



Innovation/ Service Process Simplification Ideas 2022-23

Office of the Controller of
Certifying Authorities

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Innovation Team
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IDEA 1: DIGITAL SIGNATURE DATA VISUALIZATION

Features

Visualization of data from

- Digital signature trainings
- Integration of digital signature in online services
- Distribution of digital signature certificate
- Year-wise report of digital signature

Setting up a visual display monitor in front of the Office of CCA

Instant update of training data

Monthly update of digital signature certificate distribution information

Representing the progress of materialization of digital signature in Bangladesh through pie chart, bar chart, line chart

Photo gallery, notice board and scroll news.

IDEA 1: DIGITAL SIGNATURE DATA VISUALIZATION (CONT.)

Technical Part

New front-end panel for inputting digital signature training information

Obtaining data from monthly reports submitted Certifying Authorities

Feasibility

Programming frameworks are available for customizing data visualization

Estimated Cost

1 Lac Taka

IDEA 2: ONLINE COURSE ON DIGITAL SIGNATURE

Features

Preparing an online course covering

- Importance of ensuring integrity, authentication in online documents
- How digital signature can ensure integrity, authenticity and non-repudiation in online document transactions
- Easy explanation of backend technologies used in digital signature e.g. cryptography, hashing, PKI for mass people
- Process of acquiring digital signature/ eSign
- Process of applying digital signature/ eSign
- Configuring dongle in personal computer
- Laws, rules, guidelines regarding digital signature

The course will be free

Participants will get certificate upon completion

IDEA 2: ONLINE COURSE ON DIGITAL SIGNATURE (CONT.)

Technical Part

The course will be made available through national e-learning platforms

Contents will be provided from the Office of the CCA

Feasibility

Multiple national e-learning platforms are currently available

Estimated Cost

1 Lac Taka

IDEA 3: SMART ATTENDANCE USING DIGITAL SIGNATURE

Features

Digital signature can ensure

- Authenticity
- Non-repudiation

Digital signature also provides accurate timestamp

Instead of signing in the attendance register/ thumbprinting employees of the Office of the CCA will give attendance by giving digital signature in a locally hosted application

Benefits

Employees of the Office of the CCA will keep their digital signature certificate updated

Making use of digital signature compulsory for everyday attendance will also create a practice of using digital signature in other relevant tasks

IDEA 3: SMART ATTENDANCE USING DIGITAL SIGNATURE (CONT.)

Technical part

Preparing a front end application for taking digital attendance

Preparing a back end application for xml signing

Hosting the applications in the local network of the Office of the CCA

Feasibility

Programming libraries are available for xml signing

Estimated Cost

1 Lac Taka

IDEA 4: SECURED WINDOWS LOGIN THROUGH MULTI FACTOR AUTHENTICATION

Features

Implementing two factor authentication for logging in to any desktop/ laptop owned by the Office of the CCA

Users will have to provide an OTP sent to their device besides their own user password

Necessity

60% of data breaches are caused by insider threats (Goldstein, 2020)

68% of organizations have observed that insider attacks have become more frequent over the last 12 months (Cybersecurity Insiders, 2020)

IDEA 4: SECURED WINDOWS LOGIN THROUGH MULTI FACTOR AUTHENTICATION (CONT.)

Technical part

Establishing a central server for coordinating multi factor authentication in all computers owned by the Office of the CCA

Developing an app for providing OTPs to the employees

Feasibility

Software solutions are available multi factor secured login to windows computers

Estimated Cost

30-50 Lac Taka