OMSAR's Stakeholder Consultation Workshop on E-Government and Data Hosting: Summary and Takeaways

The second stakeholder consultation workshop on the implementation of Lebanon's National Digital Transformation Strategy (DTS) was organized by the Office of the Minister of State for Administrative Reform (OMSAR) on July 15 and 16, 2024, with technical support from the World Bank. It featured over 75 representatives of public institutions, telecom and data center operators, security agencies, private companies, and international organizations, including directors general, presidents of oversight bodies, lawyers, judges, and technical experts. The workshop was moderated by the World Bank.

E-Government: Day 1 Highlights

Day 1 opened with remarks from H.E. Mrs. Najla Riachi, Minister of State for Administrative Reform, who thanked everyone for their presence and emphasized the important role of each of the institutions in attendance in Lebanon's digital transformation.

Several presentations laid the groundwork for understanding e-government and its architectural framework. After an introduction to e-government fundamentals, the audience provided inputs on e-government's most important enablers, including digital ID, e-signature, cybersecurity, audit and oversight, legal framework, private-sector participation, and strong leadership. A panel on current and past e-government initiatives in Lebanon followed, discussing Dawlati, IMPACT, the COVID-19 vaccination platform, and the DAEM social registry. The workshop also highlighted global e-government architectures and their governance models, including those of Singapore, Estonia, Jordan, Morocco, and Bosnia and Herzegovina. In particular, the representative of Jordan's Ministry of Digital Economy and Entrepreneurship (MoDEE) discussed the advantages of a centralized governance model in relation to cost effectiveness, enhanced security, and accelerated service deployment. Morocco's example also featured its two-layer centralized governance model, characterized by both a ministry and an agency with complementary roles. The workshop also presented the main architectural dimensions of e-government, including application, integration, security, data, and technology architectures. The importance of defining the integration layer to avoid fragmented initiatives was also highlighted.

The interactive breakout session on **data classification** focused on:
* *Data sensitivity***:** participants debated the percentage of government data that should be classified as high- and low-sensitivity. Some indicative global benchmarks were considered, such as limiting the highest-sensitivity data category to 10 percent of government data.
* *Criteria for data classification:* participants discussed the criteria that should be used to classify data in Lebanon, including privacy, confidentiality, usage, source, data sovereignty, risk to national security, and sensitivity.
* *Entity responsible for data classification***:** participants shared their thoughts on the entity that should handle data classification in Lebanon. Although there was consensus that each ministry would need to have some role in data classification, a need for the process to be coordinated and standardized was also identified. Suggestions for this role included OMSAR, the Presidency of the

Council of Ministers (PCM), or an independent agency with the mandate to set data classification standards.

The breakout session around **key requirements for e-government** focused on:
- *Prioritizing requirements*: most participants ranked "building a legal and regulatory framework" as well as "governance and centralized coordination" as the most important priorities for e-government success. Enhancing digital skills and capacities for managers and policymakers was also emphasized. Many participants shared that above all, political will ranked first. Others mentioned that priorities should not be ranked vertically, but implementation should begin and capacities be built as it progresses, similar to Lebanon's COVID-19 vaccination platform experience.
- *Selecting an entity to coordinate and implement the e-government data architecture:* several options were proposed by participants for the coordination part, with consensus around OMSAR's continued role. Other options mentioned by participants included the Ministry of Interior and Municipalities and the PCM. A national data governance committee composed of public- and private-sector stakeholders was also suggested. For the implementation of the e-government architecture's core components that would be shared and reused across government, OMSAR, the PCM, or a future Ministry of Digital Transformation were also proposed.

Data Hosting: Day 2 Highlights

Day 2 delved into the fundamentals of data hosting, including how modern data hosting enables digital transformation; security and sovereignty considerations; as well as risks and cost drivers. The workshop introduced key concepts around data hosting, including the importance of data classification, differences between hosting in a data center and on the cloud, and the distinction between public and private clouds. The benefits of cloud hosting, including scalability, cost efficiency, innovation, disaster recovery, and enhanced security were also discussed. In addition, global good practice examples on data hosting were presented, including Jordan's hybrid cloud model and risk-based cloud policy, the United Kingdom's "cloud first" policy that imposes the use of public cloud by default, Singapore's effective migration of 70 percent of government systems to commercial public cloud, and Saudi Arabia's hybrid model that integrates a state-owned community cloud with commercial cloud. The workshop highlighted the high cost of energy in Lebanon in comparison to other countries in the region. An interactive session on cost drivers was also conducted, in which participants identified energy consumption as the most significant cost driver for data centers. The same issue was also at the core of panel discussions with users of cloud services (Monty Finance, RAMS Services, and MoDEE) and data center operators in Lebanon (Ogero, Alfa, and Cirrus).

The main takeaways were:
- *High cost of energy in Lebanon*: this topic dominated discussions during the workshop, given the high reliance of Lebanese data center operators on costly diesel generators, and the fact that energy is the most significant cost driver for data centers globally (accounting for 45 percent to 65 percent of the total cost). Lebanon's energy costs for operating data centers were more than double those of its neighbors, given that the public utility (EDL) provides an average of three hours of electricity daily, with the remaining power dependent on diesel generators.
- *Choice of data hosting model*: there was consensus on the importance of cloud hosting, especially around cost efficiency to mitigate the high energy costs in Lebanon; performance and scalability to allow leveraging the latest technologies; as well as around security to mitigate against the insecure legacy server rooms common across government. Some participants were concerned

about the security of data, especially those hosted on public clouds. Experts explained that even with public cloud data hosting, data could still be protected through various technical and non-technical measures, including data encryption, similarly to Apple's iCloud. Participants reached consensus around a hybrid model for cloud hosting, allowing for a risk-based approach that enables various data hosting solutions—including on premises and cloud—depending on the type of data, its sensitivity, and any specific requirements around performance or regulatory compliance.

- *Disaster recovery***:** participants were interested in disaster recovery and cross-border data transfers in wartime, and experts outlined the case of Ukraine, which was able to save priority data by moving it to international public clouds during the war, preventing irrevocable loss of national data assets when in-country data centers were destroyed.

- *Private sector role in data hosting***:** participants agreed on the importance of leveraging private sector capital and skills for data hosting, given the insufficient capacity of the public sector in Lebanon and the private sector's comparative expertise, talent, and financial resources. However, some participants voiced their skepticism given past unsuccessful attempts at public-private partnerships (PPP) for data centers in Lebanon, suggesting the need to explore innovative approaches moving forward.

Conclusion

The second workshop continued the previously initiated discussions and established the groundwork for a multi-stakeholder approach for e-government and data hosting, which will prove instrumental during the implementation phase of the DTS. The workshop underlined the importance of collaboration and strong political will in ensuring a national data hosting strategy and a unified e-government platform that avoids fragmentation. The high level of engagement of all attendees formed the basis for the ongoing conversation around roles and responsibilities in Lebanon's digital transformation.