Discussion Points and Issues Based on Overview of Remote Work (Suggestion)

April 22, 2021

The Japanese Institute of Certified Public Accountants

The spread of COVID-19, and the declaration of a state of emergency by the government in response to it led to rapid expansion of remote work.[1] During the expansion period of remote work, many Japanese companies entered into closing accounts for the fiscal year ended in March 31, 2020, resulting in occurrence of difficulties in the preparation of financial statements and the performance of audit engagements in various ways. Despite these obstacles, we were able to come through the process of preparing the financial statements without major mishap, which is due entirely to the tremendous efforts made by all those involved in the preparation of financial statements and the audit engagements.

On the other hand, the expansion of remote work is not just temporary trend, but has become widely sought by society as a means of recognizing diverse working styles. This Suggestion is published to intend to summarize the issues for companies and audits that arise from such remote work.

This Suggestion approaches the issues from two perspectives, namely "I. Issues Associated with Remote Work That Should Be Understood by Auditors in Relation to Corporate Activities" and "II. Issues Associated with Remote Work for Auditors." "Issues Associated with Remote Work That Should Be Understood by Auditors in Relation to Corporate Activities" is covered in this suggestion. Because the preparation of financial statements that are the subject of audit engagement is conducted by the audited company and changes in the preparation process due to remote work affect the reliability of the accounting record, and have a significant impact on audit engagements. On the other hand, expansion of remote work has various impacts on auditors as well, such as not only necessity of reassessment of the risks of material misstatement in the financial statement due to changes in the operational processes of audited companies, but also ensuring the authenticity of evidence received in the form of electronic data, and difficulty of communication with audited companies, component auditors, or audit team members. In this suggestion, therefore, we decided to summarize "Issues Associated with Remote Work for Auditors" with following perspectives, "Issues arising from the shift to digital in the audited company business," "Issues related to the shift of audit procedures or other procedures to digital," and "Issues related to communication."

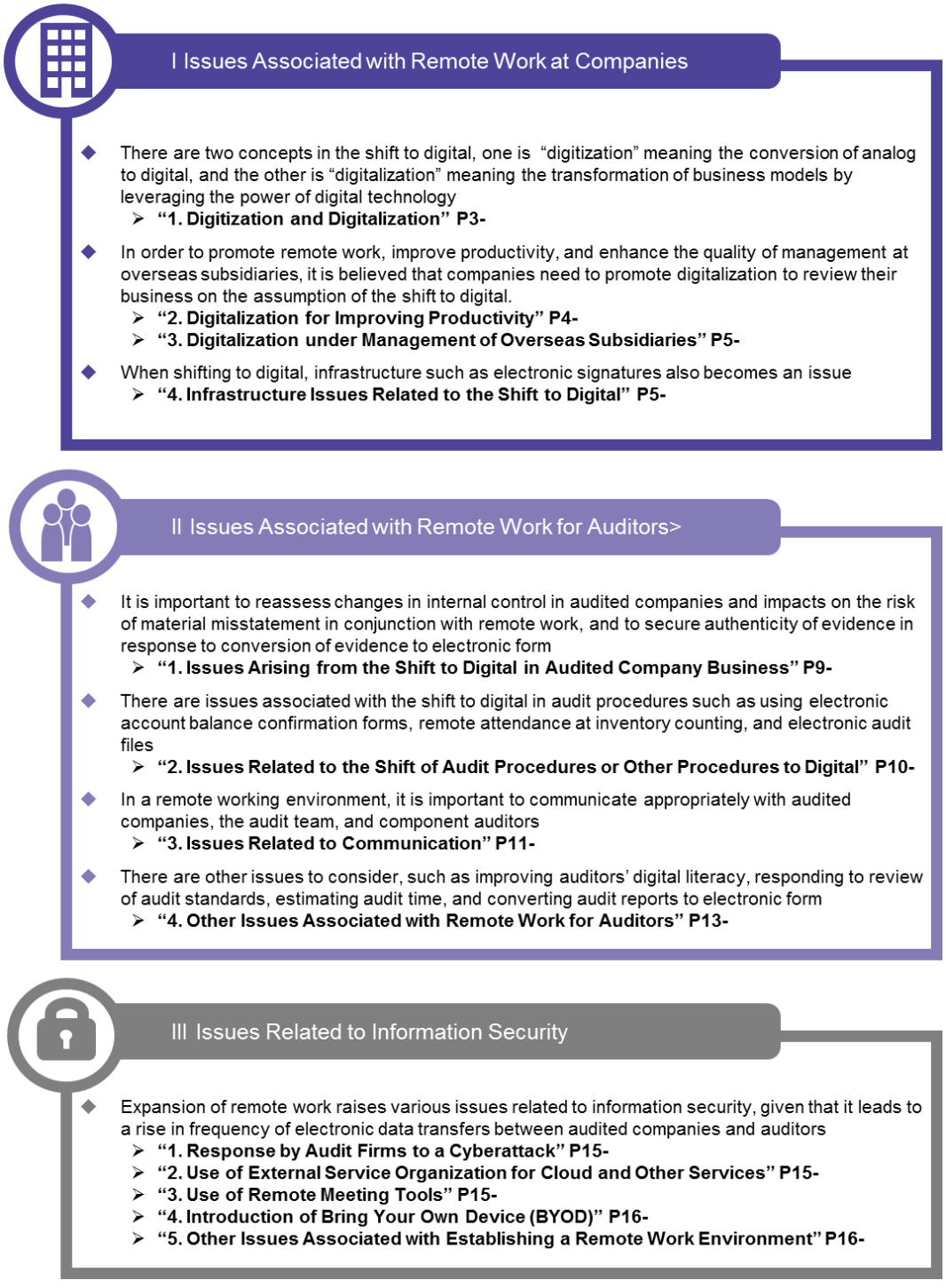
As for information security, which is a common issue for both auditors and audited

[1]According to the survey conducted by the Tokyo Metropolitan Government with a reference date of June 30, 2020, more than 75% of relatively large-scale companies (those with at least 300 employees) had introduced remote work. https://www.metro.tokyo.lg.jp/tosei/hodohappyo/press/2020/09/14/10.html

companies, it was decided to be covered in "III. Issues Related to Information Security."

Issues of remote work vary depending on the company's situation. So, we expect that wide range of discussions between auditors and audited companies, etc. will take place, based on this Suggestion, to identify issues that are appropriate in the context of audited companies, and subsequently to resolve various issues associated with remote work.

[Overview and Structure of This Suggestion]



<<I. Issues Associated with Remote Work That Should Be Understood by Auditors in Relation to Corporate Activities>>

1. Digitization and Digitalization

The key point for working remotely is how efficiently information can be shared with personnel at remote locations. For this point, it is important to promote the shift to digital in business for replacing information that was previously recorded on paper with data stored in electronic form.

In this way, converting business information to electronic data rather than using paper means the shift to digital in business itself. However, in the shift to digital in business, there is a significant difference of contents between the case in which information is converted from the analog medium of paper to electronic data (digital), and the case in which entirely new business models are created by leveraging the power of digital technology. The following categorization may be of reference for those seeking to clarify their understanding.

	Definition	Characteristics	Example
Digitization	Converting analog to digital	Relatively it is easy to deploy it, but productivity improvements are dependent on the level of operational modifications	Converting paper documents to digital form using AI OCR
Digitalization[2]	Transformation of business models by leveraging the power of digital technology	Because of involving operational review, the level of difficulty is high, but improvements in productivity can be expected significantly	Deployment of workflow systems

With the expansion of remote work this time, it seems that digitization in the form of conversion to data in PDF and other formats by scanning paper documents has been progressed in some audited companies.

Going forward, we expect that audited companies will review their existing operations to promote digitalization for improvement of operational productivity. For auditors, it is important to pay attention to whether the audited company is aiming for digitization or digitalization, and which techniques will be adopted for the shift to digital.

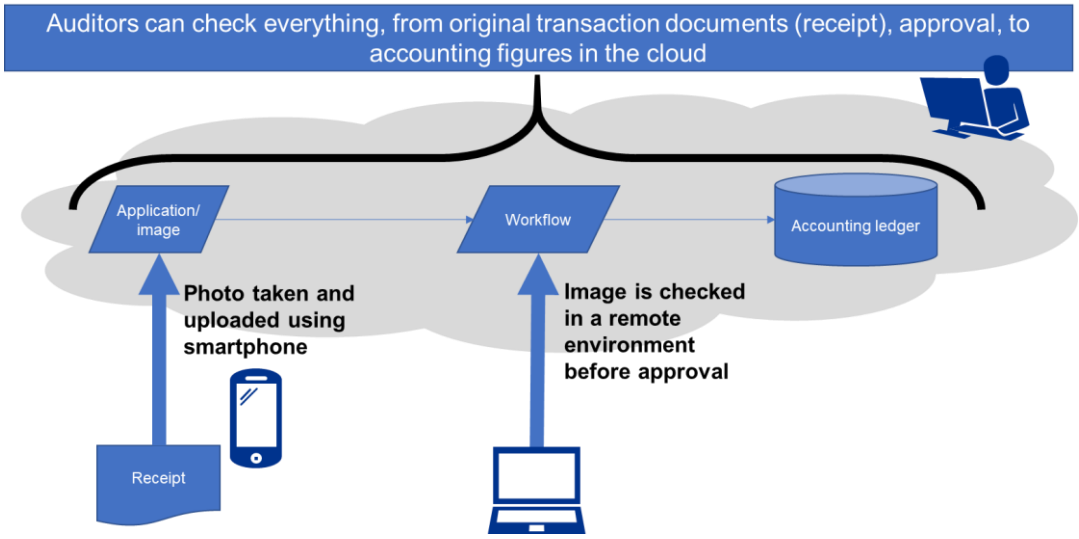
[2] A concept advocated by market research company Gartner to organize various ideas that had previously been referred to as the “shift to digital” together

2. Digitalization for Improving Productivity

It is believed that audited companies use different methods for the shift to digital depending on the situation. However, there may be companies that promote digitalization to review their businesses on the assumption of the shift to digital for improvement of their productivity.

For example, during the recent audit performed under the COVID-19 crisis this time, many cases were found that auditors could remotely inspect general ledgers, subsidiary ledgers, and other ledgers freely with read-only IDs issued for the audited companies' cloud accounting systems. In some cases, these cloud accounting systems use not only functions for uploading original evidence, but also workflow functions to allow the evidence to be approved within the system. The workflow functions eliminate the need for those concerned to go to the office in person to put seals on paper evidence in audited companies, and it is generally said that operational efficiency can be realized by simplifying the approval procedure. Furthermore, in some cases, it was found that not only auditors inspected the general ledger and subsidiary ledger freely with the provided read-only IDs, but also succeeded in working remotely without increasing volume of work for audited companies by using the workflow functions to check the evidence saved as electronic data attached to the workflow and even approval status.

<Example of Digitalization using cloud accounting system>



However, in order to achieve digitalization that can respond to the accounting operations and audit, each company must resolve issues such as (1) whether the company can give permission for auditors to inspect the general ledger, subsidiary ledger, and other ledgers with read-only IDs or (2) whether the company can review operations to realize approval

procedures using the workflow system. In approval procedure at Japanese companies in particular, a customary practice such as obtaining seals to share information can be seen in some cases, as typified by the approval using the request for approval. If a workflow system is deployed with such customary practice left unchanged, the process will become complex and redundant, and instead may result in damage to productivity. In order to avoid this, it is useful to organize conventional approval procedure by objective into "Approval" and "Information sharing within the scope required," and to consider how to achieve it in the workflow system. It is also desirable that auditors understand those initiatives by audited companies for their response.

3. Digitalization under Management of Overseas Subsidiaries

The COVID-19 crisis has made it difficult to travel overseas, which resulted in many companies struggling to manage the preparation of financial statements by overseas subsidiaries. We have heard that, even under these conditions, companies which digitally achieved visualization of the operations for the consolidated financial statements through system standardization between the companies in Japan and their overseas subsidiaries could complete the operations relatively smoothly, without traveling overseas by those in charge of accounting. In addition, it can be said that system standardization within the consolidated group leads to facilitating introduction of data analysis techniques into group companies by their internal audit team and others through centralized data management by the parent company and contributing to a more sophisticated group governance structure.

Of course, difficulty for the deployment is extremely high, as such system standardization requires enough understanding of various factors in each country such as business practices, accounting standards, taxation, and study of measures to deal with areas that cannot be handled by parent company systems. Keeping cost-effectiveness in mind, auditors are requested to discuss with audited companies short-term measures such as introducing data analysis for subsidiaries that puts greater emphasis on misconduct risk scenarios and qualitative materiality, or making self-checks easier by providing a standardized checklist for accounting and account-closing operations at subsidiaries, and the feasibility of introducing medium to long term measures, such as standardization of accounting systems, etc. primarily for important subsidiaries.

4. Infrastructure Issues Related to the Shift to Digital

(1) Using electronic signatures, etc.

In some cases, exchange or sharing of electronic data with business partners and others may lead to increase in risks such as falsification of transaction data and ex-post facto

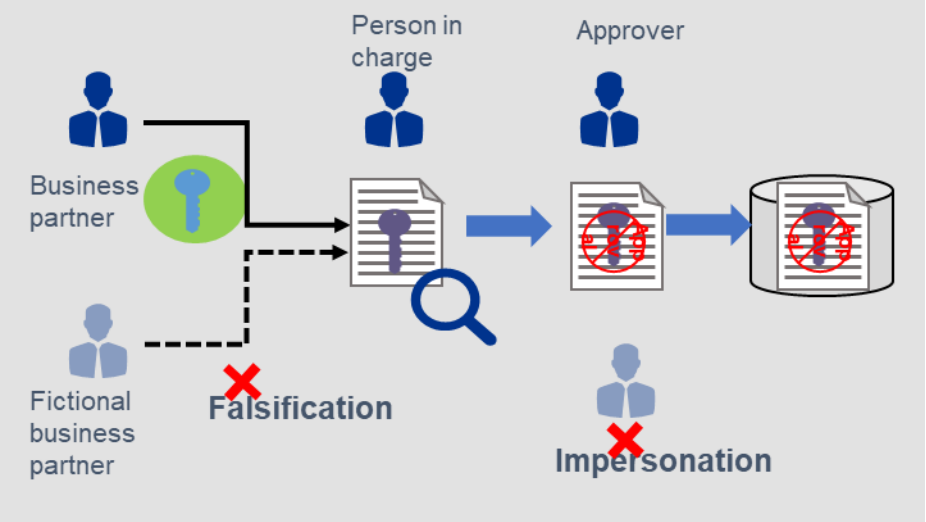
denial of transactions due to the shift to digital in business. In order to prevent falsification, either by those involved or by malicious third parties, of electronic data used in transactions and to maintain the reliability of electronic data themselves used in transactions and accounting treatment, it is necessary to consider promotion to use electronic signatures that prove the authenticity of the entity sending the electronic data and to use timestamps, that prevent falsification of the time sending the data as well. The EU is leading in the use of electronic signatures, etc. for transactions through sharing electronic data in this way by establishing the public framework of trust service, called the eIDAS.[3] eIDAS is a legal restriction that specifies unified standards for trust services, such as electronic ID for user authentication, electronic signatures, timestamps, and electronic seals[4], relating to electronic transactions in the EU member states. Its goal is to enhance the reliability of circulating data in order to promote sound electronic transactions within the EU. As it has a mechanism to evaluate compatibility of trust service operators based on the unified standards, electronic ID for user authentication, electronic signatures, timestamps and electronic seals can be used with confidence, encouraging transactions based on electronic data by reducing risks of falsification and ex-post facto denial.

It is believed that, in Japan as well, a systematic initiative based on a framework of such trust service for ensuring the reliability of electronic data is needed in order to promote remote work with securing the reliability of a company's business processing and accounting treatment. This is a subject under discussion at the Ministry of Internal Affairs and Communications' "Study Group on a system for ensuring the reliability of data issued by organizations."

<Example of Forgery and Impersonation Prevention Using Electronic signature (encryption key)>

[3] A mechanism for authenticating network users and preventing falsification of data as a base to secure effectiveness of the shift to digital while integration of cyberspace and real space progresses to promote the shift of the society as a whole to digital.

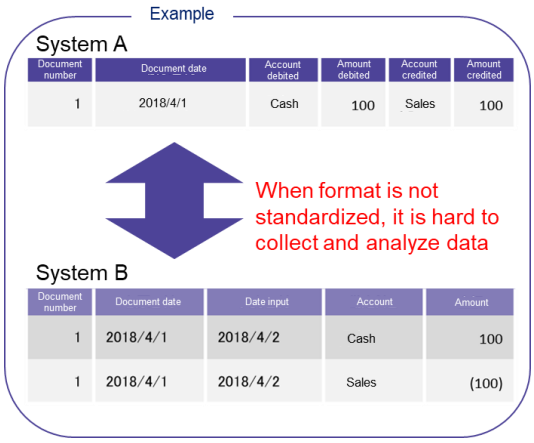
[4] Measures such as encryption for the purpose of identifying the organization as a source of an electronic document, equivalent to an electronic version of an official company seal.



(2) Data standardization to encourage the use of electronic audit evidence

Conversion of evidence to electronic form, reflecting a rise in remote work, is expected to lead to a further increase in the use of data analysis in both internal and external audit. However, it is pointed out that extraordinarily time-consuming preprocessing of data is required in advance for analysis due to a lack of uniformity in data formats, as an obstacle for introduction of data analysis. In order to resolve such problems, standardization of audit data output by audited companies, including accounting data, would be beneficial. The ISO (International Organization for Standardization) has published an international standard ISO 21378 “Audit data collection,” with regard to the standardization of audit data. ISO 21378 is an international standard for standardized output formats of audit data, and is expected to be adopted by a variety of accounting systems and ERP systems in future. Adoption of such systems by companies will not only contribute to internal audits, but may also make it easier to respond to the above-mentioned issues related to improving governance over managing overseas subsidiaries. On the other hand, given that deployment of such systems will involve a certain level of expense, it is recommended that auditors first fully understand advantages and required costs of such deployments, as well as upgrade timing for accounting systems at audited companies, and then seek to enter into appropriate discussions with audited companies about possibility of deploying an ISO 21378-compatible system.

<Example of Necessity of Data Standardization>



If the data output format is standardized, the preprocessing effort required to unify a format can be avoided

(3) Confirming the reliability of email address

Expansion of remote work is expected to encourage email exchange further.

When using email, it is therefore necessary to prevent impersonation of the sender by third parties. However, when working in a remote environment, as there have been cases for people to obtain email addresses of members of a certain organization without any acquaintance before, it is believed that confirming the reliability of the email addresses is often required to check whether the person in question really belongs to the organization specified in the address and so on. For confirming the reliability of email addresses, with regards to the presence of the organization, such as a company, that has registered the domain[5], it would be desirable that a social infrastructure mechanism is in place to confirm not only the name of the organization registering the domain, but also their registration number. As "co.jp" domains cannot be obtained without having some form of corporate status in Japan, and only one domain can be obtained by each company or organization, collation with company registration information is required at the time of domain registration. Accordingly, it is possible to use so-called Whois (https://whois.jprs.jp/) search service to confirm whether an email address has been registered in the registry, as well as the organization name, and information related to the domain administrator, enabling confirmation of status of domain users in question belonging to a certain company. However, in the case of ".com" domain names, such confirmation is not possible.

For this reason, it is desirable that information can be provided to confirm reliability of registered domains to a social infrastructure that publishes basic information on a company on the Internet, such as the BizINFO[6] service operated by the Ministry of Economy, Trade and Industry, by disclosing registered domain as one of the basic

[5]It refers to groups or organizations, used to administer multiple computers on a network.
[6]A website operated by the Ministry of Economy, Trade and Industry that discloses information to support actual presence of a corporation, such as the name associated with the company, and the company registration number. https://info.gbiz.go.jp/

information and associating it with a company registration number. It is vital that auditors are aware of importance of confirming reliability of such email addresses in the society.

<<II Issues Associated with Remote Work for Auditors>>

Expansion of remote work is also having a significant impact on audit engagements. Broadly speaking these can be seen as originating either in the shift to digital in an audited company business that is a subject of audit engagement, or in the shift to digital of audit procedures in a remote work context. Expansion of remote work has also caused a number of problems related to communication, both inside and outside the audit team.

These can be summarized as follows.

1. Issues Arising from the Shift to Digital in Audited Company Business

(1) Reassessing the risk of material misstatements through re-understanding internal control

As explained in Section I, the shift to digital in business in conjunction with remote work is not merely a simple conversion of paper materials to electronic format, but has potential to drive a transformation of transactions and control activities. In particular, reduction in face-to-face communication resulting from remote work could have a negative impact on information and its transmission within audited companies, causing situations easily that, while control activities performed by administrators remain unable to deal with remote work, the design of such activity has not been reviewed, or changes to deal with remote work are made on an unofficial basis, and a risk that management is unaware of the situation. For that reason, it is important that auditors make a serious attempt to assess changes in internal control caused by remote work and their impact on the risk of material misstatement through walk-through, etc. without being biased by their previous understanding.

(2) Dealing with falsification of electronic audit evidence

Conversion of documents to electronic form, reflecting a rise in remote work, makes it easier to falsify documentation, which leads to issues such as necessity to ensure authenticity and verifiability of original documents, and to prevent impersonation and falsification.

In the process of the shift to digital in business, it is considered to be difficult that audited companies will resolve those issues all at once by using the above-mentioned trust services, etc. Accordingly, it is important for auditors to conduct serious discussions with management with regard to identification of evidence that requires a high degree of authenticity and verifiability, prevention measures of impersonation / ex-post facto denial,

and the level of prevention measures required based on appropriate understanding of risk related to these issues during audit.

Especially when paper materials are scanned into PDF format, the operational cost of ensuring authenticity of evidence and of adequately mitigating risk of falsification is often significant.

For detailed explanations of the considerations in relation to this problem, please refer to IT Committee Research Report No. 43, titled "Obtaining, Using, and Retaining Electronic Audit Evidence: Current Status and Outlook" (published on July 30, 2013), and Remote Work Series No.3 "Audit Considerations in Relation to Authenticity of Evidence Converted to PDF Format" (published on February 12, 2021).

2. Issues Related to the Shift of Audit Procedures or Other Procedures to Digital

(1) Using electronic external confirmation request

Expansion of remote work has been a major driver of converting external confirmation, which is an audit procedure using typical paper materials, to electronic format.

Performing external confirmation of account balances through an electronic medium or process brings advantages to the auditors' side such as speeding up work, enhancing efficiency, reducing collection time, improving collection rate, eliminating human error, and reducing consumption of paper resources. In addition, it also brings advantages to the audited companies' side such as reducing operational burden to receive, complete and return external confirmation requests, and reducing a need for staff to go to the office to accept and return the paper versions of the forms.

On the other hand, as a risk relating to electronic external confirmation requests, risks such as the risk that the response has not been obtained from an appropriate information source due to impersonation, etc., the risk that the person providing the confirmation does not have an authority to respond, the risk that integrity of information transmission is not secured, and the risk that the person providing the confirmation denies details of the response, can be considered. So, auditors may need to check with the person providing the confirmation over the phone or consider additional audit procedures as needed.

For detailed explanations of considerations in relation to this problem, please refer to IT Committee Research Report No. 38, titled "Audit Considerations in Relation to External Confirmation Using Electronic Media and Processes" (published on May 18, 2010), Remote Work Series No.1 "Audit Considerations in Relation to External Confirmation Using Electronic Media and Processes" (published on December 25, 2020), and Remote Work Series No.6 "Audit Considerations in relation to the use of Electronic Mail for External Confirmation"(published on March 19, 2021).

(2) Remote attendance at inventory counting

Due to increase in the use of remote work, there has been an increase in cases to use video camera footage transmitted over mobile phone lines or Internet connections in order to attend inventory counting. Such remote attendance at inventory counting involves risks as follows. (1) The possibility that problems related to cameras or display resolution or related to the communication environment will prevent confirming the site with clear images, (2) The possibility that problems related to the camera's angle of visibility make it impossible to obtain comprehensive confirmation of inventory, (3) The difficulty of detecting cases where the subject being recorded has been manipulated by the person taking the recording, or falsified at the time of recording, due to rapid progress of video falsification technology, so-called "deep fake"[7] and so on. For these reasons, it is believed that auditors need serious consideration of a inventory counting plan that includes rigorous selection of locations where attendance is required, and moving forward the timing of inventory counting, upon judging related audit risks seriously.

For detailed explanations of this issue, please refer to Remote Work Series No.2 "Consideraitons in Relation to Remote Attendance at Inventory Counting" (published on December 25, 2020).

(3) Using electronic audit files

Expansion of remote work also triggers conversion of audit files on physical paper to electronic files. While conversion of audit files to electronic files is already underway at major audit firms, individuals or small to medium-sized audit firms are still using paper audit files in many cases, and the conversion to electronic format is a major issue. As electronic audit files eliminate constraint of requiring personnel to physically visit audited companies or offices of audit firm to prepare and review audit files and, in addition, lead to preventing acts relating to information security issues such as taking audit files home with them, it is desirable that they will be used actively.

However, when using electronic audit files, it is essential to consider matters such as prevention of falsification and information leaks, and to ensure that they can be inspected over the entire period of retention specified by law.

3. Issues Related to Communication

(1) Combined use of remote and face-to-face meetings for communication with audited

[7] Technology that uses deep learning, which is a type of machine learning algorithm, to combine two different images or streams of video to make a different video, enabling creation of composite images that are higher in quality than conventional technology and are readily mistaken for the original.

companies

In line with expansion of remote work, there has also been an increase in the use of remote meeting tools, etc. for communication between auditors and audited companies. It might cause issues such as unexpected difference in perception due to reduction of opportunities for informal communication before and after meetings.

In order to resolve such issues, under the awareness that an audit is a project that requires an auditor and an audited company to work together in close cooperation, it is believed that auditors and audited companies should communicate optimally depending on the case, such as having face-to-face communication if serious discussion is required while using remote meeting just for information exchange.

(2) Combined use of remote and face-to-face meetings for communication within the audit team

In line with expansion of remote work, the style of working individually at remote locations is becoming established for audit teams as well. Accordingly, various issues are now taken up for discussion, such as problems related to personnel management of audit team members, particularly difficulty of recognizing their overwork status, work process and progress, the need for mental care of audit team members, and being unable to provide on-the-job training (OJT) smoothly. For these problems as well, it is important to have optimal communication depending on the situation, such as introduction of tools for visualization of work progress, and consideration for assistant auditors with insufficient experiences to allow them understand fully during OJT through face-to-face communication.

(3) Communication with components and component auditors

Because COVID-19 has spread across the globe, it has caused problems of restrictions on audit visits to components, and restrictions on face-to-face communication with component auditors. Due to the problem, audit processes for component financial information and involvement in the work performed by component auditors have become remote work style, and changes that make communication with component auditors important arise with regards to presence of any material changes in the component business and its business environment, and the specific details of audit processes, which need more careful response to reliability of information and more strict response to information security . For detailed explanation of this issue, please refer to Remote Work Series No.4 “Considerations When Visits to Components are Restricted” (published on February 12, 2021).

4. Other Issues Associated with Remote Work for Auditors

(1) Improvements in auditors' digital literacy

Progress of the shift to digital driven by remote work has brought a wide variety of transformation, such as business reforms at audited companies, introduction of digital audit procedures by auditors, and significant reconsideration of the way of communication. Such transformations are caused by an increased risk of material misstatements through changes in internal controls, problems related to ensuring authenticity of electronic data obtained, and reduced opportunities for face-to-face communication with audited companies. For example, the risk associated with authentication when paper evidence is converted to PDF format and the risk associated with authenticity of electronic data when business is digitalized are very different, but the auditor is requested to assess both of them appropriately.

Accordingly, it is desirable that auditors have knowledge that enables them to choose the appropriate measure with accurate understanding of which risks increase as a result of progress of the shift to digital.

For example, the shift to digital in business needs to judge risks and cost-effectiveness carefully to proceed, instead of promoting it blindly. It is important that auditors fully understand these matters before seeking to communicate with management. In addition, as obtaining electronic audit evidence that is indispensable for implementing digital audit procedures involves the problem of ensuring authenticity of the evidence, forming a judgment in relation to what kind of evidence and what level of authenticity are needed requires a sophisticated knowledge of authenticity of electronic media.

Similarly, with regard to communications problems, rather than the simplistic argument as to whether to conduct all communications remotely or face-to-face, auditors are required to choose appropriate measures. This point also requires a knowledge of the use of digital tools. Moreover, in cases where the audited company's level of literacy regarding the shift to digital is not sufficient, one of the roles required of auditors socially is to promote understanding of the audited company in such matters, and to educate them to raise their level of literacy.

If the auditor feels that they themselves do not have a sufficient level of knowledge of the issue in question, they need to consult with IT specialists, as appropriate.

(2) Responding to the review of audit standards

With regard to expansion of digital audit procedures, through adopting continuous

auditing and full-data analysis techniques,[8] it may be possible to obtain a sufficient evidence of specific account items by using substantive tests that involve comprehensive collation of original transaction documents and accounting records, which would contribute to greater efficiency of audit. However, the current audit standards, which are premised on testing some selected items in a population, do not necessarily assume such full-data techniques, and the need for the revision is growing. The International Auditing and Assurance Standards Board (IAASB) is also aware of this problem, and the JICPA is actively involved in the revision of standards through exchanging comments with IAASB.

(3) Issues related to the estimation of audit hours

While expansion of remote work contributes to improvement of efficiency through expansion of the use of digital audit tools, it is expected to increase time spent for audit to re-evaluate the risk of material misstatement, revise audit procedures, develop and deploy digital audit tools, and implement information security. In particular, the time required to develop digital audit tools and to implement information security is generally recognized as indirect work time rather than being attributable to a specific audited company. In order for auditors to properly manage audit firms, it is important for them to consider even more carefully than before the need to collect personnel and other costs associated with such indirect work by taking into account the increase of the proportion of indirect work rather than direct work on site.

Under the circumstances, it is important that auditors bear in mind the need to provide management with detailed explanation of audit fees based on audit hours.

(4) Converting audit reports to electronic format

Currently, because item (2) of Article 34-12 of the Certified Public Accountants Act specifies that "When an audit firm attests the financial documents of a company or any other entity, the partner who has executed the engagements pertaining to this attestation shall sign the signature with an indication of his/her qualification and affix his/her seal thereto," the inability to avoid visiting the office in order to sign and affix the seal on the audit report has become an issue.

As at the time of publishing this Suggestion, a draft bill to revise this article has been presented to the 204th ordinary session of the Diet, so it is important to pay close attention to whether this bill is enacted and amendments of related laws and regulations.

[8]A technique that involves performing some kind of examination in audit for 100% of the population that is the subject of the audit (refer to IT Committee Research Report No. 48, "The Outlook for IT-Based Auditing: Approaches to Next Generation Audit").

<<III Issues related to information security>>

Expansion of remote work has raised a variety of issues related to information security, given that it leads to a rise in frequency of electronic data transfers between audited companies and auditors.

For example, the following problems may occur.

1. Response by Audit Firms to a Cyberattack

The increase in electronic data transfers due to expansion of remote work means an increase in the volume of audited company's information held by the auditor, while in the face of cyberattacks that are becoming more sophisticated day by day, there are a lot of cases that it is difficult to maintain information security using existing techniques.

Under such circumstances, it is important that management of CPA offices (audit firms) provide strong leadership in promoting a systematic response.

2. Use of External Service Organization for Cloud and Other Services

With regard to the increase in electronic data transfers driven by expansion of remote work, it has been pointed out that the practice of sending and receiving data by attaching electronic data in encrypted form to email constitutes a security problem, and increasingly electronic data is being sent and received through cloud and other services provided by external service organization.

In such cases, at least a corporate service should be used, and it is important to be aware of the need to confirm, by obtaining an SOC2 report[9] or similar, that the contractor implements information security measures at least equivalent to those implemented by the auditor's own CPA office (audit firm).

3. Use of Remote Meeting Tools

With expansion of remote work, the use of remote meeting tools has become widespread for communication within audit teams, and between auditors and audited companies. On the other hand, the risk that vulnerability and incorrect use of remote meeting tools could lead to leaks of important business information has also been pointed out. For that reason, when using remote meeting tools, it is important for users to determine a policy for use, by taking into account the fact that there are risks peculiar to remote meetings, including the risk of information being shared with people other than those involved in the meeting, such as unexpected participants appearing and taking unauthorized recordings or pictures of the

[9] A validated report issued by outsourcing companies, who provide the data center, cloud and other services, for the internal controls relating to the security, availability, processing integrity, confidentiality and privacy in their outsourced businesses.

meeting. For detailed explanation of this issue, please refer to Remote Work Series No.5 "Remote Meetings and the Use of Remote Meeting Tools" (published on February 12, 2021).

4. Introduction of Bring Your Own Device (BYOD)

For promotion of digitalization, including expansion of remote work, substantial investments are required in many cases, and if the objective is the improvement of productivity only, it may not be possible to obtain results commensurate with the amount invested. In order to reduce such investment cost, companies are increasingly considering the use of BYOD to enable access to corporate systems from private computers and other devices. Although the introduction of such BYOD initiatives leads to lower investments in equipment purchases and so on, it also leads to higher security implementation costs to deal with the risks of data being leaked, destroyed, or exposed, and of unauthorized access to head office servers as well as malware threats such as viruses. Accordingly, when considering the introduction of BYOD, based on comparison and consideration of both sets of cost, it is important to proceed deployment on a manageable scale.

5. Other Issues Associated with Establishing a Remote Work Environment

With expansion of remote work, there has been an increase in opportunities for auditors to operate from home. Because the expansion in home-based operations represents an increase in the attack surface exposed to cyberattacks, in order to mitigate the risk of information leaks in the working-from-home environment, the CPA office (audit firm) is required to deal systematically with problems that are unique to the environment by building a virtual desktop environment, thoroughly instilling the habit of saving documents to the virtual desktop environment and forbidding them from being taken out of the house, preventing information leaks resulting from shoulder-hacking[10] by the family of auditors, and combating shadow IT in which users install applications that violate the security policy without obtaining permission from the information systems department.

When considering the above-mentioned problems, please refer to the following publications: IT Committee Research Report No. 4 "Guidelines for Information Security in CPA Engagements"; IT Committee Research Report No. 34 "Q&A on IT Committee Research Report No. 4, 'Guidelines for Information Security in CPA Emgagements'"; Remote Work Series No.5 "Remote Meetings and the Use of Remote Meeting Tools" (published on February 12, 2021).

[10] The act of attempting to obtain confidential information illicitly by surreptitiously watching confidential information such as passwords as they are entered into equipment.

These materials may well be a reference not only to auditors but also audited companies for considering information security issues.

<<Conclusion>>

Even after the COVID-19 crisis has been settled, we believe that the practice of remote work, which has been widely accepted by society, and the shift to digital in business will continue to spread ever more widely. In this context, auditors must understand or discover the issues faced by audited companies, and become a “problem-solving” presence that can act to find solutions to these issues. This Suggestion is intended to be a reference for such auditors, but not intended to be used merely as a checklist to confirm the presence or absence of certain problems. We hope that, by prompting lively discussions around remote work and the shift to digital based on this Suggestion, this Suggestion will be of use to companies that are putting in place an environment to promote remote work.