SMDG 70th meeting

Port Security Inspection System

KL-Net, Republic of Korea

2017.09.27.

KL-Net 케이엘넷

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1. VGM in Republic of Korea
   - Current status and services

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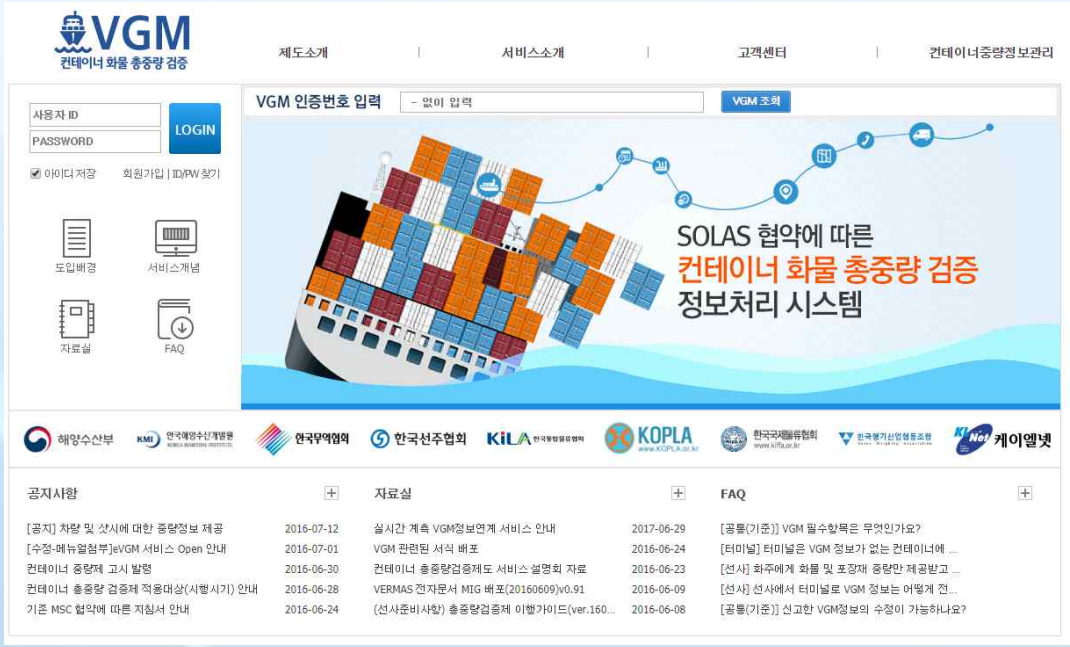
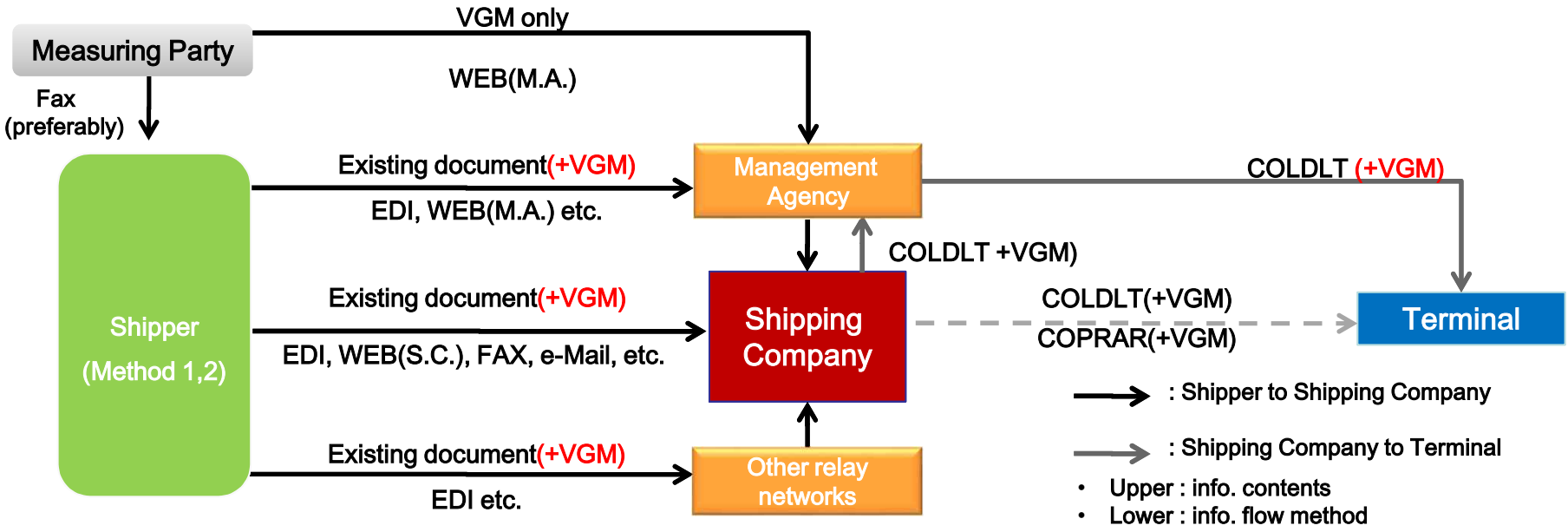
VGM in ROK

- VGM Regional briefing sessions (Apr 2016):
  → Busan(Apr 4th), Yeosu(Apr 6th), Incheon(Apr 8th)
- Test operation : May 2016 ~ June 2016
- Enforcement : 1 July 2016
- Serviced by KL-Net Corp.[http://vgm.kr]



VGM in ROK

Information flow chart



<Summary>

1. Shipper – Shipping Company : Existing info. flow + VGM mandatory info.
2. Shipping Company – Terminal : Existing info. Flow + VGM mandatory info.
3. Measuring Party provides measured values through WEB system run by the Management Agency or via e-Mail, fax, etc. to the Shipper (When using WEB, only VGM info. Is provided by M.P and the rest by the Shipper)

VGM in ROK

List of information

컨테이너화물총중량검증서
Document of Verified Gross Mass of Container

컨테이너정보 Container Information	컨테이너 번호 Container No.	컨테이너 번호	SG4.EQD+CN
계측정보 Verifying Information	컨테이너 사이즈 Container Size	컨테이너 사이즈	SG4.EQD+CN
	검증된 총중량 Verified Gross Mass of Container	KGM	SG5.MEA+AAE
	계측소명 또는 화주명(법인및개인) Name of Verifying Company	화주명	SG8.NAD+SPC
	계측소의책임자 Responsible Person of Verifying company	화주 인증담당자	SG8.NAD+AM
	계측책임자연락처 Point of Contacts	화주 인증담당자의 전화번호or이메일	SG9.COM+:TE SG9.COM+:EM
	계측 일시 Verified Date	yyyymmddhhmm	SG5.DTM+798 SG7.DTM+798
	계측장소 Address of Verified Place	계측장소 주소	SG8.NAD+SPC
	계측 국가 Verified Country	KR	SG8.NAD+SPC
컨테이너 운송정보 Information of Container Transportation	총중량검증방법 Gross Mass Verifying Method	방법1 또는 방법2	SG7.DOC+SM1(방법1인경우) SG7.DOC+SM2(방법2인경우)
	계측 인증 번호 Verification No.	계측인증고유번호	SG7.DOC+SM1(방법1인경우) SG7.DOC+SM2(방법2인경우)
	예약번호 Reservation No.	BOOKING NO	SG4.RFF+BN
	선하증권 번호 Bill of lading No.	BL NO	SG4.RFF+BM
	화주식별번호 Shipper's internal IID	화주 식별 번호	SG4.RFF+AOW
	씰 번호 Seal No.	봉인번호	SG4.SEL
	선적항 Port of Registry	적재항	SG4.LOC+9
	양하항 Port of Discharge	양륙항	SG4.LOC+11
	선명 Ship's Name	선박명	SG6.TDT+20
	항차번호 Voyage No.	수출항차번호	SG6.TDT+20
	선사명 Name of shipping company	선사코드 (예:HSD,CMA)	SG6.TDT+20

← Container Information

← Verifying Information

← Information of Container Transportation

VGM in ROK

List of information

상기 컨테이너 화물의 총중량 계측 결과가 사실과 다름이 없음을 확인합니다. This is certify that above container gross mass verifying information is true. 년 Year 월 Month 일 Date		제출일시	SG1.DTM+137
서명 Signature	계측소담당자 Responsible person of veryfying company	서명 (인)	
	화주 Shipper	서명 (인)	SG9.CTA+RP
비고 : "방법2"에 따라 총중량을 검증한 경우, 계측 정보는 화주정보로 사용			

← Signature

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Ballast Water Report in ROK

- In accordance with the effective date of the Convention on Ballast Water Management (2017.9.8), the Ballast Water Management Act was enforced simultaneously with the date of the Convention.
- In this regard, according to Article 5 of the 「Ballast Water Management Act」, ships entering the jurisdictional area after injecting ballast water outside the jurisdiction of ROK shall be allowed to enter the jurisdiction within 24 hours (before departing from the previous port if the scheduled time is less than 24 hours) to the Director of the Regional Oceans and Fisheries Office, who has jurisdiction over the port to which it will enter.
- The Ballast Water Report(BLWTRF) is transmitted by the shipping company through port-MIS, which is a single window of ROK.
- The BLWTRF items can be divided into ship information and ship ballast water management history information.

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Port Security Inspection

Overview of the project

11 Mar 2011 Fukushima Nuclear Accident

Radiation detector installed temporarily at ports and airports

Radiation Safety Management Act in effect from July 2012

Needs for radiation detector

9/11 Commission Act approved

All containers entering U.S. : Pre-scanning mandatory (extended to July 2018)

Non-proliferation of weapons of mass destruction: Detection of radiation and neutron ray from containers

Port Security Inspection

Overview of the project

- 3D High-speed Container Detector - Faster by 5+ times

  2D scan: approx. 5 mins per container → 3D scan: approx. 1 min per container

  Republic of Korea → U.S. approx. 1.47m TEU : Requires additional 33 detectors

- Efficient port management, shorter time required, reduced cost, etc.

  → Ceremony for completion : Gwangyang Port(27 Feb 2017)

  → Performance verification & stabilization in progress

Port Security Inspection

Overview of the project

Container Manifest info.

Vehicle no. + Container no. identification solution

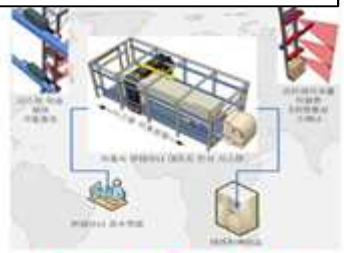
Vehicle/Container ID.

Container Manifest info.

Harmful radiation detection

Harmful radiation detection within a container

Container surface damage recognition system(developing)



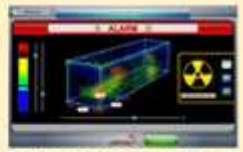
Container surface damage recognition video

Verified Gross Mass

Measure container weight

Container cargo image

Container inside objects



Nuclear explosives

Port Security Inspection

- What now?

  Need a way to formalize and standardize the information from the system

  i.e. standardized electronic message

  → So that we can obtain automated and digitalized information exchange

Port Security Inspection

Information from Security detection equipment

Equipment	Data Type	Description
Container X-ray detector	Detection image	20 feet(1024(H)*2377(W)), 40 feet(1024(H)*3696(W))
	Inspection result	Result(Yes or No), opinion, reference image
	Inspection object info.	Container number, vehicle number, inspector ID
Vehicle Gamma ray detector	Radiation existence	
	Radiation info.	Type and measured value
	Inspection object info.	Container number, vehicle number, recorded image
Vehicle Neutron ray detector	Neutron ray existence	
	Neutron ray info.	Type and measured value
	Inspection object info.	Container number, vehicle number, recorded image
Container vehicle weight measure	Weight measure result	
	Inspection object info.	Container number, vehicle number

Port Security Inspection

- Develop new EDI message

  e.g. Container Port Security Inspection Result Message

- Co-work with SMDG and UN/CEFACT?
  - KL-Net is reviewing and seeking to work as an international standard along with SMDG and UN/CEFACT to develop EDI for container port security inspection.

Thank You

... for your listening

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