Chapter 10
Implementing Authentication in an E-Procurement System

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ABSTRACT
E-government can provide citizen with better and/or more convenient services as oppose to traditional government services. Using electronic approach in completing a procurement process opens up a lot of issues regarding security. Transparent nature of the process at hand is requiring a sophisticated security system. Unauthorized access or different intrusion types are presenting a legitimate threat. On the other hand, developing such system in a developing country as Serbia bears many difficulties. Some of them are legal obstacles, technical weaknesses, as well as human resistance towards change. The focus of this chapter lies on methods used to overcome those difficulties as well as provide a strong security system that will guarantee the protection of sensitive data.

E-GOVERNMENT AND E-PROCUREMENT
The communication technologies, Internet especially, caused a big change, maybe even a revolution in people’s everyday lives, work activities and conducting of business in companies. Today, large amount of transaction can be done online. Some of them are paying taxes, changing your address of residence or automatic registration. For these transactions to be conducted it is necessary to connect the government with citizen, businesses or some other social entities by use of Internet. E-government, electronic govern-
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ment or online government presents a concept whose purpose is to allow access to governmental institutions through Internet. There are different definitions of E-government. It can be defined as use of technologies in order to improve access to and delivery of government services for citizen, business and employees wellbeing. It presents the use of Internet technologies as a platform for exchange of information, providing of services as well as transactions for citizen, businesses and other users. According to Institute for Software Technology at UN University E-government is the use of informational-communication technologies by public government in providing the information and services to citizen, businesses and other social entities. E-government is focused on citizen, business community, government employees and other governments.

Another definition states that the term E-government, in a wider sense, is aimed at simplifying the informational, communication process as well as performing transaction between government institution, citizen and businesses.

Informational process is defined as one-way gathering of information. Communication, on the other side, represents a two-way information exchange. Transaction is a transfer of objects or right among two entities in communication process.

E-government consists of E-Administration, E-Democracy and E-Justice. “E” stands for electronic. E-Administration is actually E-government in a nutshell since is mainly focused on simplifying the administration process. E-Democracy could for example be electronic electoral voting by SMS or Internet service with no need to visit the voting post. E-Justice represents a conduct of juditional process via electronic communication. Instead of writing a complaint and sending it in paper form, you can send it by e-mail or submit it by use of court’s web portal. Court’s web portal represents an interface for communication with public. Communication in that process is mostly done electronically.

Some advantages for E-government use are:

- Simplifying a process of service providing to citizen
- Eliminating management levels in government
- Downsizing of costs
- Broadening the number of services that government can provide
- Makes information and services easily accessible to citizen, businesses and government agencies.

Basic interaction models within e-Government are:

- Government-to-Citizen or Government-to-Customer (G2C),
- Government-to-Business (G2B),
- Government-to-Government (G2G), and
- Government-to-Employees (G2E).

Inside each of these models four activities are executed:

- Sending information via Internet,
- Two-way communication between agency and citizens, companies or other government agencies,
- Transactions processing, and
- Management system.

Government-to-Business (G2B) model includes different forms of non-commercial interactions between government and business sector. As defined by UN University – International Institute for software technologies, services enabled with this model are: new company registration, payment for social insurance of employers, taxes, VAT, custom declarations, eco permissions, public procurement and other services. Public procurement is one of the eight most important G2B services. E-procurement is a B2B buying or selling goods
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