Welcome to the shore side
VTS vs STM – A Comparison, firstly

The Shore Center part of the STM concept is often compared to traditional VTS and there are similarities in the services provided. There are also significant differences. Firstly, in a VTS area the VTS is the node which all information will pass through between stakeholders in the area. In the STM system, stakeholders are connected and information is shared in a common digital infrastructure.
Secondly, the service provided by VTS is compulsory with little room for customization. Vessels within the VTS area have to report on specific Reporting Points and abide with the rules. In the STM system, services are optional and each ship chooses between offered services.
VTS vs STM – A Comparison, thirdly

Thirdly, VTS is a locally based service. The geographical boundaries for the service are clearly defined by the VTS area and the VTS operator assists ships with local knowledge and experience.

STM involves several service providers with expertise in different areas. STM provides services for parts of the voyage or the whole voyage.
A grounded vessel, CTH Emilie, east of Vinga. Could this have been avoided?
Today

10 minutes

2 minutes

30 minutes
STM Functionality

**General**
- **Name:** To Gothenburg
- **Status:** 1

**Information**
- **Waypoints:** 5
- **Alternative branches:** None
- **Schedules:** None

**Active path**
- There are no alternatives branches to select among

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[STM Logo]

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STM Functionality
Victoria

1. 14:37:31 - First alarm indication
2. 14:49:22 - Several alarms in a row
3. 16:31:42 - Grounding of the Viktoria outside Varberg
Sabina
Shore Center/Shore Based User/VTS

FOC  Service Provider / DP / Ship owner  VTS / Port Control

Expect unexpected users to find great use of the different services
STM supported services

STM SERVICES

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Pilot Route Service
Route message format (AIS-ASM)
Will be validated and brought forward for standardization
Intended routes

Dover TSS

Thornton Bank windmill park

Zeebrugge

Antwerp

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Passed  Now  Future

t=0 min
Intended routes

Thornton Bank windmill park

t=24 min
Intended routes

Thornton Bank windmill park

Passed
Now
Future

$t=36 \text{ min}$
Intended routes

Thornton Bank windmill park

Passed
Now
Future

$t=48\text{ min}$
Intended routes

Thornton Bank windmill park

Now

t=60 min

Passed

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The concept of routes and “safe haven” / ETA Box

Route
Leg (strait segment between two waypoints) Contains a speed

Waypoint (geo-referenced anchor points for the route) Contain long, lat., ETA, turn radius, WOP

Slot
“Safe Haven” time slot visualizing the position where the ship must be to respect the ETAs of the route. Size of slot may vary in with depending on channel width, traffic density, cargo, manning, waters etc. Length of box may vary depending on how tight the time regime is. Green: inside box; yellow: part of ship outside box; red: ship outside box

Cross Track Margin, channel width (dynamic)
Green: agreed route.

Target speed 13.4 kn (13.2 kn)
Speed advice: target speed to keep position in box. Green: speed within 0.2 kn of target speed; yellow: 0.2-1.0 kn; red > 1 kn. (13.2 kn) = actual speed. Box dynamically positioned behind ship
In larger areas

SC monitoring service
Turn Sb 1 hr. 12 min. to 178 deg. Meet Tarnland on port, side in 23 min.

13.4 kn
13.2 kn

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Utilizing STM for ice and SAR operations

Winter navigation:
• Exchange of standardized text messages and dynamic ice routes

SAR operations:
• Exchange of standardized text messages, search areas and patterns
Get involved
THINK DIFFERENT
MAKE THINGS HAPPEN
MAKE A DIFFERENCE

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STM
Sea Traffic Management

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