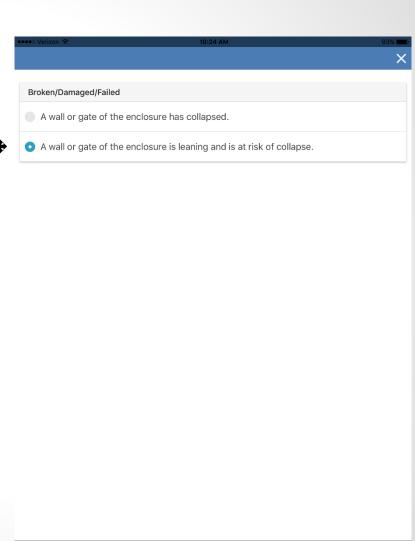
Select Garbage Disposal/Enclosure



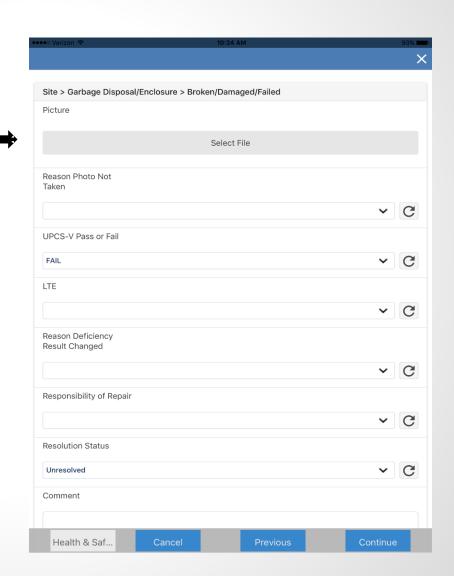
Select Broken/ Damaged/Failed



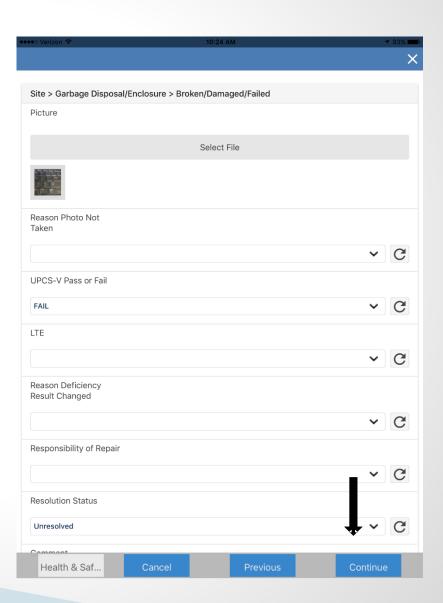
 Select A wall or gate of the enclosure is leaning and is at risk of collapse



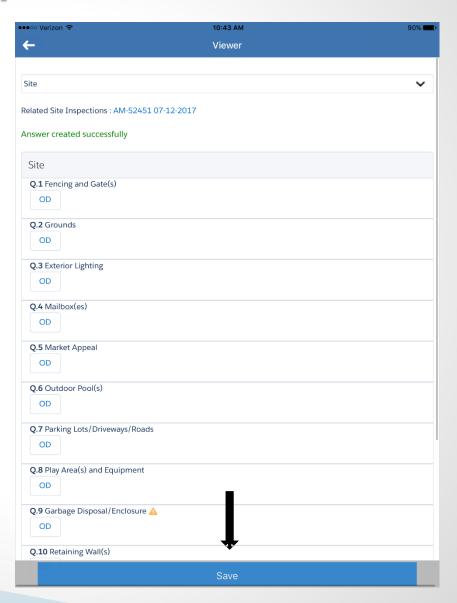
Add a picture –Select File



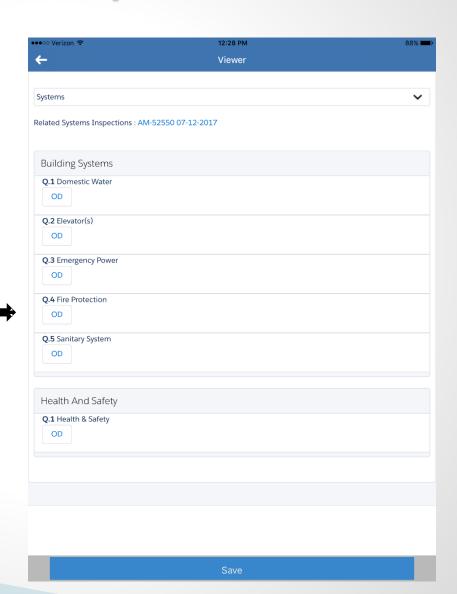
Select Continue



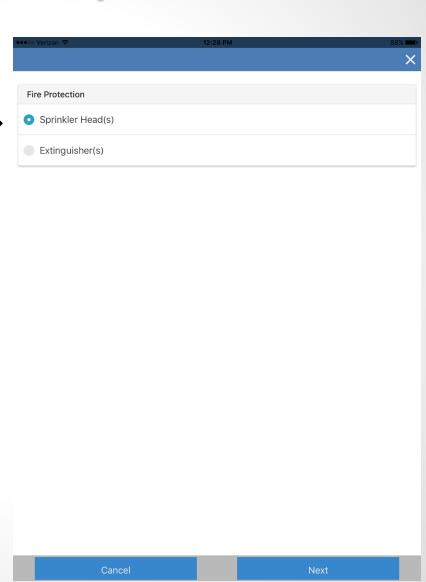
- Select Save
- Navigate to the Systems inspection



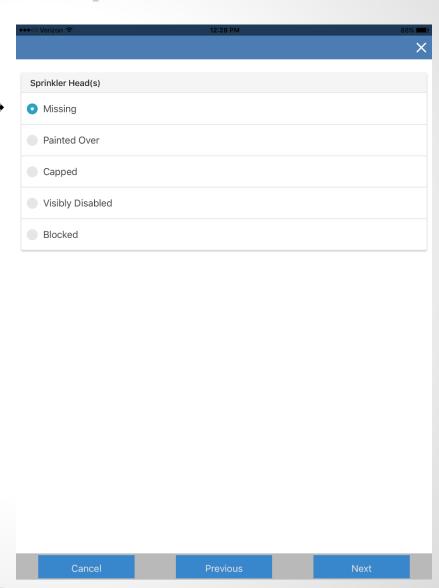
Select Garbage Fire Protection



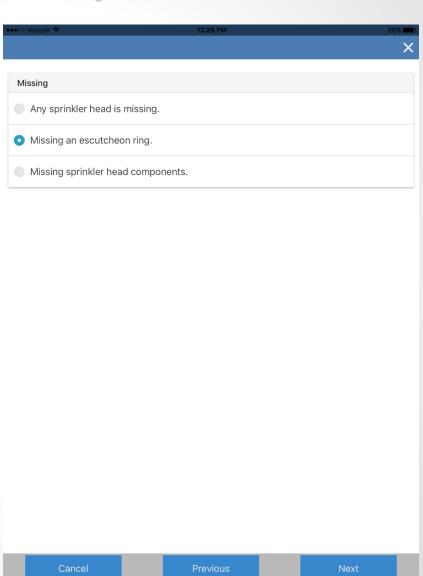
Select Sprinkler Head(s)



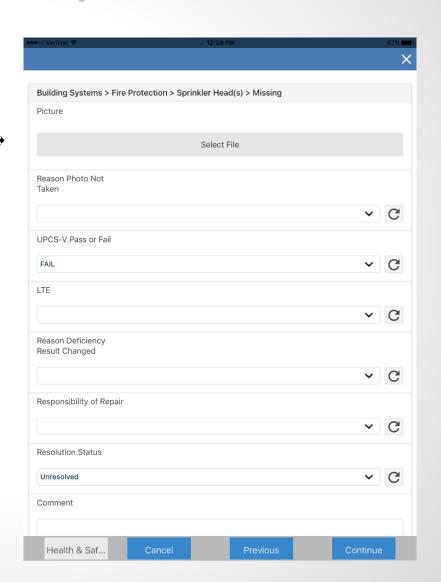
Select Missing



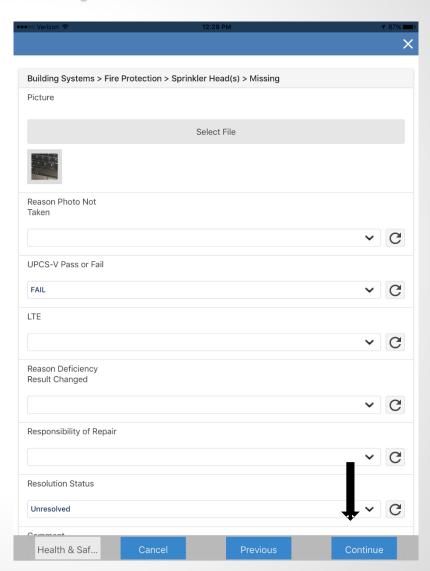
Select Missing an escutcheon ring



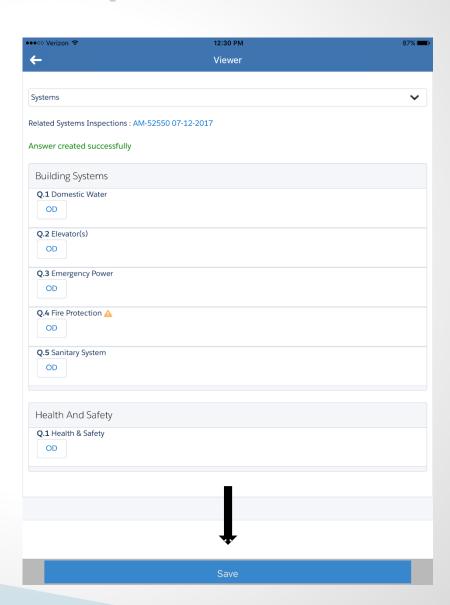
Add a picture –Select File



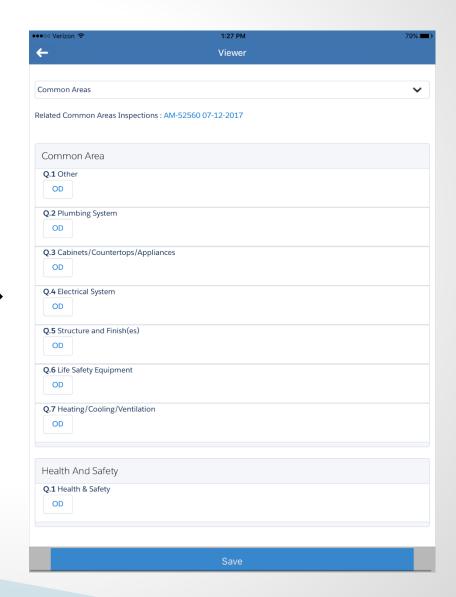
Select Continue



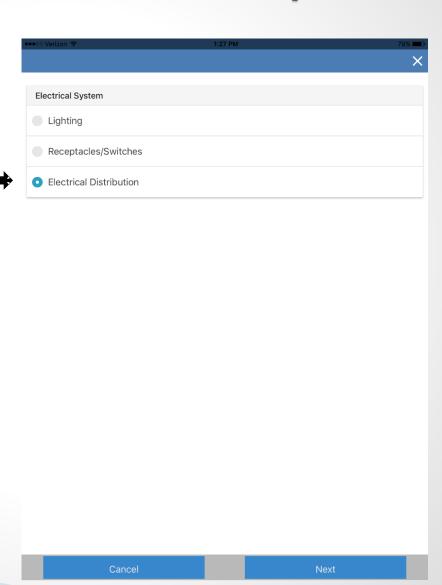
- Select Save
- Navigate to the Common Areas Inspection



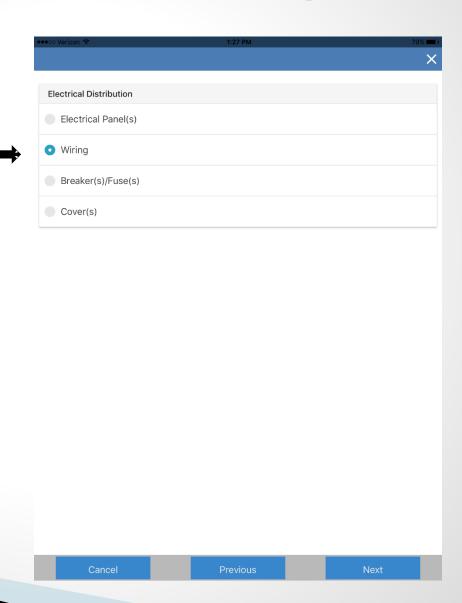
Select Electrical System



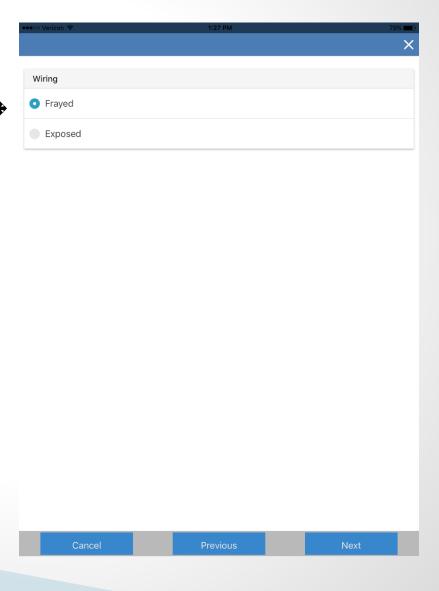
Select Electrical Distribution



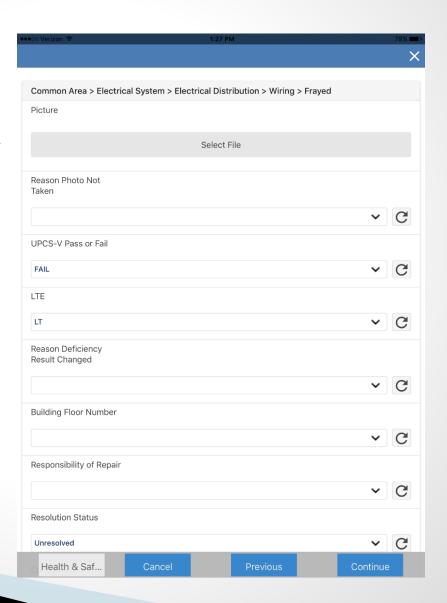
Select Wiring



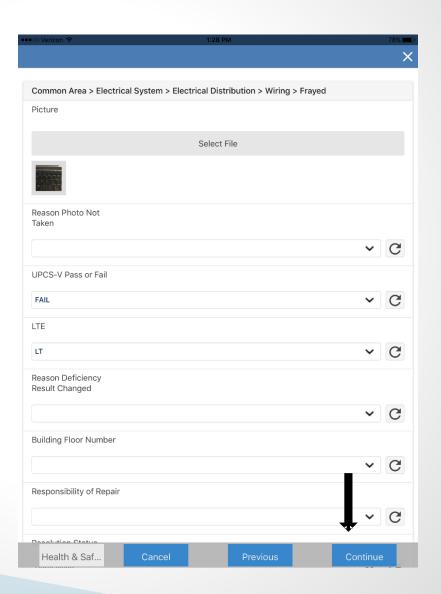
Select Frayed



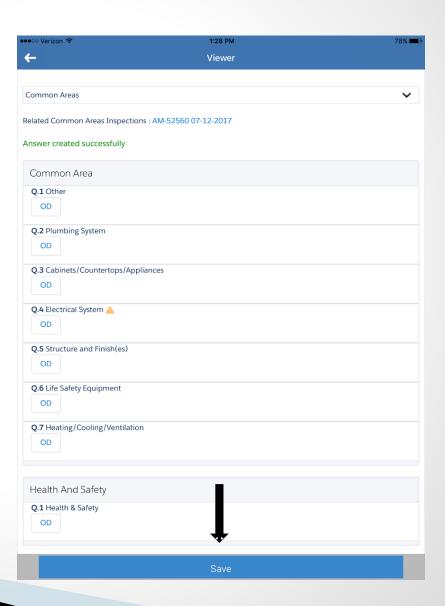
Add a picture –Select File



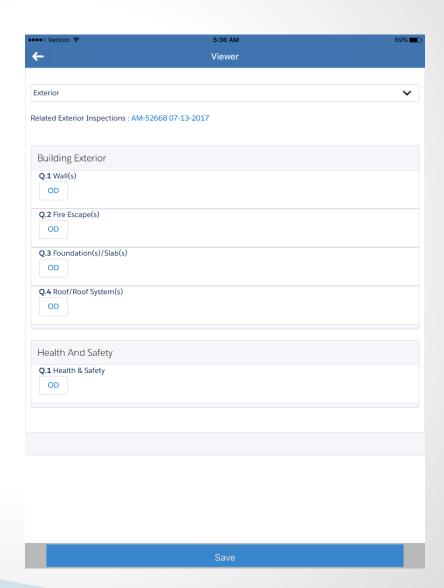
Select Continue



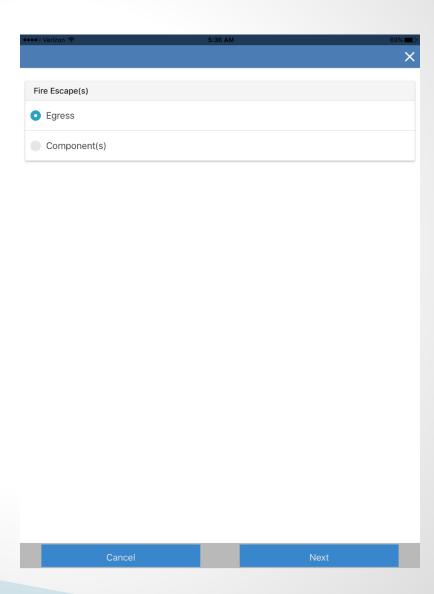
- Select Save
- Navigate to the Exterior Inspection



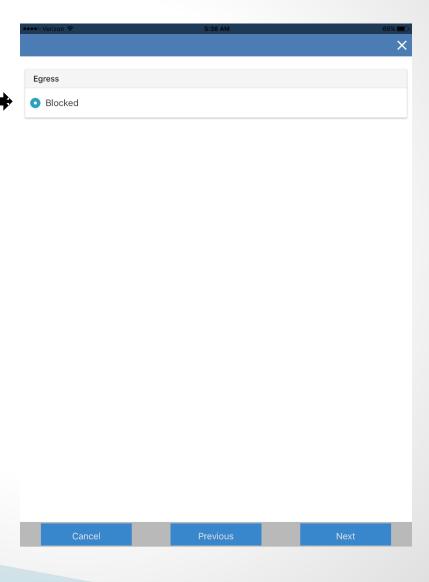
Select Fire Escape(s)



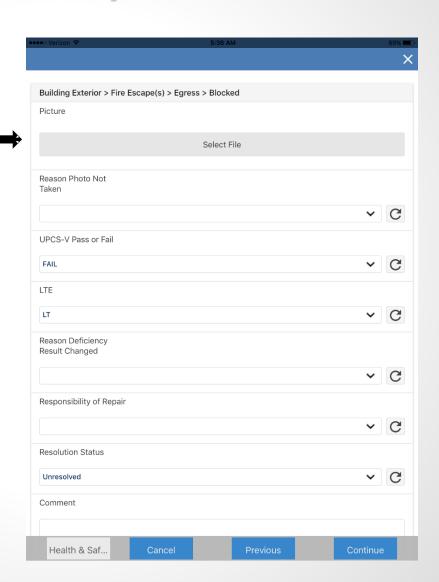
Select Egress



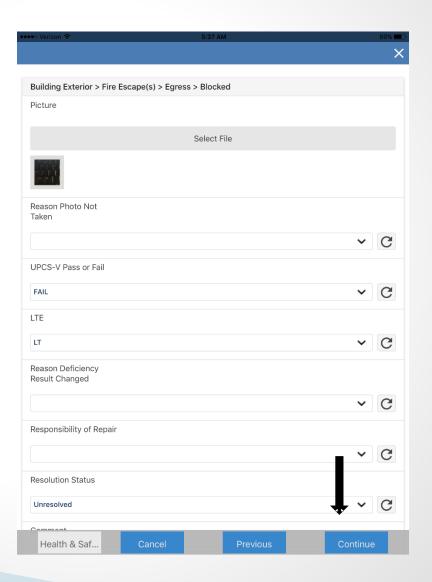
Select Blocked



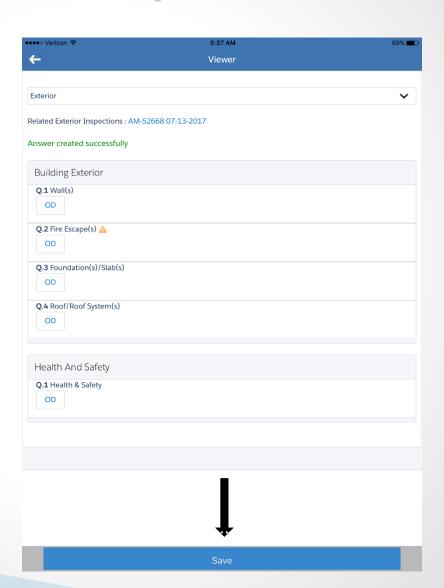
Add a picture – Select File



Select Continue

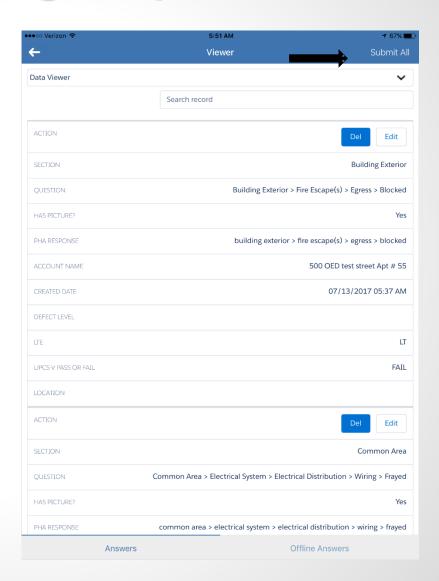


- Select Save
- Navigate to the Data Viewer



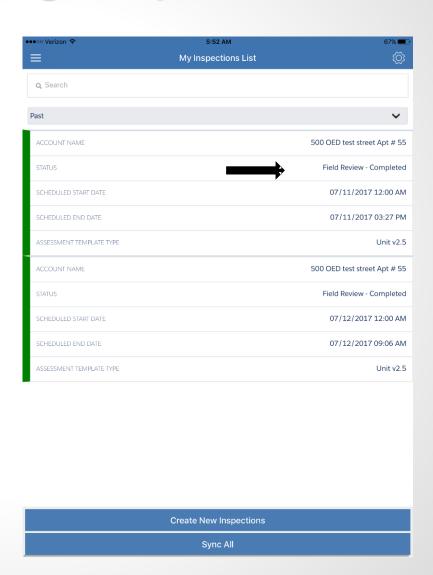
### Demo - Submitting Inspection

Select Submit All



#### Demo - Submitting Inspection

Status changed from Open to Field Review Completed





## **Questions & Answers**

#### Part 3: Future of UPCS-V

Bilal Assaad, Engineer and Product Owner of Future State Inspection Software

#### **UPCS-V** Demonstration Language

There are three components to the Demonstration, each of which may run concurrently:

- Evaluation of Revised Inspection Model (UPCS-V)
- Data Standardization and Information Exchange
- Oversight and Performance Improvement

PHAs participating in this component of the Demonstration and that use non-HUD provided software will be required to have and maintain the information technology resources and support necessary to interface with HUD's systems using industry standard file transfer protocols such as Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) standards. Some data exchange may be via transfer of flat files.

\*24 CFR Part 982 [Docket No. FR-5928-N-01] Published: May 4, 2016

Component 2: Data Standardization and Information Exchange of UPCS–V Inspections

UPCS-V is designed as an electronic inspection model. This component of the Demonstration will test the transition from a paper-based to an electronic inspection approach. Initially, the UPCS-V inspections will be performed electronically using HUDprovided software, and all inspections will include photos of the most severe deficiencies. For PHAs with their own IT systems, including PHA-produced or provided inspection software, HUD also will test the feasibility of different methods of transferring physical inspection information between PHA and HUD systems.

PHAs participating in this component will be required to document and submit to HUD all UPCS—V inspections electronically. HUD anticipates that it will then review, analyze, and where appropriate, transform the inspection data into value-added information, such as a scoring report, healthy homes report, and relative risk reports, for electronic transmission back to the PHA

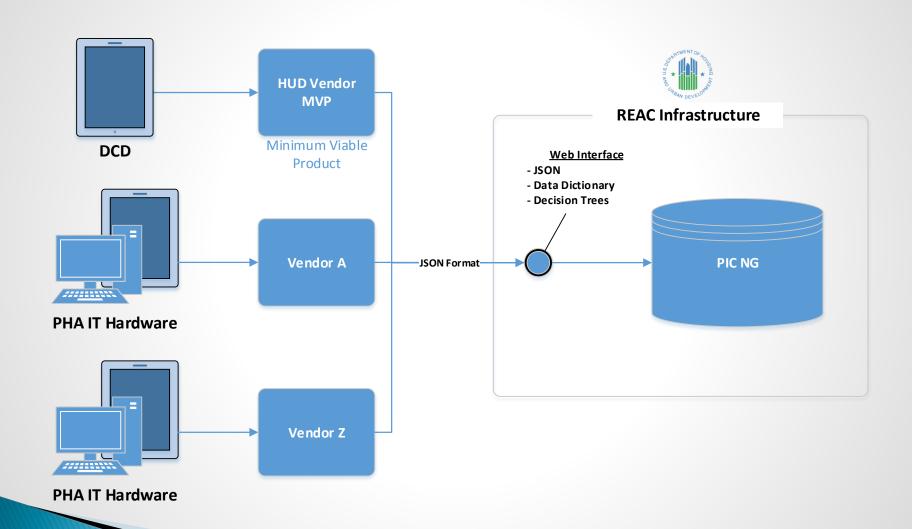
PHAs participating in this component of the Demonstration and that use non-HUD provided software will be required to have and maintain the information technology resources and support necessary to interface with HUD's systems using industry standard file transfer protocols such as Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) standards. Some data exchange may be via transfer of flat files.

https://www.gpo.gov/fdsys/pkg/FR-2016-05-04/pdf/2016-10460.pdf

#### UPCS-V Inspections From 3<sup>rd</sup> Parties

- The success of UPCS-V is dependent on successful data exchange from 3<sup>rd</sup> party vendors
- All PHAs will have the option of procuring and using the inspection platform of their choice
- HUD REAC will publish standardized data exchange specifications to be used by 3<sup>rd</sup> party software vendors
- Standardized data exchange will occur between 3<sup>rd</sup> parties and HUD via JavaScript Object Notation (JSON)

#### **Future State Architecture**

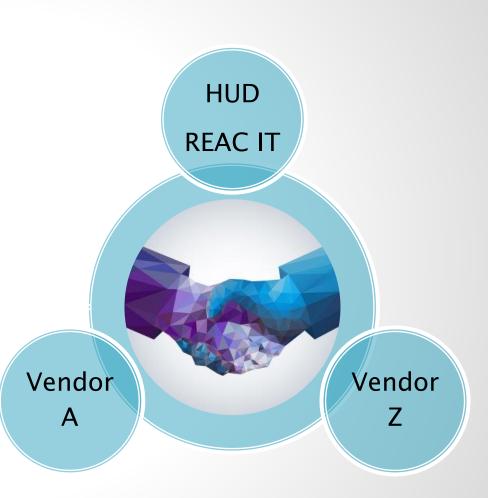


#### Collaboration

 Feedback on Slack Channel

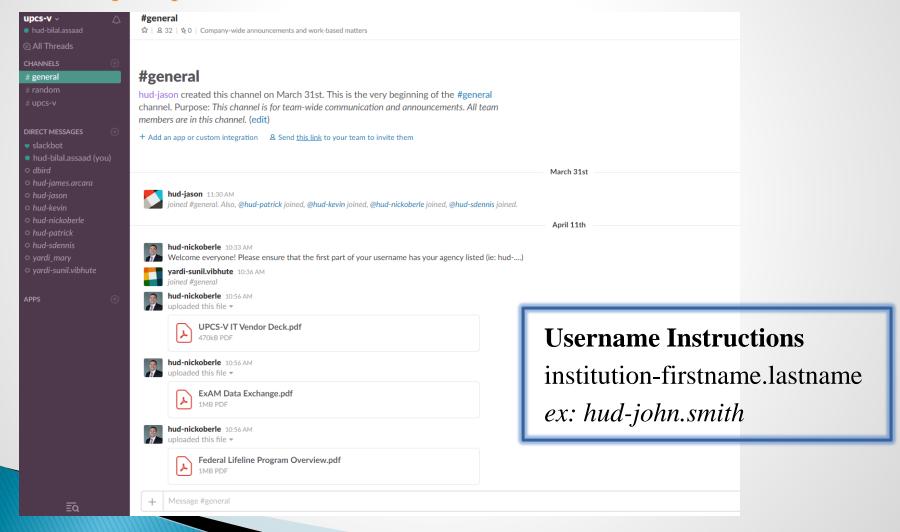
 Host Quarterly Town Halls

UPCS-V beta-tester
 Community



#### **UPCS-V Slack Channel**

#### URL: <a href="https://upcs-v.slack.com">https://upcs-v.slack.com</a>





## **Questions & Answers**

# **Next Steps**

#### We Request Your Help to Shape UPCS-V

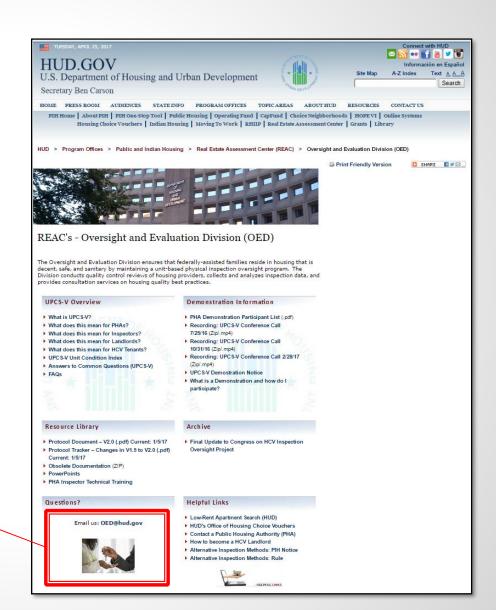
- We invite you to share your feedback for our continued success
- We are continually improving the program based on your feedback
- Reach out to us directly:
  - OED Website (next slide)
  - Twitter: @HUDREAC
  - Email: <u>OED@hud.gov</u>
  - Slack: upcs-v.slack.com

#### **OED** Website

#### Google:

- HUD OED
- HUD Oversight and Evaluation

Email Us: OED@hud.gov



#### Updated Resource Library on OED Website

#### Resource Library

- Demo: ExAM Mobile Inspection App (Video)
- Help with SalesForce Log-ins (.pdf)
- ExAM App Quick Reference Guide (.pdf)
- Enabling Auto Updates for iOS (.pdf)
- Enabling Auto Updates for Android (.pdf)
- Protocol V2.5 6/5/17 (.pdf)
- Protocol Change Tracker 6/5/17 (.pdf)

#### Newsletter

# **Monthly Newsletter**: Email OED@hud.gov if you want to subscribe:



ISSUE 2 | MAY | 2017

#### Thank you! We are listening to your Feedback!!

#### Stats as of 5/24/2017:

- 237 Demonstration Volunteers (there is capacity up to 250)
- 24 PHAs trained
- · 1019 UPCS-V Inspections of Record (IoR) completed by PHAs
- 3 PHAs that have completed 100+ inspections using UPCS-V Protocol and Software

#### From the OED Team:

Welcome to our second OED monthly newsletter!!



## **Questions & Answers**