

Oregon Department Of Corrections



Security Threat Management (STM)

'OMS STM Caseload Management and Risk Assessment for Segregation Placement (RASP) Automation'

Project by:
Oregon Department of Corrections (ODOC) for the Security Threat Management team and the Institutions

Category:
Data Management, Analytics & Visualization

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EXECUTIVE SUMMARY

Knowing how to identify a prison population's need for special programming, threat prevention, and monitoring, while curbing misconducts and incidents through early intervention and support is both complex and daunting. As of April 25th, 2022, there are 13 institutions with 12,073 Adults In Custody (AIC). It takes a massive number of trained staff and facilities management personnel to coordinate and care for and manage a population of this size which by their very nature can be dangerous, volatile, and difficult. Within Oregon Department of Corrections, ODOC, there is a subset of trained staff known as Security Threat Management (STM) who's goals are to identify and manage AICs who are at risk for committing or have committed misconducts, have been proven to be dangerous, or need additional monitoring, tools, and care. For this document, we'll be touching on the volume of AICs who need to be managed by these specialists, how the previous automated efforts to prioritize which AICs needed their attention was failing, and how the STM Case Management system and Risk Assessment for Segregation Placement (RASP) automation helped reshape how their work would be done.

There are only six STM lieutenants expected to prioritize caseload assignment from within a population of over twelve thousand. The old way of prioritizing which AICs would benefit most from intervention, monitoring, special programming, and caseload placement was largely driven by incidents that had already occurred. The Prison Management Alert System (PMAS) would generate alerts based on misconducts and based on the specific type of misconducts automatically place an AIC on an STM Caseload. Additionally, when AICs in the Intensive Management Unit (IMU) were released back into general population, STM lieutenants would assign these AICs to their caseload for monitoring so as to prevent re-offense. As this placement process went on it resulted in caseloads of such volume that the time that could be dedicated to an AIC by an STM lieutenant dwindled away and the effectiveness of the effort was at risk.

While the aim of the automated caseload placement process was to place AICs who needed monitoring the most, STM lieutenants began to realize this was often not the case. AICs who did not need monitoring based on the misconduct triggers were rampant and removing them from their caseloads were cumbersome and time consuming. A misconduct that can drive placement might be very situation dependent. An example might be a classification of Arson when a small trash fire was used for making prison contraband. Arson as a classification applies the same to an AIC who might be trying to burn down the whole block vs making contraband. The system could make no such comparison, and both were treated the same when it came to AIC placement on STM caseloads. The details mattered and fighting the automation was having the opposite effect it was designed for.

In August 2020 through November 2021, the Information Technology Services staff started working with the Security Threat Management team (STM) to develop a Module within the Offender Management System (OMS) that would allow the STM staff to manage the large number of AICs needing additional monitoring and programming at the various institutions throughout the state. OMS is an in-house monolithic (very large) system that's used by almost every ODOC employee that works with the AIC information.

IDEA

The need was identified for STM caseload placement to be more predictive and less reactive to improve the effectiveness of the efforts and reduce the caseloads to workable volumes. It had been proven via research published in Crime & Delinquency in 2019 by Dr. Ryan M. Labrecque PhD and Paula Smith that proactively providing rehabilitative programming to inmates at the front end of prison sentences will help reduce institutional disorder and validated risk assessment as a tool for predicting behavior that would result in segregate housing and placement. Specifically, a simple to implement assessment that could make use of existing data points captured during intake and present in the Corrections Information System (CIS) and Offender Management System (OMS) would be ideal for ODOC. For this reason, the Risk Assessment for Segregation Placement (RASP) was determined to be the best choice for ODOC and was selected.

The RASP would ask a series of six questions of each AIC at intake. The answers to these questions would each have a specific weighting that results in a tabulated score that would predict the need (or lack of need) for that AIC to be placed on an STM Caseload and further indicate that the AIC should receive additional programming, monitoring, and attention. Dr. Ryan Labrecque PhD, an associate professor with the Department of Criminal Justice at the University of Central Florida developed the assessment criteria and scoring algorithm that ODOC would go on to implement for this project. These elements include:

- Age at intake
- Sentence length (in years)
- Violent offense (yes/no)
- Gang affiliation (yes/no)
- Mental illness (yes/no)
- Custody Rating (minimum = 1, medium = 2, close = 3)

Inmate Risk Assessment for Segregation Placement-Oregon Revised (RASP-OR)

Item	Risk Factor	Codes	Weight
1	Age at intake		0.0322
2	Sentence length (in years)		0.0663
3	Violent offense		0.4766
4	Gang affiliation		2.1492
5	Mental illness		0.5217
6	Custody rating (minimum = 1, medium = 2, close = 3)		0.6504

Suggested Nominal Risk Categories

Total Score:	Risk Category:
6.00 to 0.01	Low-risk
0.00 to 2.38	Moderate-risk
2.39 to 4.00	High-risk

Figure 1: Currently configured weights and thresholds

IDEA (CONT.)

When an Offender arrives at the Coffee Creek Intake Center (CCIC) in Wilsonville, Oregon they begin the Receiving and Discharge (R&D) process. During the R&D process, Offenders go through a mental and medical evaluation. They are fingerprinted, and issued an ODOC identification card. As part of the overall intake process, which can take anywhere from 10 days to the better part of a month, the automated RASP assessment would be largely completed using data collected and stored in the IT databases collected from the AICs. The additional element of Gang Affiliation would be manually done as part of an interview conducted during the intake process and scored appropriately completely the assessment. Based on the score given by the assessment, AIC's who fall into the low-risk or moderate-risk categories would bypass assignment to an STM lieutenant while those scoring in the high-risk category would get automatically assigned to the STM lieutenant associated to their final facility assignment and receive all the extra programing, services, and monitoring they need to have the best chance for success while in custody with ODOC.

The automation element being mostly data driven was a fairly standard development request to fulfill by IT services. Where we needed to really collaborate and get creative was with how we would present this information to the STM staff and how that would be the most useful and fit with their workflow and processes. In meeting with Rebecca Krueger and her STM team we determined that the best place to develop an interface would be as part of a module within OMS. From a process perspective we needed to develop a queue within which intakes would be collected, known data elements populated, and interview data related to gang affiliation could be collected and documented. Within the queue we found that prioritizing AIC's for whom the likelihood of receiving a score of high-risk was present before the gang affiliation was conducted would allow STM staff to move through the most at risk AICs first. Following interviews, completed assessments would automatically be assigned to the appropriate STM caseloads during a nightly process.

RASP Queue

[Jump to top](#)

RASP Queue Instructions - click here to expand

Only display fully auto answered rows: Count only fully auto answered rows:

Ready to review: 101 Total Count Low: 68
Not fully auto answered: 106 Total Count Moderate: 33
Total Count High: 0

Hover over the column headers below for more information

Reset Filters Showing 1-25 out of 101 25 Show All AIC Refresh Listing

AIC Name	SID	Admission	Q1: Current Age	Q2: Sentence	Q3: Violent	Q5: Mental	Q6: Custody	Score	Q4: Gang	Notes	Process
	17089179	8/2/2021	33	1y 10m 19d	N	N	Medium	0.11 (Moderate)	Yes No N/A		Process
	12143970	8/3/2021	45	4m 18d	N	Y	Minimum	-0.3 (Low)	Yes No N/A		Process
	20873884	8/6/2021	35	2y 2m 11d	N	Y	Minimum	-0.1 (Low)	Yes No N/A		Process
	18295034	8/10/2021	48	1y 1m 6d	Y	N	Minimum	-0.49 (Low)	Yes No N/A		Process
	14758634	8/12/2021	36	3y 4m 1d	Y	N	Minimum	-0.25 (Low)	Yes No N/A		Process
	16470720	8/18/2021	33	9m 13d	N	N	Medium	0.19 (Moderate)	Yes No N/A		Process
	19150577	8/24/2021	32	1y 8m 13d	N	Y	Minimum	0.03 (Moderate)	Yes No N/A		Process
	16792325	8/24/2021	33	1y 7m 27d	N	Y	Minimum	-0.0 (Low)	Yes No N/A		Process
	21577045	8/26/2021	32	1y 8m 19d	Y	Y	Minimum	0.5 (Moderate)	Yes No N/A		Process
	8333097	8/31/2021	49	1y 2m 1d	N	Y	Minimum	-0.48 (Low)	Yes No N/A		Process
	24111355	9/2/2021	60	1y 6m 1d	N	N	Medium	-0.73 (Low)	Yes No N/A		Process
	21144154	9/2/2021	38	1y 0m 23d	N	Y	Medium	0.53 (Moderate)	Yes No N/A		Process

DEVELOPMENT

During the design conceptualization Chris Sitkei, the teams lead developer, postulated that the results of the RASP in assigning AICs to STM Caseloads might result immediately in a manageable caseload volume but it also might not. Hard coding values to each of the elements in the assessment and finding that those values resulted in too many AIC's being assigned would result in constant rework and development while the algorithm was tuned and refined for ODOC's specific use cases. How could we prevent the development team from getting constant requests to make changes to the assessment value while this was worked out? The answer ultimately seemed obvious; allow the STM staff themselves to make modifications to the RASP values directly as part of the module. Chris developed what we would later term as "maintenance tables" that would become a key element in the success of the project. We would later go on to create user editable value tables for the RASP scores as well as STM Lieutenant assignments to specific institutions.

The RASP assessment would not be the only overhaul for STM Caseload assignment. In the previous system misconducts were a factor as well as custody of an AIC moving into and out of IMU custody, among others. We would need to consider the more meaningful automation of reactive activities as well including:

- Misconduct Activities, specifically those that actually need monitoring
- Movement from custody level (added when AIC moves from 3-4 or 5-4 and removed when AIC moves from 4-5)
- Status of Interstate Compact (STM needs to monitor out of state AIC's more closely)

The software development process followed an agile methodology and focused on iterations of incremental product development wherein each sprint was following with a "show and tell" in which the business users were given the opportunity to review, refine, and plan for each increment along the way through the development process.

The screenshot shows the 'Caseload' application interface. At the top, there are filters for Location (CCCF - Coffee Creek Correctional Facility) and Caseload (15706 - HM 503-570-6889). A summary box on the right displays statistics: RASP (L/H/H): 0/0/0, Last Contact (O/S/D/O): 0/0/0/0, MP Plan (New/Open/Closed): 25/1/4, Total Misconducts: 114, Total SSTIR: 20, LSCMI (V/L/H/M/H): 0/2/2/6/3, WRNA (L/H/M/H): 0/4/2/0, and PREA (PV/V/PA/A): 4/0/0/0. Below the filters, there are dropdown menus for Post IMU, Custody Levels, SSTIR Exists, RASP Levels, Assessment Levels, PREA, Misconduct Exists, MP Status, Review Msg Exists, Primary/Secondary, and Hide Cust Lvl. A status bar indicates 21-90 Days Overdue, 61-90 Days Overdue, and Current. The main table shows 10 records of AICs with columns for AIC Name, SID, Location, Cell, Admission, Post IMU, Cust Lvl, SSTIR, RASP, LSCMI/WRNA, PREA, Misconduct, Last Contact, MP Status, Review Msg, and P/S.

AIC Name	SID	Location	Cell	Admission	Post IMU	Cust Lvl	SSTIR	RASP	LSCMI / WRNA	PREA	Misconduct	Last Contact	MP Status	Review Msg	P/S
		CCCF	H217B	6/16/2021		4			No Level						P
		CCCF	C207A	8/31/2021		3			25 (High) - LSCMI		3				P
		CCCF	H227B	9/29/2020		4	2		41 (High) - WRNA		10	Closed			P
		CCCF	C224A	1/27/2022		1	1		29 (Medium) - WRNA		1				P
		CCCF	H114A	11/14/2019		4	5		28 (Medium) - WRNA	Potentially Vulnerable	14				P
		CCCF	C126B	5/4/2021		3			No Level						P
		CCCF	C258B	1/27/2022		2			31 (Very High) - LSCMI						P
		CCCF	C233A	6/29/2021		3			No Level						P
		CCCF	BH104	5/15/2021		4			No Level						P
		CCCF	C215B	1/8/2022		1			No Level		8				P

DEVELOPMENT (CONT.)

Through this process we developed an STM Case Management module that brought together data and processes that had previously existed in other areas (CIS, various OMS modules) that would allow STM lieutenants to prioritize, filter, and search in the most efficient way possible. The new module includes direct links to and aggregate data for:

- RASP score
- Inmate Management Plans (IMP)
- Prison Rape Elimination Act (PREA) data
- Level of Service/Case Management Inventory (LSCMI) and Women's Risk and Needs Assessment (WRNA) scores
- Suspected Security Threat Information Report (SSTIR) data
- Last Contact dates
- Post IMU data
- Misconducts
- Review Messages
- Demographics

From a development perspective, another reason this project was particularly unique was in its collaboration and coordination between CIS and OMS. As many of the functions which were combined had previously lived in the IBM iSeries CIS solution previously, it took significant work to ensure that not only would the OMS module continue to provide these valuable services in a new way but that dependent jobs and processes such as reports, analytics, and research would continue to receive the information they relied on after the transition. The OMS developer Chris Sitkei and CIS developers Kathy Livengood and Joseph Brunson-Smith worked diligently along with our DBA Fernando Esguerra to ensure that no functionality was lost and that workflows were preserved during this project including the mirroring of data now captured in OMS back to CIS.

Due to the challenges of COVID-19 we were unable to have a traditional UAT in a computer lab with the users. The project team used the collaboration tool Teams to build and facilitate a "Virtual UAT" that allowed Rebecca Krueger and her team to execute the Test Cases built by our QA Lead Billy Wolsleben with the support of development and project management remotely. We were successful in having Rebecca and 4 other STM lieutenants test on remote video/audio using Teams which resulted in a very successful UAT outcome. Teams was also utilized in our "Show and Tell" sessions as part of our Agile Development Methodology to give demos and collect feedback for progress made during each development sprint. Though it's always nice to meet in person with the business, remote meeting did not have a significant impact on the effectiveness of the project team dynamic.

The final aspect implemented in the project was a series of data driven analytics and reports as a dashboard that helps the business visualize the impact of their case management activities and identify areas of concern or risk in the population.

IMPACT AND SIGNIFICANCE

"The changes to the OMS module are user friendly and a time-saver for the STM Lt's so that more time can be focused on AIC management."

Rebecca Krueger - Business Sponsor

The effectiveness of the STM team in their ability to manage their caseloads and the number of hours saved since the deployment of the STM caseload management module can't be understated. Having the ability to quickly and easily identify which AICs need

their attention, when they last interacted with them, and which have any important incidents and alerts has increased productivity and decreased time wasted searching multiple platforms and modules to find the information they need to be effective. Being able to focus on the AICs that are most at risk has helped prevent misconduct, provide targeted programming, and reduce the likelihood an AIC will be entered into IMU.

The introduction of the RASP assessment workflow has begun the journey for STM to move from the reactive to the proactive mind set in how they tackle their work. Leveraging the intake data and interviews to get AICs the support they need to stay on a positive path and avoid incidents, recidivism, and negative influences will begin to have a big impact on the general population and help ODOC to stay on top of the security, safety, and the health of the AICs under our care.

The safety and well-being of both the Institution staff and the AICs is paramount; Part of that safety not only involves the ability to accurately identify and manage the AICs, but to help identify those individuals that may be a higher threat due to their demographic and unique life experiences.

The screenshot shows the RASP Assessment web application. At the top, it displays 'RASP Assessment' and 'Selected Offender: Meritt, Heaven SID: 16350605'. Below this is a profile picture placeholder and a list of 'Prior Assessments' with a dropdown menu showing '10/12/2022 - Interviewer: WOLSLEB - Not yet processed'. The main section is 'RASP - General Information' with fields for 'Interview Date' (1/31/2022), 'Interviewer' (WOLSLEB), and 'Evaluator' (Bily M). There are six numbered questions with radio button options: 1. Current Age (53), 2. Sentence Length (15 Years, 6 Months, 2 Days), 3. Violent Offense (No, Yes), 4. Gang Affiliation (No, Yes, N/A), 5. Mental Illness (No, Yes), 6. Custody Rating (Minimum, Medium, Maximum (or higher)). A 'Calculated Score: LOW (0.441945)' is shown, along with an 'Additional Notes' text area. At the bottom, there is a note: 'If you have completed the assessment, please "Process Assessment" to automatically save and score this assessment.'

The administration of STM and the RASP intake process is in the hands of the primary stakeholders of the project; those members of the STM team. By giving them direct control, they can adapt the algorithm that drives their case management and STM lieutenant assignments without needing to request IT tickets or change requests by making use of the innovative maintenance tables. The next steps will come as STM reviews the outcomes associated with the RASP assessments and determines how accurate the various data points are in contributing to results such as reducing AIC incidents, IMU placement, and continuing to adjust the metrics to maximize the positive results. Observing the results of the changes STM make to the predictive algorithm will enable ODOC to be even more fruitful in those positive outcomes over time.