

INTERNSHIP ON COMPUTER NETWORK & IT SUPPORT

BY

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This Report Presented in Partial Fulfilment of the Requirements for the Degree
of Bachelor of Science in Computer Science and Engineering

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APPROVAL


This Project/internship titled “Internship on Computer Network & IT Support”, submitted by Md Akter Hossain, ID No: 103-15-1117 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 12/09/2022.

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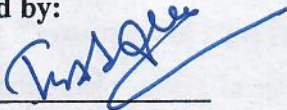


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We hereby declare that this project has been done by us under the supervision of **Shah Md Tanvir Siddiquee, Assistant professor, Department of CSE Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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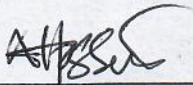


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Finally, I should acknowledge the constant support and encouragement of my family, friends & well-wishers.

ABSTRACT

This report is the outcome of an internship journey with a dynamic IT and ICT team in an INGO who deal with lots of problems and solutions every day. Apart from the regular IT support and service, there were a significant number of opportunities to explore their various people centric activities since they work as a charity organization. The core IT team is mainly focused in ensuring the IT service and support for the staffs where the ICT is fully engaged in inventing appropriate technologies for easing life of the beneficiaries. The most important part of this internship was to see the combination of IT and ICT in a same place where people with different technical domain, skill, and culture work together. Diverse services like, on-prem server to Azure Cloud, CISCO Router and Switch, Microsoft 365, Microsoft Intune, Mikrotik, Cisco VPN, SUN accounting system, Project and Award Management System (PAMS), BYB, Microsoft Dynamics, HRM System, Online Inventory, Zoom, Microsoft Teams, Microsoft SharePoint, Customized applications for ICT, Krishi Call Center, etc. – a huge number of activities floated there which was an outstanding experience to see them running. This report is also intended to capture some soft skills of the IT staffs to work as a team and lead a team in effective and efficient way.

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CHAPTER 1

Introduction

1.1 Introduction

The IT industry is growing exponentially in a multi-dimensional manner. We can see various job roles for IT professionals like, Software developers, Network engineers, Cloud architects, SRE, Cyber Security specialists, and so on. These jobs require a good understanding of theory and hands-on experience as well. Though IT jobs are much more challenging than other domains as the technology change in a rapid way, a focused and steady start can return to an outstanding career.

1.2 Motivation

I discovered my deep attraction to networking when I started understanding computers and their work. Among all other subjects, I always find interested to learn about networking and cloud computing. When the internship proposal had been floated, I didn't take the time to choose my topic. I was too eager to explore a real place where I can see how networking is applied in a practical way.

1.3 Objective

Since I am too into networking with a deep passion, my goal was to stay with the IT staff of the organization where I'll be placed for the internship. I planned to put my maximum time and effort at work with the IT team and observe their culture, thought processes, and teamwork. I had a strong belief that the experience I'll achieve in the real environment will help me for pursuing a job and grow with confidence.

1.4 Expected Outcome

The takeaway from my internship was outstanding since I got the opportunity to learn from a skilled and vibrant team. The organization was also resourceful considering the IT infrastructure and applications. Moreover, engagement in the diverse charity projects (where peoples are in main focus) enhanced me a lot to adopt the communication skill.

CHAPTER 2

Organization

2.1 About the organization

Practical Action is a global innovator having 55 years of experience in the development sector, inspiring people to discover and adopt ingenious solutions to free themselves from poverty and disadvantaged. It works internationally from regional offices in Latin America, Africa, and Asia to make a difference by taking technology from idea to reality. In Bangladesh, it works around 4 thematic areas called farming that works, resilience that protects, cities fit for people, and energy that transform. In Bangladesh, the organization started formally in 1990 (local Govt. registration no. 390). Practical Action has also set a benchmark in promoting advocacy and influencing policy change. By 2025, Practical Action will improve the lives of 25 million vulnerable poor people globally by working together with its partners, and allies and following a system change approach Their work is particularly relevant to 10 Sustainable Development Goals out of 17 and is framed around four change ambitions –farming that works; resilience that protects, cities fit for people and energy that transforms. In each change ambition, PA have identified their unique contribution, and by working with others Practical Action will leverage bigger change. In many cases, they have nexus between the change ambitions, where webring the greatest added value.

2.2 Product/Service and Strategy

Practical Action in Bangladesh is known and respected for its riverbed farming, eco-jute trade - embedding digital extension, climate information service under farming & resilience and FSM & solid waste management work under cities fit for people area including waste to energy.

To meet 2025 goals, we need to be better known for - biodiversity sensitive, soil-water caring, integrated & gender transformative farming embedding digital approach and integrated waste management in major towns including clean cooking solutions

2.3 Works and Target Group

In Bangladesh, Practical Action has more than 17 years' experience in the arena of integrated farm management, livelihoods diversification through different donor

funded projects such as -UNDP funded SHARIP project (Nov 2019 to July 2021), EU funded FoSHOL Project (2009), UK funded Food Production Project in Faridpur (2004), DFID funded River Erosion Project (2008) in Gaibandha and Vulnerability to Resilience Project (2009) in Sirajgonj and Bogra, Climate Change Adaptation Project in Gaibandha (2010), EU Food Facility Project (2012) in Rajbari etc. where thousands of marginalized farmers were benefited through inclusive and integrated farm management approaches in different agro-ecological zones of Bangladesh. By these projects, Practical Action built capacity of more than 1 lac beneficiaries. Out of which 4000 was private Rural Technology Extensionist (Community Livestock Workers, Plant Doctors, Community Aquaculture Resource Persons) to provide technical support and quality inputs to the marginalized poor farmers at grass root community level in different climate stress areas of Bangladesh.

They have more than 10 years' experience in Agroforestry sector in different projects in Bangladesh such as "SHARIP" project of UNDP (2019-21) in Cox's Bazar where this organization 12 Training modules on integrated farm management including agroforestry (includes homestead and social forestry). Promoted fruit, medicinal plant, timber and Moringa plantation under the "Disappearing Lands: Supporting Communities affected by River Erosion (REP)" Project in Gaibandha (2004-08). This project had strong livelihoods and poverty graduation components. Household and field-based timber and fruit tree management including inter- cropping, pruning, budding were promoted in the EC funded "Food Security and Nutrition" Project (2009) in riverine districts such as Jamalpur and Faridpur and DFID funded Pumpkins Against Poverty project during 2016-18 in some northern districts.

2.4 Organizational Structure

Practical Action has been operating in Bangladesh across 16 districts, namely Kurigram, Rangpur, Lalmonirhat, Gaibandha, Faridpur, Rajbari, Meherpur, Magura, Laksham, Jashore, Satkhira, Cox's Bazar, Bagerhat, Barguna, Gazipur, Sherpur with offices in Rangpur, Faridpur, Sylhet and Cox's Bazar and our head office in Dhaka. There organogram is embedded below:

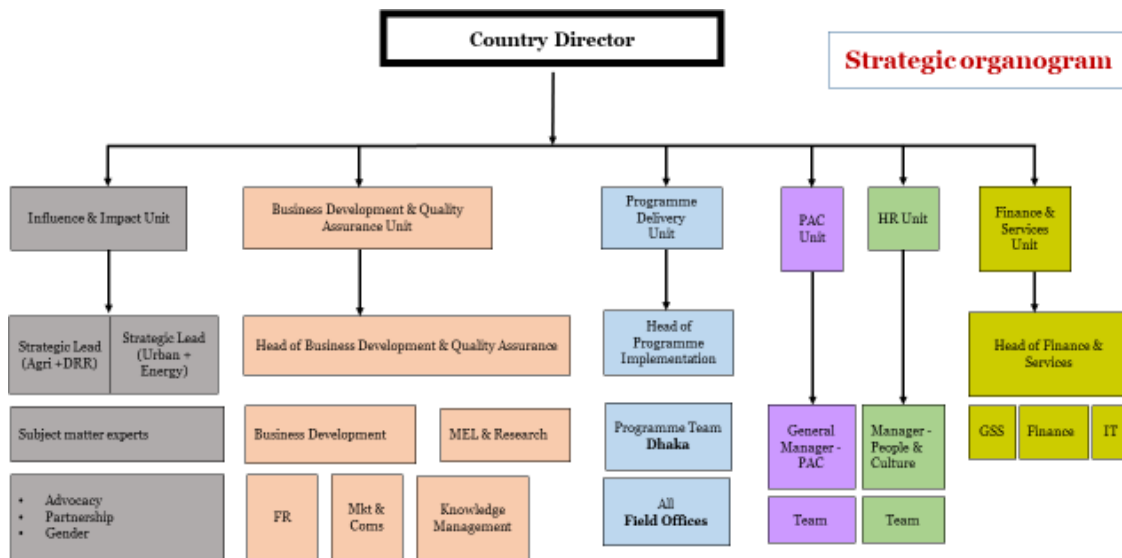


Figure 1: Organogram

CHAPTER 3

Tasks, Projects and Activities

3.1 Daily Task and Activities

a) Ensure all core applications are running and accessible to the users.

- Email
- SharePoint
- Microsoft Teams
- Zoom
- BYB
- SUN & Q&A
- PAMS
- Sophos
- NetConsent

b) Provide on-demand support for Dhaka and Field Office users (Remote and Onsite)

- Laptop/Desktop, Software, Printer, Scanner, Projector, IP Camera, etc.

c) Make sure the local applications are running and properly backed up.

- Inventory, All Apps site, Contacts Database

d) Regular monitoring, troubleshoot and maintenance (Network appliances)—

Server, Router, Network switches, Wireless Controller, Wireless Access Point, Printer, etc.

e) More Tasks-

- Provide required assistance to ICT team (ICT product/software design to roll-out phase)
- Contribute to the procurement process as a committee member.
- Provide inclusive support to GSS in the Inventory management system.
- Stay aligned with the Global IT team by executing the ad-hoc jobs.

3.2 Core IT Applications and Services:

IT operation is an integral part of this organization which is embedded with all activities. General communication to project implementation, IT is supported everywhere and in various manners. The IT infrastructure is hybrid which is a mix of on prem and cloud. VPN is playing a vital role to keep the organization's network connected as a LAN. As a charity organization, Practical Action avail a decent discount from Microsoft for all products whether it is OS, MS Office, or any SAS or PAS subscription. They use Azure as a cloud platform and Microsoft 365 subscription or leverage Microsoft's office applications. Practical Action uses some applications that are developed in-house with customized requirements for several departments and business units.

Microsoft 365

Microsoft 365 is a cloud-hosted application by Microsoft. Along with the general applications like Word, Excel, Point, and Microsoft 365 ensure some other enhanced solutions like Microsoft SharePoint, Teams, One Drive for Business, etc. Based on the subscription type the product availability will be defined.



Figure 2: Applications in Microsoft 365

Microsoft 365 has two parts. One is the operational module and another one is for administration where control has been imposed. An administrator can assign privileges for specific users and groups by entering the Admin Center. As the total solutions are built on the Microsoft domain, a single credential is applied for obtaining all the services that ease the user's and admin's life.

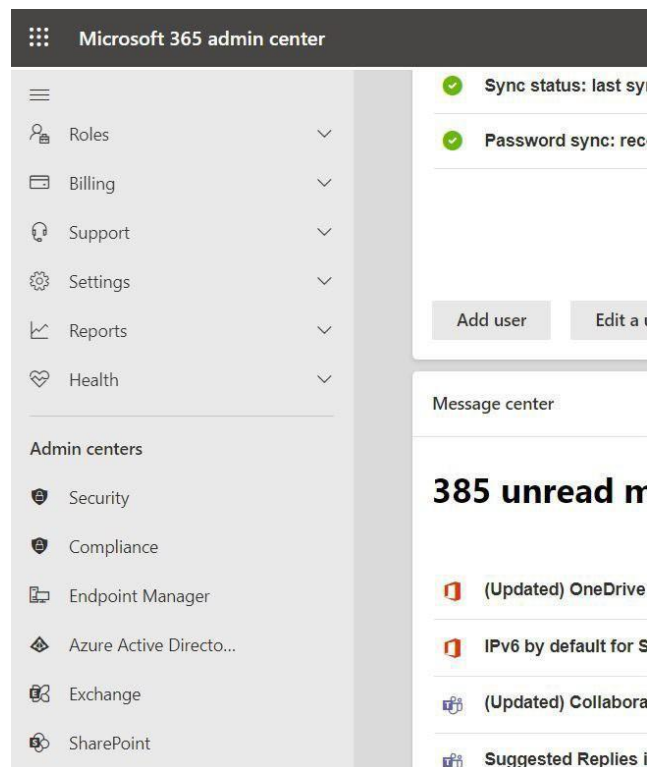


Figure 3: Microsoft 365 Admin Center

Microsoft EndPoint Manager (Intune)

We are often familiar with the AD integration or authentication and control in our LAN. But when moving away from the office network, it is hard to manage and control the endpoint devices (Laptop, Desktop, etc.). Microsoft Endpoint solved this constraint and securely contribute to deploying and managing endpoint devices with the applications. Additionally, it provides control over data by applying encryption and protects from unauthorized access.

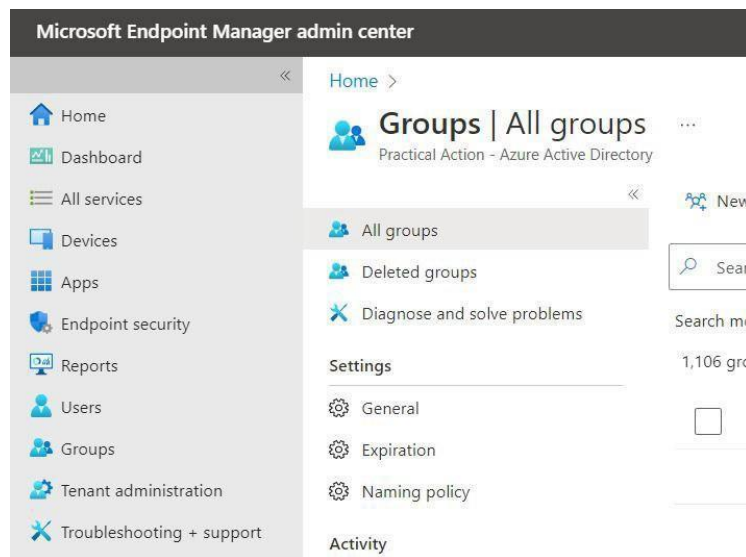


Figure 4: Microsoft Endpoint Admin Center

VPN

Practical Action (based in the UK) works in four geographical regions—, East Africa, Latin America, Southern Africa, and South Asia where the following countries are in operation now— Kenya, Nepal, Peru, Bolivia, Sudan, Zimbabwe, and Bangladesh. All the country offices and Head office networks are securely connected with each other by VPN. Point to Point VPN is applied to the country office routers and the users can access office resources by dialing the Cisco AnyConnect as an authorized user.

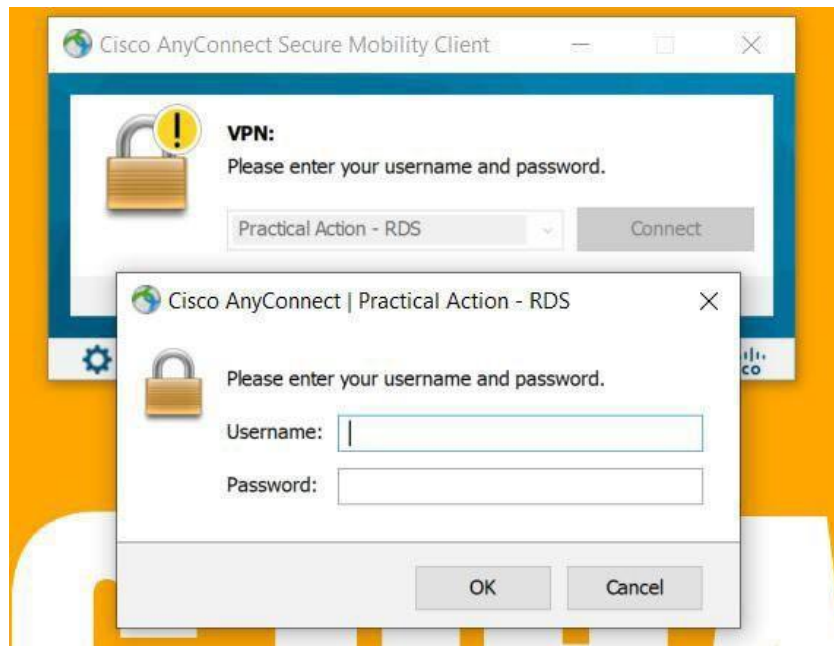


Figure 5: Cisco VPN Client

Inventory Management System

This application contains and manages the assets of this organization with proper tracking numbers. When any assets (Vehicle, laptop, UPS, IPS, etc.) are procured, the Administration department generates an ID and put it on the asset's body as a tag. Then they input detailed information in the application like ID, supplier, Purchase date, Price, Warranty period, Deployed to, etc. In the future when it's required to track this asset, the inventory comes into the picture as the single source of truth. This application is capable to export data with various filters.

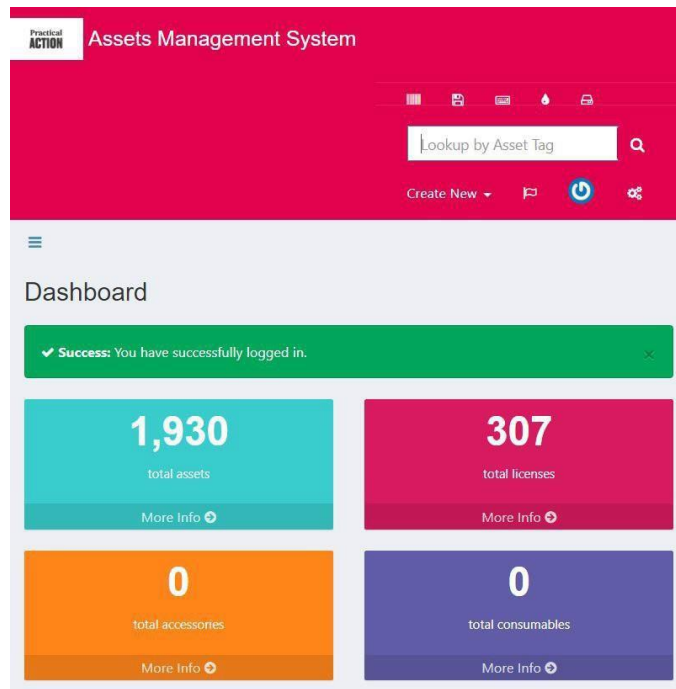


Figure 6: Inventory Management System

HRM System

Running an organization with proper user data and information is a fundamental requirement. HR units often face the challenge if they do not have the adequate tool to access and assess users' data in a click. HRM system keeps all the information of staff and can generate reports in various formats. The attendance and leave module is also embedded with this application so that t users can see their attendance time and leave status even if they can apply for leave from this single place.



Figure 7: HRM System

Travel Planner

In an organization, travel is a very known activity and for accomplishing any defined job, we often experience traveling. For proper track records of any travel, a usable solution is must needed requirement. Travel Planner support in this area by processing a request with the required approval and keeping all the logs. It also helps the Admin department in allocating logistic support timely.

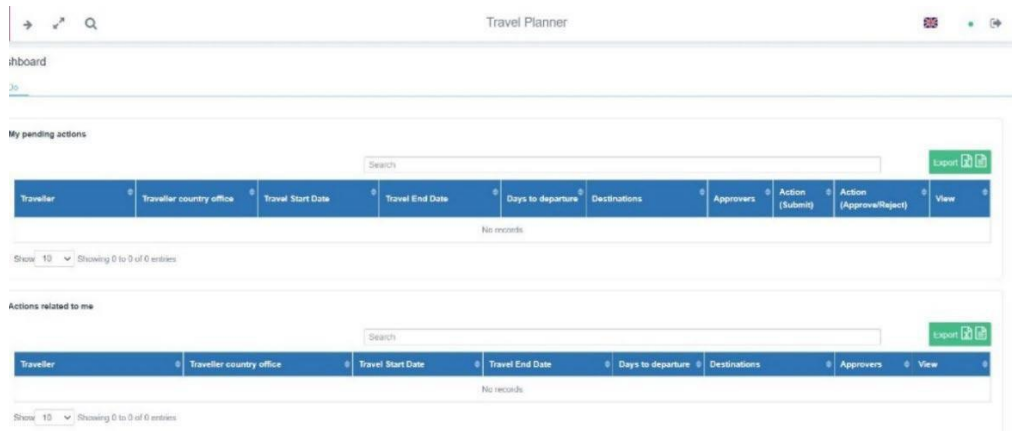


Figure 8: Travel Planner – record register

NetConsent (Organization’s policy hub)

Every organization operates on some policies. Practical Action isn’t different from them. They have a significant number of Global Policies managed from the policy hub which is called NetConsent. When a new user joins the organization and login with the credentials, all existing policies appear on the screen and it is designed to accept all the policies before entering the desktop. In other words, the system doesn’t give access to users for entering the Desktop/Laptop’s resources without accepting the policies.

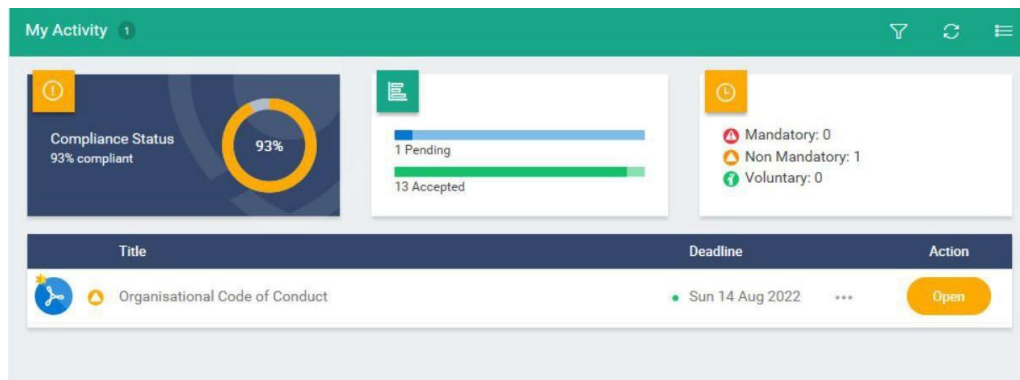


Figure 9: NetConsent

Sophos (Endpoint Protection)

Sophos is an application that ensures the protection and security of the laptop and desktop from potentials threat and malware. It has two parts (Server and client). In Practical Action, the Sophos client deployed automatically with the help of Intune.

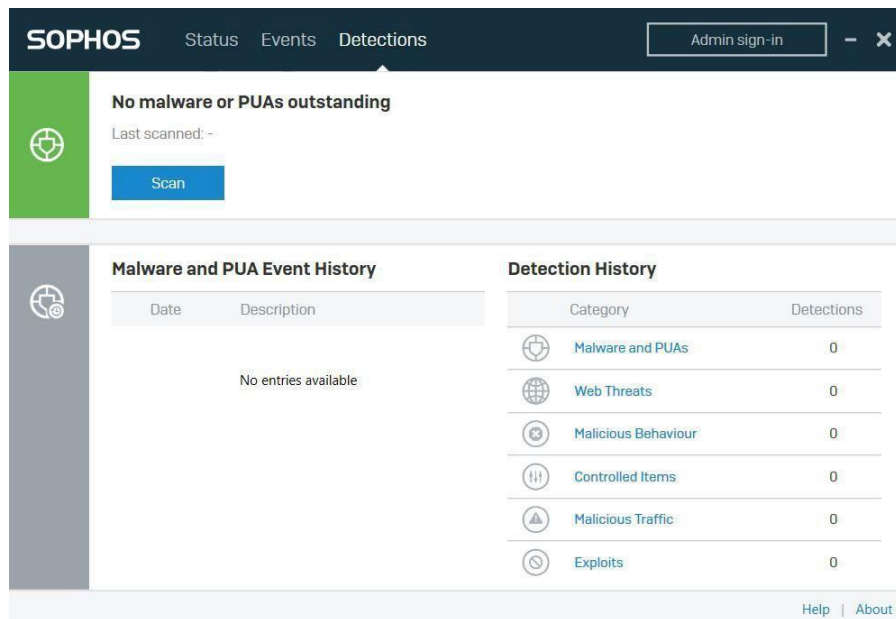


Figure 10: Sophos endpoint interface

Microsoft Teams (part of Microsoft 365 subscriptions)

Nowadays, online meeting is obvious in our daily work and Microsoft Teams is a great addition to the Microsoft product family for mitigating users' demand. One-to-one meetings, Video conferences, screen sharing, live transcripts, lot more features are there which give a wonderful experience to the audience and participants.

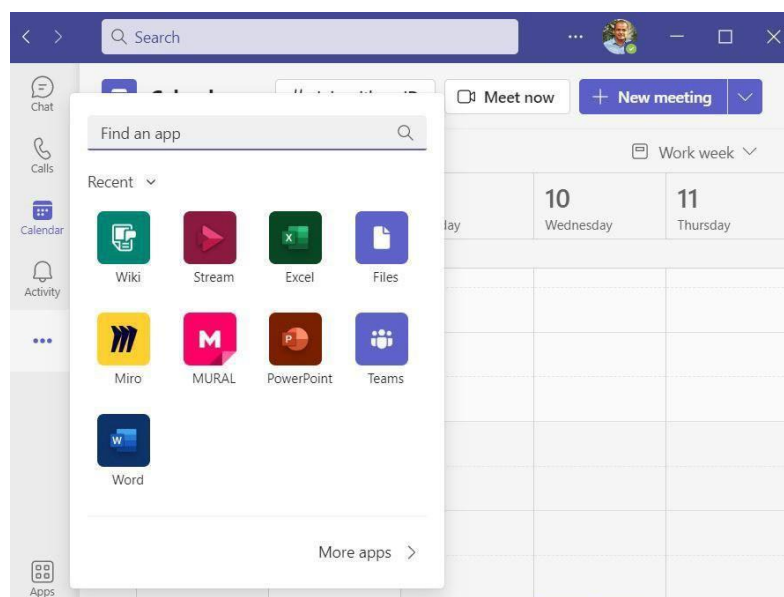


Figure 11: Microsoft Teams

Microsoft Teams has some unique features (Teams site, Integrate Outlook, One Drive, SharePoint) to work with a Team in a collaborative manner.

Microsoft SharePoint (part of Microsoft 365 subscriptions)

SharePoint is a kind of intranet of the organization where the users leverage it for creating sites, uploading documents, organizing events, etc.



Figure 12: Microsoft SharePoint

Site creation and customization features are intuitive and most of the tasks can be performed by the following wizard.

3.3 ICT Activities

Practical Action’s ICT team is fully dedicated to inventing and developing solutions for the last miles of people to improve their lives. They have some outstanding solutions in the field that are adding significant value for the project beneficiaries.

Disaster Alert App

Disaster Alert app is an ICT-based interactive platform, developed for preparedness, rescue and response, aid distribution, and support services before, during, and post-disaster for vulnerable communities, volunteers, and concerned line departments. This platform automates components of the disaster management process, starting from providing weather updates, subsequent risk prevention, and precautionary measures, early warning to risk-prone communities, and individuals, dissemination, and coordination with communities, volunteers, relevant government and non-government organizations, shelter landmarks, fire services, medical service, emergency camps, emergency SMS to relatives, etc.

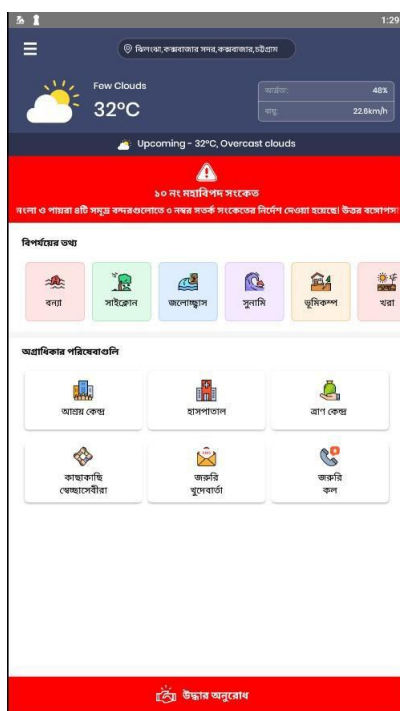


Figure 13: Disaster Alert App

The idea for the application is to create a mechanism where the organizations can be coordinated in real-time to ensure that risk reduction efforts are coherent and response efforts ensure no one is overlooked or left behind. During the emergency response, it is often the nearby communities that receive maximum help whereas the distant ones are relatively deprived. Bangladesh has relatively high mobile penetration levels, even in rural areas. Therefore, there is great potential to apply mobile

technology in solving disaster coordination-related challenges. In the event of any emergency, the application would be used to coordinate between key agencies, volunteers in the field, and impacted communities. The system would coordinate to ensure that volunteers receive notifications and be directed to provide their assistance at the right locations. As well as ensuring that community members are able to locate the nearest service point for their specific problem or request support from volunteers to their location. This mechanism will also support mitigating overlaps and gaps in efforts.

The use of this ICT-based platform basically gives a good idea about its benefits when viewed from two angles. Such as from the point of view of the community, and from the point of view of an institute.

It's used in terms of community:

- It is easy to find the nearest volunteer in any disaster using this app, which increases the chances of getting immediate help.
- This platform can be used to give alerts area-wise during a disaster. As a result, people in certain areas get alert messages very quickly, and based on that they can take necessary action following disaster preparedness guidelines in the app.
- There is no need to depend on other mediums to get the disaster alert. Since the app automatically provides alerts to the people. So there will be no shortage of alert information anymore.
- People can get all the information from one place like the nearest shelter, hospital, or relief center collectively. So rumors will spread less which will make it possible to manage various disaster activities in a healthy manner
- People will learn how to send rescue requests even in the worst situation by using this app.
- In an emergency, children, the disabled, women, and the elderly can easily inform close relatives about their whereabouts and seek assistance by this app.

It's used in terms of institute:

In addition to the registered volunteers, it will be easy to find out interested persons who want to be a volunteer. Which will help to increase the scope of disaster activities.

- Volunteers will be able to conduct integrated rescue operations using this app. If any volunteer falls in danger during operation s/he can seek help from other nearby volunteers.
- It will act as a link between all institutes involved in the disaster-related activity.

- Progress in various rescue operations can be monitored in real-time, which will give equal importance to the rescue who fall behind.
- Volunteers will save their time and will increase efficiency by getting information centrally.

Digital Weather Boards

An innovative solution has been piloted in Faridpur where the weather forecast generated by Agromet Division is collected, interpreted, and made useful for the farmers at the union level. This digital weather board considers the Union Digital Center (UDC) as the heart of weather information dissemination.

The system automatically downloads real-time daily information using the weather Application Programming Interface (API). UDC uddokta (Entrepreneur) downloads the weekly weather forecast from the Bangladesh Metrology Department (BMD) website. In the light of the agro met forecast, it seeks advice from the local government agricultural, livestock, fisheries, and metrologies officers to prescribe agricultural actions, recommendations, and measures for the local farmers.



Figure 14: Digital Weather Board

The board contains information on rainfall, temperature, sunlight hour, and evaporation rate using simple symbols and numbers for easy understanding by the farmers. The interpretation and advice are in simple Bangla language so that the farmers can take the necessary steps for better farm management.

The board contains the mobile numbers of all important local government officers to contact in case of emergencies. The board contains territory-wise market prices of different vegetables to earn more money by selling products at the right location. It also has scope for advertising and makes some financial gain for its sustainability.

The boards also contain information about potential hazards and advisories to save crops, houses, agricultural lands, and livelihoods from hazard damage. The community people have always observed and assessed the weather and have taken decisions on agricultural activity, to make climate-informed decisions about selecting the crops, preparing seed beds, or any other agricultural practices.

A simple information dissemination system like the digital weatherboard can protect farmers' crops, lives, and livelihood and can contribute to the community under climate vulnerability resilience building by taking risk-informed decisions.

One Service App

1Service, an ICT-based digital solution for water supply, fecal sludge, and waste management system for municipalities has been designed, developed and innovated by Practical Action. The major goal of 1Service is to assist municipalities s in addressing service delivery difficulties in water, waste, sanitation, and fecal slug management by assessing and providing multiple service solutions for municipal residents on demand.

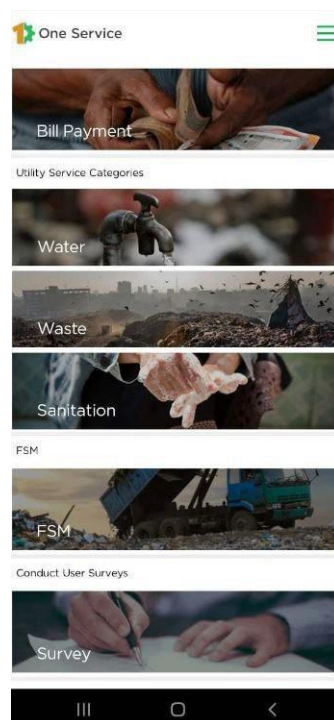


Figure 15: 1Service App

This digital solution helps municipalities' authority to deliver services more efficiently and equitably, reducing service costs. This improves inclusivity and advances payment collection which is functioning even in pandemics like Covid. Municipal authorities can utilize the data-driven decision-making platform to deliver messages to raise awareness and advance sector development

as a whole, through strategic engagement with government agencies and partnering with civil society and private sector organizations engagement. 1Service is also working to improve user experience and change behavior which will bring opportunities for slum and low-income communities. Mainly this digital solution has four major areas where it contributes.

CHAPTER 4

COMPETENCIES AND SMART PLAN

4.1 Competencies Earned

As Practical Action IT and ICT department work with diverse services, there was a huge opportunity to learn the technical insides and the operational behavior. Besides the technical knowledge I have learned a good amount of soft skill from the Team members and IT Manager those will help significantly in my future career, I strongly believe.

4.2 Smart Plan

Every plan has its own flows and variation but when we set a plan it's needed to consider the people with higher importance who will be around it. For this instance, I'm planning to manage an organization as an IT Manager with a team. I should follow some norms and preset responsibilities for making my jobs effective and excel the plan in smart way—

i) First and most important

The core of the role of the IT team the responsibility of having all the IT systems running smoothly. This includes servers, workstations (computers and laptops), network infrastructure, video conferencing, Internet access, and WiFi among others. Additionally, end-user support is still key to the role.

ii) Understanding existing and emerging technologies

Every IT focal needs to have a deep understanding of the technologies and applications the organization use. This level of understanding should lead not only to providing very good quality user support but as well to actively contribute to producing improvements in the way these technologies are implemented and used.

It is expected of the IT focal in the organization to be aware of emerging technologies and how some of them can bring benefits to the organisation. Conversations about these technologies should flow among the members of the International IT Team resulting, eventually, in some initiatives and proposals that will be considered.

iii) Understanding of Organizational processes

The dynamics that drive how the organization operates need to be understood by the IT Team. There are a number of processes that are key for the organisation to deliver its vision and mission. The IT

focal needs to be well aware of these processes, who the stakeholders are, their responsibilities and the controls that are in place. This knowledge is instrumental to deliver great service, to contribute with potential solutions and to support the implementation of solutions that automate these processes.

iv) Focus on Results

The IT focal needs to develop this competency. Results are extremely important and being focus on delivering them makes the difference between failure and success.

It is very important that the IT focal needs to identify the critical success factor for any project he is responsible of. Questions like “How will success look like?” or “What will be needed to get there?” can help to identify those key indicators.

An IT lead who is focused on results will consistently deliver their projects on time, complying with quality service and productivity. Sometimes, this means that they will have to overcome circumstances, difficulties, and lack of cooperation among other possible obstacles. To do this they will have to rely on their drive for getting things done on time, other important skills will become very useful.

v) Communication

This is a very important competency the IT lead has to make use of. Communication is an important part of success, and it is equally important to be aware that effective communication is bidirectional. It’s about communicating as much (or even more) as listening. Paying attention and empathizing is crucial in order to be effective in the role.

The IT Manager has to be good at communicating with the users, stakeholders in a project and other IT Managers in the group. It is very important to be aware that every IT Manager is part of the International IT Team. Collaboration and communication are essential for this team.

vi) Influencing and persuading

These skills can be quite instrumental for the IT Manager to deliver their projects on time and to succeed in the implementation of new technologies and solutions.

The organization values cross-team working and collaboration. The IT Manager is in a privileged position to work with different teams in the implementation of projects and solutions. Making use of these skills can be critical to delivering solutions that really work for teams in the organization.

vii) Flexibility and Adaptability

The role of the IT Manager in Practical Action is no longer that one of an expert in some particular technologies used by the organisation. Expertise is very important but is not enough.

Practical Action is an organisation that is constantly changing, looking for ways to improve its processes, to adapt to changes and challenges happening in the world and to be more effective at delivering its vision and mission.

Technology keeps developing and changing the way people work and connect. New products are constantly released to the market. Software, mobile apps, hardware, peripherals, mobile devices, and different types of platforms are constantly challenging the status-quo trying to redefine how people relate to technology.

The IT Manager needs to be able to identify these changes (internal and external to Practical Action), to see them as opportunities and to proactively become an agent of positive change. This requires of them, a willingness to acquire new knowledge and to assume new / changed responsibilities.

CHAPTER 5

CONCLUSIONS & FUTURE CAREER

5.1 Discussion and Conclusions

IT industry is dominating globally especially after appearing the pandemic. When the other job fields are shrinking, and peoples losing their jobs; IT professionals are getting more opportunity to excel their career if they have adequate skill set. Cloud computing is also booming than ever. Companies are shifting their infrastructure and services to the cloud that generating huge vacancies in the market. Moreover, the remote job is also treated as a new normal which is a great option for us to grab by obtaining proper training and grooming in the IT field.

5.2 Scope for future career

As we discussed, there are endless opportunity in IT in recent days and the global job market is also similarly open to all. A lot of new roles and positions are opening every day to adopt and run the changed IT industry where Computer Networking, Cloud computing and Cyber Security etc. are visibly leading. A comprehensive plan in focused domain with steady learning habit definitely help in earning a job and secure a bright career in IT. Because companies are always keen to hire an appropriate candidate which is still very hard to find and this demand is increasing gradually.

APPENDIX

Abbreviation

IT- Information Technology

OS – Operating System

VPN – Virtual Private Network

LAN – Local Area Network

SaaS – Software as a Service

PaaS – Platform as a Service

AD – Active Directory

DevOps – Development and Operations

REFERENCES

- [1] “Practical Action” << <https://practicalaction.org> >> (last accessed on 10 August 2022).
- [2] “Microsoft 365” << <https://www.microsoft.com/en/microsoft-365> >> (last accessed on 10 August 2022).
- [3] “Microsoft Endpoint Manager” << <https://www.microsoft.com/en-ww/security/business/microsoft-endpoint-manager>>> (last accessed on 10 August 2022)

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