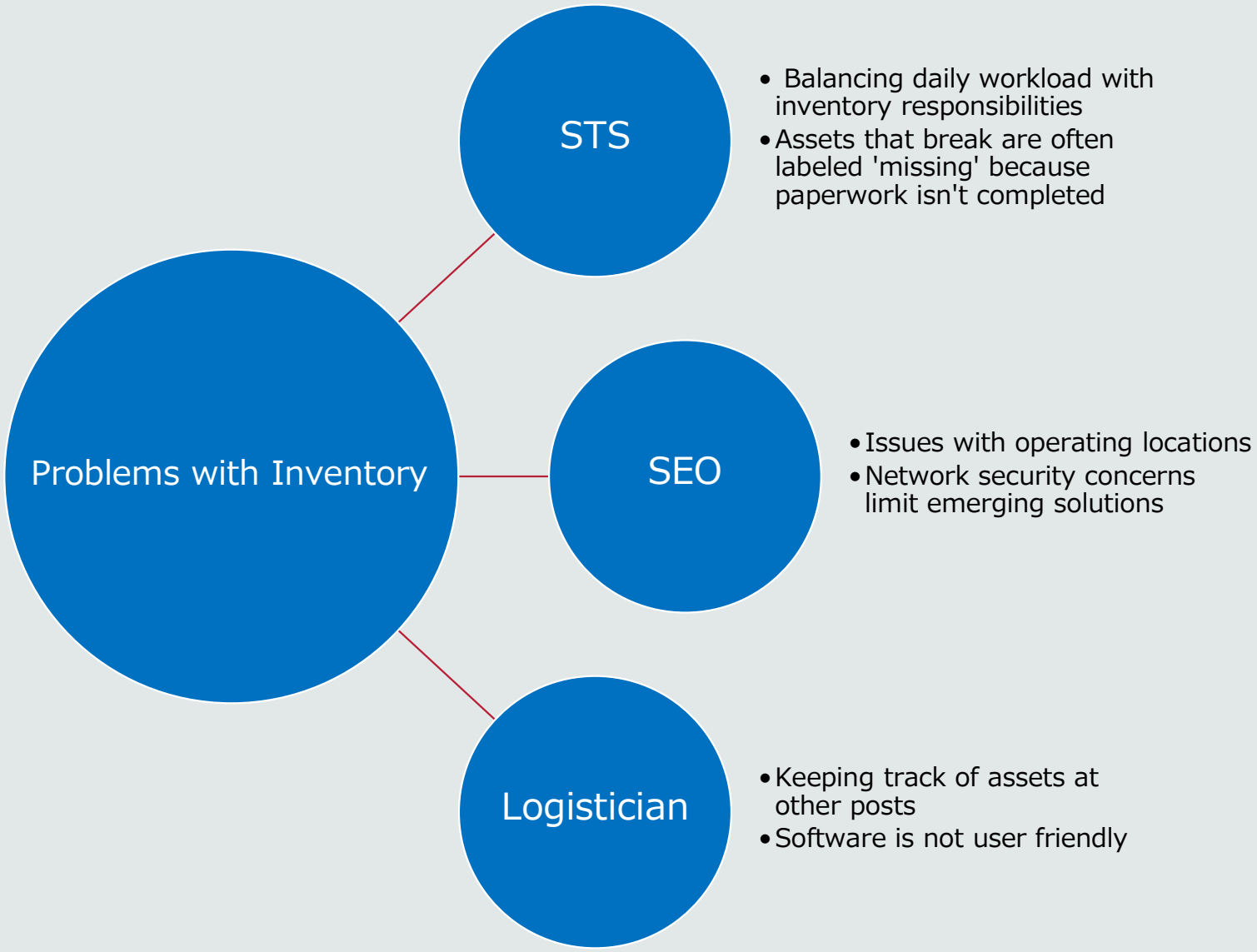
TMI DS-14
Hacking for
Diplomacy

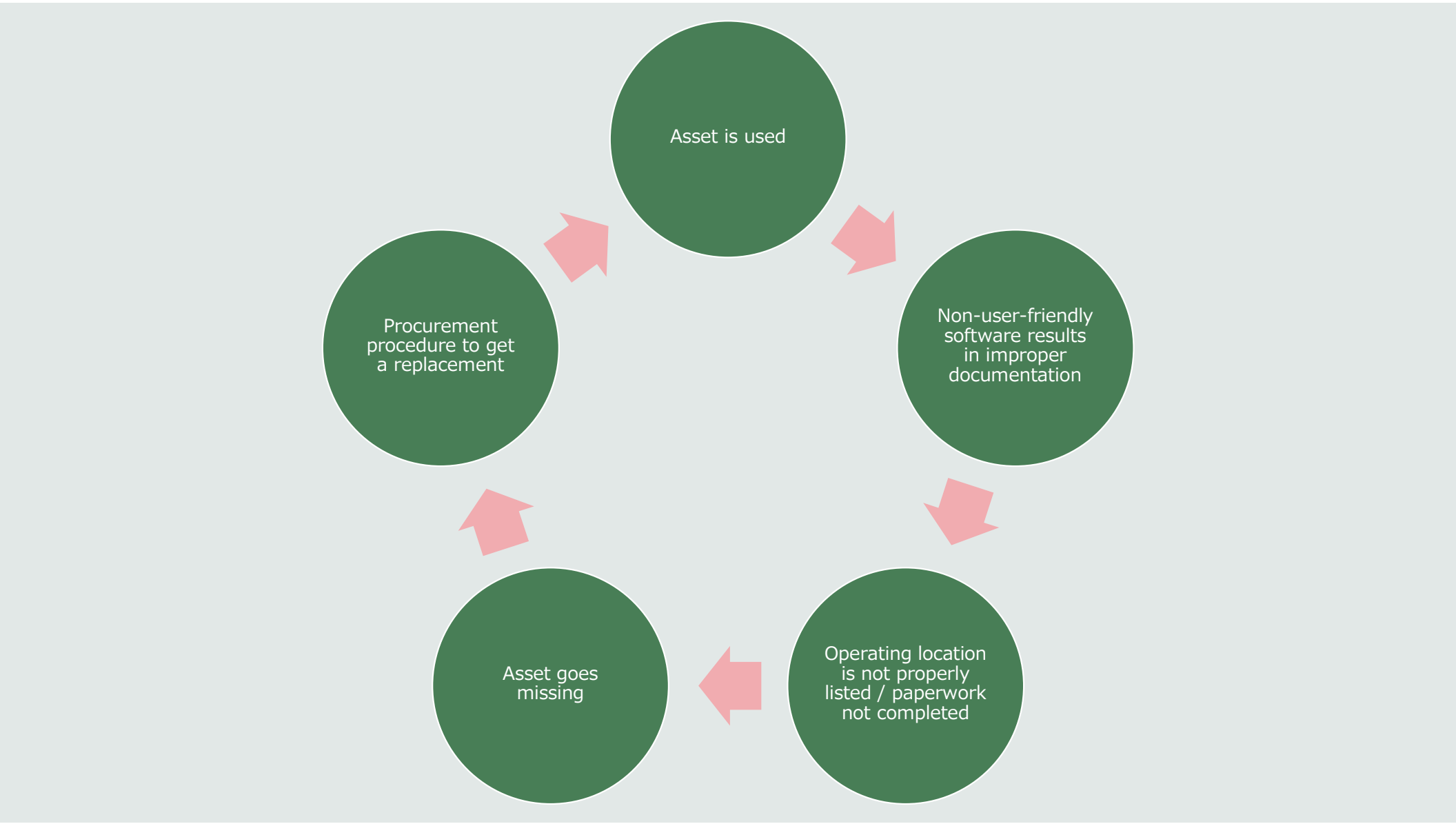
Our Problem

Embassies across the globe are misplacing inventory costing hundreds of thousands of dollars. How can we better keep track of assets to improve the efficiency of the inventory process?

Interviewees

STS	SEO	Logistician	Other DS Employees	Other Industry
• Bill Hobbs • Joshua Present	• Scott McGowan • Steven Eakins • Reggie Herrick • Matthew Davis • Justin Nicholson	• Troy Reece • Kathryn Nishimura-Burton • Pierre Olaya • Walter Crosson	• Anthony Hickey • Sean Fenton • Matthew Martino	• Ashlyn Holz • Larry Troyer • John Lee • Jen Steele • Alan Ahmetspahic


Problems with Inventory
STS
SEO
Logistician
• Balancing daily workload with inventory responsibilities
• Assets that break are often labeled 'missing' because paperwork isn't completed
• Issues with operating locations
• Network security concerns limit emerging solutions
• Keeping track of assets at other posts
• Software is not user friendly


Asset is used
Non-user-friendly software results in improper documentation
Operating location is not properly listed / paperwork not completed
Asset goes missing
Procurement procedure to get a replacement

MVP: A two-pronged approach

AR/GEO MAPPING

- Geotagging assets based on the last location scanned
- Pinpoint exact location of item in the area using AR
- Streamlines the inventory process by reducing time spent searching for assets

AUTOMATED INVENTORY REMINDER SYSTEM

- Move towards a year-round running inventory
- AI provides a select number of items to be inventoried every day, dependent on number of assets, asset priority, and time elapsed since last checked

*** all activity occurs on a secured device within a secured area, to maintain continuity and work alongside the inventory database of CMMS*

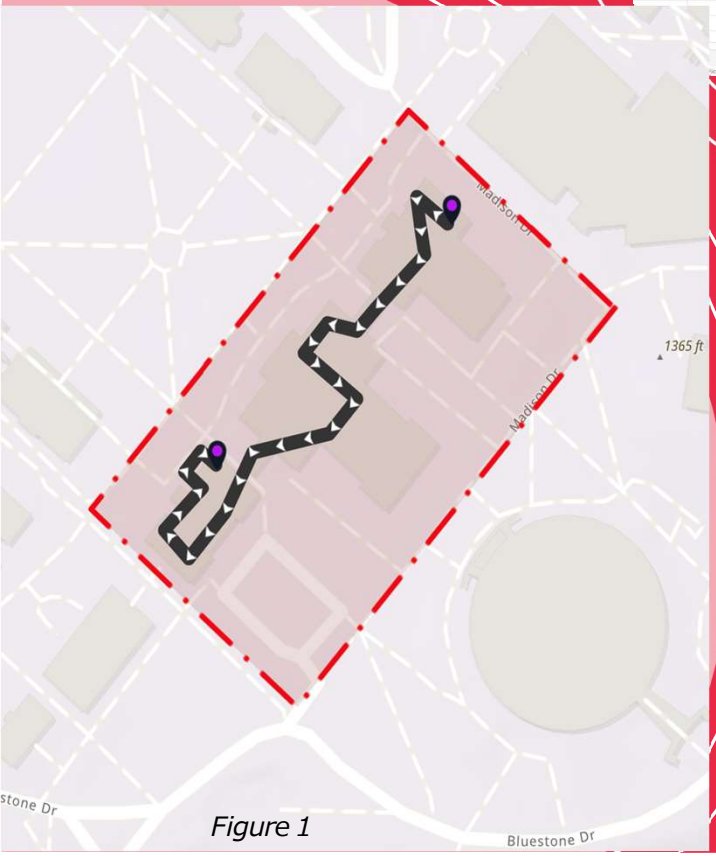
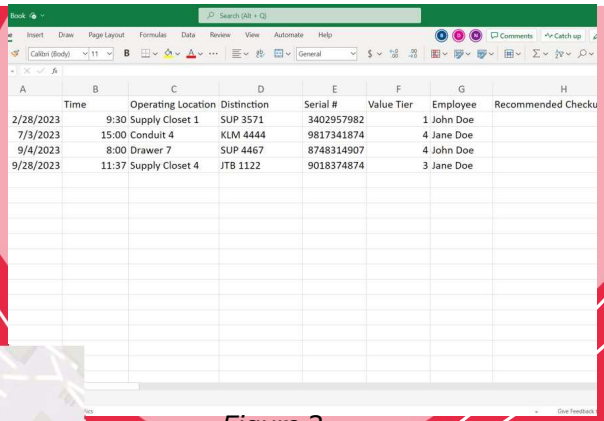


Figure 1



	A	B	C	D	E	F	G	H
		Time	Operating Location	Distinction	Serial #	Value Tier	Employee	Recommended Checku
2	2/28/2023	9:30	Supply Closet 1	SUP 3571	3402957982	1	John Doe	
3	7/3/2023	15:00	Conduit 4	KLM 4444	9817341874	4	Jane Doe	
4	9/4/2023	8:00	Drawer 7	SUP 4467	8748314907	4	John Doe	
5	9/28/2023	11:37	Supply Closet 4	JTB 1122	9018374874	3	Jane Doe	

Figure 2

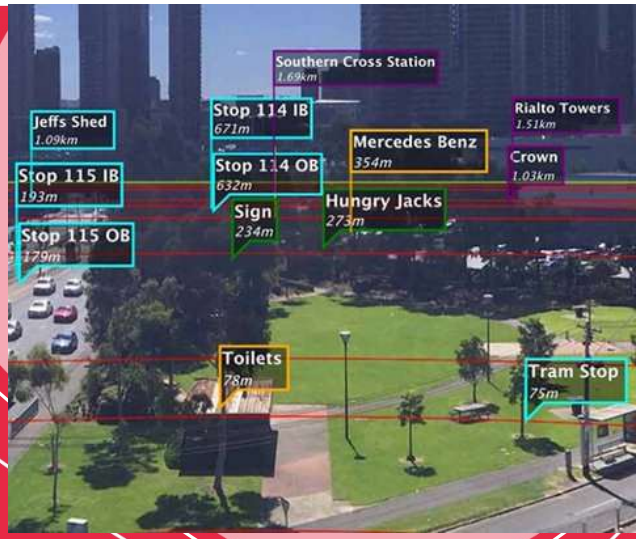


Figure 3

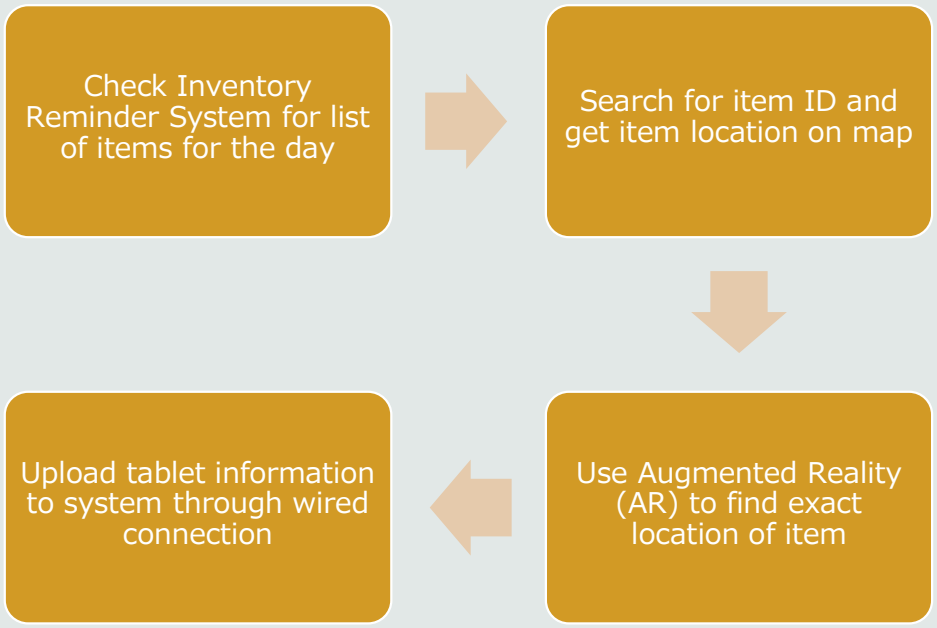
MVP in Images

Fig 1: Closed-system course plotting to find Inventoried item within the boundaries of a secure space.

Fig 2: AI driven automated inventory reminder system

Fig 3: AR view of specific geotags

MVP – Continued



Withstanding Challenges

- Integrating Geo mapping software into CMMS
- Security issues with mappings
- Compatibility, Integration, & Labor