

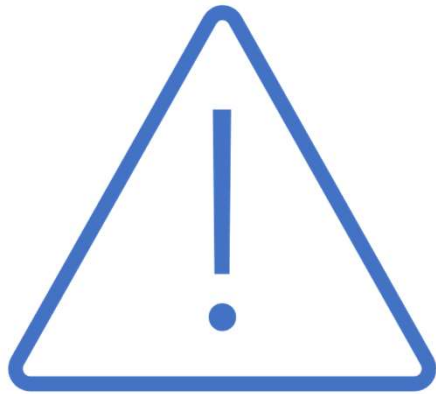
# Too Much Inventory

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TMI: DS-14

# Our Problem In Real Time





## Our Problem

DS-14 "Taking Inventory"

- Embassies across the globe are losing track of their assets, ultimately costing the Department of State \$636,345.07 in FY23.
- The problem can be attributed to complex interfaces, slow scanners, large volumes of assets, low perceived effort-to-reward ratio and ultimately human error.



Adrian Ahmetspahic  
Senior  
Math



Dylan Bencivengo  
Junior  
Political Science



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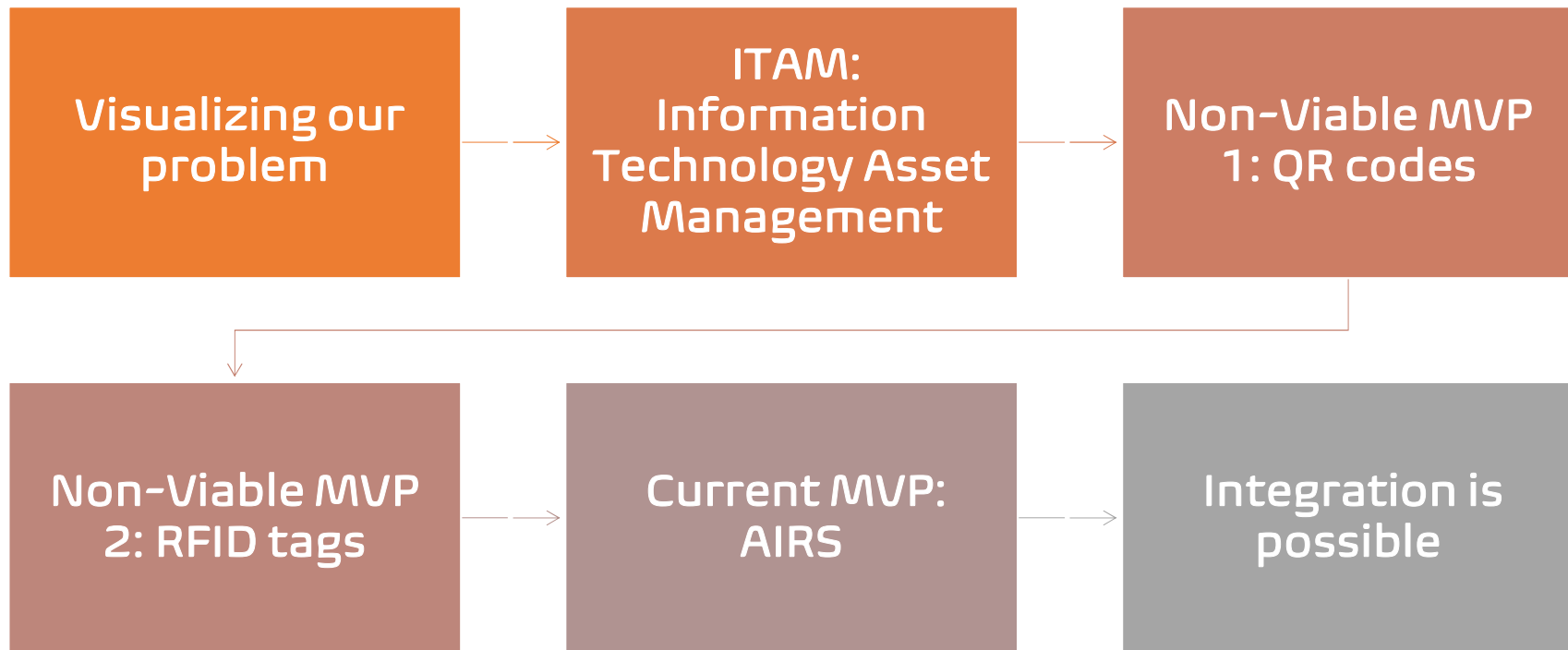


Matthew Needy  
Senior  
Writing, Rhetoric &  
Technical Communication

*\*\* Sean Doores: Senior Mathematics Major*

**WHO WE ARE: DS-14**

# Our Story





# Interviews

39 Total Interviews

6 SEO

2 STS

5 Logistician

3 Academia

2 Military

3 Industry Inventory Managers

2 Software Engineer

16 Other DS Employees

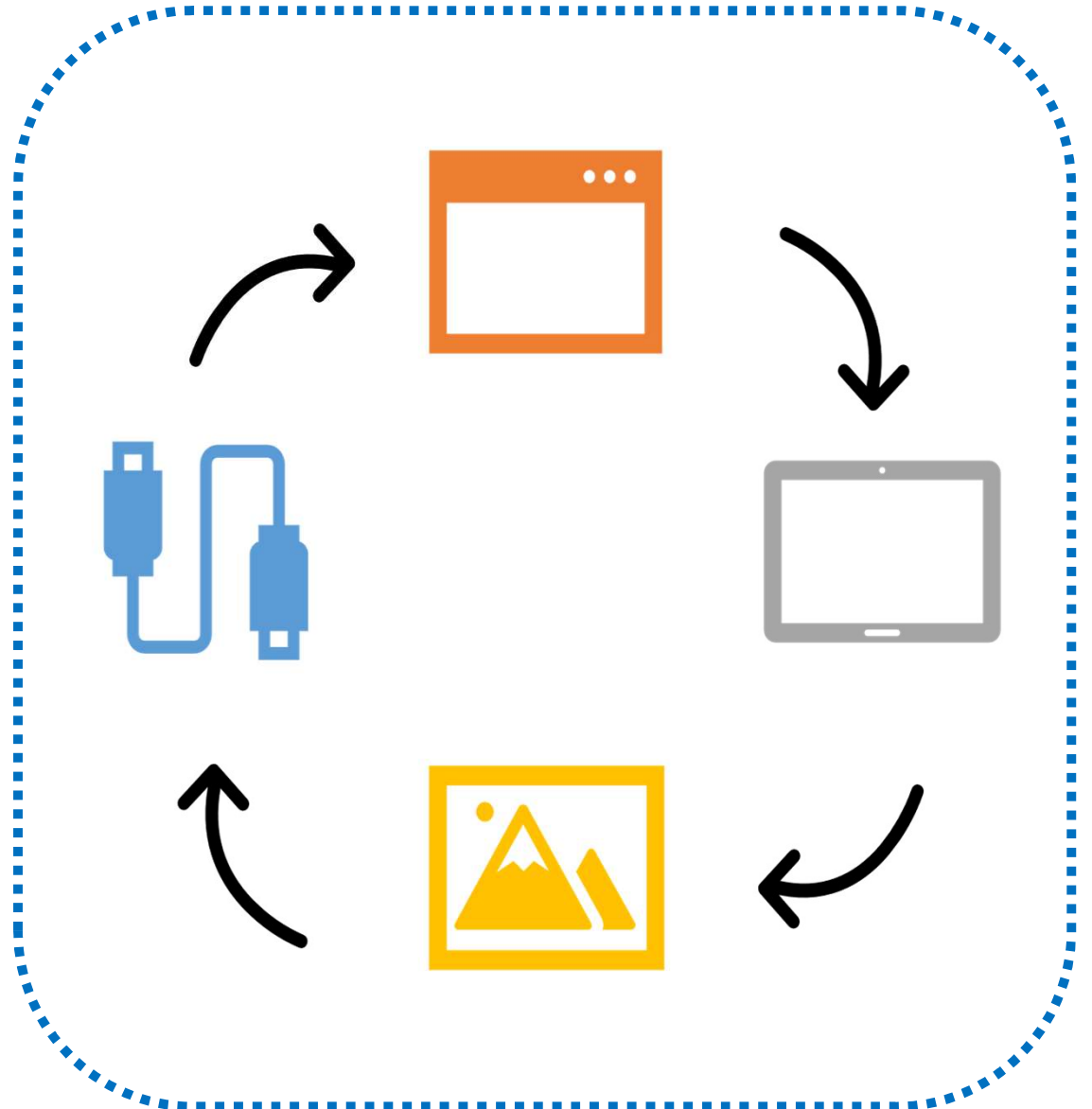
*\*\* Special thanks to: Scott McGowan, Anthony Hickey, and John Lee*

**A.** Automated

**I.** Inventory

**R.** Reminder

**S.** System



A.I.R.S





Asset	Description	Location	ILMS Location Code	ILMS Business Unit	Region	DS Barcode	Serial #	Rotating Item	PO	Status	Asset Creation Date	Reconcile Date	Owner
5912434	CAMERA, HYBRID CCTV, DOME, WISENET III SERIES, OUTDOOR, DAY/NIGHT, VARIOFICAL LENS, PTR, 2.8X ZOOM, 1080P60, 3 MR, 2.8X ZOOM, POE OR 12 VDC / 24 VAC, IVORY, WITH CLEAR BUBBLE	AMM-CHAN-CONS	L00000017	STAMM	NEAROSE	AA6964D	KHUX6V2J40006PF	TVC1016		NOT READY	11/05/2019	10/10/2022 3:46 AM	DOS
5912490	CAMERA, HYBRID CCTV, DOME, WISENET III SERIES, OUTDOOR, DAY/NIGHT, VARIOFICAL LENS, PTR, 2.8X ZOOM, 1080P60, 3 MR, 2.8X ZOOM, POE OR 12 VDC / 24 VAC, IVORY, WITH CLEAR BUBBLE	AMM-CHAN-CONS	L00000017	STAMM	NEAROSE	AA6962Y	KHUX6V2J40006VV	TVC1016		NOT READY	11/05/2019	10/11/2022 3:12 AM	DOS
5912636	CAMERA, HYBRID CCTV, DOME, WISENET III SERIES, OUTDOOR, DAY/NIGHT, VARIOFICAL LENS, PTR, 2.8X ZOOM, 1080P60, 3 MR, 2.8X ZOOM, POE OR 12 VDC / 24 VAC, IVORY, WITH CLEAR BUBBLE	AMM-CHAN-CONS	L00000017	STAMM	NEAROSE	AA6968C	KHUX6V2J200095T	TVC1016		NOT READY	11/05/2019	10/11/2022 3:11 AM	DOS
5962771	CAMERA, IP CCTV, DOME, WISENET X SERIES, OUTDOOR, DAY/NIGHT, VARIOFICAL LENS, PTR, 3.2X ZOOM, 1080P60, 2 MR, POE+ OR 24 VAC, IVORY, WITH IK10 CLEAR BUBBLE	AMM-CHAN-CONS	L00000017	STAMM	NEAROSE	AA80553	ZGAG6V4M500075D	TVC1077	S123451957772	OPERATING	03/27/2021		DOS
6012688	SMSe Workstation - Ammen - Win10 - APD	AMM-CHAN-EC	L00000019	STAMM	NEAROSE	8M6698F	DWF32NS	COM3200	S123462158834-M001	NOT READY	06/29/2022	12/04/2022 1:39 AM	DOS
5909112	CAMERA, IP CCTV, DOME, WISENET X SERIES, OUTDOOR, DAY/NIGHT, FIXED POSITION, 5.2 TO 62.4 MM VARIOFICAL LENS, 12X OPTICAL ZOOM, 1080P60, 2MR, POE OR 12 VDC / 24 VAC, IVORY, WITH IK10 CLEAR BUBBLE	AMM-CHAN-ESD	L00000021	STAMM	NEAROSE	AA8007P	ZFG570GJ00013Y	TVC1069	S123461957697	OPERATING	09/28/2019	10/06/2022 9:18 AM	DOS
5986737	DRELL RIG, MINI (STRONG ARM)	AMM-CHAN-ESD	L00000021	STAMM	NEAROSE	AA8084H		DRK410	S123462053680	OPERATING	08/26/2021	10/06/2022 9:19 AM	DOS
6066944	HAND TOOL KIT, 1001 PIECE, MEGA MASTER, MIXED HAND TOOLS, 3 TOOLBOX STORAGE CASES, ROLLER CABINET, BLACK	AMM-CHAN-ESD	L00000021	STAMM	NEAROSE	8M6231T		HNT770	S123462254210	OPERATING	01/23/2025		DOS
9276772a	X-RAY MACHINE, L3 COMMUNICATIONS, APS/APS-II	AMM-CHAN-OPC	L00000092	STAMM	NEAROSE	0574779A	11-161804	XRU600		PENDING EXCESS	01/26/2006		
1080424	FED. SIGNAL COMMAND UNIT FOR SELECTONE SYS., RACK MNT,(UPGRADED VERSION OF PAS101)	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0401212A	0316036A	PAS133	14120	OPERATING	01/03/2010	05/22/2023 4:17 AM	
4736804	RECEIVER, ENCRYPTED MODULE WITH V1.13 FIRMWARE FOR V2.0 SYSTEM WITH POWER SUPPLY AND V2.0 UPGRADE STICK, ALSO ORDER BAT176 (2)	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0440120A	FB2468	ALM603		NOT READY	03/19/2013	05/22/2023 4:17 AM	DOS
5013352	KEYWATCHER ILLUMINATED ADD ON CABINET, (2) 16 SLOT MODULES W/BLANK PANEL FOR #3 MODULE SLOT, INCLUDES 32 BLACK SMART KEY FOBBS AND POWER SUPPLY, ALSO ORDER KEY383 OR KEY395	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0476408A		KEY380	51726	OPERATING	02/19/2014	05/16/2023 4:19 AM	DOS
4813351	KEYWATCHER ILLUMINATED ADD ON CABINET, (2) 16 SLOT MODULES W/BLANK PANEL FOR #3 MODULE SLOT, INCLUDES 32 BLACK SMART KEY FOBBS AND POWER SUPPLY, ALSO ORDER KEY383 OR KEY395	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0476400A		KEY380	51726	OPERATING	02/19/2014	05/16/2023 4:10 AM	DOS
4813350	KEYWATCHER ILLUMINATED, (2) 16 SLOT MODULES W/BLANK PANEL FOR #3 MODULE SLOT, INCLUDES 32 BLACK SMART KEY FOBBS AND NON-RANDOM KEY RETURN OPTION CD, ALSO ORDER KEY383 OR KEY395, SEE SMS190 AND CBL178	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0476399A		KEY378	61726	OPERATING	02/19/2014	05/16/2023 4:10 AM	DOS
5798489	RECEIVER, ENCRYPTED MODULE WITH V1.13 FIRMWARE FOR V2.0 SYSTEM WITH POWER SUPPLY AND V2.0 UPGRADE STICK, ALSO ORDER BAT176 (2)	AMM-CHAN-POST1	L00000036	STAMM	NEAROSE	0541038A	77069C	ALM603	S123461652285	OPERATING	04/10/2016	05/22/2023 4:17 AM	DOS

# A.I.R.S.



DEVICE NOTIFICATION RECEIVED TO DO INVENTORY ON SELECT ASSETS USING INFO STORED IN SOFTWARE'S ASSET DATABASE.



USING ASSET'S STORED LOCATION ON THE DEVICE, USER CAN SEE ASSET'S LAST LOCATION ON A MAP AND THE DEVICE'S CAMERA (AUGMENTED REALITY).



THE ASSET IS SCANNED USING THE DEVICE'S CAMERA AND THE EXACT LOCATION IS UPDATED ALONG WITH ITS STATUS IN THE DATABASE.



THE DEVICE IS DOCKED AND UPDATED INFORMATION IS TRANSFERRED OVER TO CMMS VIA DIRECT WIRING.




CYCLE REPEATS.

# Why Does this Matter?

Year-round, scheduled inventory allows for better tracking of asset locations, mitigating asset loss

A light orange downward-pointing arrow connects the first box to the second.

Scheduled inventory also reduces workload as the inventory process is spread out throughout the year as opposed to one short time frame

A light gray downward-pointing arrow connects the second box to the third.

AR/Geo-mapping assists with inconsistencies in asset locations

# Feasibility of MVP Integration

Policy Change by the Bureau of Administration based on MVP Recommendation: move towards a rolling inventory.

Addition of new CMMS fields to account for reminder timing, and asset location at last scanning.

DoS already uses GIS through Sparta, making integration with our solution easier.

DoS already uses AR with HoloLens in the Overseas Building Office, so AR integration is feasible as well.

# THANK YOU FOR LISTENING



Questions, Comments, Concerns?