PRIMAR 2020 – WENDWG11

Hans Chr. Lauritzen, Director PRIMAR

FREEDOM TO CHOOSE

PRIMAR's Vision

IN ORDER TO ENHANCE SAFETY AT SEA AND PROTECT THE MARITIME ENVIRONMENT, PRIMAR'S VISION IS TO BE THE MOST EFFICIENT MODEL FOR THE PROVISION OF ENC SERVICES AND MARITIME GEOSPATIAL DATA WORLDWIDE.

Targets for 2020

- Continuously provide the world's most efficient ENC quality control and validation services

- Launch of S-100 Service

- To increase knowledge and conduct training in ENC validation and quality control for member nations

- To conduct S-100 training / Capacity Building

Targets for 2020

- To increase ENC sales, maintain cost control and financial sustainability

- To further develop and improve the PRIMAR technology and services

- To be visible in the IHO arena and maintain a close relation with the network of distributors

ENC QC AND VALIDATION SERVICES

The PRIMAR ENC validation statistics for 2020 are as follows:

New ENC	New Editions	Reissue	Cancel cell	Updates
1 429	5 347	712	405	25 252

The below table shows the development of the PRIMAR ENC database during 2020:

Date	Total no of ENCs	Overview	General	Coastal	Approach	Harbor	Berthing	Updates
01.01.20	15 693	179	637	2 573	4 914	5 860	1 530	44 546
01.07.20	16 448	179	645	2 607	5 113	6 071	1 833	45 062
31.12.20	17 119	180	654	2 641	5 292	6 413	1 939	48 929

ENC QC AND VALIDATION SERVICES

- PAC 24 approved to introduce KPIs for ENC validation in PRIMAR. The following validation completion times was achieved in 2020:

Type of data	Validation KPI (95%)	2020 Average Achieved
ENC Update	1 day	8 hrs.
ENC New Edition	2 days	5 hrs.
New ENC	3 days	9 hrs.

PRIMAR RENC value chain

PRIMAR®

Albania
Croatia
Estonia
Finland
France
Georgia
Iran
Latvia
Lithuania
Montenegro
Mozambique
Norway
Poland
Sweden
Russia
Ukraine
Vietnam

PRIMAR RENC MEMBERS

Canada
China
India
Indonesia
EAHC
MSS
Japan
Korea
PRD ENC
Singapore
NTOU (Taiwan)

PRIMAR LICENSING PARTNERS (Others)

ALL IC-ENC RENC DATA

> 60 different official ENC providers

PRIMAR ENC Database

> 17 000 ENCs

55 Commercial Distributors

10 Governmental Distributors

10 Navy Suppliers

Commercial users

Governmental users

Navy users

>31 000 registered end-users

2020 Capacity Building / training

- S-100 / S-101 online training course:

Module 1: S-100 Overview:

History, Objectives, Content, Benefits and Maintenance.

Module 2: IHO Registry:

Structure, Content, Registers and Testbeds.

Module 3: S-101 General Overview:

Content, Features, Attributes, Relationships, Geometry, DCEG and Encoding.

Module 4: S-101 Data Quality:

CATZOC and Quality of Bathymetric Data, Horizontal/vertical uncertainty and Visualization.

Module 5: S-101 Conversion and Challenges:

Features, Attributes, Enumeration, Geometry and Topology.

Module 6: S-100 Part 15 Data Protection:

Encryption, Signing, Certificates and Public/Private key.

2020 Capacity Building / training

- S-100 / S-101 online training course:

    – 4 day course

    – 3 hrs. each day

    – 2020: 51 participants

    – 21 different hydrographic offices

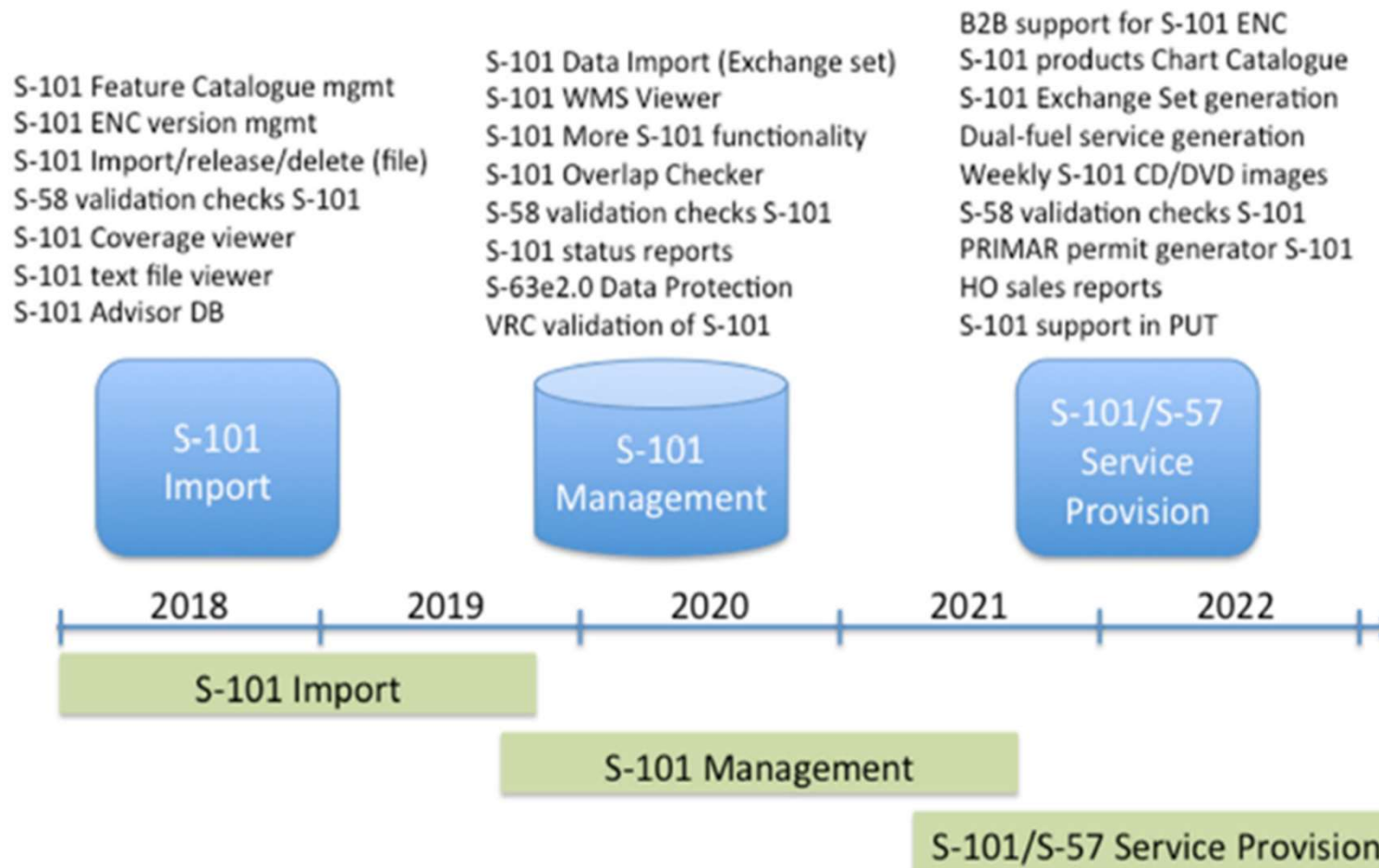   – 5 different organizations

2020 Financial Issues

- Total revenue of ENC sales 20% increase compared with 2019.

- Financial surplus (excess of cost coverage after regular royalty payments) of approximately $900k.

2020 Technology Development

- Development of S-101 Service.

- Launch of S-100 Service.

- Update of RTZ (S-421) distribution service.

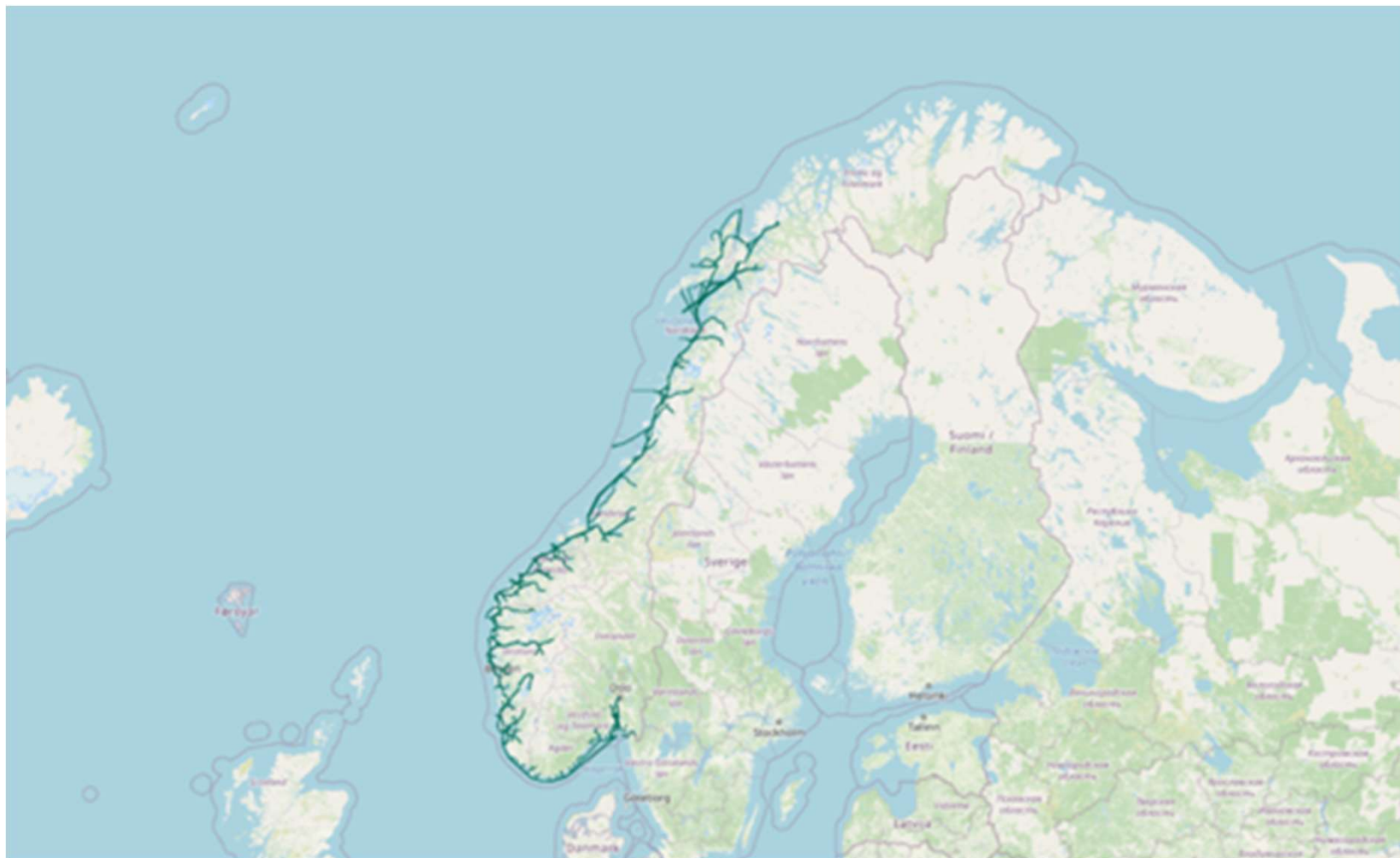# PRIMAR S-101 Project Status

PRIMAR S-101 Project Status

- Focus in 2019 has been on:
  - Supporting S-100 part 15 data protection
  - Build user interfaces for S-101 VPN
  - Started to develop S-101 graphical viewer (S-101 Portrayal Catalogue)
  - Started on PRIMAR Chart Catalogue support for S-101

- Focus in 2020 will be on:
  - S-101 support in PRIMAR Chart Catalogue
  - VRC (Validation Report Checker) functionality
  - Viewer for S-101 quality issues
  - Automated creation of S-101 image files
  - Service information to selected OEMs/Distributors

PRIMAR RTZ (S-421) distribution

RTZ Service:

- Connect to RTZ producer's API

- Automatic download of routes and updates

- Service for PRIMAR distributors, suppliers and /OEMs

- The RTZ format is supported in most ECDIS / ECS systems.

- Usage: Route plan on board, route plan exchange between systems on the bridge and ship to shore communication, etc.
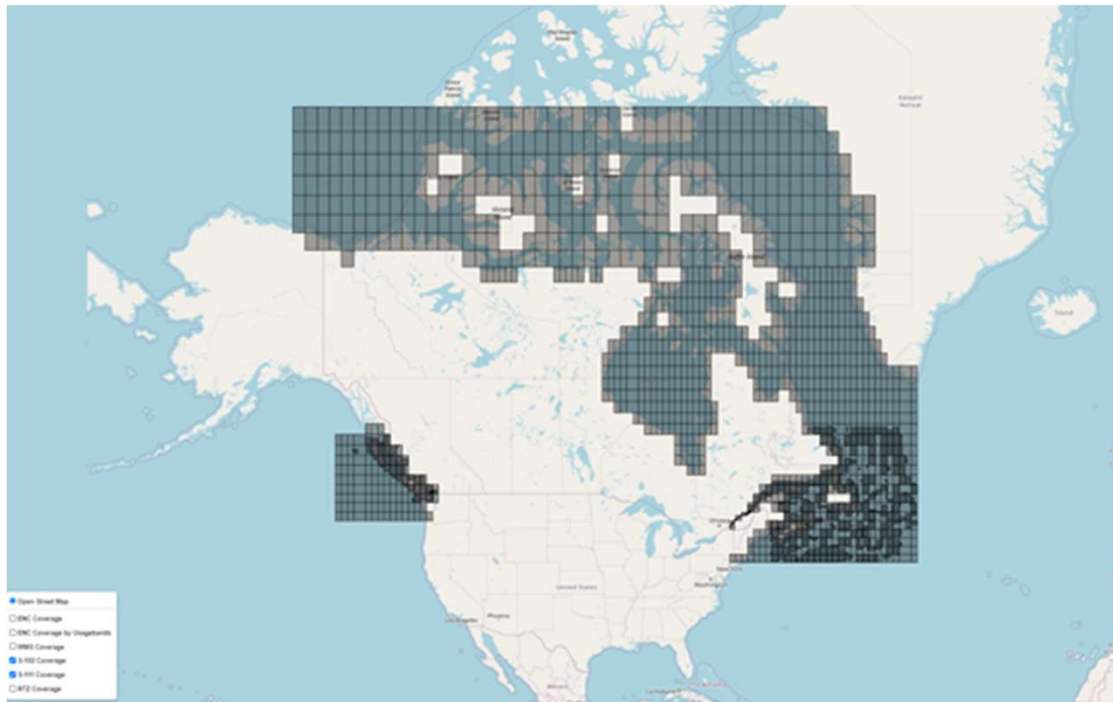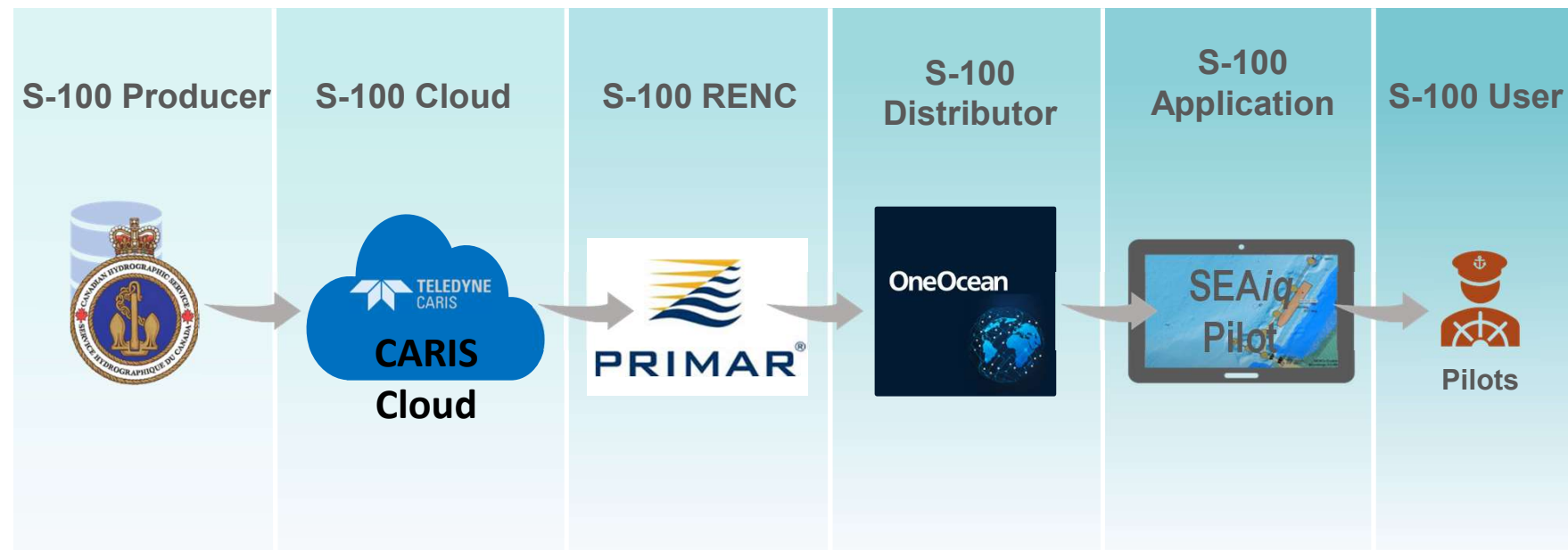
PRIMAR RTZ (S-421) distribution

PRIMAR S-100 Service

- The S-100 Service was launched July 2020

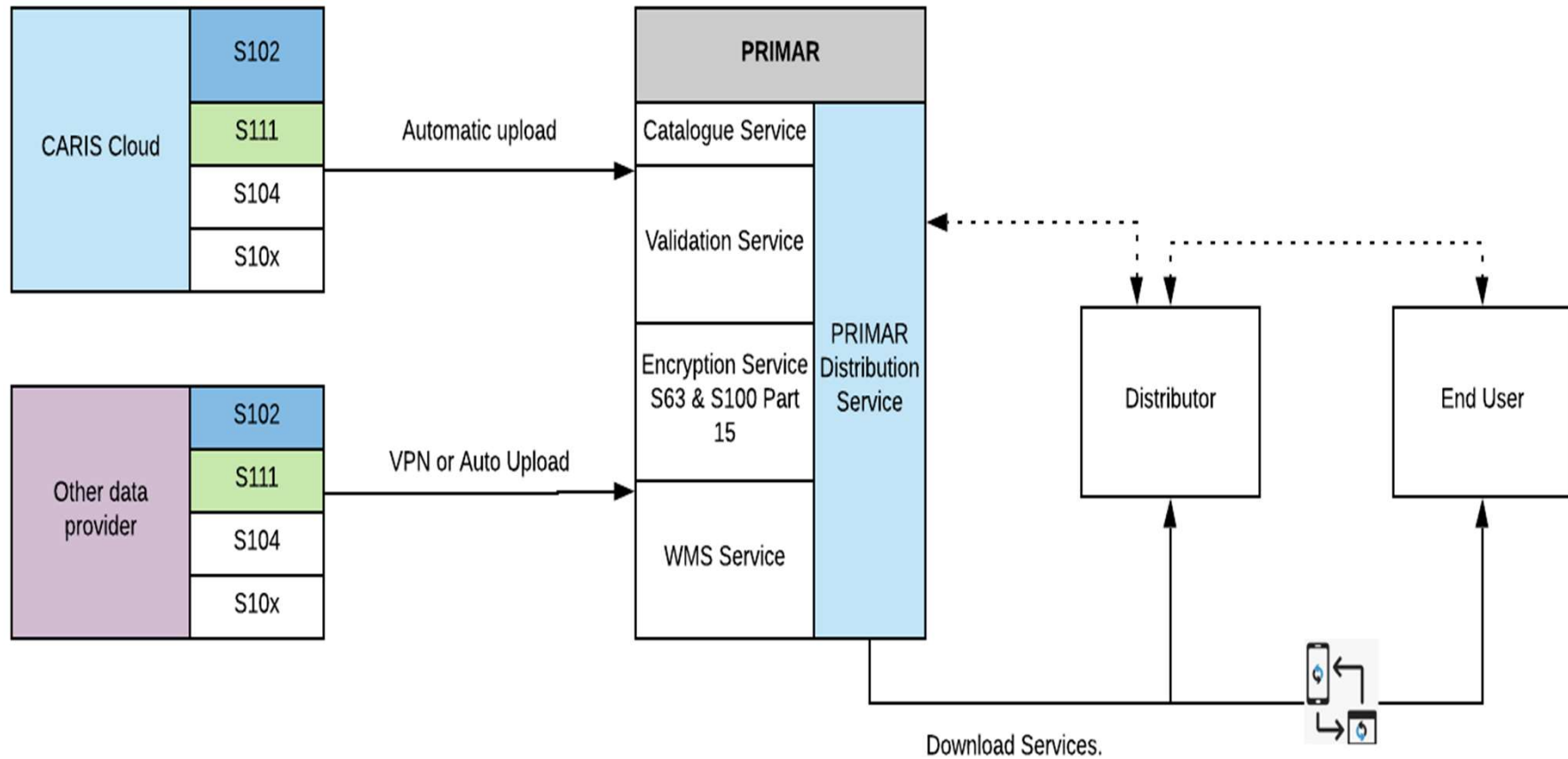- Contains more that 2500 S-102 / S-111 from CHS

- Encrypted by S-100 part 15

S-100 Service – Full Value Chain

PRIMAR®

S-100 Producer	S-100 Cloud	S-100 RENC	S-100 Distributor	S-100 Application	S-100 User
	CARIS Cloud		OneOcean	SEA*iq* Pilot	Pilots

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PRIMAR S-100 Service

PRIMAR Targets for 2021

- Provide the world's most efficient ENC quality control and validation services.

- Increased ENC and S-100 coverage – new members.

- New project – Nautical Publication Distribution

- Continue to support the S-100 technology development and product distribution.

- Visibility

Thank you for your attention

Questions?

www.primar.org

Operated by the Norwegian Mapping Authority, Hydrographic Service

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