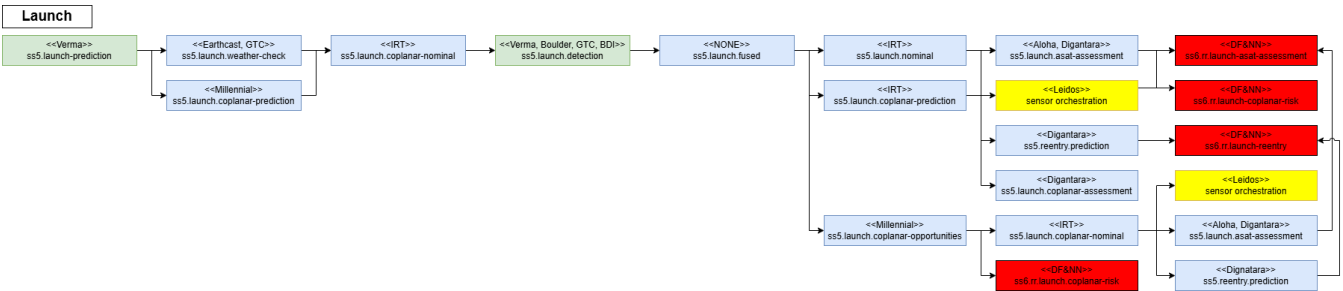
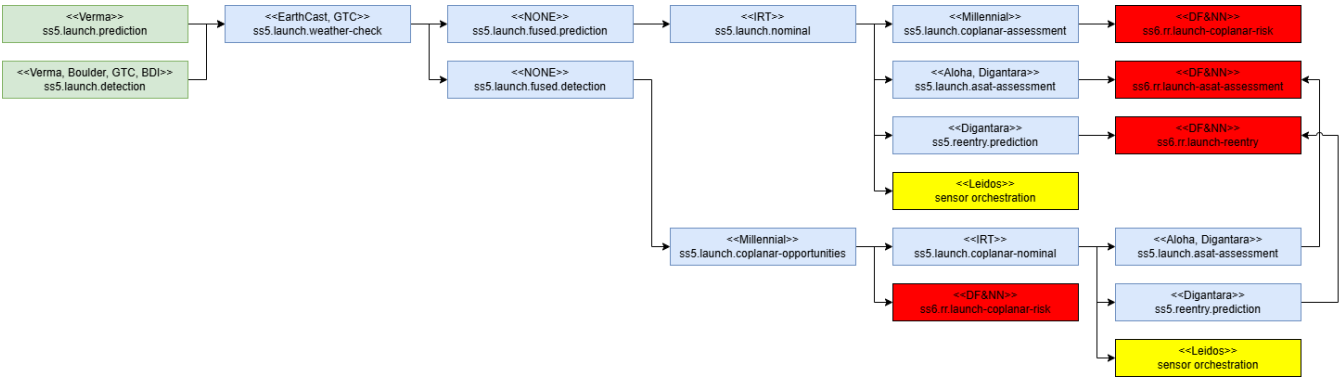


Event Workflows

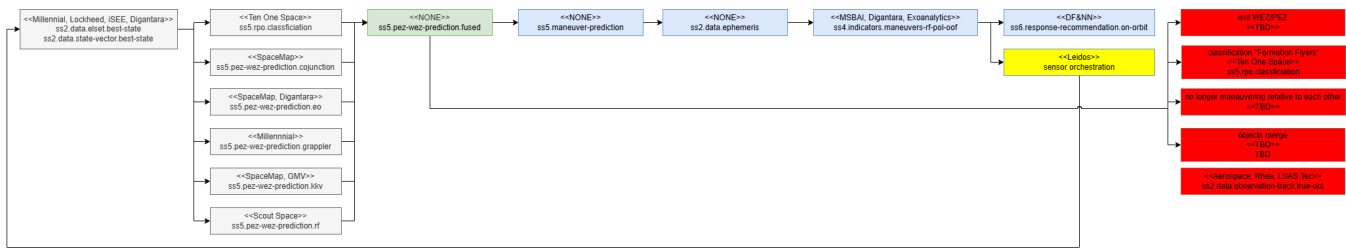
Launch



Entry/Exit	Launch	Triggers event processing	Message	Provider
entry	1.a	new launch prediction	ss5.launch.prediction	Verma
	2.a	weather check	ss5.launch.weather-check	EarthCast, GTC, Verma
	2.b	coplanar prediction	ss5.launch.coplanar-prediction	Millennial
	3	coplanar nominal	ss5.launch.coplanar-nominal	IRT
entry	4	launch detection	ss5.launch.detection	Verma Aeronautics, CU Boulder, GTC Analytics, BDI
	5	data fusion	ss5.launch.fused	
	6.a	launch nominal	ss5.launch.nominal	IRT
	6.b	coplanar prediction	ss5.launch.coplanar-prediction	IRT
	6.c	coplanar opportunities	ss5.launch.coplanar-opportunities	Millennial
	7.a	asat assessment	ss5.launch.asat-assessment	Aloha, Digantara
	7.b	sensor tasking	subproc	Leidos
	7.c	reentry prediction	ss5.reentry.prediction	Digantara
	7.d	coplanar assessment	ss5.launch.coplanar-assessment	Digantara
	7.e	coplanar nominal	ss5.launch.coplanar-nominal	IRT
exit	7.f	response recommendation	ss6.rr.launch.coplanar-risk	DF&NN
	8.a	asat assessment	ss5.launch.asat-assessment	Aloha, Digantara
	8.b	reentry prediction	ss5.reentry.prediction	Digantara
exit	9.a	response recommendation	ss6.rr.launch.asat-assessment	DF&NN
exit	9.b	response recommendation	ss6.rr.launch.coplanar-risk	DF&NN
exit	9.c	response recommendation	ss6.rr.launch.reentry	DF&NN
exit	9.d	sensor tasking	subproc	Leidos

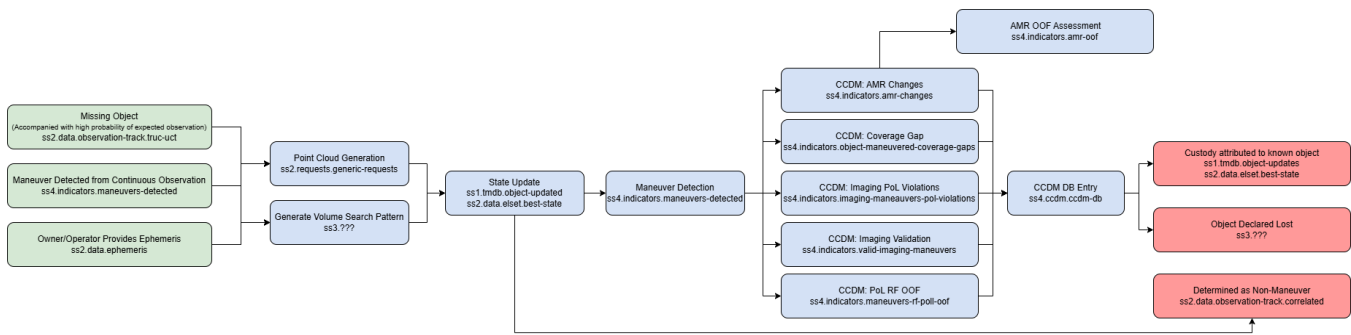


Proximity



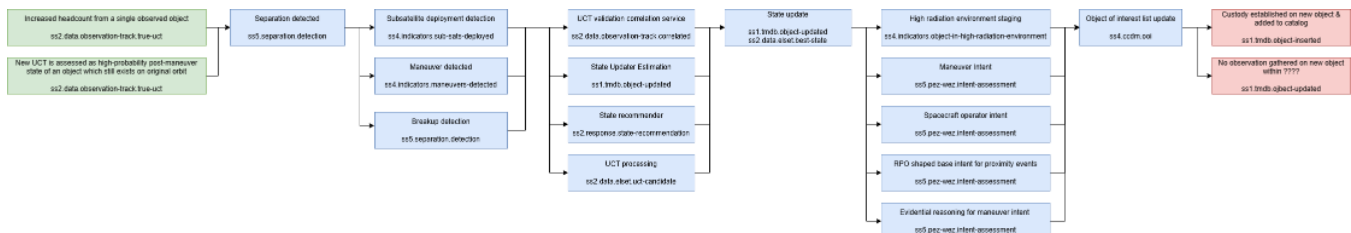
Proxi mity	Triggers event processing	Message	Provider	Notes
0.a	new best state	ss2.data.elset.best-state ss2.data.state-vector. best-state	Millennial, Lockheed Martin, iSEE, Digantara	
0.b.1	PEZ/WEZ prediction assessment	ss5.pez-wez-prediction. conjunction	SpaceMap	
0.b.2	PEZ/WEZ prediction assessment	ss5.pez-wez-prediction. eo	Digantara, SpaceMap	
0.b.3	PEZ/WEZ prediction assessment	ss5.pez-wez-prediction. grappler	Millennial	
0.b.4	PEZ/WEZ prediction assessment	ss5.pez-wez-prediction. kkv	SpaceMap, GMV	
0.b.5	PEZ/WEZ prediction assessment	ss5.pez-wez-prediction.rf	Scout Space	
0.c	PEZ/WEZ scoring fusion	TBD	ArcLight 6, Sprout Tech	
0.d	characterize orbits of proximity	ss5.rpo.classification	Ten-one	
1	threshold determination	TBD	Ten-one	threshold data to include rane, relative velocities, positional offset, encroaching/departing
2	maneuver prediction	TBD	Intelligent Payload, Millennial	
3	best ephemeris result of maneuver	TBD	Intelligent Payload, Millennial	t/f
4	PoL assessment of phasing maneuvers	ss4.indicators. maneuvers-rf-pol-oof	MSBAI, Digantara, Exoanalytics	
5	Assess risk tolerance	TBD	TBD	fusing outputs of 1-4 and CCDM
6	Response recommendation generated	ss6.response- recommendation.on-orbit	DF&NN	
7	tasking requirements	ss2.data.elset.best-state ss2.data.state-vector. best-state	Millennial, Lockheed Martin, iSEE, Digantara	
8.a	assets exit WEZ/PEZ/some other radius for <time>	TBD	TBD	
8.b	categorized as "formation-flyers"?	TBD	TBD	
8.c	objects are no longer maneuvering relative to each other	TBD	TBD	
8.d	objects merge (kinetically or otherwise)	TBD	TBD	
8.e	UCTs detected (evaluate debris generation)	TBD	TBD	

Maneuver



Entry /Exit	Maneuver	Triggers event processing	Message	Provider
entry	1.b	owner/operator provides ephemeris or burn plan	ss2.data.ephemeris	(State estimation)
entry	1.c	new maneuver detected from continuous observation	ss4.indicators.maneuvers-detected	Digantara, SpaceMap, Altimira, StarDrive
entry	1.d	missing object following observation accompanied with high probability of expected observation	ss1.tmbd.object-updated	(State estimation)
	2.a	post maneuver point cloud	ss2.requests.generic-requests	Intelligent Payload, Pulsar, Cloudstone
	2.b	generate volume search pattern	ss3.?????	Leidos
	3	state update	ss1.tmbd.object-updated ss2.data.elsest.best-state	Millennial, Lockheed Martin, iSEE, Digantara
	4	maneuver detection	ss4.indicators.maneuvers-detected	Digantara, SpaceMap, Altimira, StarDrive
	5.a	CCDM maneuver assessment: amr changes	ss4.indicators.amr-changes	Katalyst, StarDrive
	5.a.1	assess amr changes for OOF	ss4.indicators.amr-oof	Katalyst, StarDrive
	5.b	CCDM maneuver assessment: occurred during coverage gap	ss4.indicators.object-maneuvered-coverage-gaps	Digantara, StarDrive
	5.c	CCDM maneuver assessment: imaging pol violations	ss4.indicators.imaging-maneuvers-pol-violations	Digantara, StarDrive
	5.d	CCDM maneuver assessment: imaging validation	ss4.indicators.valid-imaging-maneuvers	Digantara, StarDrive, Altimira
	5.e	CCDM maneuver assessment: pol rf oof	ss4.indicators.maneuvers-rf-pol-oof	Digantara, StarDrive, Slingshot, MSBAI, Altamira
	6.a	CCDM event published to db	ss4.ccdm.ccdm-db	Katalyst
	6.b	OOI Update	ss4.ccdm.ccdm-ooi	Katalyst
exit	7.a	custody re-established and attributed to known object	ss1.tmbd.object-updated ss2.data.elsest.best-state	Millennial, Lockheed Martin, iSEE, Digantara
exit	7.b	object declared lost	ss3.?????	Leidos
exit	7.c	UCT analysis determined it was not a maneuver	ss2.data.observation-track.correlated	Millennial, Lockheed Martin, iSEE, Digantara

Separation



Entry /Exit	Separation	Triggers event processing	Message	Provider
entry	1.a	Increased headcount from a single observed object	ss2.data.observation-track.true-uct	Aerospace
entry	1.b	New UCT is assessed as a high-probability post-maneuver state of an object which still exists on original orbit	ss2.data.observation-track.true-uct	Aerospace
	2	Separation Detection	ss5.separation.detection	Digantara
	3.a	Breakup Detection	ss5.separation.detection	Digantara
	3.b	Subsatellite Deployment Detection	ss4.indicators.sub-sats-deployed	Digantara
	3.c	Maneuver Detection	ss4.indicators.maneuvers-detected	Digantara, SpaceMap, Altamira, StarDrive
	4.a	UCT Validation Correlation Service	ss2.data.observation-track.correlated	Aerospace
	4.b	State Updater Estimation	ss1.tmdb.object-updated	Millennial, Lockheed Martin, iSEE, Digantara
	4.c	State Recommender	ss2.response.state-recommendation	Lockheed Martin
	4.d	UCT Processor	ss2.data.elset.uct-candidate	Rhea Space, LSAS Tec
	d	State Update	ss1.tmdb.object-updated ss2.data.elset.best-state	Millennial, Lockheed Martin, iSEE, Digantara
	6.a	High Radiation Environment Staging	ss4.indicators.object-in-high-radiation-environment	Digantara
	6.b	Maneuver Intent	ss5.pez-wez.intent-assessment	Astra Ultra
	6.c	Spacecraft Operator Intent	ss5.pez-wez.intent-assessment	ExoAnalytic
	6.d	RPO Shaped Base Intent for Proximity Events	ss5.pez-wez.intent-assessment	Ten One
	6.e	Evidential Reasoning for Maneuver Intent	ss5.pez-wez.intent-assessment	PointPro
	7	Object of Interest List Update	ss4.ccdm.ooi	Katalyst
exit	8.a	Custody established on new object & added to catalog	ss1.tmdb.object-inserted	Millennial, Lockheed Martin, Leidos
exit	8.b	No observation gathered on new object within ????	ss1.tmdb.object-updated	Millennial, Lockheed Martin, Leidos