The digital community of Drive MKB

Advisory Document

FONTYS UNIVERSITY OF APPLIED SCIENCES

“The aim should be to over-deliver with exclusive content that keeps your members coming back.”

Joseph Kanabar, 2019

Executive summary

This project was inspired by the Corona incident. The retail and restaurant industries have been affected particularly hard by the recession and the resulting new (temporary) regulation. Its purpose is to help restaurants and retailers become more digitally self-sufficient, allowing them to be more flexible and adaptable during times of crisis.

ICW is an online community located in Eindhoven that aims to aid in the development of businesses. For start, ICW has an online and physical store where they keep track of consumer and product information. They also often arrange events. In addition, they are developing questionnaires that will be emailed to members in order to obtain input that can be used to improve the events. ICW's major purpose is to obtain insights from data collected throughout the existing process in order to predict the number of times clients buy from their online catalogue. The main problem is that data is collected in many locations, which required a solution.

Our solution data process is the addition of data storage, which will store all data in one spot. This will help the data become more structured, and professionals will have easier access to it. We feel that using the Google Cloud Platform as ICW's primary storage solution is the best option. We came to this conclusion because the Oracle Database had significant operating expenses and required a high level of technical skill to use all of its features. Google Cloud, on the other hand, was discovered to be a valuable data storage service that is straightforward and easy to use based on our investigation.

However, ICW also requested research for subscription models. As can be observed in the research document attachments, ICW divided the project into three tiers. These levels would indicate the benefits of paying a given amount of money, after which they would decide on a certain amount of money based on the company's needs. According to our findings, a subscription model is a modern, popular business approach that is on its way to being implemented by 70% of global company executives. The Access model, we feel, is what ICW is seeking for. Customers, for example, pay a monthly charge for access to material or a premium service. Furthermore, providing members with online classes or seminars gives them the feeling that they are receiving their investment back from their subscription. It also gives them the opportunity to improve on certain goals, which is something that ICW's community offers.

The strategy for building such a subscription model is just as vital, and many organizations with the same attitude as a self-sustaining community prioritize it, according to our study. As a result, we looked into the best foundation for putting such a concept into action. First and foremost, the company must determine what it aims to gain through subscription. Our recommendation is to create KPIs from the start. These should contain several value measures like as service quality, customer happiness, demand for such a service, and the customer's return value. In addition to this, customer profiles should be created. Targeted marketing and value setting while devising the tiers is important. Finally, in order for subscription models to be effective, they must be accessible. All models should put the customer's attachment first.

According to our findings, every self-sustaining community that does not execute its own development should conform to ISO 27001, which is the most appropriate IT-governance framework, among others. ISO 27001 establishes an environment and governance structure that enables the firm and its interested stakeholders to continually develop and evaluate themselves. More significantly, any self-sustaining community that seeks to monetize or use personally identifiable data in any way.

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0. Introduction

The Corona crisis motivated this effort. The retail and restaurant industries have been particularly hard hit by the crisis and the new (temporary) regulation that has resulted from it. Its goal is to assist restaurants and retail businesses in becoming self-sufficient in terms of digitalization, allowing them to be more resilient and flexible during times of crisis.

The purpose of this document is to provide ICW with recommendations on how to utilize and keep data. ICW is an Eindhoven-based online community that attempts to assist in the development of enterprises. The company's major issue was that data was collected in several locations, and they required a solution for this. The topic was tackled by NextGen-Solutions utilizing the DOT research methodology, which included three key fields – literature study, interview with the stakeholders and data quality.

1. Context

Currently, ICW data is coming from two main places. First, ICW has an online and physical shop that they are using for customer and product data. Moreover, they often organize events. Additionally, they are creating surveys which are sent to the members in order to receive feedback, which can be processed to improve these events. The main problem here is that the collected data is kept in different places and in the end, it takes time for the data user to analyse it.

ICW is working with different type of data. They are interested in customer (name, address, email, telephone), business, product, and orders information. From our interview with them, it is clear that the community is gathering most of their data from the online shop. The main goal of ICW is to gain insights from data in the current process in order to estimate the number of times customers are

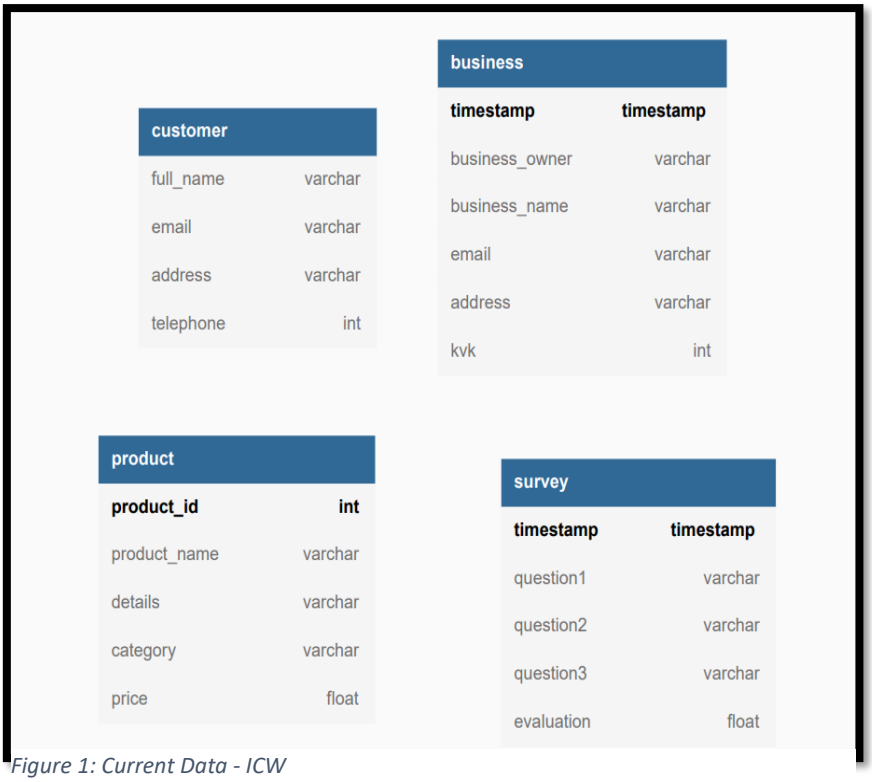

Figure 1: Current Data - ICW

buying from their online catalogue. Additionally, they aim to process the data to target the people that are happy from the organized events.

Unfortunately, ICW does not have database and they are collecting the data only in excel files. The main idea here is to make the process as normalized as possible. For example, the customer and product table are not connected, and the business table is just giving information about the members' businesses. However, this process needs to be improved in order to ICW be sustainable in the future.

They believe that in the future the data can help them answering three important questions:

- How do the users interact with the community?
- What type of event do the customers need?
- How profitable is the new created business?

2. Data solution process

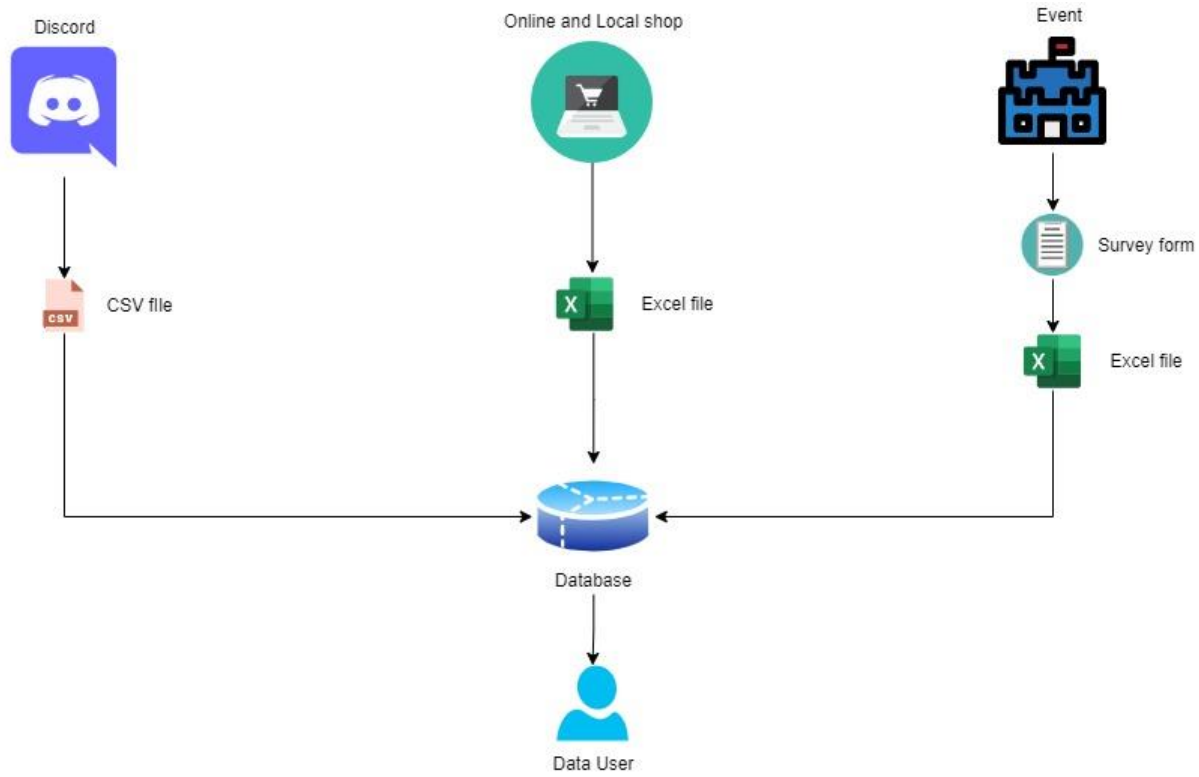

Figure 2: Data solution process

The data solution method for ICW is shown in the diagram above. To begin, the data from the Discord server will be exported to a CSV file. And this data will be sent to the data storage solution either manually by the data user or automatically by developed programs, such as GitHub Push. Second, financing data from online and local shops can be submitted to the database. In addition, unlike the current process, the information will not be stored in various directories. Finally, the event survey data will be saved on the database solution. To summarize, the inclusion of data storage, which will store all data in one location, is the modification in their present method. This will help the data to be more organized and it will be easily accessible from specialists.

What are the benefits of adding a database to the ICW process?

The most important benefits are that their data will be more accessible and available. As a consequence, the data consumer will be able to discover and acquire insights from the data in a timely manner. In addition, the user will generate backups of the database, and the data will be available even if something goes wrong with the hardware or software. Finally, account-based clouds can protect your data from other users while also increasing overall security.

3. Server Analytics – Discord

The importance of data in the modern era cannot be underestimated as it provides immense value for any business or community that is able to efficiently store and manage their data. This data can give them a general understanding of how their community is structured as well as general analytics to identify issues that need to be addressed. There is also a possibility to monetize the data and reap additional benefits in the form of business improvement or actual cash flow. ICW's community is hosted on discord, which is a strong platform that is able to connect hundreds of users together through multiple channels and conversation methods. Additionally, Discord has built-in data analytics features which can be used once the community reaches 500 members. Some of the visuals shown on Discord are the total number of members as well as the engagement ratio which clearly defines the number of chatters to lurkers. If the engagement ratio is 1:9 that means that every nine people that are not active in the chat, there is one person who is actively participating in the conversations. An example of the analytics can be seen in the picture below.

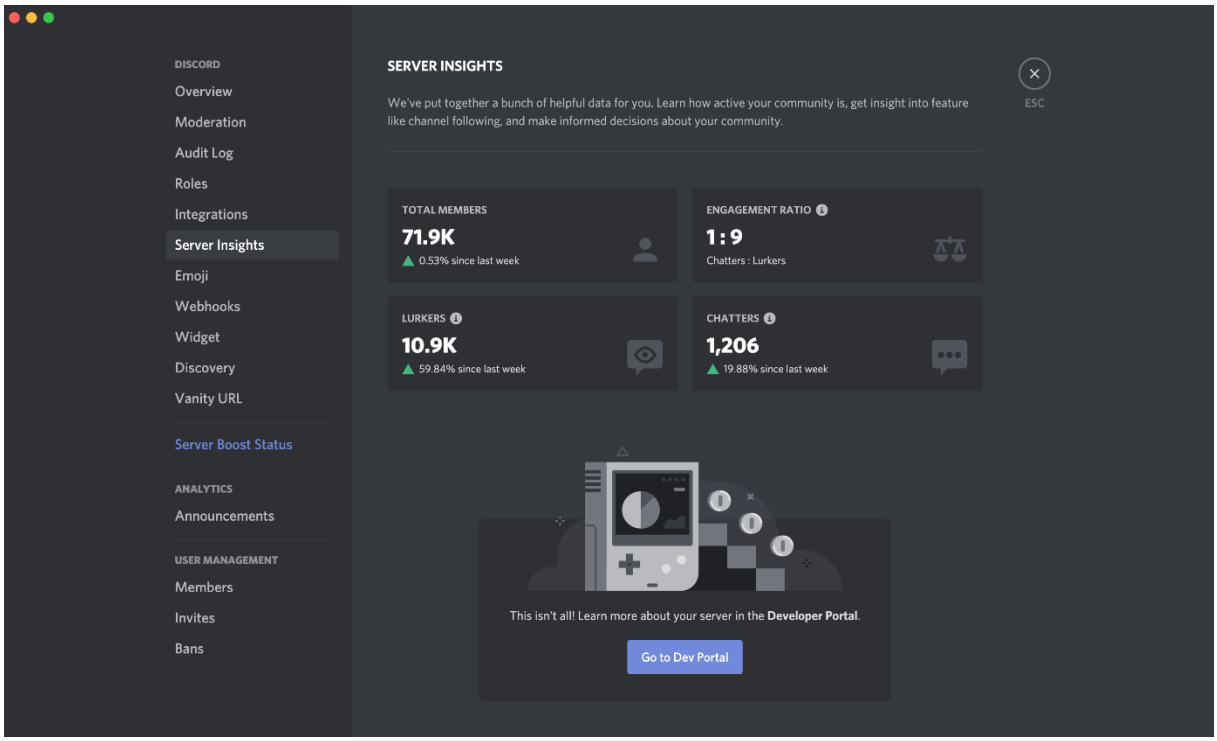

Figure 3; Discord server analytics

This page from discord shows some of the data visuals provided and at the bottom of the picture provides an option to see more information regarding the server by forwarding the user to the

developer portal. As such, we feel that Discord does provide a dashboard with important visuals to inform the community owners of their overall status, however the one disadvantage being the minimum number of members required to unlock this feature.

4. Data model

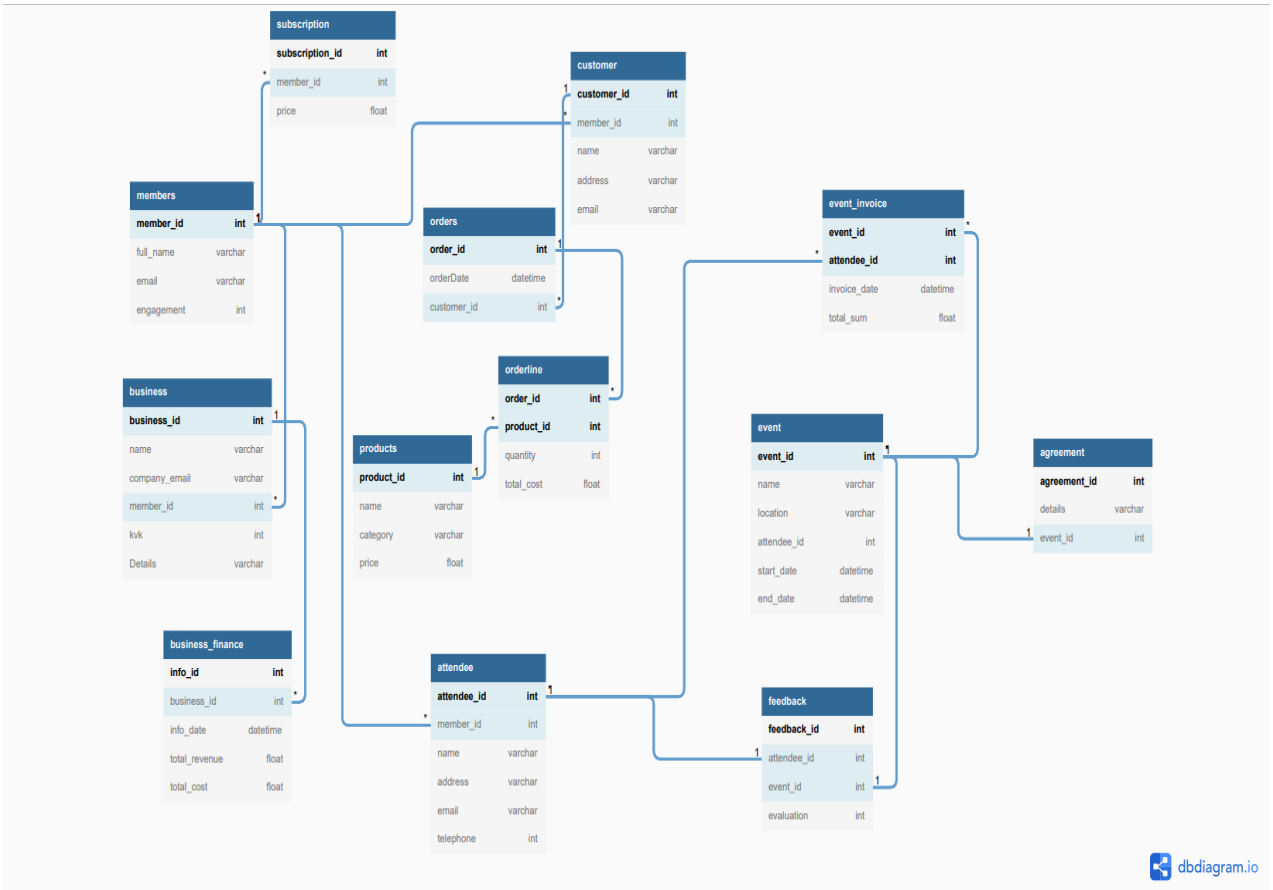

Figure 4: Data model solution

Visually, the model can be seen as three small databases – events, orders, and community members. Every small group of data has 4 to 5 tables. For example, the data from discord is split into 4 tables – *members*, *subscription*, *business*, and *business_finance*. Inside these entities, there is an information such as names, dates, emails, the revenue of the company, and many more. In the same strategy, the data from online and local shops are saved in the *customer*, *products*, *ordering*, and *orders* table. We decided to keep the information from orders and products in the *orderline* table, so there are surrogate keys because we solved many too many relationships which are is recommendable for data models. Lastly, the data from events is saved in tables such as *attendees*, *feedback*, *agreement*, and *event_invoice*. However, the main goal for ICW was to understand which members are attending events or buying from their products. Therefore, the *memder_id* relates to the *customer* table from online data and *attendee* from events data. And this creates the desired relationship with other tables so that ICW can track which members are going to the events or buying from the online shop.

What is data normalization?

- Data normalization is the act of reorganizing data within a database so that users may utilize it for further queries and analysis. This includes minimizing duplicated and unstructured data and making data appear consistent across all areas.

Compared to their current data model, this solution will be beneficial for them because most of the data is connected with identifier columns which were missing in their process. This will create

one small data ecosystem that can be analysed using different tools and methods. Finally, this will be helpful for ICW because they can take more data-driven decisions and target their customers.

5. Data storage and configuration

As stated in the data storage section of the research document, data has become an essential resource that has many benefits and as a result, must be protected and stored in a secure manner. The document had researched two of the main cloud storage solutions that are used in many organizations across the world which are Oracle Database and Google Cloud Platform. Each of these solutions has their advantages and disadvantages, which provided adequate reasoning as to which is the better option for ICW. As a result, the pros and cons were weighed in reference to ICW's requirements and financial capabilities as well as their skillset in regard to technology.

Based on the aforementioned factors listed, we believe that implementing the Google Cloud Platform as the main storage solution for ICW is the best solution. We came to this conclusion as the Oracle Database incurred high running costs and required a high level of tech expertise in order to utilize all its functionalities. On the other hand, Google Cloud based on our research, was found to be a useful data storage solution that is simple and easy to use. Furthermore, we felt that deciding on the solution which features the least financial strain on ICW as well as being maintained easily would be the most useful option for ICW. Finally, based on our research in addition to ICW's requirements we advise that Google Cloud Platform should be their main data storage solution that should be implemented within their IT infrastructure.

6. Use of data

Due to a goal for self-improvement, humans are always attempting to access existing knowledge and produce new ones from the data available. The procedures are carried out by processing and changing data into information, which is widely acknowledged. In terms of life regulation, collecting info from data is critical. Firms must rapidly and accurately store and turn data into information in order to fulfil goals such as gaining a competitive advantage, manufacturing new goods, moving the company forward, and stabilizing internal operational services. [JSTOR, 2011]

After the interview with ICW regarding their data processes, they had a vision on how data can help them in the future. They created three questions about this goal covering the entire scope of the data aspect to ensure that they get useful insights on how and why they should focus on digitalization. The questions are, how the users interact with the community, what type of events customers prefer, and finally how profitable is the new created business. The following section will dive into the data in order to adequately answer all the questions and provide ICW with the information they need to proceed with their vision.

6.1 How the users interact with the community

The first question we will address for ICW revolves around how the members interact with each other through the medium provided by ICW (Discord). Given that their digital community is composed of about 100 members, keeping track of their engagement as well as stats for individual

users can be quite difficult. This is where digitalization will heavily influence ICW if implemented in the correct way and maintained to ensure that KPIs (Key Performance Indicators) are accurate and reliable. In order to prove the importance of data for a community such as ICW, we created a simple dashboard using mock data to display some visuals which could provide additional insight to how the community is running.

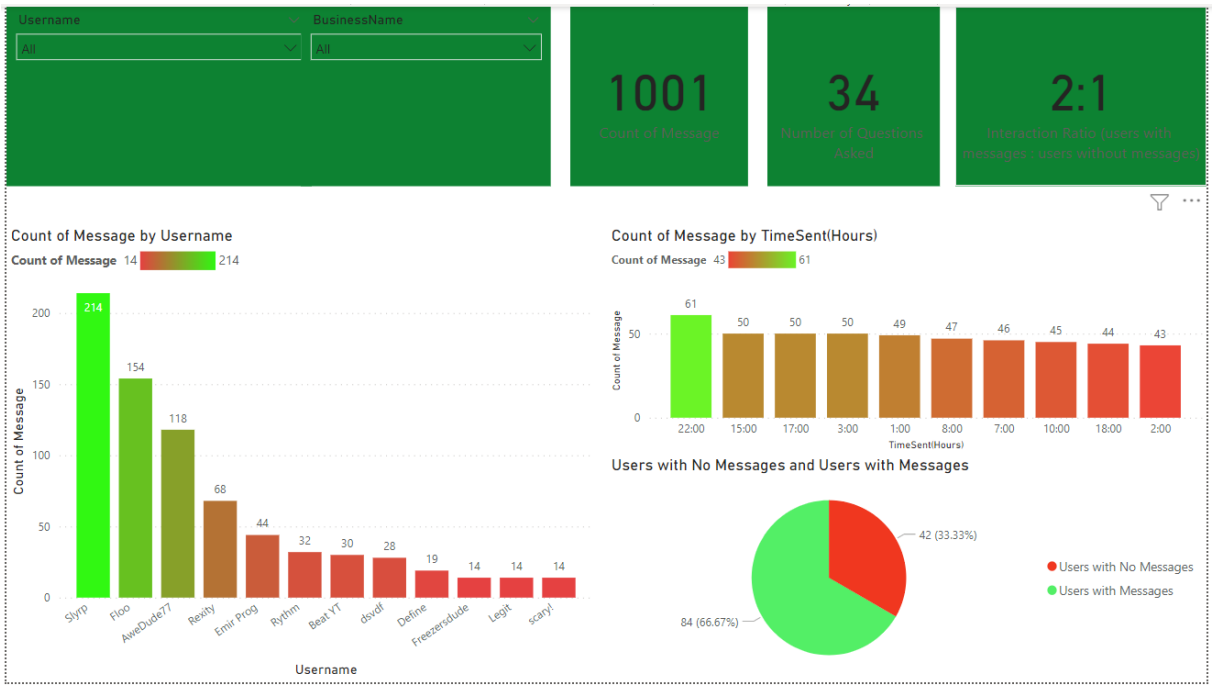

Figure 5; Mock Dashboard (General)

The picture shown above display the general look of the dashboard with no filters applied to display how the community is operating at a quick glance. The first two slicers (filters) on the top left of the dashboard can select specific users or businesses to show the data for that specific entry. Furthermore, the three cards on the top right display (from right to left) the total number of messages sent in the community, how many messages sent contained questions, and finally the engagement ratio. This ratio shows how many are interacting in the community compared to the number of member's who are not active as a ratio, which in this example is a 2 to 1 ratio. This means that every two people who engage in the community there is one person who is not engaging. The visual on the bottom left displays the top 10 users in terms of messages sent, which gives an idea on the most active users. The visual on the middle-right side of the dashboard shows which times are the most common among users to send messages during that time. By knowing this information, ICW can understand what time their users are mostly active in, and as a result can publish announcements or events during these times to get the most interactions. Finally, the bottom right visual displays a pie chart that compares the number of users with at least one message sent to the users who have not sent any messages.

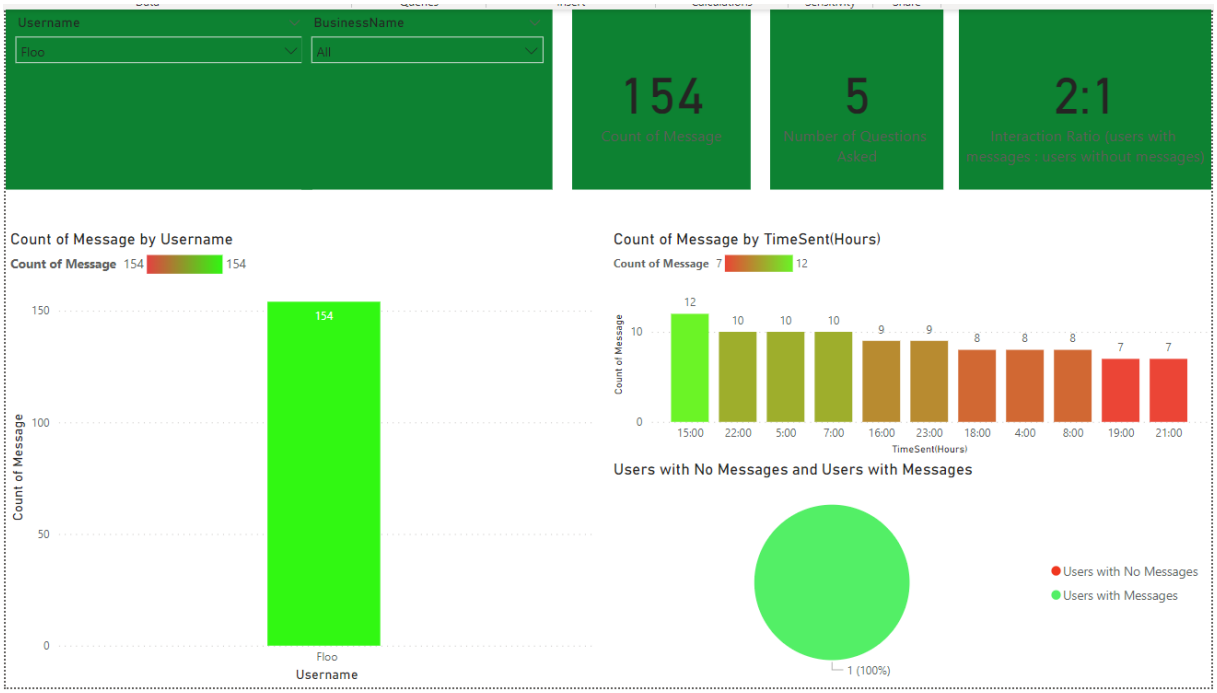

Figure 6; Mock Dashboard (Username filter applied)

This dashboard shows the same visuals as the previous image, however there is a filter applied for one specific username. This functionality could help ICW view the engagement statistics for one specific user to see the times they send messages and how many questions they ask. This provides a good overview if a more specific analysis is required. The process of selecting a filter is as simple as clicking on the top left dropdown menu and selecting the desired user. The card on the top right showing the interaction ratio remains unchanged as it is independent from all applied filters.

Figure 7; Mock Dashboard (Business name filter applied)

Once more, the image above shows the same visuals as the general dashboard however, they are filtered on a specific business name. This filter carries the same logic as the previous image, which

provides a more detailed overview on any desired business registered with ICW. Using this filter ICW are able to see all the employees of this business and how are they interacting on the community with the same KPIs, such as number of questions asked, time slots of the messages, and much more. The same process is applied here to select a specific business by clicking the dropdown menu for the business name and selecting any option.

The idea of the dashboard shown above is to show the numerous possibilities ICW could do if they collect sufficient data that can be displayed in a dashboard. There are additional features and functionalities that can be added using real data, as the data used here was mock data. Additional features could include analyzing the response time from a message being sent to a reply coming in. Additionally, to have access to the Discord data on Power BI a software integration is required between the two apps in order to receive the live data to create the required analytics.

Discord is a third-party application. Currently, Power BI does not support interactions using Discord directly. However, there are many automation options available, often free. Automate.io, PowerApps and Mendix are strong examples.

Furthermore, such a solution can help them keep track of their community and monitor different user's interaction to observe any possible problem areas, which need to be addressed. By utilizing their data in this manner, ICW can provide an answer to the original question posed in the beginning regarding how their users interact with the community.

6.2 What type of event customers prefer?

To answer this question, it was recreated a table from the data solution model.

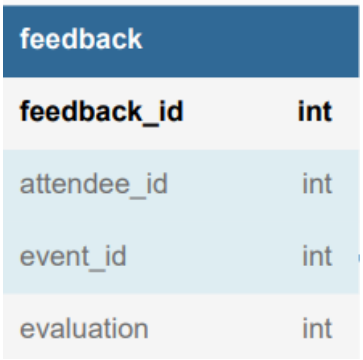

Figure 8: survey table

This is a table from events data that is collecting survey information. But, to answer the data question it was added one more column which was event type. After this, we used mock-up data to test the table.

survey_id	attendee_id	event_id	evaluated	type
s1	m1	k1	1	workshop
s2	m2	k2	2	seminar
s3	m3	k3	3	business
s4	m4	k4	4	online session
s5	m5	k5	5	online session
s6	m6	k6	5	online session
s7	m7	k7	5	business
s8	m8	k8	4	online session
s9	m9	k9	4	business
s10	m10	k10	5	online session
s11	m11	k11	4	online session
s12	m12	k12	4	online session
s13	m13	k13	4	business

Figure 9: Mock-up survey data

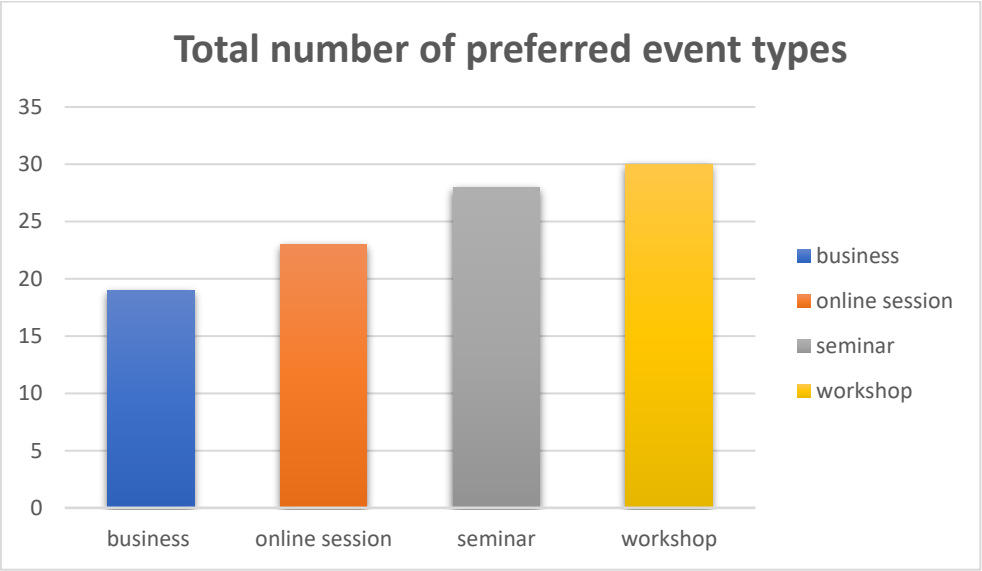

Figure 10: Results

In conclusion, our mock-up data analysis shows that the workshop is most preferred event type from the clients that took the survey. Therefore, ICW could take data-driven decision to invest more in this type in the future if they consider the new data model.

6.3 Monetisation of data

To accommodate ICW in their need for advice on the use of data we looked into and provided an example of data one could sell to third parties. We hope that such a casus provides incentive to really start collecting data and seeing a future in data maturity of the enterprise on any scale possible. Data is your most valuable asset for driving business transformation, and as such drive the digitalisation of the company.

According to Gartner (2019), “Data and analytics can be a valuable business asset that will not only improve business decisions and drive digital business transformation, but even generate new revenue for your organization.” Whether they realize it or not, most organizations can monetize their existing data. It starts by identifying the data’s value-add to a new audience.

According to our research, ICW could provide their data as a service (DaaS). There are two ways to monetize your data externally; either by offering data as service or product, or by offering insights as a service or product. Data as a service is access to raw and governed data sets, information that consumers can use however they want. Insights as a service pertains to a guided analytics solution where insights are presented in pre-built visualizations and reporting to guide analysis.

Data as a Service entails that ICW would provide their data either as a one-time product or as a subscription service to a data set that is constantly updated. For example, Gartner, which is considered the industry standard for grading data analytics tools and vendors, sells access to its premium data about the specific tools and vendors it ranks. As an organization, you can provide access to your own data in a variety of ways, including in one of the online marketplaces, a downloadable data dump, or via an API that you make accessible to other organizations. However, ICW could also opt to provide a onetime set of data, simply by selling a sheet, .csv file or a snapshot. Of course, this would entail privacy governance as described by ISO27001 in this document and the thorough anonymisation of data.

Data that ICW could generate in the future is in multitudes. However, they have already had a few requests for data from third companies. In any case, no matter our research, the obvious demand is always best to use as a guidance into what data to collect, and where to divert your resources. That being said, we looked into what data is both attractive, and generatable by ICW.

Data is valuable because it helps companies understand customers and prospects more accurately, predict business or social trends and changes and make more money. First, we looked at the incentive data from ICW could provide. Data purposes that ICW could address for third parties would be.

- Better tailoring products or services (including the website or ecommerce experience) to target consumers
- Advertising more accurately
- Statistical analysis or other quasi-scientific uses

As such the data ICW could sell in the future are customer and user profiles or demographic data. All is well and done in the GDPR age without personally identifiable data. If the data does not lead back to a person, its free game and can be sold. The government, marketeers, and others would be interested in what kind of business goes with what age, what gender, what ethnical background. Below one can find an example, but more columns would mean more value. Data such as this can be gathered from social media channels, client profiles and internal business overviews.

A	B	C	D	E	F
ID	Gender	Age	Eth_Bg	Business_type	Year of start
1	Male	52	Belgian	Cleaning	2018

ICW could sell the data from their web shop or other online businesses. For example.

- What have you browsed before the purchase?
- Do you buy during the day, in the afternoon, or late at night?
- Do you buy on weekdays or weekends?
- How many times you have visited the online store before buying?
- Did you look at similar products or not?
- What colour and pattern was the t-shirt?
- If there were some words printed on the t-shirt, what do they mean?
- How may these words relate to your worldviews?
- Do these words mean that you are single or married or have children?
- Do these words mean that you support a certain NBA team?
- Did you buy the same t-shirt size as the last time, or you have added some weight?

And finally, ICW could sell the data, or attract investors by showing the demographic and business data of immigrants with a non-Dutch background. The data could provide better insight for humanitarian organisations, the social network of the city or provide statistics researchers might use.

Finally, one of the strategies to make money from your data is email marketing. Email marketing is more beneficial than you would think since, as a direct form of contact, it allows you to engage with your audience through better organization. Moreover, you will be able to increase sales, enhance your existing database, and create trust in order to target your audience. Because using data in your email marketing campaigns allows you to determine who your consumers are, what they want, and when they require it.

7. Sustainable data in the future

Sustainability is a crucial project aim that falls in line with the other factors of value and benefits. The triple bottom line, which is widely used to describe sustainability, is made up of three components - economic, environmental, and social sustainability. [IEEE,2021]

Some of the sustainable data characteristics:

- Adaptability

Adaptability in organizational management refers to the ability to adjust something or oneself to adapt to changing circumstances and cope with unexpected disruptions in any context. It is a system's capacity to adapt efficiently and quickly enough to changing circumstances.

We tried to make the data model as flexible as possible for our customers. Because a data model that can adapt to external and internal changes is beneficial for the company. For example, we created new table in the model which is called *subscription*. This table will be operating in the future because it is a new requirement from ICW, and they want to monetize their members with different subscription models. As a result, this creates opportunity for the data model to be flexible on changes in the future.

- Extensibility

This refers to the capacity to expand the project by adding new functions or modifying existing ones in order to accomplish change without reducing existing project functions.

The new data model in order to be adaptable in the future, we created enough space for changes and updates. For example, there can be added new columns in *feedback* table to check the event type as we did in our research for use of data chapter. Therefore, the data model could be expanded by adding new columns and tables in long run.

- Maintainability

When errors can be repaired, new needs can be met, future maintenance is simplified, and the project can adapt to changing conditions, it is considered sustainable.

Maintenance and monitoring are important operations to ensure that the database will have long lifetime. For example, whenever you want to update your data model or to make some changes, it is helpful to create backups. This will save your old data and you can later replace it, if something goes wrong with the maintenance of the database.

8. Implementing a Subscription model

Based on the research done for the research report, we focussed our advice mainly on the strategy we felt was lacking in the development of said model on ICW's side. In essence ICW created three different tiers as can be seen in the research document attachments. These tiers would represent the rewards for paying a certain amount of money, after which they set a specific amount of money based on what they needed to progress the company. The money would be enough to pay a salary and create opportunities. Along with this, the approval of the community was found by gathering the most active group of women and asking them simply if they would be willing to pay the amount on a half-year basis.

"We approached the subscription model in a sense that we of course want to have money and we want to have a good insight who are involved more or less. It will act as a funnel to see who is really willing to be part of it and who is committed. For others we hope to show them the benefits later on, but the community is based on take and give. We searched for how much money was in other similar memberships here in Eindhoven. We compared them and wanted to be in the middle so for example 100 euros per year. We lowered it to 6 months since monthly payments are to expensive due to incremental incasso fees, so we made it 60 euros per month. Besides that, we implemented a tier system."

Considering our research, this is a direct but shallow approach. We strongly feel that this methodology does not value the customer profile, scalability, or value metrics of the subscription model. Not in any sense, is the strategy of ICW "bad" but there is so much more value to be gained by documenting a well thought model.

8.1 Base model

Our research proved that a subscription model is modern, a popular business strategy and well underway to be adopted by 70% of international business leaders. It is expected that people will not know better in around 30 years, than paying a subscription for everything. However, that does not mean they will just pay. One should first decide between replenishment, access, or curation as their base incentive. Curation is mainly offering goods on a timed interval or as a surprise and would make no sense in ICW's case. Replenishment would also target the replenishing of consumer goods; however, this is more on a household stock-oriented basis. Associated entrepreneurs, the web shop, or the physical store of ICW might make use of this but it does not apply as well as the Access model. The Access model is the used scientific term for what ICW's envisioned subscription model. Customers pay for access to certain content or a premium service, usually on a monthly fee.

The customers who opt to participate in communities with subscriptions usually have high expectations and they will want to see what added value they will benefit from. Ensuring that the access to exclusive content is valuable and not available for free elsewhere is key to convincing the customers to select an advanced subscription plan. The aim should be to over-deliver with exclusive content that keeps your members coming back.

Furthermore, offering online courses or workshops to the members gives them a feeling of satisfaction that they are getting their money's worth for the subscription. It also provides them with the opportunity to improve on certain goals, which is what is being provided by ICW's community.

However, at the current stage, ICW are offering these workshops at an extra additional cost as opposed to including them in a subscription model.

The research done on the three different subscription types show that the access model will most likely be the model on which ICW's subscription is based on. This is due to the fact that most, if not all, of the benefits provided by ICW will be granting access to exclusive content, information, and events to the members.

Finally, by choosing this model and understanding what you are choosing, they might gain access to resources suited to further help them improve.

8.2 Implementation strategy

When implementing a subscription model, it is not only important not to reinvent the wheel by finding the model most commonly used (or which you are already using) and doing research on the matter or asking the right questions. The strategy of developing such a subscription model is just as important and based on our research, prioritised by many companies with the same mindset as a self-sustaining community should. Therefore, we researched the right framework for implementing such a model. First and foremost, the enterprise should decide what exactly it wants to accomplish through subscription. More revenue, faster growth? Adopting this business model requires you to define these goals early on. This helps ensure you are building the best pricing strategy possible for your specific goals. When your recurring revenue is tied directly to the monthly or annual fees, long-term strategic thinking is important. These goals will then help you define how you build your buyer personas and structure your pricing tiers. Matching the features included in your tiers with the needs of different target customers helps you craft a better overall strategy. These goals should be set at exactly the time DRIVE MKB and ICW are finding themselves at; early. This allows for growth based on the current model, iterations upon it and a higher maturity when the company itself becomes depended on these models. Our advice would be to devise KPI's at the very beginning. These should include different value metrics such as the quality of the service, customer satisfaction, the demand for such a service and the return value for the customer.

"Whatever monetization strategy you choose, make sure it's a natural fit for the community you've built and that what you're selling is something they'll want." (Kamaran, 2019)

In addition to this, customer profiles should be created. Targeted marketing and value setting while devising the tiers is important. Even if it seems all customers are alike, they are not. All customers go through the same customer journey with a normal product, however when setting tiers, the journey starts to differentiate accordingly. This can be expected of course, but when the customers are considered as a multi-identity-entity suddenly there are multiple factors to consider. Customer profiles should at least be based on.

- Social economic status
- Wealth
- Incentive
- Tier changes
- Satisfaction
- Relationship length

Finally, accessibility is a major factor in successful subscription models. All models should first prioritise attachment to the customer. This generally means having a free subscription tier which is

devised in a way where the customer is brought into consistent contact with the content or is shown what a higher subscription tier includes. This attachment will create a lower barrier for new potential customers to join. In addition, you cannot push customers to far when applying monetisation or introducing marketing for higher tiers. Based on the research we have done, higher subscription tiers are usually conveyed by offering free insights, no different than the value of the free subscription tier. The crux of these free advertisements hoping to create incentive is mainly to make sure the costs do not outweigh the benefits.

8.3 Tiers and the value metric

Every company should put effort in and be careful about deciding the value metric and the cost for the respective tiers. The value metric with which it sets its prices can be either quantitative, usage, feature sets or based on how your customers perceive the product. The number of tiers should allow you to capture the market by targeting different market segments (customer profiles) without losing out on revenue. Basically, your pricing model and strategy could make-or-break your business; apart from the tangible monetary consequences, it is one of those intangible yardsticks that have a major share of influence on your customer's/prospect's perception of your business.

Value metric boils down to data maturity. A company should be aware of why customers procure a subscription and determine what exactly holds value for the customer. Based on this the model can be adapted to reflect exactly that value further in the use of the tiers. When all customers are after is knowledge, tiers should reflect this by for example working from resources to physical books, to live feedback to workshops and one-on-one conversations.

8.4 Alternatives for monetizing the digital community

The primary goals of building an online community include increasing user engagement, providing better support at reduced costs, building customer loyalty, and converting customers into advocates, etc. However, there are people and organizations who have started to make a fortune out of their online communities by monetizing them. We believe ICW is just as capable of monetising their community as their peers. We devised some common strategies that should provide food for thought on the subject matter.

Community monetization demands the right mindset, proper planning, goal setting, and an integrated platform that serves your community while helping you achieve your business goals. Very similar strategies as the subscription model come to mind. Of course, engaging the audience helps to build, nurture relationships, and earn loyalty, but turning it into a source of revenue is tricky. You need to provide your existing members with quality information not only to satisfy their searches but also to encourage them to contribute new content to your community and help recruit others. You can monetize your community in two ways, direct and indirect, based on your preference and ultimate goal.

Direct Monetization of an Online Community

Every business invests in and grows online communities to get some kind of return on investment, whether it is in terms of sales leads, brand awareness or online reputation. Regular traffic insight, quick supply of relevant content and a dynamic marketing strategy can help you convert your site traffic into cash flow. Some prerequisites that can help you make the most out of direct monetization is notable site traffic per month, increasing number of subscribers, consistent engagement, and notable recommendations.

Followings are the four major ways to monetize your community directly:

- Advertising and Sponsorships

Advertising is the most obvious method of monetization. You can run different ads such as display ads, banner ads, sponsored ads, or search advertising with Google AdSense. It largely works for large communities with a very niche focus, which have thousands of unique website visitors or email subscribers per month.

- Affiliate Marketing

Affiliate marketing is commission-based marketing, a common yet great example of which is Amazon Associates program, in which Amazon provides a referral fee of up to 10% on products you advertise on your site or community. Let us say you refer to a book on your community, then you can share a specific link through the Amazon Associate program, and Amazon will pay you a certain commission for anyone who clicks on the link and buys the product.

In order to take its benefits to the fullest, you need to partner with targeted suppliers and implement an effective tracking system, so you receive credits for the referrals.

- Cross-Selling

Cross-selling can be good for a strong community that has amassed a great deal of valuable information from its members such as ICW. The community tends to develop standard answers to questions, workshop material and knowledge. You can market this content to other similar groups to expand your revenue stream beyond your internal membership. Cross-selling benefits both buyers and sellers of different groups from the exchange of money and knowledge. Further, it can also help develop marketing networks, creating new business opportunities for you, which aids the mission and vision of ICW as originally a humanitarian organisation.

Indirect Monetization of an Online Community

Indirect monetization is where you generate revenue indirectly from your website. As you have a huge database built through your internal members, you can use that data not only to generate revenue but also to drive:

- Customer retention

Quick supply of relevant information is the key to customer retention. You need to integrate all your content sources into a centralized database to help members fetch any information in minutes.

- Cost reduction

Online community with self-service support enhances customer experience as well as cuts down support cost for the company.

- Customer acquisition

You can get new customers by performing a content gap analysis to detect unproductive content or unanswered search queries, and optimize your knowledge base, accordingly.

9. IT-Governance & Security

As per our research, any self-sustainable community that does not perform their own development should adhere to the ISO 27001, as the most suitable IT-governance framework compared to others. ISO 27001 creates an environment and a governance framework that allows for constant improvement and evaluation of the company and its interested stakeholders. More importantly, any self-sustaining community that wishes to monetise or otherwise use personally identifiable data. Adhering to the GDPR and AVG policies both globally and nationally emphasises a certain responsibility when devising such an enterprise based on “people”. In the following advice we have selected the most important measures that should be taken when adhering to the ISO 27001 applicable to any digital community, both DRIVE MKB and ICW. Of course, the organisation should try to advance further in the governance frameworks maturity as they see fit, but the following is deemed the bare minimum.

For each security category from the Information Security Code, the organizational objectives, and the starting points for the measures to be taken are set out. The numbering in this document corresponds to the Information Security Code (ISO 27001 Annex A).

A. 5 Information security policy

A.5.1 Management of information security

Objective

Providing management and support for information security in accordance with business requirements and relevant laws and regulations.

Principles

1. The management has approved the information security policy, published it internally and made it known to all employees, hired personnel and relevant external parties.

2. The Strategic IORP policy shall be reviewed at scheduled intervals, or as soon as significant changes occur, and, if necessary, strengthened to ensure that it remains appropriate, adequate, and effective.

A.6 Organizing information security

A.6.1 Internal organization

Objective

Establish a management framework to initiate and control the implementation and execution of information security within the organization.

Principles

1. All responsibilities in information security should be defined and assigned.
2. Conflicting tasks and responsibilities should be separated to reduce the likelihood of unauthorized or unintentional alteration or misuse of the organization's assets.
3. Appropriate contacts should be maintained with relevant public authorities.
4. Appropriate contacts with special interest groups or other specialized security for a and professional organizations should be maintained.
5. Information security should be addressed in project management, regardless of the type of project.

A.6.2 Mobile devices and teleworking

Objective

Ensuring the safety of teleworking and the use of mobile devices.

Principles

1. Policies and supporting security measures should be established to manage the risks posed by the use of mobile devices.
2. Policies and supporting security measures should be implemented to protect information accessed, processed, or stored from teleworking locations.

A.7 Safe staff

A.7.1 Prior to employment

Objective

Ensure that employees and contractors understand their responsibilities and are fit for the roles for which they are eligible.

Principles

1. Verification of the background of all candidates for employment should be carried out in accordance with relevant laws, regulations and ethical considerations and should be proportionate to the business requirements, the classification of the information to which access is granted and the risks identified.

2. The contractual agreement with employees and contractors should state their responsibilities for information security and those of the organization.

A.7.2 During employment

Objective

Ensure that employees and contractors are aware of and comply with their information security responsibilities.

Principles

1. Management should require all employees and contractors to apply information security in accordance with the organization's established policies and procedures.
2. All employees of the organization and, where relevant, contractors should receive appropriate awareness education and training and regular training of the organization's policies and procedures, as relevant to their role.
3. There should be a formal and communicated disciplinary procedure to take action against employees who have committed an information security breach.

A.7.3 Termination and modification of employment

Objective

Protecting the interests of the organization as part of the employment change or termination procedure.

Principles

Responsibilities and tasks related to information security that remain in effect after termination or change of employment should be defined, communicated to the employee or contractor, and performed.

A.8 Asset management

A.8.1 Responsibility for assets

Objective

Identify organizational assets and define appropriate responsibilities for protection.

Principles

1. Assets associated with information and information processing facilities should be identified, and an inventory of these assets should be established and maintained.
2. Assets that are tracked in the inventory overview should have an owner.
3. For the acceptable use of information and of assets associated with information and information processing facilities, rules should be identified, documented, and implemented.
4. All employees and external users should return all assets of the organization in their possession upon termination of their employment, contract, or agreement.

A.8.2 Information classification

Objective

Ensure that information receives an adequate level of protection consistent with its importance to the organization.

Principles

1. Information should be classified with respect to legal requirements, value, importance and sensitivity to unauthorized disclosure or alteration.
2. To label information, an appropriate set of procedures should be developed and implemented in accordance with the information classification scheme established by the organization.
3. Procedures for handling assets should be developed and implemented in accordance with the information classification scheme established by the organization.

A.8.3 Handling media

Objective

Prevent unauthorized disclosure, alteration, deletion, or destruction of information stored on media.

Principles

1. To manage removable media, procedures should be implemented in accordance with the classification scheme established by the organization.
2. Media should be deleted in a safe and secure manner when they are no longer needed, in accordance with formal procedures.
3. Media containing information should be protected from unauthorized access, misuse, or corruption in transit.

A.9 Access security

A.9.1 Operating requirements for access security

Objective

Restrict access to information and information processing facilities.

Principles

1. An access security policy should be established, documented, and reviewed based on company and information security requirements.

2. Users should only have access to the network and network services for which they are specifically authorized.

A.9.2 Management of user access rights

Objective

Ensure access for authorized users and prevent unauthorized access to systems and services.

Principles

1. A formal registration and opt-out procedure should be implemented to allow for the assignment of access rights.
2. A formal user access granting procedure should be implemented to assign or revoke access rights for all types of users and for all systems and services.
3. The allocation and use of sensitive or special access rights should be restricted and controlled.
4. The allocation of secret authentication information should be controlled through a formal management process.
5. Asset owners should regularly review user access rights.
6. The access rights of all employees and external users to information and information processing facilities should be deactivated and deleted upon termination of their employment, contract, or agreement, and in the event of changes, they should be modified.

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A.11.2 Equipment

Objective

Prevent loss, damage, theft or compromise of assets and interruption of the organization's business operations.

Principles

1. Equipment should be positioned and protected in such a way as to reduce risks of external threats and dangers, as well as the likelihood of unauthorized access.
2. Equipment should be protected from power outages and other disturbances caused by utility disruptions.
3. Power and telecommunications cables for transmitting data or supporting information services should be protected against interception, interference, or damage.

4. Equipment should be properly maintained to ensure its continuous availability and integrity.
5. Equipment, information, and software should not be taken from the site without prior approval.
6. Assets located outside the site should be secured, taking into account the various risks of working outside the premises of the organization.
7. All parts of the equipment containing storage media should be verified to ensure that sensitive data and licensed software have been removed prior to disposal or reuse or reliably securely overwritten.
8. A clean desk policy for paper documents and removable storage media and a clear screen policy for information processing facilities should be established.

A.12.2 Malware protection

Objective

Ensure that information and information processing facilities are protected from malware.

Principles

- To protect against malware, detection, prevention, and remediation controls should be implemented, combined with user awareness.

A.12.3 Backup

Objective

Protect against data loss.

Principles

1. Backup copies of information, software, and system images should be regularly created and tested in accordance with an agreed backup policy.

A.12.6 Technical vulnerability management

Objective

Prevent exploitation of technical vulnerabilities.

Principles

1. For the installation of software by users, rules should be established and implemented.

A.13 Communication security

A.13.1 Network Security Management

Objective

Ensure the protection of information in networks and the supporting information processing facilities.

Principles

1. Networks should be managed and controlled to protect information in systems and applications.

1. Security mechanisms, service levels and management requirements for all network services should be identified and included in network service agreements. This applies both to services provided in-house and to outsourced services.

2. Groups of information services, users and systems should be separated into networks.

A.13.2 Information transport

Objective

Maintain the security of information exchanged within an organization and with an external entity.

Principles

1. In order to protect the transport of information, which passes through all types of communication facilities, formal transport policies, procedures and controls should be in place.

2. Agreements should relate to the secure transport of business information between the organization and external parties.

3. Information contained in electronic messages should be adequately protected.

1. Requirements for confidentiality or non-disclosure agreements that reflect the needs of the organization with regard to the protection of information should be established, regularly reviewed, and documented.

A.14 Development and maintenance of information systems

A.14.1 Security requirements for information systems

Objective

Ensure that information security is an integral part of information systems throughout the life cycle. This includes the requirements for information systems providing services over public networks.

Principles

1. Information security requirements should be included in the requirements for new information systems or for extensions of existing information systems.

2. Information that is part of performance services and that is exchanged over public networks should be protected against fraudulent activities, disputes about contracts and unauthorized disclosure and alteration.

3. Information that is part of application transactions should be protected to prevent incomplete transmission, misdirection, unauthorized modification of messages, unauthorized disclosure, unauthorized reproduction, or playback.

A.15 Supplier relations

A.15.1 Information security in supplier relationships

Objective

Ensure the protection of the organization's assets that are accessible to suppliers.

Principles

1. Information security requirements to reduce risks related to the supplier's access to the organization’s assets should be agreed and documented with the supplier.
2. All relevant information security requirements should be established and agreed with any vendor that accesses, processes, stores, communicates or provides IT infrastructure elements for the purposes of the organization's information.
3. Agreements with suppliers should include requirements relating to the information security risks related to the supply chain of information and communication technology services and products.

A.15.2 Management of supplier services

Objective

Maintain an agreed level of information security and service delivery in accordance with the supplier agreements.

Principles

1. Organizations should regularly monitor, assess, and audit the services provided by suppliers.
2. Changes in supplier services, including enforcement and improvement of existing information security policies, procedures, and controls, should be managed, taken into account business information, systems and processes involved, and risk reassessment.

A.18 Compliance

A.18.1 Compliance with legal and contractual requirements

Objective

Prevent violations of legal, statutory, regulatory, or contractual obligations regarding information security and security requirements.

Principles

1. All relevant statutory, regulatory, contractual requirements and the organization’s approach to meeting these requirements should be explicitly identified, documented, and kept up to date for each information system and the organization.
1. In order to ensure compliance with legal, regulatory, and contractual requirements relating to intellectual property rights and the use of proprietary software products, appropriate procedures should be implemented.
2. Registrations should be protected from loss, destruction, falsification, unauthorized access, and disclosure in accordance with legal, regulatory, contractual, and business requirements.
3. Privacy and protection of personal data should, where applicable, be guaranteed in accordance with relevant laws and regulations.
4. Cryptographic controls should be applied in accordance with all relevant agreements, laws, and regulations.

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