

Webinar: Wireless Site Survey Kit - Build or Buy?

Webinar will be starting shortly

During webinar please enter your questions in chat window
and we'll answer them at end of the presentation or follow up via email

Twitter hashtag for webinar is #HRAAWebinar

Webinar: Wireless Site Survey Kit - Build or Buy?

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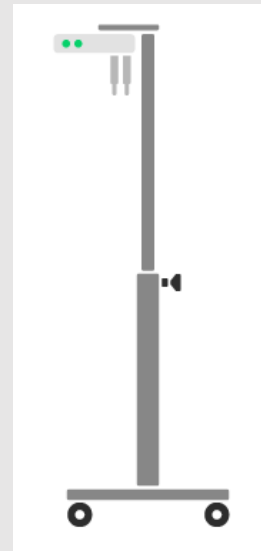
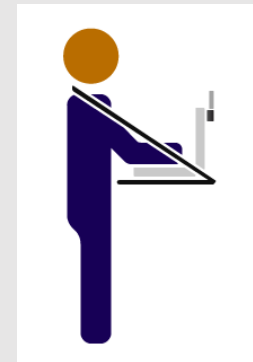


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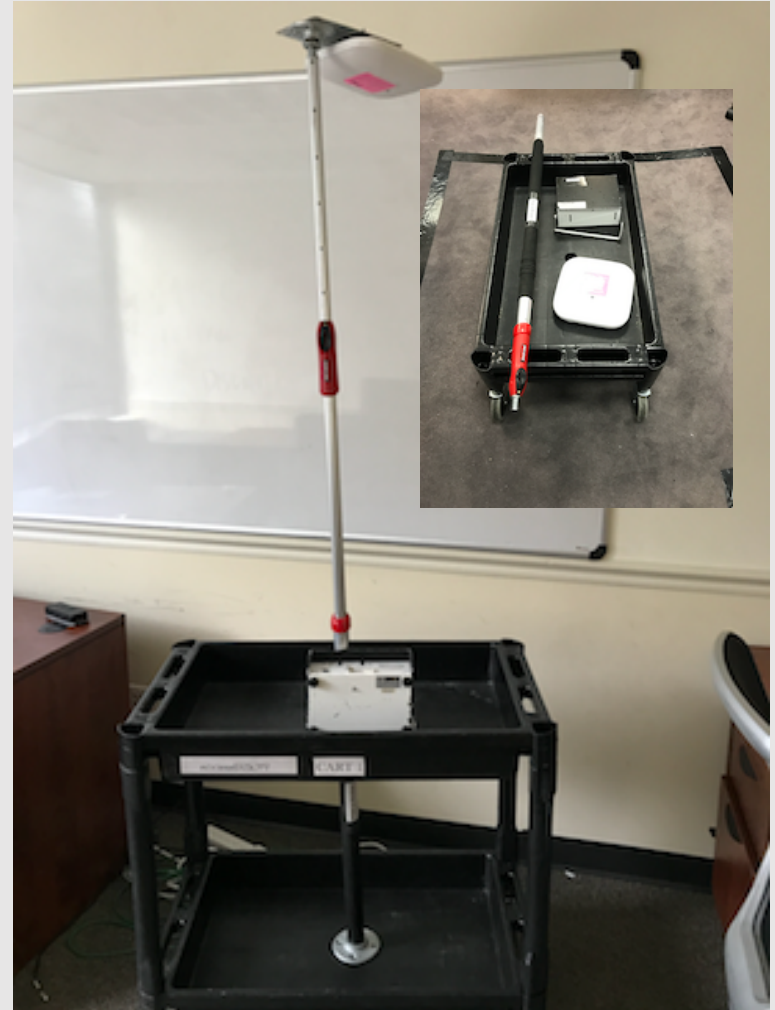
AP on a Stick (APoaS) / Pre-Deployment Site Survey Kits

- Goal is to determine number and placement of access points
- Also used to validate any predictive/planning AP placement designs
- Temporary access point is attached to a pole
- Moved to different locations as the survey engineer walks all areas that require WiFi coverage
- Collect information about WiFi and non WiFi devices in the environment using measurement software



First Generation Design

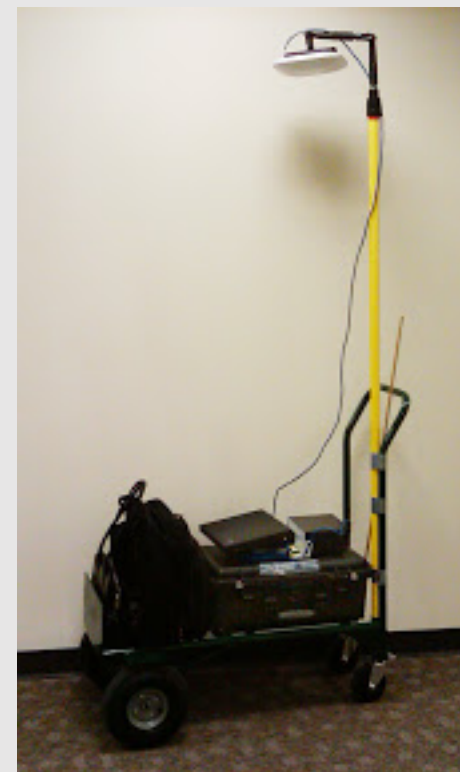
- ATD Tools Utility Cart
- Painters Pole
- Metal floor flanges
- Zmax Metal plate
- AP Vendor mounting plate
- ~\$180



Generation 2 Requirements

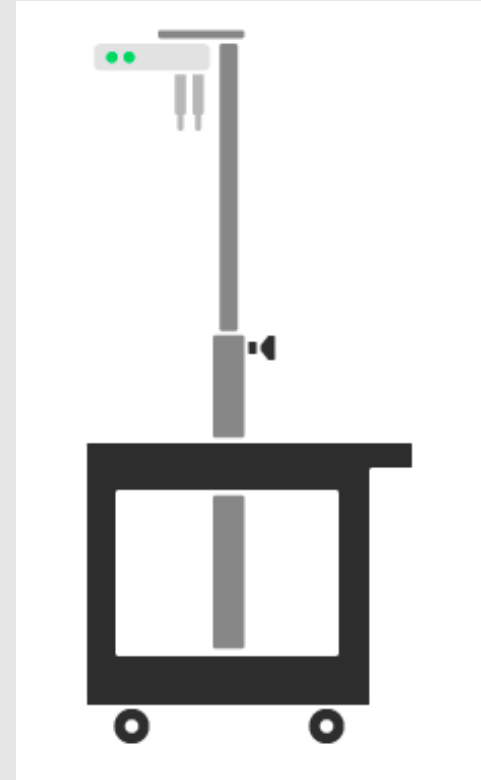
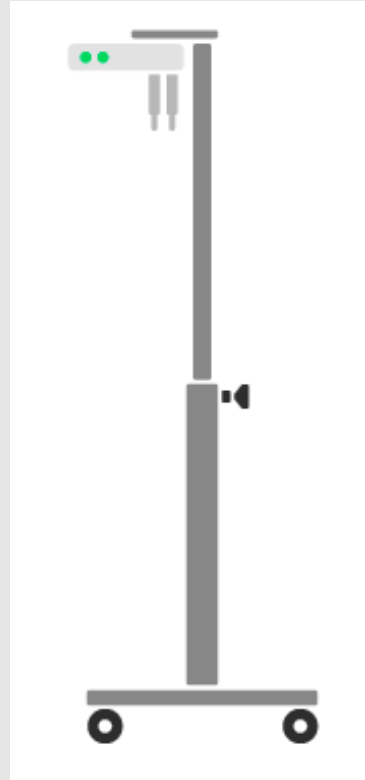
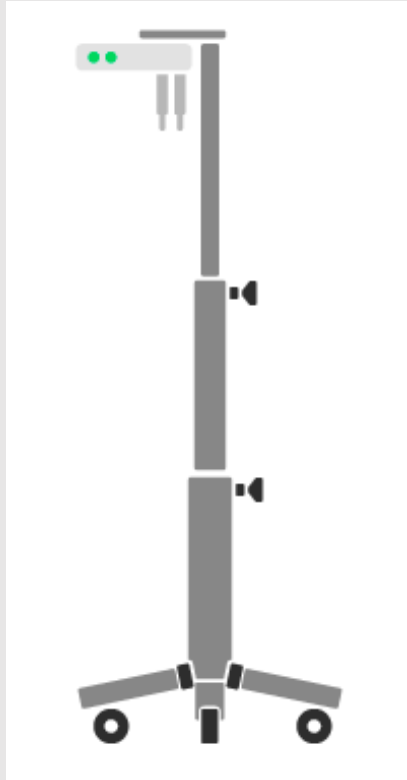
- Single travel piece to include pole, cart, stand
- 50 lbs / 23 kgs or less
- 62 inches or less dimensions
- No carryon parts (all items must be complete in checked in baggage)
- All weather / no damage to kit if left outside by airline
- Heavy duty parts – kit and parts should be able to withstand shipping and checked baggage handling
- 8ft height pole
- Flexible mounting option for various access point types
- 802.3af POE battery pack for powering access points

Our Unique Requirements + Inspiration from Others



<https://www.cwnp.com/site-survey-rigs/>

Our Unique Requirements + Inspiration from Others



<https://www.accessagility.com/blog/four-types-of-wireless-site-survey-rigs>

Pelican Case 1620

- Retractable Handle
- Room for supplies
- Size meets airline checkin size and weight



Use Case for Pole Base



Pole and AP Mount

- Impossible to source a purpose built pole for kit



Mobile/Portable and Survey Kit

- Benefits
 - Single bag/kit
 - No shipping costs (check in as baggage)
 - Sturdy base for pole
 - Room for accessories
 - AP
 - POE Battery
 - Distance Meter / Measuring Tape



Total Cost

- Material for case and pole setup
- Labor to assemble case parts
- Accessories (AP, measuring tape, etc)

\$2,464.14

*Full parts list and pricing will be emailed out to attendees

Materials Cost*

- Material**

- Pelican Case
- Rod Rings (small)
- Rod Rings (standard)
- Rubber Case Caps
- Couplings for Mounting Rod
- Portable Mounting Rod
- (Xtend+Climb 8 1/2 ft Telescoping Ladder (disassembled for use)
- Rubber End Cap
- L Bracket
- 2" PVC
- 3" PVC

\$363.85

Old Pelican Survey Kit- Original List	Price/ea (3/28/17)	Qty Needed	Total Cost
Pelican Case	\$199.95	1	\$199.95
Rod Rings (small)	\$2.90	4	\$11.60
Rod Rings (standard)	\$2.98	4	\$11.92
2" PVC	\$7.84	1	\$7.84
Rubber Case Caps	\$5.68	2	\$11.36
Couplings for Mounting Rod	\$13.61	1	\$13.61
Portable Mounting Rod (Xtend+Climb 8 1/2 ft Telescoping Ladder (disassembled for use)	\$107.57	1	\$107.57
Rubber End Cap	\$2.97	1	\$2.97
L Bracket	\$2.67	1	\$2.67
3" PVC	\$16.45	1	\$16.45
			\$363.85

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** Does not include cost for tools needed to assemble kit

Labor Cost*

- Total Labor 12 hours
- \$80/hour semi-handy person to assemble parts

\$960

- Labor
 - Source materials (2 hours)
 - Create pole from ladder (2 hour)
 - Prepare case sleeve and hole (2 hour)
 - Prepare mounting bracket (2 hour)
 - Assemble (3 hours)
 - Create foam locations (1 hour)

*Full parts list and pricing will be emailed out to attendees

Accessories*

\$1,140.29

- POE Injector w/ Power Cord
- Screw Driver
- Sharpie
- Short Velcros
- Zip Ties
- Terrawave Battery (Sparco) w/ Power Cord
- Velcro Roll
- Extra Foam for Case (if needed)
- Access Point w/ mounting bracket
- Pelican Case Pouch Insert
- Electrical Snips
- Ethernet Cables
- Ink Pen
- Kit Combination Locks
- Measuring Tape- 25 ft.
- Notepad
- Paper Clips (jumbo)

*Full parts list and pricing will be emailed out to attendees

Lessons Learned

- Pros

- Very rugged – 50+ sites, 10+ million surveyed using 8 cases
- Presentable/professional looking equipment
- Easy to source parts for multiple units
- Field repairable
- Can reduce cost based on accessories needed

- Cons

- Near baggage check-in max, 50lbs
- Lead-Acid battery
- Heavy/Large – can't carry on
- Pole requires not infinitely adjustable
- Requires time and effort to build
- Tools required to build and repair