



Cohu Rise Interface Usability Test Findings

LAPH UX Consulting

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1

About CohuHD Rise

ABOUT THE PRODUCT

CohuHD Costar™ is an HD CCTV video surveillance camera system for monitoring border security, transportation, traffic, airports, and railways. The camera system includes the physical camera and a digital interface to view and manipulate footage it captures. The focus of this review is the digital interface.

2

Methodology

Methodology & Tasks

Format

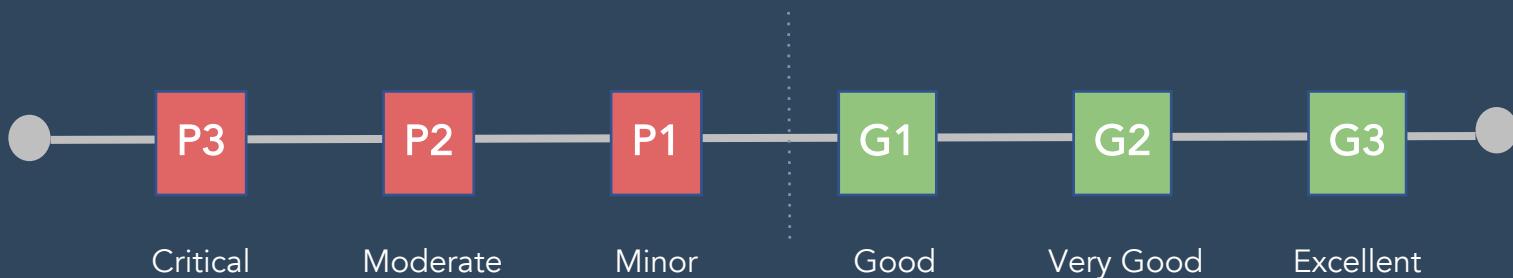
- Participants recruited by CohuHD staff
- Remote testing (via Zoom)
- User-defined tasks within scenarios
- Session Time: 45 mins

Tasks

1. Change camera zoom & focus
2. Change camera angle
3. Add text or image to display
4. Set up network connection
5. Troubleshoot network connection

Severity Rating Scale

3-point Opportunities/Positives



Opportunities

Good Stuff



Recruiting

Personas



The Distributor

- **Motivation.** Provides specialized surveillance products to government entities.
- **Behaviors.** Talks to vendors, trials new technology, attends vendor-led trainings.
- **Skills.** Understands customer surveillance needs. Recommends solutions that fit budget and use cases. Identifies technical limitations of technology.



The Strategist

- **Motivation.** Makes sure security services personnel have access to video assets 24/7.
- **Behaviors.** Manages strategy for deploying & repairing surveillance technology. Manages visual output from camera.
- **Skills.** Configures network settings. Troubleshoots issues between hardware and firmware. Works with field technicians.

Recruitment Process

1

Contact Recruiters, ask them to source based on our criteria

Fail.

2

Loosen criteria. Source users with similar types of knowledge but not actual Cohu users

Fail.

3

Rely on client to recruit from Cohu employees who haven't used the tool before (not experts)

Marginal fail.

Participants

- Five participants (1 no-show)
- All male
- All CoStar employees (not users)
- 45-min sessions

Participant 1	Participant 2	Participant 3	Participant 4
Bench Technician (Novice user)	Technical Support (Expert user)	Technical Support & Testing (Expert user)	Technical Support (Expert user)

3 Findings

Heuristics

We applied these themes (from our Expert Review):

1. IA: Grouping, Category labeling, & hierarchy
2. Function labeling
3. Aesthetics & visibility
4. Common look & feel
5. Feedback

Task 1

Changing
camera zoom &
focus

Task 2

Changing
camera angle

Takeaway 1: The PTZ Experience (Tasks 1 & 2)

Finding: Users group tasks 1 and 2 as one experience rather than separate tasks.

- Task 1: Change the camera zoom (focus)
- Task 2: Change the camera pan (left/right position), tilt (up/down position)

PTZ (Pan, Tilt, Zoom)

Industry term that describes the “chunking” of these tasks.
Users approach these tasks together, suggesting a mental model that should be reflected in the design.

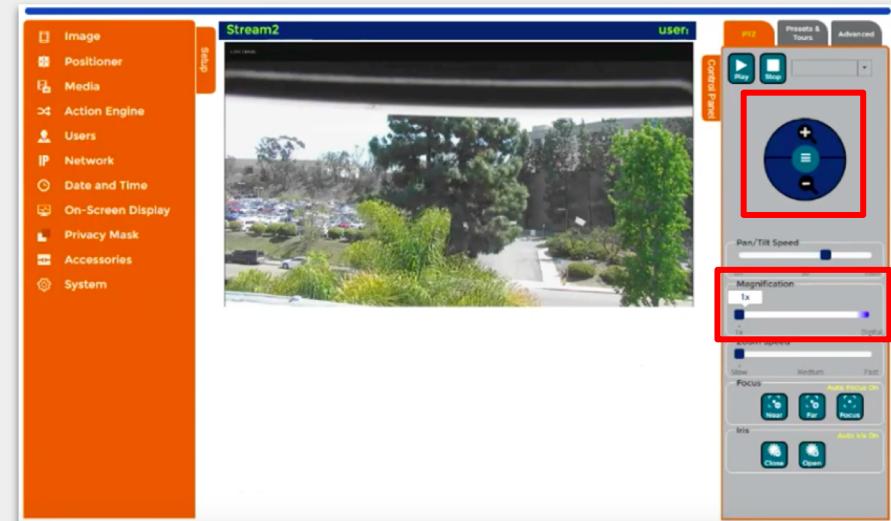
Finding: There was confusion when differentiating between magnification and zoom functionality.

Impact on Use: Users pogo-stick (jump back and forth) between the two buttons to use trial and error to determine difference

Severity Rating:

P2

Recommendation: Add hover-over explaining each



"I don't know what's the difference between magnification and zoom. Aren't they same?" - P1

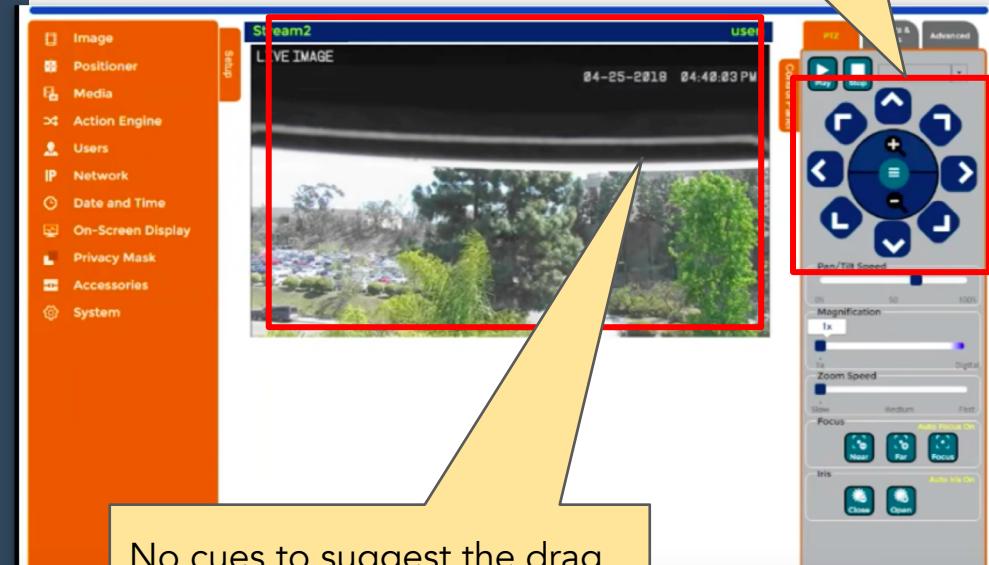
Finding: Camera angle function hidden in hamburger menu, not a conventional use.

Impact on Use: Participants struggled to complete primary task; changing what the camera is looking at.

Severity Rating: P3

Recommendations:

- Display the functions to change the camera angle upfront and avoid hiding them under the hamburger button.
- Use coach marks for first time users to help them discover the on-screen display gestures.



No cues to suggest the drag gesture for controlling the camera angle

"Seems like the camera can only zoom in and out. Can't really change the angle" - P2

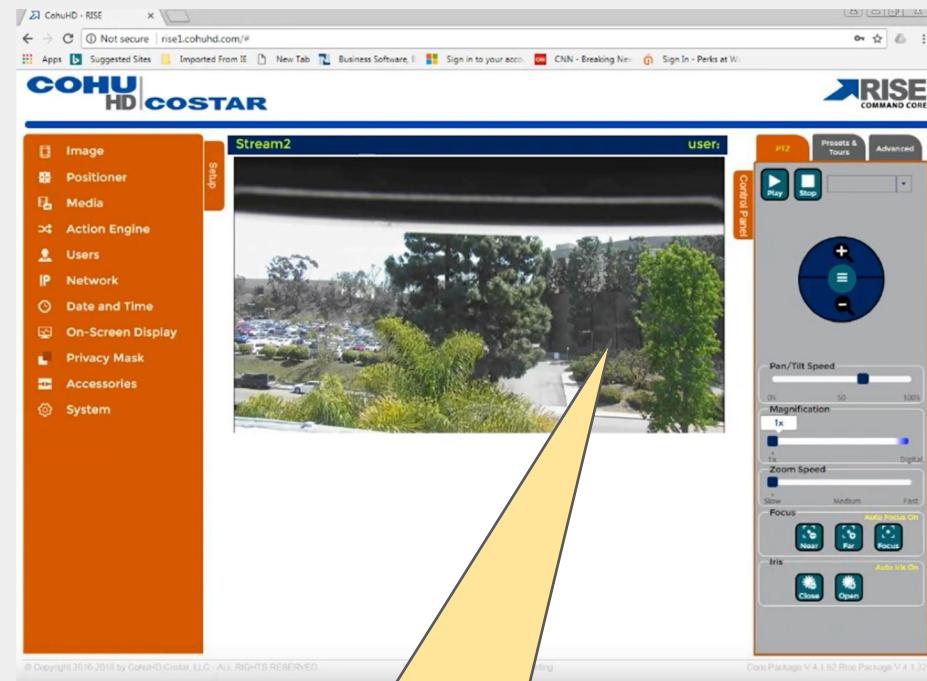
The arrow icon buttons are revealed only after clicking on the hamburger icon.

Finding: No indicator to show if image is live.

Impact on Use: Users unsure whether camera is functioning unless there is motion in image.

Severity Rating: P2

Recommendation: have “live” text display on the screen showing it’s a live shot by default



No cues to suggest the image is a live shot

“I don’t know if it’s a live image or not” - P1

Task 3

Add text or image to broadcast

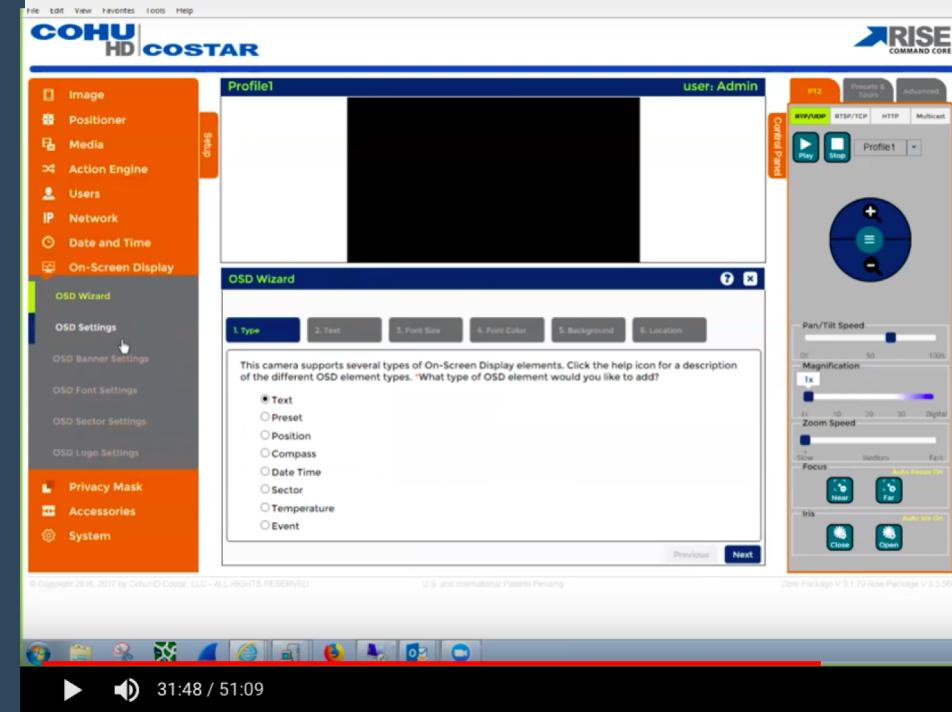
Finding: OSD Wizard is helpful and easy to manipulate.

Impact on Use: Users could quickly find the item to add through the wizard, and everything is clear and easy to understand

Severity Rating:

G3

Recommendation: Keep the wizard option



"Everything is clear in the OSD Wizard, I really like the Wizard" - P3

Finding: Labeling of options for secondary level navigation items for On-Screen Display were unclear.

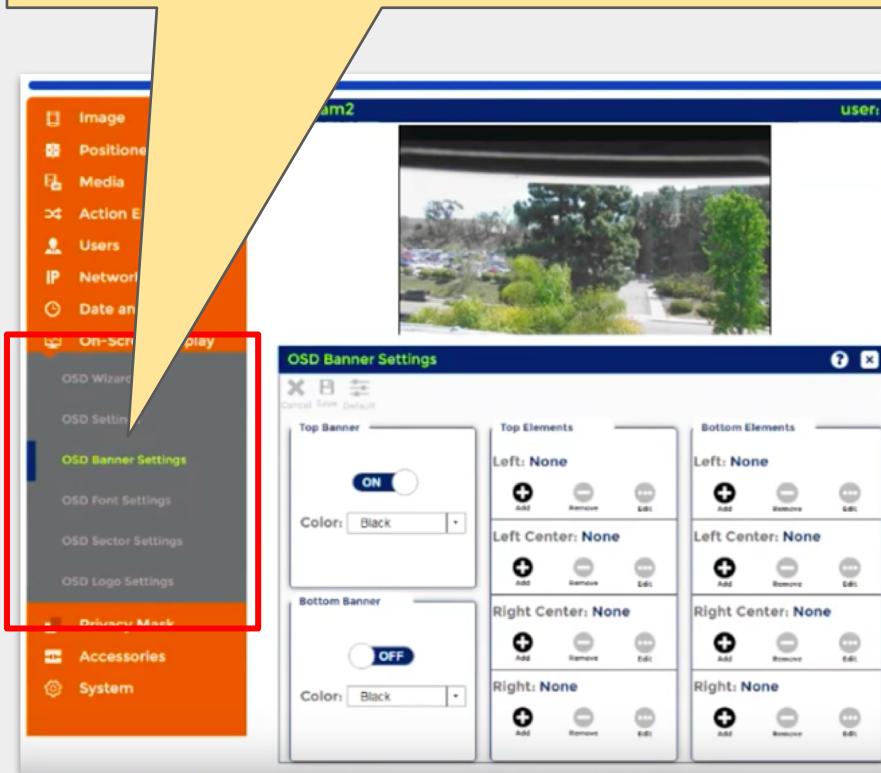
Impact on Use: Users were pogo-sticking (going back and forth between the pages) to find the functions they were looking for.

Severity Rating:

P3

Recommendation: Consider merging the all secondary on-screen display menu options into one single screen

Use of ambiguous labeling like OSD Wizard, OSD Settings, OSD Font Settings, OSD Banner Settings, and OSD Logo settings sets wrong expectations and leads to confusion.



"Seems like it's pretty flexible on what you can add." - P3

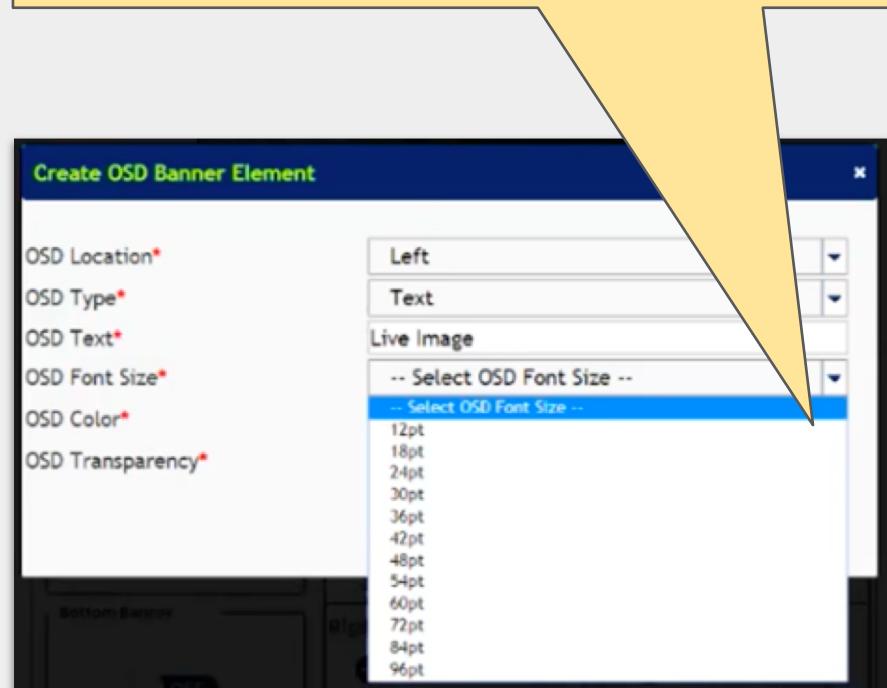
Finding: Users were uncertain about how large font would appear with each option.

Impact on Use: Users used trial and error to determine difference between font sizes and had to pogo-stick between screens to do so.

Severity Rating: P3

Recommendation: Show preview while adding on-screen display in pop-up to prevent pogo-sticking.

After selecting the font size, users were required to navigate back to the main screen to see the applied changes.



"I want it to be real big, so... I'm gonna assume 12pt is smallest in the scale." - P1

Findings: Users were confused about how to use these controls to add and/or edit text to the image.

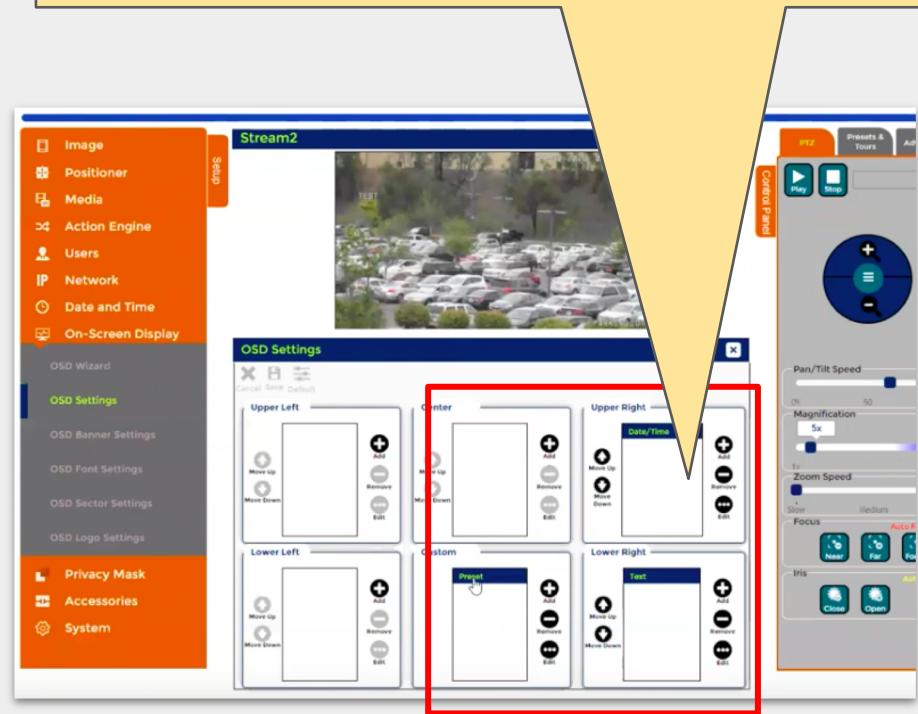
Impact on Use: Users became frustrated on this page and abandoned the page as a means to edit text.

Severity Rating:

P3

Recommendation: Avoid unconventional use of web controls.

The highlight here is used to show active selection. However, multiple highlights leads to confusion. Also, any action on one item leads to selection of other items adding to the confusion, compounding the effects



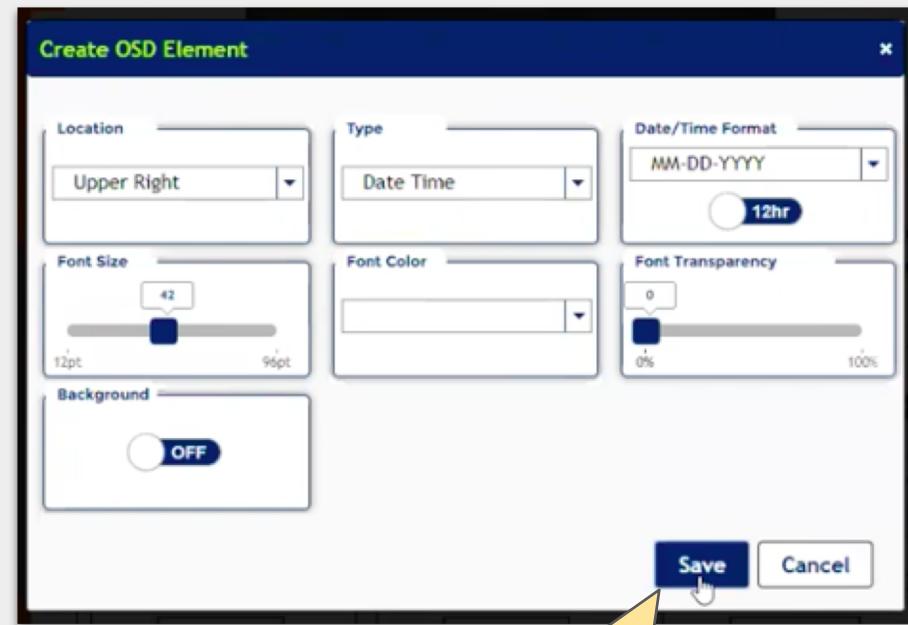
"I don't know what the highlight means. Once you hit remove, it unhighlights the other options." - P4

Findings: Participants were confused why the save button was not working when they had edited the text options.

Impact on Use: After repeatedly clicking on the 'Save' button participants abandoned this means of adding text unless provided with an assist.

Severity Rating: P3

Recommendation: Consider providing feedback message like 'Saved successfully', 'All the fields are mandatory' or something similar after clicking on save.



No feedback after repeatedly clicking on 'Save' button

"Save, save, save, save." - P3

Finding: Participants disappointed when they tried to click and drag text on the image to move it and the text did not move.

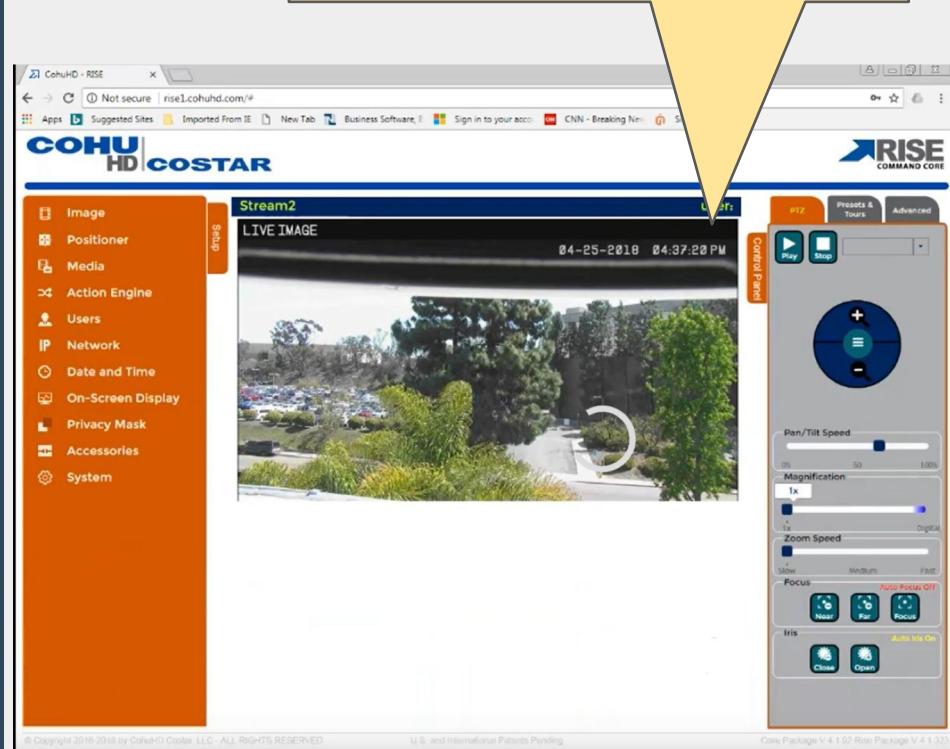
Impact on Use: This forced users to try to find a convention that was less natural to them.

Severity Rating:

P1

Recommendation: Enable user to move the text position by click and drag on the image.

User expected to move the text by simply clicking and dragging it.



"Not able to move text position by clicking and dragging it." - P2

Task 4

Setting up network connection

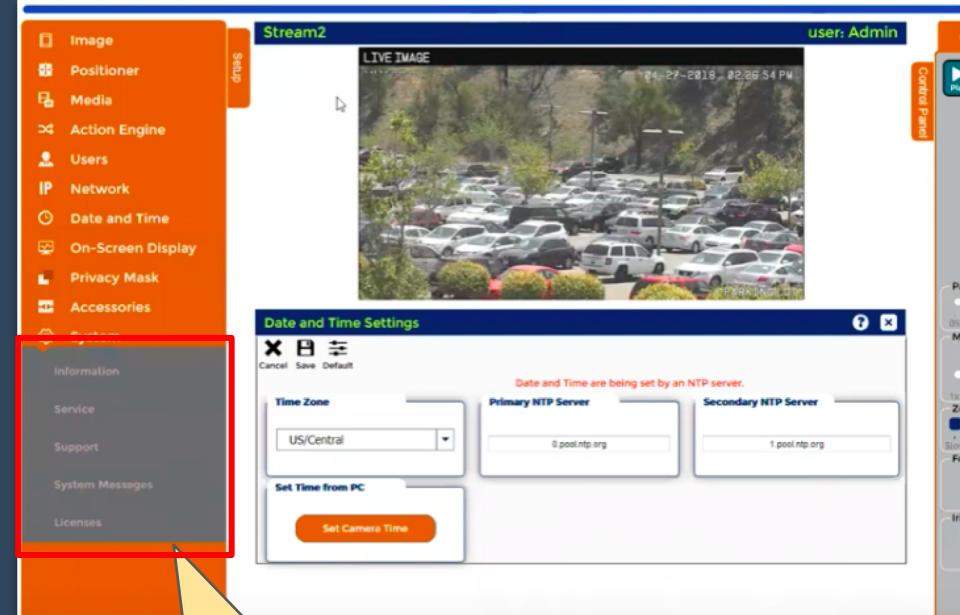
Findings: Participants went to "System" first to change network settings.

Impact on Use: Participants not able to find network settings on the first attempt, causing moderate frustration.

Severity Rating:

P2

Recommendation: Consider relabeling the 'System' menu option as users might get confused between 'Systems' and 'Network'



Users expected the network settings to be part of 'System' menu item and thus clicked on it initially.

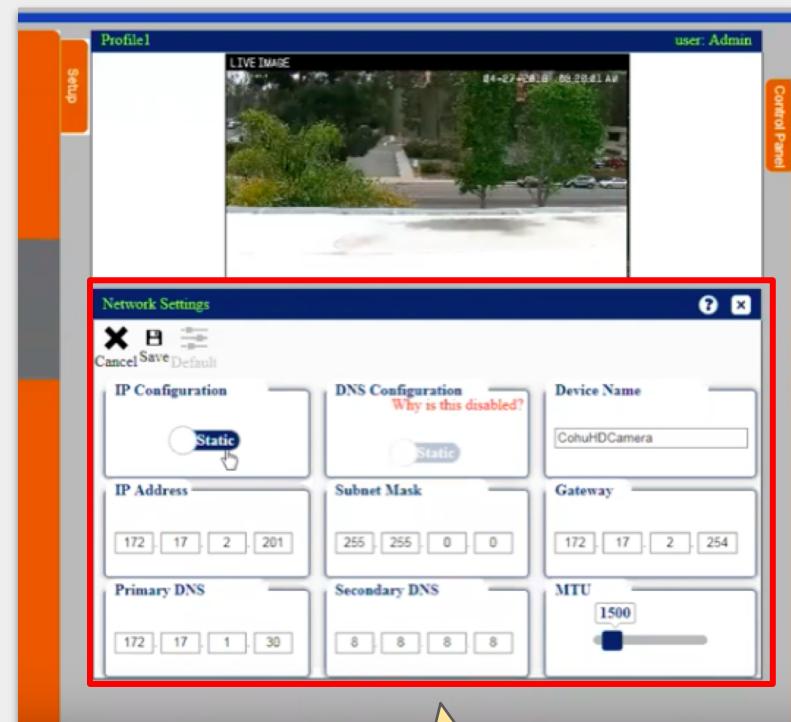
(after exploring for while)
"Mmm...I'd go to Network>Network
Settings." - P3

Findings: Once participants got into the Network Settings, they could easily modify the settings for their needs.

Impact on use: Users could efficiently and pleasantly set up the Network.

Severity Rating: G2

Recommendation: Keep network setting options as currently displayed.



Options inside 'Network Settings'
were quite intuitive.

Task 5

Checking & troubleshooting
network connection

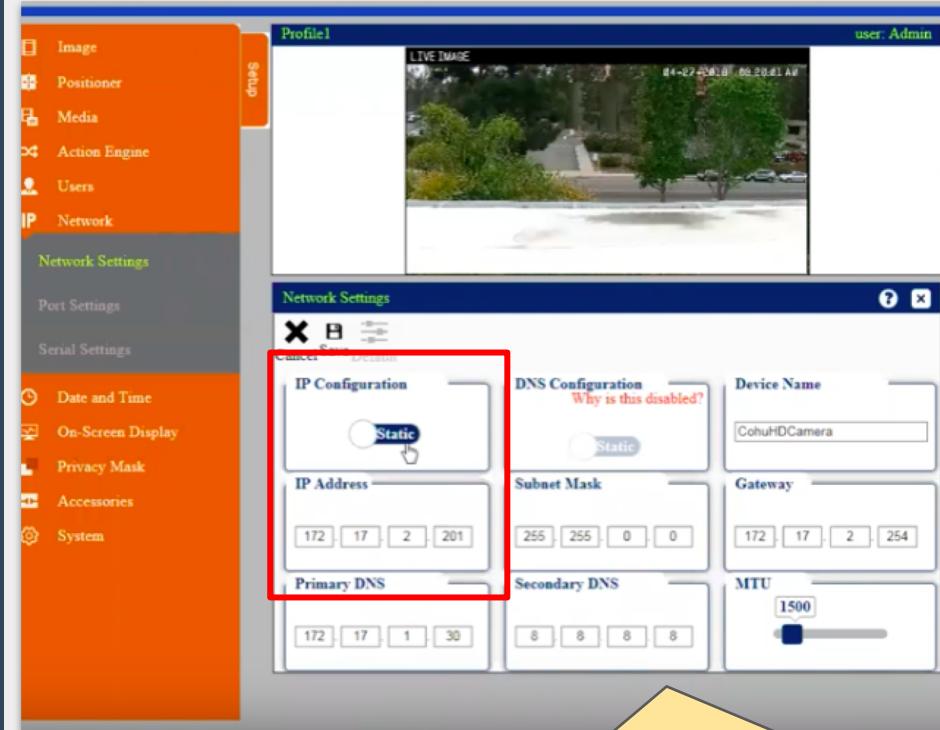
Findings: Participant could check and troubleshoot the network connection successfully.

Impact on Use: Since this is the primary task on the software after initial setup, the ease of use of this section provides delight in an otherwise challenging context - troubleshooting.

Severity Rating:

G3

Recommendation: Keep network setting options as currently displayed.



Participants were able to quickly find and modify IP settings.

4 Recommendations

Summary of Findings

Good stuff

- Upfront zoom and focus options are clear
- System auto-adjusts camera speed upon zooming in
- Adding on-screen display elements is straightforward
- Network settings are understandable
- Use of industry-accepted terminology and abbreviations

Summary of Findings

High-Impact Opportunities

- Lack of clarity in Information Architecture
- Hidden camera functions and gestures
- Unclear labels of menu items
- Poor feedback on click of 'Save' button
- Absence of preview while adding/editing on-screen display elements

Small-Impact Opportunities

- Unconventional use of web controls

Summary of Recommendations

Do these things NOW for big impact:

1. Prominently display the functions for changing camera angle; avoid hiding them under the hamburger button.
2. Use coach marks for first time users to help them discover the on-screen display gestures.
3. Show preview while adding on-screen display in pop-up to prevent pogo-sticking.
4. Consider providing feedback upon saving changes/updates.
5. Consider relabeling the “Systems” menu option to clarify the actions in “Systems” vs “Network”
6. Avoid unconventional use of web controls

Summary of Recommendations

Explore these improvements LATER with more research:

1. Consider merging all secondary on-screen display menu options into a single screen
2. Consider revisiting configuration of information architecture scheme for entire interface

Next Steps

We recommend these actions to prioritize our findings:

Follow-up study
with users who fit
persona criteria

- 5-8 participants
- Strategizers & Distributors
- Repeat Tasks 1-5
- Compare findings to ours

Conduct card sort
exercise for IA
direction

- 5-8 participants
- Strategizers & Distributors
- Compare findings to ours

Thank you.
LAPH UX Consulting