s-AIS API market research
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product description draft

AIS market assessment

project description	study market structure of AIS systems, identify potential partners, customers and opportunities
goals	finalize specification of the product by estimating access modes, potential traffic, priority of the tasks
deliverables	pdf with description of user profile, market size, product description, revenue model for each API product.

AIS data access types

API for mobile apps

API for data providers

API for searching vessels in Landsat data

UI for web/general purpose

AIS for mobile traffic

Name of the product	AIS for mobile apps
Value proposition	Shows vessels are surrounding me
Limitations	By area. In 100 km2 square
Access modes	1 request per minute giving all vessels in current area
Payment model, price	$1 per customer (out of $7 average check)
Max number of customers	4 lead apps * 300K downloads * 5% payed accounts = 60K
TAM	$60K (potentially can grow up to $100K)

Mobile apps stats

	Ship Finder	**Vessel Finder**	**FleetMon Mobile**	**FindShip**
Modifications	Free, Full, AR (labeled vessels on a webcam)	Free and Paid. iOS and Android	iOS since 2009	Free, Full, Pro
Features	Vessel monitoring, search by name	Realtime monitoring, historical tracking, ship search by name, MMSI and IMO	Maps with vessels	AIS data + DWT, ship/port search, satellite map
Rank among navigation apps (iOS)	Free - 56 Paid - 30	Free - 380 Paid - 350	250	Free - 200 Full - 59
# downloads (Android)		Free: 20K+ Pro: 500 +	Free: 100K+	Free: 100K+
Revenue model	3.99 - Full 2.99 - AR	$9.99 for Pro version	Temporary free	$2.99 - Full
Problems	Low accuracy	Low quality of the app	incomplete data	Outdated information

AIS for data providers

Name of the product	AIS for data providers
Value proposition	Provide customers AIS data from remote locations with Perseus-M satellite
Limitations	All data in the database ordered by MMSI and/or Date
Access modes	Current mode - unique MMSIs for 1 day: 1 request per minute Historical mode - all database: 1 request per hour
Payment model, price	Subscription model, year contract 1 provider -> 2k forum followers -> 10k users * $300 year contract * 50% COGS * 10% Astro Digital share My price approx = $150k/year
Potential customers	ExactEarth, MarineTraffic, Obercom, Fleetmon, iHS, VTExplorer, CLS SAT-AIS, VesselTracker
TAM	$1.2M

Who uses AIS data on the web?

	MarineTraffic	Vessel Finder	shipfinder	vesseltracker.com
Organic Search	61.2K	14.7K	2.7K	6.4K
Paid Search	0	658	0	0
Backlinks	720K	13K	14.5K	83K
World Ranking	6K	37K	503K	113K
Daily time on site	4:57	2:38	2:29	2:15
Visitors from	US - 9.5% Greece - 8.8% UK - 8.5% Germany - 7.3%	US - 14.3% UK - 8% Spain - 4.8% Indonesia - 4.3%	US - 47.3% UK - 16.2%	US - 18.2% Germany - 8.6% UK - 7% Japan - 6%
Keywords	ais - 13.73% marine traffic - 8.46% marinetraffic - 8.37% norman atlantic - 1.86% ais traffic - 1.56%	marine traffic - 19.92% marinetraffic - 14.78% vesselfinder - 9.99% vessel finder - 3.03% shiptracker - 3.02%	ship finder - 26.92% ship tracker - 7.92% vessel finder - 7.69% ship radar - 6.14% marine traffic - 3.97%	vessel tracker - 31.34% vesseltracker - 5.6% ship tracker - 4.12% vessel tracing - 3.17% ship tracking - 2.19%
Business types	API, embedded map, satellite data	Mobile apps, B2B, Crewing	Mobile apps	API, direct sales

by alexa.com and semrush.com

AIS + LandSat

Name of the product	satellite imagery labeled with AIS data
Value proposition	Give me satellite images extended with AIS data and give me all satellite images for a given vessel
Limitations	1 request per minute
Access modes	Mode 1: give me all images with a given MMSI located on the image Mode 2: give me all AIS data of all vessels than can be found on a image
Payment model, price	Mode 1 - price per request ($25/request) Mode 2 - price per image $25/image (orthorectified Landsat images- $25/image)
Max number of customers	100 internet searches/month 3 projects offering such service

Vessel detection and monitoring with satellites

Company			
Product	Ship Detection & Tracking Service	Tracking the ships layer on a map	automated detection of vessels
Technology	Radar&optical imagery + automatic image recognition	Inmarsat satellite vessel tracking	NigeriaSat 2 and UK-DMC2 imagery
Features	• AIS data integration • 5 meters resolution • 8 hours interval • AIS data checking • monitoring and tracking • behavior patterns	• AIS data integration • Online depth map	• aircraft detection • vessel detection •
More info	geo-airbus.com	OpenSeaMap	The Digital Ship

What SI+AIS is used for?

illegal fisheries
illegal maritime activities
logistical reasons
search and rescue
oil spills detection
accident investigation

by Airbus

Who pays for the data?

Government
Environment organizations
Fishery companies in a legal process
Logistic companies
Vessel owners

UI Features on AIS map

1. Integration with vessel photos archive (MT)
2. Direct link to follow a ship (SF)
3. Triangle showing direction of a ship (VF)
4. Search by location, MMSI, IMO, Callsign, Dest (SF)
5. Color-coding for different types of object(SF)
6. Visible vessel's track (SF)
7. Vessel's profile (VF)
8. User's upload of AIS data (VF-AIS Hub)
9. Saved vessels and locations (VF)

(MT) - MarineTraffic, (SF) - ShipFinder, (VF) - VesselFinder

Pricing of s-AIS data by providers to end users

Company	Service	Quality	Price
MarineTraffic	500 vessels - fleet 15 vessels - nonstop monitoring	12 hours coverage	$ 300
MarineTraffic	1 vessel idle 1 vessel nonstop	12 hours coverage	$ 0.27 $16
FleetMon	15 vessels - nonstop monitoring	12 hours coverage	$ 400
ExactEarth	ShipView tool for viewing all the vessels + planning	12 hours coverage	$20,000

API modes beta 1:

VesselID: 0 / IMO / MMSI / Callsign / Dest

- 0 - no id is specified
- IMO / MMSI / Callsign / Dest - IMO, MMSI, Callsign or Destination is required

History: historical / newest / *specified period of time***

- historical: all records with given MMSI*
- newest: 1 last single record in the last 24 hours*

Number of vessels: single / multiple

- single - only 1 vessel's data is sent
- multiple - several vessels' data is sent

Area: 0 / 1

- 0 - data from the whole Earth surface is sent
- 1 - area specification is required in *lat,long,area* format

Satellite imagery: 0 / 1

- 0 - no satellite imagery searched
- 1 - find all images where a certain VesselID can be found. *Date range is required***
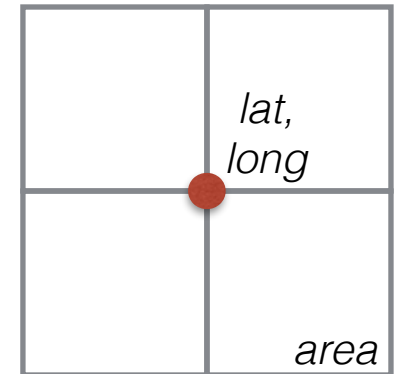- 2 - find all vessels located on a certain image. *ImageID is required***

* *If 2 records have less then 1 hour difference, only the latest is stored*

** *Specification to be updated*

API use cases:

Compulsory

1. Get current positions of all vessels in a [area] region from a point

2. Get single vessel current position
3. Get single vessel track (all historical records) for a certain period
4. Get all satellite images with a vessel
5. Get all vessels on a satellite image

Optional

6. Get vessel static data
7. Get single vessel track

lat, long

area