

DAR ES SALAAM INSTITUTE OF TECHNOLOGY



DEPARTMENT OF COMPUTER ENGINEERING

MODULE: ELECTRONIC COMMERCE

GROUP 9

ASSIGNMENT 1

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SECURITY TECHINIQUE USED FOR SECURING WEB SERVER

- ❑ EXPLANATION ON WEB SERVER SECURITY
 - ❑ TECHINQUES TO SECURE WEB SERVER
 - ❑ BENEFITS OFWEB SERVER SECURITY

EXPLANATION ON WEB SERVER SECURITY

- Today the web network servers and web applications are the most significant for the continuation of any business, hence extra care and maintenance of the web servers are quintessential.
- . It doesn't matter whether you run a small business, a big business, or whether you own one server or multiple (depending on your business structure) – it is in any case prudent to safeguard web servers because server security is that one entity your entire network and business relies on.

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- Additionally, web servers are an integral part of any online business because they store all the confidential information, secret data, your emails, data from valuable resources, and all the other resources of your whole team. Moreover, the client's data also depends upon your web server and the associated web applications. For your clients, the web server is a considerate source for all important communication and data transfer. Therefore, in case your server goes down or suffers security threats or hacks, then your entire business may languish.
- Therefore, if you do not want to lose clients, business, output (productivity), and your essential files and documents, then go for web server security.

TECHNIQUES TO SECURE WEB SERVERS

Although securing a web server can be an intimidating job involving lot of operational exercises and specialist knowledge, it is not an impossible job. Rather, it is a technical task which consists of hours of research and an overindulgence of coffee. Let us see some of the methods on how one can secure web servers and gain optimum results:

❖ Perform an Audit of the Website Regularly and Secure the Logs in a Safe Location

Activity logs and files are very important and a well-known fact amongst IT security professional. Most of the servers are public facing, therefore it is imperative to execute this task for all Internet-based services and solutions. Regular audits of the website are mandatory in order to detect any malicious activity, threats, or hacking alerts.

❖ Always Protect Your Operating System and Keep Your Web Server Grounded

Often with the overburden of tasks at hand, the administrators miss out on the patching of operating systems and web servers. Thus, tools like [Microsoft's Software Update Service](#) (SUS) and RedHat's up2date service will come as saviors to automate this task. Moreover, security bulletins issued by Microsoft or CERT offer constant reminders for the same.

❖ Try to Use Application Scanners

This practice is really crucial and affordable too. Use internally developed application scanner code to protect applications and web servers. This practice will detect all the possible threats that can happen to your web server. There are many free tools are currently available for code scanning, but these tools are usually not updated as per latest language-specific flaws in the latest updated languages. In some cases, attackers may test their attacks through free scanning tools.

❖ Keep the Development, Testing, and Production Separate

Web applications, if in their early stages of development, tend to develop several vulnerabilities. They may lack input validation that allows for inappropriate handling and can result in a security breach. Therefore, applications like testing and development, when performed on a production server, can discover malicious activity. Hence, these applications should be done on servers isolated from the Internet.

❖ Delete All the Unwanted Software and Extensions

Whether you are on the default Apache server or on Microsoft's web server, at times while installing some number of pre-defined modules, some extensions are enabled or installed. These are actually of no use, but are installed to serve applications like ASP, ASP.NET, and the like. Immediately delete them as they can create an opportunity for malicious activity.

Some Benefits of Web Server Security

- Flexibility to optimize performance while being stable.
- More control over the server and precise dealings.
- Web servers are always stored in a safe environment.
- Unmatched performance and high-level of security.
- Efficiency and ease of administration