



ENGINEERING

It's Time!



EUCISE 2020

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EUCISE 2020

VIP Day Italia – 12th March 2019

Marco Messineo
Project Manager / Engineering I.I.



EUCISE2020/ EII involvement

Engineering EUCISE2020 Project

From the very beginning part of the RTI

Leonardo - Finmeccanica, S.p.A (LDO);
Engineering Ingegneria Informatica, S.p.A. (EII);
GMV Aerospace and Defence, S.A.U (GMV);
Inovaworks II Command and Control, Lda (INW);
Satways, Ltd (STW);



Dedicated Team in all phases

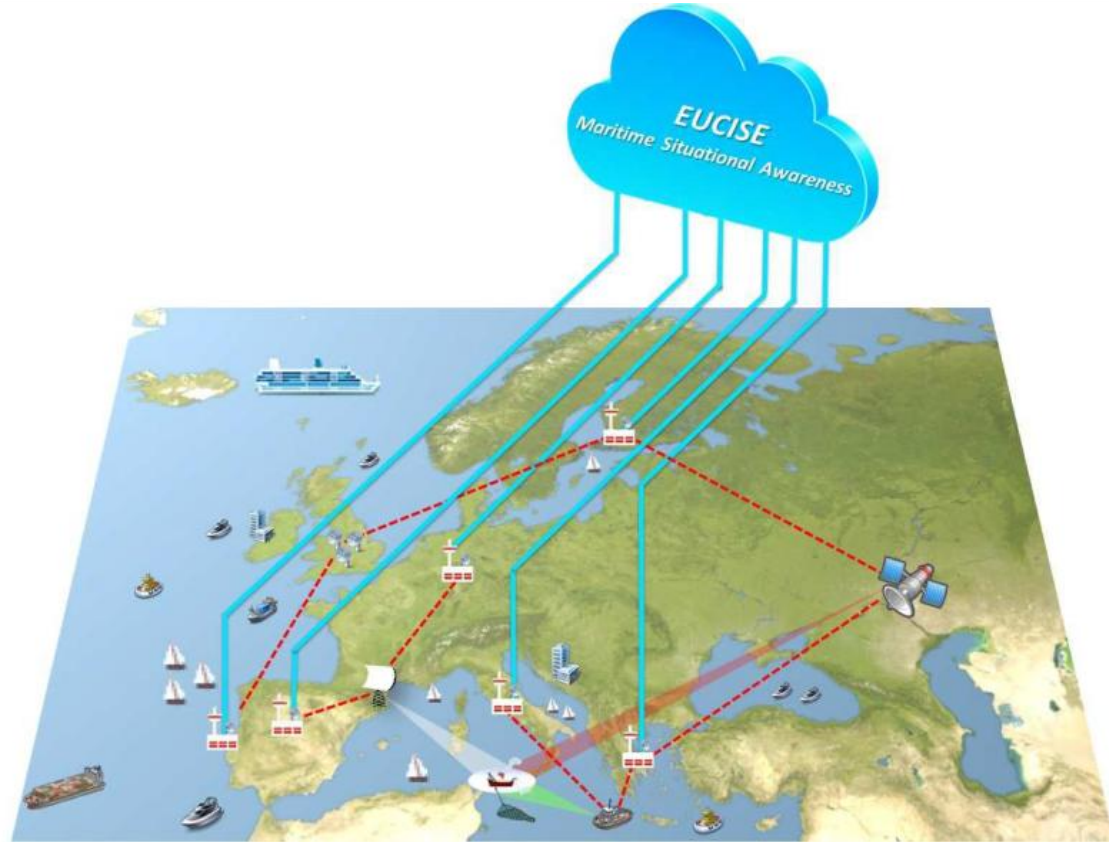
Analysis, Design, Implementation and Support & Training

Data & Service Model,
Networking and Configuration of Open Source tools

EUCISE2020/ What it is 1/2

CISE

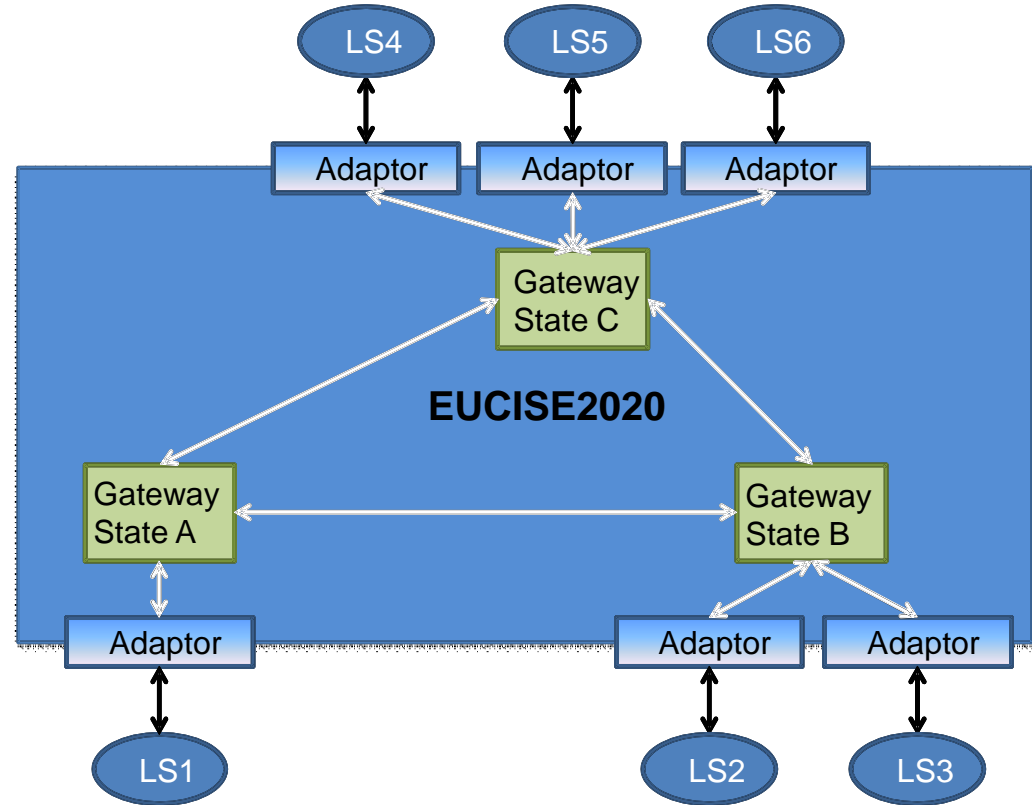
The objective of CISE is to improve maritime awareness by improving the maritime public authorities' abilities to **monitor, detect, identify, track and understand occurrences at sea** in order to find reasoned grounds for reaction measures on the basis of **combining new information with existing knowledge.**



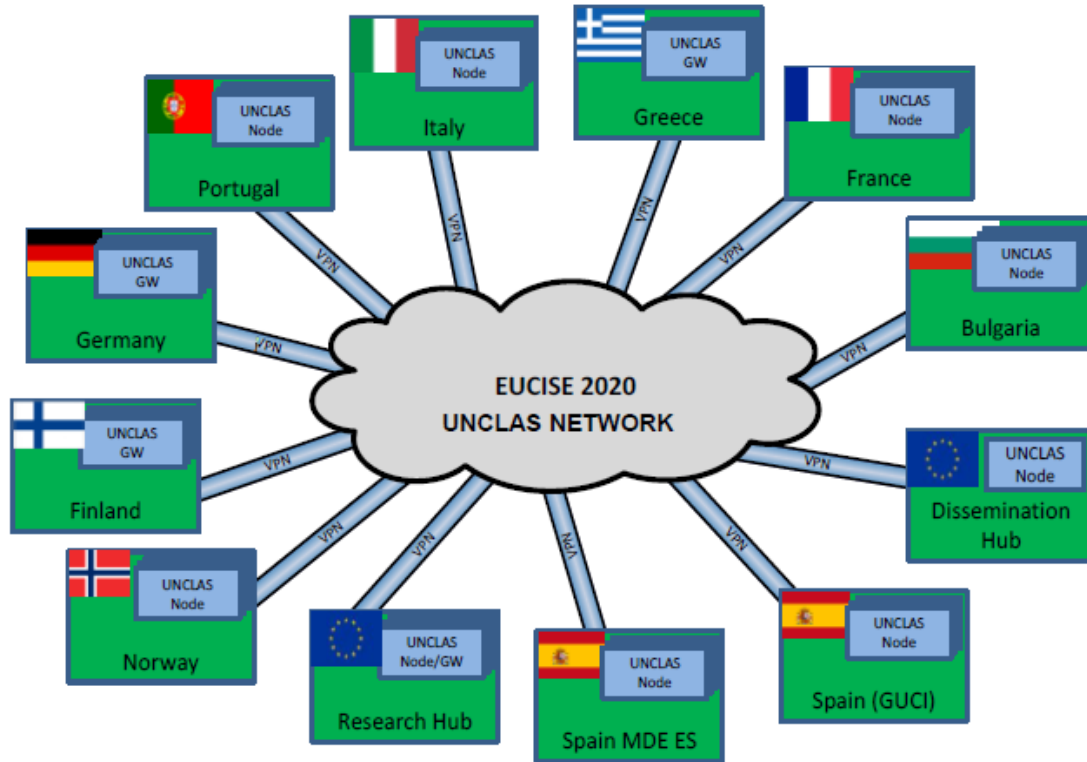
EUCISE2020/ What it is 2/2

European Common Information Sharing Environment

The **EUCISE2020** project aims at developing new **surveillance capabilities** required to facilitate **information exchange** among maritime authorities and to contribute to the development of the **European Maritime Security Strategy**.



EUCISE2020/ Authorities



User Communities

- Maritime Safety & Security
- Fisheries Control
- Marine Environment
- Customs
- Border Control
- General Law Enforcement
- Defence Monitoring



Sharing Information

- Who is available, interested – Register/Discovery
- How to communicate – Exchange Pattern
- Common Language – Data Model
- Secure Channel - Infrastructure





EUCISE2020 Data Model

- The information model defines several core entities and other auxiliary entities that either extend or complement the core, and together aim to supply a comprehensive data model
- The data model does not have an implicit relational paradigm. This relational paradigm and representation is achieved through relational entities which are encapsulated by the core entities. Typically, these relational entities aggregate the target entity and some relationship characterization info

EUCISE2020/ Information Exchange Paradigm

EUCISE2020 Service Operations

- **Pull Request** – Query data about an entity/service
- **Pull Response** – Return data previously requested in a Pull Request
- **Push** – Notify about information either resulting from a previous subscription or to known/unknown recipients
- **Subscribe** and unsubscribe – Subscribe and unsubscribe information about an entity/service
- **Feedback** – Provide feedback on information already received or sent
- **Acknowledgement** – Provide success or error messages upon delivery of a message during the transfer process

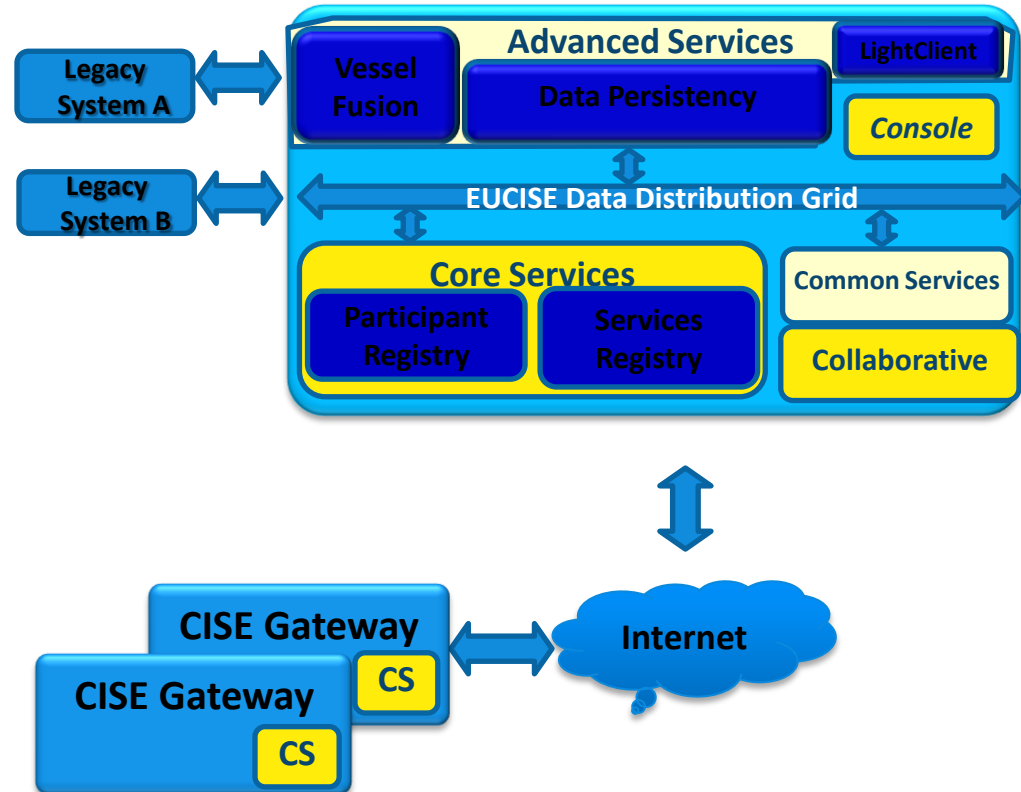
*Need to Know
Responsibility to Share*

EUCISE2020/ Core Services 1/2

Core Services

The *EUCISE2020 Core Services* are devoted to **enable the connection** of the *EUCISE2020 Participants* through the EUCISE2020 Network

Transferring data among EUCISE2020 Participants and allowing the availability of pertinent data to *EUCISE2020 Services*



Core Services

Participant Management

Services Management

AR Policies

Main Functionalities

- Participant Management
Authority details, PKI, Communities,
Operational Purposes, Areas of Interest, ...
- Services Management
Service details, Type of Entity,
Push / Pull / Subscribe Pattern, ...
- Access Right Policies
Service availability,
fine grained control on entity's attributes

EUCISE2020/ Participant Management 1/2

The screenshot shows a web browser window with the URL `10.40.5.68:8080/group/guest/participants`. The page header includes the EUCISE 2020 logo and a navigation menu with options like Home, Admin, Logging, Accounting, and Monitoring. A user is logged in as 'MemberState Administrator'. The main content area features a 'Filter' section with dropdown menus for 'Participant Community', 'Participant Function', 'Classification Level', 'Participant Country', and 'Sea Basic'. Below the filters are 'Search' and 'Reset' buttons. The 'PARTICIPANT LIST' table displays the following data:

ID	Name	Description	Owner	Gateway ID	Actions
eu.eucise.fr.sim1-node01	Sim1	Simulator 1	EU	eu.eucise.fr.node01	[edit] [delete]
eu.eucise.fr.sim2-node01	Sim2	Simulator 2	EU	eu.eucise.fr.node01	[edit] [delete]
eu.eucise.fr.sim3-node01	Sim 3	Simulator 3	EU	eu.eucise.fr.node01	[edit] [delete]
eu.eucise.fr.vfa-node01	VFA	Vessel Fusion Association	France	eu.eucise.fr.node01	[edit] [delete]
eu.eucise.fr.grs01-node01	LCL	Light Client	France	eu.eucise.fr.node01	[edit] [delete]
eu.eucise.bg.vfa-node01	VFA	VFA Server	Bulgaria	eu.eucise.bg.node01	[edit]
eu.eucise.bg.grs01-node01	LCL	LCL Adaptor	Bulgaria	eu.eucise.bg.node01	[edit]
eu.eucise.bg.sim1-node01	Simulator 1 Name	Simulator 1	Bulgaria	eu.eucise.bg.node01	[edit]
eu.eucise.bg.sim2-node01	Simulator 2	Simulator 2	Bulgaria	eu.eucise.bg.node01	[edit]
eu.eucise.bg.sim3-node01	Simulator 3	Simulator 3	Bulgaria	eu.eucise.bg.node01	[edit]

The table footer shows '1 OF 6' items and a pagination control. A 'Create' button is located at the bottom right of the table area.

Discovery

➤ View Details

all Participants in
EUCISE2020 Network

➤ Edit Details

only Participants in the
given Gateway/Node

EUCISE2020/ Participant Management 2/2

PARTICIPANT INFORMATION

Participant Information: eu.eucise.bg.vfa-node01

Id: eu.eucise.bg.vfa-node01	Member State: BG	Gateway ID: eu.eucise.bg.node01
Endpoint: SOAP	Endpoint Url: http://10.40.4.37:8480/VFA/CISEMessageService?wsdl	Classification Level: Unclassified
Name: VFA	Description: VFA Server	Owner: Bulgaria
Area Of Interest: Atlantic BalticSea NorthSea Mediterranean BlackSea	Participant Community: Customs MarineEnvironment MaritimeSafetySecurity DefenceMonitoring FisheriesControl BorderControl	Participant Function: VTM SAR FisheriesOperation EnvironmentWarning CustomsMonitoring CustomsOperation BorderMonitoring CSDPTask

Contact Point

Name: vfa	Surname: vfa
Phone:	Address:
Email: vfa-node01@node01.eucise.bg	

Provided Services

Service List
bg.vfa-node01.vessel.pull.provider
bg.vfa-node01.vessel.subscribe.consumer
bg.vfa-node01.vessel.subscribe.provider

(1 OF 1) [Navigation buttons]

Close

Participant Mngmt

- PKI Certificates
- Country & GTW
- Communities
- Operational Purposes
- Areas of Interest
- Owner & PoC
- List of Services

EUCISE2020/ Service Management 1/2

The screenshot shows the EUCISE2020 Service Management web application. The browser address bar shows the URL `10.40.5.68:8080/group/guest/services`. The page header includes the EUCISE 2020 logo and a user account menu for 'MemberState Administrator'. Below the header is a navigation menu with 'Home', 'Admin', 'Logging', 'Accounting', and 'Monitoring'. The main content area features a 'Gateway ID: eu.eucise.fr.node01' and a 'Filter' section with various dropdown menus for 'Participant Community', 'Service Type', 'Service Operation', 'Exp. Response Time', 'Service Status', 'Participant Country', 'Data Freshness', 'Service Role Type', 'Max. No. Request', 'Service ID', 'Participant Function', 'Sea Basin', 'Max. No. Entries', and 'Query by example'. Below the filter is a 'Search' button and a 'SERVICE LIST' table.

Service ID	Service Status	Service Operation	Service Role	Service Type	Participant ID	Actions
eu.sim2-node01.vessel.push.consumer	Online	Push	Consumer	VesselService	eu.eucise.eu.sim2-node01	[Edit]
eu.sim2-node01.vessel.subscribe.consumer	Online	Subscribe	Consumer	VesselService	eu.eucise.eu.sim2-node01	[Edit]
fr.sim2-node01.MaritimeSafetyIncident.push.consumer	Online	Push	Consumer	MaritimeSafetyIncidentService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.action.push.provider	Online	Push	Provider	ActionService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.incident.pull.consumer	Online	Pull	Consumer	IncidentService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.person.pull.provider	Online	Pull	Provider	PersonService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.risk.push.provider	Online	Push	Provider	RiskService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.vessel.pull.consumer	Online	Pull	Consumer	VesselService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.vessel.pull.provider	Online	Pull	Provider	VesselService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]
fr.sim2-node01.vessel.push.consumer	Online	Push	Consumer	VesselService	eu.eucise.fr.sim2-node01	[Edit] [Add] [Refresh]

Discovery

➤ View Details

all Services in
EUCISE2020 Network

➤ Edit Details

only Services in the
given EUCISE2020
Gateway/Node

EUCISE2020/ Service Management 2/2

SERVICE DETAIL

Service Detail: bg.prst01-node01.aircraft.pull.consumer

Service ID: bg.prst01-node01.aircraft.pull.consumer	Participant ID: eu.eucise.bg.prst01-node01
Service Operation: Pull	Service Status: Online
Service Type: AircraftService	Service Role Type: Consumer
Data Freshness:	Sea Basin: Atlantic
Max. No. Entities:	Exp. Response Time:
Max. No. Request:	Query by example:
Gateway ID: eu.eucise.bg.node01	Owner: Bulgaria

Close

CHANGE STATUS

Service Detail: fr.sim2-node01.MaritimeSafetyIncident.push.consumer

Service Type: MaritimeSafetyIncidentService	Participant ID: eu.eucise.fr.sim2-node01
Gateway ID: eu.eucise.fr.node01	Service Status: <input type="text" value="Online"/>

- Online
- Draft
- Maintenance
- Deprecated
- Offline

Save Cancel

Subscribe

Service Mngmt

- Participant Owner
- Entity (Service Type)
- Status
- Details
- Pattern (Service Operation)

Need to Know
Responsibility to Share

EUCISE2020/ Access Right Policy

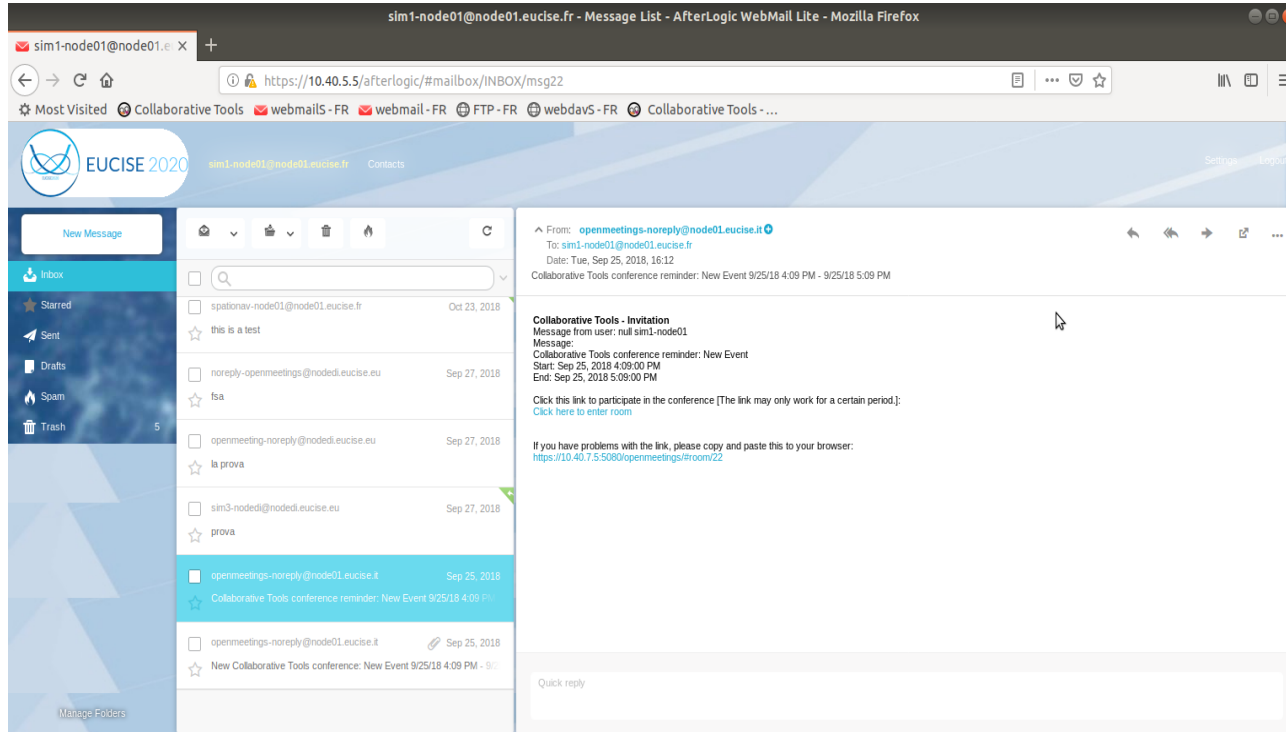
Access Right Matrix

For each Service is possible to associate a list of Participants in order to:

- Enable/Disable them as possible recipients
- Filter attributes that can be shared with them

The screenshot displays the EUCISE2020 web application interface. The browser address bar shows the URL `10.40.5.68:8080/group/guest/services`. The page title is "Services - EUCISE2020 Ad". The main content area is titled "Service Detail: E:sim1-need01.action.pull.provider". It shows service details such as "Service ID: E:sim1-need01.action.pull.provider", "Service Status: Online", and "Service Type: ActionService". Below this, there is a "Participant List" section with a table containing one entry: "EUCISE2020". The "Access Right Matrix" section is active, showing a list of attributes on the left and a "Select" dropdown menu on the right. The dropdown menu is open, showing options: "Select", "EUCISE2020", and "ACCESS_FOR_CUSTOM_P". A "Save Rules" button is visible at the bottom right of the page.

EUCISE2020/ Collaborative Tools 1/2



Collaborative Tools

Open Source products to allow each Participant to share knowledge and expertise

➤ FTP, Webdav

➤ AfterLogic: webmail

➤ Openmeetings:
Collaborative Portal, Chat,
Calendar, Shared Desktop

EUCISE2020/ Collaborative Tools 2/2

Collaborative Tools - Mozilla Firefox

https://10.40.5.5:5080/openmeetings/#room/7

Conference room with micro option set

Whiteboard

EII Whiteboard

Chat

Room 7

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Properties

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Collaborative Tools

Open Source products to allow each Participant to share knowledge and expertise

➤ FTP, Webdav

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EUCISE 2020

Marco Messineo

Project Manager / Engineering I.I.

marco.messineo@eng.it

