

Reporting Web Solution for proper payment of ITC services, for National Including Digital Program in Elementary schools in Mexico.

Mariano Gamboa*, Gabriel Méndez*, Angel Vega*, Manuel Fonseca**

*Centro de Investigación y de Estudios Avanzados, Av. Instituto Politécnico Nacional No. 2508, Mexico City, Mexico

**Secretaría de Educación Pública, Calle Nezahualcoyotl No. 127, México City, Mexico

mgamboaz@cinvestav.mx, gmendez@cinvestav.mx, angel.vega@cinvestav.mx,
manuel.fonseca@sep.gob.mx

Abstract— This document presents the results achieved in the design, development and testing of the software application devoted to report (to a Central Site) the status of IT equipment, to be installed in thousands of classrooms in elementary schools in the country of Mexico. The Ministry of Education (SEP), decide to manage the classroom's IT equipments as a service, contracting installation, technical support and any other service to several Providers assigned by regions in the Country. This solution will allow SEP to get precise and on-time information, dramatically improving calculations for monthly payment to service providers, with the corresponding associated savings.

SEP: Secretaria de Educación Publica

CINVESTAV: Centro de Investigacion y Estudios Avanzados

SP:Service Provider

ITC: Information Technology and Communications



Dr. Mariano Gamboa. This author received the Electronic Doctorate Degree from the Paul Sabatier University, Toulouse, France and a Post-doctorate degree from the 'Systems Architecture and Analysis Laboratory' belonging to the National Scientific Research Center (LAAS-CNRS). Also he holds two Master Degrees from Tecnológico de Monterrey University (Finance & Public Administration) and the Master Degree on Electric Engineering from Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), institutions based in Mexico. Additionally, he has received two postgraduate diplomas: "The Role of the Chief Information Officer in Government Innovation" from Georgetown University and 'PMI based Project Management' from Tecnológico de Monterrey University-CEM.

He has participated in more than forty IT&C projects for several institutions in the Country like Mexico City's Department 'Miguel Hidalgo', the Puebla State Government, Culiacán County Government, the Mexican Institute of Industrial Protection, la 'Secretaria de Salud' (Ministry of Health), the 'Secretaria de Educación Pública', the National Health Security Institute and more.

Actually, as General Coordinator of Information Technology & Communications Services, he is responsible in CINVESTAV of several projects with high impact in the research community and in the society like: the fiber optics network for Supercomputing, the biggest (computer power) supercomputing cluster in Mexico (named Xihuhcoatl), Management of the IT&C platform and Operations of the biggest Open eLearning University of the country, the Electronic Voting Machine prototype design, development and manufacturing, and more.

Dr. Gamboa has been Special Projects Director in CONACYT (Mexican Science & Technology Commission), General Director of the Mexico-Korea IT Cooperation Center and has held several positions in Institutions (Nafin, FIDETEC, ITESM.CCM) to incubate new companies and to develop the field of IT&C.



Gabriel Méndez. He received the B.Sc. degree in electronics and electrical engineering from Universidad Nacional Autónoma de México. Also he has got the equivalent studies of an M.Sc. degree in Computer Networks from the Ecole Supérieur d'Electricité (Supélec), France, in 1982; also he received a postgraduate diploma in Marketing from Universidad Anahuac, Mexico City.

At CINVESTAV, as Project Coordinator, he handles diverse endeavors, among them: the electronic voting machine (EVM) project management and the Technical consultancy coordination to increase the successful use of computers in elementary education, in thousands of classrooms. Among the projects under his coordination are: the development and operation of the initial computing platform for the 'virtual university' (eLearning) of México (actually with more than 60,000 registered students) and consulting services to develop the 'GoToMarket' strategy for Mexican companies (Contact center technology), to be able to market their products in USA via the TechBA program (Technology Business Acceleration- Secretaria de Economía).