20. tétel

I am working as a **system operator engineer** at a SME (small and medium enterprises=KKV). I **have reviewed** (áttekint) the **present server infrastructure** of the company. I have come to the conclusion (következtetés) that **upgrading** would be **urgent** (sürgős) and important. *As the company is afraid of external cloud services referring to safety reasons* (biztonságtechnikai okokra hivatkozva) *I suggest establishing* **internal corporate cloud** (belső vállalati felhő) **based on virtual servers**. I’m sure that changing is necessary (szükséges) and **server virtualization has many advantages**/benefits.

Server virtualization on x86 platform has been for more than ten years, yet many still consider it a "new" technology. X86 platform is a 32-bit system, the new version, X64 platform is more advanced (fejlettebb), and it’s a 64-bit system. Many of us *who use it* think that with this **central management** we *don’t want to go back to a "physical-only world."*

Server virtualization has been a *game-changing technology* for IT, **it gives possibilities to do things in virtual reality which can’t be done in physical world**.

The first advantage is that *if you use one virtual server instead of (helyett) more physical servers, you can* **save energy, power and cooling costs** (hűtésiköltségek).

The next advantage is that *virtual server* ***needs* less space than a big data centre**.

Thirdly, *you can donate (elajándékozni) the hardware of your old data centre to a QA group* (Quality Assurance / minőség biztosítás) *or to a lab environment*. *You can build your own lab environment on your isolated (elszigetelt) network*. It enables users **to set up virtual machines (VMs) on a single physical machine, it is the host, and use them simultaneously** (párhuzamosan). *Each virtual machine can execute its own operating system, so it has* ***multiple operating system***. It is **cheaper and more developed**. Moreover, **a virtual machine can run within minutes**.

The next point is that I suggest **replacing the hardware tools by a virtual hardware**, **it reduces hardware vendor lock-in** (csökkenti a hardware gyártó korlátozását) and makes it more flexible.

Furthermore (továbbá), *server virtualization* **helps business continuity** (folyamatosság) and **increased uptime** (készenléti idő). It offers **live migration, storage migration, fault tolerance** (hibatűrés), **high availability and distributed resource scheduling** (osztott forrás ütemezés), so **virtual machines can quickly recover from unplanned outages** ( nem tervezett leállás).

The next advantage is that **it improves disaster recovery** (javítja a katasztrófa utáni felépülést). **It’s independent from hardware vendors, you can save money by buying cheaper hardware**. *As you have fewer physical machines, you can create an affordable (megfizethető) replication site*. And *most platforms have software that can automate the failover when a disaster strikes*.

Another advantage is that *server virtualization* **provides application isolation**, it **utilizes (kihasznál) the physical server resources**, **provides virtual machines the exact amount (pontos mennyiségű) of CPU, memory and storage resources**.

You probably have old computers in the data centre. By virtualization you can **extend its life, maintain uptime and get rid of old machines**.

Finally, the last advantage is that **virtualization helps moving things to the cloud**. So, *you can move from a simple virtualized data centre to a private cloud*. It is more comfortable having your data in the cloud instead of data centre.