attacker's true location and potential saturation response packets from the target.

As a result of the target server using resources to verify and then respond to each UDP packet received, the target's resources can be quickly depleted when receiving a large UDP packet stream, resulting in denial of service for normal traffic.

References

1. DDoS-атаки. Причины возникновения, классификация и защита от DDoS-атак. [Электронный ресурс]. Режим доступа: http://efsol.ru/articles/ddos-attacks.html/ (дата обращения: 13.05.2023).

MOST IMPORTANT KNOWLEDGE FOR AN IT SPECIALIST

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This article will give you some essential information about IT industry nowadays and an overview of important skills for this area with additional advice.

Whether you are just starting out in the field or looking to take your career to the next level, the information below can help you stand out and succeed in a rapidly changing industry.

To start with, it must be said that the IT industry is one of the most rapidly growing fields. Employment in computer and information technology occupations is projected to grow 11% to 2029, much faster than the average for all occupations.

Naturally, there are a lot of key pieces of information that should be known by well-qualified IT specialists to remain competitive.

But what are those most important areas of knowledge for IT guys to focus on?

This article will provide you with three main areas that can make all the difference in an IT specialist’s career: technical skills, soft skills and business acumen. So, let is get started.

Technical skills are needed for any IT specialist, regardless of their particular specialization. Each IT field has its own unique features, and it is important to understand the specific technical skills required for your area of expertise. But you

definitely should start with the base. In case of programing this includes understanding basic math, familiarity with computer systems (working hardware and software together while executing programs; knowledge of OS, memory, storage and networks), understanding programming concepts (popular principles, clean code and architecture) and the ability to learn new tools and technologies. In case of testing

(QA), this includes understanding of software development lifecycle (SDL), main testing techniques and methodologies, attention to the tiniest details in products and, of course, some skills with specific tools. In case of a graphical designer, it includes understanding of user-centered-design, knowledge of design principles (composition principles as well), understanding of front-end development, creativity and skills in using particular tools.

And so on for other specializations. But there are three main things that all of them must involve in their technical skills improvement:

1) be familiar with the basics of your specialization;

2) always consolidate theoretical knowledge with practice. The more practice you have, the better specialist you are. But remember, that theory is your very first step;

3) to be competitive in IT market you absolutely must keep your "knowledge bag" up-to-date. Learn new principles, tools and technologies. An integral part of your professional life should be subscriptions on tech-news channels, blogs; you should read something new all the time. Manage your study time wisely.

Now, let us move on to the next point. You might have heard that soft skills are even more important than tech ones. Nowadays, that is absolutely true. For example, a decade ago, when the market lacked qualified specialists, the issues about your personal abilities, being a team player and your communication skills were not so strong. But now, we are the opposite.

Most modern job interviews involve a part with HR of the company. It can take even bigger part of the whole interview. The reason is to understand your soft skills and their suitability for the specific job vacancy.

Considering these, here are some advice about soft skills and their importance:

1) as a part of the team (either small or big) you should be outgoing and flexible.

This involves your ability to explain yourself clearly and, from the other side, to receive all kind of feedback from your colleagues, customers, etc. You are going to meet people with different mindsets, different points of view, and different personalities. And you always have to be ready to communicate with all of them, be flexible to accept that mind. This also includes your "hearing" capabilities, b developing your empathy. IT professionals need to listen actively and attentively to their colleagues and clients in order to understand their needs and perspectives. This means avoiding interrupting, clarifying misunderstandings, and paraphrasing to confirm understanding;

2) the one more advice is to improve your time management strategies.

Effective time management is crucial for IT professionals, who often have multiple projects and deadlines to manage simultaneously. To improve time management skills, IT professionals should create schedules and prioritize tasks and use tools and techniques such as time-blocking to stay organized and on track. Time management also can be spread over your daily routine. Having daily schedule is not so nerdy, but it can really boost your efficiency.

And here is the last point of the article – business acumen.

In addition to technical skills and soft skills, IT specialists must also posses business acumen to be successful. Business acumen refers to a deep understanding of the business environment in which an IT specialist operates, including the industry, competition, customer needs, and economic context.

IT specialists with strong business acumen can identify opportunities to use technology to drive business growth and innovation. Developing business acumen requires a combination of such skills:

1) understanding the organization's overall strategy, as well as the ways in achieving that strategy;

2) having a basic understanding of financial statements. This helps yo understand the financial implications of IT projects and investments;

3) understanding the needs and expectations of customers and stakeholders, and ability to develop solutions that meet those needs;

4) staying up-to-date on industry trends, competition, and regulatory changes that may impact your organization.

In conclusion, the constantly evolving nature of technology requires IT professionals to stay up-to-date on the latest developments and trends. Soft skills such as communication, adaptability, and time management are essential for effective collaboration and problem-solving. Business acumen to understanding how technology can drive business growth and success. In today's digital world, the role of IT has become increasingly important in almost every industry. By possessing the right combination of skills and knowledge, IT specialists can play a vital role.

THE IMPORTANCE OF DEEP LEARNING IN MODERN LIFE

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Deep learning (deep learning) is part of the family of machine learning methods (Machine Learning), based on artificial neural networks, with representation training.

Deep learning drives many artificial intelligence (AI) applications and services that enhance automation by performing analytical and physical tasks without human intervention. Deep learning technologies are at the heart of everyday products and services, as well as new technologies.

Deep learning is powered by layers of neural networks, which are algorithms that operate in much the same way as the human brain. Training on large amounts of data allows you to tune neurons in a neural network. As a result, a deep learning model is formed, which, after the end of training, is able to process new data. Deep learning models take information from multiple sources and analyze that data in real time without human intervention. In deep learning, graphics processing units (GPUs) are optimized for training models because they can handle multiple calculations at the same time.