AMSAT Italia

Ionosfera

Objectives (1)

- With "*Ionosfera*" AMSAT-Italia wants to contribute to the world-wide research effort on practical Ionosphere.
- Our final goal : allow future secure and fully predictable radio-communications through Ionosphere refraction.

Objectives (2)

- The Ionosphere indeed is a Space Weather "product" still not fully understood.
- "Classical" Science has done a lot and continues to investigate this medium …

Objectives (3)

- Yet, we believe that, thanks to their important number (about 1 million) and intense Ionosphere-related activities, Radio-Amateurs can support this research effort.
- This would surely provide with another point of observation toward Ionosphere.

Users & Needs (1)

1. Radio-Amateurs (Users & Actors)
2. Space Weather Scientists
3. Radio-sat Constellations Operators

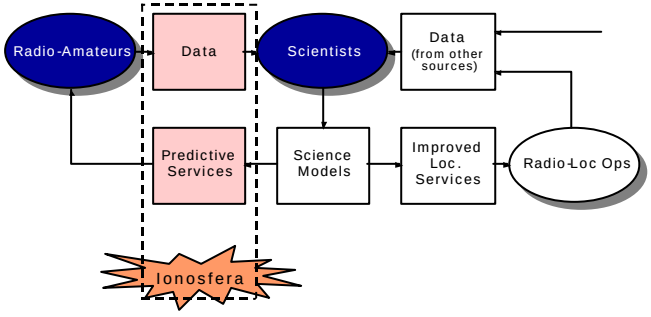
4. Populations (in case of emergency)

Users & Needs (2)

1. try to achieve long-range radio-links
2. observe, analyse, study, and model
3. suffer from its effects on space signals

4. would benefit from a secure and wireless long-range communication mean.

Users & Needs (3)



Proposed Services (1)

Ionosfera will provide two kind of services :

A. Ionosphere related **Data** (as Data Provider)

B. Iono-communication **Tools** (as Service Provider)

Both accessible via website to (free-of-charge) registered Users

Proposed Services (2)

Operational and/or Scientific Data :

- Operational data on achieved (or not) communications through Ionosphere
- Radio-scientific data like derived TEC, or “sounds” connected to Space Weather (at various frequencies)

Proposed Services (3)

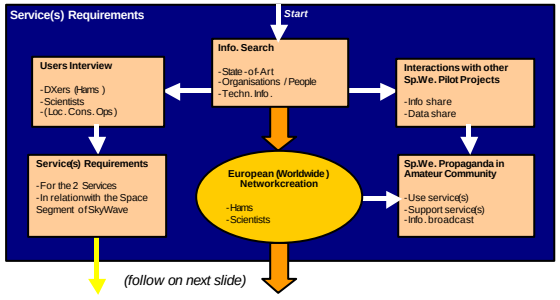
Prediction & Understanding Tools :

- (Predictive) Tools for transmission
- (Understanding) Tools for reception

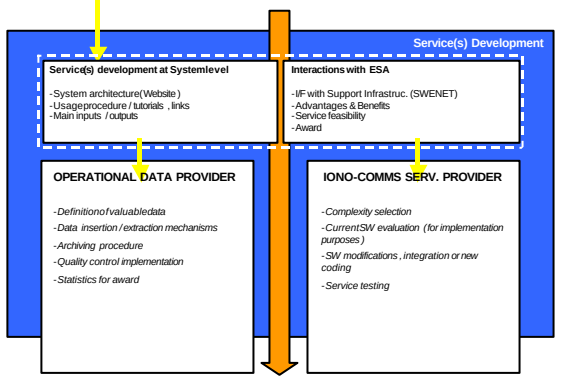
(relative complexity is TBD)

TBD : To Be Defined

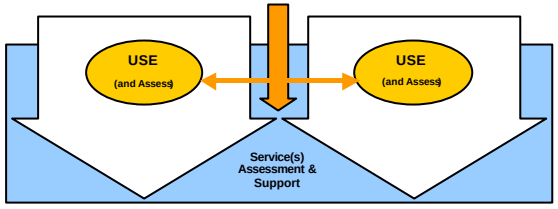
Implementation (1)

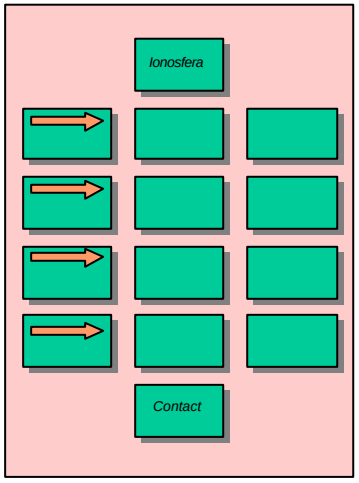


Implementation (2)



Implementation (3)





Contact

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