

**Enhanced Group Call – Application Programming  
Interface Correspondence Group (EGC-API CG)**

**Essential requirements**

**Version 1.0 dated 11 August 2020**

## Introduction

The International Hydrographic Organization (IHO) World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC) has formed an EGC-API Correspondence Group (EGC-API CG) to develop an application programming interface (API) standard to support the machine-to-machine transfer of Enhanced Group Call (EGC) shore-to-ship information between certified and registered Maritime Safety Information Providers (MSIP) and Recognized Mobile Satellite Service (RMSS) providers.

## Abbreviations/Glossary

<b>API</b>	application programming interface
<b>EGC</b>	enhanced group call
<b>HTTPS</b>	hypertext transfer protocol secure
<b>IHO</b>	International Hydrographic Organization
<b>IMO</b>	International Maritime Organization
<b>JSON</b>	JavaScript object notation
<b>Manual</b>	refers to the relevant operational manual developed by RMSS for its service(s)
<b>MSIP</b>	Maritime Safety Information Providers
<b>REST</b>	representational state transfer
<b>RMSS</b>	Recognized Mobile Satellite Service
<b>SSL</b>	secure sockets layer
<b>WMO</b>	World Meteorological Organization
<b>WWNWS-SC</b>	World-Wide Navigational Warning Service Sub-Committee

## Procedure

In accordance with paragraph **3.b.** of the EGC-API CG Terms of Reference, the EGC-API CG will:

*review the needs and requirements for an EGC-API standard to support the machine-to-machine transfer of EGC shore-to-ship information between certified and registered [MSI] providers and recognized mobile-satellite service providers.*

This document contain the essential requirements of the standard, as agreed by the EGC-API CG.

## Essential requirements

- Requirement No 1:** The standard must expose a RESTful API accepting JSON arguments.
- Requirement No 2:** The standard must comply with relevant guidelines and guidance developed by IMO, WMO and IHO.
- Requirement No 3:** The standard must authenticate clients in the form of HTTPS requests.
- Requirement No 4:** Implementation and related documentation of the standard must be made available by the RMSS provider.

## Requirement No 1

**The standard must expose a RESTful API accepting JSON arguments.**

The RMSS provider will expose a secured (refer to Requirement No 3) RESTful API for MSIP access to the RMSS EGC broadcast system to perform the requirements of the EGC system (refer to Requirement No 2).

The API will accept arguments as JavaScript Object Notation (JSON) in the request body and returning results as JSON in the response body.

## Requirement No 2

**The standard must comply with relevant guidelines and guidance developed by IMO, WMO and IHO.**

In accordance with paragraph 3.d. and 1.d of the EGC-API CG Terms of Reference, the standard will ensure compliance with the guidelines and guidance developed by IMO, IHO and WMO. This includes, but is not limited to, the following IMO circulars and resolutions:

- MSC.1/Circ.1288/Rev.1 - *Amendments to resolution A.706(17) – World-Wide Navigational Warning Service*
- MSC.1/Circ.1310/Rev.1 - *Revised Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI)*
- MSC.1/Circ.1364/Rev.1/Corr.1 - *Amendments to the Revised International SafetyNET Manual*
- Resolution A.1001(25) - *Criteria for the Provision of Mobile Satellite Communication Systems in the Global Maritime Distress and Safety System (GMDSS)*
- Resolution A.1051(27) - *IMO/WMO WorldWide Met-Ocean Information and Warning Service – Guidance Document*

## Requirement No 3

**The standard must authenticate clients in the form of HTTPS requests.**

MSIP access to the RMSS EGC broadcast system requires authentication to be performed to ensure no unauthorised or uncertified access. Certified and registered MSIP will be provided with a unique username and password for access to the RMSS EGC broadcast systems. The exchange of credentials between MSIP and RMSS will occur using HTTP over a SSL.

## Requirement No 4

**Implementation and related documentation of the standard must be made available by the RMSS provider.**

The RMSS provider will incorporate into its Manual, or separately, sufficient information and related documentation to enable MSIP to implement the standard. This may include:

- an overview of the standard and design elements
- programming components, instructions and procedures, including examples necessary, for MSIP to gain access to RMSS EGC broadcast systems
- a list of all essential requirements of the standard and compliance with them (as contained in this document)
- a test plan, test cases, validation plan, verification plan and test results.

The RMSS provider will incorporate into its documentation how non-essential (desirable) requirements are implemented.