Regional cooperation for Cloud adoption – AREGNET's Arab Cloud initiative as an example

- **Summary:** Looking at the advantages and disadvantages of local and global Clouds, regional Clouds represent a unique opportunity for the involved countries to cooperate in order to promote Cloud computing services and take advantage of its promising benefits while reducing security, confidentiality and other vital concerns through the establishment of regional regulatory frameworks and other protective measures for the local SMEs.

- **Introduction**: Most small and startup businesses do not have IT departments with specialists who know how to operate these tools. Anything that takes them away from their core focus is costing them revenue. With cloud computing the game has changed, offering SMEs the opportunity to leverage enterprise-level applications and development platforms without the associated upfront capital expenditure or complex IT roll-out.
On the other hand, there are major threats which prevent fostering access to digital opportunities through cloud services such as data protection, data sovereignty, privacy issues and service provider lock-in.
In this context, the Arab Regulators Network (AREGNET) has adopted an initiative to create a regional cloud called "Arab Cloud" in order to address the needs for secure, affordable and state-of-the-art cloud solutions for small and startup businesses in the Arab world.

- **Motivation:** Traditionally, cloud users have two options while selecting a cloud service provider. The local provider, if available, is preferable due to the above mentioned threats where the local regulations may provide significant protection against privacy and security breaches in addition to many other factors such as physical contact. However, the local provider might not provide commercial competitive advantages compared to global providers.
AREGNET came up with the idea to create a regional cloud service managed by a regional organization that benefits from the regulations and governance provided by such organization and from the diversification and competitive advantages of the involved countries on a wide geographical area.

- **AREGNET initiative:**

  1. **Background:** Given the results of a questionnaire prepared to shed light on Cloud Computing status in the Arab world, it was clear that most Arab countries are still lagging behind in the adoption of cloud computing technology for many reasons, including:
     i. Concerns about the level of security and safety available with this technology, especially that the information on the cloud may be located in any part of the world as well as its existence on servers vulnerable to hacking actions
     ii. The regulatory framework remains obscure or absent
     iii. Lack of investment required for the adoption of this technology
     iv. Total dependence on an external provider, which can lead to loss of information in the event of bankruptcy or serious technical problems
     v. The lack of standardized protocols to ensure the safe and rapid transition from one provider to another while ensuring business continuity to prevent significant losses

2. Promoting Cloud Computing within AREGNET countries:

A working group has been formed to develop a unified regulatory framework for cloud computing services in the Arab world and an integrated plan to foster the use of cloud computing through:

i. Raising awareness about this technology at several levels: Governments and its institutions, business and economic bodies, universities, media organizations and others

ii. Cooperating with international institutions and bodies working on cloud computing regulations, in particular the ITU, which began an active effort in this area

iii. Benefiting from the experiences of some regional countries that have adopted or in the process of adopting cloud computing in the public and private sectors

iv. Stimulating investments in broadband, which is an important condition for the use of cloud computing

v. Initiating the enactment of legislations and regulations for the adoption of cloud computing whether directly, such as:
   - Ensuring ease of transition between different platforms
   - Entering into bilateral and multilateral agreements between the concerned countries to ensure the conformity of cloud providers with local laws

   Or indirectly, such as:
   - Adopting standards for safety and security
   - Ensuring the data confidentiality, copy and restore

vi. Promoting Research and Development (R&D) in the field of cloud computing, through close cooperation with relevant international bodies as well encouraging universities and organizations involved in scientific R&D efforts

3. The "Arab Cloud":

In parallel to the efforts to promote Cloud Computing in the Arab world, the "Arab Cloud" idea has been proposed as a preferred solution for SMEs in the Arab region because it provides a secured and trusted cloud solution.

This project represents a focal point for the related studies and researches conducted in the areas of security, confidentiality, interoperability and other important topics.

The benefits of the Arab Cloud can be summed up as following:

i. Increase the confidence of the private sector in Cloud solutions because the cloud would be managed by a trusted organization in terms of functionalities and content

ii. Ease the concerns of security and confidentiality

iii. The possibility of managing any dispute between the administration of the Arab Cloud and its users

iv. Ease the establishment of bilateral agreements between the countries participating in the Arab Cloud to ensure confidentiality, privacy and framing the cloud within the appropriate laws and regulations

v. Ensure business continuity and reliability and provide non-stop service, in contrast to any external provider which could be subject to bankruptcy and other technical problems that result in disruption of Cloud services

vi. Promote the development of Arabic content by local SMEs through making it available to the consumer through the Arab Cloud

vii. Encourage the interaction, cooperation and exchange of experiences between regional companies on joint projects