Marko Anžič

Pasti revidiranja sistema upravljanja uporabniških pravic v informacijskem sistemu

Pitfalls in the management system audit of user IS access rights

POVZETEK ● *Revizorji informacijskih sistemov (IS) se pri ocenjevanju ustroja in delovanja notranjekontrolnega okolja pogosto zanašajo na sistem upravljanja uporabniških pravic, ki naj bi zagotovil, da sme vsak uporabnik v sistemu početi le tisto, kar mora po naravi svojega dela. Pri tem se zanašajo na procese odobravanja, pregledovanja in odvzemanja teh pravic ter na proces upravljanja samih pooblastil. Neustrezno opredeljene procesne kontrole pa lahko izničijo koristi še tako dobro delujočega sistema upravljanja uporabniških pravic, zato je sodelovanje notranjega revizorja in revizorja IS-jev zaradi njunega različnega fokusa in znanj pogosto nujno potrebno.*

Ključne besede ● *uporabniške pravice v IS-jih, procesne kontrole v IT-jih, sodelovanje notranjega in revizorja IS-jev*

SUMMARY ● *IS auditors frequently rely upon the user (access) rights management system (URMS), intended to ensure that each user performs only the activities related to their work position, based on the assessment of design and operational efficiency of internal control environment. Auditors rely on the access approval, review, revocation as well as role management processes, supported by URMS. However, improperly designed process controls can void the benefits of an effectively designed URMS. This, along with differences in their audit focus and expertise, often requires close cooperation of internal and IT auditors.*

Key words ● *User IS access rights, IT process controls, cooperation between internal and IS auditors*

Boštjan Kežmah*

Pametne pogodbe

Smart Contracts

POVZETEK ● *Bistvo pametnih pogodb je njihova samodejna izvršitev, na katero ni mogoče vplivati, kar naj bi pogodbenim strankam zagotavljalo višjo stopnjo varnosti. Vendar se izkaže, da je kljub temu tehnično mogoče, da se pametna pogodba ne bo izvedla ali pa ne na dogovorjen način. Najpogosteje se danes pametne pogodbe uporabljajo za izdajo kovancev in so zaradi pomanjkljivega nadzora velikokrat povezane z goljufijami. To sicer ne pomeni, da nimajo uporabne vrednosti, vendar je smiselno pred njihovo uporabo pretehtati prednosti in slabosti njihove uporabe, predvsem pa njihovo vpeljavo obravnavati kot vsak drug tehnološki projekt, vključno z analizo povračila investicije.*

Ključne besede ● *pametne pogodbe, Ethereum, bitcoin, kriptovalute*

SUMMARY ● *The essence of smart contracts lies in their ability of automatic execution without external influence, which should provide a higher level of security for contracting parties. However, it turns out that it is technically possible that a smart contract will not be carried out in an agreed manner. Today, smart contracts are most commonly used to issue coins and are often associated with fraud due to lack of supervision. This does not mean that they do not have any useful value, though they call for consideration of advantages and disadvantages before their use, and above all, shall be treated as any other technological project, including the analysis of the return on investment.*

Key words ● *smart contracts, Ethereum, Bitcoin, cryptocurrencies*

Dr. Matej Kovačič

Varnost mobilnih komunikacij

Mobile communications security

POVZETEK ● *V prispevku so predstavljeni glavni pristopi pri varovanju mobilnih komunikacij ter nekaj varnostnih izzivov, ki jih prinašajo različni možni napadi na mobilno telefonijo. Varnost mobilnih komunikacij se danes osredotoča zlasti na preprečevanje nepooblaščenega oddaljenega dostopa do podatkov, nepooblaščenega dostopa do podatkov v primeru fizičnega dostopa do mobilnega telefona ter nepooblaščenega dostopa do vsebine komunikacij in prometnih podatkov. V članku so predstavljene obstoječe varnostne rešitve in njihove omejitve. Pri tem ugotavljamo, da zagotavljanje varnosti mobilnih komunikacij ni enostavno opravilo, saj določene varnostne težave*

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izvirajo iz same zasnove mobilnih oz. celo telefonskih omrežij v preteklosti. Odpravljanje različnih ranljivosti bo zato še dolgotrajno.

Ključne besede ● *mobilna telefonija, informacijska varnost*

SUMMARY ● *The paper presents the main approaches for protecting mobile communications and some of the security challenges brought by various possible attacks on mobile telephony. The security of mobile communications is today focusing mainly on preventing unauthorized remote access to the device, unauthorized physical access to data, and unauthorized access to the content of communications and traffic data. The article provides an overview of existing security solutions and their limitations. We conclude that ensuring the security of mobile communications is not an easy task, since certain security problems originate from the concept of mobile telephony and/or telephony technology in the past. The elimination of various vulnerabilities will therefore be a long lasting task.*

Key words ● *mobile telephony, information security*

Matjaž Pušnik

Strojno učenje in revizija informacijskih sistemov

Machine learning and IT audit

POVZETEK ● *Strojno učenje (angl. machine learning) je danes zelo razširjeno in se uporablja pri reševanju različnih pomembnih problemov v industriji, medicini, ekonomiji in informacijski tehnologiji. Tehnike strojnega učenja se lahko uporabljajo za prepoznavo govora, procesiranje jezikov, v bioinformatiki, za analize delniških trgov, v informacijski varnosti in tudi v reviziji. Zaradi razširjene uporabe strojnega učenja se povečuje tudi potreba za IT-revizije informacijskih sistemov, ki uporabljajo za svoje delovanje različne tehnike strojnega učenja. Po drugi strani razvoj in uporaba strojnega učenja lahko izboljšata kvaliteto revizije informacijskih sistemov in IT-revizorju pomagata pri hitrejši ter natančnejši analizi podatkov. Strojno učenje sicer odpira marsikatero vprašanje, ki ga bo treba v prihodnosti rešiti, da bo zaupanje v algoritme strojnega učenja upravičilo samostojno uporabo in zaupanje v rezultate uporabljenih algoritmov.*

Ključne besede ● *strojno učenje, umetna inteligenca, ekspertni sistemi, revizija informacijskih sistemov, IT-revizija*

SUMMARY ● *Machine learning is used to solve various important problems in industry, medicine, economics and information technology. Machine learning techniques are used for speech recognition, language processing, bioinformatics, stock market analysis, information security, audit and others. Due to the expanded use of machine learning technology the need for information systems audits, which use different machine learning techniques, is also increasing. On the other side, the development and use of machine learning in the information system audit can increase the quality of information systems audit with faster and more accurate data analysis. Machine learning opens up many questions that will need to be resolved in the future so that confidence in machine*

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learning algorithms will justify the use of and trust in the results of the applied algorithms.

Key words ● *machine learning, artificial intelligence, ekspert system, IT audit*

Mag. Robert Horvat

Računovodenje popustov po novem MSRP 15 (2. del)

Accounting for discounts and price concessions using new IFRS 15 (2nd part)

POVZETEK ● *Prvega januarja letos je začel veljati novi Mednarodni standard računovodskega poročanja MSRP 15 – Prihodki iz pogodb s kupci, ki v računovodenje prihodkov prinaša precej pomembnih novosti. Ker se nekaj novosti nanaša tudi na računovodenje popustov, ki jih podjetja odobravajo svojim kupcem, v prispevku podrobno in s praktičnimi primeri predstavljamo, kako je treba po novem računovoditi popuste, da bo to skladno z zahtevami novega standarda. V prvem delu smo se ukvarjali predvsem s problematiko računovodenja pogodb s tako imenovanimi sprotnimi/tekočimi in (pričakovanimi/načrtovanimi) naknadnimi popusti, drugi del pa je v celoti namenjen predstavitvi postopkov in metod računovodenja pogodb z vključenimi obljubami popustov za dodatno blago in/ali storitve, kot so opredeljene v MSRP 15.B39–15.B41.*

Ključne besede ● *prihodki, popusti, MSRP 15*

SUMMARY ● *On 1 January this year, the new International Financial Reporting Standard IFRS 15 – Revenue from Contracts with Customers, came into use, introducing many important changes into the existing practices of revenue recognition and accounting. Many important changes relate to the accounting of discounts and price concessions that companies frequently grant to their customers. In the paper, we systematically and in detail explain the main changes in this respect, including practical examples how to correctly account for discounts and price concessions according to the new standard. Because of the extensiveness of the topic, it is presented in two parts. While the first part's focus was mainly on the methods and procedures of accounting for contracts with present/current and (expected/planned) subsequent discounts and price concessions, this second part is completely dedicated to the methods and procedures of accounting for contracts with promises of discounts for additional goods and/or services as defined in IFRS 15.B39 – 15.B41.*

Key words ● *revenue, discounts, price concessions, IFRS 15*