

Challenge Competition 2020

On

Introducing Citizens with Smart Service
Applications to Enhance Digital Bangladesh
Concept



**Cabinet
Division**
Government of the People's
Republic of Bangladesh



**ICT
DIVISION**

FUTURE IS HERE



Background

Digital Bangladesh is one of the nation's dreams, and so special emphasis is given on the application of digital technologies to realize Vision 2021. The slogan of “Digital Bangladesh” of the Government of Bangladesh has special significance for national development. In spite of several bottlenecks and limitations, works are in progress for the realization of Digital Bangladesh. Several projects for digitalization have been completed and a big number of projects are under progress. Smart service applications will add more benefits to the concept of “Digital Bangladesh”.

The term "Smart Services" describes data-based bundles of physically delivered services, digital services, and products that can be configured individually. These bundles are usually organized and performed on integrated service platforms. The smart services concept combines the intelligent analysis of data with the transformation of user-centered services to provide added value for both service provider and customers. Smart services are not only about technological solutions; indeed, there are much broader implications.

Service discovery is the process by which an application learns what services are available on the network, and also by which the network learns what services the application can provide. For smart object networks, service discovery is an important mechanism as it is the way smart objects learn about each other's presence and services.

For example, when smart services are used by government (i.e. "smart government"), they can reduce unnecessary regulations and bureaucracy, and help eliminate the duplication of roles and services. This generates sustainable public value by integrating information, communication, and operational technologies with planning, management, and operations across numerous domains, process areas, and jurisdictions.

Smart services can be important for both the private and public sectors. They enhance the ability of a service provider to understand the needs of its customers (or citizens, residents or visitors), design solutions to address those needs, and then deliver them effectively. Smart services include the use of innovative policies, business models, and technology to address service challenges. While the concept of smart services does not always include technology, the ability to use technology as an enabler to intelligently analyze huge amounts of information (information systems and networks) is key to delivering value to customers. The best organizations and governments usually have the advantage of proactive intimacy with their customers or residents. Governments around the world have taken seriously to building smart communities, smart cities, and smart nations in preparation for the fourth industrial revolution (or Industry 4.0). Organizations would be wise to invest in networks and technologies that help them compete in this new wave of providing smart services.

Problem Statement

Introducing citizens with the use of smart services so that they can use digitalization properly.

The Challenge

There are few challenges for deploying smart services over the country.

The applications need to be cost effective, durable, low maintenance and user friendly and give proper services to users.

The intended application system will need advanced technologies that were not tested in local context before. So real-based and long-term hassle-free operation should be considered. Teams would require guidance of experts in designing a smart service solution.

service discovery is challenging in smart cities, as the large number of software services causes performance issues when finding relevant services according to a given criteria.

Breadth and depth of the solution depends on the imagination of the respective teams. Teams can consult with other already deployed ideas in countries with similar setting.

Coders are expected to develop GPS/GIS based tools and data system. Data storage and visualization libraries available as open sources shall be made available as resources to the participating teams.

Indeed Benefits

Smart applications offer services to citizens to improve their quality of life (e.g. business, education, or health care services). It will assist in advancing further in realizing Government's vision of Digital Bangladesh.

- Smart Services can help industries to gain a competitive edge over companies using traditional service methods. By remotely monitoring, repairing, and controlling equipment, you increase customer satisfaction with faster problem resolution and concrete savings on service costs.
- By offering Smart Services, industry sector gain efficiency by reducing dependence on costly labor- and resource-intensive methods of service delivery.
- Schools and other educational institutions have begun to adopt modern teaching methods through interactive intelligent boards, projectors and smart notebooks, etc. And we cannot deny, these technological updates make the education system more interactive and easier. By using smart classroom technology and interactive whiteboards, information can be illustrated with the help of photos, maps, graphs, flowcharts and animated videos. A teacher can easily show some practical solutions from the web. While students can see various online resources on the internet.

Smart classroom technology follows a dynamic information sharing approach and there is no need of paper, pen, pencil & printouts, thus stepping into ' Go Green Concept '. We can say, this is one of the major benefits of smart classroom technology to keep nature clean and green.

- With smart technology, hospitals can completely transform the way the patient engages with the hospital. Things like smart parking that guides the patient to a vacant parking spot can save precious time. Patient history can be taken by robots and updated correctly to the patient health record systems. All invested stakeholders can access these records in a device-agnostic manner. The use of these technologies translate to smoother patient experiences as the patient then does not waste time locating information and navigating the complex hospital environment but can address his health issue in the shortest timeframe.

Again, doctors can gain access to near real-time information and take a data-driven approach to ensure better success rates. Patient medical devices such as ventilators, drug infusers, pulse rate monitors, etc. can 'talk' to one another and help doctors and caregivers make informed interventions in a timely manner.

Given the vast amount of data these smart health devices generate, doctors can enable better care, predict patient readmission rates and implement evidence-based medicine by leveraging the actionable and informative data that is available at their fingertips.

Hospitals can improve their communication between different departments and stakeholders that ultimately improve the patient's hospital experiences.

Judging Criteria

The prize will be awarded, at the end of the contest, to the application who in the opinion of the jury demonstrate a solution (encouraging a system prototype demonstrated in an operational environment) that best addresses the cumulative criteria for "Efficiency", "Reliability" and "Innovative and Original Design". The following criteria are available but not limited options for the jury:

- Proposed solution needs to be financially viable, socially desirable, practically implementable, technologically feasible and with a profitable business model.
- The proposed solution should have a minimal negative impact on the environment; sustainability will be considered throughout the whole life-cycle of the proposed solution.
- The proposed solution is expected to be with detailed system and design architecture with a demonstratable prototype.
- The proposed solution is expected to be easily deployable, configurable and disposable, with only minimal human intervention required in the operational environment. In this sense, interactive platform, gamification etc. will be preferred.
- Robustness of the materials used in each component of the device (if any) should be able to withstand the conditions expected in the relevant environment (e.g. temperature, pressure, humidity) for the desired amount of time.

- Compliances with inter-operability standards will be considered as an asset.
- Business feasibility and nation-wide scale up plan needs to be incorporated in the proposed solution.

Schedule

Registration information Publish:	15/08/2020
Registration Begins:	20/08/2020
Registration Close:	10/09/2020
Short listed applicant list publishes:	12/09/2020
Demonstration begins:	13/09/2020
Demonstration ends:	17/09/2020
Award/Prize announces:	30/09/2020
Ceremonial event:	01/10/2020

Eligibility

Who Can Participate:

The contest is open to any legal entity or group of legal entities who are involves with Information Technology.

Who Cannot Participate:

Participants will be excluded if they are subject to an administrative sanction (i.e. exclusion) and are in one of the following situations:

- bankrupt, being wound up, having their affairs administered by the courts, entered into an arrangement with creditors, suspended business activities or subject to any other similar proceedings or procedures under national law (including persons with unlimited liability for the participant's debts)
- declared in breach of social security or tax obligations by a final judgment or decision (including persons with unlimited liability for the participant's debts)
- found guilty of grave professional misconduct by a final judgment or decision (including persons having powers of representation, decision-making or control)
- convicted of fraud, corruption, involvement in a criminal organization, money laundering, terrorism-related crimes (including terrorism financing), child labor or human trafficking (including persons having powers of representation, decision-making or control)

- shown significant deficiencies in complying with main obligations under a procurement contract, grant agreement or grant decision financed by the GoB (including persons having powers of representation, decision-making or control)
- have misrepresented information required for participating in the contest or fail to submit such information
- were involved in the preparation of the prize documents and this entails a distortion of competition.

Prizes

- After the ideas are selected, the team will have all support for the prototype development phase which may take 3 to 6 months. A2i will sit with the innovators to assess the requirements in terms of equipment, human resources and any others until a functional prototype is executed and tested in real time.
- After the prototype is successfully run and tested, further commercialization or upscaling process may begin with relevant government ministries and departments.

Documents

The mandatory supporting documents will be set out in the application form.

Participants may be asked at a later stage for further documents (for legal entity validation, bank account validation, ethics review, declaration of honor on exclusion grounds, etc.).