



GRUPO EMBRAER

EMPOWERED CHOICES

SWIM APPLICATION and ROADMAP

08/09/2021

Goal

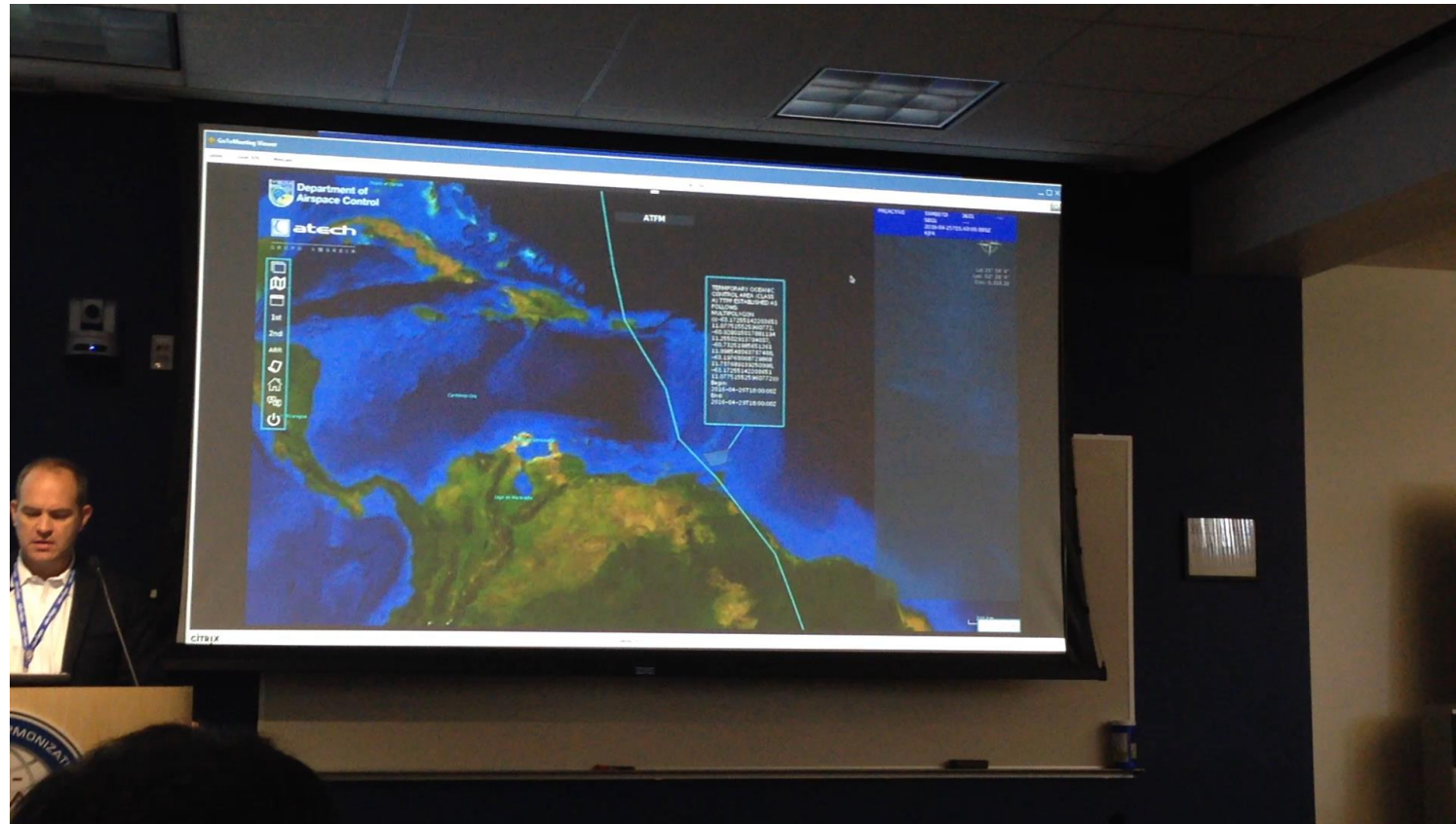
- Present to the audience the SWIM application inside Brazilian ATM ecosystem
- In addition, to present the SWM experiences and roadmap



This information is proprietary, and can't be disclosed without Atech's written authorization..

How we started ...

Atech has participated in SWIM trials along with DECEA, such as Mini Global II (FAA) and SWIM Global Demonstration (SESAR). These experiences guided ATECH to develop the ATECH SWIM Platform.



This information is proprietary, and can't be disclosed without Atech's written authorization..

How we started ...

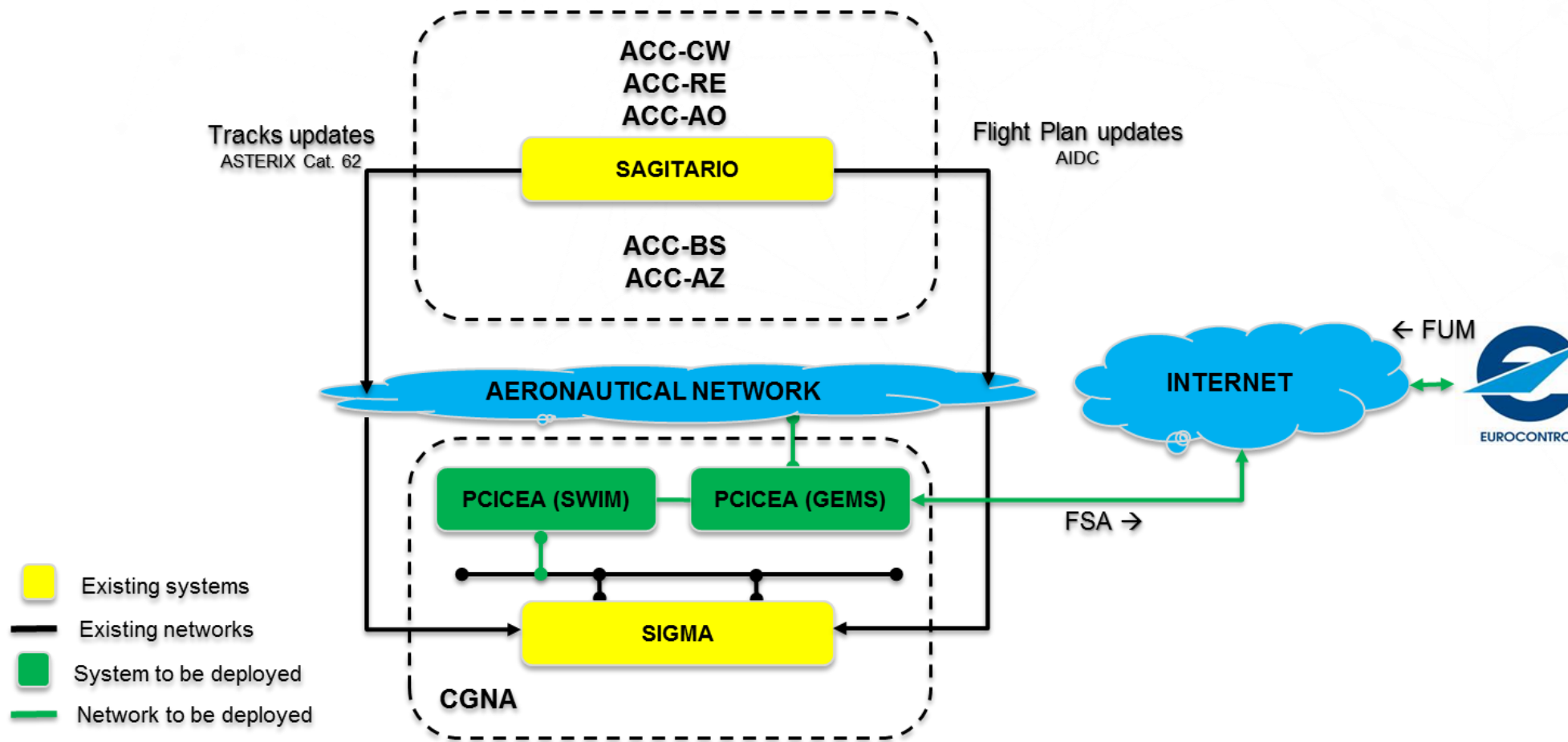
In 2015, DECEA signed an agreement with EUROCONTROL, which encompasses exchanging of flight plan information before departure. In 2017, Atech started to implement and deploy, in phases, the DECEA SWIM Platform



This information is proprietary, and can't be disclosed without Atech's written authorization..

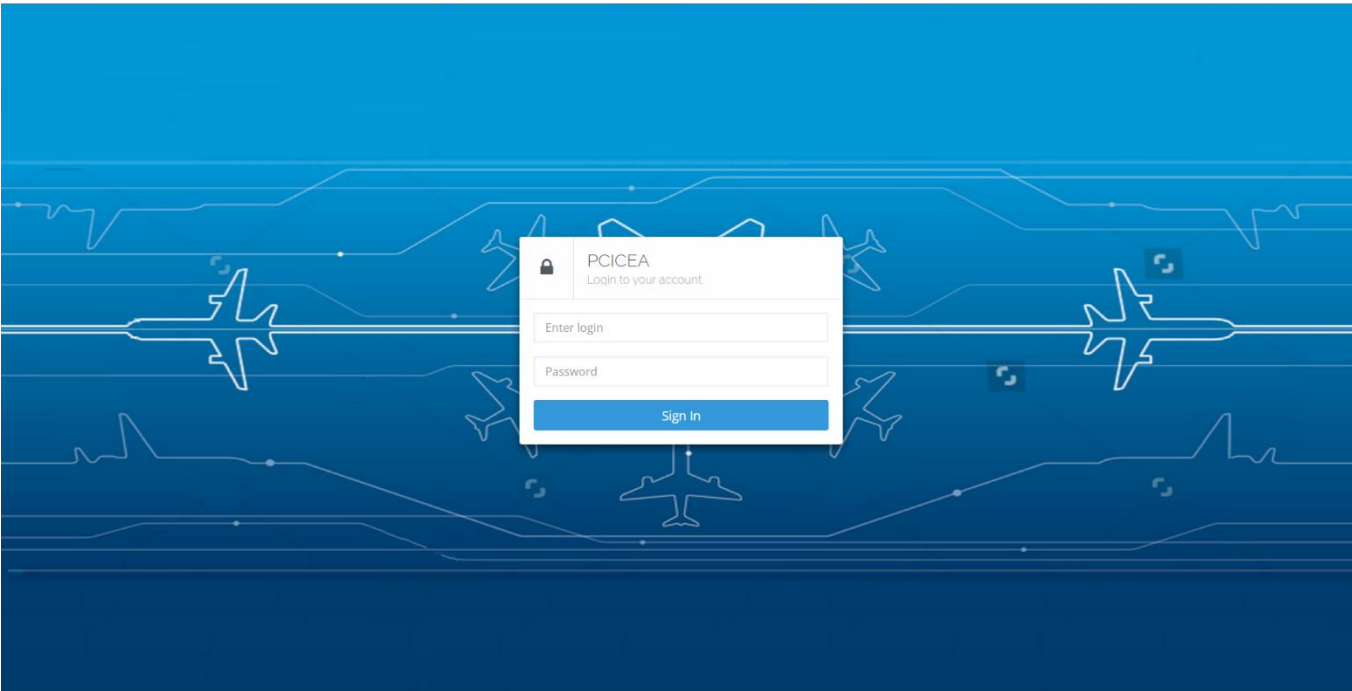
PHASE 1

Phase 1 – 2018: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)



PHASE 1

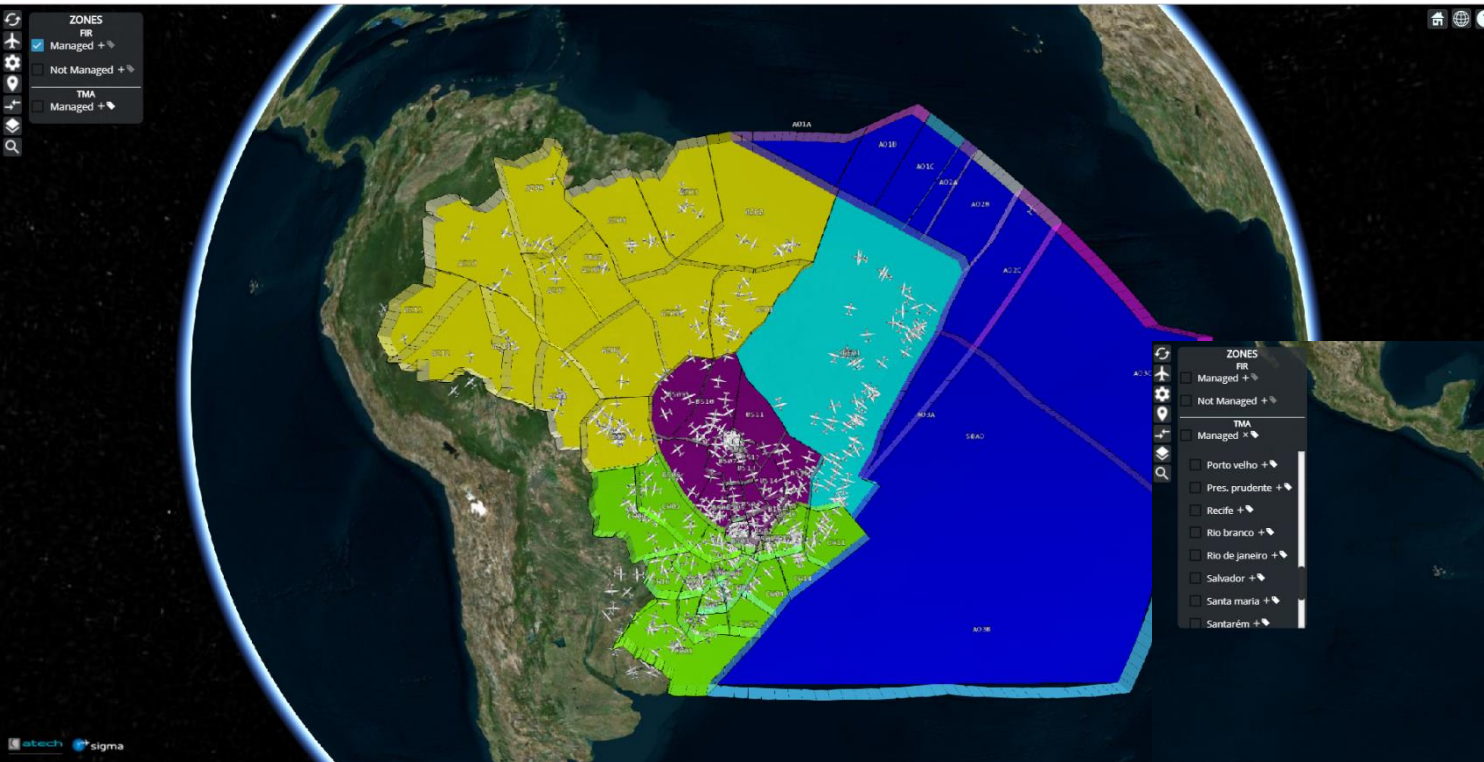
Phase 1 – 2018: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)



This information is proprietary, and can't be disclosed without Atech's written authorization..

PHASE 1

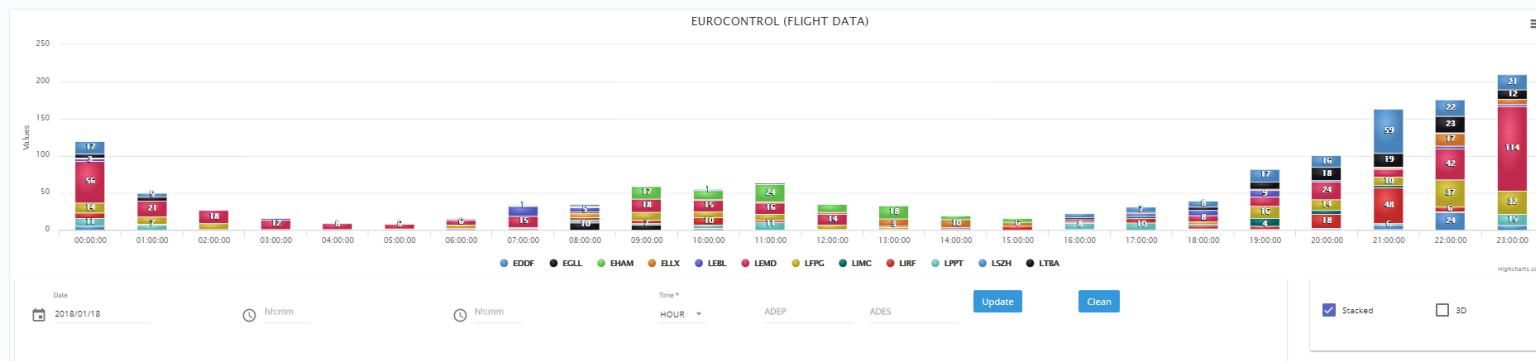
Phase 1 – 2018: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)



This information is proprietary, and can't be disclosed without Atech's written authorization..

PHASE 1

Phase 1 – 2018: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)



FSA	TAM070	SBGR	EDDF	2018-01-16	11:10:00	SBBS	EUROCONTROL
First	Previous	1	2	3	4	Next	Last

Items per page: 10

PCICEA EXTERNAL User:

- RawAdepx
 - SBBS
 - PCICEA
 - Local

2018-01-16T11:18:04.863

```

<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<Fsa
  <!-- PCICEA -->
  <!-- PCICEA -->
  <!-- Local -->
  <flowId>AMD-sFaux81VceT9_rw/flowId</flowId>
  <adep>SBGR</adep>
  <ades>EDDF</ades>
  <arcid>TAM070</arcid>
  <arctyp>A330</arctyp>
  <eobt>11:10:00</eobt>
  <eobt>2018-01-16</eobt>
  <furthrt>USAMD PULAP GED01 NELOV UTPIN VANEP GENEJ SILUB BHZ CNF PUBLA SIOGR MI
  LOL TENIT TEMOV CARDO</furthrt>
  <position
    <reference
      <kind>ADID</kind>
      <value>SBGR</value>
    </reference>
    <to>
      <kind>TO</kind>
      <time>11:29:00</time>
    </to>
  </position>
  <geos
    <id>GE001</id>
    <lat>212500</lat>
    <lon>044400</lon>
  </geos>
  </Fsa
  </xml>
    
```

2018-01-16T11:19:05.861

- FlightUpdateRequest
 - PCICEA
 - EUROCONTROL
 - Local

2018-01-16T11:19:05.873

- FsaResponse
 - PCICEA
 - PCICEA
 - Local

2018-01-16T11:19:09.338

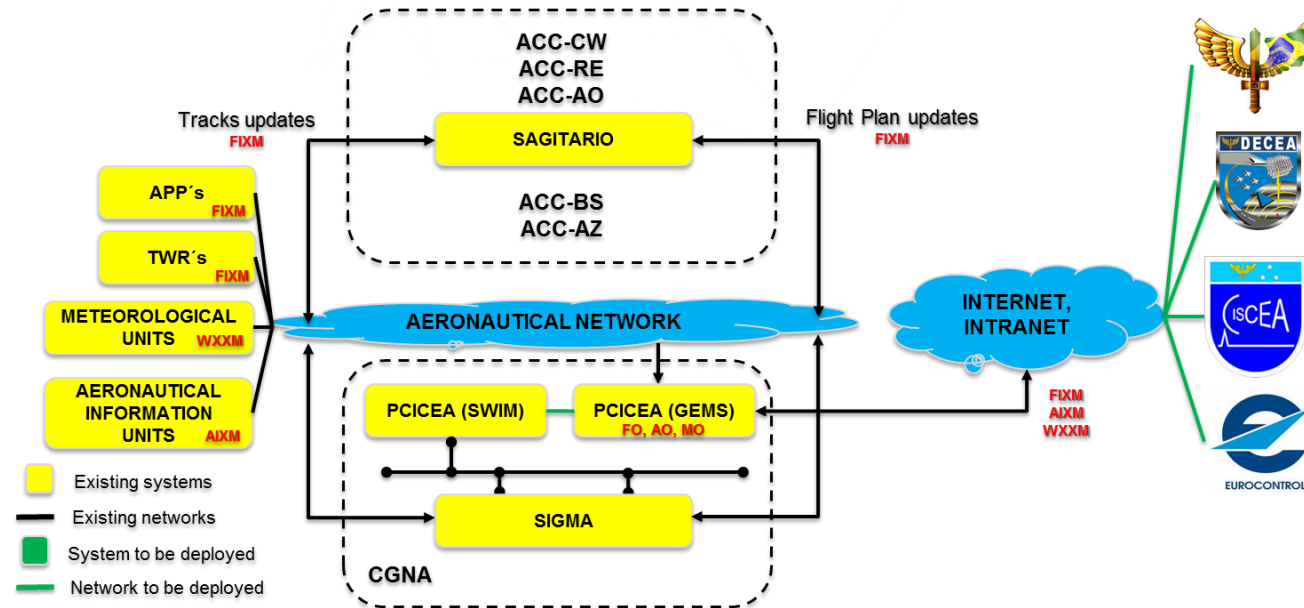
- FlightUpdateReply
 - EUROCONTROL
 - PCICEA
 - Local

2018-01-16T11:19:09.330

PHASE 2

Phase 2 – 2021 - 2023: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)

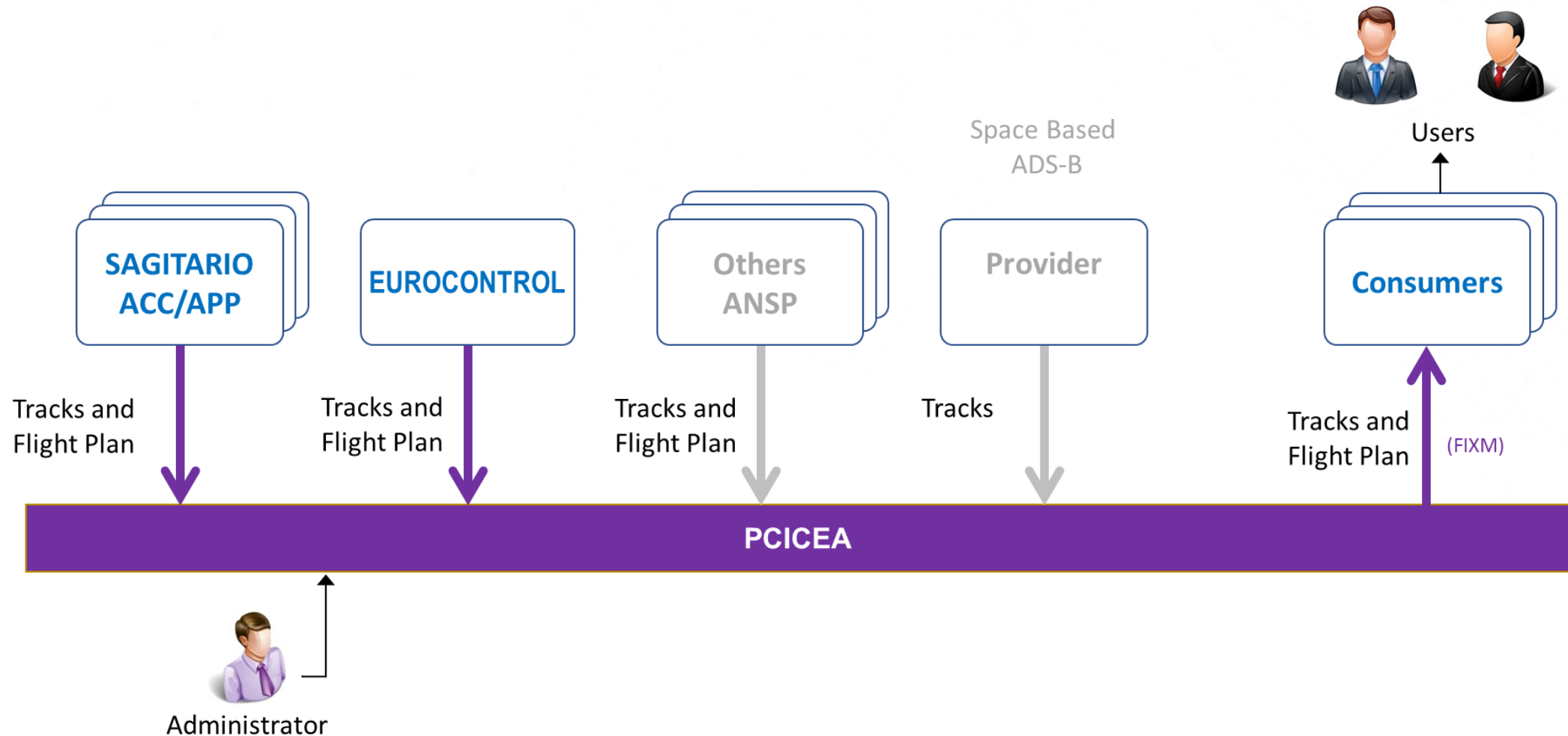
- Increase of options for governance rules
- Increase of options for filtering
- Implementation of “flight objects” as per SWIM standards
- Implementation of Global Flight Plan Unique Identifier (GUFI)
- Implementation of end-to-end cryptographic
- Integration of OPMET web services into PCICEA



PHASE 2

Phase 2 – 2021 - 2023: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)

- Tracks and Flight Plan Sharing

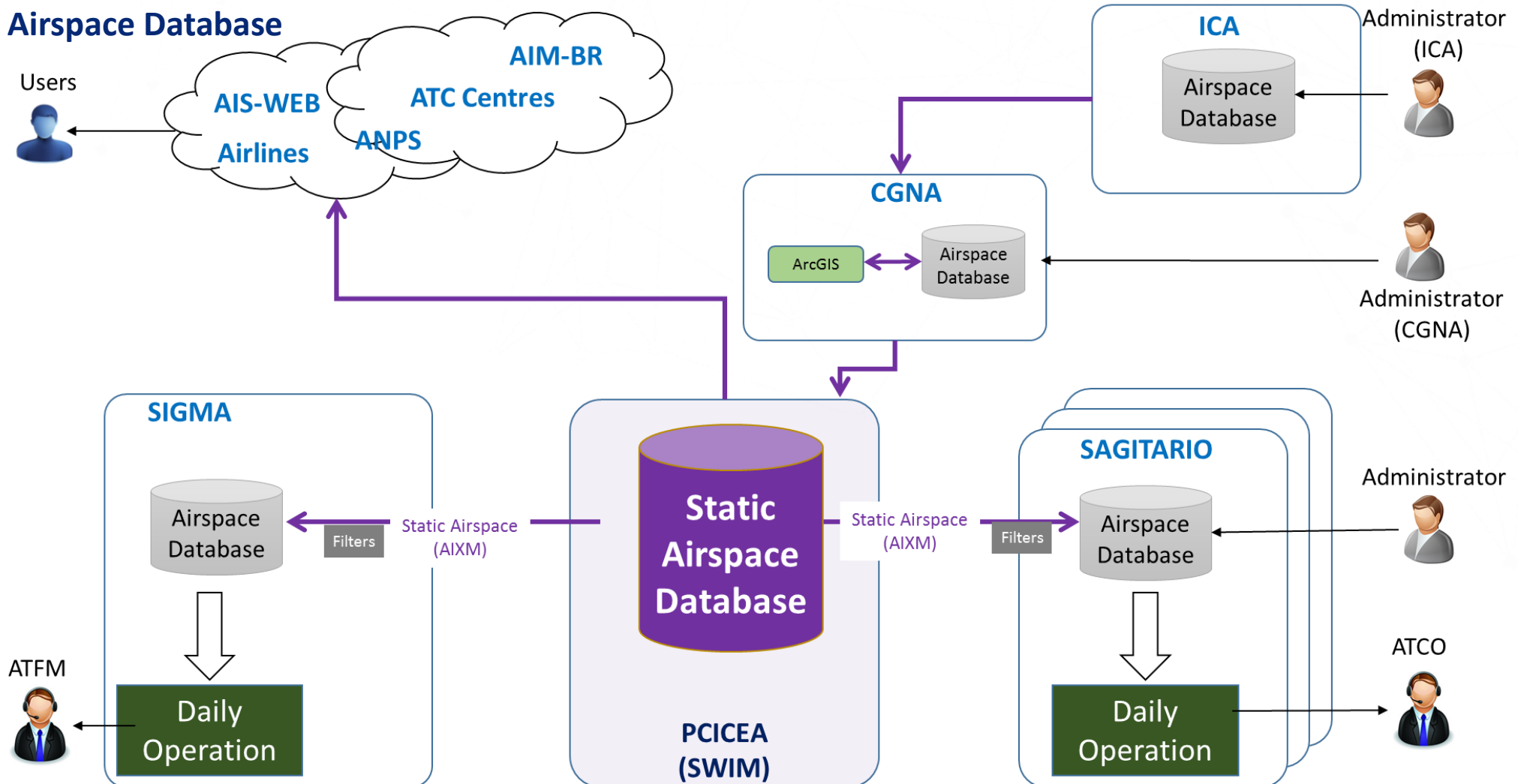


This information is proprietary, and can't be disclosed without Atech's written authorization..

PHASE 2

Phase 2 – 2021 - 2023: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)

• Central Airspace Database

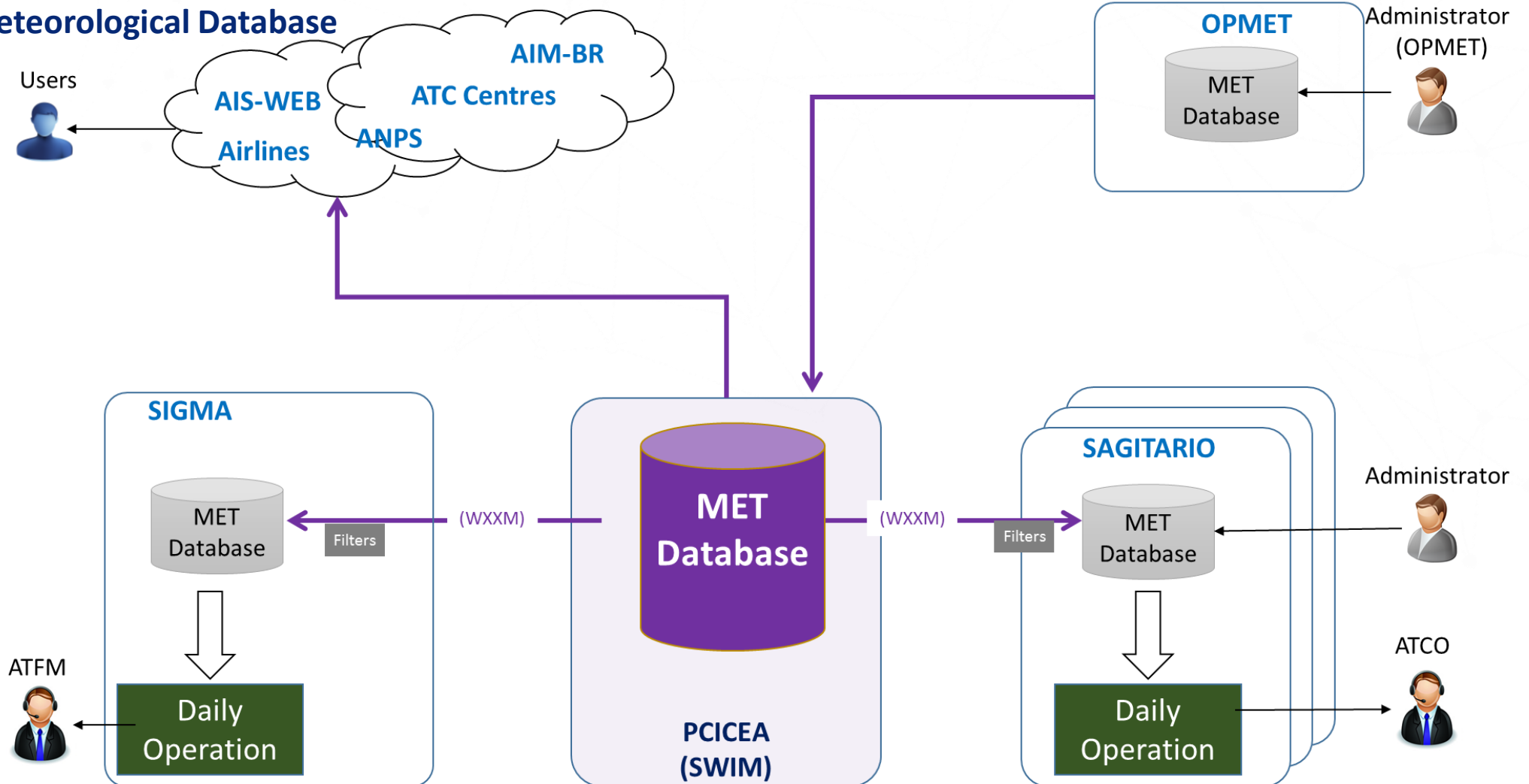


This information is proprietary, and can't be disclosed without Atech's written authorization..

PHASE 2

Phase 2 – 2021 - 2023: PCICEA (Plataforma de Compartilhamento de Informacoes Correntes do Espaco Aereo)

- Central Meteorological Database



This information is proprietary, and can't be disclosed without Atech's written authorization..

Conclusion

- DECEA has been working for centralizing the airspace information (flight plan, aeronautical and meteorological information), and at the same time, to make it available for all aviation stakeholders
- The SWIM platform has been the enabler for harmonizing the information for all aviation stakeholders, as well as for increasing the interoperability among users
- Additionally, the SWIM platform is designed for maximizing the automation among different ATC systems, thus, avoiding human errors and minimizing re-works



This information is proprietary, and can't be disclosed without Atech's written authorization..

Obrigado ! Gracias ! Thank you !



GRUPO EMBRAER

Contact:

Edson Fagundes Gomes

egomes@atech.com.br

+55 11 99195 6225