



The TCS iON PAPER device can improve security and efficiency in conducting large scale exams by eliminating the effort of physically printing and distributing question papers.

## THE CONTEXT

The printing and distribution of question papers can be a daunting task in conducting any large scale examination. There are a number of processes involved in conducting exams, including developing a question paper, printing, transportation to centres, collecting candidate responses, evaluating and declaring results at speed – which leaves the process prone to errors and security risks. Printing hard copies of papers also leads to cutting of trees for paper usage and consumption of fuel for transportation, which adds to time, costs and negative impact on the environment. This situation is common wherever there is question paper printing and distribution involved, such as in schools, education boards, government bodies, recruitment bodies and corporates.



## THE INNOVATION

TCS iON PAPER device is a unique handheld device, which primarily aims at secure upload and electronic delivery of the question paper directly to the candidates without the need of internet/ network. Standing true to the tagline "PAPER without paper", the device mainly aims in eliminating the printing and logistical movement of question paper for examination, thus preserving the environment. Not only that the device can also be leveraged for several education processes, viz. learning by students, for accessing student portal, for upskilling and certifications, scanning of answer sheets, digitally conducting OMR based exams, capturing attendance, etc. The device comes with a customized OS and hardware to resist access and control, thus ensuring security and eliminating any malpractices. The device has been designed keeping in mind all the constraints, so that it achieves the desired functionalities in an offline mode. This is a horizontal innovation and can be used for multiple use cases across sectors such as education, banking, manufacturing, market research.



## KEY CHALLENGES

**PRINTING AND DISTRIBUTION OF QUESTION PAPERS**  
TCS sought to completely eliminate the use of physical paper by replacing it with a battery-operated secured device for electronic and just-in-time distribution of content.

**SCALABILITY AND SECURITY**  
By automating the distribution of question papers with the use of portable hand-held devices, TCS has enabled institutions to conduct examinations on a large scale in a completely secured and offline mode.



## THE IMPACT

Over  
**10 MN**  
candidates have  
already used TCS  
iON PAPER

The innovation delivers an average of  
**25-30%**  
savings in cost of  
conducting  
examinations

It enables last moment changes or corrections in question papers at zero cost and effort. TCS iON PAPER offers new business opportunities as it can benefit a wide target audience from Education, Recruitment, Manufacturing and Information Management sectors in India and overseas.

