



OFM Discussions

Topic: What kinds of CSB Solutions Exist?

- Date: March 2nd
- Time (EST/ UTC-5): 10:10-10:30 am
- Mode: In Person

Topic: Orange Force Marine Dashboard

- Date: March 3rd
- Time (EST/ UTC-5): 8:45-9:00
- Mode: In Person



What kinds of CSB Solutions Exist?

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About OFM – Who we are and what we offer



Participating Vessels



Data Collection



Future devices



Processing and Auto Analysis

Workflow with Quality Assurance



Advanced Data Correction

Data Consumers



Standard formats

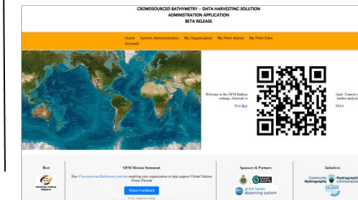
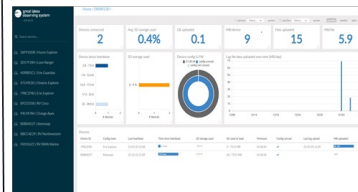
Emerging Use Cases



Visualization Solutions



IoT Management & Analysis



1. Who we are

1. Survey company in Ontario, Canada
2. Survey expertise and fleet execution resources
3. Technology solutions for CSB
4. Marine Search and Rescue services, training and consulting

2. CSB Solutions

1. Developed and deployed in 2021
2. Initially for GLOS for Great lakes
3. Expanded to other partners.
4. Key Focus was automation and limited interaction



Comparison Considerations

Categories

- Industry products
- Technology- Data Collections
- Technology – Processing and Reporting
- CSB Specific
- Costs

Resources

- [CSB Industry logger comparison template.xlsx - Google Sheets](#)
- Understand options
 - Vendors
 - Solution evolution and maturity
 - Industry emerging options

Industry Products



Points to Consider

- Commercial availability
 - Custom or off the shelf
- Use in other industry applications
 - Important or not
 - Additional data
- Primary Target Audience
 - Vessel types
 - Data usage



Technology – Data Collection



Points to Consider

- NMEA Network Support – 0183 vs 2000
- Logger – Hardware and Software
- Management of IoT devices
- Data inputs
 - Direct External GNSS Support
 - Dedicated Inertial Measurement Unit (IMU)
- Offline and online storage
 - Local data storage
- Data transfer method – manual or automated (see the manual)
- Communications
 - 1st Generation – Sdcard manual copy and upload
 - 2nd Generation - Wi-Fi, Cellular / Satellite
- Level of user technical skill required for install
 - Boat systems
 - NMEA knowledge basic
 - Required support on larger ships (electronics / electrical)

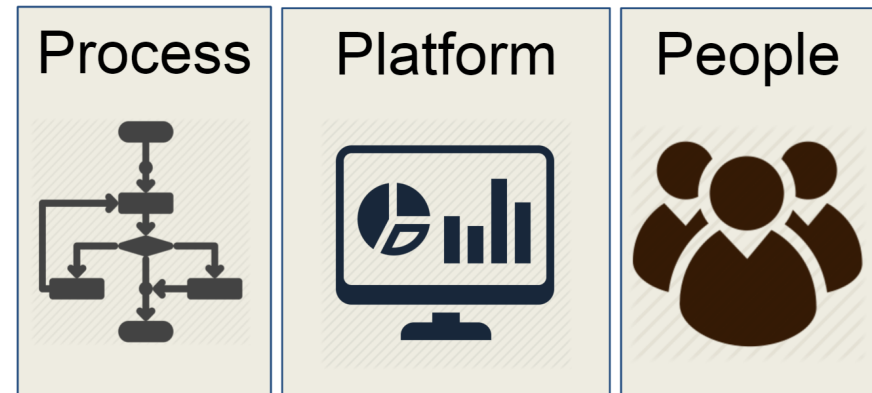


Consideration: Technology - Processing



Points to Consider

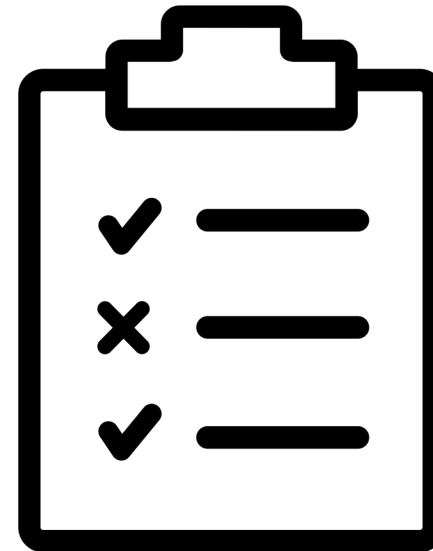
- Data processing
 - Desktop Processing and storage
 - Cloud processing and storage
 - Processing different datasets for various sources
- Licensing
 - Official NMEA 2000 protocol license
 - Open source
- Visual Tools
 - Fleet Management portal
 - Visualization of data for program participants
 - GIS Software
- Level of user technical skill required for software interface



Consideration: CSB Specifics

Points to Consider

- IHO B12
 - Captures required data
 - metadata support
- Additional data capture
 - Possible additional datasets available (weather, vessel instrumentation, other)
 - External Data formats available (vision or other data formats)
- Submission to IHO DCDB
 - Quality Control
 - Effort level – manual (desktop) or automated (cloud)
- Supports Trusted Nodes
 - Under your brand or another
 - White label



Consideration: Cost

Points to Consider

- Model
 - Hardware
 - Software
 - Subscription
- Internal Labor
 - Installation Support
 - Data Processing
- Overall Cost for the complete Lifecycle



Just like buying a car – choose what is right for you!



* Risk Informed Decision on Total Cost *

- Budget, subscription models versus one-time capital costs
- Human Efforts, how much time can you spare versus my primary responsibilities
- Technical skills, what is needed and how available is it to support the effort
- CSB Manual is a great tool – will help you! Well done to the team



WIBL
Website



WIBL
Repo



OFM CSB
Offering



OFM Admin
App