

THE SISE-NET VIRTUAL TABLETOP EXERCISE

Conducted 7/16, 7/30 and 8/6, 2021

Abstract

A virtual cross-sector, multi-state discussion-based exercise to enhance operational coordination and operational information sharing for the upcoming hurricane season.







Exercise Name: SISE-Net "Pilot" Tabletop Exercise – 2020 Hurricane Sally

Exercise Time(s) & Date(s):

Session 1: 9:00am – 12:00pm EDT on July 16, 2021, Phase 0 & 1

Session 2: 9:00am – 11:00am EDT on July 30, 2021, Phase 2 & 3

Session 3: 9:00am – 11:30am EDT on August 6, 2021, Phase 4 & 5

Mission Area(s): The mission areas for this tabletop exercise include the following phases listed:

- Phase 0 Monitoring: Planning (-7 to -4 days before impact)
- Phase 1 Preparedness: Planning (-72 to -24 hours before impact)
- Phase 2 Incident: Impact/Landfall
- Phase 3 Response: Assessment & Restoration (+12 to +24 hours)
- Phase 4 Response: Restoration (+48 to +72 hours)
- Phase 5 Recovery: Restoration & Resume (+5 days)

Core Capabilities:

- Public and Private Sector Coordination
 - Government (Federal Motor Carrier Safety Administration (FMSCA) & States)
 and Private Sector
 - o Cross-Sector (e.g., Communication, Electric, Food, Fuel, Pharma, Transportation, Water)
- Utilization of SISE-Net Data During a Significant Event
 - Current System Data
 - o Identification of Available and Desired Data

Exercise Objectives:

- 1) Identify opportunities to improve operational coordination and communications between Sectors and Government (FMSCA & States) by:
 - Understanding What Government and Sectors Did to Prepare for & Respond to a real event (2020 Hurricane Sally)
 - Understanding What Data is Currently Available in AHC/SISE-Net
 - o Weather, Floods
 - Declarations and Waivers
 - Road Closures
 - Power Outages
 - Open/Close Status of Food, Fuel Lodging. Big Box, and RXs
 - o Emergency Resources
 - o Threats: COVID-19 Hot Zones, Social Unrest, etc.,
 - Identifying Additional Data Needs
 - Identifying Additional Data Available from Participants or Other Sources





- Identifying Tools Used by Government and Sectors During an Incident
- 2) Gather feedback to improve future Tabletop exercises

Scenario:

Hurricane Sally was a destructive and slow-moving Atlantic hurricane which was the first hurricane to make landfall in the U.S. state of Alabama since Ivan in 2004. The eighteenth named storm, and seventh hurricane of the extremely active 2020 Atlantic hurricane season, Sally developed from an area of disturbed weather which was first monitored over the Bahamas on September 10 (-5 days). The system grew a broad area of low-pressure on September 11 (-4 days) and was designated as a tropical depression late that day. Early the next day on September 12, (-72 hours), the depression made landfall at Key Biscayne, and subsequently strengthened into Tropical Storm Sally that afternoon. Moderate northwesterly shear prevented significant intensification for the first two days, but convection continued to grow towards the center and Sally slowly intensified. On September 14 (-48 hours), a center reformation into the center of the convection occurred, and data from a hurricane hunter reconnaissance aircraft showed that Sally rapidly intensified into a strong Category 1 hurricane. However, an increase in wind shear and upwelling of colder waters halted the intensification and Sally weakened slightly on September 15 (-24 hours) before turning slowly northeastward. Despite this increase in wind shear, it unexpectedly re-intensified, reaching Category 2 status early on September 16, before making landfall at peak intensity at 09:45 UTC on September 16, near Gulf Shores, Alabama, with maximum sustained winds of 110 mph and a minimum central pressure of 965 millibars. The storm rapidly weakened after landfall, before transitioning into an extratropical low at 12:00 UTC the next day. Sally's remnants lasted for another day as they moved off the coast of the Southeastern United States, before being absorbed into another extratropical storm on September 18.

Numerous watches and warnings were issued in anticipation of the imminent approach of Sally and several coastline counties and parishes on the Gulf Coast were evacuated. In South Florida, heavy rain led to localized flash flooding while the rest of peninsula saw continuous shower and thunderstorm activity due to asymmetric structure of Sally. The area between Mobile, Alabama, and Pensacola, Florida, took the brunt of the storm with widespread wind damage, storm surge flooding, and over 20 inches of rainfall. Several tornadoes also occurred as well. Damage is estimated to be at least \$7.3 billion. Despite the destruction caused by the storm, the name Sally was not retired during the following year making Sally the costliest tropical cyclone in the North Atlantic on record that did not have its name retired.

Participating Organizations: A total of 35 individuals from the private and public sectors and government representatives from Illinois, Louisiana, North Carolina, and the Federal Motor Carrier Safety Administration participated in the "Pilot" All Hazards Consortium (AHC) Sensitive Information Sharing Environment Network (SISE-Net) Tabletop Exercise. See Appendix A for the full list of participants.





Executive Summary

On July 16, July 30, and August 6, 2021, the first cross sector, multi-state virtual exercise was conducted by the All-Hazards Consortium (AHC).

This exercise, referred to as the Sensitive Information Sharing Environment Network (SISE-Net) was a virtual Tabletop Exercise (TTX) discussion facilitated by Greg Grillo of Incident Preparedness & Response Solutions, was designed to improve operational information sharing during large scale, multi-state disasters and to identify needed and available data that could be added to SISE-Net.

Based on feedback collected from many of the participants, all exercise objectives were met during the exercise. A post exercise survey was conducted to obtain feedback on TTX "Satisfaction" and "Likelihood" to participate in future AHC Virtual Exercises. Twenty-eight participants scored those two questions with a minimal score of 4.4 out of a possible score of 5 "Very Satisfied". Additionally, survey participants were also asked to provide input on how they benefited from the exercise and what they would like to see different in future exercises. The details are provided in Appendix C.

Exercise participants for this initial pilot exercise included government and industry stakeholders from multiple working groups, several industry trade associations, multiple state emergency managers, federal agencies, and invited guests.

The exercise was conducted on AHC's Zoom platform utilizing the chat and questions features to capture participant input, along with a recording of all discussions which will be made available in the future.

Prior to the session 1 exercise starting, an overview of the AHC, SISE-Net, the SISE's Fleet Movement Application tool, and the SISE-Net initiative was provided to help educate participants on the past, present and future of cross sector information sharing and coordination during disasters. The exercise also used the SISE's Fleet Movement Application tool to present actual Hurricane Sally storm data from September 2020 to help fuel the discussions.

This initial pilot exercise utilized a phased approach, broken down into three parts:

- Session 1: Phase 0 & 1: 9:00am 12:00pm EDT July 16, 2021
 - Phase 0 = Monitoring: Planning (-7 to 4 days before impact)
 - Phase 1 = Preparedness: Planning (-72 to -24 hours before impact)
- Session 2: Phase 2 & 3: 9:00am 11:00am EDT July 30, 2021
 - Phase 2 = Incident: Impact/Landfall
 - Phase 3 = Response: Assessment & Restoration (+12 to +24 hours)
- Session 3: Phase 4 & 5: 9:00am 11:30am EDT August 6, 2021
 - Phase 4 Response: Restoration (+48 to +72 hours)
 - Phase 5 Recovery: Restoration & Resume (+5 days)

Most of those who participated in Session 1 also participated in Sessions 2 and 3.





The cross-sector discussions primarily focused on the monitoring, preparedness and response processes industry and states used to deal with Hurricane Sally. Much of the discussion focused on monitoring forecasts, readying, and positioning resources, determining potential impact areas, getting access to any information related to an early emergency declaration and then responding to the impact of Hurricane Sally.

Both government and industry participants were presented the same four questions during each phase to capture the cross-sector and multi-state processes and information needed during each phase of the exercise as shown below:

- What were you doing to prepare at this time?
- What additional data do you need?
- What additional data can you share?
- What tools do you use during an incident?

This approach provided unique perspectives into each sector's preparation and response processes along with activities they conduct and the information they monitor in response to the impact of Hurricane Sally.

The following Appendices contain useful information regarding the SISE-Net Tabletop Exercise:

Appendix A: SISE-Net TTX Participants

Appendix B: SISE-Net TTX Agenda

Appendix C: SISE-Net TTX Survey Feedback

Appendix D: SISE-Net TTX Overview

Appendix E: SISE-Net FAQs

Appendix F: SISE-Net Feedback Survey Webpage





Key Take-Aways (Session 1)

1. Potential Data for SISE-Net:

- a. Status and locations of shelters, evacuation zones and timing
- b. State construction information for road (un)availability
- c. Local and State EOC activation status (on site or remote)
- d. Fiber cut video link for awareness from Comcast
- e. Hotel and Hospital availability data
- f. Storm surge data
- g. Aerial photos
- h. Contra-flow and declarations/waiver early notice
- i. Rail outages & maps
- j. River gauges and flooding potential
- k. Oil platform status (e.g., timing of closing)
- 1. Bridge/tunnel closings
- m. Access & re-entry processes with states

2. Opportunities:

- a. Participants
 - i. Add Finance, Gas & Oil and Maritime sector reps
 - ii. Add Mississippi, Florida reps
- b. Use Fleet Movement Application more to show details of the data in the App around New Orleans area where impact happened
- c. Pose some questions to drive cross sector questions.
 - i. Possibly use injects during transitions between Phases
- d. Possibly have States go first followed by private sector participants
- e. When moving from Phase to Phase, provide the timeline info (date/day/time)
- f. Identify what tools are being using for gathering situational awareness? (e.g., ESRI, Web EOC, others)
- g. Use Case Re-entry process including Governor's process for citizen reentry to avoid traffic jams
- h. Consider use of mobile app to drive injects "real time" in the future





Key Take-Aways (Session 2)

- 1. Potential Data for SISE-Net:
 - a. "Don't Cut the Fiber" video (Comcast video URL)
 - b. Maritime Port Information:
 - a. Operational Hours
 - b. Availability & Quantity of TWIC Escorts
 - c. Directory of Port Contact Information
 - c. Re-entry/access information & requirements
 - d. Curfews and process to notify/get approval for exceptions
 - e. Water inundation models/information
 - f. Cross-Sector damage assessment pictures/information Possible link to Alabama ORION system
 - g. Sanitary overflow information
 - h. Boil water advisories
 - i. Shelter locations & status (to help electric and telecommunication companies support)
 - j. Rail outages

2. Opportunities:

- a. Leveraging information sharing across Gov't & Private Sectors via WebEOC
- b. Ports Use Case for expanded process for TWIC card escort (need more escorts, ondemand)
- c. Utilization/Sharing of Communication Companies field telemetry (Tom Smith Comcast)
- d. Explore "Muniport" Application utilized by PSE&G Long Island
- e. Conduct Cross-Sector (Gov't & Private) Liaison Call prior to impact
- f. Use of the Alabama's ORION tool
- g. Boil Water communication
- h. Single re-entry/access process rather than many (e.g., Federal/State/Local)

3. Other Items:

a. Bethany Elliott to reach out to Kevin Morley regarding assessment of Alabama Water Systems





Key Take-Aways (Session 3)

1. Participants:

- a. Add representatives from Indiana, Ohio, Michigan, suggested by Edie Casella
- b. Update state liaisons to add FL, GS, SC, AR, TN, KY, VA, PA, NJ

2. Data GIS

- a. Leverage ESRI mobile app to have states and sectors report specific information
- b. FAA drone data
- c. Refrigerated storage facilities
- d. Maritime Ports (already in ESRI)
- e. Emergency ATM deployment information (from states)

3. Potential Use Cases

- a. Donations: invite non-government organizations and FEMA to participate in crafting a donation Use Case
- b. Road clearing: leverage the reducing fiber cuts Use Case to integrate participants from communications and electric cross sector resiliency forum working group facilitated by Greg Grillo to continue developing this Use Case with states
- c. EOC staffing: develop framework/process with cross sector resiliency forum working group facilitated by Greg Grillo and develop this Use Case for situational awareness and information sharing between states and private sector, possibly leverage SISE-Net
- d. Reduce Fiber cuts: Re-activate the reduce fiber cuts Use Case to address road clearings and state SWIC involvement

4. Opportunities:

- a. Drone/damage assessment: pursue the sharing drone pictures amongst appropriate audiences to expedite damage assessment processes
- b. Develop checklists for cross sector participants to identify key information elements needed by states and industry
- c. Develop cross sector operational conference call during a future storm, daily, 30 mins, tightly scripted, starting from Day -7 to day +5
- d. TWIC surge escorts at ports for fuel sector



Appendix A: SISE-Net TTX Participants

SISE-Net Virtually Tabletop Exercise Attendee Directory (Alphabetically)			
First Name	Last Name	Company/Agency	Email Address
Jordan	Adams	Bent Ear Solutions / AHC	
Luke	Anderson	First Energy	
Doug	Baker	Food Marketing Institute	
Alan	Bradshaw	Dominion Energy	
Edie	Casella	Illinois Emergency Mgmt.	
Craig	Chapman	Consultant	
Sheena	Connolly	Eversource Energy	
Robert	Crow	AmerisourceBergen	
Molly	Dougherty	Penn Emergency Management	
Dirk	Drayer	Voyager Solutions	
Barrie	Drum	Reprivata	
Chris	Eisenbrey	Edison Electric Institute	
Bethany	Elliott	Alabama EMA	
Thomas	Farmer	Assoc American Railroads	
Frederick	Ferrer	Idaho National Labs	
Richard	Fimbel	DBI Services	
George	Giangi	SE PA Task Force	
Kari	Hicks	Duke Energy	





SISE-Net Virtually Tabletop Exercise Attendee Directory (Alphabetically)				
First Name	Last Name	Company/Agency	Email Address	
Tim	Hayes	Central Hudson		
Anthony	Hurley	Consultant, Former First Energy		
Dave	Jones	Storm Center Communications		
Laura	Johnson	AHC		
Kent	Kildow	Verizon		
Chris	McIntosh	Bent Ear Solutions / AHC		
Kelly	McKinney	NYU Langone		
Greg	McShane	DHS CISA		
Karen	Moe	ESIP		
John	Molnar	All Hazards Consortium		
Kevin	Morley	American Waterworks Assoc		
Doug	Morris	Owner-Operator Independent Drivers Assoc		
James	Nowak	ARCOS		
Persia	Payne-Hurley	North Carolina Emergency Mgmt.		
Jeffrey	Plackis	PSE&G Long Island		
Del	Roehrick	SBC Global		
Bob	Rutledge	DHS CISA		
Patrick	Shull	AHC Endeavor Work Group Chair		
Tom	Smith	Comcast		
Sean	Stajkowski	PA Fusion Center		





SISE-Net Virtually Tabletop Exercise Attendee Directory (Alphabetically)				
First Name	Last Name	Company/Agency	Email Address	
Sherri	Stone	Energy Marketers of America		
John	Taylor	National Inst Hometown Security		
Carrie	Tropasso	Bent Ear Solutions / AHC		
David	Vanderbloemen	Consultant, Former Dominion		
Randy	Vivian	Texas Emergency Mgmt.		
James	Williams	Louisiana BEOC		
Michael	Zappone	AHC Fleet Working Group Chair		





Appendix B: SISE-Net TTX Agenda

Schedule for SISE-Net Tabletop Exercise, July 16, 2021			
Time (EDT)	Activity		
9:00 – 9:10	Welcome, Participants & Housekeeping		
9:10 – 9:30	Introduction – SISE-net Overview		
9:30 – 9:35	The TTX Approach		
9:35 – 10:35	Phase 0 Discussion		
10:35 – 10:40	Break		
10:40 – 11:40	Phase 1a, 1b & 1c		
11:40 – 11:50	Exercise Feedback		
11:50 – 12:00	Recap and Next Steps		

Schedule for SISE-Net Tabletop Exercise, July 30, 2021			
Time (EDT)	Activity		
9:00 – 9:05	Welcome, Participants & Housekeeping		
9:05 – 9:10	SISE-net		
9:10 – 9:15	The TTX Approach		
9:15 – 10:00	Phase 2 Discussion		
10:00 - 10:10	Break		
10:10 – 10:55	Phase 3 Discussion		
10:55 – 11:00	Recap and Next Steps		

Schedule for SISE-Net Tabletop Exercise, August 6, 2021			
Time (EDT)	Activity		
9:00 – 9:05	Welcome, Participants & Housekeeping		
9:05 – 9:10	SISE-net		
9:10 – 9:15	The TTX Approach		
9:15 – 10:15	Phase 4 Discussion		
10:15 – 11:15	Phase 5 Discussion		
11:15 – 11:30	Recap and Next Steps		







Appendix C: SISE-Net TTX Survey Feedback

SISE-Net TTX Survey Feedback						
Question	1	2	3	4	5	Avg.
How Satisfied were you with the virtual exercise overall?	1	0	1	11	15	4.4
How likely will you attend another AHC Virtual Exercise?	1	0	1	8	18	4.5

Scoring Methodology			
Satisfaction	Score		
Very Unsatisfied	1		
Unsatisfied	2		
Not Sure	3		
Satisfied	4		
Very Satisfied	5		



SISE-Net TTX Survey Feedback

Question: How did you most benefit from the exercise?

I learned about activities the other states and private sector partners are performing at various times during a hurricane response.

Hearing how the other sectors work and seeing the similarities between all.

Participating allows us to think out loud and get input from multiple levels of the organization. The concise format and virtual option minimize the time away from other primary responsibilities. It was good to hear what other organizations are doing to prepare such an event.

Learning about new technology. How to recognize body language is hard to identify virtually

I benefited from the program a lot

Gained insight for things we need to do for future trainings

Various representation

Good to hear about specific data needed but more people need to speak up.

Networking with other stakeholders and sharing best practices.

Learned a lot.

Most

Seeing and understanding the challenges and process the Private Sector plays in response and recovery during an event is extremely valuable from a Federal perspective. Thanks for the invite to attend.

cross sector discussions

Learned how private and public sector and government prepare for incidents.



SISE-Net TTX Survey Feedback

Question: What changes would you like to see for a future virtual exercise?

Continue to work out the technology kinks and ability to hear the onsite feedback from participants in the room. Thank you!

Very ok

How to share data across agencies, orgs and between public and private sectors who don't have GIS licenses.

Public/Private cross sector coordination, support and information sharing through the use of exercise injects.

In many aspects

We are challenged from a situational awareness perspective specific to Cyber type events...very much different than a physical event where it is much more linear. Use cases such as colonial pipeline on the cyber-ransomware perspective particular to how the events unfold. Is it just colonial impacted? how bad is the impact? the unknowns are very difficult to track and answer. The Government - Private Sector relationship is key to resolving the impacts to the event response/recovery.

Greg probed deeper with his questions and with each session came more details of a) participant actions taken, b) information sharing (rather than "provided) and c) cross sector exchange of conversation. Though a TTX, Greg geared it as response to a real event.

As a BEOC Manager you have your "go-to" partners during response to the various hazards. As part of this TTX, I experienced private sector partners that operate at a national and regional level as well as a state (though interactions may be different from state to state which was discussed). It was a meaningful opportunity to hear what private sector provided as their response. At times it was a broader view into their actions and other times it was specifically honed to their company. A great balance of information to take in, analyze and apply for future real-time events.

The above example data available/civil unrest – the bigger common operating picture of civil unrest would require various sources of data to analyze what may be happening from the government response (NG/EOCs activated/damage assessments/open/closed closed), transportation (trucking, logistics), retail merchants to include pharmacies as examples. Collecting and sharing methods between the private and public sectors.

The cross-sector exchange also provided insight to the activities of each sector, not necessarily known by the other. That is a huge benefit for future events.

"THIS IS GREAT STUFF".





Appendix D: SISE-Net TTX Overview

WHAT IS THE VIRTUAL SISE-NET TABLETOP EXERCISE?

The Sensitive Information Sharing Environment (SISE) SISE-Net Virtual Tabletop Exercise (TTX) is a discussion-based exercise involving multiple-sectors and states to improve operational information sharing during large scale, multi-state disasters.

EXERCISE PARTICIPANTS:

- 1) SISE WG members
- 2) SISE GIS WG members
- 3) Invited participants
 - a. Government
 - i. DOT Federal Motor Carrier Safety Administration (FMCSA)
 - ii. States: Alabama, Illinois, Louisiana & North Carolina
 - b. Industry
 - i. Communication (Telecom/Cable), Electric, Fuel, Transportation (Roadway/Rail), Food, Water, Medical/Pharma

SISE-Net VIRTUAL TTX OVERVIEW:

This Virtual Tabletop Exercise is designed to increase disaster communications and coordination between private sector and with multiple states in two ways:

- 1) Engaging multiple sectors and states to discuss their operational processes and procedures during each phase of the exercise so that everyone can:
 - a. better understand how each sector and state prepares/responds, the challenges they face, and the people/organizations involved
 - b. identify common gaps and potential use cases to work on together in the future
 - c. jointly develop simple operational solutions or workarounds to address specific issues through education, training, research, or solution development
- 2) Leverage and improve the operational information sharing capability of the SISE and the SISE-Net initiative so that:
 - a. Participants understand what the SISE and the SISE-Net initiative is and how it impacts state/private sector coordination.
 - b. All stakeholders know what information is currently available in the SISE and what else is needed for hurricane season preparedness/response.
 - c. Decision-makers can use this information effectively for operational decisions.
 - d. GIS professionals can jointly develop new data sets/sources to meet future information needs for the public/private community





PRE TTX-RESOURCES:

- 1) SISE-Net Initiative Overview Video
 - a. SISE-Net is a private sector initiative to enhance disaster response coordination by synchronizing multiple utility and state operations center data for specific use cases (e.g., damage assessments, road closures, supply chain disruptions, open/closed facilities, etc....)
 - b. Video URL: https://www.youtube.com/watch?v=MfAU o7HfO8
- 2) SISE-Net Virtual Exercise Technology to be used during the exercise to help drive discussions using actual data from Sept 20202 during Hurricane Sally:
 - a. The exercise will utilize the private sector's Fleet Movement App which organizes industry & government information during disasters. The tool will be used to drive discussions based on actual Hurricane Sally data captured in Sept 2020.
 - b. Video URL: https://youtu.be/-Fg27jZcwqs





Appendix E: SISE-Net FAQs

WHAT IS SISE?

The SISE (Sensitive Information Sharing Environment) is a secure, private sector-operated legal and technical framework, protected from FOIA, used by the private sector to share specific operational information with specific individuals (in industry or government) at particular times for particular purposes. The information is <u>not</u> made public. Developed on an ESRI platform, the SISE organizes trusted information and vetted people into secured groups based on specific uses cases. The SISE is operated on an ESRI platform and contains millions of data points across critical infrastructure, emergency suppliers and resources, etc... By organizing information better and streamlining user access and permissions, the SISE helps decision-makers access more trusted, actional, and timely information faster.... which increases safety, reduces risks and increases overall resilience.

WHAT IS SISE-Net?

SISE-Net is an initiative of the private sector that leverages the private sector operated SISE information sharing framework. SISE-Net is designed to connect the SISE to operations centers in industry and government to synchronize information sharing and situational awareness on specific use cases (e.g., damage assessments) to enhance operational decision making and coordination.

WHY THIS EXERCISE?

To enhance operational coordination for the 2021 hurricane season.

The private/government sector leadership of the All-Hazards Consortium's working groups have organized this **cross-sector**, **multi-state virtual TTX** to help state and industry emergency managers discuss and understand each other's preparation processes, data/information needs, point of contacts, and timelines for hurricane-related activities (e.g., declarations and waivers, curfews, fleet mobilizations, supply chain movements, open/closed facilities, road closures, etc..).

The TTX will produce digital products (e.g., guides, directories, recordings, datasets, etc..) that can be used for future training and exercises with current and future stakeholders as turnover occurs from retirements, elections, and regular position changes within industry and government.





WHAT WILL THIS TTX ADDRESS?

- 1. The processes used by the government (states and FMCSA) and industry (Communication (Telecom/Cable), Electric, Fuel, Transportation (Roadway/Rail), Food, Water, Pharma as they prepare for a hurricane (TTX Scenario: Hurricane Sally, Sept 2020) during different phases of the hurricane:
 - a. Phase 0 Monitoring: Planning (-7 to -4 days before impact)
 - b. Phase 1 Preparedness: Planning (-72 to -24 hours before impact)
 - c. Phase 2 Incident: Impact/Landfall
 - d. Phase 3 Response: Assessment & Restoration (+12 to +24 hours)
 - e. Phase 4 Response: Restoration (+48 to +72 hours)
 - f. Phase 5 Recovery: Restoration & Resume (+5 days)





Appendix F: Feedback Survey Webpage

SISE-Net Virtual TTX Survey:

- Survey for Parts 1,2 & 3: https://pro.ahcusa.org/sisenet-survey

SISE-Net Virtual TTX Replay Links:

- Part 1: https://pro.ahcusa.org/sisenet-replay
- Part 2: https://pro.ahcusa.org/pt-2-replay-slides
- Part 3: https://pro.ahcusa.org/pt-3-replay-slides







