



The Computerworld Honors Program

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Final Copy of Case Study

Status:

Laureate

Year:

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Organization Name:

Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India

Organization URL:

<http://deity.gov.in>

Project Name:

DEIT and the e-District national rollout

Please select the category in which you are submitting your entry:

World Good

Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)

Delivering public services to India's multi-cultural population of 1.2 billion people – 70% of whom live in rural areas – has historically been a disjointed, laborious process. Citizens often undertake multiple time-consuming trips to local and regional government offices to submit and follow up on the simplest requests. Lengthy delays are a common occurrence. The e-District project addresses these challenges, revolutionising the delivery of government services by enabling access anywhere, anytime. A wide range of high-volume services are available through e-District: ordering legal certificates; revenue court transactions; social welfare schemes; ration card administration; and right to information (RTI) requests. Citizens can access these services online or through village-based one-stop shops called Common Service Centres (CSCs). E-District streamlines delivery processes and reduces the administrative burden on government departments – essential from a financial perspective due to India's growing population and rapid pace of

social change. An October 2012 Accenture report, "Delivering Public Service for the Future: Navigating the Shifts", says meeting future demand for public services is likely to cost India an additional US\$70 billion by 2025. However, it also suggests that even a 1% increase in public services labour productivity would save US\$66 billion over the same period. E-District is one of India's largest and most complex e-governance programs, requiring the re-engineering and automation of backend processes, development of centralised applications and digitisation of legacy data. It involves upgrading infrastructure in over 600 districts across 35 states and union territories (UTs). The Department of Electronics and Information Technology (DEIT) is managing project implementation in co-ordination with each state and UT government using a centrally hosted project management information system (PMIS) to monitor implementation, one of the first e-governance projects in India monitored this way.

When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)

The project continuously incorporates new technologies, due to its unique implementation challenges. These include the presence of multiple legacy systems, a lack of IT infrastructure uniformity among the states and UTs, and differing levels of IT awareness amongst users. Instead of developing new applications from scratch, the e-District architecture leverages the existing IT infrastructure available in the states and UTs State-Wide Area Networks (SWANs), State Data Centres (SDCs) and State Service Delivery Gateways (SSDGs). The e-District architecture is designed to be compatible with a wide range of proprietary and open source systems, thereby leveraging the investments already made in delivery systems and reducing the cost to the taxpayer. DEIT also encourages states and UTs to share the best practices, reengineer business processes, share legal precedents and other project related artefacts on its portal to help reduce overall implementation timelines. This knowledge management initiative aims to build institutional capabilities and is supported by user participation through regional workshops. It also enables states and UTs to adopt applications from other states or UTs, and rapidly roll out e-District across India. India's vast geography and still-developing power infrastructure raised challenges that required innovative solutions. For example, electricity supply is intermittent in several rural parts of the country. As a result, connectivity between the district office and the central infrastructure is often disrupted. An offline version of the e-District application was developed to overcome the problem of intermittent connectivity, allowing these regions to access services during power outages. On restoration of power supply, the application auto-syncs with the central servers. This feature has been successfully implemented in Bihar, a state in North India.

Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)

e-District is still being implemented throughout India. There are two project phases: the pilot phase and the national rollout. The pilot phase began in early 2007, with Uttar Pradesh the first state to go live in 2008. To date, the pilot phase has seen e-services implemented in 41 districts across 16 states. The response to these services has been encouraging, with more than 1 million digital certificates issued in Kerala's pilot districts since 2010. The national rollout phase has a four-year timeframe for completion. Year

one: All states and UTs: – Submit detailed project reports setting out implementation plans to DEIT. – Receive approvals for all detailed project reports. – Select project management unit agencies. – Appoint system integrators. Year two: – States and UTs begin to deliver e-services. Years three and four: – Support and maintenance for e-service delivery provided. – Post-implementation assessment carried out. States and UTs that have already been part of the pilot scheme are expected to begin delivering statewide e-services within one year, rather than two. For example, Kerala has already successfully implemented e-services in two districts as part of the pilot program. The state is now fast-tracking implementation across its remaining 12 districts. An incentive scheme has also been put in place to encourage state, UT and district administrations to carry out implementation ahead of schedule.

Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)

e-District provides benefits to citizens and government administration. Citizens can access services more quickly. For example, it previously took up to a month to obtain a birth certificate. Now, it takes less than a week and, in some cases, less than 30 minutes. These business process improvements have reduced the number of trips that citizens need to make to access services, from four to six trips per transaction to just one or two. Citizens save time and money. The presence of CSCs in each village means citizens no longer need to make several trips to distant government offices to access services. CSC operating hours are also more convenient than those of government offices (9am to 7pm, compared to government office hours of 10am to 5pm), and they are operational on weekends and holidays. 50-year-old Nitai Charandas, a resident of Bhootpara in the Sonitpur district of Assam, wanted to obtain a certified copy of the electoral roll. Before e-District, he would have travelled 35 kilometres to the district headquarters, pay up to Rs.600 to an advocate and wait for up to two weeks for the electoral roll to arrive. Instead, Charandas visited his local CSC, paid a nominal fee of Rs.30, and received the copy of the electoral roll within three days. "I did not have to stand in a queue and I got my copy of the electoral roll long before I expected to," said Charandas. Governments benefit from reduced administrative burdens. Digitising business processes enables more effective service delivery and reduces costs. Abhijit Kakoty, a Sonitpur-based government officer, says e-District has helped cut through red tape. "Services are being delivered within an agreed timeframe and the queue at district headquarters is reducing by the day," he says.

Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)

The approach taken in the e-District project provides an ideal blueprint for similar projects especially those in developing economies that face the significant challenges of massive social and economic change, coupled with a wide variation in access to technology. Use of existing infrastructure and knowledge: Rather than reinvent the wheel, e-District builds on the existing systems and re-engineered processes in place around the country. e-District's architecture is compatible with a wide range of back-end systems and provides flexibility for future development. This allows the programme to be



implemented rapidly while reducing the cost to the taxpayer. Centralised management, decentralised implementation: Splitting the overall project management and implementation between central government, states and UTs ensures that participants at all levels are working towards common goals, and helps minimise the risk of conflicts of interest appearing between the different layers of government. Centralised management ensures effective knowledge sharing and issue resolution. Dealing with basic infrastructure: The lack of basic uniform infrastructure is one of the major challenges in India, as with most developing economies. This is especially true in rural areas. This lack of infrastructure adds to the challenge of delivering public services and rolling out new, technology-driven programs in these regions. e-District adopts a pragmatic approach to addressing these issues such as providing offline services in areas where electricity supplies are intermittent to ensure that citizens have unhindered access to government services. Common service centres: Delivering through privately owned one-stop shops based in villages around India ensures that citizens can access government services locally. It also provides an additional, sustainable income stream for the entrepreneurs who operate the CSCs, especially in far-flung rural areas.

If there are any other details that the judges should know about this project, please note them here. (In 300 words or less.)

The e-District program plays a pivotal role in driving the country's social and economic transformation as it allows citizens to easily access public services. It ushers in an era of electronic service delivery at a time when the idea of accessing Government services via technology is still a fairly nascent one to citizens in rural areas. Additionally, once e-District has been implemented across all districts, there will be a base level of technology infrastructure in place, which will provide a foundation for delivering more public services in future. e-District is also an important step towards creating an electronic repository that will consolidate all information about citizens into a single electronic file. In tandem with other initiatives such as the Aadhaar biometric identification project, this will eventually enable citizens to access instant over-the-counter services anywhere, realising the Indian Government's aim of making government services accessible to all citizens.